Client Sample ID: Combined Subdrains

Lab Sample ID: 440-256012-1

Date Collected: 12/02/19 11:30

Matrix: Water

Date Received: 12/02/19 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		2.0	0.88	ug/L			12/04/19 23:21	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/04/19 23:21	1
Naphthalene	ND		1.0	0.40	ug/L			12/04/19 23:21	1
o-Xylene	ND		0.50	0.25	ug/L			12/04/19 23:21	1
Propionitrile	ND		20	10	ug/L			12/04/19 23:21	1
Styrene	ND		0.50	0.25	ug/L			12/04/19 23:21	1
t-Butanol	**15**		10	5.0	ug/L			12/04/19 23:21	1
Tetrachloroethene	**0.27**	**J**	0.50	0.25	ug/L			12/04/19 23:21	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/04/19 23:21	1
Toluene	ND		0.50	0.25	ug/L			12/04/19 23:21	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 23:21	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 23:21	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/04/19 23:21	1
Trichloroethene	**0.27**	**J**	0.50	0.25	ug/L			12/04/19 23:21	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/04/19 23:21	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/04/19 23:21	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/04/19 23:21	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/04/19 23:21	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/04/19 23:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/04/19 23:21	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*11*	*T J*	*ug/L*		*6.52*			*12/04/19 23:21*	*1*
Benzene, 1-methyl-2-(1-methylethyl)-	*16*	*T J N*	*ug/L*		*12.45*	*527-84-4*		*12/04/19 23:21*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*111*		*80 - 128*		*12/04/19 14:45*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*12/04/19 14:45*	*1*
Toluene-d8 (Surr)	*100*		*80 - 128*		*12/04/19 23:21*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*12/04/19 23:21*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/04/19 14:45*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*12/04/19 23:21*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**12**		1.0	0.25	ug/L		12/03/19 06:32	12/04/19 11:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*78*		*30 - 120*	*12/03/19 06:32*	*12/04/19 11:36*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**2.7**		1.0	0.50	mg/L			12/02/19 19:24	2
Nitrate as N	**2.8**		0.22	0.11	mg/L			12/02/19 19:24	2
Chloride	**170**		50	25	mg/L			12/02/19 19:40	100
Fluoride	**1.9**		1.0	0.50	mg/L			12/02/19 19:24	2
Sulfate	**1800**		50	25	mg/L			12/02/19 19:40	100

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.68**		0.050	0.025	mg/L		12/03/19 11:15	12/04/19 14:39	1

Client Sample ID: Combined Subdrains

Lab Sample ID: 440-256012-1

Date Collected: 12/02/19 11:30

Matrix: Water

Date Received: 12/02/19 18:10

Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	340		0.10	0.050	mg/L		12/03/19 11:15	12/04/19 14:39	1
Iron	8.5		0.10	0.050	mg/L		12/03/19 11:15	12/04/19 14:39	1
Magnesium	240		0.020	0.010	mg/L		12/03/19 11:15	12/04/19 14:39	1
Manganese	3.7		0.020	0.015	mg/L		12/03/19 11:15	12/04/19 14:39	1
Potassium	14		0.50	0.25	mg/L		12/03/19 11:15	12/04/19 14:39	1
Sodium	210		0.50	0.26	mg/L		12/03/19 11:15	12/04/19 14:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	1.9	F1	0.20	0.10	mg/L			12/03/19 12:39	1
Chemical Oxygen Demand	72		20	10	mg/L			12/11/19 15:48	1
Total Dissolved Solids	3400		20	10	mg/L			12/03/19 09:30	1
Total Sulfide	0.063		0.050	0.027	mg/L			12/03/19 16:53	1
Total Organic Carbon	24		1.0	0.50	mg/L			12/05/19 08:25	10

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	420		4.0	4.0	mg/L			12/04/19 08:18	1
Bicarbonate Alkalinity as CaCO3	420		4.0	4.0	mg/L			12/04/19 08:18	1
Carbon Dioxide, Free	84		2.0	2.0	mg/L			12/16/19 16:49	1

Client Sample ID: Subdrain N

Lab Sample ID: 440-256012-2

Date Collected: 12/02/19 12:15

Matrix: Water

Date Received: 12/02/19 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/04/19 23:49	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 23:49	1
Acrolein	ND		50	2.5	ug/L			12/04/19 15:09	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 15:09	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 23:49	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 23:49	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 23:49	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 23:49	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 23:49	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 23:49	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/04/19 23:49	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/04/19 23:49	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 23:49	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 23:49	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 23:49	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 23:49	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 23:49	1
1,4-Dichlorobenzene	0.54		0.50	0.25	ug/L			12/04/19 23:49	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/04/19 23:49	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/04/19 23:49	1
2-Hexanone	ND		5.0	2.5	ug/L			12/04/19 23:49	1
Acetone	ND		20	10	ug/L			12/04/19 23:49	1
Acetonitrile	ND		20	10	ug/L			12/04/19 23:49	1
Acrolein	ND		5.0	2.5	ug/L			12/04/19 23:49	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/04/19 23:49	1

Client Sample ID: Subdrain N
Date Collected: 12/02/19 12:15
Date Received: 12/02/19 18:10

Lab Sample ID: 440-256012-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.52**		0.50	0.25	ug/L			12/04/19 23:49	1
Allyl chloride	ND		1.0	0.50	ug/L			12/04/19 23:49	1
Bromoform	ND		1.0	0.40	ug/L			12/04/19 23:49	1
Bromomethane	ND		0.50	0.25	ug/L			12/04/19 23:49	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/04/19 23:49	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/04/19 23:49	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/04/19 23:49	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/04/19 23:49	1
Chloroethane	ND		1.0	0.40	ug/L			12/04/19 23:49	1
Chloroform	ND		0.50	0.25	ug/L			12/04/19 23:49	1
Chloromethane	ND		0.50	0.25	ug/L			12/04/19 23:49	1
cis-1,2-Dichloroethene	**0.77**		0.50	0.25	ug/L			12/04/19 23:49	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 23:49	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/04/19 23:49	1
Dibromomethane	ND		0.50	0.25	ug/L			12/04/19 23:49	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/04/19 23:49	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/04/19 23:49	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 23:49	1
Ethylbenzene	**1.0**		0.50	0.25	ug/L			12/04/19 23:49	1
Iodomethane	ND		2.0	1.0	ug/L			12/04/19 23:49	1
Isobutyl alcohol	ND		25	13	ug/L			12/04/19 23:49	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/04/19 23:49	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/04/19 23:49	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 23:49	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/04/19 23:49	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/04/19 23:49	1
Naphthalene	ND		1.0	0.40	ug/L			12/04/19 23:49	1
o-Xylene	ND		0.50	0.25	ug/L			12/04/19 23:49	1
Propionitrile	ND		20	10	ug/L			12/04/19 23:49	1
Styrene	**5.5**		0.50	0.25	ug/L			12/04/19 23:49	1
t-Butanol	**68**		10	5.0	ug/L			12/04/19 23:49	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/04/19 23:49	1
Tetrahydrofuran	**9.5**	**J**	10	5.0	ug/L			12/04/19 23:49	1
Toluene	**1.0**		0.50	0.25	ug/L			12/04/19 23:49	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 23:49	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 23:49	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/04/19 23:49	1
Trichloroethene	ND		0.50	0.25	ug/L			12/04/19 23:49	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/04/19 23:49	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/04/19 23:49	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/04/19 23:49	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/04/19 23:49	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/04/19 23:49	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/04/19 23:49	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
1-Propene, 2-methyl-	*3.0*	*T J N*	*ug/L*		*2.67*	*115-11-7*		*12/04/19 23:49*	*1*
Unknown	*7.7*	*T J*	*ug/L*		*5.04*			*12/04/19 23:49*	*1*
Unknown	*10*	*T J*	*ug/L*		*6.52*			*12/04/19 23:49*	*1*
1-Hexanol, 2-ethyl-	*8.1*	*T J N*	*ug/L*		*12.17*	*104-76-7*		*12/04/19 23:49*	*1*

Client Sample ID: Subdrain N

Date Collected: 12/02/19 12:15
Date Received: 12/02/19 18:10

Lab Sample ID: 440-256012-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Eucalyptol	3.3	T J N	ug/L		12.54	470-82-6		12/04/19 23:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	110		80 - 128		12/04/19 15:09	1
4-Bromofluorobenzene (Surr)	99		80 - 120		12/04/19 15:09	1
Toluene-d8 (Surr)	102		80 - 128		12/04/19 23:49	1
4-Bromofluorobenzene (Surr)	105		80 - 120		12/04/19 23:49	1
Dibromofluoromethane (Surr)	99		76 - 132		12/04/19 15:09	1
Dibromofluoromethane (Surr)	97		76 - 132		12/04/19 23:49	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**36**		1.0	0.25	ug/L		12/03/19 06:32	12/04/19 11:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	59		30 - 120	12/03/19 06:32	12/04/19 11:57	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**9.1**		5.0	2.5	mg/L			12/02/19 20:49	10
Nitrate as N	ND		1.1	0.55	mg/L			12/02/19 20:49	10
Chloride	**630**		250	130	mg/L			12/02/19 21:05	500
Fluoride	ND		5.0	2.5	mg/L			12/02/19 20:49	10
Sulfate	**1900**		250	130	mg/L			12/02/19 21:05	500

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**2.5**		0.50	0.25	mg/L		12/04/19 10:14	12/09/19 17:50	10
Calcium	**1200**	**B**	1.0	0.50	mg/L		12/04/19 10:14	12/09/19 17:50	10
Iron	**3100**	**B**	1.0	0.50	mg/L		12/04/19 10:14	12/09/19 17:50	10
Magnesium	**330**		0.20	0.10	mg/L		12/04/19 10:14	12/09/19 17:50	10
Manganese	**26**		0.20	0.15	mg/L		12/04/19 10:14	12/09/19 17:50	10
Potassium	**25**		5.0	2.5	mg/L		12/04/19 10:14	12/09/19 17:50	10
Sodium	**400**		5.0	2.6	mg/L		12/04/19 10:14	12/09/19 17:50	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**5.4**		0.20	0.10	mg/L			12/04/19 11:57	1
Chemical Oxygen Demand	**330**		20	10	mg/L			12/11/19 15:48	1
Total Dissolved Solids	**5100**		100	50	mg/L			12/03/19 09:30	1
Total Sulfide	ND		0.050	0.027	mg/L			12/03/19 16:53	1
Total Organic Carbon	**400**		5.0	2.5	mg/L			12/04/19 15:46	50

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**670**		4.0	4.0	mg/L			12/04/19 08:32	1
Bicarbonate Alkalinity as CaCO3	**670**		4.0	4.0	mg/L			12/04/19 08:32	1
Carbon Dioxide, Free	**200**		2.0	2.0	mg/L			12/16/19 16:49	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256012-1

Client Sample ID: PZ-2
Date Collected: 12/02/19 15:00
Date Received: 12/02/19 18:10

Lab Sample ID: 440-256012-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 00:17	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 00:17	1
Acrolein	ND		50	2.5	ug/L			12/04/19 15:34	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 15:34	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 00:17	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 00:17	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 00:17	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 00:17	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 00:17	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 00:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 00:17	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 00:17	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 00:17	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 00:17	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 00:17	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 00:17	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 00:17	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 00:17	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 00:17	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 00:17	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 00:17	1
Acetone	ND		20	10	ug/L			12/05/19 00:17	1
Acetonitrile	ND		20	10	ug/L			12/05/19 00:17	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 00:17	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 00:17	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 00:17	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 00:17	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 00:17	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 00:17	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 00:17	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 00:17	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 00:17	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 00:17	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 00:17	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 00:17	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 00:17	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 00:17	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 00:17	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 00:17	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 00:17	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 00:17	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 00:17	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 00:17	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 00:17	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 00:17	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 00:17	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 00:17	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 00:17	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 00:17	1

Client Sample ID: PZ-2
Date Collected: 12/02/19 15:00
Date Received: 12/02/19 18:10

Lab Sample ID: 440-256012-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 00:17	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 00:17	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 00:17	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 00:17	1
Propionitrile	ND		20	10	ug/L			12/05/19 00:17	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 00:17	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 00:17	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 00:17	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 00:17	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 00:17	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 00:17	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 00:17	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 00:17	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 00:17	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 00:17	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 00:17	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 00:17	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 00:17	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 00:17	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 00:17	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*11*	*T J*	*ug/L*		*6.52*			*12/05/19 00:17*	*1*
Unknown	*3.0*	*T J*	*ug/L*		*16.28*			*12/05/19 00:17*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*111*		*80 - 128*		*12/04/19 15:34*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/04/19 15:34*	*1*
Toluene-d8 (Surr)	*102*		*80 - 128*		*12/05/19 00:17*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*12/05/19 00:17*	*1*
Dibromofluoromethane (Surr)	*96*		*76 - 132*		*12/04/19 15:34*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/05/19 00:17*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1.0	0.26	ug/L		12/03/19 06:32	12/04/19 12:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*67*		*30 - 120*	*12/03/19 06:32*	*12/04/19 12:18*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		5.0	2.5	mg/L			12/02/19 21:21	10
Nitrate as N	ND		1.1	0.55	mg/L			12/02/19 21:21	10
Chloride	**11**		5.0	2.5	mg/L			12/02/19 21:21	10
Fluoride	ND		5.0	2.5	mg/L			12/02/19 21:21	10
Sulfate	**2500**		100	50	mg/L			12/02/19 21:37	200

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.4**		0.050	0.025	mg/L		12/03/19 11:15	12/04/19 14:48	1

Client Sample ID: PZ-2

Lab Sample ID: 440-256012-3

Date Collected: 12/02/19 15:00
Matrix: Water
Date Received: 12/02/19 18:10

Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	13		0.10	0.050	mg/L		12/03/19 11:15	12/04/19 14:48	1
Iron	0.053	J	0.10	0.050	mg/L		12/03/19 11:15	12/04/19 14:48	1
Magnesium	11		0.020	0.010	mg/L		12/03/19 11:15	12/04/19 14:48	1
Manganese	0.028		0.020	0.015	mg/L		12/03/19 11:15	12/04/19 14:48	1
Potassium	3.5		0.50	0.25	mg/L		12/03/19 11:15	12/04/19 14:48	1
Sodium	1200		5.0	2.6	mg/L		12/03/19 11:15	12/05/19 10:25	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	2.9		0.20	0.10	mg/L			12/04/19 12:02	1
Chemical Oxygen Demand	15	J	20	10	mg/L			12/11/19 15:48	1
Total Dissolved Solids	4100		100	50	mg/L			12/03/19 09:30	1
Total Sulfide	ND		0.050	0.027	mg/L			12/03/19 16:55	1
Total Organic Carbon	2.6		0.10	0.050	mg/L			12/04/19 14:43	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	360		4.0	4.0	mg/L			12/04/19 08:45	1
Bicarbonate Alkalinity as CaCO3	330		4.0	4.0	mg/L			12/04/19 08:45	1
Carbon Dioxide, Free	ND		2.0	2.0	mg/L			12/16/19 16:49	1

Client Sample ID: CM-9R

Lab Sample ID: 440-256012-4

Date Collected: 12/02/19 13:30
Matrix: Water
Date Received: 12/02/19 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 00:46	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 00:46	1
Acrolein	ND		50	2.5	ug/L			12/04/19 15:58	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 15:58	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 00:46	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 00:46	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 00:46	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 00:46	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 00:46	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 00:46	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 00:46	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 00:46	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 00:46	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 00:46	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 00:46	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 00:46	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 00:46	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 00:46	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 00:46	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 00:46	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 00:46	1
Acetone	ND		20	10	ug/L			12/05/19 00:46	1
Acetonitrile	ND		20	10	ug/L			12/05/19 00:46	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 00:46	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 00:46	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256012-1

Client Sample ID: CM-9R
Date Collected: 12/02/19 13:30
Date Received: 12/02/19 18:10

Lab Sample ID: 440-256012-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50	0.25	ug/L			12/05/19 00:46	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 00:46	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 00:46	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 00:46	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 00:46	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 00:46	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 00:46	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 00:46	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 00:46	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 00:46	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 00:46	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 00:46	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 00:46	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 00:46	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 00:46	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 00:46	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 00:46	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 00:46	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 00:46	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 00:46	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 00:46	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 00:46	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 00:46	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 00:46	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 00:46	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 00:46	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 00:46	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 00:46	1
Propionitrile	ND		20	10	ug/L			12/05/19 00:46	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 00:46	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 00:46	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 00:46	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 00:46	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 00:46	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 00:46	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 00:46	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 00:46	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 00:46	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 00:46	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 00:46	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 00:46	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 00:46	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 00:46	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 00:46	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*11*	*T J*	*ug/L*		*6.52*			*12/05/19 00:46*	*1*
Unknown	*3.3*	*T J*	*ug/L*		*15.80*			*12/05/19 00:46*	*1*

Client Sample ID: CM-9R

Date Collected: 12/02/19 13:30
Date Received: 12/02/19 18:10

Lab Sample ID: 440-256012-4

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*110*		*80 - 128*		*12/04/19 15:58*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*12/04/19 15:58*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*12/05/19 00:46*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/05/19 00:46*	*1*
Dibromofluoromethane (Surr)	*102*		*76 - 132*		*12/04/19 15:58*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/05/19 00:46*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.99	0.25	ug/L		12/03/19 06:32	12/04/19 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*69*		*30 - 120*	*12/03/19 06:32*	*12/04/19 12:40*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		5.0	2.5	mg/L			12/02/19 21:53	10
Nitrate as N	ND		1.1	0.55	mg/L			12/02/19 21:53	10
Chloride	**14**		5.0	2.5	mg/L			12/02/19 21:53	10
Fluoride	**2.9**	**J**	5.0	2.5	mg/L			12/02/19 21:53	10
Sulfate	**2600**		100	50	mg/L			12/02/19 22:09	200

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.9**		0.050	0.025	mg/L		12/03/19 11:15	12/04/19 14:50	1
Calcium	**360**		0.10	0.050	mg/L		12/03/19 11:15	12/04/19 14:50	1
Iron	**27**		0.10	0.050	mg/L		12/03/19 11:15	12/04/19 14:50	1
Magnesium	**230**		0.020	0.010	mg/L		12/03/19 11:15	12/04/19 14:50	1
Manganese	**2.8**		0.020	0.015	mg/L		12/03/19 11:15	12/04/19 14:50	1
Potassium	**13**		0.50	0.25	mg/L		12/03/19 11:15	12/04/19 14:50	1
Sodium	**460**		5.0	2.6	mg/L		12/03/19 11:15	12/05/19 10:28	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**5.1**		0.20	0.10	mg/L			12/04/19 12:17	1
Chemical Oxygen Demand	**36**		20	10	mg/L			12/11/19 15:48	1
Total Dissolved Solids	**4000**		20	10	mg/L			12/04/19 09:48	1
Total Sulfide	ND		0.050	0.027	mg/L			12/03/19 16:55	1
Total Organic Carbon	**6.9**		0.10	0.050	mg/L			12/04/19 14:59	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**210**		4.0	4.0	mg/L			12/04/19 08:53	1
Bicarbonate Alkalinity as CaCO3	**210**		4.0	4.0	mg/L			12/04/19 08:53	1
Carbon Dioxide, Free	**110**		2.0	2.0	mg/L			12/16/19 16:49	1

Client Sample ID: CM-11R

Date Collected: 12/02/19 12:00
Date Received: 12/02/19 18:10

Lab Sample ID: 440-256012-5

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 01:15	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256012-1

Client Sample ID: CM-11R
Date Collected: 12/02/19 12:00
Date Received: 12/02/19 18:10

Lab Sample ID: 440-256012-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 01:15	1
Acrolein	ND		50	2.5	ug/L			12/04/19 16:23	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 16:23	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 01:15	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 01:15	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 01:15	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 01:15	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 01:15	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 01:15	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 01:15	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 01:15	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 01:15	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 01:15	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 01:15	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 01:15	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 01:15	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 01:15	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 01:15	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 01:15	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 01:15	1
Acetone	ND		20	10	ug/L			12/05/19 01:15	1
Acetonitrile	ND		20	10	ug/L			12/05/19 01:15	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 01:15	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 01:15	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 01:15	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 01:15	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 01:15	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 01:15	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 01:15	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 01:15	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 01:15	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 01:15	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 01:15	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 01:15	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 01:15	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 01:15	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 01:15	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 01:15	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 01:15	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 01:15	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 01:15	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 01:15	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 01:15	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 01:15	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 01:15	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 01:15	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 01:15	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 01:15	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 01:15	1

Client Sample ID: CM-11R

Date Collected: 12/02/19 12:00
Date Received: 12/02/19 18:10

Lab Sample ID: 440-256012-5

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 01:15	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 01:15	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 01:15	1
Propionitrile	ND		20	10	ug/L			12/05/19 01:15	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 01:15	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 01:15	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 01:15	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 01:15	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 01:15	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 01:15	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 01:15	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 01:15	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 01:15	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 01:15	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 01:15	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 01:15	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 01:15	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 01:15	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 01:15	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*11*	*T J*	*ug/L*		*6.51*			*12/05/19 01:15*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*110*		*80 - 128*		*12/04/19 16:23*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*12/04/19 16:23*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*12/05/19 01:15*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/05/19 01:15*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/04/19 16:23*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/05/19 01:15*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.98	0.25	ug/L		12/03/19 06:32	12/04/19 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*68*		*30 - 120*	*12/03/19 06:32*	*12/04/19 13:02*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		5.0	2.5	mg/L			12/02/19 22:25	10
Nitrate as N	ND		1.1	0.55	mg/L			12/02/19 22:25	10
Chloride	**12**		5.0	2.5	mg/L			12/02/19 22:25	10
Fluoride	ND		5.0	2.5	mg/L			12/02/19 22:25	10
Sulfate	**2500**		100	50	mg/L			12/02/19 22:41	200

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.3**		0.050	0.025	mg/L		12/03/19 11:15	12/04/19 14:53	1
Calcium	**270**		0.10	0.050	mg/L		12/03/19 11:15	12/04/19 14:53	1
Iron	**1.8**		0.10	0.050	mg/L		12/03/19 11:15	12/04/19 14:53	1

Client Sample ID: CM-11R

Date Collected: 12/02/19 12:00
Date Received: 12/02/19 18:10

Lab Sample ID: 440-256012-5

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	170		0.020	0.010	mg/L		12/03/19 11:15	12/04/19 14:53	1
Manganese	4.2		0.020	0.015	mg/L		12/03/19 11:15	12/04/19 14:53	1
Potassium	11		0.50	0.25	mg/L		12/03/19 11:15	12/04/19 14:53	1
Sodium	490		5.0	2.6	mg/L		12/03/19 11:15	12/05/19 10:31	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	2.1		0.20	0.10	mg/L			12/04/19 12:22	1
Chemical Oxygen Demand	18	J	20	10	mg/L			12/11/19 15:48	1
Total Dissolved Solids	3800		20	10	mg/L			12/04/19 09:48	1
Total Sulfide	ND		0.050	0.027	mg/L			12/03/19 16:55	1
Total Organic Carbon	5.2		0.10	0.050	mg/L			12/04/19 15:14	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	29		4.0	4.0	mg/L			12/04/19 08:58	1
Bicarbonate Alkalinity as CaCO3	29		4.0	4.0	mg/L			12/04/19 08:58	1
Carbon Dioxide, Free	60		2.0	2.0	mg/L			12/16/19 16:49	1

Client Sample ID: MW-Dup.

Date Collected: 12/02/19 00:01
Date Received: 12/02/19 18:10

Lab Sample ID: 440-256012-6

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 01:43	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 01:43	1
Acrolein	ND		50	2.5	ug/L			12/04/19 16:47	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 16:47	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 01:43	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 01:43	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 01:43	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 01:43	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 01:43	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 01:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 01:43	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 01:43	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 01:43	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 01:43	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 01:43	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 01:43	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 01:43	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 01:43	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 01:43	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 01:43	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 01:43	1
Acetone	ND		20	10	ug/L			12/05/19 01:43	1
Acetonitrile	ND		20	10	ug/L			12/05/19 01:43	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 01:43	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 01:43	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 01:43	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 01:43	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256012-1

Client Sample ID: MW-Dup.
Date Collected: 12/02/19 00:01
Date Received: 12/02/19 18:10

Lab Sample ID: 440-256012-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		1.0	0.40	ug/L			12/05/19 01:43	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 01:43	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 01:43	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 01:43	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 01:43	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 01:43	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 01:43	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 01:43	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 01:43	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 01:43	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 01:43	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 01:43	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 01:43	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 01:43	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 01:43	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 01:43	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 01:43	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 01:43	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 01:43	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 01:43	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 01:43	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 01:43	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 01:43	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 01:43	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 01:43	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 01:43	1
Propionitrile	ND		20	10	ug/L			12/05/19 01:43	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 01:43	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 01:43	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 01:43	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 01:43	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 01:43	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 01:43	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 01:43	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 01:43	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 01:43	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 01:43	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 01:43	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 01:43	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 01:43	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 01:43	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 01:43	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*11*	*T J*	*ug/L*		*6.52*			*12/05/19 01:43*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*111*		*80 - 128*		*12/04/19 16:47*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*12/04/19 16:47*	*1*
Toluene-d8 (Surr)	*102*		*80 - 128*		*12/05/19 01:43*	*1*

Client Sample ID: MW-Dup.

Lab Sample ID: 440-256012-6

Date Collected: 12/02/19 00:01

Matrix: Water

Date Received: 12/02/19 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*12/05/19 01:43*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/04/19 16:47*	*1*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*12/05/19 01:43*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.99	0.25	ug/L		12/03/19 06:32	12/04/19 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*55*		*30 - 120*	*12/03/19 06:32*	*12/04/19 13:24*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		5.0	2.5	mg/L			12/02/19 22:57	10
Nitrate as N	ND		1.1	0.55	mg/L			12/02/19 22:57	10
Chloride	**14**		5.0	2.5	mg/L			12/02/19 22:57	10
Fluoride	**3.0**	**J**	5.0	2.5	mg/L			12/02/19 22:57	10
Sulfate	**2700**		100	50	mg/L			12/02/19 23:13	200

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.9**		0.050	0.025	mg/L		12/03/19 11:15	12/04/19 15:38	1
Calcium	**350**		0.10	0.050	mg/L		12/03/19 11:15	12/04/19 15:38	1
Iron	**26**		0.10	0.050	mg/L		12/03/19 11:15	12/04/19 15:38	1
Magnesium	**230**		0.020	0.010	mg/L		12/03/19 11:15	12/04/19 15:38	1
Manganese	**2.8**		0.020	0.015	mg/L		12/03/19 11:15	12/04/19 15:38	1
Potassium	**12**		0.50	0.25	mg/L		12/03/19 11:15	12/04/19 15:38	1
Sodium	**430**		0.50	0.26	mg/L		12/03/19 11:15	12/04/19 15:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**5.0**		0.20	0.10	mg/L			12/04/19 12:27	1
Chemical Oxygen Demand	**37**		20	10	mg/L			12/11/19 15:48	1
Total Dissolved Solids	**4000**		20	10	mg/L			12/04/19 09:48	1
Total Sulfide	ND		0.050	0.027	mg/L			12/03/19 16:55	1
Total Organic Carbon	**6.8**		0.10	0.050	mg/L			12/04/19 15:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**210**		4.0	4.0	mg/L			12/04/19 09:06	1
Bicarbonate Alkalinity as CaCO3	**210**		4.0	4.0	mg/L			12/04/19 09:06	1
Carbon Dioxide, Free	**88**		2.0	2.0	mg/L			12/16/19 16:49	1

Client Sample ID: Field Blank

Lab Sample ID: 440-256012-7

Date Collected: 12/02/19 00:01

Matrix: Water

Date Received: 12/02/19 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 02:11	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 02:11	1
Acrolein	ND		50	2.5	ug/L			12/04/19 17:12	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256012-1

Client Sample ID: Field Blank
Date Collected: 12/02/19 00:01
Date Received: 12/02/19 18:10

Lab Sample ID: 440-256012-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 17:12	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 02:11	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 02:11	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 02:11	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 02:11	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 02:11	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 02:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 02:11	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 02:11	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 02:11	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 02:11	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 02:11	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 02:11	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 02:11	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 02:11	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 02:11	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 02:11	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 02:11	1
Acetone	ND		20	10	ug/L			12/05/19 02:11	1
Acetonitrile	ND		20	10	ug/L			12/05/19 02:11	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 02:11	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 02:11	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 02:11	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 02:11	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 02:11	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 02:11	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 02:11	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 02:11	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 02:11	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 02:11	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 02:11	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 02:11	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 02:11	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 02:11	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 02:11	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 02:11	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 02:11	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 02:11	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 02:11	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 02:11	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 02:11	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 02:11	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 02:11	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 02:11	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 02:11	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 02:11	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 02:11	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 02:11	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 02:11	1

Client Sample ID: Field Blank

Lab Sample ID: 440-256012-7

Date Collected: 12/02/19 00:01

Matrix: Water

Date Received: 12/02/19 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 02:11	1
Propionitrile	ND		20	10	ug/L			12/05/19 02:11	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 02:11	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 02:11	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 02:11	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 02:11	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 02:11	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 02:11	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 02:11	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 02:11	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 02:11	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 02:11	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 02:11	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 02:11	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 02:11	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 02:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 02:11	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*10*	*T J*	*ug/L*		*6.52*			*12/05/19 02:11*	*1*
Unknown	*4.2*	*T J*	*ug/L*		*16.62*			*12/05/19 02:11*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*109*		*80 - 128*		*12/04/19 17:12*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/04/19 17:12*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*12/05/19 02:11*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/05/19 02:11*	*1*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*12/04/19 17:12*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/05/19 02:11*	*1*

Client Sample ID: Trip Blank

Lab Sample ID: 440-256012-8

Date Collected: 12/02/19 00:01

Matrix: Water

Date Received: 12/02/19 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 02:40	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 02:40	1
Acrolein	ND		50	2.5	ug/L			12/04/19 17:37	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 17:37	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 02:40	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 02:40	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 02:40	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 02:40	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 02:40	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 02:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 02:40	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 02:40	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 02:40	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 02:40	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256012-1

Client Sample ID: Trip Blank
Date Collected: 12/02/19 00:01
Date Received: 12/02/19 18:10

Lab Sample ID: 440-256012-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 02:40	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 02:40	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 02:40	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 02:40	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 02:40	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 02:40	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 02:40	1
Acetone	ND		20	10	ug/L			12/05/19 02:40	1
Acetonitrile	ND		20	10	ug/L			12/05/19 02:40	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 02:40	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 02:40	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 02:40	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 02:40	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 02:40	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 02:40	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 02:40	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 02:40	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 02:40	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 02:40	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 02:40	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 02:40	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 02:40	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 02:40	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 02:40	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 02:40	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 02:40	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 02:40	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 02:40	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 02:40	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 02:40	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 02:40	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 02:40	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 02:40	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 02:40	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 02:40	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 02:40	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 02:40	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 02:40	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 02:40	1
Propionitrile	ND		20	10	ug/L			12/05/19 02:40	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 02:40	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 02:40	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 02:40	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 02:40	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 02:40	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 02:40	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 02:40	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 02:40	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 02:40	1

Client Sample ID: Trip Blank
Date Collected: 12/02/19 00:01
Date Received: 12/02/19 18:10

Lab Sample ID: 440-256012-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 02:40	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 02:40	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 02:40	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 02:40	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 02:40	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 02:40	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*11*	*T J*	*ug/L*		*6.52*			*12/05/19 02:40*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*111*		*80 - 128*		*12/04/19 17:37*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/04/19 17:37*	*1*
Toluene-d8 (Surr)	*102*		*80 - 128*		*12/05/19 02:40*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/05/19 02:40*	*1*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*12/04/19 17:37*	*1*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*12/05/19 02:40*	*1*

Method Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256012-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL IRV
300.0	Anions, Ion Chromatography	MCAWW	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
350.1	Nitrogen, Ammonia	MCAWW	TAL IRV
410.4	COD	MCAWW	TAL IRV
SM 2320B	Alkalinity	SM	TAL IRV
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL IRV
SM 4500 CO2 C	Free Carbon Dioxide	SM	TAL IRV
SM 4500 S2 D	Sulfide, Total	SM	TAL IRV
SM 5310C	TOC	SM	TAL IRV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL IRV
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL IRV
5030B	Purge and Trap	SW846	TAL IRV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client Sample ID: Combined Subdrains

Lab Sample ID: 440-256012-1

Date Collected: 12/02/19 11:30

Matrix: Water

Date Received: 12/02/19 18:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583835	12/04/19 23:21	JB	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 14:45	RM	TAL IRV
Total/NA	Prep	3520C			1005 mL	1.0 mL	583429	12/03/19 06:32	NAM	TAL IRV
Total/NA	Analysis	8270C		1			583682	12/04/19 11:36	YCL	TAL IRV
Total/NA	Analysis	300.0		2			583225	12/02/19 19:24	NTN	TAL IRV
Total/NA	Analysis	300.0		2			583226	12/02/19 19:24	NTN	TAL IRV
Total/NA	Analysis	300.0		100			583226	12/02/19 19:40	NTN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	583517	12/03/19 11:15	EP	TAL IRV
Total Recoverable	Analysis	6010B		1			583843	12/04/19 14:39	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	583573	12/03/19 12:39	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585322	12/11/19 15:48	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			583785	12/04/19 08:18	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	583467	12/03/19 09:30	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586253	12/16/19 16:49	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	583586	12/03/19 16:53	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		10	100 mL	100 mL	584163	12/05/19 08:25	YZ	TAL IRV

Client Sample ID: Subdrain N

Lab Sample ID: 440-256012-2

Date Collected: 12/02/19 12:15

Matrix: Water

Date Received: 12/02/19 18:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583835	12/04/19 23:49	JB	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 15:09	RM	TAL IRV
Total/NA	Prep	3520C			1000 mL	1.0 mL	583429	12/03/19 06:32	NAM	TAL IRV
Total/NA	Analysis	8270C		1			583682	12/04/19 11:57	YCL	TAL IRV
Total/NA	Analysis	300.0		10			583225	12/02/19 20:49	NTN	TAL IRV
Total/NA	Analysis	300.0		10			583226	12/02/19 20:49	NTN	TAL IRV
Total/NA	Analysis	300.0		500			583226	12/02/19 21:05	NTN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	583719	12/04/19 10:14	EP	TAL IRV
Total Recoverable	Analysis	6010B		10			584804	12/09/19 17:50	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584635	12/04/19 11:57	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585322	12/11/19 15:48	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			583785	12/04/19 08:32	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	583467	12/03/19 09:30	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586253	12/16/19 16:49	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	583586	12/03/19 16:53	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		50	100 mL	100 mL	583921	12/04/19 15:46	YZ	TAL IRV

Client Sample ID: PZ-2

Lab Sample ID: 440-256012-3

Date Collected: 12/02/19 15:00

Matrix: Water

Date Received: 12/02/19 18:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583835	12/05/19 00:17	JB	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 15:34	RM	TAL IRV
Total/NA	Prep	3520C			980 mL	1.0 mL	583429	12/03/19 06:32	NAM	TAL IRV
Total/NA	Analysis	8270C		1			583682	12/04/19 12:18	YCL	TAL IRV
Total/NA	Analysis	300.0		10			583225	12/02/19 21:21	NTN	TAL IRV
Total/NA	Analysis	300.0		10			583226	12/02/19 21:21	NTN	TAL IRV
Total/NA	Analysis	300.0		200			583226	12/02/19 21:37	NTN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	583517	12/03/19 11:15	EP	TAL IRV
Total Recoverable	Analysis	6010B		1			583843	12/04/19 14:48	P1R	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	583517	12/03/19 11:15	EP	TAL IRV
Total Recoverable	Analysis	6010B		10			584036	12/05/19 10:25	VS	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584635	12/04/19 12:02	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585322	12/11/19 15:48	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			583785	12/04/19 08:45	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	583467	12/03/19 09:30	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586253	12/16/19 16:49	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	583586	12/03/19 16:55	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	583921	12/04/19 14:43	YZ	TAL IRV

Client Sample ID: CM-9R

Lab Sample ID: 440-256012-4

Date Collected: 12/02/19 13:30

Matrix: Water

Date Received: 12/02/19 18:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583835	12/05/19 00:46	JB	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 15:58	RM	TAL IRV
Total/NA	Prep	3520C			1010 mL	1.0 mL	583429	12/03/19 06:32	NAM	TAL IRV
Total/NA	Analysis	8270C		1			583682	12/04/19 12:40	YCL	TAL IRV
Total/NA	Analysis	300.0		10			583225	12/02/19 21:53	NTN	TAL IRV
Total/NA	Analysis	300.0		10			583226	12/02/19 21:53	NTN	TAL IRV
Total/NA	Analysis	300.0		200			583226	12/02/19 22:09	NTN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	583517	12/03/19 11:15	EP	TAL IRV
Total Recoverable	Analysis	6010B		1			583843	12/04/19 14:50	P1R	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	583517	12/03/19 11:15	EP	TAL IRV
Total Recoverable	Analysis	6010B		10			584036	12/05/19 10:28	VS	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584635	12/04/19 12:17	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585322	12/11/19 15:48	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			583785	12/04/19 08:53	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	583708	12/04/19 09:48	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586253	12/16/19 16:49	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	583586	12/03/19 16:55	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	583921	12/04/19 14:59	YZ	TAL IRV

Client Sample ID: CM-11R

Date Collected: 12/02/19 12:00
Date Received: 12/02/19 18:10

Lab Sample ID: 440-256012-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583835	12/05/19 01:15	JB	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 16:23	RM	TAL IRV
Total/NA	Prep	3520C			1020 mL	1.0 mL	583429	12/03/19 06:32	NAM	TAL IRV
Total/NA	Analysis	8270C		1			583682	12/04/19 13:02	YCL	TAL IRV
Total/NA	Analysis	300.0		10	5 mL	1.0 mL	583225	12/02/19 22:25	NTN	TAL IRV
Total/NA	Analysis	300.0		10	5 mL	1.0 mL	583226	12/02/19 22:25	NTN	TAL IRV
Total/NA	Analysis	300.0		200			583226	12/02/19 22:41	NTN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	583517	12/03/19 11:15	EP	TAL IRV
Total Recoverable	Analysis	6010B		1			583843	12/04/19 14:53	P1R	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	583517	12/03/19 11:15	EP	TAL IRV
Total Recoverable	Analysis	6010B		10			584036	12/05/19 10:31	VS	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584635	12/04/19 12:22	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585322	12/11/19 15:48	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			583785	12/04/19 08:58	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	583708	12/04/19 09:48	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586253	12/16/19 16:49	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	583586	12/03/19 16:55	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	583921	12/04/19 15:14	YZ	TAL IRV

Client Sample ID: MW-Dup.

Date Collected: 12/02/19 00:01
Date Received: 12/02/19 18:10

Lab Sample ID: 440-256012-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583835	12/05/19 01:43	JB	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 16:47	RM	TAL IRV
Total/NA	Prep	3520C			1010 mL	1.0 mL	583429	12/03/19 06:32	NAM	TAL IRV
Total/NA	Analysis	8270C		1			583682	12/04/19 13:24	YCL	TAL IRV
Total/NA	Analysis	300.0		10			583225	12/02/19 22:57	NTN	TAL IRV
Total/NA	Analysis	300.0		10			583226	12/02/19 22:57	NTN	TAL IRV
Total/NA	Analysis	300.0		200			583226	12/02/19 23:13	NTN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	583517	12/03/19 11:15	EP	TAL IRV
Total Recoverable	Analysis	6010B		1			583843	12/04/19 15:38	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584635	12/04/19 12:27	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585322	12/11/19 15:48	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			583785	12/04/19 09:06	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	583708	12/04/19 09:48	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586253	12/16/19 16:49	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	583586	12/03/19 16:55	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	583921	12/04/19 15:30	YZ	TAL IRV

Lab Chronicle

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256012-1

Client Sample ID: Field Blank

Lab Sample ID: 440-256012-7

Date Collected: 12/02/19 00:01
Matrix: Water
Date Received: 12/02/19 18:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583835	12/05/19 02:11	JB	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 17:12	RM	TAL IRV

Client Sample ID: Trip Blank

Lab Sample ID: 440-256012-8

Date Collected: 12/02/19 00:01
Matrix: Water
Date Received: 12/02/19 18:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583835	12/05/19 02:40	JB	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 17:37	RM	TAL IRV

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-583662/5
Matrix: Water
Analysis Batch: 583662

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	ND		50	2.5	ug/L			12/04/19 08:37	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 08:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*110*		*80 - 128*		*12/04/19 08:37*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/04/19 08:37*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/04/19 08:37*	*1*

Lab Sample ID: LCS 440-583662/1002
Matrix: Water
Analysis Batch: 583662

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Acrolein			24.7	17.0	J	ug/L		69	10 - 145		
Acrylonitrile			250	221		ug/L		88	48 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*105*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*76 - 132*

Lab Sample ID: 440-256127-E-1 MS
Matrix: Water
Analysis Batch: 583662

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Acrolein	ND	F1	9.88	ND	F1	ug/L		0	10 - 147		
Acrylonitrile	ND		100	82.1		ug/L		82	38 - 144		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*109*		*80 - 128*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*76 - 132*

Lab Sample ID: 440-256127-F-1 MSD
Matrix: Water
Analysis Batch: 583662

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acrolein	ND	F1	9.88	ND	F1	ug/L		0	10 - 147	NC	40
Acrylonitrile	ND		100	88.2		ug/L		88	38 - 144	7	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*108*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*76 - 132*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-583835/5
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/04/19 21:27	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/04/19 21:27	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/04/19 21:27	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/04/19 21:27	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/04/19 21:27	1
2-Hexanone	ND		5.0	2.5	ug/L			12/04/19 21:27	1
Acetone	ND		20	10	ug/L			12/04/19 21:27	1
Acetonitrile	ND		20	10	ug/L			12/04/19 21:27	1
Acrolein	ND		5.0	2.5	ug/L			12/04/19 21:27	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/04/19 21:27	1
Benzene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Allyl chloride	ND		1.0	0.50	ug/L			12/04/19 21:27	1
Bromoform	ND		1.0	0.40	ug/L			12/04/19 21:27	1
Bromomethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/04/19 21:27	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Chloroethane	ND		1.0	0.40	ug/L			12/04/19 21:27	1
Chloroform	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Chloromethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Dibromomethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/04/19 21:27	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 21:27	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Iodomethane	ND		2.0	1.0	ug/L			12/04/19 21:27	1
Isobutyl alcohol	ND		25	13	ug/L			12/04/19 21:27	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/04/19 21:27	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/04/19 21:27	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 21:27	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/04/19 21:27	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-583835/5
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Naphthalene	ND		1.0	0.40	ug/L			12/04/19 21:27	1
o-Xylene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Propionitrile	ND		20	10	ug/L			12/04/19 21:27	1
Styrene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
t-Butanol	ND		10	5.0	ug/L			12/04/19 21:27	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/04/19 21:27	1
Toluene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/04/19 21:27	1
Trichloroethene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/04/19 21:27	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/04/19 21:27	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/04/19 21:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/04/19 21:27	1

Tentatively Identified Compound	*Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*12/04/19 21:27*	*1*

Surrogate	*%Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 128*		*12/04/19 21:27*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*12/04/19 21:27*	*1*
Dibromofluoromethane (Surr)	*101*		*76 - 132*		*12/04/19 21:27*	*1*

Lab Sample ID: LCS 440-583835/1004
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	25.0	23.4		ug/L		93	63 - 130
1,1,1,2-Tetrachloroethane	25.0	23.9		ug/L		96	60 - 141
1,1,1-Trichloroethane	25.0	23.6		ug/L		94	70 - 130
1,1,2,2-Tetrachloroethane	25.0	23.5		ug/L		94	63 - 130
1,1,2-Trichloroethane	25.0	25.3		ug/L		101	70 - 130
1,1-Dichloroethane	25.0	25.2		ug/L		101	64 - 130
1,1-Dichloroethene	25.0	24.1		ug/L		96	70 - 130
1,1-Dichloropropene	25.0	26.5		ug/L		106	70 - 130
1,2,4-Trichlorobenzene	25.0	25.1		ug/L		100	60 - 140
1,2-Dibromo-3-Chloropropane	25.0	26.5		ug/L		106	52 - 140
1,2-Dichlorobenzene	25.0	24.0		ug/L		96	70 - 130
1,2-Dichloroethane	25.0	24.7		ug/L		99	57 - 138
1,2-Dichloropropane	25.0	27.4		ug/L		110	67 - 130
1,3-Dichlorobenzene	25.0	24.0		ug/L		96	70 - 130
1,3-Dichloropropane	25.0	25.5		ug/L		102	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-583835/1004
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	25.0	23.0		ug/L		92	70 - 130
2,2-Dichloropropane	25.0	29.4		ug/L		118	68 - 141
2-Hexanone	125	128		ug/L		102	10 - 150
Acetone	125	115		ug/L		92	10 - 150
Acetonitrile	250	224		ug/L		90	49 - 142
Acrolein	24.7	24.1		ug/L		97	10 - 145
Acrylonitrile	250	251		ug/L		101	48 - 140
Benzene	25.0	25.3		ug/L		101	68 - 130
Allyl chloride	25.0	27.3		ug/L		109	60 - 140
Bromoform	25.0	26.9		ug/L		107	60 - 148
Bromomethane	25.0	23.7		ug/L		95	64 - 139
Carbon disulfide	25.0	22.1		ug/L		88	52 - 136
Carbon tetrachloride	25.0	24.1		ug/L		96	60 - 150
Chlorobenzene	25.0	24.1		ug/L		96	70 - 130
Bromochloromethane	25.0	26.1		ug/L		104	70 - 130
Chloroethane	25.0	21.8		ug/L		87	64 - 135
Chloroform	25.0	23.7		ug/L		95	70 - 130
Chloromethane	25.0	22.3		ug/L		89	47 - 140
cis-1,2-Dichloroethene	25.0	25.0		ug/L		100	70 - 133
cis-1,3-Dichloropropene	25.0	26.7		ug/L		107	70 - 133
Dibromochloromethane	25.0	25.7		ug/L		103	69 - 145
Dibromomethane	25.0	26.2		ug/L		105	70 - 130
Bromodichloromethane	25.0	27.2		ug/L		109	70 - 132
Dichlorodifluoromethane	25.0	24.2		ug/L		97	29 - 150
Ethyl methacrylate	25.0	27.6		ug/L		110	60 - 140
Ethylbenzene	25.0	24.0		ug/L		96	70 - 130
Iodomethane	25.0	21.1		ug/L		85	60 - 140
Isobutyl alcohol	625	748		ug/L		120	56 - 140
m,p-Xylene	25.0	25.1		ug/L		100	70 - 130
Methylene Chloride	25.0	20.2		ug/L		81	52 - 130
Methyl tert-butyl ether	25.0	25.4		ug/L		102	63 - 131
Naphthalene	25.0	26.1		ug/L		104	60 - 140
o-Xylene	25.0	24.7		ug/L		99	70 - 130
Propionitrile	250	251		ug/L		100	52 - 142
Styrene	25.0	26.6		ug/L		107	70 - 134
t-Butanol	250	279		ug/L		112	70 - 130
Tetrachloroethene	25.0	24.3		ug/L		97	70 - 130
Tetrahydrofuran	50.0	48.2		ug/L		96	36 - 147
Toluene	25.0	22.3		ug/L		89	70 - 130
trans-1,2-Dichloroethene	25.0	24.7		ug/L		99	70 - 130
trans-1,3-Dichloropropene	25.0	28.5		ug/L		114	70 - 132
trans-1,4-Dichloro-2-butene	25.0	28.3		ug/L		113	44 - 140
Trichloroethene	25.0	26.1		ug/L		104	70 - 130
Trichlorofluoromethane	25.0	25.1		ug/L		100	60 - 150
Vinyl acetate	25.0	29.3		ug/L		117	48 - 140
Vinyl chloride	25.0	21.4		ug/L		86	59 - 133
1,2-Dibromoethane (EDB)	25.0	25.2		ug/L		101	70 - 130
2-Butanone (MEK)	125	132		ug/L		106	44 - 150
4-Methyl-2-pentanone (MIBK)	125	118		ug/L		95	59 - 149

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	96		80 - 128
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	95		76 - 132

Lab Sample ID: 440-256137-A-1 MS
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	ND		250	253		ug/L		101	60 - 130
1,1,1,2-Tetrachloroethane	ND		250	240		ug/L		96	60 - 149
1,1,1-Trichloroethane	ND		250	190		ug/L		76	70 - 130
1,1,2,2-Tetrachloroethane	ND		250	249		ug/L		100	63 - 130
1,1,2-Trichloroethane	ND		250	268		ug/L		107	70 - 130
1,1-Dichloroethane	ND		250	231		ug/L		92	65 - 130
1,1-Dichloroethene	ND	F1	250	151	F1	ug/L		60	70 - 130
1,1-Dichloropropene	ND		250	204		ug/L		81	64 - 130
1,2,4-Trichlorobenzene	ND		250	254		ug/L		102	60 - 140
1,2-Dibromo-3-Chloropropane	ND		250	261		ug/L		104	48 - 140
1,2-Dichlorobenzene	ND		250	237		ug/L		95	70 - 130
1,2-Dichloroethane	14		250	253		ug/L		96	56 - 146
1,2-Dichloropropane	ND		250	266		ug/L		106	69 - 130
1,3-Dichlorobenzene	ND		250	236		ug/L		94	70 - 130
1,3-Dichloropropane	ND		250	261		ug/L		105	70 - 130
1,4-Dichlorobenzene	ND		250	227		ug/L		91	70 - 130
2,2-Dichloropropane	ND		250	252		ug/L		101	69 - 138
2-Chloro-1,3-butadiene	ND		625	441		ug/L		70	49 - 140
2-Hexanone	ND		1250	1360		ug/L		109	10 - 150
Acetone	2300		1250	2790		ug/L		37	10 - 150
Acetonitrile	ND		2500	2350		ug/L		94	37 - 140
Acrolein	ND		247	198		ug/L		80	10 - 147
Acrylonitrile	ND		2500	2560		ug/L		103	38 - 144
Benzene	ND		250	238		ug/L		95	66 - 130
Allyl chloride	ND		250	265		ug/L		106	52 - 140
Bromoform	ND		250	281		ug/L		112	59 - 150
Bromomethane	ND		250	204		ug/L		82	62 - 131
Carbon disulfide	ND		250	161		ug/L		64	49 - 140
Carbon tetrachloride	ND		250	179		ug/L		72	60 - 150
Chlorobenzene	ND		250	242		ug/L		97	70 - 130
Bromochloromethane	ND		250	258		ug/L		103	70 - 130
Chloroethane	ND		250	187		ug/L		75	68 - 130
Chloroform	ND		250	234		ug/L		93	70 - 130
Chloromethane	ND		250	184		ug/L		74	39 - 144
cis-1,2-Dichloroethene	ND		250	235		ug/L		94	70 - 130
cis-1,3-Dichloropropene	ND		250	268		ug/L		107	70 - 133
Dibromochloromethane	ND		250	267		ug/L		107	70 - 148
Dibromomethane	ND		250	265		ug/L		106	70 - 130
Bromodichloromethane	ND		250	268		ug/L		107	70 - 138
Dichlorodifluoromethane	ND		250	115		ug/L		46	25 - 142
Ethyl methacrylate	ND		250	276		ug/L		111	10 - 150
Ethylbenzene	ND		250	229		ug/L		91	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256137-A-1 MS
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iodomethane	ND		250	190		ug/L		76	60 - 140
Isobutyl alcohol	ND		6250	3550		ug/L		57	10 - 150
m,p-Xylene	ND		250	237		ug/L		95	70 - 133
Methylacrylonitrile	ND		6250	5150		ug/L		82	55 - 141
Methyl methacrylate	ND		1250	1440		ug/L		115	51 - 140
Methylene Chloride	ND		250	199		ug/L		80	52 - 130
Methyl tert-butyl ether	160		250	399		ug/L		96	70 - 130
Naphthalene	ND		250	264		ug/L		106	60 - 140
o-Xylene	ND		250	242		ug/L		97	70 - 133
Propionitrile	ND		2500	2340		ug/L		94	38 - 146
Styrene	ND		250	262		ug/L		105	29 - 150
t-Butanol	25000	E	2500	29900	E 4	ug/L		180	70 - 130
Tetrachloroethene	ND		250	232		ug/L		93	70 - 137
Tetrahydrofuran	ND		500	658		ug/L		132	22 - 140
Toluene	ND		250	220		ug/L		88	70 - 130
trans-1,2-Dichloroethene	ND		250	204		ug/L		81	70 - 130
trans-1,3-Dichloropropene	ND		250	291		ug/L		116	70 - 138
trans-1,4-Dichloro-2-butene	ND		250	318		ug/L		127	10 - 150
Trichloroethene	ND		250	233		ug/L		93	70 - 130
Trichlorofluoromethane	ND		250	191		ug/L		76	60 - 150
Vinyl acetate	ND		250	284		ug/L		114	23 - 150
Vinyl chloride	ND		250	151		ug/L		60	50 - 137
1,2-Dibromoethane (EDB)	ND		250	257		ug/L		103	70 - 131
2-Butanone (MEK)	ND		1250	1250		ug/L		100	48 - 140
4-Methyl-2-pentanone (MIBK)	ND		1250	1290		ug/L		103	52 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*80 - 128*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*76 - 132*

Lab Sample ID: 440-256137-A-1 MSD
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	ND		250	254		ug/L		101	60 - 130	0	30
1,1,1,2-Tetrachloroethane	ND		250	240		ug/L		96	60 - 149	0	20
1,1,1-Trichloroethane	ND		250	202		ug/L		81	70 - 130	6	20
1,1,2,2-Tetrachloroethane	ND		250	256		ug/L		102	63 - 130	3	30
1,1,2-Trichloroethane	ND		250	263		ug/L		105	70 - 130	2	25
1,1-Dichloroethane	ND		250	233		ug/L		93	65 - 130	1	20
1,1-Dichloroethene	ND	F1	250	183		ug/L		73	70 - 130	19	20
1,1-Dichloropropene	ND		250	215		ug/L		86	64 - 130	5	20
1,2,4-Trichlorobenzene	ND		250	263		ug/L		105	60 - 140	3	20
1,2-Dibromo-3-Chloropropane	ND		250	272		ug/L		109	48 - 140	4	30
1,2-Dichlorobenzene	ND		250	241		ug/L		96	70 - 130	2	20
1,2-Dichloroethane	14		250	255		ug/L		97	56 - 146	1	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256137-A-1 MSD
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloropropane	ND		250	273		ug/L		109	69 - 130	2	20
1,3-Dichlorobenzene	ND		250	240		ug/L		96	70 - 130	2	20
1,3-Dichloropropane	ND		250	264		ug/L		106	70 - 130	1	25
1,4-Dichlorobenzene	ND		250	232		ug/L		93	70 - 130	2	20
2,2-Dichloropropane	ND		250	253		ug/L		101	69 - 138	0	25
2-Chloro-1,3-butadiene	ND		625	456		ug/L		73	49 - 140	3	40
2-Hexanone	ND		1250	1310		ug/L		105	10 - 150	3	35
Acetone	2300		1250	2970		ug/L		51	10 - 150	6	35
Acetonitrile	ND		2500	2300		ug/L		92	37 - 140	2	40
Acrolein	ND		247	204		ug/L		83	10 - 147	3	40
Acrylonitrile	ND		2500	2570		ug/L		103	38 - 144	0	40
Benzene	ND		250	238		ug/L		95	66 - 130	0	20
Allyl chloride	ND		250	186		ug/L		75	52 - 140	35	40
Bromoform	ND		250	278		ug/L		111	59 - 150	1	25
Bromomethane	ND		250	206		ug/L		82	62 - 131	1	25
Carbon disulfide	ND		250	166		ug/L		66	49 - 140	3	20
Carbon tetrachloride	ND		250	184		ug/L		74	60 - 150	3	25
Chlorobenzene	ND		250	238		ug/L		95	70 - 130	2	20
Bromochloromethane	ND		250	261		ug/L		104	70 - 130	1	25
Chloroethane	ND		250	186		ug/L		74	68 - 130	1	25
Chloroform	ND		250	238		ug/L		95	70 - 130	2	20
Chloromethane	ND		250	193		ug/L		77	39 - 144	5	25
cis-1,2-Dichloroethene	ND		250	238		ug/L		95	70 - 130	1	20
cis-1,3-Dichloropropene	ND		250	268		ug/L		107	70 - 133	0	20
Dibromochloromethane	ND		250	270		ug/L		108	70 - 148	1	25
Dibromomethane	ND		250	256		ug/L		102	70 - 130	3	25
Bromodichloromethane	ND		250	270		ug/L		108	70 - 138	1	20
Dichlorodifluoromethane	ND		250	142		ug/L		57	25 - 142	21	30
Ethyl methacrylate	ND		250	276		ug/L		111	10 - 150	0	40
Ethylbenzene	ND		250	233		ug/L		93	70 - 130	2	20
Iodomethane	ND		250	194		ug/L		77	60 - 140	2	30
Isobutyl alcohol	ND		6250	2610		ug/L		42	10 - 150	31	35
m,p-Xylene	ND		250	236		ug/L		94	70 - 133	1	25
Methylacrylonitrile	ND		6250	5300		ug/L		85	55 - 141	3	40
Methyl methacrylate	ND		1250	1480		ug/L		119	51 - 140	3	40
Methylene Chloride	ND		250	203		ug/L		81	52 - 130	2	20
Methyl tert-butyl ether	160		250	406		ug/L		99	70 - 130	2	25
Naphthalene	ND		250	268		ug/L		107	60 - 140	1	30
o-Xylene	ND		250	236		ug/L		94	70 - 133	3	20
Propionitrile	ND		2500	2330		ug/L		93	38 - 146	0	40
Styrene	ND		250	255		ug/L		102	29 - 150	3	35
t-Butanol	25000	E	2500	29900	E 4	ug/L		180	70 - 130	0	25
Tetrachloroethene	ND		250	244		ug/L		98	70 - 137	5	20
Tetrahydrofuran	ND		500	580		ug/L		116	22 - 140	12	30
Toluene	ND		250	223		ug/L		89	70 - 130	1	20
trans-1,2-Dichloroethene	ND		250	210		ug/L		84	70 - 130	3	20
trans-1,3-Dichloropropene	ND		250	285		ug/L		114	70 - 138	2	25
trans-1,4-Dichloro-2-butene	ND		250	306		ug/L		122	10 - 150	4	30
Trichloroethene	ND		250	236		ug/L		95	70 - 130	1	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256137-A-1 MSD
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichlorofluoromethane	ND		250	215		ug/L		86	60 - 150	12	25
Vinyl acetate	ND		250	275		ug/L		110	23 - 150	3	30
Vinyl chloride	ND		250	162		ug/L		65	50 - 137	7	30
1,2-Dibromoethane (EDB)	ND		250	255		ug/L		102	70 - 131	1	25
2-Butanone (MEK)	ND		1250	1330		ug/L		106	48 - 140	6	40
4-Methyl-2-pentanone (MIBK)	ND		1250	1250		ug/L		100	52 - 150	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*98*		*80 - 128*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*76 - 132*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-583429/1-A
Matrix: Water
Analysis Batch: 583682

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 583429

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1.0	0.25	ug/L		12/03/19 06:32	12/04/19 09:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*54*		*30 - 120*	*12/03/19 06:32*	*12/04/19 09:48*	*1*

Lab Sample ID: LCS 440-583429/3-A
Matrix: Water
Analysis Batch: 583682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 583429

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			2.00	1.53		ug/L		77	35 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*76*		*30 - 120*

Lab Sample ID: LCSD 440-583429/4-A
Matrix: Water
Analysis Batch: 583682

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 583429

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			2.00	1.59		ug/L		80	35 - 120	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*77*		*30 - 120*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-583225/6
Matrix: Water
Analysis Batch: 583225

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.11	0.055	mg/L			12/02/19 11:31	1

Lab Sample ID: LCS 440-583225/5
Matrix: Water
Analysis Batch: 583225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.13	1.13		mg/L		100	90 - 110

Lab Sample ID: 440-255975-B-1 MS
Matrix: Water
Analysis Batch: 583225

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	ND		1.13	1.12		mg/L		99	80 - 120

Lab Sample ID: 440-255975-B-1 MSD
Matrix: Water
Analysis Batch: 583225

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	ND		1.13	1.14		mg/L		101	80 - 120	2	20

Lab Sample ID: MB 440-583226/6
Matrix: Water
Analysis Batch: 583226

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.50	0.25	mg/L			12/02/19 11:31	1
Chloride	ND		0.50	0.25	mg/L			12/02/19 11:31	1
Fluoride	ND		0.50	0.25	mg/L			12/02/19 11:31	1
Sulfate	ND		0.50	0.25	mg/L			12/02/19 11:31	1

Lab Sample ID: LCS 440-583226/5
Matrix: Water
Analysis Batch: 583226

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.03		mg/L		101	90 - 110
Chloride	5.00	5.00		mg/L		100	90 - 110
Fluoride	5.00	4.64		mg/L		93	90 - 110
Sulfate	5.00	4.83		mg/L		97	90 - 110

Lab Sample ID: 440-255975-B-1 MS
Matrix: Water
Analysis Batch: 583226

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	ND		5.00	5.18		mg/L		104	80 - 120
Chloride	27	E	5.00	33.2	E 4	mg/L		123	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 440-255975-B-1 MS
Matrix: Water
Analysis Batch: 583226

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	ND		5.00	4.81		mg/L		96	80 - 120
Sulfate	76	E	5.00	82.5	E 4	mg/L		123	80 - 120

Lab Sample ID: 440-255975-B-1 MSD
Matrix: Water
Analysis Batch: 583226

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	ND		5.00	5.23		mg/L		105	80 - 120	1	20
Chloride	27	E	5.00	33.2	E 4	mg/L		125	80 - 120	0	20
Fluoride	ND		5.00	4.83		mg/L		97	80 - 120	0	20
Sulfate	76	E	5.00	82.7	E 4	mg/L		127	80 - 120	0	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-583517/1-A
Matrix: Water
Analysis Batch: 583843

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 583517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.025	mg/L		12/03/19 11:15	12/04/19 14:32	1
Calcium	ND		0.10	0.050	mg/L		12/03/19 11:15	12/04/19 14:32	1
Iron	ND		0.10	0.050	mg/L		12/03/19 11:15	12/04/19 14:32	1
Magnesium	ND		0.020	0.010	mg/L		12/03/19 11:15	12/04/19 14:32	1
Manganese	ND		0.020	0.015	mg/L		12/03/19 11:15	12/04/19 14:32	1
Potassium	ND		0.50	0.25	mg/L		12/03/19 11:15	12/04/19 14:32	1
Sodium	ND		0.50	0.26	mg/L		12/03/19 11:15	12/04/19 14:32	1

Lab Sample ID: LCS 440-583517/2-A
Matrix: Water
Analysis Batch: 583843

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 583517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.973		mg/L		97	80 - 120
Calcium	5.00	4.86		mg/L		97	80 - 120
Iron	1.00	1.03		mg/L		103	80 - 120
Magnesium	5.00	4.85		mg/L		97	80 - 120
Manganese	1.00	0.977		mg/L		98	80 - 120
Potassium	10.0	9.69		mg/L		97	80 - 120
Sodium	10.0	9.71		mg/L		97	80 - 120

Lab Sample ID: 440-256012-1 MS
Matrix: Water
Analysis Batch: 583843

Client Sample ID: Combined Subdrains
Prep Type: Total Recoverable
Prep Batch: 583517

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.68		1.00	1.73		mg/L		106	75 - 125
Calcium	340		5.00	361	4	mg/L		426	75 - 125
Iron	8.5		1.00	10.0	4	mg/L		148	75 - 125
Magnesium	240		5.00	252	4	mg/L		324	75 - 125

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-256012-1 MS
Matrix: Water
Analysis Batch: 583843

Client Sample ID: Combined Subdrains
Prep Type: Total Recoverable
Prep Batch: 583517

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	3.7		1.00	4.79		mg/L		113	75 - 125
Potassium	14		10.0	24.6		mg/L		105	75 - 125
Sodium	210		10.0	230	4	mg/L		211	75 - 125

Lab Sample ID: 440-256012-1 MSD
Matrix: Water
Analysis Batch: 583843

Client Sample ID: Combined Subdrains
Prep Type: Total Recoverable
Prep Batch: 583517

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.68		1.00	1.77		mg/L		109	75 - 125	2	20
Calcium	340		5.00	365	4	mg/L		506	75 - 125	1	20
Iron	8.5		1.00	10.1	4	mg/L		161	75 - 125	1	20
Magnesium	240		5.00	254	4	mg/L		368	75 - 125	1	20
Manganese	3.7		1.00	4.86		mg/L		119	75 - 125	1	20
Potassium	14		10.0	25.2		mg/L		111	75 - 125	2	20
Sodium	210		10.0	232	4	mg/L		231	75 - 125	1	20

Lab Sample ID: MB 440-583719/1-A
Matrix: Water
Analysis Batch: 584062

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 583719

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.025	mg/L		12/04/19 10:14	12/05/19 13:01	1
Calcium	0.0682	J	0.10	0.050	mg/L		12/04/19 10:14	12/05/19 13:01	1
Iron	0.275		0.10	0.050	mg/L		12/04/19 10:14	12/05/19 13:01	1
Magnesium	ND		0.020	0.010	mg/L		12/04/19 10:14	12/05/19 13:01	1
Manganese	ND		0.020	0.015	mg/L		12/04/19 10:14	12/05/19 13:01	1
Potassium	ND		0.50	0.25	mg/L		12/04/19 10:14	12/05/19 13:01	1
Sodium	ND		0.50	0.26	mg/L		12/04/19 10:14	12/05/19 13:01	1

Lab Sample ID: LCS 440-583719/2-A
Matrix: Water
Analysis Batch: 584062

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 583719

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.990		mg/L		99	80 - 120
Calcium	5.00	4.97		mg/L		99	80 - 120
Iron	1.00	1.06		mg/L		106	80 - 120
Magnesium	5.00	4.92		mg/L		98	80 - 120
Manganese	1.00	0.996		mg/L		100	80 - 120
Potassium	10.0	9.78		mg/L		98	80 - 120
Sodium	10.0	9.91		mg/L		99	80 - 120

Lab Sample ID: 440-256094-U-1-B MS
Matrix: Water
Analysis Batch: 584062

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 583719

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.14		1.00	1.19		mg/L		105	75 - 125
Calcium	110	B	5.00	119	4	mg/L		114	75 - 125

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-256094-U-1-B MS
Matrix: Water
Analysis Batch: 584062

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 583719

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.13	B	1.00	1.17		mg/L		104	75 - 125
Magnesium	32		5.00	37.1	4	mg/L		103	75 - 125
Manganese	0.31		1.00	1.30		mg/L		100	75 - 125
Potassium	5.9		10.0	15.8		mg/L		99	75 - 125
Sodium	86		10.0	96.8	4	mg/L		103	75 - 125

Lab Sample ID: 440-256094-U-1-C MSD
Matrix: Water
Analysis Batch: 584062

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 583719

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.14		1.00	1.20		mg/L		106	75 - 125	1	20
Calcium	110	B	5.00	116	4	mg/L		66	75 - 125	2	20
Iron	0.13	B	1.00	1.17		mg/L		104	75 - 125	0	20
Magnesium	32		5.00	36.4	4	mg/L		89	75 - 125	2	20
Manganese	0.31		1.00	1.31		mg/L		101	75 - 125	1	20
Potassium	5.9		10.0	15.9		mg/L		100	75 - 125	0	20
Sodium	86		10.0	95.2	4	mg/L		87	75 - 125	2	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 440-583573/10
Matrix: Water
Analysis Batch: 583573

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			12/03/19 12:20	1

Lab Sample ID: LCS 440-583573/11
Matrix: Water
Analysis Batch: 583573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	5.00	5.19		mg/L		104	90 - 110

Lab Sample ID: MRL 440-583573/9
Matrix: Water
Analysis Batch: 583573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.200	0.207		mg/L		104	50 - 150

Lab Sample ID: 440-256012-1 MS
Matrix: Water
Analysis Batch: 583573

Client Sample ID: Combined Subdrains
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	1.9	F1	5.00	5.82	F1	mg/L		79	90 - 110

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 440-256012-1 MSD
Matrix: Water
Analysis Batch: 583573

Client Sample ID: Combined Subdrains
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	1.9	F1	5.00	5.97	F1	mg/L		82	90 - 110	3	15

Lab Sample ID: MB 440-584635/10
Matrix: Water
Analysis Batch: 584635

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			12/04/19 11:14	1

Lab Sample ID: LCS 440-584635/11
Matrix: Water
Analysis Batch: 584635

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	5.00	4.98		mg/L		100	90 - 110

Lab Sample ID: MRL 440-584635/9
Matrix: Water
Analysis Batch: 584635

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.200	0.152	J	mg/L		76	50 - 150

Lab Sample ID: 440-255630-B-3 MS
Matrix: Water
Analysis Batch: 584635

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	ND	F1	5.00	4.29	F1	mg/L		86	90 - 110

Lab Sample ID: 440-255630-B-3 MSD
Matrix: Water
Analysis Batch: 584635

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	ND	F1	5.00	4.39	F1	mg/L		88	90 - 110	2	15

Method: 410.4 - COD

Lab Sample ID: MB 440-585322/3
Matrix: Water
Analysis Batch: 585322

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			12/11/19 15:47	1

Method: 410.4 - COD (Continued)

Lab Sample ID: LCS 440-585322/4
Matrix: Water
Analysis Batch: 585322

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			200	195		mg/L		98	90 - 110		

Lab Sample ID: 720-96261-C-2 MS
Matrix: Water
Analysis Batch: 585322

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	30		200	211		mg/L		91	70 - 120		

Lab Sample ID: 720-96261-C-2 MSD
Matrix: Water
Analysis Batch: 585322

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	30		200	209		mg/L		90	70 - 120	1	15

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 440-583785/3
Matrix: Water
Analysis Batch: 583785

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		4.0	4.0	mg/L			12/04/19 06:08	1
Bicarbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			12/04/19 06:08	1

Lab Sample ID: LCS 440-583785/2
Matrix: Water
Analysis Batch: 583785

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity as CaCO3			68.2	68.3		mg/L		100	80 - 120		

Lab Sample ID: 440-256094-M-11 DU
Matrix: Water
Analysis Batch: 583785

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity as CaCO3	140		135		mg/L		0.4	20
Bicarbonate Alkalinity as CaCO3	140		135		mg/L		0.4	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 440-583467/1
Matrix: Water
Analysis Batch: 583467

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	5.0	mg/L			12/03/19 09:30	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 440-583467/2
Matrix: Water
Analysis Batch: 583467

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	960		mg/L		96	90 - 110		

Lab Sample ID: 440-256022-G-8 DU
Matrix: Water
Analysis Batch: 583467

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	5600			5390		mg/L				3	5

Lab Sample ID: MB 440-583708/1
Matrix: Water
Analysis Batch: 583708

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	5.0	mg/L			12/04/19 09:48	1

Lab Sample ID: LCS 440-583708/2
Matrix: Water
Analysis Batch: 583708

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	964		mg/L		96	90 - 110		

Lab Sample ID: 440-256002-D-1 DU
Matrix: Water
Analysis Batch: 583708

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	590			615		mg/L				3	5

Method: SM 4500 CO2 C - Free Carbon Dioxide

Lab Sample ID: MB 440-586253/1
Matrix: Water
Analysis Batch: 586253

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon Dioxide, Free	ND		2.0	2.0	mg/L			12/16/19 16:49	1

Lab Sample ID: 440-256012-1 DU
Matrix: Water
Analysis Batch: 586253

Client Sample ID: Combined Subdrains
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Carbon Dioxide, Free	84			86.2		mg/L				2	20

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-583586/3
Matrix: Water
Analysis Batch: 583586

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Sulfide	ND		0.050	0.027	mg/L			12/03/19 16:53	1

Lab Sample ID: LCS 440-583586/4
Matrix: Water
Analysis Batch: 583586

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Sulfide	0.500	0.520		mg/L		104	80 - 120

Lab Sample ID: LCSD 440-583586/5
Matrix: Water
Analysis Batch: 583586

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Sulfide	0.500	0.574		mg/L		115	80 - 120	10	20

Lab Sample ID: 440-256012-1 MS
Matrix: Water
Analysis Batch: 583586

Client Sample ID: Combined Subdrains
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Sulfide	0.063		0.500	0.441		mg/L		75	70 - 130

Lab Sample ID: 440-256012-1 MSD
Matrix: Water
Analysis Batch: 583586

Client Sample ID: Combined Subdrains
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Sulfide	0.063		0.500	0.456		mg/L		79	70 - 130	3	30

Method: SM 5310C - TOC

Lab Sample ID: MB 440-583921/9
Matrix: Water
Analysis Batch: 583921

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			12/04/19 09:04	1

Lab Sample ID: LCS 440-583921/8
Matrix: Water
Analysis Batch: 583921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	5.12		mg/L		102	85 - 115

Method: SM 5310C - TOC (Continued)

Lab Sample ID: MRL 440-583921/7
Matrix: Water
Analysis Batch: 583921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.121		mg/L		121	50 - 150

Lab Sample ID: 440-256122-A-1 MS
Matrix: Water
Analysis Batch: 583921

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.40		5.00	5.54		mg/L		103	85 - 115

Lab Sample ID: 440-256122-A-1 MSD
Matrix: Water
Analysis Batch: 583921

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	0.40		5.00	5.40		mg/L		100	85 - 115	3	20

Lab Sample ID: MB 440-584163/8
Matrix: Water
Analysis Batch: 584163

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			12/05/19 06:31	1

Lab Sample ID: LCS 440-584163/7
Matrix: Water
Analysis Batch: 584163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	4.96		mg/L		99	85 - 115

Lab Sample ID: MRL 440-584163/6
Matrix: Water
Analysis Batch: 584163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.0763	J	mg/L		76	50 - 150

Lab Sample ID: 440-256127-J-6 MS
Matrix: Water
Analysis Batch: 584163

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.8		5.00	10.5		mg/L		115	85 - 115

Lab Sample ID: 440-256127-J-6 MSD
Matrix: Water
Analysis Batch: 584163

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	4.8		5.00	10.5		mg/L		114	85 - 115	0	20

GC/MS VOA

Analysis Batch: 583662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-1	Combined Subdrains	Total/NA	Water	8260B	
440-256012-2	Subdrain N	Total/NA	Water	8260B	
440-256012-3	PZ-2	Total/NA	Water	8260B	
440-256012-4	CM-9R	Total/NA	Water	8260B	
440-256012-5	CM-11R	Total/NA	Water	8260B	
440-256012-6	MW-Dup.	Total/NA	Water	8260B	
440-256012-7	Field Blank	Total/NA	Water	8260B	
440-256012-8	Trip Blank	Total/NA	Water	8260B	
MB 440-583662/5	Method Blank	Total/NA	Water	8260B	
LCS 440-583662/1002	Lab Control Sample	Total/NA	Water	8260B	
440-256127-E-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-256127-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 583835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-1	Combined Subdrains	Total/NA	Water	8260B	
440-256012-2	Subdrain N	Total/NA	Water	8260B	
440-256012-3	PZ-2	Total/NA	Water	8260B	
440-256012-4	CM-9R	Total/NA	Water	8260B	
440-256012-5	CM-11R	Total/NA	Water	8260B	
440-256012-6	MW-Dup.	Total/NA	Water	8260B	
440-256012-7	Field Blank	Total/NA	Water	8260B	
440-256012-8	Trip Blank	Total/NA	Water	8260B	
MB 440-583835/5	Method Blank	Total/NA	Water	8260B	
LCS 440-583835/1004	Lab Control Sample	Total/NA	Water	8260B	
440-256137-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-256137-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 583429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-1	Combined Subdrains	Total/NA	Water	3520C	
440-256012-2	Subdrain N	Total/NA	Water	3520C	
440-256012-3	PZ-2	Total/NA	Water	3520C	
440-256012-4	CM-9R	Total/NA	Water	3520C	
440-256012-5	CM-11R	Total/NA	Water	3520C	
440-256012-6	MW-Dup.	Total/NA	Water	3520C	
MB 440-583429/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-583429/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-583429/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 583682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-1	Combined Subdrains	Total/NA	Water	8270C	583429
440-256012-2	Subdrain N	Total/NA	Water	8270C	583429
440-256012-3	PZ-2	Total/NA	Water	8270C	583429
440-256012-4	CM-9R	Total/NA	Water	8270C	583429
440-256012-5	CM-11R	Total/NA	Water	8270C	583429
440-256012-6	MW-Dup.	Total/NA	Water	8270C	583429
MB 440-583429/1-A	Method Blank	Total/NA	Water	8270C	583429

GC/MS Semi VOA (Continued)

Analysis Batch: 583682 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-583429/3-A	Lab Control Sample	Total/NA	Water	8270C	583429
LCSD 440-583429/4-A	Lab Control Sample Dup	Total/NA	Water	8270C	583429

HPLC/IC

Analysis Batch: 583225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-1	Combined Subdrains	Total/NA	Water	300.0	
440-256012-2	Subdrain N	Total/NA	Water	300.0	
440-256012-3	PZ-2	Total/NA	Water	300.0	
440-256012-4	CM-9R	Total/NA	Water	300.0	
440-256012-5	CM-11R	Total/NA	Water	300.0	
440-256012-6	MW-Dup.	Total/NA	Water	300.0	
MB 440-583225/6	Method Blank	Total/NA	Water	300.0	
LCS 440-583225/5	Lab Control Sample	Total/NA	Water	300.0	
440-255975-B-1 MS	Matrix Spike	Total/NA	Water	300.0	
440-255975-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 583226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-1	Combined Subdrains	Total/NA	Water	300.0	
440-256012-1	Combined Subdrains	Total/NA	Water	300.0	
440-256012-2	Subdrain N	Total/NA	Water	300.0	
440-256012-2	Subdrain N	Total/NA	Water	300.0	
440-256012-3	PZ-2	Total/NA	Water	300.0	
440-256012-3	PZ-2	Total/NA	Water	300.0	
440-256012-4	CM-9R	Total/NA	Water	300.0	
440-256012-4	CM-9R	Total/NA	Water	300.0	
440-256012-5	CM-11R	Total/NA	Water	300.0	
440-256012-5	CM-11R	Total/NA	Water	300.0	
440-256012-6	MW-Dup.	Total/NA	Water	300.0	
440-256012-6	MW-Dup.	Total/NA	Water	300.0	
MB 440-583226/6	Method Blank	Total/NA	Water	300.0	
LCS 440-583226/5	Lab Control Sample	Total/NA	Water	300.0	
440-255975-B-1 MS	Matrix Spike	Total/NA	Water	300.0	
440-255975-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 583517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-1	Combined Subdrains	Total Recoverable	Water	3005A	
440-256012-3	PZ-2	Total Recoverable	Water	3005A	
440-256012-4	CM-9R	Total Recoverable	Water	3005A	
440-256012-5	CM-11R	Total Recoverable	Water	3005A	
440-256012-6	MW-Dup.	Total Recoverable	Water	3005A	
MB 440-583517/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-583517/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-256012-1 MS	Combined Subdrains	Total Recoverable	Water	3005A	
440-256012-1 MSD	Combined Subdrains	Total Recoverable	Water	3005A	

Metals

Prep Batch: 583719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-2	Subdrain N	Total Recoverable	Water	3005A	
MB 440-583719/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-583719/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-256094-U-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
440-256094-U-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 583843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-1	Combined Subdrains	Total Recoverable	Water	6010B	583517
440-256012-3	PZ-2	Total Recoverable	Water	6010B	583517
440-256012-4	CM-9R	Total Recoverable	Water	6010B	583517
440-256012-5	CM-11R	Total Recoverable	Water	6010B	583517
440-256012-6	MW-Dup.	Total Recoverable	Water	6010B	583517
MB 440-583517/1-A	Method Blank	Total Recoverable	Water	6010B	583517
LCS 440-583517/2-A	Lab Control Sample	Total Recoverable	Water	6010B	583517
440-256012-1 MS	Combined Subdrains	Total Recoverable	Water	6010B	583517
440-256012-1 MSD	Combined Subdrains	Total Recoverable	Water	6010B	583517

Analysis Batch: 584036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-3	PZ-2	Total Recoverable	Water	6010B	583517
440-256012-4	CM-9R	Total Recoverable	Water	6010B	583517
440-256012-5	CM-11R	Total Recoverable	Water	6010B	583517

Analysis Batch: 584062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-583719/1-A	Method Blank	Total Recoverable	Water	6010B	583719
LCS 440-583719/2-A	Lab Control Sample	Total Recoverable	Water	6010B	583719
440-256094-U-1-B MS	Matrix Spike	Total Recoverable	Water	6010B	583719
440-256094-U-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	583719

Analysis Batch: 584804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-2	Subdrain N	Total Recoverable	Water	6010B	583719

General Chemistry

Analysis Batch: 583467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-1	Combined Subdrains	Total/NA	Water	SM 2540C	
440-256012-2	Subdrain N	Total/NA	Water	SM 2540C	
440-256012-3	PZ-2	Total/NA	Water	SM 2540C	
MB 440-583467/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-583467/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-256022-G-8 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 583573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-1	Combined Subdrains	Total/NA	Water	350.1	
MB 440-583573/10	Method Blank	Total/NA	Water	350.1	
LCS 440-583573/11	Lab Control Sample	Total/NA	Water	350.1	

General Chemistry (Continued)

Analysis Batch: 583573 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 440-583573/9	Lab Control Sample	Total/NA	Water	350.1	
440-256012-1 MS	Combined Subdrains	Total/NA	Water	350.1	
440-256012-1 MSD	Combined Subdrains	Total/NA	Water	350.1	

Analysis Batch: 583586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-1	Combined Subdrains	Total/NA	Water	SM 4500 S2 D	
440-256012-2	Subdrain N	Total/NA	Water	SM 4500 S2 D	
440-256012-3	PZ-2	Total/NA	Water	SM 4500 S2 D	
440-256012-4	CM-9R	Total/NA	Water	SM 4500 S2 D	
440-256012-5	CM-11R	Total/NA	Water	SM 4500 S2 D	
440-256012-6	MW-Dup.	Total/NA	Water	SM 4500 S2 D	
MB 440-583586/3	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 440-583586/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 440-583586/5	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	
440-256012-1 MS	Combined Subdrains	Total/NA	Water	SM 4500 S2 D	
440-256012-1 MSD	Combined Subdrains	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 583708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-4	CM-9R	Total/NA	Water	SM 2540C	
440-256012-5	CM-11R	Total/NA	Water	SM 2540C	
440-256012-6	MW-Dup.	Total/NA	Water	SM 2540C	
MB 440-583708/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-583708/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-256002-D-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 583785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-1	Combined Subdrains	Total/NA	Water	SM 2320B	
440-256012-2	Subdrain N	Total/NA	Water	SM 2320B	
440-256012-3	PZ-2	Total/NA	Water	SM 2320B	
440-256012-4	CM-9R	Total/NA	Water	SM 2320B	
440-256012-5	CM-11R	Total/NA	Water	SM 2320B	
440-256012-6	MW-Dup.	Total/NA	Water	SM 2320B	
MB 440-583785/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-583785/2	Lab Control Sample	Total/NA	Water	SM 2320B	
440-256094-M-11 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 583921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-2	Subdrain N	Total/NA	Water	SM 5310C	
440-256012-3	PZ-2	Total/NA	Water	SM 5310C	
440-256012-4	CM-9R	Total/NA	Water	SM 5310C	
440-256012-5	CM-11R	Total/NA	Water	SM 5310C	
440-256012-6	MW-Dup.	Total/NA	Water	SM 5310C	
MB 440-583921/9	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-583921/8	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-583921/7	Lab Control Sample	Total/NA	Water	SM 5310C	
440-256122-A-1 MS	Matrix Spike	Total/NA	Water	SM 5310C	
440-256122-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310C	

General Chemistry

Analysis Batch: 584163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-1	Combined Subdrains	Total/NA	Water	SM 5310C	
MB 440-584163/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-584163/7	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-584163/6	Lab Control Sample	Total/NA	Water	SM 5310C	
440-256127-J-6 MS	Matrix Spike	Total/NA	Water	SM 5310C	
440-256127-J-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310C	

Analysis Batch: 584635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-2	Subdrain N	Total/NA	Water	350.1	
440-256012-3	PZ-2	Total/NA	Water	350.1	
440-256012-4	CM-9R	Total/NA	Water	350.1	
440-256012-5	CM-11R	Total/NA	Water	350.1	
440-256012-6	MW-Dup.	Total/NA	Water	350.1	
MB 440-584635/10	Method Blank	Total/NA	Water	350.1	
LCS 440-584635/11	Lab Control Sample	Total/NA	Water	350.1	
MRL 440-584635/9	Lab Control Sample	Total/NA	Water	350.1	
440-255630-B-3 MS	Matrix Spike	Total/NA	Water	350.1	
440-255630-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 585322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-1	Combined Subdrains	Total/NA	Water	410.4	
440-256012-2	Subdrain N	Total/NA	Water	410.4	
440-256012-3	PZ-2	Total/NA	Water	410.4	
440-256012-4	CM-9R	Total/NA	Water	410.4	
440-256012-5	CM-11R	Total/NA	Water	410.4	
440-256012-6	MW-Dup.	Total/NA	Water	410.4	
MB 440-585322/3	Method Blank	Total/NA	Water	410.4	
LCS 440-585322/4	Lab Control Sample	Total/NA	Water	410.4	
720-96261-C-2 MS	Matrix Spike	Total/NA	Water	410.4	
720-96261-C-2 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	

Analysis Batch: 586253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256012-1	Combined Subdrains	Total/NA	Water	SM 4500 CO2 C	
440-256012-2	Subdrain N	Total/NA	Water	SM 4500 CO2 C	
440-256012-3	PZ-2	Total/NA	Water	SM 4500 CO2 C	
440-256012-4	CM-9R	Total/NA	Water	SM 4500 CO2 C	
440-256012-5	CM-11R	Total/NA	Water	SM 4500 CO2 C	
440-256012-6	MW-Dup.	Total/NA	Water	SM 4500 CO2 C	
MB 440-586253/1	Method Blank	Total/NA	Water	SM 4500 CO2 C	
440-256012-1 DU	Combined Subdrains	Total/NA	Water	SM 4500 CO2 C	

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Geo-Logic Associates
Job ID: 440-256012-1
Project/Site: Republic Sunshine Canyon

Laboratory: Eurofins TestAmerica, Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-20
Arizona	State	AZ0671	10-14-20
California	Los Angeles County Sanitation Districts	10256	06-30-20
California	State	2706	06-30-20
Guam	State	19-005R	01-23-20
Hawaii	State	CA01531	01-29-20
Kansas	NELAP	E-10420	07-31-20
Nevada	State	CA015312020-4	07-31-20
New Mexico	State	CA01531	01-29-20
Oregon	NELAP	4028 - 006	01-29-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-18-00214	07-09-21
Washington	State	C900	09-03-20

Chain of Custody Record

396030 eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TAL-8210

Client Contact			
Company Name: GLA / Republic	Project Manager: Kyle Welchow	Site Contact: Josh Mills	Date: 12-2-19
Address: 1415 W. Bernardo Ct.	Tel/Email: 858-451-1136	Lab Contact: R. Tomova	Carrier: TA
City/State/Zip: S.D., CA 92127	Analysis Turnaround Time: ☐ CALENDAR DAYS ☐ WORKING DAYS		
Phone: 858-451-1136	TAT if different from Below _____		
Fax: 858-451-1087	☐ 2 weeks		
Project Name: Republic Services	☐ 1 week		
Site: Sunshine Cyn.	☐ 2 days		
P O #	☐ 1 day		

COC No: 1 of 1 COCs

Sampler: BC, NR, CV

For Lab Use Only:
Walk-in Client:
Lab Sampling:

Job / SDG No.:

JLL 12/2/19

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA-8260B-VOCs	8270 1,4-Dioxane	Total Alkalinity and Bicarbonate	Ammonia as N	COD-410.4	Chloride, Bromide	NO3-N, Sulfate	6010B-Total Ca, Fe, Mg, Mn, K, Na	TDS-160.1	TOC-415.1	340.2-Fluoride	376.2-Sulfide	SM-4500-Cor	Carbon Dioxide	Sample Specific Notes.
Combined Subdrains	12/2/19	1130	G	WW	13			X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Subdrain N		1215		WW	13			X	X	X	X	X	X	X	X	X	X	X	X	X	X	
PZ-2		1500		GW	13			X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CM-9R		1330		GW	13			X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CM-11R		1200		GW	13			X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MW-Dup.		—		GW	13			X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Field Blank		—		W	4			X														
Trip Blank		—		W	4			X														

440-256012 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: 5.1/5.5 5.4/5.8 | : 5.2/5.6

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp (°C). Obs'd: _____ Corr'd: _____ | Therm ID No.: 94

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Bert [signature]	Geo-Logic	12-2-19 1530	Bryan Taylor	DCS	12-2-19 1530
[signature]	DCS	12/2/19 1610	[signature]		
			Received in Laboratory: [signature]	TA IRV	12/2/19 1810

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-256012-1

Login Number: 256012
List Number: 1
Creator: Soderblom, Tim

List Source: Eurofins TestAmerica, Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-256127-1
Client Project/Site: Republic Sunshine Canyon

For:
Geo-Logic Associates
11415 West Bernardo Court
Suite 200
San Diego, California 92127

Attn: Kyle Welchans

Authorized for release by:
12/17/2019 11:14:40 AM

Rossina Tomova, Project Manager I
(949)260-3276
rossina.tomova@testamericainc.com

LINKS

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Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Client Sample Results 6
Method Summary 33
Lab Chronicle 34
QC Sample Results 39
QC Association Summary 74
Definitions/Glossary 82
Certification Summary 84
Chain of Custody 85
Receipt Checklists 86

Sample Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256127-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-256127-1	DW-4	Water	12/03/19 09:50	12/03/19 16:48	
440-256127-2	MW-2A	Water	12/03/19 08:30	12/03/19 16:48	
440-256127-3	MW-2B	Water	12/03/19 09:15	12/03/19 16:48	
440-256127-4	MW-6	Water	12/03/19 11:30	12/03/19 16:48	
440-256127-5	MW-13R	Water	12/03/19 13:45	12/03/19 16:48	
440-256127-6	MW-14	Water	12/03/19 12:25	12/03/19 16:48	
440-256127-7	DW-1	Water	12/03/19 10:40	12/03/19 16:48	
440-256127-8	Extraction Trench	Water	12/03/19 09:10	12/03/19 16:48	
440-256127-9	LY-7	Water	12/03/19 11:15	12/03/19 16:48	
440-256127-10	Field Blank	Water	12/03/19 00:01	12/03/19 16:48	
440-256127-11	Trip Blank	Water	12/03/19 00:01	12/03/19 16:48	

Job ID: 440-256127-1

Laboratory: Eurofins TestAmerica, Irvine

Narrative

Job Narrative
440-256127-1

Comments
No additional comments.

Receipt
The samples were received on 12/3/2019 4:48 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.0º C, 1.8º C and 2.0º C.

GC/MS VOA
Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 440-583662 were outside control limits for some analytes. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 440-583675 were outside control limits for some analytes. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8260B: The following sample(s) was collected in a properly preserved vial; however, the pH of 3 was outside the required criteria when verified by the laboratory. The sample was analyzed within the 7-day holding time specified for unpreserved samples: Extraction Trench (440-256127-8).

Method 8260B: The laboratory control sample (LCS) for analytical batch 440-583834 recovered outside control limits for the following analyte: Acetonitrile. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with analytical batch 440-583834 were outside control limits: (440-256157-A-4 MS) and (440-256157-A-4 MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) precision for analytical batch 440-583834 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) precision was within acceptance limits.

Method 8260B: The continuing calibration verification (CCV) associated with batch 440-583834 recovered above the upper control limit for Acetonitrile. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: Extraction Trench (440-256127-8), Field Blank (440-256127-10), Trip Blank (440-256127-11) and (CCVIS 440-583834/2).

Method 8260B: The following sample(s) was collected in a properly preserved vial; however, the pH of 7 was outside the required criteria when verified by the laboratory. The sample was analyzed within the 7-day holding time specified for unpreserved samples: LY-7 (440-256127-9).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
Method 300.0: The following samples were diluted for Bromide and/or Fluoride due to the nature of the sample matrix: DW-4 (440-256127-1), MW-2A (440-256127-2), MW-2B (440-256127-3), MW-6 (440-256127-4), DW-1 (440-256127-7) and Extraction Trench (440-256127-8). Elevated reporting limits (RLs) are provided.

Method 300.0: The following sample was diluted due to the nature of the sample matrix: MW-14 (440-256127-6). Elevated reporting limits

Job ID: 440-256127-1 (Continued)

Laboratory: Eurofins TestAmerica, Irvine (Continued)

(RLs) are provided.

Method 300.0: The following samples were diluted for Nitrate as N due to the nature of the sample matrix: DW-4 (440-256127-1), MW-2A (440-256127-2), MW-2B (440-256127-3), MW-6 (440-256127-4), DW-1 (440-256127-7), Extraction Trench (440-256127-8) and LY-7 (440-256127-9). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method 6010B: The method blank for preparation batch 440-583858 and analytical batch 440-584383 contained Calcium and Magnesium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6010B: The method blank (MB) for prep batch 440-583719 and analytical batch 440-584062 contained Iron above the reporting limit (RL). All reported samples associated with this MB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the MB; therefore, re-analysis of samples was not performed.

Method 6010B: The method blank for preparation batch 440-583719 and analytical batch 440-584062 contained Calcium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6010B: The continuing calibration blank (CCB) for 440-584782 contained Magnesium above the method detection limit (MDL). This target analyte concentration was less than the reporting limit (RL).(CCB 440-584782/72)

Method 6010B: The continuing calibration blank (CCB) for 440-585112 contained Magnesium above the method detection limit (MDL). This target analyte concentration was less than the reporting limit (RL).(CCB 440-585112/19)

Method 6010B: The continuing calibration blank (CCB) for 440-585112 contained Sodium above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 6010B: The method blank for preparation batch 440-584948 and analytical batch 440-585112 contained Sodium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 6010B: The continuing calibration blank (CCB) for 440-585112 contained Sodium above the method detection limit (MDL). This target analyte concentration was less than the reporting limit (RL).(CCB 440-585112/30), (CCB 440-585112/41) and (CCB 440-585112/50)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256127-1

Client Sample ID: DW-4
Date Collected: 12/03/19 09:50
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/04/19 12:26	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Acrolein	ND	F1	50	2.5	ug/L			12/04/19 09:01	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 09:01	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 12:26	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 12:26	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 12:26	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 12:26	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 12:26	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 12:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/04/19 12:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/04/19 12:26	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 12:26	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 12:26	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 12:26	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 12:26	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 12:26	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 12:26	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/04/19 12:26	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/04/19 12:26	1
2-Hexanone	ND		5.0	2.5	ug/L			12/04/19 12:26	1
Acetone	ND		20	10	ug/L			12/04/19 12:26	1
Acetonitrile	ND		20	10	ug/L			12/04/19 12:26	1
Acrolein	ND		5.0	2.5	ug/L			12/04/19 12:26	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/04/19 12:26	1
Benzene	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Allyl chloride	ND		1.0	0.50	ug/L			12/04/19 12:26	1
Bromoform	ND		1.0	0.40	ug/L			12/04/19 12:26	1
Bromomethane	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/04/19 12:26	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Chloroethane	ND		1.0	0.40	ug/L			12/04/19 12:26	1
Chloroform	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Chloromethane	ND		0.50	0.25	ug/L			12/04/19 12:26	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 12:26	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Dibromomethane	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/04/19 12:26	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 12:26	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Iodomethane	ND		2.0	1.0	ug/L			12/04/19 12:26	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/04/19 12:26	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/04/19 12:26	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 12:26	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/04/19 12:26	1

Client Sample ID: DW-4

Date Collected: 12/03/19 09:50
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Naphthalene	ND		1.0	0.40	ug/L			12/04/19 12:26	1
o-Xylene	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Propionitrile	ND		20	10	ug/L			12/04/19 12:26	1
Styrene	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/04/19 12:26	1
Toluene	ND		0.50	0.25	ug/L			12/04/19 12:26	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 12:26	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 12:26	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/04/19 12:26	1
Trichloroethene	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/04/19 12:26	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/04/19 12:26	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/04/19 12:26	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/04/19 12:26	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/04/19 12:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/04/19 12:26	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*8.1*	*T J*	*ug/L*		*7.12*			*12/04/19 12:26*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*110*		*80 - 128*		*12/04/19 09:01*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*12/04/19 09:01*	*1*
Toluene-d8 (Surr)	*99*		*80 - 128*		*12/04/19 12:26*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/04/19 12:26*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*12/04/19 09:01*	*1*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*12/04/19 12:26*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 03:08	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 03:08	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*10*	*T J*	*ug/L*		*6.52*			*12/05/19 03:08*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*80 - 128*		*12/05/19 03:08*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*12/05/19 03:08*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*12/05/19 03:08*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1.0	0.25	ug/L		12/04/19 07:07	12/06/19 05:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*65*		*30 - 120*	*12/04/19 07:07*	*12/06/19 05:15*	*1*

Client Sample ID: DW-4

Lab Sample ID: 440-256127-1

Date Collected: 12/03/19 09:50
Date Received: 12/03/19 16:48

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		1.0	0.50	mg/L			12/03/19 18:54	2
Nitrate as N	ND		0.22	0.11	mg/L			12/03/19 18:54	2
Chloride	**13**		1.0	0.50	mg/L			12/03/19 18:54	2
Fluoride	**0.60**	**J**	1.0	0.50	mg/L			12/03/19 18:54	2

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1800**		50	25	mg/L			12/03/19 19:46	100

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.58**		0.050	0.025	mg/L		12/10/19 11:18	12/10/19 21:52	1
Calcium	**180**		0.10	0.050	mg/L		12/10/19 11:18	12/10/19 21:52	1
Iron	**1.5**		0.10	0.050	mg/L		12/10/19 11:18	12/10/19 21:52	1
Magnesium	**130**		0.020	0.010	mg/L		12/10/19 11:18	12/10/19 21:52	1
Manganese	**0.11**		0.020	0.015	mg/L		12/10/19 11:18	12/10/19 21:52	1
Potassium	**4.0**		0.50	0.25	mg/L		12/10/19 11:18	12/10/19 21:52	1
Sodium	**480**	**B**	2.5	1.3	mg/L		12/10/19 11:18	12/11/19 10:26	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**4.0**		0.20	0.10	mg/L			12/04/19 12:49	1
Chemical Oxygen Demand	ND		20	10	mg/L			12/11/19 16:14	1
Total Dissolved Solids	**2800**		20	10	mg/L			12/04/19 09:49	1
Total Sulfide	ND		0.050	0.027	mg/L			12/09/19 17:48	1
Total Organic Carbon	**2.0**		0.10	0.050	mg/L			12/04/19 11:44	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**340**		4.0	4.0	mg/L			12/04/19 09:32	1
Bicarbonate Alkalinity as CaCO3	**340**		4.0	4.0	mg/L			12/04/19 09:32	1
Carbon Dioxide, Free	**25**		2.0	2.0	mg/L			12/16/19 16:49	1

Client Sample ID: MW-2A

Lab Sample ID: 440-256127-2

Date Collected: 12/03/19 08:30
Date Received: 12/03/19 16:48

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 03:37	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 03:37	1
Acrolein	ND		50	2.5	ug/L			12/04/19 09:26	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 09:26	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 03:37	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 03:37	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 03:37	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 03:37	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 03:37	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 03:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 03:37	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 03:37	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 03:37	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256127-1

Client Sample ID: MW-2A
Date Collected: 12/03/19 08:30
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 03:37	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 03:37	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 03:37	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 03:37	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 03:37	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 03:37	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 03:37	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 03:37	1
Acetone	ND		20	10	ug/L			12/05/19 03:37	1
Acetonitrile	ND		20	10	ug/L			12/05/19 03:37	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 03:37	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 03:37	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 03:37	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 03:37	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 03:37	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 03:37	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 03:37	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 03:37	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 03:37	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 03:37	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 03:37	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 03:37	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 03:37	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 03:37	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 03:37	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 03:37	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 03:37	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 03:37	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 03:37	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 03:37	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 03:37	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 03:37	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 03:37	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 03:37	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 03:37	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 03:37	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 03:37	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 03:37	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 03:37	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 03:37	1
Propionitrile	ND		20	10	ug/L			12/05/19 03:37	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 03:37	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 03:37	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 03:37	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 03:37	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 03:37	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 03:37	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 03:37	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 03:37	1

Client Sample ID: MW-2A

Date Collected: 12/03/19 08:30
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 03:37	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 03:37	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 03:37	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 03:37	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 03:37	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 03:37	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 03:37	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*10*	*T J*	*ug/L*		*6.52*			*12/05/19 03:37*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*109*		*80 - 128*		*12/04/19 09:26*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/04/19 09:26*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*12/05/19 03:37*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*12/05/19 03:37*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*12/04/19 09:26*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/05/19 03:37*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.77**	**J**	1.0	0.26	ug/L		12/04/19 07:07	12/06/19 05:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*63*		*30 - 120*	*12/04/19 07:07*	*12/06/19 05:37*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.55**	**J**	1.0	0.50	mg/L			12/03/19 20:04	2
Nitrate as N	ND		0.22	0.11	mg/L			12/03/19 20:04	2
Chloride	**29**		1.0	0.50	mg/L			12/03/19 20:04	2
Fluoride	**1.4**		1.0	0.50	mg/L			12/03/19 20:04	2
Sulfate	**1700**		50	25	mg/L			12/03/19 20:21	100

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.63**		0.050	0.025	mg/L		12/04/19 10:14	12/05/19 13:48	1
Calcium	**220**	**B**	0.10	0.050	mg/L		12/04/19 10:14	12/05/19 13:48	1
Iron	**8.3**	**B**	0.10	0.050	mg/L		12/04/19 10:14	12/05/19 13:48	1
Magnesium	**120**		0.020	0.010	mg/L		12/04/19 10:14	12/05/19 13:48	1
Manganese	**0.68**		0.020	0.015	mg/L		12/04/19 10:14	12/05/19 13:48	1
Potassium	**5.7**		0.50	0.25	mg/L		12/04/19 10:14	12/05/19 13:48	1
Sodium	**400**		0.50	0.26	mg/L		12/04/19 10:14	12/05/19 13:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**3.0**		0.20	0.10	mg/L			12/04/19 12:54	1
Chemical Oxygen Demand	**10**	**J**	20	10	mg/L			12/11/19 16:14	1
Total Dissolved Solids	**2600**		20	10	mg/L			12/04/19 09:49	1
Total Sulfide	ND		0.050	0.027	mg/L			12/09/19 17:48	1
Total Organic Carbon	**3.4**		0.10	0.050	mg/L			12/04/19 17:45	1

Client Sample ID: MW-2A

Date Collected: 12/03/19 08:30
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-2

Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	360		4.0	4.0	mg/L			12/04/19 09:51	1
Bicarbonate Alkalinity as CaCO3	360		4.0	4.0	mg/L			12/04/19 09:51	1
Carbon Dioxide, Free	53		2.0	2.0	mg/L			12/16/19 16:49	1

Client Sample ID: MW-2B

Date Collected: 12/03/19 09:15
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-3

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 04:06	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 04:06	1
Acrolein	ND		50	2.5	ug/L			12/04/19 10:39	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 10:39	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 04:06	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 04:06	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 04:06	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 04:06	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 04:06	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 04:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 04:06	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 04:06	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 04:06	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 04:06	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 04:06	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 04:06	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 04:06	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 04:06	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 04:06	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 04:06	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 04:06	1
Acetone	ND		20	10	ug/L			12/05/19 04:06	1
Acetonitrile	ND		20	10	ug/L			12/05/19 04:06	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 04:06	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 04:06	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 04:06	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 04:06	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 04:06	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 04:06	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 04:06	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 04:06	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 04:06	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 04:06	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 04:06	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 04:06	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 04:06	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 04:06	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 04:06	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 04:06	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 04:06	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 04:06	1

Client Sample ID: MW-2B

Date Collected: 12/03/19 09:15
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-3

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 04:06	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 04:06	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 04:06	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 04:06	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 04:06	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 04:06	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 04:06	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 04:06	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 04:06	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 04:06	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 04:06	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 04:06	1
Propionitrile	ND		20	10	ug/L			12/05/19 04:06	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 04:06	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 04:06	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 04:06	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 04:06	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 04:06	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 04:06	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 04:06	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 04:06	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 04:06	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 04:06	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 04:06	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 04:06	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 04:06	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 04:06	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 04:06	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*10*	*T J*	*ug/L*		*6.52*			*12/05/19 04:06*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*109*		*80 - 128*		*12/04/19 10:39*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/04/19 10:39*	*1*
Toluene-d8 (Surr)	*102*		*80 - 128*		*12/05/19 04:06*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*12/05/19 04:06*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/04/19 10:39*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/05/19 04:06*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.99	0.25	ug/L		12/04/19 07:07	12/06/19 05:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*62*		*30 - 120*	*12/04/19 07:07*	*12/06/19 05:59*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		1.0	0.50	mg/L			12/03/19 20:39	2
Nitrate as N	ND		0.22	0.11	mg/L			12/03/19 20:39	2

Client Sample ID: MW-2B
Lab Sample ID: 440-256127-3
Date Collected: 12/03/19 09:15
Matrix: Water
Date Received: 12/03/19 16:48

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		1.0	0.50	mg/L			12/03/19 20:39	2
Fluoride	0.95	J	1.0	0.50	mg/L			12/03/19 20:39	2
Sulfate	1700		50	25	mg/L			12/03/19 20:57	100

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.57		0.050	0.025	mg/L		12/10/19 11:18	12/10/19 21:56	1
Calcium	180		0.10	0.050	mg/L		12/10/19 11:18	12/10/19 21:56	1
Iron	2.1		0.10	0.050	mg/L		12/10/19 11:18	12/10/19 21:56	1
Magnesium	110		0.020	0.010	mg/L		12/10/19 11:18	12/10/19 21:56	1
Manganese	0.13		0.020	0.015	mg/L		12/10/19 11:18	12/10/19 21:56	1
Potassium	4.1		0.50	0.25	mg/L		12/10/19 11:18	12/10/19 21:56	1
Sodium	430	B	0.50	0.26	mg/L		12/10/19 11:18	12/10/19 21:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	3.2		0.20	0.10	mg/L			12/04/19 12:59	1
Chemical Oxygen Demand	10	J	20	10	mg/L			12/11/19 16:14	1
Total Dissolved Solids	2600		20	10	mg/L			12/04/19 09:49	1
Total Sulfide	ND		0.050	0.027	mg/L			12/09/19 17:48	1
Total Organic Carbon	1.9		0.10	0.050	mg/L			12/04/19 12:12	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	330		4.0	4.0	mg/L			12/04/19 10:00	1
Bicarbonate Alkalinity as CaCO3	330		4.0	4.0	mg/L			12/04/19 10:00	1
Carbon Dioxide, Free	21		2.0	2.0	mg/L			12/16/19 16:49	1

Client Sample ID: MW-6
Lab Sample ID: 440-256127-4
Date Collected: 12/03/19 11:30
Matrix: Water
Date Received: 12/03/19 16:48

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 04:34	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 04:34	1
Acrolein	ND		50	2.5	ug/L			12/04/19 11:04	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 11:04	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 04:34	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 04:34	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 04:34	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 04:34	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 04:34	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 04:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 04:34	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 04:34	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 04:34	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 04:34	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 04:34	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 04:34	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 04:34	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 04:34	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256127-1

Client Sample ID: MW-6
Date Collected: 12/03/19 11:30
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 04:34	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 04:34	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 04:34	1
Acetone	ND		20	10	ug/L			12/05/19 04:34	1
Acetonitrile	ND		20	10	ug/L			12/05/19 04:34	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 04:34	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 04:34	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 04:34	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 04:34	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 04:34	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 04:34	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 04:34	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 04:34	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 04:34	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 04:34	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 04:34	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 04:34	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 04:34	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 04:34	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 04:34	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 04:34	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 04:34	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 04:34	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 04:34	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 04:34	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 04:34	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 04:34	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 04:34	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 04:34	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 04:34	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 04:34	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 04:34	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 04:34	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 04:34	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 04:34	1
Propionitrile	ND		20	10	ug/L			12/05/19 04:34	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 04:34	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 04:34	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 04:34	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 04:34	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 04:34	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 04:34	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 04:34	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 04:34	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 04:34	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 04:34	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 04:34	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 04:34	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 04:34	1

Client Sample ID: MW-6

Date Collected: 12/03/19 11:30
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-4

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 04:34	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 04:34	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*3.1*	*T J*	*ug/L*		*2.26*			*12/05/19 04:34*	*1*
Unknown	*10*	*T J*	*ug/L*		*6.52*			*12/05/19 04:34*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*111*		*80 - 128*		*12/04/19 11:04*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*12/04/19 11:04*	*1*
Toluene-d8 (Surr)	*101*		*80 - 128*		*12/05/19 04:34*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*12/05/19 04:34*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*12/04/19 11:04*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/05/19 04:34*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.99	0.25	ug/L		12/04/19 07:07	12/06/19 06:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*51*		*30 - 120*	*12/04/19 07:07*	*12/06/19 06:21*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.93**	**J**	1.0	0.50	mg/L			12/03/19 21:14	2
Nitrate as N	ND		0.22	0.11	mg/L			12/03/19 21:14	2
Chloride	**33**		5.0	2.5	mg/L			12/05/19 09:24	10
Fluoride	**1.3**		1.0	0.50	mg/L			12/03/19 21:14	2
Sulfate	**2100**		50	25	mg/L			12/03/19 21:32	100

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.70**		0.050	0.025	mg/L		12/10/19 11:18	12/10/19 21:59	1
Calcium	**360**		0.10	0.050	mg/L		12/10/19 11:18	12/10/19 21:59	1
Iron	**1.1**		0.10	0.050	mg/L		12/10/19 11:18	12/10/19 21:59	1
Magnesium	**190**		0.020	0.010	mg/L		12/10/19 11:18	12/10/19 21:59	1
Manganese	**1.1**		0.020	0.015	mg/L		12/10/19 11:18	12/10/19 21:59	1
Potassium	**5.9**		0.50	0.25	mg/L		12/10/19 11:18	12/10/19 21:59	1
Sodium	**300**	**B**	0.50	0.26	mg/L		12/10/19 11:18	12/10/19 21:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**0.75**		0.20	0.10	mg/L			12/04/19 13:05	1
Chemical Oxygen Demand	**24**		20	10	mg/L			12/11/19 16:14	1
Total Dissolved Solids	**3300**		20	10	mg/L			12/04/19 09:49	1
Total Sulfide	**2.7**		0.25	0.14	mg/L			12/09/19 17:48	5
Total Organic Carbon	**6.8**		0.50	0.25	mg/L			12/05/19 07:16	5

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**450**		4.0	4.0	mg/L			12/04/19 10:10	1
Bicarbonate Alkalinity as CaCO3	**450**		4.0	4.0	mg/L			12/04/19 10:10	1
Carbon Dioxide, Free	**42**		2.0	2.0	mg/L			12/16/19 16:49	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256127-1

Client Sample ID: MW-13R
Date Collected: 12/03/19 13:45
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 05:03	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 05:03	1
Acrolein	ND		50	2.5	ug/L			12/04/19 11:28	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 11:28	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 05:03	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 05:03	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 05:03	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 05:03	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 05:03	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 05:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 05:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 05:03	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 05:03	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 05:03	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 05:03	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 05:03	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 05:03	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 05:03	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 05:03	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 05:03	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 05:03	1
Acetone	**450**		20	10	ug/L			12/05/19 05:03	1
Acetonitrile	ND		20	10	ug/L			12/05/19 05:03	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 05:03	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 05:03	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 05:03	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 05:03	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 05:03	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 05:03	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 05:03	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 05:03	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 05:03	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 05:03	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 05:03	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 05:03	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 05:03	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 05:03	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 05:03	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 05:03	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 05:03	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 05:03	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 05:03	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 05:03	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 05:03	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 05:03	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 05:03	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 05:03	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 05:03	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 05:03	1

Client Sample ID: MW-13R
Date Collected: 12/03/19 13:45
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 05:03	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 05:03	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 05:03	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 05:03	1
Propionitrile	ND		20	10	ug/L			12/05/19 05:03	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 05:03	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 05:03	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 05:03	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 05:03	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 05:03	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 05:03	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 05:03	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 05:03	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 05:03	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 05:03	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 05:03	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 05:03	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 05:03	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 05:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 05:03	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*5.9*	*T J*	*ug/L*		*2.25*			*12/05/19 05:03*	*1*
Unknown	*3.7*	*T J*	*ug/L*		*2.87*			*12/05/19 05:03*	*1*
Unknown	*10*	*T J*	*ug/L*		*6.52*			*12/05/19 05:03*	*1*
Unknown	*4.7*	*T J*	*ug/L*		*15.89*			*12/05/19 05:03*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*112*		*80 - 128*		*12/04/19 11:28*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/04/19 11:28*	*1*
Toluene-d8 (Surr)	*104*		*80 - 128*		*12/05/19 05:03*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*12/05/19 05:03*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*12/04/19 11:28*	*1*
Dibromofluoromethane (Surr)	*96*		*76 - 132*		*12/05/19 05:03*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**5.7**		0.98	0.25	ug/L		12/04/19 07:07	12/06/19 06:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*54*		*30 - 120*	*12/04/19 07:07*	*12/06/19 06:42*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**1.3**	**F1**	0.50	0.25	mg/L			12/03/19 21:10	1
Nitrate as N	ND	F1	0.11	0.055	mg/L			12/03/19 21:10	1
Fluoride	**0.68**		0.50	0.25	mg/L			12/03/19 21:10	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		25	13	mg/L			12/03/19 22:57	50

Client Sample ID: MW-13R

Lab Sample ID: 440-256127-5

Date Collected: 12/03/19 13:45

Matrix: Water

Date Received: 12/03/19 16:48

Method: 300.0 - Anions, Ion Chromatography - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	100		25	13	mg/L			12/03/19 22:57	50

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.92		0.050	0.025	mg/L		12/10/19 11:18	12/10/19 22:02	1
Calcium	64		0.10	0.050	mg/L		12/10/19 11:18	12/10/19 22:02	1
Iron	0.23		0.10	0.050	mg/L		12/10/19 11:18	12/10/19 22:02	1
Magnesium	110		0.020	0.010	mg/L		12/10/19 11:18	12/10/19 22:02	1
Manganese	0.037		0.020	0.015	mg/L		12/10/19 11:18	12/10/19 22:02	1
Potassium	25		0.50	0.25	mg/L		12/10/19 11:18	12/10/19 22:02	1
Sodium	140	B	0.50	0.26	mg/L		12/10/19 11:18	12/10/19 22:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	7.2		0.20	0.10	mg/L			12/04/19 13:19	1
Chemical Oxygen Demand	230		20	10	mg/L			12/11/19 16:14	1
Total Dissolved Solids	1100		10	5.0	mg/L			12/04/19 09:49	1
Total Sulfide	89		5.0	2.7	mg/L			12/09/19 17:48	100
Total Organic Carbon	29		1.0	0.50	mg/L			12/04/19 12:59	10

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	680		4.0	4.0	mg/L			12/04/19 10:24	1
Bicarbonate Alkalinity as CaCO3	620		4.0	4.0	mg/L			12/04/19 10:24	1
Carbon Dioxide, Free	14		2.0	2.0	mg/L			12/16/19 16:49	1

Client Sample ID: MW-14

Lab Sample ID: 440-256127-6

Date Collected: 12/03/19 12:25

Matrix: Water

Date Received: 12/03/19 16:48

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 05:31	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 05:31	1
Acrolein	ND		50	2.5	ug/L			12/04/19 11:53	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 11:53	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 05:31	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 05:31	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 05:31	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 05:31	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 05:31	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 05:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 05:31	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 05:31	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 05:31	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 05:31	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 05:31	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 05:31	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 05:31	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 05:31	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 05:31	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 05:31	1

Client Sample ID: MW-14
Date Collected: 12/03/19 12:25
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 05:31	1
Acetone	ND		20	10	ug/L			12/05/19 05:31	1
Acetonitrile	ND		20	10	ug/L			12/05/19 05:31	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 05:31	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 05:31	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 05:31	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 05:31	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 05:31	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 05:31	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 05:31	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 05:31	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 05:31	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 05:31	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 05:31	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 05:31	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 05:31	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 05:31	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 05:31	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 05:31	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 05:31	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 05:31	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 05:31	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 05:31	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 05:31	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 05:31	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 05:31	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 05:31	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 05:31	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 05:31	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 05:31	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 05:31	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 05:31	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 05:31	1
Propionitrile	ND		20	10	ug/L			12/05/19 05:31	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 05:31	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 05:31	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 05:31	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 05:31	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 05:31	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 05:31	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 05:31	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 05:31	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 05:31	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 05:31	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 05:31	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 05:31	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 05:31	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 05:31	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 05:31	1

Client Sample ID: MW-14

Date Collected: 12/03/19 12:25
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-6

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	11	T J	ug/L		6.52			12/05/19 05:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	110		80 - 128		12/04/19 11:53	1
4-Bromofluorobenzene (Surr)	104		80 - 120		12/04/19 11:53	1
Toluene-d8 (Surr)	102		80 - 128		12/05/19 05:31	1
4-Bromofluorobenzene (Surr)	101		80 - 120		12/05/19 05:31	1
Dibromofluoromethane (Surr)	97		76 - 132		12/04/19 11:53	1
Dibromofluoromethane (Surr)	99		76 - 132		12/05/19 05:31	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.98	0.25	ug/L		12/04/19 07:07	12/06/19 07:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	72		30 - 120	12/04/19 07:07	12/06/19 07:04	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.73**	**J**	1.0	0.50	mg/L			12/03/19 20:38	2
Nitrate as N	**0.56**		0.22	0.11	mg/L			12/03/19 20:38	2
Chloride	**38**		1.0	0.50	mg/L			12/03/19 20:38	2
Fluoride	**1.6**		1.0	0.50	mg/L			12/03/19 20:38	2
Sulfate	**2000**		50	25	mg/L			12/03/19 20:54	100

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.37**		0.050	0.025	mg/L		12/10/19 11:18	12/10/19 22:06	1
Calcium	**430**		0.10	0.050	mg/L		12/10/19 11:18	12/10/19 22:06	1
Iron	**0.12**		0.10	0.050	mg/L		12/10/19 11:18	12/10/19 22:06	1
Magnesium	**180**		0.020	0.010	mg/L		12/10/19 11:18	12/10/19 22:06	1
Manganese	**4.7**		0.020	0.015	mg/L		12/10/19 11:18	12/10/19 22:06	1
Potassium	**7.9**		0.50	0.25	mg/L		12/10/19 11:18	12/10/19 22:06	1
Sodium	**250**	**B**	0.50	0.26	mg/L		12/10/19 11:18	12/10/19 22:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**0.12**	**J**	0.20	0.10	mg/L			12/04/19 13:25	1
Chemical Oxygen Demand	**19**	**J**	20	10	mg/L			12/11/19 16:14	1
Total Dissolved Solids	**3300**		20	10	mg/L			12/04/19 09:49	1
Total Sulfide	ND		0.050	0.027	mg/L			12/09/19 17:48	1
Total Organic Carbon	**4.8**		0.10	0.050	mg/L			12/05/19 07:02	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**340**		4.0	4.0	mg/L			12/04/19 10:33	1
Bicarbonate Alkalinity as CaCO3	**340**		4.0	4.0	mg/L			12/04/19 10:33	1
Carbon Dioxide, Free	**56**		2.0	2.0	mg/L			12/16/19 16:49	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256127-1

Client Sample ID: DW-1
Date Collected: 12/03/19 10:40
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 06:00	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 06:00	1
Acrolein	ND		50	2.5	ug/L			12/04/19 12:17	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 12:17	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 06:00	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 06:00	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 06:00	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 06:00	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 06:00	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 06:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 06:00	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 06:00	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 06:00	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 06:00	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 06:00	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 06:00	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 06:00	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 06:00	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 06:00	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 06:00	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 06:00	1
Acetone	ND		20	10	ug/L			12/05/19 06:00	1
Acetonitrile	ND		20	10	ug/L			12/05/19 06:00	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 06:00	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 06:00	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 06:00	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 06:00	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 06:00	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 06:00	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 06:00	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 06:00	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 06:00	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 06:00	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 06:00	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 06:00	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 06:00	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 06:00	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 06:00	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 06:00	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 06:00	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 06:00	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 06:00	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 06:00	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 06:00	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 06:00	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 06:00	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 06:00	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 06:00	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 06:00	1

Client Sample ID: DW-1

Date Collected: 12/03/19 10:40
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-7

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 06:00	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 06:00	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 06:00	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 06:00	1
Propionitrile	ND		20	10	ug/L			12/05/19 06:00	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 06:00	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 06:00	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 06:00	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 06:00	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 06:00	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 06:00	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 06:00	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 06:00	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 06:00	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 06:00	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 06:00	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 06:00	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 06:00	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 06:00	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 06:00	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*3.2*	*T J*	*ug/L*		*2.43*			*12/05/19 06:00*	*1*
Unknown	*11*	*T J*	*ug/L*		*6.51*			*12/05/19 06:00*	*1*
Unknown	*3.7*	*T J*	*ug/L*		*15.93*			*12/05/19 06:00*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*112*		*80 - 128*		*12/04/19 12:17*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*12/04/19 12:17*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*12/05/19 06:00*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/05/19 06:00*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/04/19 12:17*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/05/19 06:00*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1.0	0.26	ug/L		12/04/19 07:07	12/06/19 07:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*53*		*30 - 120*	*12/04/19 07:07*	*12/06/19 07:26*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		5.0	2.5	mg/L			12/03/19 23:23	10
Nitrate as N	ND		1.1	0.55	mg/L			12/03/19 23:23	10
Chloride	**15**		5.0	2.5	mg/L			12/03/19 23:23	10
Fluoride	**3.4**	**J**	5.0	2.5	mg/L			12/03/19 23:23	10
Sulfate	**2000**		100	50	mg/L			12/03/19 23:41	200

Client Sample ID: DW-1

Lab Sample ID: 440-256127-7

Date Collected: 12/03/19 10:40
Matrix: Water
Date Received: 12/03/19 16:48

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**2.2**		0.050	0.025	mg/L		12/04/19 10:14	12/05/19 14:03	1
Calcium	**2.8**	**B**	0.10	0.050	mg/L		12/04/19 10:14	12/05/19 14:03	1
Iron	ND		0.10	0.050	mg/L		12/04/19 10:14	12/05/19 14:03	1
Magnesium	**1.6**		0.020	0.010	mg/L		12/04/19 10:14	12/05/19 14:03	1
Manganese	ND		0.020	0.015	mg/L		12/04/19 10:14	12/05/19 14:03	1
Potassium	**1.7**		0.50	0.25	mg/L		12/04/19 10:14	12/05/19 14:03	1
Sodium	**1100**		5.0	2.6	mg/L		12/04/19 10:14	12/09/19 15:09	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**1.8**		0.20	0.10	mg/L			12/04/19 13:30	1
Chemical Oxygen Demand	ND		20	10	mg/L			12/11/19 17:37	1
Total Dissolved Solids	**3300**		50	25	mg/L			12/04/19 09:49	1
Total Sulfide	**0.82**		0.050	0.027	mg/L			12/09/19 17:48	1
Total Organic Carbon	**3.3**		0.10	0.050	mg/L			12/04/19 13:14	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**550**		4.0	4.0	mg/L			12/04/19 10:46	1
Bicarbonate Alkalinity as CaCO3	**450**		4.0	4.0	mg/L			12/04/19 10:46	1
Carbon Dioxide, Free	ND		2.0	2.0	mg/L			12/16/19 16:49	1

Client Sample ID: Extraction Trench

Lab Sample ID: 440-256127-8

Date Collected: 12/03/19 09:10
Matrix: Water
Date Received: 12/03/19 16:48

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/04/19 22:05	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 22:05	1
Acrolein	ND		50	2.5	ug/L			12/04/19 12:42	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 12:42	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 22:05	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 22:05	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 22:05	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 22:05	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 22:05	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 22:05	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/04/19 22:05	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/04/19 22:05	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 22:05	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 22:05	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 22:05	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 22:05	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 22:05	1
1,4-Dichlorobenzene	**1.5**		0.50	0.25	ug/L			12/04/19 22:05	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/04/19 22:05	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/04/19 22:05	1
2-Hexanone	ND		5.0	2.5	ug/L			12/04/19 22:05	1
Acetone	ND		20	10	ug/L			12/04/19 22:05	1
Acetonitrile	ND	*	20	10	ug/L			12/04/19 22:05	1
Acrolein	ND		5.0	2.5	ug/L			12/04/19 22:05	1

Client Sample ID: Extraction Trench

Lab Sample ID: 440-256127-8

Date Collected: 12/03/19 09:10

Matrix: Water

Date Received: 12/03/19 16:48

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrylonitrile	ND		2.0	1.0	ug/L			12/04/19 22:05	1
Benzene	ND		0.50	0.25	ug/L			12/04/19 22:05	1
Allyl chloride	ND		1.0	0.50	ug/L			12/04/19 22:05	1
Bromoform	ND		1.0	0.40	ug/L			12/04/19 22:05	1
Bromomethane	ND		0.50	0.25	ug/L			12/04/19 22:05	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/04/19 22:05	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/04/19 22:05	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/04/19 22:05	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/04/19 22:05	1
Chloroethane	ND		1.0	0.40	ug/L			12/04/19 22:05	1
Chloroform	ND		0.50	0.25	ug/L			12/04/19 22:05	1
Chloromethane	ND		0.50	0.25	ug/L			12/04/19 22:05	1
cis-1,2-Dichloroethene	**1.9**		0.50	0.25	ug/L			12/04/19 22:05	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 22:05	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/04/19 22:05	1
Dibromomethane	ND		0.50	0.25	ug/L			12/04/19 22:05	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/04/19 22:05	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/04/19 22:05	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 22:05	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/04/19 22:05	1
Iodomethane	ND		2.0	1.0	ug/L			12/04/19 22:05	1
Isobutyl alcohol	ND		25	13	ug/L			12/04/19 22:05	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/04/19 22:05	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/04/19 22:05	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 22:05	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/04/19 22:05	1
Methyl tert-butyl ether	**0.46**	**J**	0.50	0.25	ug/L			12/04/19 22:05	1
Naphthalene	**0.48**	**J**	1.0	0.40	ug/L			12/04/19 22:05	1
o-Xylene	ND		0.50	0.25	ug/L			12/04/19 22:05	1
Propionitrile	ND		20	10	ug/L			12/04/19 22:05	1
Styrene	ND		0.50	0.25	ug/L			12/04/19 22:05	1
t-Butanol	**67**		10	5.0	ug/L			12/04/19 22:05	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/04/19 22:05	1
Tetrahydrofuran	**20**		10	5.0	ug/L			12/04/19 22:05	1
Toluene	ND		0.50	0.25	ug/L			12/04/19 22:05	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 22:05	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 22:05	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/04/19 22:05	1
Trichloroethene	ND		0.50	0.25	ug/L			12/04/19 22:05	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/04/19 22:05	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/04/19 22:05	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/04/19 22:05	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/04/19 22:05	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/04/19 22:05	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/04/19 22:05	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*660*	*T J*	*ug/L*		*2.43*			*12/04/19 22:05*	*1*
Unknown	*3.6*	*T J*	*ug/L*		*3.22*			*12/04/19 22:05*	*1*
Unknown	*6.4*	*T J*	*ug/L*		*3.51*			*12/04/19 22:05*	*1*

Client Sample ID: Extraction Trench

Date Collected: 12/03/19 09:10
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	7.9	T J	ug/L		5.67			12/04/19 22:05	1
Unknown	12	T J	ug/L		7.13			12/04/19 22:05	1
Unknown	2.9	T J	ug/L		9.69			12/04/19 22:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	108		80 - 128		12/04/19 12:42	1
4-Bromofluorobenzene (Surr)	100		80 - 120		12/04/19 12:42	1
Toluene-d8 (Surr)	102		80 - 128		12/04/19 22:05	1
4-Bromofluorobenzene (Surr)	104		80 - 120		12/04/19 22:05	1
Dibromofluoromethane (Surr)	99		76 - 132		12/04/19 12:42	1
Dibromofluoromethane (Surr)	103		76 - 132		12/04/19 22:05	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	50		1.0	0.25	ug/L		12/04/19 07:07	12/06/19 07:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	62		30 - 120	12/04/19 07:07	12/06/19 07:48	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	6.0		5.0	2.5	mg/L			12/03/19 23:58	10
Nitrate as N	0.64	J	1.1	0.55	mg/L			12/03/19 23:58	10
Chloride	420		100	50	mg/L			12/04/19 00:16	200
Fluoride	2.5	J	5.0	2.5	mg/L			12/03/19 23:58	10
Sulfate	1800		100	50	mg/L			12/04/19 00:16	200

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.1		0.050	0.025	mg/L		12/05/19 07:00	12/09/19 14:52	1
Calcium	480	B	0.10	0.050	mg/L		12/05/19 07:00	12/09/19 14:52	1
Iron	46		0.10	0.050	mg/L		12/05/19 07:00	12/09/19 14:52	1
Magnesium	260	B	0.020	0.010	mg/L		12/05/19 07:00	12/09/19 14:52	1
Manganese	5.2		0.020	0.015	mg/L		12/05/19 07:00	12/09/19 14:52	1
Potassium	43		0.50	0.25	mg/L		12/05/19 07:00	12/09/19 14:52	1
Sodium	440		0.50	0.26	mg/L		12/05/19 07:00	12/09/19 14:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	17		1.0	0.50	mg/L			12/04/19 14:09	5
Chemical Oxygen Demand	260		20	10	mg/L			12/11/19 17:37	1
Total Dissolved Solids	4500		50	25	mg/L			12/04/19 09:49	1
Total Sulfide	ND		0.050	0.027	mg/L			12/09/19 17:48	1
Total Organic Carbon	120		5.0	2.5	mg/L			12/05/19 07:31	50

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	1100		4.0	4.0	mg/L			12/04/19 12:09	1
Bicarbonate Alkalinity as CaCO3	1100		4.0	4.0	mg/L			12/04/19 12:09	1
Carbon Dioxide, Free	240		2.0	2.0	mg/L			12/16/19 16:49	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256127-1

Client Sample ID: LY-7
Date Collected: 12/03/19 11:15
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/04/19 22:34	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 22:34	1
Acrolein	ND		50	2.5	ug/L			12/04/19 13:07	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 13:07	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 22:34	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 22:34	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 22:34	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 22:34	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 22:34	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 22:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/04/19 22:34	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/04/19 22:34	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 22:34	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 22:34	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 22:34	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 22:34	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 22:34	1
1,4-Dichlorobenzene	**0.48**	**J**	0.50	0.25	ug/L			12/04/19 22:34	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/04/19 22:34	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/04/19 22:34	1
2-Hexanone	ND		5.0	2.5	ug/L			12/04/19 22:34	1
Acetone	ND		20	10	ug/L			12/04/19 22:34	1
Acetonitrile	ND	*	20	10	ug/L			12/04/19 22:34	1
Acrolein	ND		5.0	2.5	ug/L			12/04/19 22:34	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/04/19 22:34	1
Benzene	**0.58**		0.50	0.25	ug/L			12/04/19 22:34	1
Allyl chloride	ND		1.0	0.50	ug/L			12/04/19 22:34	1
Bromoform	ND		1.0	0.40	ug/L			12/04/19 22:34	1
Bromomethane	ND		0.50	0.25	ug/L			12/04/19 22:34	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/04/19 22:34	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/04/19 22:34	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/04/19 22:34	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/04/19 22:34	1
Chloroethane	ND		1.0	0.40	ug/L			12/04/19 22:34	1
Chloroform	ND		0.50	0.25	ug/L			12/04/19 22:34	1
Chloromethane	ND		0.50	0.25	ug/L			12/04/19 22:34	1
cis-1,2-Dichloroethene	**1.2**		0.50	0.25	ug/L			12/04/19 22:34	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 22:34	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/04/19 22:34	1
Dibromomethane	ND		0.50	0.25	ug/L			12/04/19 22:34	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/04/19 22:34	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/04/19 22:34	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 22:34	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/04/19 22:34	1
Iodomethane	ND		2.0	1.0	ug/L			12/04/19 22:34	1
Isobutyl alcohol	ND		25	13	ug/L			12/04/19 22:34	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/04/19 22:34	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/04/19 22:34	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 22:34	1

Client Sample ID: LY-7
Date Collected: 12/03/19 11:15
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		2.0	0.88	ug/L			12/04/19 22:34	1
Methyl tert-butyl ether	**1.5**		0.50	0.25	ug/L			12/04/19 22:34	1
Naphthalene	ND		1.0	0.40	ug/L			12/04/19 22:34	1
o-Xylene	ND		0.50	0.25	ug/L			12/04/19 22:34	1
Propionitrile	ND		20	10	ug/L			12/04/19 22:34	1
Styrene	ND		0.50	0.25	ug/L			12/04/19 22:34	1
t-Butanol	**110**		10	5.0	ug/L			12/04/19 22:34	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/04/19 22:34	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/04/19 22:34	1
Toluene	ND		0.50	0.25	ug/L			12/04/19 22:34	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 22:34	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 22:34	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/04/19 22:34	1
Trichloroethene	ND		0.50	0.25	ug/L			12/04/19 22:34	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/04/19 22:34	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/04/19 22:34	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/04/19 22:34	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/04/19 22:34	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/04/19 22:34	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/04/19 22:34	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*9.5*	*T J*	*ug/L*		*2.35*			*12/04/19 22:34*	*1*
Unknown	*700*	*T J*	*ug/L*		*2.43*			*12/04/19 22:34*	*1*
Unknown	*5.1*	*T J*	*ug/L*		*3.23*			*12/04/19 22:34*	*1*
Unknown	*2.7*	*T J*	*ug/L*		*16.72*			*12/04/19 22:34*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*111*		*80 - 128*		*12/04/19 13:07*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/04/19 13:07*	*1*
Toluene-d8 (Surr)	*101*		*80 - 128*		*12/04/19 22:34*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*12/04/19 22:34*	*1*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*12/04/19 13:07*	*1*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*12/04/19 22:34*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**9.8**		1.0	0.25	ug/L		12/04/19 07:07	12/06/19 08:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*70*		*30 - 120*	*12/04/19 07:07*	*12/06/19 08:09*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**2.6**	**J**	5.0	2.5	mg/L			12/04/19 00:33	10
Nitrate as N	ND		1.1	0.55	mg/L			12/04/19 00:33	10
Fluoride	ND		5.0	2.5	mg/L			12/04/19 00:33	10

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**330**		100	50	mg/L			12/04/19 01:26	200

Client Sample ID: LY-7

Lab Sample ID: 440-256127-9

Date Collected: 12/03/19 11:15

Matrix: Water

Date Received: 12/03/19 16:48

Method: 300.0 - Anions, Ion Chromatography - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	570		100	50	mg/L			12/04/19 01:26	200

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	6.1		0.050	0.025	mg/L		12/05/19 07:00	12/06/19 14:54	1
Calcium	140	B	0.10	0.050	mg/L		12/05/19 07:00	12/06/19 14:54	1
Iron	2.6		0.10	0.050	mg/L		12/05/19 07:00	12/06/19 14:54	1
Magnesium	91	B	0.020	0.010	mg/L		12/05/19 07:00	12/06/19 14:54	1
Manganese	2.4		0.020	0.015	mg/L		12/05/19 07:00	12/06/19 14:54	1
Potassium	26		0.50	0.25	mg/L		12/05/19 07:00	12/06/19 14:54	1
Sodium	920		2.5	1.3	mg/L		12/05/19 07:00	12/06/19 16:53	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	12		1.0	0.50	mg/L			12/04/19 14:49	5
Chemical Oxygen Demand	110		20	10	mg/L			12/11/19 17:37	1
Total Dissolved Solids	3500		50	25	mg/L			12/04/19 09:49	1
Total Sulfide	ND		0.050	0.027	mg/L			12/09/19 17:48	1
Total Organic Carbon	42		1.0	0.50	mg/L			12/05/19 08:10	10

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	2100		4.0	4.0	mg/L			12/04/19 11:21	1
Bicarbonate Alkalinity as CaCO3	2100		4.0	4.0	mg/L			12/04/19 11:21	1
Carbon Dioxide, Free	200		2.0	2.0	mg/L			12/16/19 16:49	1

Client Sample ID: Field Blank

Lab Sample ID: 440-256127-10

Date Collected: 12/03/19 00:01

Matrix: Water

Date Received: 12/03/19 16:48

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/04/19 23:04	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Acrolein	ND		50	2.5	ug/L			12/04/19 13:31	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 13:31	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 23:04	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 23:04	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 23:04	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 23:04	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 23:04	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 23:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/04/19 23:04	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/04/19 23:04	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 23:04	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 23:04	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 23:04	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 23:04	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 23:04	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 23:04	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/04/19 23:04	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/04/19 23:04	1

Client Sample ID: Field Blank
Date Collected: 12/03/19 00:01
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-10
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	ND		5.0	2.5	ug/L			12/04/19 23:04	1
Acetone	ND		20	10	ug/L			12/04/19 23:04	1
Acetonitrile	ND	*	20	10	ug/L			12/04/19 23:04	1
Acrolein	ND		5.0	2.5	ug/L			12/04/19 23:04	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/04/19 23:04	1
Benzene	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Allyl chloride	ND		1.0	0.50	ug/L			12/04/19 23:04	1
Bromoform	ND		1.0	0.40	ug/L			12/04/19 23:04	1
Bromomethane	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/04/19 23:04	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Chloroethane	ND		1.0	0.40	ug/L			12/04/19 23:04	1
Chloroform	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Chloromethane	ND		0.50	0.25	ug/L			12/04/19 23:04	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 23:04	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Dibromomethane	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/04/19 23:04	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 23:04	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Iodomethane	ND		2.0	1.0	ug/L			12/04/19 23:04	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/04/19 23:04	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/04/19 23:04	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 23:04	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/04/19 23:04	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Naphthalene	ND		1.0	0.40	ug/L			12/04/19 23:04	1
o-Xylene	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Propionitrile	ND		20	10	ug/L			12/04/19 23:04	1
Styrene	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/04/19 23:04	1
Toluene	ND		0.50	0.25	ug/L			12/04/19 23:04	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 23:04	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 23:04	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/04/19 23:04	1
Trichloroethene	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/04/19 23:04	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/04/19 23:04	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/04/19 23:04	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/04/19 23:04	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/04/19 23:04	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/04/19 23:04	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*150*	*T J*	*ug/L*		*2.42*			*12/04/19 23:04*	*1*

Client Sample ID: Field Blank

Lab Sample ID: 440-256127-10

Date Collected: 12/03/19 00:01

Matrix: Water

Date Received: 12/03/19 16:48

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	12	T J	ug/L		7.13			12/04/19 23:04	1
Unknown	5.6	T J	ug/L		15.61			12/04/19 23:04	1
Unknown	2.5	T J	ug/L		15.84			12/04/19 23:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	110		80 - 128		12/04/19 13:31	1
4-Bromofluorobenzene (Surr)	100		80 - 120		12/04/19 13:31	1
Toluene-d8 (Surr)	102		80 - 128		12/04/19 23:04	1
4-Bromofluorobenzene (Surr)	106		80 - 120		12/04/19 23:04	1
Dibromofluoromethane (Surr)	99		76 - 132		12/04/19 13:31	1
Dibromofluoromethane (Surr)	104		76 - 132		12/04/19 23:04	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 09:43	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 09:43	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	10	T J	ug/L		6.52			12/05/19 09:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 128		12/05/19 09:43	1
4-Bromofluorobenzene (Surr)	103		80 - 120		12/05/19 09:43	1
Dibromofluoromethane (Surr)	96		76 - 132		12/05/19 09:43	1

Client Sample ID: Trip Blank

Lab Sample ID: 440-256127-11

Date Collected: 12/03/19 00:01

Matrix: Water

Date Received: 12/03/19 16:48

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/04/19 23:33	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 23:33	1
Acrolein	ND		50	2.5	ug/L			12/04/19 13:56	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 13:56	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 23:33	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 23:33	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 23:33	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 23:33	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 23:33	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 23:33	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/04/19 23:33	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/04/19 23:33	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 23:33	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 23:33	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 23:33	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 23:33	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 23:33	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 23:33	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/04/19 23:33	1

Client Sample ID: Trip Blank
Date Collected: 12/03/19 00:01
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-11
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/04/19 23:33	1
2-Hexanone	ND		5.0	2.5	ug/L			12/04/19 23:33	1
Acetone	ND		20	10	ug/L			12/04/19 23:33	1
Acetonitrile	ND	*	20	10	ug/L			12/04/19 23:33	1
Acrolein	ND		5.0	2.5	ug/L			12/04/19 23:33	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/04/19 23:33	1
Benzene	ND		0.50	0.25	ug/L			12/04/19 23:33	1
Allyl chloride	ND		1.0	0.50	ug/L			12/04/19 23:33	1
Bromoform	ND		1.0	0.40	ug/L			12/04/19 23:33	1
Bromomethane	ND		0.50	0.25	ug/L			12/04/19 23:33	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/04/19 23:33	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/04/19 23:33	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/04/19 23:33	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/04/19 23:33	1
Chloroethane	ND		1.0	0.40	ug/L			12/04/19 23:33	1
Chloroform	ND		0.50	0.25	ug/L			12/04/19 23:33	1
Chloromethane	ND		0.50	0.25	ug/L			12/04/19 23:33	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 23:33	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 23:33	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/04/19 23:33	1
Dibromomethane	ND		0.50	0.25	ug/L			12/04/19 23:33	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/04/19 23:33	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/04/19 23:33	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 23:33	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/04/19 23:33	1
Iodomethane	ND		2.0	1.0	ug/L			12/04/19 23:33	1
Isobutyl alcohol	ND		25	13	ug/L			12/04/19 23:33	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/04/19 23:33	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/04/19 23:33	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 23:33	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/04/19 23:33	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/04/19 23:33	1
Naphthalene	ND		1.0	0.40	ug/L			12/04/19 23:33	1
o-Xylene	ND		0.50	0.25	ug/L			12/04/19 23:33	1
Propionitrile	ND		20	10	ug/L			12/04/19 23:33	1
Styrene	ND		0.50	0.25	ug/L			12/04/19 23:33	1
t-Butanol	ND		10	5.0	ug/L			12/04/19 23:33	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/04/19 23:33	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/04/19 23:33	1
Toluene	ND		0.50	0.25	ug/L			12/04/19 23:33	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 23:33	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 23:33	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/04/19 23:33	1
Trichloroethene	ND		0.50	0.25	ug/L			12/04/19 23:33	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/04/19 23:33	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/04/19 23:33	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/04/19 23:33	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/04/19 23:33	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/04/19 23:33	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256127-1

Client Sample ID: Trip Blank
Date Collected: 12/03/19 00:01
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-11
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/04/19 23:33	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*11*	*T J*	*ug/L*		*2.35*			*12/04/19 23:33*	*1*
Unknown	*110*	*T J*	*ug/L*		*2.43*			*12/04/19 23:33*	*1*
Unknown	*12*	*T J*	*ug/L*		*7.13*			*12/04/19 23:33*	*1*
Unknown	*2.9*	*T J*	*ug/L*		*15.63*			*12/04/19 23:33*	*1*
Unknown	*5.2*	*T J*	*ug/L*		*16.76*			*12/04/19 23:33*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*111*		*80 - 128*		*12/04/19 13:56*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/04/19 13:56*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*12/04/19 23:33*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/04/19 23:33*	*1*
Dibromofluoromethane (Surr)	*95*		*76 - 132*		*12/04/19 13:56*	*1*
Dibromofluoromethane (Surr)	*107*		*76 - 132*		*12/04/19 23:33*	*1*

Method Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256127-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL IRV
300.0	Anions, Ion Chromatography	MCAWW	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
350.1	Nitrogen, Ammonia	MCAWW	TAL IRV
410.4	COD	MCAWW	TAL IRV
SM 2320B	Alkalinity	SM	TAL IRV
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL IRV
SM 4500 CO2 C	Free Carbon Dioxide	SM	TAL IRV
SM 4500 S2 D	Sulfide, Total	SM	TAL IRV
SM 5310C	TOC	SM	TAL IRV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL IRV
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL IRV
5030B	Purge and Trap	SW846	TAL IRV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256127-1

Client Sample ID: DW-4

Date Collected: 12/03/19 09:50
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	583835	12/05/19 03:08	JB	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 09:01	RM	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583675	12/04/19 12:26	AYL	TAL IRV
Total/NA	Prep	3520C			1005 mL	1.0 mL	583670	12/04/19 07:07	NAM	TAL IRV
Total/NA	Analysis	8270C		1			584125	12/06/19 05:15	HN	TAL IRV
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	583492	12/03/19 18:54	NN	TAL IRV
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	583493	12/03/19 18:54	NN	TAL IRV
Total/NA	Analysis	300.0	DL	100			583492	12/03/19 19:46	NN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	584948	12/10/19 11:18	EP	TAL IRV
Total Recoverable	Analysis	6010B		1			585112	12/10/19 21:52	P1R	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	584948	12/10/19 11:18	EP	TAL IRV
Total Recoverable	Analysis	6010B		5			585268	12/11/19 10:26	VS	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584635	12/04/19 12:49	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585335	12/11/19 16:14	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			583785	12/04/19 09:32	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	583709	12/04/19 09:49	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586253	12/16/19 16:49	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	584795	12/09/19 17:48	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	583921	12/04/19 11:44	YZ	TAL IRV

Client Sample ID: MW-2A

Date Collected: 12/03/19 08:30
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583835	12/05/19 03:37	JB	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 09:26	RM	TAL IRV
Total/NA	Prep	3520C			960 mL	1.0 mL	583670	12/04/19 07:07	NAM	TAL IRV
Total/NA	Analysis	8270C		1			584125	12/06/19 05:37	HN	TAL IRV
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	583492	12/03/19 20:04	NN	TAL IRV
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	583493	12/03/19 20:04	NN	TAL IRV
Total/NA	Analysis	300.0		100			583492	12/03/19 20:21	NN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	583719	12/04/19 10:14	EP	TAL IRV
Total Recoverable	Analysis	6010B		1			584062	12/05/19 13:48	KE	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584635	12/04/19 12:54	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585335	12/11/19 16:14	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			583785	12/04/19 09:51	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	583709	12/04/19 09:49	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586253	12/16/19 16:49	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	584795	12/09/19 17:48	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	583921	12/04/19 17:45	YZ	TAL IRV

Client Sample ID: MW-2B

Date Collected: 12/03/19 09:15
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583835	12/05/19 04:06	JB	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 10:39	RM	TAL IRV
Total/NA	Prep	3520C			1015 mL	1.0 mL	583670	12/04/19 07:07	NAM	TAL IRV
Total/NA	Analysis	8270C		1			584125	12/06/19 05:59	HN	TAL IRV
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	583492	12/03/19 20:39	NN	TAL IRV
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	583493	12/03/19 20:39	NN	TAL IRV
Total/NA	Analysis	300.0		100			583492	12/03/19 20:57	NN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	584948	12/10/19 11:18	EP	TAL IRV
Total Recoverable	Analysis	6010B		1			585112	12/10/19 21:56	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584635	12/04/19 12:59	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585335	12/11/19 16:14	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			583785	12/04/19 10:00	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	583709	12/04/19 09:49	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586253	12/16/19 16:49	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	584795	12/09/19 17:48	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	583921	12/04/19 12:12	YZ	TAL IRV

Client Sample ID: MW-6

Date Collected: 12/03/19 11:30
Date Received: 12/03/19 16:48

Lab Sample ID: 440-256127-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583835	12/05/19 04:34	JB	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 11:04	RM	TAL IRV
Total/NA	Prep	3520C			1010 mL	1.0 mL	583670	12/04/19 07:07	NAM	TAL IRV
Total/NA	Analysis	8270C		1			584125	12/06/19 06:21	HN	TAL IRV
Total/NA	Analysis	300.0		10	5 mL	1.0 mL	583726	12/05/19 09:24	NTN	TAL IRV
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	583492	12/03/19 21:14	NN	TAL IRV
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	583493	12/03/19 21:14	NN	TAL IRV
Total/NA	Analysis	300.0		100			583492	12/03/19 21:32	NN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	584948	12/10/19 11:18	EP	TAL IRV
Total Recoverable	Analysis	6010B		1			585112	12/10/19 21:59	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584635	12/04/19 13:05	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585335	12/11/19 16:14	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			583785	12/04/19 10:10	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	583709	12/04/19 09:49	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586253	12/16/19 16:49	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		5	7.5 mL	7.5 mL	584795	12/09/19 17:48	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		5	100 mL	100 mL	584163	12/05/19 07:16	YZ	TAL IRV

Client Sample ID: MW-13R

Lab Sample ID: 440-256127-5

Date Collected: 12/03/19 13:45

Matrix: Water

Date Received: 12/03/19 16:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583835	12/05/19 05:03	JB	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 11:28	RM	TAL IRV
Total/NA	Prep	3520C			1020 mL	1.0 mL	583670	12/04/19 07:07	NAM	TAL IRV
Total/NA	Analysis	8270C		1			584125	12/06/19 06:42	HN	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	583456	12/03/19 21:10	NTN	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	583457	12/03/19 21:10	NTN	TAL IRV
Total/NA	Analysis	300.0	DL	50	5 mL	1.0 mL	583457	12/03/19 22:57	NTN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	584948	12/10/19 11:18	EP	TAL IRV
Total Recoverable	Analysis	6010B		1			585112	12/10/19 22:02	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584635	12/04/19 13:19	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585335	12/11/19 16:14	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			583785	12/04/19 10:24	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	583709	12/04/19 09:49	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586253	12/16/19 16:49	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		100	7.5 mL	7.5 mL	584795	12/09/19 17:48	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		10	100 mL	100 mL	583921	12/04/19 12:59	YZ	TAL IRV

Client Sample ID: MW-14

Lab Sample ID: 440-256127-6

Date Collected: 12/03/19 12:25

Matrix: Water

Date Received: 12/03/19 16:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583835	12/05/19 05:31	JB	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 11:53	RM	TAL IRV
Total/NA	Prep	3520C			1020 mL	1.0 mL	583670	12/04/19 07:07	NAM	TAL IRV
Total/NA	Analysis	8270C		1			584125	12/06/19 07:04	HN	TAL IRV
Total/NA	Analysis	300.0		2			583456	12/03/19 20:38	NTN	TAL IRV
Total/NA	Analysis	300.0		2			583457	12/03/19 20:38	NTN	TAL IRV
Total/NA	Analysis	300.0		100			583457	12/03/19 20:54	NTN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	584948	12/10/19 11:18	EP	TAL IRV
Total Recoverable	Analysis	6010B		1			585112	12/10/19 22:06	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584635	12/04/19 13:25	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585335	12/11/19 16:14	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			583785	12/04/19 10:33	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	583709	12/04/19 09:49	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586253	12/16/19 16:49	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	584795	12/09/19 17:48	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	584163	12/05/19 07:02	YZ	TAL IRV

Client Sample ID: DW-1

Lab Sample ID: 440-256127-7

Date Collected: 12/03/19 10:40

Matrix: Water

Date Received: 12/03/19 16:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583835	12/05/19 06:00	JB	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 12:17	RM	TAL IRV
Total/NA	Prep	3520C			970 mL	1.0 mL	583670	12/04/19 07:07	NAM	TAL IRV
Total/NA	Analysis	8270C		1			584125	12/06/19 07:26	HN	TAL IRV
Total/NA	Analysis	300.0		10			583492	12/03/19 23:23	NN	TAL IRV
Total/NA	Analysis	300.0		10			583493	12/03/19 23:23	NN	TAL IRV
Total/NA	Analysis	300.0		200			583492	12/03/19 23:41	NN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	583719	12/04/19 10:14	EP	TAL IRV
Total Recoverable	Analysis	6010B		1			584062	12/05/19 14:03	KE	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	583719	12/04/19 10:14	EP	TAL IRV
Total Recoverable	Analysis	6010B		10			584782	12/09/19 15:09	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584635	12/04/19 13:30	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585363	12/11/19 17:37	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			583785	12/04/19 10:46	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	583709	12/04/19 09:49	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586253	12/16/19 16:49	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	584795	12/09/19 17:48	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	583921	12/04/19 13:14	YZ	TAL IRV

Client Sample ID: Extraction Trench

Lab Sample ID: 440-256127-8

Date Collected: 12/03/19 09:10

Matrix: Water

Date Received: 12/03/19 16:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583834	12/04/19 22:05	OH1	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 12:42	RM	TAL IRV
Total/NA	Prep	3520C			985 mL	1.0 mL	583670	12/04/19 07:07	NAM	TAL IRV
Total/NA	Analysis	8270C		1			584125	12/06/19 07:48	HN	TAL IRV
Total/NA	Analysis	300.0		10			583492	12/03/19 23:58	NN	TAL IRV
Total/NA	Analysis	300.0		10			583493	12/03/19 23:58	NN	TAL IRV
Total/NA	Analysis	300.0		200			583492	12/04/19 00:16	NN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	583858	12/05/19 07:00	M1G	TAL IRV
Total Recoverable	Analysis	6010B		1			584782	12/09/19 14:52	P1R	TAL IRV
Total/NA	Analysis	350.1		5	0.8 mL	8.0 mL	584635	12/04/19 14:09	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585363	12/11/19 17:37	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			583785	12/04/19 12:09	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	583709	12/04/19 09:49	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586253	12/16/19 16:49	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	584795	12/09/19 17:48	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		50	100 mL	100 mL	584163	12/05/19 07:31	YZ	TAL IRV

Client Sample ID: LY-7

Lab Sample ID: 440-256127-9

Date Collected: 12/03/19 11:15

Matrix: Water

Date Received: 12/03/19 16:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583834	12/04/19 22:34	OH1	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 13:07	RM	TAL IRV
Total/NA	Prep	3520C			1000 mL	1.0 mL	583670	12/04/19 07:07	NAM	TAL IRV
Total/NA	Analysis	8270C		1			584125	12/06/19 08:09	HN	TAL IRV
Total/NA	Analysis	300.0		10	5 mL	1.0 mL	583492	12/04/19 00:33	NN	TAL IRV
Total/NA	Analysis	300.0		10	5 mL	1.0 mL	583493	12/04/19 00:33	NN	TAL IRV
Total/NA	Analysis	300.0	DL	200			583492	12/04/19 01:26	NN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	583858	12/05/19 07:00	M1G	TAL IRV
Total Recoverable	Analysis	6010B		1			584383	12/06/19 14:54	P1R	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	583858	12/05/19 07:00	M1G	TAL IRV
Total Recoverable	Analysis	6010B		5			584383	12/06/19 16:53	P1R	TAL IRV
Total/NA	Analysis	350.1		5	0.8 mL	8.0 mL	584635	12/04/19 14:49	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585363	12/11/19 17:37	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			583785	12/04/19 11:21	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	583709	12/04/19 09:49	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586253	12/16/19 16:49	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	584795	12/09/19 17:48	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		10	100 mL	100 mL	584163	12/05/19 08:10	YZ	TAL IRV

Client Sample ID: Field Blank

Lab Sample ID: 440-256127-10

Date Collected: 12/03/19 00:01

Matrix: Water

Date Received: 12/03/19 16:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583834	12/04/19 23:04	OH1	TAL IRV
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	583939	12/05/19 09:43	DCI	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 13:31	RM	TAL IRV

Client Sample ID: Trip Blank

Lab Sample ID: 440-256127-11

Date Collected: 12/03/19 00:01

Matrix: Water

Date Received: 12/03/19 16:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583834	12/04/19 23:33	OH1	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583662	12/04/19 13:56	RM	TAL IRV

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-583662/5
Matrix: Water
Analysis Batch: 583662

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	ND		50	2.5	ug/L			12/04/19 08:37	1
Acrylonitrile	ND		50	1.0	ug/L			12/04/19 08:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*110*		*80 - 128*		*12/04/19 08:37*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/04/19 08:37*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/04/19 08:37*	*1*

Lab Sample ID: LCS 440-583662/1002
Matrix: Water
Analysis Batch: 583662

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acrolein	24.7	17.0	J	ug/L		69	10 - 145
Acrylonitrile	250	221		ug/L		88	48 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*105*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*76 - 132*

Lab Sample ID: 440-256127-1 MS
Matrix: Water
Analysis Batch: 583662

Client Sample ID: DW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acrolein	ND	F1	9.88	ND	F1	ug/L		0	10 - 147
Acrylonitrile	ND		100	82.1		ug/L		82	38 - 144

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*109*		*80 - 128*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*76 - 132*

Lab Sample ID: 440-256127-1 MSD
Matrix: Water
Analysis Batch: 583662

Client Sample ID: DW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acrolein	ND	F1	9.88	ND	F1	ug/L		0	10 - 147	NC	40
Acrylonitrile	ND		100	88.2		ug/L		88	38 - 144	7	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*108*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*76 - 132*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-583675/8
Matrix: Water
Analysis Batch: 583675

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/04/19 11:58	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 11:58	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 11:58	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 11:58	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 11:58	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 11:58	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 11:58	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 11:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/04/19 11:58	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/04/19 11:58	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 11:58	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 11:58	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 11:58	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 11:58	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 11:58	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 11:58	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/04/19 11:58	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/04/19 11:58	1
2-Hexanone	ND		5.0	2.5	ug/L			12/04/19 11:58	1
Acetone	ND		20	10	ug/L			12/04/19 11:58	1
Acetonitrile	ND		20	10	ug/L			12/04/19 11:58	1
Acrolein	ND		5.0	2.5	ug/L			12/04/19 11:58	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/04/19 11:58	1
Benzene	ND		0.50	0.25	ug/L			12/04/19 11:58	1
Allyl chloride	ND		1.0	0.50	ug/L			12/04/19 11:58	1
Bromoform	ND		1.0	0.40	ug/L			12/04/19 11:58	1
Bromomethane	ND		0.50	0.25	ug/L			12/04/19 11:58	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/04/19 11:58	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/04/19 11:58	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/04/19 11:58	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/04/19 11:58	1
Chloroethane	ND		1.0	0.40	ug/L			12/04/19 11:58	1
Chloroform	ND		0.50	0.25	ug/L			12/04/19 11:58	1
Chloromethane	ND		0.50	0.25	ug/L			12/04/19 11:58	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 11:58	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 11:58	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/04/19 11:58	1
Dibromomethane	ND		0.50	0.25	ug/L			12/04/19 11:58	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/04/19 11:58	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/04/19 11:58	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 11:58	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/04/19 11:58	1
Iodomethane	ND		2.0	1.0	ug/L			12/04/19 11:58	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/04/19 11:58	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/04/19 11:58	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 11:58	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/04/19 11:58	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/04/19 11:58	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-583675/8
Matrix: Water
Analysis Batch: 583675

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.40	ug/L			12/04/19 11:58	1
o-Xylene	ND		0.50	0.25	ug/L			12/04/19 11:58	1
Propionitrile	ND		20	10	ug/L			12/04/19 11:58	1
Styrene	ND		0.50	0.25	ug/L			12/04/19 11:58	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/04/19 11:58	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/04/19 11:58	1
Toluene	ND		0.50	0.25	ug/L			12/04/19 11:58	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 11:58	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 11:58	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/04/19 11:58	1
Trichloroethene	ND		0.50	0.25	ug/L			12/04/19 11:58	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/04/19 11:58	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/04/19 11:58	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/04/19 11:58	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/04/19 11:58	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/04/19 11:58	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/04/19 11:58	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	*None*		*ug/L*					*12/04/19 11:58*	*1*

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*101*		*80 - 128*		*12/04/19 11:58*	*1*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*12/04/19 11:58*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*12/04/19 11:58*	*1*

Lab Sample ID: LCS 440-583675/1006
Matrix: Water
Analysis Batch: 583675

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	25.0	24.3		ug/L		97	63 - 130
1,1,1,2-Tetrachloroethane	25.0	25.2		ug/L		101	60 - 141
1,1,1-Trichloroethane	25.0	26.4		ug/L		106	70 - 130
1,1,2,2-Tetrachloroethane	25.0	25.3		ug/L		101	63 - 130
1,1,2-Trichloroethane	25.0	24.9		ug/L		100	70 - 130
1,1-Dichloroethane	25.0	25.7		ug/L		103	64 - 130
1,1-Dichloroethene	25.0	25.5		ug/L		102	70 - 130
1,1-Dichloropropene	25.0	26.6		ug/L		106	70 - 130
1,2,4-Trichlorobenzene	25.0	23.0		ug/L		92	60 - 140
1,2-Dibromo-3-Chloropropane	25.0	25.0		ug/L		100	52 - 140
1,2-Dichlorobenzene	25.0	25.0		ug/L		100	70 - 130
1,2-Dichloroethane	25.0	25.2		ug/L		101	57 - 138
1,2-Dichloropropane	25.0	24.8		ug/L		99	67 - 130
1,3-Dichlorobenzene	25.0	25.3		ug/L		101	70 - 130
1,3-Dichloropropane	25.0	24.1		ug/L		97	70 - 130
1,4-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130
2,2-Dichloropropane	25.0	28.2		ug/L		113	68 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-583675/1006
Matrix: Water
Analysis Batch: 583675

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Hexanone	125	133		ug/L		106	10 - 150
Acetone	125	122		ug/L		98	10 - 150
Acetonitrile	250	267		ug/L		107	49 - 142
Acrolein	24.7	23.5		ug/L		95	10 - 145
Acrylonitrile	250	277		ug/L		111	48 - 140
Benzene	25.0	25.0		ug/L		100	68 - 130
Allyl chloride	25.0	24.9		ug/L		100	60 - 140
Bromoform	25.0	27.2		ug/L		109	60 - 148
Bromomethane	25.0	23.3		ug/L		93	64 - 139
Carbon disulfide	25.0	26.3		ug/L		105	52 - 136
Carbon tetrachloride	25.0	27.1		ug/L		108	60 - 150
Chlorobenzene	25.0	24.4		ug/L		98	70 - 130
Bromochloromethane	25.0	27.7		ug/L		111	70 - 130
Chloroethane	25.0	24.0		ug/L		96	64 - 135
Chloroform	25.0	24.3		ug/L		97	70 - 130
Chloromethane	25.0	24.8		ug/L		99	47 - 140
cis-1,2-Dichloroethene	25.0	24.0		ug/L		96	70 - 133
cis-1,3-Dichloropropene	25.0	25.3		ug/L		101	70 - 133
Dibromochloromethane	25.0	28.3		ug/L		113	69 - 145
Dibromomethane	25.0	27.0		ug/L		108	70 - 130
Bromodichloromethane	25.0	27.5		ug/L		110	70 - 132
Dichlorodifluoromethane	25.0	25.1		ug/L		100	29 - 150
Ethyl methacrylate	25.0	24.9		ug/L		100	60 - 140
Ethylbenzene	25.0	25.3		ug/L		101	70 - 130
Iodomethane	25.0	24.6		ug/L		98	60 - 140
m,p-Xylene	25.0	25.1		ug/L		100	70 - 130
Methylene Chloride	25.0	25.1		ug/L		100	52 - 130
Methyl tert-butyl ether	25.0	24.0		ug/L		96	63 - 131
Naphthalene	25.0	22.7		ug/L		91	60 - 140
o-Xylene	25.0	25.2		ug/L		101	70 - 130
Propionitrile	250	316		ug/L		126	52 - 142
Styrene	25.0	25.2		ug/L		101	70 - 134
Tetrachloroethene	25.0	25.9		ug/L		104	70 - 130
Tetrahydrofuran	50.0	47.0		ug/L		94	36 - 147
Toluene	25.0	25.1		ug/L		100	70 - 130
trans-1,2-Dichloroethene	25.0	25.7		ug/L		103	70 - 130
trans-1,3-Dichloropropene	25.0	26.4		ug/L		106	70 - 132
trans-1,4-Dichloro-2-butene	25.0	27.4		ug/L		109	44 - 140
Trichloroethene	25.0	26.5		ug/L		106	70 - 130
Trichlorofluoromethane	25.0	25.8		ug/L		103	60 - 150
Vinyl acetate	25.0	25.1		ug/L		100	48 - 140
Vinyl chloride	25.0	24.0		ug/L		96	59 - 133
1,2-Dibromoethane (EDB)	25.0	25.5		ug/L		102	70 - 130
2-Butanone (MEK)	125	129		ug/L		103	44 - 150
4-Methyl-2-pentanone (MIBK)	125	132		ug/L		106	59 - 149

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*97*		*80 - 128*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-583675/1006
Matrix: Water
Analysis Batch: 583675

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*76 - 132*

Lab Sample ID: 440-256120-A-1 MS
Matrix: Water
Analysis Batch: 583675

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	ND		500	504		ug/L		101	60 - 130
1,1,1,2-Tetrachloroethane	ND		500	518		ug/L		104	60 - 149
1,1,1-Trichloroethane	ND		500	554		ug/L		111	70 - 130
1,1,2,2-Tetrachloroethane	ND		500	523		ug/L		105	63 - 130
1,1,2-Trichloroethane	ND		500	510		ug/L		102	70 - 130
1,1-Dichloroethane	ND		500	518		ug/L		104	65 - 130
1,1-Dichloroethene	ND		500	545		ug/L		109	70 - 130
1,1-Dichloropropene	ND		500	544		ug/L		109	64 - 130
1,2,4-Trichlorobenzene	ND		500	529		ug/L		106	60 - 140
1,2-Dibromo-3-Chloropropane	ND		500	543		ug/L		109	48 - 140
1,2-Dichlorobenzene	ND		500	540		ug/L		108	70 - 130
1,2-Dichloroethane	ND		500	504		ug/L		101	56 - 146
1,2-Dichloropropane	ND		500	519		ug/L		104	69 - 130
1,3-Dichlorobenzene	ND		500	521		ug/L		104	70 - 130
1,3-Dichloropropane	ND		500	528		ug/L		106	70 - 130
1,4-Dichlorobenzene	ND		500	522		ug/L		104	70 - 130
2,2-Dichloropropane	ND		500	573		ug/L		115	69 - 138
2-Hexanone	ND		2500	2660		ug/L		106	10 - 150
Acetone	ND		2500	2490		ug/L		100	10 - 150
Acetonitrile	ND		5000	5020		ug/L		100	37 - 140
Acrolein	ND		494	412		ug/L		83	10 - 147
Acrylonitrile	ND		5000	5270		ug/L		105	38 - 144
Benzene	ND		500	511		ug/L		102	66 - 130
Allyl chloride	ND		500	508		ug/L		102	52 - 140
Bromoform	ND		500	606		ug/L		121	59 - 150
Bromomethane	ND		500	454		ug/L		91	62 - 131
Carbon disulfide	ND		500	522		ug/L		104	49 - 140
Carbon tetrachloride	ND		500	567		ug/L		113	60 - 150
Chlorobenzene	ND		500	521		ug/L		104	70 - 130
Bromochloromethane	ND		500	522		ug/L		104	70 - 130
Chloroethane	ND		500	491		ug/L		98	68 - 130
Chloroform	56		500	563		ug/L		101	70 - 130
Chloromethane	ND		500	464		ug/L		93	39 - 144
cis-1,2-Dichloroethene	1100		500	1550		ug/L		81	70 - 130
cis-1,3-Dichloropropene	ND		500	535		ug/L		107	70 - 133
Dibromochloromethane	ND		500	592		ug/L		118	70 - 148
Dibromomethane	ND		500	526		ug/L		105	70 - 130
Bromodichloromethane	ND		500	587		ug/L		117	70 - 138
Dichlorodifluoromethane	ND		500	462		ug/L		92	25 - 142
Ethyl methacrylate	ND		500	493		ug/L		99	10 - 150

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256120-A-1 MS
Matrix: Water
Analysis Batch: 583675

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	ND		500	535		ug/L		107	70 - 130
Iodomethane	ND		500	493		ug/L		99	60 - 140
m,p-Xylene	ND		500	548		ug/L		110	70 - 133
Methylacrylonitrile	ND	F1	12500	ND	F1	ug/L		0	55 - 141
Methyl methacrylate	ND		2500	2130		ug/L		85	51 - 140
Methylene Chloride	ND		500	517		ug/L		103	52 - 130
Methyl tert-butyl ether	ND		500	466		ug/L		93	70 - 130
Naphthalene	ND		500	483		ug/L		97	60 - 140
o-Xylene	ND		500	548		ug/L		110	70 - 133
Propionitrile	ND		5000	5140		ug/L		103	38 - 146
Styrene	ND		500	530		ug/L		106	29 - 150
Tetrachloroethene	ND		500	602		ug/L		120	70 - 137
Tetrahydrofuran	ND	F1	1000	3090	F1	ug/L		309	22 - 140
Toluene	ND		500	536		ug/L		107	70 - 130
trans-1,2-Dichloroethene	ND		500	518		ug/L		104	70 - 130
trans-1,3-Dichloropropene	ND		500	538		ug/L		108	70 - 138
trans-1,4-Dichloro-2-butene	ND		500	500		ug/L		100	10 - 150
Trichloroethene	2000	F1	500	2250	F1	ug/L		58	70 - 130
Trichlorofluoromethane	ND		500	540		ug/L		108	60 - 150
Vinyl acetate	ND		500	504		ug/L		101	23 - 150
Vinyl chloride	ND		500	468		ug/L		94	50 - 137
1,2-Dibromoethane (EDB)	ND		500	534		ug/L		107	70 - 131
2-Butanone (MEK)	ND		2500	2170		ug/L		87	48 - 140
4-Methyl-2-pentanone (MIBK)	ND		2500	2600		ug/L		104	52 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*97*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*76 - 132*

Lab Sample ID: 440-256120-A-1 MSD
Matrix: Water
Analysis Batch: 583675

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	ND		500	512		ug/L		102	60 - 130	1	30
1,1,1,2-Tetrachloroethane	ND		500	513		ug/L		103	60 - 149	1	20
1,1,1-Trichloroethane	ND		500	534		ug/L		107	70 - 130	4	20
1,1,2,2-Tetrachloroethane	ND		500	530		ug/L		106	63 - 130	1	30
1,1,2-Trichloroethane	ND		500	496		ug/L		99	70 - 130	3	25
1,1-Dichloroethane	ND		500	529		ug/L		106	65 - 130	2	20
1,1-Dichloroethene	ND		500	525		ug/L		105	70 - 130	4	20
1,1-Dichloropropene	ND		500	540		ug/L		108	64 - 130	1	20
1,2,4-Trichlorobenzene	ND		500	515		ug/L		103	60 - 140	3	20
1,2-Dibromo-3-Chloropropane	ND		500	527		ug/L		105	48 - 140	3	30
1,2-Dichlorobenzene	ND		500	520		ug/L		104	70 - 130	4	20
1,2-Dichloroethane	ND		500	502		ug/L		100	56 - 146	0	20
1,2-Dichloropropane	ND		500	519		ug/L		104	69 - 130	0	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256120-A-1 MSD
Matrix: Water
Analysis Batch: 583675

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3-Dichlorobenzene	ND		500	513		ug/L		103	70 - 130	1	20
1,3-Dichloropropane	ND		500	507		ug/L		101	70 - 130	4	25
1,4-Dichlorobenzene	ND		500	508		ug/L		102	70 - 130	3	20
2,2-Dichloropropane	ND		500	565		ug/L		113	69 - 138	2	25
2-Hexanone	ND		2500	2650		ug/L		106	10 - 150	0	35
Acetone	ND		2500	2490		ug/L		100	10 - 150	0	35
Acetonitrile	ND		5000	5830		ug/L		117	37 - 140	15	40
Acrolein	ND		494	392		ug/L		79	10 - 147	5	40
Acrylonitrile	ND		5000	5260		ug/L		105	38 - 144	0	40
Benzene	ND		500	504		ug/L		101	66 - 130	1	20
Allyl chloride	ND		500	491		ug/L		98	52 - 140	3	40
Bromoform	ND		500	590		ug/L		118	59 - 150	3	25
Bromomethane	ND		500	452		ug/L		90	62 - 131	0	25
Carbon disulfide	ND		500	498		ug/L		100	49 - 140	5	20
Carbon tetrachloride	ND		500	538		ug/L		108	60 - 150	5	25
Chlorobenzene	ND		500	500		ug/L		100	70 - 130	4	20
Bromochloromethane	ND		500	529		ug/L		106	70 - 130	1	25
Chloroethane	ND		500	469		ug/L		94	68 - 130	5	25
Chloroform	56		500	537		ug/L		96	70 - 130	5	20
Chloromethane	ND		500	448		ug/L		90	39 - 144	3	25
cis-1,2-Dichloroethene	1100		500	1570		ug/L		85	70 - 130	1	20
cis-1,3-Dichloropropene	ND		500	524		ug/L		105	70 - 133	2	20
Dibromochloromethane	ND		500	574		ug/L		115	70 - 148	3	25
Dibromomethane	ND		500	512		ug/L		102	70 - 130	3	25
Bromodichloromethane	ND		500	563		ug/L		113	70 - 138	4	20
Dichlorodifluoromethane	ND		500	460		ug/L		92	25 - 142	0	30
Ethyl methacrylate	ND		500	490		ug/L		98	10 - 150	1	40
Ethylbenzene	ND		500	524		ug/L		105	70 - 130	2	20
Iodomethane	ND		500	487		ug/L		97	60 - 140	1	30
m,p-Xylene	ND		500	517		ug/L		103	70 - 133	6	25
Methylacrylonitrile	ND	F1	12500	ND	F1	ug/L		0	55 - 141	NC	40
Methyl methacrylate	ND		2500	2180		ug/L		87	51 - 140	2	40
Methylene Chloride	ND		500	497		ug/L		99	52 - 130	4	20
Methyl tert-butyl ether	ND		500	525		ug/L		105	70 - 130	12	25
Naphthalene	ND		500	480		ug/L		96	60 - 140	1	30
o-Xylene	ND		500	523		ug/L		105	70 - 133	5	20
Propionitrile	ND		5000	5110		ug/L		102	38 - 146	0	40
Styrene	ND		500	517		ug/L		103	29 - 150	3	35
Tetrachloroethene	ND		500	578		ug/L		116	70 - 137	4	20
Tetrahydrofuran	ND	F1	1000	3240	F1	ug/L		324	22 - 140	5	30
Toluene	ND		500	510		ug/L		102	70 - 130	5	20
trans-1,2-Dichloroethene	ND		500	524		ug/L		105	70 - 130	1	20
trans-1,3-Dichloropropene	ND		500	524		ug/L		105	70 - 138	3	25
trans-1,4-Dichloro-2-butene	ND		500	525		ug/L		105	10 - 150	5	30
Trichloroethene	2000	F1	500	2230	F1	ug/L		54	70 - 130	1	20
Trichlorofluoromethane	ND		500	525		ug/L		105	60 - 150	3	25
Vinyl acetate	ND		500	525		ug/L		105	23 - 150	4	30
Vinyl chloride	ND		500	456		ug/L		91	50 - 137	3	30
1,2-Dibromoethane (EDB)	ND		500	520		ug/L		104	70 - 131	3	25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256120-A-1 MSD
Matrix: Water
Analysis Batch: 583675

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Butanone (MEK)	ND		2500	2500		ug/L		100	48 - 140	14	40
4-Methyl-2-pentanone (MIBK)	ND		2500	2600		ug/L		104	52 - 150	0	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*96*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*76 - 132*

Lab Sample ID: MB 440-583834/4
Matrix: Water
Analysis Batch: 583834

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/04/19 18:11	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 18:11	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 18:11	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 18:11	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 18:11	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 18:11	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 18:11	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 18:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/04/19 18:11	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/04/19 18:11	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 18:11	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 18:11	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 18:11	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 18:11	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 18:11	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 18:11	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/04/19 18:11	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/04/19 18:11	1
2-Hexanone	ND		5.0	2.5	ug/L			12/04/19 18:11	1
Acetone	ND		20	10	ug/L			12/04/19 18:11	1
Acetonitrile	ND		20	10	ug/L			12/04/19 18:11	1
Acrolein	ND		5.0	2.5	ug/L			12/04/19 18:11	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/04/19 18:11	1
Benzene	ND		0.50	0.25	ug/L			12/04/19 18:11	1
Allyl chloride	ND		1.0	0.50	ug/L			12/04/19 18:11	1
Bromoform	ND		1.0	0.40	ug/L			12/04/19 18:11	1
Bromomethane	ND		0.50	0.25	ug/L			12/04/19 18:11	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/04/19 18:11	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/04/19 18:11	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/04/19 18:11	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/04/19 18:11	1
Chloroethane	ND		1.0	0.40	ug/L			12/04/19 18:11	1
Chloroform	ND		0.50	0.25	ug/L			12/04/19 18:11	1
Chloromethane	ND		0.50	0.25	ug/L			12/04/19 18:11	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 18:11	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-583834/4
Matrix: Water
Analysis Batch: 583834

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 18:11	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/04/19 18:11	1
Dibromomethane	ND		0.50	0.25	ug/L			12/04/19 18:11	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/04/19 18:11	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/04/19 18:11	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 18:11	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/04/19 18:11	1
Iodomethane	ND		2.0	1.0	ug/L			12/04/19 18:11	1
Isobutyl alcohol	ND		25	13	ug/L			12/04/19 18:11	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/04/19 18:11	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/04/19 18:11	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 18:11	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/04/19 18:11	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/04/19 18:11	1
Naphthalene	ND		1.0	0.40	ug/L			12/04/19 18:11	1
o-Xylene	ND		0.50	0.25	ug/L			12/04/19 18:11	1
Propionitrile	ND		20	10	ug/L			12/04/19 18:11	1
Styrene	ND		0.50	0.25	ug/L			12/04/19 18:11	1
t-Butanol	ND		10	5.0	ug/L			12/04/19 18:11	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/04/19 18:11	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/04/19 18:11	1
Toluene	ND		0.50	0.25	ug/L			12/04/19 18:11	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 18:11	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 18:11	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/04/19 18:11	1
Trichloroethene	ND		0.50	0.25	ug/L			12/04/19 18:11	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/04/19 18:11	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/04/19 18:11	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/04/19 18:11	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/04/19 18:11	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/04/19 18:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/04/19 18:11	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*8.64*	*T J*	*ug/L*		*2.35*			*12/04/19 18:11*	*1*
Unknown	*37.6*	*T J*	*ug/L*		*2.43*			*12/04/19 18:11*	*1*
Unknown	*3.20*	*T J*	*ug/L*		*2.77*			*12/04/19 18:11*	*1*
Unknown	*9.71*	*T J*	*ug/L*		*3.22*			*12/04/19 18:11*	*1*
Unknown	*3.20*	*T J*	*ug/L*		*15.00*			*12/04/19 18:11*	*1*
Unknown	*6.51*	*T J*	*ug/L*		*16.09*			*12/04/19 18:11*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*104*		*80 - 128*		*12/04/19 18:11*	*1*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*12/04/19 18:11*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*12/04/19 18:11*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-583834/1002
Matrix: Water
Analysis Batch: 583834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	25.0	25.9		ug/L		104	63 - 130
1,1,1,2-Tetrachloroethane	25.0	23.2		ug/L		93	60 - 141
1,1,1-Trichloroethane	25.0	24.1		ug/L		96	70 - 130
1,1,2,2-Tetrachloroethane	25.0	24.3		ug/L		97	63 - 130
1,1,2-Trichloroethane	25.0	24.3		ug/L		97	70 - 130
1,1-Dichloroethane	25.0	24.6		ug/L		98	64 - 130
1,1-Dichloroethene	25.0	27.1		ug/L		108	70 - 130
1,1-Dichloropropene	25.0	29.5		ug/L		118	70 - 130
1,2,4-Trichlorobenzene	25.0	27.6		ug/L		111	60 - 140
1,2-Dibromo-3-Chloropropane	25.0	25.8		ug/L		103	52 - 140
1,2-Dichlorobenzene	25.0	26.4		ug/L		105	70 - 130
1,2-Dichloroethane	25.0	21.2		ug/L		85	57 - 138
1,2-Dichloropropane	25.0	24.0		ug/L		96	67 - 130
1,3-Dichlorobenzene	25.0	26.0		ug/L		104	70 - 130
1,3-Dichloropropane	25.0	25.1		ug/L		100	70 - 130
1,4-Dichlorobenzene	25.0	24.1		ug/L		96	70 - 130
2,2-Dichloropropane	25.0	23.3		ug/L		93	68 - 141
2-Hexanone	125	137		ug/L		110	10 - 150
Acetone	125	148		ug/L		118	10 - 150
Acetonitrile	250	456	*	ug/L		182	49 - 142
Acrolein	24.7	30.1		ug/L		122	10 - 145
Acrylonitrile	250	275		ug/L		110	48 - 140
Benzene	25.0	26.3		ug/L		105	68 - 130
Allyl chloride	25.0	26.2		ug/L		105	60 - 140
Bromoform	25.0	26.3		ug/L		105	60 - 148
Bromomethane	25.0	25.8		ug/L		103	64 - 139
Carbon disulfide	25.0	26.3		ug/L		105	52 - 136
Carbon tetrachloride	25.0	24.0		ug/L		96	60 - 150
Chlorobenzene	25.0	23.5		ug/L		94	70 - 130
Bromochloromethane	25.0	23.7		ug/L		95	70 - 130
Chloroethane	25.0	26.2		ug/L		105	64 - 135
Chloroform	25.0	22.2		ug/L		89	70 - 130
Chloromethane	25.0	26.1		ug/L		105	47 - 140
cis-1,2-Dichloroethene	25.0	25.8		ug/L		103	70 - 133
cis-1,3-Dichloropropene	25.0	27.3		ug/L		109	70 - 133
Dibromochloromethane	25.0	24.3		ug/L		97	69 - 145
Dibromomethane	25.0	23.8		ug/L		95	70 - 130
Bromodichloromethane	25.0	22.9		ug/L		91	70 - 132
Dichlorodifluoromethane	25.0	26.1		ug/L		104	29 - 150
Ethyl methacrylate	25.0	27.7		ug/L		111	60 - 140
Ethylbenzene	25.0	27.9		ug/L		112	70 - 130
Iodomethane	25.0	26.2		ug/L		105	60 - 140
Isobutyl alcohol	625	769		ug/L		123	56 - 140
m,p-Xylene	25.0	29.0		ug/L		116	70 - 130
Methylene Chloride	25.0	26.5		ug/L		106	52 - 130
Methyl tert-butyl ether	25.0	28.2		ug/L		113	63 - 131
Naphthalene	25.0	28.8		ug/L		115	60 - 140
o-Xylene	25.0	24.7		ug/L		99	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-583834/1002
Matrix: Water
Analysis Batch: 583834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Propionitrile	250	263		ug/L		105	52 - 142
Styrene	25.0	28.6		ug/L		115	70 - 134
t-Butanol	250	309		ug/L		124	70 - 130
Tetrachloroethene	25.0	25.4		ug/L		101	70 - 130
Tetrahydrofuran	50.0	54.3		ug/L		109	36 - 147
Toluene	25.0	23.6		ug/L		94	70 - 130
trans-1,2-Dichloroethene	25.0	26.6		ug/L		106	70 - 130
trans-1,3-Dichloropropene	25.0	27.2		ug/L		109	70 - 132
trans-1,4-Dichloro-2-butene	25.0	28.8		ug/L		115	44 - 140
Trichloroethene	25.0	25.1		ug/L		100	70 - 130
Trichlorofluoromethane	25.0	24.7		ug/L		99	60 - 150
Vinyl acetate	25.0	30.2		ug/L		121	48 - 140
Vinyl chloride	25.0	26.2		ug/L		105	59 - 133
1,2-Dibromoethane (EDB)	25.0	24.6		ug/L		98	70 - 130
2-Butanone (MEK)	125	141		ug/L		113	44 - 150
4-Methyl-2-pentanone (MIBK)	125	133		ug/L		107	59 - 149

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*97*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*93*		*76 - 132*

Lab Sample ID: 440-256157-A-4 MS
Matrix: Water
Analysis Batch: 583834

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	ND		10.0	10.2		ug/L		102	60 - 130
1,1,1,2-Tetrachloroethane	ND		10.0	9.06		ug/L		91	60 - 149
1,1,1-Trichloroethane	ND		10.0	8.69		ug/L		87	70 - 130
1,1,2,2-Tetrachloroethane	ND		10.0	9.81		ug/L		98	63 - 130
1,1,2-Trichloroethane	ND		10.0	9.34		ug/L		93	70 - 130
1,1-Dichloroethane	ND		10.0	8.92		ug/L		89	65 - 130
1,1-Dichloroethene	ND		10.0	9.46		ug/L		95	70 - 130
1,1-Dichloropropene	ND		10.0	10.8		ug/L		108	64 - 130
1,2,4-Trichlorobenzene	ND		10.0	10.8		ug/L		108	60 - 140
1,2-Dibromo-3-Chloropropane	ND		10.0	10.7		ug/L		107	48 - 140
1,2-Dichlorobenzene	ND		10.0	10.2		ug/L		102	70 - 130
1,2-Dichloroethane	ND		10.0	8.18		ug/L		82	56 - 146
1,2-Dichloropropane	ND		10.0	8.92		ug/L		89	69 - 130
1,3-Dichlorobenzene	ND		10.0	9.98		ug/L		100	70 - 130
1,3-Dichloropropane	ND		10.0	9.68		ug/L		97	70 - 130
1,4-Dichlorobenzene	ND		10.0	9.13		ug/L		91	70 - 130
2,2-Dichloropropane	ND		10.0	9.02		ug/L		90	69 - 138
2-Hexanone	ND		50.0	49.8		ug/L		100	10 - 150
Acetone	ND		50.0	60.1		ug/L		120	10 - 150
Acetonitrile	ND	F1 *	100	184	F1	ug/L		184	37 - 140
Acrolein	ND		9.88	9.59		ug/L		97	10 - 147

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256157-A-4 MS
Matrix: Water
Analysis Batch: 583834

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acrylonitrile	ND		100	97.7		ug/L		98	38 - 144
Benzene	ND		10.0	9.56		ug/L		96	66 - 130
Allyl chloride	ND		10.0	8.99		ug/L		90	52 - 140
Bromoform	ND		10.0	10.3		ug/L		103	59 - 150
Bromomethane	ND		10.0	8.34		ug/L		83	62 - 131
Carbon disulfide	ND		10.0	8.71		ug/L		87	49 - 140
Carbon tetrachloride	ND		10.0	8.86		ug/L		89	60 - 150
Chlorobenzene	ND		10.0	9.18		ug/L		92	70 - 130
Bromochloromethane	ND		10.0	8.98		ug/L		90	70 - 130
Chloroethane	ND		10.0	8.46		ug/L		85	68 - 130
Chloroform	ND		10.0	8.38		ug/L		84	70 - 130
Chloromethane	ND		10.0	7.76		ug/L		78	39 - 144
cis-1,2-Dichloroethene	ND		10.0	9.79		ug/L		98	70 - 130
cis-1,3-Dichloropropene	ND		10.0	10.2		ug/L		102	70 - 133
Dibromochloromethane	ND		10.0	9.30		ug/L		93	70 - 148
Dibromomethane	ND		10.0	9.28		ug/L		93	70 - 130
Bromodichloromethane	ND		10.0	9.16		ug/L		92	70 - 138
Dichlorodifluoromethane	ND		10.0	7.82		ug/L		78	25 - 142
Ethyl methacrylate	ND		10.0	9.80		ug/L		98	10 - 150
Ethylbenzene	ND		10.0	10.1		ug/L		101	70 - 130
Iodomethane	ND		10.0	9.23		ug/L		92	60 - 140
Isobutyl alcohol	ND	F2	250	282		ug/L		113	10 - 150
m,p-Xylene	ND		10.0	10.3		ug/L		103	70 - 133
Methylacrylonitrile	ND		250	270		ug/L		108	55 - 141
Methyl methacrylate	ND		50.0	50.9		ug/L		102	51 - 140
Methylene Chloride	ND		10.0	9.32		ug/L		93	52 - 130
Methyl tert-butyl ether	ND		10.0	9.54		ug/L		95	70 - 130
Naphthalene	ND		10.0	10.4		ug/L		104	60 - 140
o-Xylene	ND		10.0	9.01		ug/L		90	70 - 133
Propionitrile	ND		100	101		ug/L		101	38 - 146
Styrene	ND		10.0	10.2		ug/L		102	29 - 150
t-Butanol	ND	F1	100	113		ug/L		113	70 - 130
Tetrachloroethene	0.27	J	10.0	9.91		ug/L		96	70 - 137
Tetrahydrofuran	ND		20.0	26.6		ug/L		133	22 - 140
Toluene	ND		10.0	9.03		ug/L		90	70 - 130
trans-1,2-Dichloroethene	ND		10.0	9.19		ug/L		92	70 - 130
trans-1,3-Dichloropropene	ND		10.0	9.87		ug/L		99	70 - 138
trans-1,4-Dichloro-2-butene	ND		10.0	9.99		ug/L		100	10 - 150
Trichloroethene	ND		10.0	9.40		ug/L		94	70 - 130
Trichlorofluoromethane	ND		10.0	8.90		ug/L		89	60 - 150
Vinyl acetate	ND		10.0	10.0		ug/L		100	23 - 150
Vinyl chloride	ND		10.0	7.79		ug/L		78	50 - 137
1,2-Dibromoethane (EDB)	ND		10.0	9.43		ug/L		94	70 - 131
2-Butanone (MEK)	ND		50.0	50.7		ug/L		101	48 - 140
4-Methyl-2-pentanone (MIBK)	ND		50.0	49.3		ug/L		99	52 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*97*		*80 - 128*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256157-A-4 MS
Matrix: Water
Analysis Batch: 583834

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*76 - 132*

Lab Sample ID: 440-256157-A-4 MSD
Matrix: Water
Analysis Batch: 583834

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	ND		10.0	10.1		ug/L		101	60 - 130	1	30
1,1,1,2-Tetrachloroethane	ND		10.0	9.39		ug/L		94	60 - 149	4	20
1,1,1-Trichloroethane	ND		10.0	9.35		ug/L		93	70 - 130	7	20
1,1,2,2-Tetrachloroethane	ND		10.0	10.4		ug/L		104	63 - 130	6	30
1,1,2-Trichloroethane	ND		10.0	10.0		ug/L		100	70 - 130	7	25
1,1-Dichloroethane	ND		10.0	9.39		ug/L		94	65 - 130	5	20
1,1-Dichloroethene	ND		10.0	10.4		ug/L		104	70 - 130	10	20
1,1-Dichloropropene	ND		10.0	11.2		ug/L		112	64 - 130	3	20
1,2,4-Trichlorobenzene	ND		10.0	11.4		ug/L		114	60 - 140	6	20
1,2-Dibromo-3-Chloropropane	ND		10.0	10.2		ug/L		102	48 - 140	4	30
1,2-Dichlorobenzene	ND		10.0	10.6		ug/L		106	70 - 130	4	20
1,2-Dichloroethane	ND		10.0	8.99		ug/L		90	56 - 146	9	20
1,2-Dichloropropane	ND		10.0	9.78		ug/L		98	69 - 130	9	20
1,3-Dichlorobenzene	ND		10.0	10.4		ug/L		104	70 - 130	4	20
1,3-Dichloropropane	ND		10.0	9.73		ug/L		97	70 - 130	1	25
1,4-Dichlorobenzene	ND		10.0	9.56		ug/L		96	70 - 130	5	20
2,2-Dichloropropane	ND		10.0	9.18		ug/L		92	69 - 138	2	25
2-Hexanone	ND		50.0	52.8		ug/L		106	10 - 150	6	35
Acetone	ND		50.0	65.2		ug/L		130	10 - 150	8	35
Acetonitrile	ND	F1 *	100	219	F1	ug/L		219	37 - 140	17	40
Acrolein	ND		9.88	11.1		ug/L		112	10 - 147	14	40
Acrylonitrile	ND		100	106		ug/L		106	38 - 144	8	40
Benzene	ND		10.0	10.5		ug/L		105	66 - 130	9	20
Allyl chloride	ND		10.0	9.32		ug/L		93	52 - 140	4	40
Bromoform	ND		10.0	10.2		ug/L		102	59 - 150	1	25
Bromomethane	ND		10.0	9.50		ug/L		95	62 - 131	13	25
Carbon disulfide	ND		10.0	9.16		ug/L		92	49 - 140	5	20
Carbon tetrachloride	ND		10.0	9.26		ug/L		93	60 - 150	4	25
Chlorobenzene	ND		10.0	9.46		ug/L		95	70 - 130	3	20
Bromochloromethane	ND		10.0	9.31		ug/L		93	70 - 130	4	25
Chloroethane	ND		10.0	9.84		ug/L		98	68 - 130	15	25
Chloroform	ND		10.0	9.04		ug/L		90	70 - 130	8	20
Chloromethane	ND		10.0	9.22		ug/L		92	39 - 144	17	25
cis-1,2-Dichloroethene	ND		10.0	10.3		ug/L		103	70 - 130	5	20
cis-1,3-Dichloropropene	ND		10.0	10.4		ug/L		104	70 - 133	2	20
Dibromochloromethane	ND		10.0	9.50		ug/L		95	70 - 148	2	25
Dibromomethane	ND		10.0	9.80		ug/L		98	70 - 130	5	25
Bromodichloromethane	ND		10.0	9.31		ug/L		93	70 - 138	2	20
Dichlorodifluoromethane	ND		10.0	9.53		ug/L		95	25 - 142	20	30
Ethyl methacrylate	ND		10.0	10.2		ug/L		102	10 - 150	4	40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256157-A-4 MSD
Matrix: Water
Analysis Batch: 583834

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	ND		10.0	10.9		ug/L		109	70 - 130	7	20
Iodomethane	ND		10.0	9.74		ug/L		97	60 - 140	5	30
Isobutyl alcohol	ND	F2	250	196	F2	ug/L		78	10 - 150	36	35
m,p-Xylene	ND		10.0	10.7		ug/L		107	70 - 133	4	25
Methylacrylonitrile	ND		250	271		ug/L		108	55 - 141	0	40
Methyl methacrylate	ND		50.0	50.9		ug/L		102	51 - 140	0	40
Methylene Chloride	ND		10.0	9.89		ug/L		99	52 - 130	6	20
Methyl tert-butyl ether	ND		10.0	10.4		ug/L		104	70 - 130	9	25
Naphthalene	ND		10.0	11.3		ug/L		113	60 - 140	8	30
o-Xylene	ND		10.0	9.65		ug/L		97	70 - 133	7	20
Propionitrile	ND		100	106		ug/L		106	38 - 146	5	40
Styrene	ND		10.0	10.9		ug/L		109	29 - 150	7	35
t-Butanol	ND	F1	100	133	F1	ug/L		133	70 - 130	16	25
Tetrachloroethene	0.27	J	10.0	10.3		ug/L		101	70 - 137	4	20
Tetrahydrofuran	ND		20.0	26.6		ug/L		133	22 - 140	0	30
Toluene	ND		10.0	9.32		ug/L		93	70 - 130	3	20
trans-1,2-Dichloroethene	ND		10.0	9.68		ug/L		97	70 - 130	5	20
trans-1,3-Dichloropropene	ND		10.0	10.3		ug/L		103	70 - 138	4	25
trans-1,4-Dichloro-2-butene	ND		10.0	10.4		ug/L		104	10 - 150	4	30
Trichloroethene	ND		10.0	9.85		ug/L		99	70 - 130	5	20
Trichlorofluoromethane	ND		10.0	9.33		ug/L		93	60 - 150	5	25
Vinyl acetate	ND		10.0	10.3		ug/L		103	23 - 150	3	30
Vinyl chloride	ND		10.0	9.27		ug/L		93	50 - 137	17	30
1,2-Dibromoethane (EDB)	ND		10.0	9.76		ug/L		98	70 - 131	3	25
2-Butanone (MEK)	ND		50.0	53.3		ug/L		107	48 - 140	5	40
4-Methyl-2-pentanone (MIBK)	ND		50.0	53.1		ug/L		106	52 - 150	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*97*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*94*		*76 - 132*

Lab Sample ID: MB 440-583835/5
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/04/19 21:27	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/04/19 21:27	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/04/19 21:27	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 21:27	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-583835/5
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/04/19 21:27	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/04/19 21:27	1
2-Hexanone	ND		5.0	2.5	ug/L			12/04/19 21:27	1
Acetone	ND		20	10	ug/L			12/04/19 21:27	1
Acetonitrile	ND		20	10	ug/L			12/04/19 21:27	1
Acrolein	ND		5.0	2.5	ug/L			12/04/19 21:27	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/04/19 21:27	1
Benzene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Allyl chloride	ND		1.0	0.50	ug/L			12/04/19 21:27	1
Bromoform	ND		1.0	0.40	ug/L			12/04/19 21:27	1
Bromomethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/04/19 21:27	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Chloroethane	ND		1.0	0.40	ug/L			12/04/19 21:27	1
Chloroform	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Chloromethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Dibromomethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/04/19 21:27	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 21:27	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Iodomethane	ND		2.0	1.0	ug/L			12/04/19 21:27	1
Isobutyl alcohol	ND		25	13	ug/L			12/04/19 21:27	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/04/19 21:27	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/04/19 21:27	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/04/19 21:27	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/04/19 21:27	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Naphthalene	ND		1.0	0.40	ug/L			12/04/19 21:27	1
o-Xylene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Propionitrile	ND		20	10	ug/L			12/04/19 21:27	1
Styrene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
t-Butanol	ND		10	5.0	ug/L			12/04/19 21:27	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/04/19 21:27	1
Toluene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/04/19 21:27	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-583835/5
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/04/19 21:27	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/04/19 21:27	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/04/19 21:27	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/04/19 21:27	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/04/19 21:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/04/19 21:27	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*12/04/19 21:27*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 128*		*12/04/19 21:27*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*12/04/19 21:27*	*1*
Dibromofluoromethane (Surr)	*101*		*76 - 132*		*12/04/19 21:27*	*1*

Lab Sample ID: LCS 440-583835/1004
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	25.0	23.4		ug/L		93	63 - 130
1,1,1,2-Tetrachloroethane	25.0	23.9		ug/L		96	60 - 141
1,1,1-Trichloroethane	25.0	23.6		ug/L		94	70 - 130
1,1,2,2-Tetrachloroethane	25.0	23.5		ug/L		94	63 - 130
1,1,2-Trichloroethane	25.0	25.3		ug/L		101	70 - 130
1,1-Dichloroethane	25.0	25.2		ug/L		101	64 - 130
1,1-Dichloroethene	25.0	24.1		ug/L		96	70 - 130
1,1-Dichloropropene	25.0	26.5		ug/L		106	70 - 130
1,2,4-Trichlorobenzene	25.0	25.1		ug/L		100	60 - 140
1,2-Dibromo-3-Chloropropane	25.0	26.5		ug/L		106	52 - 140
1,2-Dichlorobenzene	25.0	24.0		ug/L		96	70 - 130
1,2-Dichloroethane	25.0	24.7		ug/L		99	57 - 138
1,2-Dichloropropane	25.0	27.4		ug/L		110	67 - 130
1,3-Dichlorobenzene	25.0	24.0		ug/L		96	70 - 130
1,3-Dichloropropane	25.0	25.5		ug/L		102	70 - 130
1,4-Dichlorobenzene	25.0	23.0		ug/L		92	70 - 130
2,2-Dichloropropane	25.0	29.4		ug/L		118	68 - 141
2-Hexanone	125	128		ug/L		102	10 - 150
Acetone	125	115		ug/L		92	10 - 150
Acetonitrile	250	224		ug/L		90	49 - 142
Acrolein	24.7	24.1		ug/L		97	10 - 145
Acrylonitrile	250	251		ug/L		101	48 - 140
Benzene	25.0	25.3		ug/L		101	68 - 130
Allyl chloride	25.0	27.3		ug/L		109	60 - 140
Bromoform	25.0	26.9		ug/L		107	60 - 148
Bromomethane	25.0	23.7		ug/L		95	64 - 139
Carbon disulfide	25.0	22.1		ug/L		88	52 - 136

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-583835/1004
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	25.0	24.1		ug/L		96	60 - 150
Chlorobenzene	25.0	24.1		ug/L		96	70 - 130
Bromochloromethane	25.0	26.1		ug/L		104	70 - 130
Chloroethane	25.0	21.8		ug/L		87	64 - 135
Chloroform	25.0	23.7		ug/L		95	70 - 130
Chloromethane	25.0	22.3		ug/L		89	47 - 140
cis-1,2-Dichloroethene	25.0	25.0		ug/L		100	70 - 133
cis-1,3-Dichloropropene	25.0	26.7		ug/L		107	70 - 133
Dibromochloromethane	25.0	25.7		ug/L		103	69 - 145
Dibromomethane	25.0	26.2		ug/L		105	70 - 130
Bromodichloromethane	25.0	27.2		ug/L		109	70 - 132
Dichlorodifluoromethane	25.0	24.2		ug/L		97	29 - 150
Ethyl methacrylate	25.0	27.6		ug/L		110	60 - 140
Ethylbenzene	25.0	24.0		ug/L		96	70 - 130
Iodomethane	25.0	21.1		ug/L		85	60 - 140
Isobutyl alcohol	625	748		ug/L		120	56 - 140
m,p-Xylene	25.0	25.1		ug/L		100	70 - 130
Methylene Chloride	25.0	20.2		ug/L		81	52 - 130
Methyl tert-butyl ether	25.0	25.4		ug/L		102	63 - 131
Naphthalene	25.0	26.1		ug/L		104	60 - 140
o-Xylene	25.0	24.7		ug/L		99	70 - 130
Propionitrile	250	251		ug/L		100	52 - 142
Styrene	25.0	26.6		ug/L		107	70 - 134
t-Butanol	250	279		ug/L		112	70 - 130
Tetrachloroethene	25.0	24.3		ug/L		97	70 - 130
Tetrahydrofuran	50.0	48.2		ug/L		96	36 - 147
Toluene	25.0	22.3		ug/L		89	70 - 130
trans-1,2-Dichloroethene	25.0	24.7		ug/L		99	70 - 130
trans-1,3-Dichloropropene	25.0	28.5		ug/L		114	70 - 132
trans-1,4-Dichloro-2-butene	25.0	28.3		ug/L		113	44 - 140
Trichloroethene	25.0	26.1		ug/L		104	70 - 130
Trichlorofluoromethane	25.0	25.1		ug/L		100	60 - 150
Vinyl acetate	25.0	29.3		ug/L		117	48 - 140
Vinyl chloride	25.0	21.4		ug/L		86	59 - 133
1,2-Dibromoethane (EDB)	25.0	25.2		ug/L		101	70 - 130
2-Butanone (MEK)	125	132		ug/L		106	44 - 150
4-Methyl-2-pentanone (MIBK)	125	118		ug/L		95	59 - 149

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*96*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*76 - 132*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256137-A-1 MS
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	ND		250	253		ug/L		101	60 - 130
1,1,1,2-Tetrachloroethane	ND		250	240		ug/L		96	60 - 149
1,1,1-Trichloroethane	ND		250	190		ug/L		76	70 - 130
1,1,2,2-Tetrachloroethane	ND		250	249		ug/L		100	63 - 130
1,1,2-Trichloroethane	ND		250	268		ug/L		107	70 - 130
1,1-Dichloroethane	ND		250	231		ug/L		92	65 - 130
1,1-Dichloroethene	ND	F1	250	151	F1	ug/L		60	70 - 130
1,1-Dichloropropene	ND		250	204		ug/L		81	64 - 130
1,2,4-Trichlorobenzene	ND		250	254		ug/L		102	60 - 140
1,2-Dibromo-3-Chloropropane	ND		250	261		ug/L		104	48 - 140
1,2-Dichlorobenzene	ND		250	237		ug/L		95	70 - 130
1,2-Dichloroethane	14		250	253		ug/L		96	56 - 146
1,2-Dichloropropane	ND		250	266		ug/L		106	69 - 130
1,3-Dichlorobenzene	ND		250	236		ug/L		94	70 - 130
1,3-Dichloropropane	ND		250	261		ug/L		105	70 - 130
1,4-Dichlorobenzene	ND		250	227		ug/L		91	70 - 130
2,2-Dichloropropane	ND		250	252		ug/L		101	69 - 138
2-Hexanone	ND		1250	1360		ug/L		109	10 - 150
Acetone	2300		1250	2790		ug/L		37	10 - 150
Acetonitrile	ND		2500	2350		ug/L		94	37 - 140
Acrolein	ND		247	198		ug/L		80	10 - 147
Acrylonitrile	ND		2500	2560		ug/L		103	38 - 144
Benzene	ND		250	238		ug/L		95	66 - 130
Allyl chloride	ND		250	265		ug/L		106	52 - 140
Bromoform	ND		250	281		ug/L		112	59 - 150
Bromomethane	ND		250	204		ug/L		82	62 - 131
Carbon disulfide	ND		250	161		ug/L		64	49 - 140
Carbon tetrachloride	ND		250	179		ug/L		72	60 - 150
Chlorobenzene	ND		250	242		ug/L		97	70 - 130
Bromochloromethane	ND		250	258		ug/L		103	70 - 130
Chloroethane	ND		250	187		ug/L		75	68 - 130
Chloroform	ND		250	234		ug/L		93	70 - 130
Chloromethane	ND		250	184		ug/L		74	39 - 144
cis-1,2-Dichloroethene	ND		250	235		ug/L		94	70 - 130
cis-1,3-Dichloropropene	ND		250	268		ug/L		107	70 - 133
Dibromochloromethane	ND		250	267		ug/L		107	70 - 148
Dibromomethane	ND		250	265		ug/L		106	70 - 130
Bromodichloromethane	ND		250	268		ug/L		107	70 - 138
Dichlorodifluoromethane	ND		250	115		ug/L		46	25 - 142
Ethyl methacrylate	ND		250	276		ug/L		111	10 - 150
Ethylbenzene	ND		250	229		ug/L		91	70 - 130
Iodomethane	ND		250	190		ug/L		76	60 - 140
Isobutyl alcohol	ND		6250	3550		ug/L		57	10 - 150
m,p-Xylene	ND		250	237		ug/L		95	70 - 133
Methylacrylonitrile	ND		6250	5150		ug/L		82	55 - 141
Methyl methacrylate	ND		1250	1440		ug/L		115	51 - 140
Methylene Chloride	ND		250	199		ug/L		80	52 - 130
Methyl tert-butyl ether	160		250	399		ug/L		96	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256137-A-1 MS
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	ND		250	264		ug/L		106	60 - 140
o-Xylene	ND		250	242		ug/L		97	70 - 133
Propionitrile	ND		2500	2340		ug/L		94	38 - 146
Styrene	ND		250	262		ug/L		105	29 - 150
t-Butanol	25000	E	2500	29900	E 4	ug/L		180	70 - 130
Tetrachloroethene	ND		250	232		ug/L		93	70 - 137
Tetrahydrofuran	ND		500	658		ug/L		132	22 - 140
Toluene	ND		250	220		ug/L		88	70 - 130
trans-1,2-Dichloroethene	ND		250	204		ug/L		81	70 - 130
trans-1,3-Dichloropropene	ND		250	291		ug/L		116	70 - 138
trans-1,4-Dichloro-2-butene	ND		250	318		ug/L		127	10 - 150
Trichloroethene	ND		250	233		ug/L		93	70 - 130
Trichlorofluoromethane	ND		250	191		ug/L		76	60 - 150
Vinyl acetate	ND		250	284		ug/L		114	23 - 150
Vinyl chloride	ND		250	151		ug/L		60	50 - 137
1,2-Dibromoethane (EDB)	ND		250	257		ug/L		103	70 - 131
2-Butanone (MEK)	ND		1250	1250		ug/L		100	48 - 140
4-Methyl-2-pentanone (MIBK)	ND		1250	1290		ug/L		103	52 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*80 - 128*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*76 - 132*

Lab Sample ID: 440-256137-A-1 MSD
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	ND		250	254		ug/L		101	60 - 130	0	30
1,1,1,2-Tetrachloroethane	ND		250	240		ug/L		96	60 - 149	0	20
1,1,1-Trichloroethane	ND		250	202		ug/L		81	70 - 130	6	20
1,1,2,2-Tetrachloroethane	ND		250	256		ug/L		102	63 - 130	3	30
1,1,2-Trichloroethane	ND		250	263		ug/L		105	70 - 130	2	25
1,1-Dichloroethane	ND		250	233		ug/L		93	65 - 130	1	20
1,1-Dichloroethene	ND	F1	250	183		ug/L		73	70 - 130	19	20
1,1-Dichloropropene	ND		250	215		ug/L		86	64 - 130	5	20
1,2,4-Trichlorobenzene	ND		250	263		ug/L		105	60 - 140	3	20
1,2-Dibromo-3-Chloropropane	ND		250	272		ug/L		109	48 - 140	4	30
1,2-Dichlorobenzene	ND		250	241		ug/L		96	70 - 130	2	20
1,2-Dichloroethane	14		250	255		ug/L		97	56 - 146	1	20
1,2-Dichloropropane	ND		250	273		ug/L		109	69 - 130	2	20
1,3-Dichlorobenzene	ND		250	240		ug/L		96	70 - 130	2	20
1,3-Dichloropropane	ND		250	264		ug/L		106	70 - 130	1	25
1,4-Dichlorobenzene	ND		250	232		ug/L		93	70 - 130	2	20
2,2-Dichloropropane	ND		250	253		ug/L		101	69 - 138	0	25
2-Hexanone	ND		1250	1310		ug/L		105	10 - 150	3	35
Acetone	2300		1250	2970		ug/L		51	10 - 150	6	35

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256137-A-1 MSD
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetonitrile	ND		2500	2300		ug/L		92	37 - 140	2	40
Acrolein	ND		247	204		ug/L		83	10 - 147	3	40
Acrylonitrile	ND		2500	2570		ug/L		103	38 - 144	0	40
Benzene	ND		250	238		ug/L		95	66 - 130	0	20
Allyl chloride	ND		250	186		ug/L		75	52 - 140	35	40
Bromoform	ND		250	278		ug/L		111	59 - 150	1	25
Bromomethane	ND		250	206		ug/L		82	62 - 131	1	25
Carbon disulfide	ND		250	166		ug/L		66	49 - 140	3	20
Carbon tetrachloride	ND		250	184		ug/L		74	60 - 150	3	25
Chlorobenzene	ND		250	238		ug/L		95	70 - 130	2	20
Bromochloromethane	ND		250	261		ug/L		104	70 - 130	1	25
Chloroethane	ND		250	186		ug/L		74	68 - 130	1	25
Chloroform	ND		250	238		ug/L		95	70 - 130	2	20
Chloromethane	ND		250	193		ug/L		77	39 - 144	5	25
cis-1,2-Dichloroethene	ND		250	238		ug/L		95	70 - 130	1	20
cis-1,3-Dichloropropene	ND		250	268		ug/L		107	70 - 133	0	20
Dibromochloromethane	ND		250	270		ug/L		108	70 - 148	1	25
Dibromomethane	ND		250	256		ug/L		102	70 - 130	3	25
Bromodichloromethane	ND		250	270		ug/L		108	70 - 138	1	20
Dichlorodifluoromethane	ND		250	142		ug/L		57	25 - 142	21	30
Ethyl methacrylate	ND		250	276		ug/L		111	10 - 150	0	40
Ethylbenzene	ND		250	233		ug/L		93	70 - 130	2	20
Iodomethane	ND		250	194		ug/L		77	60 - 140	2	30
Isobutyl alcohol	ND		6250	2610		ug/L		42	10 - 150	31	35
m,p-Xylene	ND		250	236		ug/L		94	70 - 133	1	25
Methylacrylonitrile	ND		6250	5300		ug/L		85	55 - 141	3	40
Methyl methacrylate	ND		1250	1480		ug/L		119	51 - 140	3	40
Methylene Chloride	ND		250	203		ug/L		81	52 - 130	2	20
Methyl tert-butyl ether	160		250	406		ug/L		99	70 - 130	2	25
Naphthalene	ND		250	268		ug/L		107	60 - 140	1	30
o-Xylene	ND		250	236		ug/L		94	70 - 133	3	20
Propionitrile	ND		2500	2330		ug/L		93	38 - 146	0	40
Styrene	ND		250	255		ug/L		102	29 - 150	3	35
t-Butanol	25000	E	2500	29900	E 4	ug/L		180	70 - 130	0	25
Tetrachloroethene	ND		250	244		ug/L		98	70 - 137	5	20
Tetrahydrofuran	ND		500	580		ug/L		116	22 - 140	12	30
Toluene	ND		250	223		ug/L		89	70 - 130	1	20
trans-1,2-Dichloroethene	ND		250	210		ug/L		84	70 - 130	3	20
trans-1,3-Dichloropropene	ND		250	285		ug/L		114	70 - 138	2	25
trans-1,4-Dichloro-2-butene	ND		250	306		ug/L		122	10 - 150	4	30
Trichloroethene	ND		250	236		ug/L		95	70 - 130	1	20
Trichlorofluoromethane	ND		250	215		ug/L		86	60 - 150	12	25
Vinyl acetate	ND		250	275		ug/L		110	23 - 150	3	30
Vinyl chloride	ND		250	162		ug/L		65	50 - 137	7	30
1,2-Dibromoethane (EDB)	ND		250	255		ug/L		102	70 - 131	1	25
2-Butanone (MEK)	ND		1250	1330		ug/L		106	48 - 140	6	40
4-Methyl-2-pentanone (MIBK)	ND		1250	1250		ug/L		100	52 - 150	3	35

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256137-A-1 MSD
Matrix: Water
Analysis Batch: 583835

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*98*		*80 - 128*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*76 - 132*

Lab Sample ID: MB 440-583939/6
Matrix: Water
Analysis Batch: 583939

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 09:14	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 09:14	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 09:14	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 09:14	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 09:14	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*3.21*	*T J*	*ug/L*		*16.43*			*12/05/19 09:14*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 128*		*12/05/19 09:14*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/05/19 09:14*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*12/05/19 09:14*	*1*

Lab Sample ID: LCS 440-583939/1002
Matrix: Water
Analysis Batch: 583939

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isobutyl alcohol	625	805		ug/L		129	56 - 140
t-Butanol	250	324		ug/L		130	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*96*		*80 - 128*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*76 - 132*

Lab Sample ID: 440-256094-A-1 MS
Matrix: Water
Analysis Batch: 583939

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Isobutyl alcohol	ND		25000	16100		ug/L		64	10 - 150
t-Butanol	ND		10000	10700		ug/L		107	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*80 - 128*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256094-A-1 MS
Matrix: Water
Analysis Batch: 583939

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	*95*		*76 - 132*

Lab Sample ID: 440-256094-A-1 MSD
Matrix: Water
Analysis Batch: 583939

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Isobutyl alcohol	ND		25000	14500		ug/L		58	10 - 150	11	35
t-Butanol	ND		10000	11100		ug/L		111	70 - 130	4	25

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Toluene-d8 (Surr)	*99*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*76 - 132*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-583670/1-A
Matrix: Water
Analysis Batch: 584125

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 583670

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1.0	0.25	ug/L		12/04/19 07:07	12/05/19 22:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	*73*		*30 - 120*	*12/04/19 07:07*	*12/05/19 22:00*	*1*

Lab Sample ID: LCS 440-583670/2-A
Matrix: Water
Analysis Batch: 584125

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 583670

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	2.00	1.46		ug/L		73	35 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4-Dioxane-d8 (Surr)	*71*		*30 - 120*

Lab Sample ID: 440-256148-J-4-A MS
Matrix: Water
Analysis Batch: 584125

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 583670

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	70		1.98	69.8	4	ug/L		-17	35 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
1,4-Dioxane-d8 (Surr)	*67*		*30 - 120*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256148-J-4-B MSD
Matrix: Water
Analysis Batch: 584125

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 583670

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	70		1.98	66.1	4	ug/L		-203	35 - 120	5	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*66*		*30 - 120*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-583456/6
Matrix: Water
Analysis Batch: 583456

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.11	0.055	mg/L			12/03/19 12:10	1

Lab Sample ID: LCS 440-583456/5
Matrix: Water
Analysis Batch: 583456

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.13	1.11		mg/L		98	90 - 110

Lab Sample ID: 440-256127-5 MS
Matrix: Water
Analysis Batch: 583456

Client Sample ID: MW-13R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	ND	F1	1.13	1.49	F1	mg/L		132	80 - 120

Lab Sample ID: 440-256127-5 MSD
Matrix: Water
Analysis Batch: 583456

Client Sample ID: MW-13R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	ND	F1	1.13	1.49	F1	mg/L		132	80 - 120	0	20

Lab Sample ID: MB 440-583457/6
Matrix: Water
Analysis Batch: 583457

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.50	0.25	mg/L			12/03/19 12:10	1
Chloride	ND		0.50	0.25	mg/L			12/03/19 12:10	1
Fluoride	ND		0.50	0.25	mg/L			12/03/19 12:10	1
Sulfate	ND		0.50	0.25	mg/L			12/03/19 12:10	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 440-583457/5
Matrix: Water
Analysis Batch: 583457

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromide			5.00	4.76		mg/L		95	90 - 110		
Chloride			5.00	4.66		mg/L		93	90 - 110		
Fluoride			5.00	4.56		mg/L		91	90 - 110		
Sulfate			5.00	5.01		mg/L		100	90 - 110		

Lab Sample ID: 440-256127-5 MS
Matrix: Water
Analysis Batch: 583457

Client Sample ID: MW-13R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromide	1.3	F1	5.00	7.96	F1	mg/L		133	80 - 120		
Chloride	170	E	5.00	175	E 4	mg/L		101	80 - 120		
Fluoride	0.68		5.00	5.52		mg/L		97	80 - 120		
Sulfate	120	E	5.00	130	E 4	mg/L		185	80 - 120		

Lab Sample ID: 440-256127-5 MSD
Matrix: Water
Analysis Batch: 583457

Client Sample ID: MW-13R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	1.3	F1	5.00	8.09	F1	mg/L		136	80 - 120	2	20
Chloride	170	E	5.00	176	E 4	mg/L		120	80 - 120	1	20
Fluoride	0.68		5.00	5.63		mg/L		99	80 - 120	2	20
Sulfate	120	E	5.00	129	E 4	mg/L		181	80 - 120	0	20

Lab Sample ID: MB 440-583492/15
Matrix: Water
Analysis Batch: 583492

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.50	0.25	mg/L			12/03/19 16:24	1
Chloride	ND		0.50	0.25	mg/L			12/03/19 16:24	1
Fluoride	ND		0.50	0.25	mg/L			12/03/19 16:24	1
Sulfate	ND		0.50	0.25	mg/L			12/03/19 16:24	1

Lab Sample ID: LCS 440-583492/14
Matrix: Water
Analysis Batch: 583492

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromide			5.00	5.16		mg/L		103	90 - 110		
Chloride			5.00	5.15		mg/L		103	90 - 110		
Fluoride			5.00	5.08		mg/L		102	90 - 110		
Sulfate			5.00	5.29		mg/L		106	90 - 110		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 440-256127-1 MS
Matrix: Water
Analysis Batch: 583492

Client Sample ID: DW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	ND		10.0	10.4		mg/L		104	80 - 120
Chloride	13		10.0	24.4		mg/L		111	80 - 120
Fluoride	0.60	J	10.0	10.7		mg/L		101	80 - 120
Sulfate	2600	E	10.0	2550	E 4	mg/L		-152	80 - 120

Lab Sample ID: 440-256127-1 MSD
Matrix: Water
Analysis Batch: 583492

Client Sample ID: DW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	ND		10.0	10.4		mg/L		104	80 - 120	0	20
Chloride	13		10.0	24.4		mg/L		112	80 - 120	0	20
Fluoride	0.60	J	10.0	10.6		mg/L		100	80 - 120	0	20
Sulfate	2600	E	10.0	2550	E 4	mg/L		-153	80 - 120	0	20

Lab Sample ID: 440-256127-9 MS
Matrix: Water
Analysis Batch: 583492

Client Sample ID: LY-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	2.6	J	50.0	54.9		mg/L		105	80 - 120
Chloride	400	E	50.0	468	E 4	mg/L		134	80 - 120
Fluoride	ND		50.0	52.3		mg/L		105	80 - 120
Sulfate	630	E	50.0	695	E 4	mg/L		121	80 - 120

Lab Sample ID: 440-256127-9 MSD
Matrix: Water
Analysis Batch: 583492

Client Sample ID: LY-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	2.6	J	50.0	54.4		mg/L		104	80 - 120	1	20
Chloride	400	E	50.0	468	E 4	mg/L		135	80 - 120	0	20
Fluoride	ND		50.0	52.5		mg/L		105	80 - 120	0	20
Sulfate	630	E	50.0	699	E 4	mg/L		130	80 - 120	1	20

Lab Sample ID: MB 440-583493/15
Matrix: Water
Analysis Batch: 583493

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.11	0.055	mg/L			12/03/19 16:24	1

Lab Sample ID: LCS 440-583493/14
Matrix: Water
Analysis Batch: 583493

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.13	1.17		mg/L		104	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 440-256127-1 MS
Matrix: Water
Analysis Batch: 583493

Client Sample ID: DW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	ND		2.26	2.45		mg/L		108	80 - 120

Lab Sample ID: 440-256127-1 MSD
Matrix: Water
Analysis Batch: 583493

Client Sample ID: DW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	ND		2.26	2.45		mg/L		109	80 - 120	0	20

Lab Sample ID: 440-256127-9 MS
Matrix: Water
Analysis Batch: 583493

Client Sample ID: LY-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	ND		11.3	11.5		mg/L		102	80 - 120

Lab Sample ID: 440-256127-9 MSD
Matrix: Water
Analysis Batch: 583493

Client Sample ID: LY-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	ND		11.3	11.5		mg/L		102	80 - 120	0	20

Lab Sample ID: MB 440-583726/44
Matrix: Water
Analysis Batch: 583726

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			12/05/19 01:35	1

Lab Sample ID: LCS 440-583726/45
Matrix: Water
Analysis Batch: 583726

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.82		mg/L		96	90 - 110

Lab Sample ID: 440-256315-A-7 MS
Matrix: Water
Analysis Batch: 583726

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	720	E	10.0	728	E 4	mg/L		77	80 - 120

Lab Sample ID: 440-256315-A-7 MSD
Matrix: Water
Analysis Batch: 583726

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	720	E	10.0	729	E 4	mg/L		84	80 - 120	0	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-583719/1-A
Matrix: Water
Analysis Batch: 584062

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 583719

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.025	mg/L		12/04/19 10:14	12/05/19 13:01	1
Calcium	0.0682	J	0.10	0.050	mg/L		12/04/19 10:14	12/05/19 13:01	1
Iron	0.275		0.10	0.050	mg/L		12/04/19 10:14	12/05/19 13:01	1
Magnesium	ND		0.020	0.010	mg/L		12/04/19 10:14	12/05/19 13:01	1
Manganese	ND		0.020	0.015	mg/L		12/04/19 10:14	12/05/19 13:01	1
Potassium	ND		0.50	0.25	mg/L		12/04/19 10:14	12/05/19 13:01	1
Sodium	ND		0.50	0.26	mg/L		12/04/19 10:14	12/05/19 13:01	1

Lab Sample ID: LCS 440-583719/2-A
Matrix: Water
Analysis Batch: 584062

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 583719

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.990		mg/L		99	80 - 120
Calcium	5.00	4.97		mg/L		99	80 - 120
Iron	1.00	1.06		mg/L		106	80 - 120
Magnesium	5.00	4.92		mg/L		98	80 - 120
Manganese	1.00	0.996		mg/L		100	80 - 120
Potassium	10.0	9.78		mg/L		98	80 - 120
Sodium	10.0	9.91		mg/L		99	80 - 120

Lab Sample ID: 440-256094-U-1-B MS
Matrix: Water
Analysis Batch: 584062

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 583719

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.14		1.00	1.19		mg/L		105	75 - 125
Calcium	110	B	5.00	119	4	mg/L		114	75 - 125
Iron	0.13	B	1.00	1.17		mg/L		104	75 - 125
Magnesium	32		5.00	37.1	4	mg/L		103	75 - 125
Manganese	0.31		1.00	1.30		mg/L		100	75 - 125
Potassium	5.9		10.0	15.8		mg/L		99	75 - 125
Sodium	86		10.0	96.8	4	mg/L		103	75 - 125

Lab Sample ID: 440-256094-U-1-C MSD
Matrix: Water
Analysis Batch: 584062

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 583719

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.14		1.00	1.20		mg/L		106	75 - 125	1	20
Calcium	110	B	5.00	116	4	mg/L		66	75 - 125	2	20
Iron	0.13	B	1.00	1.17		mg/L		104	75 - 125	0	20
Magnesium	32		5.00	36.4	4	mg/L		89	75 - 125	2	20
Manganese	0.31		1.00	1.31		mg/L		101	75 - 125	1	20
Potassium	5.9		10.0	15.9		mg/L		100	75 - 125	0	20
Sodium	86		10.0	95.2	4	mg/L		87	75 - 125	2	20

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 440-583858/1-A
Matrix: Water
Analysis Batch: 584383

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 583858

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.025	mg/L		12/05/19 07:00	12/06/19 13:50	1
Calcium	0.0998	J	0.10	0.050	mg/L		12/05/19 07:00	12/06/19 13:50	1
Iron	ND		0.10	0.050	mg/L		12/05/19 07:00	12/06/19 13:50	1
Magnesium	0.0110	J	0.020	0.010	mg/L		12/05/19 07:00	12/06/19 13:50	1
Manganese	ND		0.020	0.015	mg/L		12/05/19 07:00	12/06/19 13:50	1
Potassium	ND		0.50	0.25	mg/L		12/05/19 07:00	12/06/19 13:50	1
Sodium	ND		0.50	0.26	mg/L		12/05/19 07:00	12/06/19 13:50	1

Lab Sample ID: LCS 440-583858/2-A
Matrix: Water
Analysis Batch: 584383

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 583858

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.982		mg/L		98	80 - 120
Calcium	5.00	5.01		mg/L		100	80 - 120
Iron	1.00	1.03		mg/L		103	80 - 120
Magnesium	5.00	4.91		mg/L		98	80 - 120
Manganese	1.00	0.992		mg/L		99	80 - 120
Potassium	10.0	10.0		mg/L		100	80 - 120
Sodium	10.0	10.0		mg/L		100	80 - 120

Lab Sample ID: 440-256270-E-1-B MS ^25
Matrix: Water
Analysis Batch: 584383

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 583858

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	4.1		1.00	4.91	4	mg/L		79	75 - 125
Calcium	2000	B	5.00	1910	4	mg/L		-1255	75 - 125
Iron	ND		1.00	ND		mg/L		NC	75 - 125
Magnesium	2700	B	5.00	2590	4	mg/L		-2200	75 - 125
Manganese	ND		1.00	0.980		mg/L		98	75 - 125
Potassium	110		10.0	121	4	mg/L		76	75 - 125
Sodium	9300		10.0	8970	4	mg/L		-3125	75 - 125

Lab Sample ID: 440-256270-E-1-C MSD ^25
Matrix: Water
Analysis Batch: 584383

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 583858

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	4.1		1.00	4.81	4	mg/L		69	75 - 125	2	20
Calcium	2000	B	5.00	1880	4	mg/L		-1845	75 - 125	2	20
Iron	ND		1.00	ND		mg/L		NC	75 - 125	NC	20
Magnesium	2700	B	5.00	2550	4	mg/L		-3150	75 - 125	2	20
Manganese	ND		1.00	0.970		mg/L		97	75 - 125	1	20
Potassium	110		10.0	119	4	mg/L		59	75 - 125	1	20
Sodium	9300		10.0	8830	4	mg/L		-4525	75 - 125	2	20

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 440-584948/1-A
Matrix: Water
Analysis Batch: 585112

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 584948

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.025	mg/L		12/10/19 11:18	12/10/19 20:36	1
Calcium	ND		0.10	0.050	mg/L		12/10/19 11:18	12/10/19 20:36	1
Iron	ND		0.10	0.050	mg/L		12/10/19 11:18	12/10/19 20:36	1
Magnesium	ND		0.020	0.010	mg/L		12/10/19 11:18	12/10/19 20:36	1
Manganese	ND		0.020	0.015	mg/L		12/10/19 11:18	12/10/19 20:36	1
Potassium	ND		0.50	0.25	mg/L		12/10/19 11:18	12/10/19 20:36	1
Sodium	0.574		0.50	0.26	mg/L		12/10/19 11:18	12/10/19 20:36	1

Lab Sample ID: LCS 440-584948/2-A
Matrix: Water
Analysis Batch: 585112

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 584948

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.966		mg/L		97	80 - 120
Calcium	5.00	4.92		mg/L		98	80 - 120
Iron	1.00	1.02		mg/L		102	80 - 120
Magnesium	5.00	4.89		mg/L		98	80 - 120
Manganese	1.00	0.975		mg/L		98	80 - 120
Potassium	10.0	9.94		mg/L		99	80 - 120
Sodium	10.0	10.4		mg/L		104	80 - 120

Lab Sample ID: 440-256855-U-1-B MS
Matrix: Water
Analysis Batch: 585112

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 584948

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.13		1.00	1.12		mg/L		99	75 - 125
Calcium	100		5.00	108	4	mg/L		124	75 - 125
Iron	0.12		1.00	1.11		mg/L		99	75 - 125
Magnesium	29		5.00	34.0	4	mg/L		104	75 - 125
Manganese	0.20		1.00	1.15		mg/L		95	75 - 125
Potassium	5.7		10.0	15.4		mg/L		97	75 - 125
Sodium	72	B ^	10.0	82.7	4	mg/L		102	75 - 125

Lab Sample ID: 440-256855-U-1-C MSD
Matrix: Water
Analysis Batch: 585112

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 584948

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.13		1.00	1.11		mg/L		98	75 - 125	1	20
Calcium	100		5.00	106	4	mg/L		84	75 - 125	2	20
Iron	0.12		1.00	1.10		mg/L		98	75 - 125	0	20
Magnesium	29		5.00	33.3	4	mg/L		89	75 - 125	2	20
Manganese	0.20		1.00	1.14		mg/L		94	75 - 125	0	20
Potassium	5.7		10.0	15.4		mg/L		97	75 - 125	0	20
Sodium	72	B ^	10.0	81.2	4	mg/L		88	75 - 125	2	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 440-584635/10
Matrix: Water
Analysis Batch: 584635

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			12/04/19 11:14	1

Lab Sample ID: MB 440-584635/43
Matrix: Water
Analysis Batch: 584635

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			12/04/19 14:23	1

Lab Sample ID: LCS 440-584635/11
Matrix: Water
Analysis Batch: 584635

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	5.00	4.98		mg/L		100	90 - 110

Lab Sample ID: LCS 440-584635/44
Matrix: Water
Analysis Batch: 584635

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	5.00	5.11		mg/L		102	90 - 110

Lab Sample ID: MRL 440-584635/9
Matrix: Water
Analysis Batch: 584635

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.200	0.152	J	mg/L		76	50 - 150

Lab Sample ID: 440-255630-B-3 MS
Matrix: Water
Analysis Batch: 584635

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	ND	F1	5.00	4.29	F1	mg/L		86	90 - 110

Lab Sample ID: 440-255630-B-3 MSD
Matrix: Water
Analysis Batch: 584635

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	ND	F1	5.00	4.39	F1	mg/L		88	90 - 110	2	15

Lab Sample ID: 440-255905-D-2 MS
Matrix: Water
Analysis Batch: 584635

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.11	J F1	5.00	4.22	F1	mg/L		82	90 - 110

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: 440-255905-D-2 MSD
Matrix: Water
Analysis Batch: 584635

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	0.11	J F1	5.00	4.48	F1	mg/L		87	90 - 110	6	15

Method: 410.4 - COD

Lab Sample ID: MB 440-585335/3
Matrix: Water
Analysis Batch: 585335

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			12/11/19 16:12	1

Lab Sample ID: LCS 440-585335/4
Matrix: Water
Analysis Batch: 585335

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	200	197		mg/L		98	90 - 110

Lab Sample ID: 440-256217-B-1 MS
Matrix: Water
Analysis Batch: 585335

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	52		200	244		mg/L		96	70 - 120

Lab Sample ID: 440-256217-B-1 MSD
Matrix: Water
Analysis Batch: 585335

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	52		200	245		mg/L		97	70 - 120	1	15

Lab Sample ID: MB 440-585363/3
Matrix: Water
Analysis Batch: 585363

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			12/11/19 17:36	1

Lab Sample ID: LCS 440-585363/4
Matrix: Water
Analysis Batch: 585363

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	200	198		mg/L		99	90 - 110

Method: 410.4 - COD (Continued)

Lab Sample ID: 440-256203-A-1 MS
Matrix: Water
Analysis Batch: 585363

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	ND		200	195		mg/L		98	70 - 120		

Lab Sample ID: 440-256203-A-1 MSD
Matrix: Water
Analysis Batch: 585363

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	ND		200	194		mg/L		97	70 - 120	1	15

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 440-583785/30
Matrix: Water
Analysis Batch: 583785

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		4.0	4.0	mg/L			12/04/19 09:22	1
Bicarbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			12/04/19 09:22	1

Lab Sample ID: LCS 440-583785/29
Matrix: Water
Analysis Batch: 583785

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity as CaCO3			68.2	68.1		mg/L		100	80 - 120		

Lab Sample ID: 440-256127-1 DU
Matrix: Water
Analysis Batch: 583785

Client Sample ID: DW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	340			343		mg/L				0.3	20
Bicarbonate Alkalinity as CaCO3	340			343		mg/L				0.3	20

Lab Sample ID: 440-256127-9 DU
Matrix: Water
Analysis Batch: 583785

Client Sample ID: LY-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	2100			2060		mg/L				2	20
Bicarbonate Alkalinity as CaCO3	2100			2060		mg/L				2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 440-583709/1
Matrix: Water
Analysis Batch: 583709

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	5.0	mg/L			12/04/19 09:49	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 440-583709/2
Matrix: Water
Analysis Batch: 583709

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	974		mg/L		97	90 - 110		

Lab Sample ID: 440-256127-1 DU
Matrix: Water
Analysis Batch: 583709

Client Sample ID: DW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	2800			2850		mg/L				0.4	5

Method: SM 4500 CO2 C - Free Carbon Dioxide

Lab Sample ID: MB 440-586253/1
Matrix: Water
Analysis Batch: 586253

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon Dioxide, Free	ND		2.0		2.0	mg/L			12/16/19 16:49	1

Lab Sample ID: 440-256012-K-1 DU
Matrix: Water
Analysis Batch: 586253

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Carbon Dioxide, Free	84			86.2		mg/L				2	20

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-584795/3
Matrix: Water
Analysis Batch: 584795

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Sulfide	ND		0.050	0.027	mg/L			12/09/19 17:47	1

Lab Sample ID: LCS 440-584795/4
Matrix: Water
Analysis Batch: 584795

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Sulfide			0.500	0.474		mg/L		95	80 - 120		

Lab Sample ID: LCSD 440-584795/5
Matrix: Water
Analysis Batch: 584795

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Sulfide			0.500	0.421		mg/L		84	80 - 120	12	20

Method: SM 4500 S2 D - Sulfide, Total (Continued)

Lab Sample ID: 550-134357-A-1 MS
Matrix: Water
Analysis Batch: 584795

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Sulfide	ND		0.500	0.571		mg/L		114	70 - 130		

Lab Sample ID: 550-134357-A-1 MSD
Matrix: Water
Analysis Batch: 584795

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Sulfide	ND		0.500	0.552		mg/L		110	70 - 130	3	30

Method: SM 5310C - TOC

Lab Sample ID: MB 440-583921/9
Matrix: Water
Analysis Batch: 583921

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			12/04/19 09:04	1

Lab Sample ID: LCS 440-583921/8
Matrix: Water
Analysis Batch: 583921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			5.00	5.12		mg/L		102	85 - 115		

Lab Sample ID: MRL 440-583921/7
Matrix: Water
Analysis Batch: 583921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			0.100	0.121		mg/L		121	50 - 150		

Lab Sample ID: 440-256122-A-1 MS
Matrix: Water
Analysis Batch: 583921

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	0.40		5.00	5.54		mg/L		103	85 - 115		

Lab Sample ID: 440-256122-A-1 MSD
Matrix: Water
Analysis Batch: 583921

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	0.40		5.00	5.40		mg/L		100	85 - 115	3	20

Method: SM 5310C - TOC (Continued)

Lab Sample ID: MB 440-584163/8
Matrix: Water
Analysis Batch: 584163

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			12/05/19 06:31	1

Lab Sample ID: LCS 440-584163/7
Matrix: Water
Analysis Batch: 584163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			5.00	4.96		mg/L		99	85 - 115		

Lab Sample ID: MRL 440-584163/6
Matrix: Water
Analysis Batch: 584163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			0.100	0.0763	J	mg/L		76	50 - 150		

Lab Sample ID: 440-256127-6 MS
Matrix: Water
Analysis Batch: 584163

Client Sample ID: MW-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	4.8		5.00	10.5		mg/L		115	85 - 115		

Lab Sample ID: 440-256127-6 MSD
Matrix: Water
Analysis Batch: 584163

Client Sample ID: MW-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	4.8		5.00	10.5		mg/L		114	85 - 115	0	20

GC/MS VOA

Analysis Batch: 583662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-1	DW-4	Total/NA	Water	8260B	
440-256127-2	MW-2A	Total/NA	Water	8260B	
440-256127-3	MW-2B	Total/NA	Water	8260B	
440-256127-4	MW-6	Total/NA	Water	8260B	
440-256127-5	MW-13R	Total/NA	Water	8260B	
440-256127-6	MW-14	Total/NA	Water	8260B	
440-256127-7	DW-1	Total/NA	Water	8260B	
440-256127-8	Extraction Trench	Total/NA	Water	8260B	
440-256127-9	LY-7	Total/NA	Water	8260B	
440-256127-10	Field Blank	Total/NA	Water	8260B	
440-256127-11	Trip Blank	Total/NA	Water	8260B	
MB 440-583662/5	Method Blank	Total/NA	Water	8260B	
LCS 440-583662/1002	Lab Control Sample	Total/NA	Water	8260B	
440-256127-1 MS	DW-4	Total/NA	Water	8260B	
440-256127-1 MSD	DW-4	Total/NA	Water	8260B	

Analysis Batch: 583675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-1	DW-4	Total/NA	Water	8260B	
MB 440-583675/8	Method Blank	Total/NA	Water	8260B	
LCS 440-583675/1006	Lab Control Sample	Total/NA	Water	8260B	
440-256120-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-256120-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 583834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-8	Extraction Trench	Total/NA	Water	8260B	
440-256127-9	LY-7	Total/NA	Water	8260B	
440-256127-10	Field Blank	Total/NA	Water	8260B	
440-256127-11	Trip Blank	Total/NA	Water	8260B	
MB 440-583834/4	Method Blank	Total/NA	Water	8260B	
LCS 440-583834/1002	Lab Control Sample	Total/NA	Water	8260B	
440-256157-A-4 MS	Matrix Spike	Total/NA	Water	8260B	
440-256157-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 583835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-1 - RA	DW-4	Total/NA	Water	8260B	
440-256127-2	MW-2A	Total/NA	Water	8260B	
440-256127-3	MW-2B	Total/NA	Water	8260B	
440-256127-4	MW-6	Total/NA	Water	8260B	
440-256127-5	MW-13R	Total/NA	Water	8260B	
440-256127-6	MW-14	Total/NA	Water	8260B	
440-256127-7	DW-1	Total/NA	Water	8260B	
MB 440-583835/5	Method Blank	Total/NA	Water	8260B	
LCS 440-583835/1004	Lab Control Sample	Total/NA	Water	8260B	
440-256137-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-256137-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

QC Association Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256127-1

GC/MS VOA

Analysis Batch: 583939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-10 - RA	Field Blank	Total/NA	Water	8260B	
MB 440-583939/6	Method Blank	Total/NA	Water	8260B	
LCS 440-583939/1002	Lab Control Sample	Total/NA	Water	8260B	
440-256094-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-256094-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 583670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-1	DW-4	Total/NA	Water	3520C	
440-256127-2	MW-2A	Total/NA	Water	3520C	
440-256127-3	MW-2B	Total/NA	Water	3520C	
440-256127-4	MW-6	Total/NA	Water	3520C	
440-256127-5	MW-13R	Total/NA	Water	3520C	
440-256127-6	MW-14	Total/NA	Water	3520C	
440-256127-7	DW-1	Total/NA	Water	3520C	
440-256127-8	Extraction Trench	Total/NA	Water	3520C	
440-256127-9	LY-7	Total/NA	Water	3520C	
MB 440-583670/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-583670/2-A	Lab Control Sample	Total/NA	Water	3520C	
440-256148-J-4-A MS	Matrix Spike	Total/NA	Water	3520C	
440-256148-J-4-B MSD	Matrix Spike Duplicate	Total/NA	Water	3520C	

Analysis Batch: 584125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-1	DW-4	Total/NA	Water	8270C	583670
440-256127-2	MW-2A	Total/NA	Water	8270C	583670
440-256127-3	MW-2B	Total/NA	Water	8270C	583670
440-256127-4	MW-6	Total/NA	Water	8270C	583670
440-256127-5	MW-13R	Total/NA	Water	8270C	583670
440-256127-6	MW-14	Total/NA	Water	8270C	583670
440-256127-7	DW-1	Total/NA	Water	8270C	583670
440-256127-8	Extraction Trench	Total/NA	Water	8270C	583670
440-256127-9	LY-7	Total/NA	Water	8270C	583670
MB 440-583670/1-A	Method Blank	Total/NA	Water	8270C	583670
LCS 440-583670/2-A	Lab Control Sample	Total/NA	Water	8270C	583670
440-256148-J-4-A MS	Matrix Spike	Total/NA	Water	8270C	583670
440-256148-J-4-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270C	583670

HPLC/IC

Analysis Batch: 583456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-5	MW-13R	Total/NA	Water	300.0	
440-256127-6	MW-14	Total/NA	Water	300.0	
MB 440-583456/6	Method Blank	Total/NA	Water	300.0	
LCS 440-583456/5	Lab Control Sample	Total/NA	Water	300.0	
440-256127-5 MS	MW-13R	Total/NA	Water	300.0	
440-256127-5 MSD	MW-13R	Total/NA	Water	300.0	

HPLC/IC

Analysis Batch: 583457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-5	MW-13R	Total/NA	Water	300.0	
440-256127-5 - DL	MW-13R	Total/NA	Water	300.0	
440-256127-6	MW-14	Total/NA	Water	300.0	
440-256127-6	MW-14	Total/NA	Water	300.0	
MB 440-583457/6	Method Blank	Total/NA	Water	300.0	
LCS 440-583457/5	Lab Control Sample	Total/NA	Water	300.0	
440-256127-5 MS	MW-13R	Total/NA	Water	300.0	
440-256127-5 MSD	MW-13R	Total/NA	Water	300.0	

Analysis Batch: 583492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-1	DW-4	Total/NA	Water	300.0	
440-256127-1 - DL	DW-4	Total/NA	Water	300.0	
440-256127-2	MW-2A	Total/NA	Water	300.0	
440-256127-2	MW-2A	Total/NA	Water	300.0	
440-256127-3	MW-2B	Total/NA	Water	300.0	
440-256127-3	MW-2B	Total/NA	Water	300.0	
440-256127-4	MW-6	Total/NA	Water	300.0	
440-256127-4	MW-6	Total/NA	Water	300.0	
440-256127-7	DW-1	Total/NA	Water	300.0	
440-256127-7	DW-1	Total/NA	Water	300.0	
440-256127-8	Extraction Trench	Total/NA	Water	300.0	
440-256127-8	Extraction Trench	Total/NA	Water	300.0	
440-256127-9	LY-7	Total/NA	Water	300.0	
440-256127-9 - DL	LY-7	Total/NA	Water	300.0	
MB 440-583492/15	Method Blank	Total/NA	Water	300.0	
LCS 440-583492/14	Lab Control Sample	Total/NA	Water	300.0	
440-256127-1 MS	DW-4	Total/NA	Water	300.0	
440-256127-1 MSD	DW-4	Total/NA	Water	300.0	
440-256127-9 MS	LY-7	Total/NA	Water	300.0	
440-256127-9 MSD	LY-7	Total/NA	Water	300.0	

Analysis Batch: 583493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-1	DW-4	Total/NA	Water	300.0	
440-256127-2	MW-2A	Total/NA	Water	300.0	
440-256127-3	MW-2B	Total/NA	Water	300.0	
440-256127-4	MW-6	Total/NA	Water	300.0	
440-256127-7	DW-1	Total/NA	Water	300.0	
440-256127-8	Extraction Trench	Total/NA	Water	300.0	
440-256127-9	LY-7	Total/NA	Water	300.0	
MB 440-583493/15	Method Blank	Total/NA	Water	300.0	
LCS 440-583493/14	Lab Control Sample	Total/NA	Water	300.0	
440-256127-1 MS	DW-4	Total/NA	Water	300.0	
440-256127-1 MSD	DW-4	Total/NA	Water	300.0	
440-256127-9 MS	LY-7	Total/NA	Water	300.0	
440-256127-9 MSD	LY-7	Total/NA	Water	300.0	

Analysis Batch: 583726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-4	MW-6	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 583726 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-583726/44	Method Blank	Total/NA	Water	300.0	
LCS 440-583726/45	Lab Control Sample	Total/NA	Water	300.0	
440-256315-A-7 MS	Matrix Spike	Total/NA	Water	300.0	
440-256315-A-7 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 583719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-2	MW-2A	Total Recoverable	Water	3005A	
440-256127-7	DW-1	Total Recoverable	Water	3005A	
MB 440-583719/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-583719/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-256094-U-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
440-256094-U-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 583858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-8	Extraction Trench	Total Recoverable	Water	3005A	
440-256127-9	LY-7	Total Recoverable	Water	3005A	
MB 440-583858/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-583858/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-256270-E-1-B MS ^25	Matrix Spike	Total Recoverable	Water	3005A	
440-256270-E-1-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 584062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-2	MW-2A	Total Recoverable	Water	6010B	583719
440-256127-7	DW-1	Total Recoverable	Water	6010B	583719
MB 440-583719/1-A	Method Blank	Total Recoverable	Water	6010B	583719
LCS 440-583719/2-A	Lab Control Sample	Total Recoverable	Water	6010B	583719
440-256094-U-1-B MS	Matrix Spike	Total Recoverable	Water	6010B	583719
440-256094-U-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	583719

Analysis Batch: 584383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-9	LY-7	Total Recoverable	Water	6010B	583858
440-256127-9	LY-7	Total Recoverable	Water	6010B	583858
MB 440-583858/1-A	Method Blank	Total Recoverable	Water	6010B	583858
LCS 440-583858/2-A	Lab Control Sample	Total Recoverable	Water	6010B	583858
440-256270-E-1-B MS ^25	Matrix Spike	Total Recoverable	Water	6010B	583858
440-256270-E-1-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	6010B	583858

Analysis Batch: 584782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-7	DW-1	Total Recoverable	Water	6010B	583719
440-256127-8	Extraction Trench	Total Recoverable	Water	6010B	583858

Prep Batch: 584948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-1	DW-4	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 584948 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-3	MW-2B	Total Recoverable	Water	3005A	
440-256127-4	MW-6	Total Recoverable	Water	3005A	
440-256127-5	MW-13R	Total Recoverable	Water	3005A	
440-256127-6	MW-14	Total Recoverable	Water	3005A	
MB 440-584948/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-584948/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-256855-U-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
440-256855-U-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 585112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-1	DW-4	Total Recoverable	Water	6010B	584948
440-256127-3	MW-2B	Total Recoverable	Water	6010B	584948
440-256127-4	MW-6	Total Recoverable	Water	6010B	584948
440-256127-5	MW-13R	Total Recoverable	Water	6010B	584948
440-256127-6	MW-14	Total Recoverable	Water	6010B	584948
MB 440-584948/1-A	Method Blank	Total Recoverable	Water	6010B	584948
LCS 440-584948/2-A	Lab Control Sample	Total Recoverable	Water	6010B	584948
440-256855-U-1-B MS	Matrix Spike	Total Recoverable	Water	6010B	584948
440-256855-U-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	584948

Analysis Batch: 585268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-1	DW-4	Total Recoverable	Water	6010B	584948

General Chemistry

Analysis Batch: 583709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-1	DW-4	Total/NA	Water	SM 2540C	
440-256127-2	MW-2A	Total/NA	Water	SM 2540C	
440-256127-3	MW-2B	Total/NA	Water	SM 2540C	
440-256127-4	MW-6	Total/NA	Water	SM 2540C	
440-256127-5	MW-13R	Total/NA	Water	SM 2540C	
440-256127-6	MW-14	Total/NA	Water	SM 2540C	
440-256127-7	DW-1	Total/NA	Water	SM 2540C	
440-256127-8	Extraction Trench	Total/NA	Water	SM 2540C	
440-256127-9	LY-7	Total/NA	Water	SM 2540C	
MB 440-583709/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-583709/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-256127-1 DU	DW-4	Total/NA	Water	SM 2540C	

Analysis Batch: 583785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-1	DW-4	Total/NA	Water	SM 2320B	
440-256127-2	MW-2A	Total/NA	Water	SM 2320B	
440-256127-3	MW-2B	Total/NA	Water	SM 2320B	
440-256127-4	MW-6	Total/NA	Water	SM 2320B	
440-256127-5	MW-13R	Total/NA	Water	SM 2320B	
440-256127-6	MW-14	Total/NA	Water	SM 2320B	
440-256127-7	DW-1	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 583785 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-8	Extraction Trench	Total/NA	Water	SM 2320B	
440-256127-9	LY-7	Total/NA	Water	SM 2320B	
MB 440-583785/30	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-583785/29	Lab Control Sample	Total/NA	Water	SM 2320B	
440-256127-1 DU	DW-4	Total/NA	Water	SM 2320B	
440-256127-9 DU	LY-7	Total/NA	Water	SM 2320B	

Analysis Batch: 583921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-1	DW-4	Total/NA	Water	SM 5310C	
440-256127-2	MW-2A	Total/NA	Water	SM 5310C	
440-256127-3	MW-2B	Total/NA	Water	SM 5310C	
440-256127-5	MW-13R	Total/NA	Water	SM 5310C	
440-256127-7	DW-1	Total/NA	Water	SM 5310C	
MB 440-583921/9	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-583921/8	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-583921/7	Lab Control Sample	Total/NA	Water	SM 5310C	
440-256122-A-1 MS	Matrix Spike	Total/NA	Water	SM 5310C	
440-256122-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310C	

Analysis Batch: 584163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-4	MW-6	Total/NA	Water	SM 5310C	
440-256127-6	MW-14	Total/NA	Water	SM 5310C	
440-256127-8	Extraction Trench	Total/NA	Water	SM 5310C	
440-256127-9	LY-7	Total/NA	Water	SM 5310C	
MB 440-584163/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-584163/7	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-584163/6	Lab Control Sample	Total/NA	Water	SM 5310C	
440-256127-6 MS	MW-14	Total/NA	Water	SM 5310C	
440-256127-6 MSD	MW-14	Total/NA	Water	SM 5310C	

Analysis Batch: 584635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-1	DW-4	Total/NA	Water	350.1	
440-256127-2	MW-2A	Total/NA	Water	350.1	
440-256127-3	MW-2B	Total/NA	Water	350.1	
440-256127-4	MW-6	Total/NA	Water	350.1	
440-256127-5	MW-13R	Total/NA	Water	350.1	
440-256127-6	MW-14	Total/NA	Water	350.1	
440-256127-7	DW-1	Total/NA	Water	350.1	
440-256127-8	Extraction Trench	Total/NA	Water	350.1	
440-256127-9	LY-7	Total/NA	Water	350.1	
MB 440-584635/10	Method Blank	Total/NA	Water	350.1	
MB 440-584635/43	Method Blank	Total/NA	Water	350.1	
LCS 440-584635/11	Lab Control Sample	Total/NA	Water	350.1	
LCS 440-584635/44	Lab Control Sample	Total/NA	Water	350.1	
MRL 440-584635/9	Lab Control Sample	Total/NA	Water	350.1	
440-255630-B-3 MS	Matrix Spike	Total/NA	Water	350.1	
440-255630-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
440-255905-D-2 MS	Matrix Spike	Total/NA	Water	350.1	

General Chemistry (Continued)

Analysis Batch: 584635 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-255905-D-2 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 584795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-1	DW-4	Total/NA	Water	SM 4500 S2 D	
440-256127-2	MW-2A	Total/NA	Water	SM 4500 S2 D	
440-256127-3	MW-2B	Total/NA	Water	SM 4500 S2 D	
440-256127-4	MW-6	Total/NA	Water	SM 4500 S2 D	
440-256127-5	MW-13R	Total/NA	Water	SM 4500 S2 D	
440-256127-6	MW-14	Total/NA	Water	SM 4500 S2 D	
440-256127-7	DW-1	Total/NA	Water	SM 4500 S2 D	
440-256127-8	Extraction Trench	Total/NA	Water	SM 4500 S2 D	
440-256127-9	LY-7	Total/NA	Water	SM 4500 S2 D	
MB 440-584795/3	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 440-584795/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 440-584795/5	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	
550-134357-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 S2 D	
550-134357-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 585335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-1	DW-4	Total/NA	Water	410.4	
440-256127-2	MW-2A	Total/NA	Water	410.4	
440-256127-3	MW-2B	Total/NA	Water	410.4	
440-256127-4	MW-6	Total/NA	Water	410.4	
440-256127-5	MW-13R	Total/NA	Water	410.4	
440-256127-6	MW-14	Total/NA	Water	410.4	
MB 440-585335/3	Method Blank	Total/NA	Water	410.4	
LCS 440-585335/4	Lab Control Sample	Total/NA	Water	410.4	
440-256217-B-1 MS	Matrix Spike	Total/NA	Water	410.4	
440-256217-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	

Analysis Batch: 585363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-7	DW-1	Total/NA	Water	410.4	
440-256127-8	Extraction Trench	Total/NA	Water	410.4	
440-256127-9	LY-7	Total/NA	Water	410.4	
MB 440-585363/3	Method Blank	Total/NA	Water	410.4	
LCS 440-585363/4	Lab Control Sample	Total/NA	Water	410.4	
440-256203-A-1 MS	Matrix Spike	Total/NA	Water	410.4	
440-256203-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	

Analysis Batch: 586253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-1	DW-4	Total/NA	Water	SM 4500 CO2 C	
440-256127-2	MW-2A	Total/NA	Water	SM 4500 CO2 C	
440-256127-3	MW-2B	Total/NA	Water	SM 4500 CO2 C	
440-256127-4	MW-6	Total/NA	Water	SM 4500 CO2 C	
440-256127-5	MW-13R	Total/NA	Water	SM 4500 CO2 C	
440-256127-6	MW-14	Total/NA	Water	SM 4500 CO2 C	
440-256127-7	DW-1	Total/NA	Water	SM 4500 CO2 C	

General Chemistry (Continued)

Analysis Batch: 586253 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256127-8	Extraction Trench	Total/NA	Water	SM 4500 CO2 C	
440-256127-9	LY-7	Total/NA	Water	SM 4500 CO2 C	
MB 440-586253/1	Method Blank	Total/NA	Water	SM 4500 CO2 C	
440-256012-K-1 DU	Duplicate	Total/NA	Water	SM 4500 CO2 C	

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Geo-Logic Associates
Job ID: 440-256127-1
Project/Site: Republic Sunshine Canyon

Laboratory: Eurofins TestAmerica, Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-20
Arizona	State	AZ0671	10-14-20
California	Los Angeles County Sanitation Districts	10256	06-30-20
California	State	2706	06-30-20
Guam	State	19-005R	01-23-20
Hawaii	State	CA01531	01-29-20
Kansas	NELAP	E-10420	07-31-20
Nevada	State	CA015312020-4	07-31-20
New Mexico	State	CA01531	01-29-20
Oregon	NELAP	4028 - 006	01-29-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-18-00214	07-09-21
Washington	State	C900	09-03-20

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
Phone: 949.261.1022 Fax:

Chain of Custody Record 206658

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Kyle Welchan's	Site Contact: J. Mills	Date: 12/3/19	COC No: 1 of 1 COCs
Company Name: GLA / Republic	Tel/Fax: 858-451-1136	Lab Contact: Rossina	Carrier: TIA	Sampler: NZ, CV, BS
Address: 11415 W. Bernardo Ct	Analysis Turnaround Time: ☐ CALENDAR DAYS ☐ WORKING DAYS; TAT if different from Below: ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day			For Lab Use Only: Walk-in Client: Lab Sampling:
City/State/Zip: San Diego CA 92127				Job / SDG No
Phone: 858-451-1136				
Fax: 858-451-1687				
Project Name: Republic Services				
Site: Sunshine Canyon L/F				
P O #				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 8260B-VOCs include 40 CFR Part 258 Appdx 1 VOCs, Dichlorodifluoromethane and MTBE,	EPA 8270 1,4 Dioxane	EPA 310.1-Total Alkalinity and Bicarbonate	EPA 350.2-Ammonia as N	EPA 410.4-COD	EPA 300.0-Chloride, Bromide, Nitrate-N, Sulfate	EPA 6010B-Total Ca, Fe, Mg, Mn, K, Na	EPA 160.1-TDS/EPA 415.1-TOC	EPA 340.2-Fluoride	EPA 376.2-Sulfide	SM-4500-CO2-Carbon Dioxide	Sample Specific Notes
DW-4	12/3/19	0950	G	GW	13			X	X	X	X	X	X	X	X	X	X	X	
MW-2A		0830			13			X	X	X	X	X	X	X	X	X	X	X	
MW-2B		0915			13			X	X	X	X	X	X	X	X	X	X	X	
MW-6		1130			13			X	X	X	X	X	X	X	X	X	X	X	
MW-13R		1345			13			X	X	X	X	X	X	X	X	X	X	X	
MW-14		1225			13			X	X	X	X	X	X	X	X	X	X	X	
DW-1		1040			13			X	X	X	X	X	X	X	X	X	X	X	
Extraction Trench		0910		NW	13			X	X	X	X	X	X	X	X	X	X	X	
LY-7		1115		NW	13			X	X	X	X	X	X	X	X	X	X	X	
Field Blank		—		LAB H2O	4			X	X	X									
Trip Blank		—		H2O	4			X	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No | Cooler Temp (°C) Obs'd _____ Corr'd _____ Therm ID No.: _____

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
[signature]	Gregory	12-3-19 1410	Will Rivera	TA-IRV	12/3/19 1410
Will Rivera	TA-IRV	12/3/19 1648	[signature]		
			Received in Laboratory by: Olga Morales	Company: TAIRV	Date/Time 12/3/19 1648

0.6/1.0', 1.6/2.0', 1.4'/1.8' #94

440-256127 Chain of Custody

12/3/19

Page 85 of 86

12/17/2019

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-256127-1

Login Number: 256127
List Number: 1
Creator: Soderblom, Tim

List Source: Eurofins TestAmerica, Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-256238-1
Client Project/Site: Republic Sunshine Canyon

For:
Geo-Logic Associates
11415 West Bernardo Court
Suite 200
San Diego, California 92127

Attn: Kyle Welchans

Authorized for release by:
12/18/2019 4:32:24 PM

Rossina Tomova, Project Manager I
(949)260-3276
rossina.tomova@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Client Sample Results 5
Method Summary 24
Lab Chronicle 25
QC Sample Results 29
QC Association Summary 46
Definitions/Glossary 51
Certification Summary 53
Chain of Custody 54
Receipt Checklists 55

Sample Summary

Client: Geo-Logic Associates
Job ID: 440-256238-1
Project/Site: Republic Sunshine Canyon

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-256238-1	MW-5	Water	12/03/19 15:05	12/04/19 16:20	
440-256238-2	CM-10R	Water	12/04/19 12:15	12/04/19 16:20	
440-256238-3	DW-3	Water	12/04/19 11:18	12/04/19 16:20	
440-256238-4	DW-5	Water	12/04/19 09:00	12/04/19 16:20	
440-256238-5	MW-1	Water	12/04/19 11:00	12/04/19 16:20	
440-256238-6	PZ-4	Water	12/04/19 10:00	12/04/19 16:20	
440-256238-7	Field Blank	Water	12/04/19 00:01	12/04/19 16:20	
440-256238-8	Trip Blank	Water	12/04/19 00:01	12/04/19 16:20	

Job ID: 440-256238-1

Laboratory: Eurofins TestAmerica, Irvine

Narrative

Job Narrative
440-256238-1

Comments
No additional comments.

Receipt
The samples were received on 12/4/2019 4:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.2º C and 1.5º C.

GC/MS VOA
Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with analytical batch 440-583939 were outside control limits: (440-256094-A-1 MS) and (440-256094-A-1 MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
Method 300.0: The following sample was diluted for Bromide due to the nature of the sample matrix: CM-10R (440-256238-2). Elevated reporting limits (RLs) are provided.

Method 300.0: The following samples were diluted for Nitrate as N due to the nature of the sample matrix: MW-5 (440-256238-1) and CM-10R (440-256238-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6010B: The method blank for preparation batch 440-584013 and analytical batch 440-584522 contained Calcium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 3520C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with 8270C preparation batch 440-583950. LCS was performed in duplicate to provide precision of data.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256238-1

Client Sample ID: MW-5
Date Collected: 12/03/19 15:05
Date Received: 12/04/19 16:20

Lab Sample ID: 440-256238-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 14:56	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 14:56	1
Acrolein	ND		50	2.5	ug/L			12/05/19 12:58	1
Acrylonitrile	ND		50	1.0	ug/L			12/05/19 12:58	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 14:56	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 14:56	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 14:56	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 14:56	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 14:56	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 14:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 14:56	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 14:56	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 14:56	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 14:56	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 14:56	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 14:56	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 14:56	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 14:56	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 14:56	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 14:56	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 14:56	1
Acetone	ND		20	10	ug/L			12/05/19 14:56	1
Acetonitrile	ND		20	10	ug/L			12/05/19 14:56	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 14:56	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 14:56	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 14:56	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 14:56	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 14:56	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 14:56	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 14:56	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 14:56	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 14:56	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 14:56	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 14:56	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 14:56	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 14:56	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 14:56	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 14:56	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 14:56	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 14:56	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 14:56	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 14:56	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 14:56	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 14:56	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 14:56	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 14:56	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 14:56	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 14:56	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 14:56	1

Client Sample ID: MW-5
Date Collected: 12/03/19 15:05
Date Received: 12/04/19 16:20

Lab Sample ID: 440-256238-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 14:56	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 14:56	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 14:56	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 14:56	1
Propionitrile	ND		20	10	ug/L			12/05/19 14:56	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 14:56	1
t-Butanol	**37**		10	5.0	ug/L			12/05/19 14:56	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 14:56	1
Tetrahydrofuran	**6.1**	**J**	10	5.0	ug/L			12/05/19 14:56	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 14:56	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 14:56	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 14:56	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 14:56	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 14:56	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 14:56	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 14:56	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 14:56	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 14:56	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 14:56	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 14:56	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Silane, fluorotrimethyl-	*3.8*	*T J N*	*ug/L*		*2.89*	*420-56-4*		*12/05/19 14:56*	*1*
Unknown	*8.2*	*T J*	*ug/L*		*5.05*			*12/05/19 14:56*	*1*
Unknown	*10*	*T J*	*ug/L*		*6.52*			*12/05/19 14:56*	*1*
Unknown	*3.1*	*T J*	*ug/L*		*16.22*			*12/05/19 14:56*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*80 - 128*		*12/05/19 12:58*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*12/05/19 12:58*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*12/05/19 14:56*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/05/19 14:56*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/05/19 12:58*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*12/05/19 14:56*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**5.5**		1.0	0.25	ug/L		12/05/19 07:22	12/07/19 07:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*58*		*30 - 120*	*12/05/19 07:22*	*12/07/19 07:38*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**2.7**		2.5	1.3	mg/L			12/04/19 20:47	5
Nitrate as N	ND		0.55	0.28	mg/L			12/04/19 20:47	5
Chloride	**220**		100	50	mg/L			12/04/19 21:04	200
Fluoride	**3.0**		2.5	1.3	mg/L			12/04/19 20:47	5
Sulfate	**1300**		100	50	mg/L			12/04/19 21:04	200

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256238-1

Client Sample ID: MW-5

Lab Sample ID: 440-256238-1

Date Collected: 12/03/19 15:05

Matrix: Water

Date Received: 12/04/19 16:20

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.3		0.050	0.025	mg/L		12/05/19 10:14	12/06/19 20:31	1
Calcium	360	B	0.10	0.050	mg/L		12/05/19 10:14	12/06/19 20:31	1
Iron	32		0.10	0.050	mg/L		12/05/19 10:14	12/06/19 20:31	1
Magnesium	160		0.020	0.010	mg/L		12/05/19 10:14	12/06/19 20:31	1
Manganese	4.1		0.020	0.015	mg/L		12/05/19 10:14	12/06/19 20:31	1
Potassium	23		0.50	0.25	mg/L		12/05/19 10:14	12/06/19 20:31	1
Sodium	330		0.50	0.26	mg/L		12/05/19 10:14	12/06/19 20:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	4.0		0.20	0.10	mg/L			12/09/19 17:36	1
Chemical Oxygen Demand	71		20	10	mg/L			12/11/19 17:38	1
Total Dissolved Solids	3100		20	10	mg/L			12/10/19 09:06	1
Total Sulfide	ND		0.050	0.027	mg/L			12/10/19 16:56	1
Total Organic Carbon	24		0.50	0.25	mg/L			12/07/19 17:03	5

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	600		4.0	4.0	mg/L			12/05/19 06:35	1
Bicarbonate Alkalinity as CaCO3	600		4.0	4.0	mg/L			12/05/19 06:35	1
Carbon Dioxide, Free	120		2.0	2.0	mg/L			12/16/19 16:57	1

Client Sample ID: CM-10R

Lab Sample ID: 440-256238-2

Date Collected: 12/04/19 12:15

Matrix: Water

Date Received: 12/04/19 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 15:25	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 15:25	1
Acrolein	ND		50	2.5	ug/L			12/05/19 13:25	1
Acrylonitrile	ND		50	1.0	ug/L			12/05/19 13:25	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 15:25	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 15:25	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 15:25	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 15:25	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 15:25	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 15:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 15:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 15:25	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 15:25	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 15:25	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 15:25	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 15:25	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 15:25	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 15:25	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 15:25	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 15:25	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 15:25	1
Acetone	ND		20	10	ug/L			12/05/19 15:25	1
Acetonitrile	ND		20	10	ug/L			12/05/19 15:25	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 15:25	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256238-1

Client Sample ID: CM-10R
Date Collected: 12/04/19 12:15
Date Received: 12/04/19 16:20

Lab Sample ID: 440-256238-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 15:25	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 15:25	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 15:25	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 15:25	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 15:25	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 15:25	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 15:25	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 15:25	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 15:25	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 15:25	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 15:25	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 15:25	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 15:25	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 15:25	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 15:25	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 15:25	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 15:25	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 15:25	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 15:25	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 15:25	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 15:25	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 15:25	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 15:25	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 15:25	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 15:25	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 15:25	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 15:25	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 15:25	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 15:25	1
Propionitrile	ND		20	10	ug/L			12/05/19 15:25	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 15:25	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 15:25	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 15:25	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 15:25	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 15:25	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 15:25	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 15:25	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 15:25	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 15:25	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 15:25	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 15:25	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 15:25	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 15:25	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 15:25	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 15:25	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*11*	*T J*	*ug/L*		*6.52*			*12/05/19 15:25*	*1*
Unknown	*5.7*	*T J*	*ug/L*		*16.48*			*12/05/19 15:25*	*1*

Client Sample ID: CM-10R

Lab Sample ID: 440-256238-2

Date Collected: 12/04/19 12:15

Matrix: Water

Date Received: 12/04/19 16:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*95*		*80 - 128*		*12/05/19 13:25*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*12/05/19 13:25*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*12/05/19 15:25*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*12/05/19 15:25*	*1*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*12/05/19 13:25*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*12/05/19 15:25*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1.0	0.26	ug/L		12/08/19 08:05	12/11/19 00:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	*50*		*30 - 120*	*12/08/19 08:05*	*12/11/19 00:40*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		1.0	0.50	mg/L			12/04/19 21:22	2
Nitrate as N	ND		0.22	0.11	mg/L			12/04/19 21:22	2
Chloride	**7.6**		1.0	0.50	mg/L			12/04/19 21:22	2
Fluoride	**2.2**		1.0	0.50	mg/L			12/04/19 21:22	2
Sulfate	**1700**		50	25	mg/L			12/04/19 21:39	100

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.69**		0.050	0.025	mg/L		12/05/19 10:14	12/06/19 20:34	1
Calcium	**340**	**B**	0.10	0.050	mg/L		12/05/19 10:14	12/06/19 20:34	1
Iron	**4.0**		0.10	0.050	mg/L		12/05/19 10:14	12/06/19 20:34	1
Magnesium	**190**		0.020	0.010	mg/L		12/05/19 10:14	12/06/19 20:34	1
Manganese	**0.95**		0.020	0.015	mg/L		12/05/19 10:14	12/06/19 20:34	1
Potassium	**11**		0.50	0.25	mg/L		12/05/19 10:14	12/06/19 20:34	1
Sodium	**120**		0.50	0.26	mg/L		12/05/19 10:14	12/06/19 20:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**8.5**		0.20	0.10	mg/L			12/09/19 17:41	1
Chemical Oxygen Demand	**25**		20	10	mg/L			12/11/19 17:38	1
Total Dissolved Solids	**2700**		20	10	mg/L			12/10/19 09:57	1
Total Sulfide	**0.16**		0.050	0.027	mg/L			12/10/19 16:56	1
Total Organic Carbon	**2.8**		0.10	0.050	mg/L			12/05/19 12:12	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**210**		4.0	4.0	mg/L			12/05/19 06:42	1
Bicarbonate Alkalinity as CaCO3	**210**		4.0	4.0	mg/L			12/05/19 06:42	1
Carbon Dioxide, Free	**46**		2.0	2.0	mg/L			12/16/19 16:57	1

Client Sample ID: DW-3

Lab Sample ID: 440-256238-3

Date Collected: 12/04/19 11:18

Matrix: Water

Date Received: 12/04/19 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 15:54	1

Client: Geo-Logic Associates
Job ID: 440-256238-1
Project/Site: Republic Sunshine Canyon

Client Sample ID: DW-3
Lab Sample ID: 440-256238-3
Date Collected: 12/04/19 11:18
Matrix: Water
Date Received: 12/04/19 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 15:54	1
Acrolein	ND		50	2.5	ug/L			12/05/19 09:45	1
Acrylonitrile	ND		50	1.0	ug/L			12/05/19 09:45	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 15:54	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 15:54	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 15:54	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 15:54	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 15:54	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 15:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 15:54	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 15:54	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 15:54	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 15:54	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 15:54	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 15:54	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 15:54	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 15:54	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 15:54	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 15:54	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 15:54	1
Acetone	ND		20	10	ug/L			12/05/19 15:54	1
Acetonitrile	ND		20	10	ug/L			12/05/19 15:54	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 15:54	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 15:54	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 15:54	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 15:54	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 15:54	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 15:54	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 15:54	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 15:54	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 15:54	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 15:54	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 15:54	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 15:54	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 15:54	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 15:54	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 15:54	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 15:54	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 15:54	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 15:54	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 15:54	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 15:54	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 15:54	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 15:54	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 15:54	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 15:54	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 15:54	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 15:54	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 15:54	1

Client Sample ID: DW-3
Date Collected: 12/04/19 11:18
Date Received: 12/04/19 16:20

Lab Sample ID: 440-256238-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 15:54	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 15:54	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 15:54	1
Propionitrile	ND		20	10	ug/L			12/05/19 15:54	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 15:54	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 15:54	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 15:54	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 15:54	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 15:54	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 15:54	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 15:54	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 15:54	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 15:54	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 15:54	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 15:54	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 15:54	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 15:54	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 15:54	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 15:54	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*11*	*T J*	*ug/L*		*6.52*			*12/05/19 15:54*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 128*		*12/05/19 09:45*	*1*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*12/05/19 09:45*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*12/05/19 15:54*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*12/05/19 15:54*	*1*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*12/05/19 09:45*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*12/05/19 15:54*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.97	0.24	ug/L		12/08/19 08:05	12/11/19 01:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*45*		*30 - 120*	*12/08/19 08:05*	*12/11/19 01:01*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.50	0.25	mg/L			12/04/19 21:57	1
Nitrate as N	ND		0.11	0.055	mg/L			12/04/19 21:57	1
Chloride	**15**		0.50	0.25	mg/L			12/04/19 21:57	1
Fluoride	**0.56**		0.50	0.25	mg/L			12/04/19 21:57	1
Sulfate	**1200**		25	13	mg/L			12/04/19 22:15	50

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.058**		0.050	0.025	mg/L		12/05/19 10:14	12/06/19 20:36	1
Calcium	**300**	**B**	0.10	0.050	mg/L		12/05/19 10:14	12/06/19 20:36	1
Iron	**0.60**		0.10	0.050	mg/L		12/05/19 10:14	12/06/19 20:36	1

Client Sample ID: DW-3

Lab Sample ID: 440-256238-3

Date Collected: 12/04/19 11:18

Matrix: Water

Date Received: 12/04/19 16:20

Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	**110**		0.020	0.010	mg/L		12/05/19 10:14	12/06/19 20:36	1
Manganese	**0.066**		0.020	0.015	mg/L		12/05/19 10:14	12/06/19 20:36	1
Potassium	**8.7**		0.50	0.25	mg/L		12/05/19 10:14	12/06/19 20:36	1
Sodium	**67**		0.50	0.26	mg/L		12/05/19 10:14	12/06/19 20:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**0.69**		0.20	0.10	mg/L			12/09/19 17:47	1
Chemical Oxygen Demand	ND		20	10	mg/L			12/11/19 17:38	1
Total Dissolved Solids	**1900**		10	5.0	mg/L			12/10/19 09:57	1
Total Sulfide	ND		0.050	0.027	mg/L			12/10/19 16:56	1
Total Organic Carbon	**0.55**		0.10	0.050	mg/L			12/05/19 12:26	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**150**		4.0	4.0	mg/L			12/05/19 06:50	1
Bicarbonate Alkalinity as CaCO3	**150**		4.0	4.0	mg/L			12/05/19 06:50	1
Carbon Dioxide, Free	**14**		2.0	2.0	mg/L			12/16/19 16:57	1

Client Sample ID: DW-5

Lab Sample ID: 440-256238-4

Date Collected: 12/04/19 09:00

Matrix: Water

Date Received: 12/04/19 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 16:22	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 16:22	1
Acrolein	ND		50	2.5	ug/L			12/05/19 13:52	1
Acrylonitrile	ND		50	1.0	ug/L			12/05/19 13:52	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 16:22	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 16:22	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 16:22	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 16:22	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 16:22	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 16:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 16:22	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 16:22	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 16:22	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 16:22	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 16:22	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 16:22	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 16:22	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 16:22	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 16:22	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 16:22	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 16:22	1
Acetone	ND		20	10	ug/L			12/05/19 16:22	1
Acetonitrile	ND		20	10	ug/L			12/05/19 16:22	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 16:22	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 16:22	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 16:22	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 16:22	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256238-1

Client Sample ID: DW-5
Date Collected: 12/04/19 09:00
Date Received: 12/04/19 16:20

Lab Sample ID: 440-256238-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		1.0	0.40	ug/L			12/05/19 16:22	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 16:22	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 16:22	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 16:22	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 16:22	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 16:22	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 16:22	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 16:22	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 16:22	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 16:22	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 16:22	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 16:22	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 16:22	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 16:22	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 16:22	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 16:22	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 16:22	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 16:22	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 16:22	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 16:22	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 16:22	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 16:22	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 16:22	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 16:22	1
Naphthalene	**0.41**	**J**	1.0	0.40	ug/L			12/05/19 16:22	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 16:22	1
Propionitrile	ND		20	10	ug/L			12/05/19 16:22	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 16:22	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 16:22	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 16:22	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 16:22	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 16:22	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 16:22	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 16:22	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 16:22	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 16:22	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 16:22	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 16:22	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 16:22	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 16:22	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 16:22	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 16:22	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*5.4*	*T J*	*ug/L*		*2.86*			*12/05/19 16:22*	*1*
Butane, 2,3-dimethyl-	*7.8*	*T J N*	*ug/L*		*5.09*	*79-29-8*		*12/05/19 16:22*	*1*
Unknown	*11*	*T J*	*ug/L*		*6.52*			*12/05/19 16:22*	*1*
Benzene, (2-methylpropyl)-	*6.4*	*T J N*	*ug/L*		*12.22*	*538-93-2*		*12/05/19 16:22*	*1*
1H-Indene, 2,3-dihydro-1,1-dimethyl-	*4.9*	*T J N*	*ug/L*		*13.50*	*4912-92-9*		*12/05/19 16:22*	*1*
Benzene, 1,2,3,4-tetramethyl-	*20*	*T J N*	*ug/L*		*13.67*	*488-23-3*		*12/05/19 16:22*	*1*

Client Sample ID: DW-5

Date Collected: 12/04/19 09:00
Date Received: 12/04/19 16:20

Lab Sample ID: 440-256238-4

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	7.8	T J	ug/L		14.01			12/05/19 16:22	1
Unknown	9.4	T J	ug/L		14.36			12/05/19 16:22	1
Unknown	5.4	T J	ug/L		14.77			12/05/19 16:22	1
1H-Indene, 2,3-dihydro-1,2-dimethyl-	6.8	T J N	ug/L		15.12	17057-82-8		12/05/19 16:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	93		80 - 128		12/05/19 13:52	1
4-Bromofluorobenzene (Surr)	90		80 - 120		12/05/19 13:52	1
Toluene-d8 (Surr)	102		80 - 128		12/05/19 16:22	1
4-Bromofluorobenzene (Surr)	100		80 - 120		12/05/19 16:22	1
Dibromofluoromethane (Surr)	98		76 - 132		12/05/19 13:52	1
Dibromofluoromethane (Surr)	96		76 - 132		12/05/19 16:22	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.99	0.25	ug/L		12/08/19 08:05	12/11/19 01:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	44		30 - 120	12/08/19 08:05	12/11/19 01:23	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.25**	**J**	0.50	0.25	mg/L			12/04/19 22:32	1
Nitrate as N	ND		0.11	0.055	mg/L			12/04/19 22:32	1
Fluoride	**3.4**		0.50	0.25	mg/L			12/04/19 22:32	1
Sulfate	**0.38**	**J**	0.50	0.25	mg/L			12/04/19 22:32	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19**		2.5	1.3	mg/L			12/05/19 05:50	5

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**2.5**		0.050	0.025	mg/L		12/05/19 10:14	12/06/19 20:39	1
Calcium	**5.4**	**B**	0.10	0.050	mg/L		12/05/19 10:14	12/06/19 20:39	1
Iron	**0.20**		0.10	0.050	mg/L		12/05/19 10:14	12/06/19 20:39	1
Magnesium	**0.98**		0.020	0.010	mg/L		12/05/19 10:14	12/06/19 20:39	1
Manganese	**0.12**		0.020	0.015	mg/L		12/05/19 10:14	12/06/19 20:39	1
Potassium	**1.1**		0.50	0.25	mg/L		12/05/19 10:14	12/06/19 20:39	1
Sodium	**400**		0.50	0.26	mg/L		12/05/19 10:14	12/06/19 20:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**0.29**		0.20	0.10	mg/L			12/09/19 17:52	1
Chemical Oxygen Demand	**24**		20	10	mg/L			12/11/19 17:38	1
Total Dissolved Solids	**1100**		10	5.0	mg/L			12/10/19 09:57	1
Total Sulfide	**0.17**		0.050	0.027	mg/L			12/10/19 16:56	1
Total Organic Carbon	**8.9**		0.50	0.25	mg/L			12/07/19 17:18	5

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**950**		4.0	4.0	mg/L			12/05/19 07:11	1

Client Sample ID: DW-5
Lab Sample ID: 440-256238-4

Date Collected: 12/04/19 09:00
Matrix: Water
Date Received: 12/04/19 16:20

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	920		4.0	4.0	mg/L			12/05/19 07:11	1
Carbon Dioxide, Free	14		2.0	2.0	mg/L			12/18/19 12:30	1

Client Sample ID: MW-1
Lab Sample ID: 440-256238-5

Date Collected: 12/04/19 11:00
Matrix: Water
Date Received: 12/04/19 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 16:50	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 16:50	1
Acrolein	ND		50	2.5	ug/L			12/05/19 14:20	1
Acrylonitrile	ND		50	1.0	ug/L			12/05/19 14:20	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 16:50	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 16:50	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 16:50	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 16:50	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 16:50	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 16:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 16:50	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 16:50	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 16:50	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 16:50	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 16:50	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 16:50	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 16:50	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 16:50	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 16:50	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 16:50	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 16:50	1
Acetone	ND		20	10	ug/L			12/05/19 16:50	1
Acetonitrile	ND		20	10	ug/L			12/05/19 16:50	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 16:50	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 16:50	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 16:50	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 16:50	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 16:50	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 16:50	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 16:50	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 16:50	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 16:50	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 16:50	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 16:50	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 16:50	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 16:50	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 16:50	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 16:50	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 16:50	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 16:50	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 16:50	1

Client Sample ID: MW-1
Date Collected: 12/04/19 11:00
Date Received: 12/04/19 16:20

Lab Sample ID: 440-256238-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 16:50	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 16:50	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 16:50	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 16:50	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 16:50	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 16:50	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 16:50	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 16:50	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 16:50	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 16:50	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 16:50	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 16:50	1
Propionitrile	ND		20	10	ug/L			12/05/19 16:50	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 16:50	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 16:50	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 16:50	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 16:50	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 16:50	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 16:50	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 16:50	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 16:50	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 16:50	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 16:50	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 16:50	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 16:50	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 16:50	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 16:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 16:50	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*10*	*T J*	*ug/L*		*6.52*			*12/05/19 16:50*	*1*
Unknown	*4.8*	*T J*	*ug/L*		*15.70*			*12/05/19 16:50*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*80 - 128*		*12/05/19 14:20*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*12/05/19 14:20*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*12/05/19 16:50*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/05/19 16:50*	*1*
Dibromofluoromethane (Surr)	*100*		*76 - 132*		*12/05/19 14:20*	*1*
Dibromofluoromethane (Surr)	*96*		*76 - 132*		*12/05/19 16:50*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.59**	**J**	1.0	0.25	ug/L		12/08/19 08:05	12/11/19 01:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*41*		*30 - 120*	*12/08/19 08:05*	*12/11/19 01:44*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.50**		0.50	0.25	mg/L			12/05/19 00:33	1

Client Sample ID: MW-1
Lab Sample ID: 440-256238-5

Date Collected: 12/04/19 11:00
Matrix: Water
Date Received: 12/04/19 16:20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.11	0.055	mg/L			12/05/19 00:33	1
Chloride	**56**		25	13	mg/L			12/05/19 00:51	50
Fluoride	**2.6**		0.50	0.25	mg/L			12/05/19 00:33	1
Sulfate	**460**		25	13	mg/L			12/05/19 00:51	50

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.52**		0.050	0.025	mg/L		12/05/19 10:14	12/06/19 20:41	1
Calcium	**130**	**B**	0.10	0.050	mg/L		12/05/19 10:14	12/06/19 20:41	1
Iron	**16**		0.10	0.050	mg/L		12/05/19 10:14	12/06/19 20:41	1
Magnesium	**63**		0.020	0.010	mg/L		12/05/19 10:14	12/06/19 20:41	1
Manganese	**0.91**		0.020	0.015	mg/L		12/05/19 10:14	12/06/19 20:41	1
Potassium	**20**		0.50	0.25	mg/L		12/05/19 10:14	12/06/19 20:41	1
Sodium	**92**		0.50	0.26	mg/L		12/05/19 10:14	12/06/19 20:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**3.8**		0.20	0.10	mg/L			12/09/19 18:07	1
Chemical Oxygen Demand	**33**		20	10	mg/L			12/11/19 17:38	1
Total Dissolved Solids	**1100**		10	5.0	mg/L			12/10/19 09:57	1
Total Sulfide	ND		0.050	0.027	mg/L			12/10/19 16:56	1
Total Organic Carbon	**8.4**		0.10	0.050	mg/L			12/07/19 16:02	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**280**		4.0	4.0	mg/L			12/05/19 07:36	1
Bicarbonate Alkalinity as CaCO3	**280**		4.0	4.0	mg/L			12/05/19 07:36	1
Carbon Dioxide, Free	**33**		2.0	2.0	mg/L			12/16/19 16:57	1

Client Sample ID: PZ-4
Lab Sample ID: 440-256238-6

Date Collected: 12/04/19 10:00
Matrix: Water
Date Received: 12/04/19 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 17:19	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 17:19	1
Acrolein	ND		50	2.5	ug/L			12/05/19 14:47	1
Acrylonitrile	ND		50	1.0	ug/L			12/05/19 14:47	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 17:19	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 17:19	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 17:19	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 17:19	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 17:19	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 17:19	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 17:19	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 17:19	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 17:19	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 17:19	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 17:19	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 17:19	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 17:19	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256238-1

Client Sample ID: PZ-4
Date Collected: 12/04/19 10:00
Date Received: 12/04/19 16:20

Lab Sample ID: 440-256238-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 17:19	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 17:19	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 17:19	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 17:19	1
Acetone	ND		20	10	ug/L			12/05/19 17:19	1
Acetonitrile	ND		20	10	ug/L			12/05/19 17:19	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 17:19	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 17:19	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 17:19	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 17:19	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 17:19	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 17:19	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 17:19	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 17:19	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 17:19	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 17:19	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 17:19	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 17:19	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 17:19	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 17:19	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 17:19	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 17:19	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 17:19	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 17:19	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 17:19	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 17:19	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 17:19	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 17:19	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 17:19	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 17:19	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 17:19	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 17:19	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 17:19	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 17:19	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 17:19	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 17:19	1
Propionitrile	ND		20	10	ug/L			12/05/19 17:19	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 17:19	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 17:19	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 17:19	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 17:19	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 17:19	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 17:19	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 17:19	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 17:19	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 17:19	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 17:19	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 17:19	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 17:19	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256238-1

Client Sample ID: PZ-4

Date Collected: 12/04/19 10:00
Date Received: 12/04/19 16:20

Lab Sample ID: 440-256238-6

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 17:19	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 17:19	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 17:19	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*10*	*T J*	*ug/L*		*6.52*			*12/05/19 17:19*	*1*
Unknown	*3.2*	*T J*	*ug/L*		*16.37*			*12/05/19 17:19*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 128*		*12/05/19 14:47*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*12/05/19 14:47*	*1*
Toluene-d8 (Surr)	*102*		*80 - 128*		*12/05/19 17:19*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/05/19 17:19*	*1*
Dibromofluoromethane (Surr)	*96*		*76 - 132*		*12/05/19 14:47*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/05/19 17:19*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.96	0.24	ug/L		12/08/19 08:05	12/11/19 02:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*67*		*30 - 120*	*12/08/19 08:05*	*12/11/19 02:06*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.50	0.25	mg/L			12/05/19 01:08	1
Nitrate as N	**0.11**		0.11	0.055	mg/L			12/05/19 01:08	1
Chloride	**8.3**		0.50	0.25	mg/L			12/05/19 01:08	1
Fluoride	**1.0**		0.50	0.25	mg/L			12/05/19 01:08	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**540**		25	13	mg/L			12/05/19 02:01	50

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.16**		0.050	0.025	mg/L		12/05/19 10:14	12/06/19 20:43	1
Calcium	**130**	**B**	0.10	0.050	mg/L		12/05/19 10:14	12/06/19 20:43	1
Iron	**1.7**		0.10	0.050	mg/L		12/05/19 10:14	12/06/19 20:43	1
Magnesium	**79**		0.020	0.010	mg/L		12/05/19 10:14	12/06/19 20:43	1
Manganese	**0.15**		0.020	0.015	mg/L		12/05/19 10:14	12/06/19 20:43	1
Potassium	**4.2**		0.50	0.25	mg/L		12/05/19 10:14	12/06/19 20:43	1
Sodium	**97**		0.50	0.26	mg/L		12/05/19 10:14	12/06/19 20:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**2.4**		0.20	0.10	mg/L			12/09/19 18:12	1
Chemical Oxygen Demand	**14**	**J**	20	10	mg/L			12/11/19 17:38	1
Total Dissolved Solids	**1200**		10	5.0	mg/L			12/10/19 09:57	1
Total Sulfide	**0.063**		0.050	0.027	mg/L			12/10/19 16:56	1
Total Organic Carbon	**1.4**		0.10	0.050	mg/L			12/07/19 16:16	1

Client: Geo-Logic Associates
Job ID: 440-256238-1
Project/Site: Republic Sunshine Canyon

Client Sample ID: PZ-4
Lab Sample ID: 440-256238-6

Date Collected: 12/04/19 10:00
Matrix: Water
Date Received: 12/04/19 16:20

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	330		4.0	4.0	mg/L			12/05/19 07:46	1
Bicarbonate Alkalinity as CaCO3	330		4.0	4.0	mg/L			12/05/19 07:46	1
Carbon Dioxide, Free	18		2.0	2.0	mg/L			12/16/19 16:57	1

Client Sample ID: Field Blank
Lab Sample ID: 440-256238-7

Date Collected: 12/04/19 00:01
Matrix: Water
Date Received: 12/04/19 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 17:47	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 17:47	1
Acrolein	ND		50	2.5	ug/L			12/05/19 15:14	1
Acrylonitrile	ND		50	1.0	ug/L			12/05/19 15:14	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 17:47	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 17:47	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 17:47	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 17:47	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 17:47	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 17:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 17:47	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 17:47	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 17:47	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 17:47	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 17:47	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 17:47	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 17:47	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 17:47	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 17:47	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 17:47	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 17:47	1
Acetone	ND		20	10	ug/L			12/05/19 17:47	1
Acetonitrile	ND		20	10	ug/L			12/05/19 17:47	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 17:47	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 17:47	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 17:47	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 17:47	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 17:47	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 17:47	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 17:47	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 17:47	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 17:47	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 17:47	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 17:47	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 17:47	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 17:47	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 17:47	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 17:47	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 17:47	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 17:47	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 17:47	1

Client Sample ID: Field Blank

Lab Sample ID: 440-256238-7

Date Collected: 12/04/19 00:01

Matrix: Water

Date Received: 12/04/19 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 17:47	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 17:47	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 17:47	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 17:47	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 17:47	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 17:47	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 17:47	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 17:47	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 17:47	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 17:47	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 17:47	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 17:47	1
Propionitrile	ND		20	10	ug/L			12/05/19 17:47	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 17:47	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 17:47	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 17:47	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 17:47	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 17:47	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 17:47	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 17:47	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 17:47	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 17:47	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 17:47	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 17:47	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 17:47	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 17:47	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 17:47	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 17:47	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*11*	*T J*	*ug/L*		*6.52*			*12/05/19 17:47*	*1*
Unknown	*5.6*	*T J*	*ug/L*		*15.68*			*12/05/19 17:47*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 128*		*12/05/19 15:14*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*12/05/19 15:14*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*12/05/19 17:47*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*12/05/19 17:47*	*1*
Dibromofluoromethane (Surr)	*96*		*76 - 132*		*12/05/19 15:14*	*1*
Dibromofluoromethane (Surr)	*95*		*76 - 132*		*12/05/19 17:47*	*1*

Client Sample ID: Trip Blank

Lab Sample ID: 440-256238-8

Date Collected: 12/04/19 00:01

Matrix: Water

Date Received: 12/04/19 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 18:15	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 18:15	1
Acrolein	ND		50	2.5	ug/L			12/05/19 15:42	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256238-1

Client Sample ID: Trip Blank
Date Collected: 12/04/19 00:01
Date Received: 12/04/19 16:20

Lab Sample ID: 440-256238-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrylonitrile	ND		50	1.0	ug/L			12/05/19 15:42	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 18:15	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 18:15	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 18:15	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 18:15	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 18:15	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 18:15	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 18:15	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 18:15	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 18:15	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 18:15	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 18:15	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 18:15	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 18:15	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 18:15	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 18:15	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 18:15	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 18:15	1
Acetone	ND		20	10	ug/L			12/05/19 18:15	1
Acetonitrile	ND		20	10	ug/L			12/05/19 18:15	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 18:15	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 18:15	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 18:15	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 18:15	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 18:15	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 18:15	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 18:15	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 18:15	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 18:15	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 18:15	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 18:15	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 18:15	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 18:15	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 18:15	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 18:15	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 18:15	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 18:15	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 18:15	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 18:15	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 18:15	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 18:15	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 18:15	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 18:15	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 18:15	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 18:15	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 18:15	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 18:15	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 18:15	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 18:15	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256238-1

Client Sample ID: Trip Blank
Date Collected: 12/04/19 00:01
Date Received: 12/04/19 16:20

Lab Sample ID: 440-256238-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 18:15	1
Propionitrile	ND		20	10	ug/L			12/05/19 18:15	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 18:15	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 18:15	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 18:15	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 18:15	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 18:15	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 18:15	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 18:15	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 18:15	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 18:15	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 18:15	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 18:15	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 18:15	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 18:15	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 18:15	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 18:15	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*11*	*T J*	*ug/L*		*6.52*			*12/05/19 18:15*	*1*
Unknown	*7.0*	*T J*	*ug/L*		*15.86*			*12/05/19 18:15*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*93*		*80 - 128*		*12/05/19 15:42*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*12/05/19 15:42*	*1*
Toluene-d8 (Surr)	*102*		*80 - 128*		*12/05/19 18:15*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/05/19 18:15*	*1*
Dibromofluoromethane (Surr)	*94*		*76 - 132*		*12/05/19 15:42*	*1*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*12/05/19 18:15*	*1*

Method Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256238-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL IRV
300.0	Anions, Ion Chromatography	MCAWW	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
350.1	Nitrogen, Ammonia	MCAWW	TAL IRV
410.4	COD	MCAWW	TAL IRV
SM 2320B	Alkalinity	SM	TAL IRV
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL IRV
SM 4500 CO2 C	Free Carbon Dioxide	SM	TAL IRV
SM 4500 S2 D	Sulfide, Total	SM	TAL IRV
SM 5310C	TOC	SM	TAL IRV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL IRV
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL IRV
5030B	Purge and Trap	SW846	TAL IRV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Geo-Logic Associates
Job ID: 440-256238-1
Project/Site: Republic Sunshine Canyon

Client Sample ID: MW-5
Lab Sample ID: 440-256238-1

Date Collected: 12/03/19 15:05
Matrix: Water
Date Received: 12/04/19 16:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583939	12/05/19 14:56	DCI	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583930	12/05/19 12:58	WC	TAL IRV
Total/NA	Prep	3520C			985 mL	1.0 mL	583950	12/05/19 07:22	NAM	TAL IRV
Total/NA	Analysis	8270C		1			584408	12/07/19 07:38	L1B	TAL IRV
Total/NA	Analysis	300.0		5			583768	12/04/19 20:47	NN	TAL IRV
Total/NA	Analysis	300.0		5			583769	12/04/19 20:47	NN	TAL IRV
Total/NA	Analysis	300.0		200			583768	12/04/19 21:04	NN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	584013	12/05/19 10:14	M1G	TAL IRV
Total Recoverable	Analysis	6010B		1			584522	12/06/19 20:31	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584939	12/09/19 17:36	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585363	12/11/19 17:38	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			584162	12/05/19 06:35	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	584903	12/10/19 09:06	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586254	12/16/19 16:57	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	585050	12/10/19 16:56	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		5	100 mL	100 mL	584501	12/07/19 17:03	YZ	TAL IRV

Client Sample ID: CM-10R
Lab Sample ID: 440-256238-2

Date Collected: 12/04/19 12:15
Matrix: Water
Date Received: 12/04/19 16:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583939	12/05/19 15:25	DCI	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583930	12/05/19 13:25	WC	TAL IRV
Total/NA	Prep	3520C			965 mL	1.0 mL	584513	12/08/19 08:05	NAM	TAL IRV
Total/NA	Analysis	8270C		1			585093	12/11/19 00:40	YCL	TAL IRV
Total/NA	Analysis	300.0		2			583768	12/04/19 21:22	NN	TAL IRV
Total/NA	Analysis	300.0		2			583769	12/04/19 21:22	NN	TAL IRV
Total/NA	Analysis	300.0		100			583768	12/04/19 21:39	NN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	584013	12/05/19 10:14	M1G	TAL IRV
Total Recoverable	Analysis	6010B		1			584522	12/06/19 20:34	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584939	12/09/19 17:41	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585363	12/11/19 17:38	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			584162	12/05/19 06:42	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	584866	12/10/19 09:57	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586254	12/16/19 16:57	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	585050	12/10/19 16:56	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	584163	12/05/19 12:12	YZ	TAL IRV

Client Sample ID: DW-3
Lab Sample ID: 440-256238-3

Date Collected: 12/04/19 11:18
Matrix: Water
Date Received: 12/04/19 16:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583939	12/05/19 15:54	DCI	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583930	12/05/19 09:45	WC	TAL IRV
Total/NA	Prep	3520C			1035 mL	1.0 mL	584513	12/08/19 08:05	NAM	TAL IRV
Total/NA	Analysis	8270C		1			585093	12/11/19 01:01	YCL	TAL IRV
Total/NA	Analysis	300.0		1			583768	12/04/19 21:57	NN	TAL IRV
Total/NA	Analysis	300.0		1			583769	12/04/19 21:57	NN	TAL IRV
Total/NA	Analysis	300.0		50			583768	12/04/19 22:15	NN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	584013	12/05/19 10:14	M1G	TAL IRV
Total Recoverable	Analysis	6010B		1			584522	12/06/19 20:36	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584939	12/09/19 17:47	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585363	12/11/19 17:38	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			584162	12/05/19 06:50	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	584866	12/10/19 09:57	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586254	12/16/19 16:57	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	585050	12/10/19 16:56	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	584163	12/05/19 12:26	YZ	TAL IRV

Client Sample ID: DW-5
Lab Sample ID: 440-256238-4

Date Collected: 12/04/19 09:00
Matrix: Water
Date Received: 12/04/19 16:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583939	12/05/19 16:22	DCI	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583930	12/05/19 13:52	WC	TAL IRV
Total/NA	Prep	3520C			1010 mL	1.0 mL	584513	12/08/19 08:05	NAM	TAL IRV
Total/NA	Analysis	8270C		1			585093	12/11/19 01:23	YCL	TAL IRV
Total/NA	Analysis	300.0		1			583768	12/04/19 22:32	NN	TAL IRV
Total/NA	Analysis	300.0		1			583769	12/04/19 22:32	NN	TAL IRV
Total/NA	Analysis	300.0	DL	5			583768	12/05/19 05:50	NN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	584013	12/05/19 10:14	M1G	TAL IRV
Total Recoverable	Analysis	6010B		1			584522	12/06/19 20:39	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584939	12/09/19 17:52	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585363	12/11/19 17:38	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			584162	12/05/19 07:11	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	584866	12/10/19 09:57	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586724	12/18/19 12:30	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	585050	12/10/19 16:56	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		5	100 mL	100 mL	584501	12/07/19 17:18	YZ	TAL IRV

Client: Geo-Logic Associates
Job ID: 440-256238-1
Project/Site: Republic Sunshine Canyon

Client Sample ID: MW-1
Lab Sample ID: 440-256238-5
Date Collected: 12/04/19 11:00
Matrix: Water
Date Received: 12/04/19 16:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583939	12/05/19 16:50	DCI	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583930	12/05/19 14:20	WC	TAL IRV
Total/NA	Prep	3520C			990 mL	1.0 mL	584513	12/08/19 08:05	NAM	TAL IRV
Total/NA	Analysis	8270C		1			585093	12/11/19 01:44	YCL	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	583768	12/05/19 00:33	NN	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	583769	12/05/19 00:33	NN	TAL IRV
Total/NA	Analysis	300.0		50			583768	12/05/19 00:51	NN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	584013	12/05/19 10:14	M1G	TAL IRV
Total Recoverable	Analysis	6010B		1			584522	12/06/19 20:41	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584939	12/09/19 18:07	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585363	12/11/19 17:38	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			584162	12/05/19 07:36	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	584866	12/10/19 09:57	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586254	12/16/19 16:57	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	585050	12/10/19 16:56	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	584501	12/07/19 16:02	YZ	TAL IRV

Client Sample ID: PZ-4
Lab Sample ID: 440-256238-6
Date Collected: 12/04/19 10:00
Matrix: Water
Date Received: 12/04/19 16:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583939	12/05/19 17:19	DCI	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583930	12/05/19 14:47	WC	TAL IRV
Total/NA	Prep	3520C			1040 mL	1.0 mL	584513	12/08/19 08:05	NAM	TAL IRV
Total/NA	Analysis	8270C		1			585093	12/11/19 02:06	YCL	TAL IRV
Total/NA	Analysis	300.0		1			583768	12/05/19 01:08	NN	TAL IRV
Total/NA	Analysis	300.0		1			583769	12/05/19 01:08	NN	TAL IRV
Total/NA	Analysis	300.0	DL	50			583768	12/05/19 02:01	NN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	584013	12/05/19 10:14	M1G	TAL IRV
Total Recoverable	Analysis	6010B		1			584522	12/06/19 20:43	P1R	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584939	12/09/19 18:12	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	585363	12/11/19 17:38	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			584162	12/05/19 07:46	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	584866	12/10/19 09:57	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586254	12/16/19 16:57	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	585050	12/10/19 16:56	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	584501	12/07/19 16:16	YZ	TAL IRV

Lab Chronicle

Client: Geo-Logic Associates
Job ID: 440-256238-1
Project/Site: Republic Sunshine Canyon

Client Sample ID: Field Blank
Lab Sample ID: 440-256238-7
Date Collected: 12/04/19 00:01
Matrix: Water
Date Received: 12/04/19 16:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583939	12/05/19 17:47	DCI	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583930	12/05/19 15:14	WC	TAL IRV

Client Sample ID: Trip Blank
Lab Sample ID: 440-256238-8
Date Collected: 12/04/19 00:01
Matrix: Water
Date Received: 12/04/19 16:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	583939	12/05/19 18:15	DCI	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	583930	12/05/19 15:42	WC	TAL IRV

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-583930/5
Matrix: Water
Analysis Batch: 583930

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	ND		50	2.5	ug/L			12/05/19 08:34	1
Acrylonitrile	ND		50	1.0	ug/L			12/05/19 08:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*80 - 128*		*12/05/19 08:34*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*12/05/19 08:34*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*12/05/19 08:34*	*1*

Lab Sample ID: LCS 440-583930/1004
Matrix: Water
Analysis Batch: 583930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acrolein	24.7	19.7	J	ug/L		80	10 - 145
Acrylonitrile	250	234		ug/L		93	48 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*87*		*80 - 128*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*76 - 132*

Lab Sample ID: 440-256238-3 MS
Matrix: Water
Analysis Batch: 583930

Client Sample ID: DW-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acrolein	ND		9.88	6.49	J	ug/L		66	10 - 147
Acrylonitrile	ND		100	94.0		ug/L		94	38 - 144

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*92*		*80 - 128*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*76 - 132*

Lab Sample ID: 440-256238-3 MSD
Matrix: Water
Analysis Batch: 583930

Client Sample ID: DW-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acrolein	ND		9.88	6.77	J	ug/L		69	10 - 147	4	40
Acrylonitrile	ND		100	106		ug/L		106	38 - 144	12	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*90*		*80 - 128*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*76 - 132*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-583939/6
Matrix: Water
Analysis Batch: 583939

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/05/19 09:14	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 09:14	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 09:14	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/05/19 09:14	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/05/19 09:14	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 09:14	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 09:14	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 09:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/05/19 09:14	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/05/19 09:14	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 09:14	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/05/19 09:14	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 09:14	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 09:14	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/05/19 09:14	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/05/19 09:14	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/05/19 09:14	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/05/19 09:14	1
2-Hexanone	ND		5.0	2.5	ug/L			12/05/19 09:14	1
Acetone	ND		20	10	ug/L			12/05/19 09:14	1
Acetonitrile	ND		20	10	ug/L			12/05/19 09:14	1
Acrolein	ND		5.0	2.5	ug/L			12/05/19 09:14	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/05/19 09:14	1
Benzene	ND		0.50	0.25	ug/L			12/05/19 09:14	1
Allyl chloride	ND		1.0	0.50	ug/L			12/05/19 09:14	1
Bromoform	ND		1.0	0.40	ug/L			12/05/19 09:14	1
Bromomethane	ND		0.50	0.25	ug/L			12/05/19 09:14	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/05/19 09:14	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/05/19 09:14	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/05/19 09:14	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/05/19 09:14	1
Chloroethane	ND		1.0	0.40	ug/L			12/05/19 09:14	1
Chloroform	ND		0.50	0.25	ug/L			12/05/19 09:14	1
Chloromethane	ND		0.50	0.25	ug/L			12/05/19 09:14	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 09:14	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 09:14	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/05/19 09:14	1
Dibromomethane	ND		0.50	0.25	ug/L			12/05/19 09:14	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/05/19 09:14	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/05/19 09:14	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 09:14	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/05/19 09:14	1
Iodomethane	ND		2.0	1.0	ug/L			12/05/19 09:14	1
Isobutyl alcohol	ND		25	13	ug/L			12/05/19 09:14	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/05/19 09:14	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/05/19 09:14	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/05/19 09:14	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/05/19 09:14	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-583939/6
Matrix: Water
Analysis Batch: 583939

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/05/19 09:14	1
Naphthalene	ND		1.0	0.40	ug/L			12/05/19 09:14	1
o-Xylene	ND		0.50	0.25	ug/L			12/05/19 09:14	1
Propionitrile	ND		20	10	ug/L			12/05/19 09:14	1
Styrene	ND		0.50	0.25	ug/L			12/05/19 09:14	1
t-Butanol	ND		10	5.0	ug/L			12/05/19 09:14	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/05/19 09:14	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/05/19 09:14	1
Toluene	ND		0.50	0.25	ug/L			12/05/19 09:14	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/05/19 09:14	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/05/19 09:14	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/05/19 09:14	1
Trichloroethene	ND		0.50	0.25	ug/L			12/05/19 09:14	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/05/19 09:14	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/05/19 09:14	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/05/19 09:14	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/05/19 09:14	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/05/19 09:14	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/05/19 09:14	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*3.21*	*T J*	*ug/L*		*16.43*			*12/05/19 09:14*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 128*		*12/05/19 09:14*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/05/19 09:14*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*12/05/19 09:14*	*1*

Lab Sample ID: LCS 440-583939/1002
Matrix: Water
Analysis Batch: 583939

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	25.0	23.2		ug/L		93	63 - 130
1,1,1,2-Tetrachloroethane	25.0	24.1		ug/L		96	60 - 141
1,1,1-Trichloroethane	25.0	23.3		ug/L		93	70 - 130
1,1,2,2-Tetrachloroethane	25.0	23.6		ug/L		94	63 - 130
1,1,2-Trichloroethane	25.0	25.8		ug/L		103	70 - 130
1,1-Dichloroethane	25.0	24.2		ug/L		97	64 - 130
1,1-Dichloroethene	25.0	22.5		ug/L		90	70 - 130
1,1-Dichloropropene	25.0	25.3		ug/L		101	70 - 130
1,2,4-Trichlorobenzene	25.0	25.6		ug/L		102	60 - 140
1,2-Dibromo-3-Chloropropane	25.0	27.4		ug/L		110	52 - 140
1,2-Dichlorobenzene	25.0	23.9		ug/L		96	70 - 130
1,2-Dichloroethane	25.0	24.1		ug/L		97	57 - 138
1,2-Dichloropropane	25.0	26.9		ug/L		107	67 - 130
1,3-Dichlorobenzene	25.0	24.4		ug/L		98	70 - 130
1,3-Dichloropropane	25.0	25.4		ug/L		102	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-583939/1002
Matrix: Water
Analysis Batch: 583939

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	25.0	23.2		ug/L		93	70 - 130
2,2-Dichloropropane	25.0	29.4		ug/L		118	68 - 141
2-Hexanone	125	130		ug/L		104	10 - 150
Acetone	125	149		ug/L		119	10 - 150
Acrolein	24.7	23.5		ug/L		95	10 - 145
Acrylonitrile	250	242		ug/L		97	48 - 140
Benzene	25.0	24.6		ug/L		98	68 - 130
Bromoform	25.0	28.2		ug/L		113	60 - 148
Bromomethane	25.0	22.0		ug/L		88	64 - 139
Carbon disulfide	25.0	21.3		ug/L		85	52 - 136
Carbon tetrachloride	25.0	23.7		ug/L		95	60 - 150
Chlorobenzene	25.0	24.0		ug/L		96	70 - 130
Bromochloromethane	25.0	26.2		ug/L		105	70 - 130
Chloroethane	25.0	21.0		ug/L		84	64 - 135
Chloroform	25.0	23.4		ug/L		94	70 - 130
Chloromethane	25.0	21.4		ug/L		85	47 - 140
cis-1,2-Dichloroethene	25.0	24.4		ug/L		98	70 - 133
cis-1,3-Dichloropropene	25.0	25.5		ug/L		102	70 - 133
Dibromochloromethane	25.0	26.2		ug/L		105	69 - 145
Dibromomethane	25.0	26.4		ug/L		106	70 - 130
Bromodichloromethane	25.0	26.6		ug/L		106	70 - 132
Dichlorodifluoromethane	25.0	20.3		ug/L		81	29 - 150
Ethylbenzene	25.0	23.8		ug/L		95	70 - 130
m,p-Xylene	25.0	24.7		ug/L		99	70 - 130
Methylene Chloride	25.0	20.5		ug/L		82	52 - 130
Methyl tert-butyl ether	25.0	24.6		ug/L		98	63 - 131
Naphthalene	25.0	26.1		ug/L		104	60 - 140
o-Xylene	25.0	24.3		ug/L		97	70 - 130
Styrene	25.0	26.9		ug/L		108	70 - 134
t-Butanol	250	324		ug/L		130	70 - 130
Tetrachloroethene	25.0	23.9		ug/L		96	70 - 130
Toluene	25.0	22.3		ug/L		89	70 - 130
trans-1,2-Dichloroethene	25.0	24.2		ug/L		97	70 - 130
trans-1,3-Dichloropropene	25.0	27.7		ug/L		111	70 - 132
Trichloroethene	25.0	25.2		ug/L		101	70 - 130
Trichlorofluoromethane	25.0	23.4		ug/L		94	60 - 150
Vinyl acetate	25.0	28.7		ug/L		115	48 - 140
Vinyl chloride	25.0	20.4		ug/L		82	59 - 133
1,2-Dibromoethane (EDB)	25.0	25.5		ug/L		102	70 - 130
2-Butanone (MEK)	125	133		ug/L		106	44 - 150
4-Methyl-2-pentanone (MIBK)	125	122		ug/L		98	59 - 149

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*96*		*80 - 128*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*76 - 132*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256094-A-1 MS
Matrix: Water
Analysis Batch: 583939

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	ND		1000	944		ug/L		94	60 - 130
1,1,1,2-Tetrachloroethane	ND		1000	952		ug/L		95	60 - 149
1,1,1-Trichloroethane	ND		1000	846		ug/L		85	70 - 130
1,1,2,2-Tetrachloroethane	ND		1000	968		ug/L		97	63 - 130
1,1,2-Trichloroethane	ND		1000	1010		ug/L		101	70 - 130
1,1-Dichloroethane	ND		1000	911		ug/L		91	65 - 130
1,1-Dichloroethene	ND		1000	824		ug/L		82	70 - 130
1,1-Dichloropropene	ND		1000	915		ug/L		92	64 - 130
1,2,4-Trichlorobenzene	ND		1000	1010		ug/L		101	60 - 140
1,2-Dibromo-3-Chloropropane	ND		1000	1010		ug/L		101	48 - 140
1,2-Dichlorobenzene	ND		1000	951		ug/L		95	70 - 130
1,2-Dichloroethane	ND		1000	933		ug/L		93	56 - 146
1,2-Dichloropropane	ND		1000	1040		ug/L		104	69 - 130
1,3-Dichlorobenzene	ND		1000	936		ug/L		94	70 - 130
1,3-Dichloropropane	ND		1000	1020		ug/L		102	70 - 130
1,4-Dichlorobenzene	ND		1000	927		ug/L		93	70 - 130
2,2-Dichloropropane	ND		1000	1080		ug/L		108	69 - 138
2-Hexanone	ND		5000	5250		ug/L		105	10 - 150
Acetone	ND		5000	4420		ug/L		88	10 - 150
Acrolein	ND		988	671		ug/L		68	10 - 147
Acrylonitrile	ND		10000	9600		ug/L		96	38 - 144
Benzene	28	J	1000	953		ug/L		93	66 - 130
Bromoform	ND		1000	1090		ug/L		109	59 - 150
Bromomethane	ND		1000	815		ug/L		82	62 - 131
Carbon disulfide	ND		1000	764		ug/L		76	49 - 140
Carbon tetrachloride	ND		1000	837		ug/L		84	60 - 150
Chlorobenzene	7800		1000	8600	4	ug/L		76	70 - 130
Bromochloromethane	ND		1000	1010		ug/L		101	70 - 130
Chloroethane	ND		1000	790		ug/L		79	68 - 130
Chloroform	240		1000	1130		ug/L		89	70 - 130
Chloromethane	ND		1000	779		ug/L		78	39 - 144
cis-1,2-Dichloroethene	ND		1000	926		ug/L		93	70 - 130
cis-1,3-Dichloropropene	ND		1000	1020		ug/L		102	70 - 133
Dibromochloromethane	ND		1000	1020		ug/L		102	70 - 148
Dibromomethane	ND		1000	1010		ug/L		101	70 - 130
Bromodichloromethane	ND		1000	1070		ug/L		107	70 - 138
Dichlorodifluoromethane	ND		1000	683		ug/L		68	25 - 142
Ethylbenzene	ND		1000	953		ug/L		95	70 - 130
m,p-Xylene	ND		1000	965		ug/L		96	70 - 133
Methylene Chloride	ND		1000	802		ug/L		80	52 - 130
Methyl tert-butyl ether	ND		1000	926		ug/L		93	70 - 130
Naphthalene	ND		1000	1010		ug/L		101	60 - 140
o-Xylene	ND		1000	978		ug/L		98	70 - 133
Styrene	ND		1000	1070		ug/L		107	29 - 150
t-Butanol	ND		10000	10700		ug/L		107	70 - 130
Tetrachloroethene	61		1000	1140		ug/L		108	70 - 137
Toluene	ND		1000	899		ug/L		90	70 - 130
trans-1,2-Dichloroethene	ND		1000	876		ug/L		88	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256094-A-1 MS
Matrix: Water
Analysis Batch: 583939

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	ND		1000	1090		ug/L		109	70 - 138
Trichloroethene	34	J	1000	995		ug/L		96	70 - 130
Trichlorofluoromethane	ND		1000	652		ug/L		65	60 - 150
Vinyl acetate	ND		1000	1040		ug/L		104	23 - 150
Vinyl chloride	ND		1000	685		ug/L		69	50 - 137
1,2-Dibromoethane (EDB)	ND		1000	1010		ug/L		101	70 - 131
2-Butanone (MEK)	ND		5000	5070		ug/L		101	48 - 140
4-Methyl-2-pentanone (MIBK)	ND		5000	4950		ug/L		99	52 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*80 - 128*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*76 - 132*

Lab Sample ID: 440-256094-A-1 MSD
Matrix: Water
Analysis Batch: 583939

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	ND		1000	916		ug/L		92	60 - 130	3	30
1,1,1,2-Tetrachloroethane	ND		1000	918		ug/L		92	60 - 149	4	20
1,1,1-Trichloroethane	ND		1000	840		ug/L		84	70 - 130	1	20
1,1,2,2-Tetrachloroethane	ND		1000	960		ug/L		96	63 - 130	1	30
1,1,2-Trichloroethane	ND		1000	1020		ug/L		102	70 - 130	1	25
1,1-Dichloroethane	ND		1000	896		ug/L		90	65 - 130	2	20
1,1-Dichloroethene	ND		1000	776		ug/L		78	70 - 130	6	20
1,1-Dichloropropene	ND		1000	895		ug/L		89	64 - 130	2	20
1,2,4-Trichlorobenzene	ND		1000	1010		ug/L		101	60 - 140	0	20
1,2-Dibromo-3-Chloropropane	ND		1000	992		ug/L		99	48 - 140	2	30
1,2-Dichlorobenzene	ND		1000	936		ug/L		94	70 - 130	2	20
1,2-Dichloroethane	ND		1000	920		ug/L		92	56 - 146	1	20
1,2-Dichloropropane	ND		1000	1020		ug/L		102	69 - 130	2	20
1,3-Dichlorobenzene	ND		1000	932		ug/L		93	70 - 130	0	20
1,3-Dichloropropane	ND		1000	1000		ug/L		100	70 - 130	2	25
1,4-Dichlorobenzene	ND		1000	905		ug/L		91	70 - 130	2	20
2,2-Dichloropropane	ND		1000	1060		ug/L		106	69 - 138	1	25
2-Hexanone	ND		5000	5140		ug/L		103	10 - 150	2	35
Acetone	ND		5000	4500		ug/L		90	10 - 150	2	35
Acrolein	ND		988	723		ug/L		73	10 - 147	8	40
Acrylonitrile	ND		10000	9330		ug/L		93	38 - 144	3	40
Benzene	28	J	1000	943		ug/L		91	66 - 130	1	20
Bromoform	ND		1000	1060		ug/L		106	59 - 150	3	25
Bromomethane	ND		1000	803		ug/L		80	62 - 131	1	25
Carbon disulfide	ND		1000	737		ug/L		74	49 - 140	4	20
Carbon tetrachloride	ND		1000	798		ug/L		80	60 - 150	5	25
Chlorobenzene	7800		1000	8430	4	ug/L		58	70 - 130	2	20
Bromochloromethane	ND		1000	1010		ug/L		101	70 - 130	1	25
Chloroethane	ND		1000	765		ug/L		76	68 - 130	3	25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256094-A-1 MSD
Matrix: Water
Analysis Batch: 583939

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroform	240		1000	1120		ug/L		88	70 - 130	1	20
Chloromethane	ND		1000	808		ug/L		81	39 - 144	4	25
cis-1,2-Dichloroethene	ND		1000	922		ug/L		92	70 - 130	0	20
cis-1,3-Dichloropropene	ND		1000	1020		ug/L		102	70 - 133	0	20
Dibromochloromethane	ND		1000	1010		ug/L		101	70 - 148	0	25
Dibromomethane	ND		1000	998		ug/L		100	70 - 130	1	25
Bromodichloromethane	ND		1000	1030		ug/L		103	70 - 138	3	20
Dichlorodifluoromethane	ND		1000	710		ug/L		71	25 - 142	4	30
Ethylbenzene	ND		1000	938		ug/L		94	70 - 130	1	20
m,p-Xylene	ND		1000	952		ug/L		95	70 - 133	1	25
Methylene Chloride	ND		1000	773		ug/L		77	52 - 130	4	20
Methyl tert-butyl ether	ND		1000	931		ug/L		93	70 - 130	1	25
Naphthalene	ND		1000	1010		ug/L		101	60 - 140	0	30
o-Xylene	ND		1000	954		ug/L		95	70 - 133	3	20
Styrene	ND		1000	1030		ug/L		103	29 - 150	4	35
t-Butanol	ND		10000	11100		ug/L		111	70 - 130	4	25
Tetrachloroethene	61		1000	1120		ug/L		106	70 - 137	2	20
Toluene	ND		1000	885		ug/L		88	70 - 130	2	20
trans-1,2-Dichloroethene	ND		1000	856		ug/L		86	70 - 130	2	20
trans-1,3-Dichloropropene	ND		1000	1110		ug/L		111	70 - 138	1	25
Trichloroethene	34	J	1000	989		ug/L		96	70 - 130	1	20
Trichlorofluoromethane	ND		1000	638		ug/L		64	60 - 150	2	25
Vinyl acetate	ND		1000	1060		ug/L		106	23 - 150	2	30
Vinyl chloride	ND		1000	737		ug/L		74	50 - 137	7	30
1,2-Dibromoethane (EDB)	ND		1000	994		ug/L		99	70 - 131	2	25
2-Butanone (MEK)	ND		5000	4890		ug/L		98	48 - 140	3	40
4-Methyl-2-pentanone (MIBK)	ND		5000	4900		ug/L		98	52 - 150	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*76 - 132*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-583950/1-A
Matrix: Water
Analysis Batch: 584225

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 583950

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1.0	0.25	ug/L		12/05/19 07:22	12/06/19 10:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*63*		*30 - 120*	*12/05/19 07:22*	*12/06/19 10:21*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-583950/2-A
Matrix: Water
Analysis Batch: 584225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 583950

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			2.00	1.53		ug/L		77	35 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*72*		*30 - 120*

Lab Sample ID: LCSD 440-583950/3-A
Matrix: Water
Analysis Batch: 584225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 583950

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			2.00	1.40		ug/L		70	35 - 120	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*69*		*30 - 120*

Lab Sample ID: MB 440-584513/1-A
Matrix: Water
Analysis Batch: 584613

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 584513

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1.0	0.25	ug/L		12/08/19 08:05	12/09/19 17:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*71*		*30 - 120*	*12/08/19 08:05*	*12/09/19 17:13*	*1*

Lab Sample ID: LCS 440-584513/3-A
Matrix: Water
Analysis Batch: 584613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 584513

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			2.00	0.902	J	ug/L		45	35 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*44*		*30 - 120*

Lab Sample ID: 440-256489-R-1-A MS
Matrix: Water
Analysis Batch: 584613

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 584513

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	ND		1.96	1.14		ug/L		58	35 - 120		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*57*		*30 - 120*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256489-S-1-A MSD
Matrix: Water
Analysis Batch: 584613

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 584513

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	ND		1.99	1.18		ug/L		59	35 - 120	3	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*59*		*30 - 120*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-583768/15
Matrix: Water
Analysis Batch: 583768

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.50	0.25	mg/L			12/04/19 18:08	1
Chloride	ND		0.50	0.25	mg/L			12/04/19 18:08	1
Fluoride	ND		0.50	0.25	mg/L			12/04/19 18:08	1
Sulfate	ND		0.50	0.25	mg/L			12/04/19 18:08	1

Lab Sample ID: LCS 440-583768/14
Matrix: Water
Analysis Batch: 583768

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	4.87		mg/L		97	90 - 110
Chloride	5.00	4.88		mg/L		98	90 - 110
Fluoride	5.00	4.81		mg/L		96	90 - 110
Sulfate	5.00	4.87		mg/L		97	90 - 110

Lab Sample ID: 440-256238-4 MS
Matrix: Water
Analysis Batch: 583768

Client Sample ID: DW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.25	J	5.00	5.36		mg/L		107	80 - 120
Chloride	20	E	5.00	26.2	E 4	mg/L		117	80 - 120
Fluoride	3.4		5.00	8.31		mg/L		99	80 - 120
Sulfate	0.38	J	5.00	5.13		mg/L		95	80 - 120

Lab Sample ID: 440-256238-4 MSD
Matrix: Water
Analysis Batch: 583768

Client Sample ID: DW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.25	J	5.00	5.40		mg/L		108	80 - 120	1	20
Chloride	20	E	5.00	26.2	E 4	mg/L		118	80 - 120	0	20
Fluoride	3.4		5.00	8.33		mg/L		99	80 - 120	0	20
Sulfate	0.38	J	5.00	5.23		mg/L		97	80 - 120	2	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 440-256238-6 MS
Matrix: Water
Analysis Batch: 583768

Client Sample ID: PZ-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	ND		5.00	4.89		mg/L		98	80 - 120
Chloride	8.3		5.00	14.0		mg/L		114	80 - 120
Fluoride	1.0		5.00	5.86		mg/L		97	80 - 120
Sulfate	770	E	5.00	777	E 4	mg/L		135	80 - 120

Lab Sample ID: 440-256238-6 MSD
Matrix: Water
Analysis Batch: 583768

Client Sample ID: PZ-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	ND		5.00	4.93		mg/L		99	80 - 120	1	20
Chloride	8.3		5.00	14.1		mg/L		116	80 - 120	1	20
Fluoride	1.0		5.00	5.93		mg/L		98	80 - 120	1	20
Sulfate	770	E	5.00	781	E 4	mg/L		196	80 - 120	0	20

Lab Sample ID: MB 440-583769/15
Matrix: Water
Analysis Batch: 583769

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.11	0.055	mg/L			12/04/19 18:08	1

Lab Sample ID: LCS 440-583769/14
Matrix: Water
Analysis Batch: 583769

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.13	1.09		mg/L		97	90 - 110

Lab Sample ID: 440-256238-4 MS
Matrix: Water
Analysis Batch: 583769

Client Sample ID: DW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	ND		1.13	1.17		mg/L		104	80 - 120

Lab Sample ID: 440-256238-4 MSD
Matrix: Water
Analysis Batch: 583769

Client Sample ID: DW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	ND		1.13	1.20		mg/L		106	80 - 120	3	20

Lab Sample ID: 440-256238-6 MS
Matrix: Water
Analysis Batch: 583769

Client Sample ID: PZ-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.11		1.13	1.17		mg/L		94	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 440-256238-6 MSD
Matrix: Water
Analysis Batch: 583769

Client Sample ID: PZ-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	0.11		1.13	1.18		mg/L		95	80 - 120	0	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-584013/1-A
Matrix: Water
Analysis Batch: 584522

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 584013

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.025	mg/L		12/05/19 10:14	12/06/19 20:02	1
Calcium	0.0918	J	0.10	0.050	mg/L		12/05/19 10:14	12/06/19 20:02	1
Iron	ND		0.10	0.050	mg/L		12/05/19 10:14	12/06/19 20:02	1
Magnesium	ND		0.020	0.010	mg/L		12/05/19 10:14	12/06/19 20:02	1
Manganese	ND		0.020	0.015	mg/L		12/05/19 10:14	12/06/19 20:02	1
Potassium	ND		0.50	0.25	mg/L		12/05/19 10:14	12/06/19 20:02	1
Sodium	ND		0.50	0.26	mg/L		12/05/19 10:14	12/06/19 20:02	1

Lab Sample ID: LCS 440-584013/2-A
Matrix: Water
Analysis Batch: 584522

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 584013

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.954		mg/L		95	80 - 120
Calcium	5.00	4.85		mg/L		97	80 - 120
Iron	1.00	1.00		mg/L		100	80 - 120
Magnesium	5.00	4.77		mg/L		95	80 - 120
Manganese	1.00	0.962		mg/L		96	80 - 120
Potassium	10.0	9.54		mg/L		95	80 - 120
Sodium	10.0	9.69		mg/L		97	80 - 120

Lab Sample ID: 440-256298-I-10-B MS
Matrix: Water
Analysis Batch: 584522

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 584013

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	ND		1.00	0.990		mg/L		99	75 - 125
Calcium	3.8	B	5.00	8.53		mg/L		95	75 - 125
Iron	0.81		1.00	1.75		mg/L		94	75 - 125
Magnesium	0.74		5.00	5.57		mg/L		97	75 - 125
Manganese	0.020		1.00	1.00		mg/L		98	75 - 125
Potassium	1.8		10.0	11.5		mg/L		97	75 - 125
Sodium	1.4		10.0	11.2		mg/L		99	75 - 125

Lab Sample ID: 440-256298-I-10-C MSD
Matrix: Water
Analysis Batch: 584522

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 584013

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	ND		1.00	0.995		mg/L		100	75 - 125	1	20
Calcium	3.8	B	5.00	8.62		mg/L		97	75 - 125	1	20

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-256298-I-10-C MSD
Matrix: Water
Analysis Batch: 584522

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 584013

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	0.81		1.00	1.75		mg/L		94	75 - 125	0	20
Magnesium	0.74		5.00	5.61		mg/L		97	75 - 125	1	20
Manganese	0.020		1.00	1.01		mg/L		99	75 - 125	1	20
Potassium	1.8		10.0	11.6		mg/L		98	75 - 125	1	20
Sodium	1.4		10.0	11.3		mg/L		99	75 - 125	0	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 440-584939/42
Matrix: Water
Analysis Batch: 584939

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			12/09/19 16:02	1

Lab Sample ID: LCS 440-584939/43
Matrix: Water
Analysis Batch: 584939

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	5.00	4.86		mg/L		97	90 - 110

Lab Sample ID: MRL 440-584939/9
Matrix: Water
Analysis Batch: 584939

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.200	0.184	J	mg/L		92	50 - 150

Lab Sample ID: 440-256298-H-1 MS
Matrix: Water
Analysis Batch: 584939

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.40		5.00	5.72		mg/L		106	90 - 110

Lab Sample ID: 440-256298-H-1 MSD
Matrix: Water
Analysis Batch: 584939

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	0.40		5.00	5.71		mg/L		106	90 - 110	0	15

Method: 410.4 - COD

Lab Sample ID: MB 440-585363/3
Matrix: Water
Analysis Batch: 585363

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			12/11/19 17:36	1

Method: 410.4 - COD

Lab Sample ID: LCS 440-585363/4
Matrix: Water
Analysis Batch: 585363

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			200	198		mg/L		99	90 - 110		

Lab Sample ID: 440-256238-3 MS
Matrix: Water
Analysis Batch: 585363

Client Sample ID: DW-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	ND		200	193		mg/L		97	70 - 120		

Lab Sample ID: 440-256238-3 MSD
Matrix: Water
Analysis Batch: 585363

Client Sample ID: DW-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	ND		200	194		mg/L		97	70 - 120	0	15

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 440-584162/3
Matrix: Water
Analysis Batch: 584162

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		4.0	4.0	mg/L			12/05/19 05:46	1
Bicarbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			12/05/19 05:46	1

Lab Sample ID: LCS 440-584162/2
Matrix: Water
Analysis Batch: 584162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity as CaCO3			68.2	68.6		mg/L		101	80 - 120		

Lab Sample ID: 440-256238-4 DU
Matrix: Water
Analysis Batch: 584162

Client Sample ID: DW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	950			952		mg/L				0.7	20
Bicarbonate Alkalinity as CaCO3	920			925		mg/L				0.6	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 440-584866/1
Matrix: Water
Analysis Batch: 584866

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	5.0	mg/L			12/10/19 09:57	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 440-584866/2
Matrix: Water
Analysis Batch: 584866

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	970		mg/L		97	90 - 110		

Lab Sample ID: 440-256298-G-11 DU
Matrix: Water
Analysis Batch: 584866

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	67			70.0		mg/L				4	5

Lab Sample ID: MB 440-584903/1
Matrix: Water
Analysis Batch: 584903

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	5.0	mg/L			12/10/19 09:06	1

Lab Sample ID: LCS 440-584903/2
Matrix: Water
Analysis Batch: 584903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	958		mg/L		96	90 - 110		

Lab Sample ID: 440-256223-A-4 DU
Matrix: Water
Analysis Batch: 584903

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	560			547		mg/L				2	5

Method: SM 4500 CO2 C - Free Carbon Dioxide

Lab Sample ID: MB 440-586254/1
Matrix: Water
Analysis Batch: 586254

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon Dioxide, Free	ND		2.0	2.0	mg/L			12/16/19 16:57	1

Lab Sample ID: 440-256238-1 DU
Matrix: Water
Analysis Batch: 586254

Client Sample ID: MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Carbon Dioxide, Free	120			125		mg/L				1	20

Method: SM 4500 CO2 C - Free Carbon Dioxide (Continued)

Lab Sample ID: MB 440-586724/1
Matrix: Water
Analysis Batch: 586724

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon Dioxide, Free	ND		2.0	2.0	mg/L			12/18/19 12:30	1

Lab Sample ID: 440-257484-L-1 DU
Matrix: Water
Analysis Batch: 586724

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Carbon Dioxide, Free	53			52.8		mg/L				0	20

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-585050/3
Matrix: Water
Analysis Batch: 585050

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Sulfide	ND		0.050	0.027	mg/L			12/10/19 16:54	1

Lab Sample ID: LCS 440-585050/4
Matrix: Water
Analysis Batch: 585050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Sulfide			0.500	0.483		mg/L		97	80 - 120		

Lab Sample ID: LCSD 440-585050/5
Matrix: Water
Analysis Batch: 585050

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Sulfide			0.500	0.492		mg/L		98	80 - 120	2	20

Lab Sample ID: 440-256241-D-2 MS
Matrix: Water
Analysis Batch: 585050

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Sulfide	ND		0.500	0.367		mg/L		73	70 - 130		

Lab Sample ID: 440-256241-D-2 MSD
Matrix: Water
Analysis Batch: 585050

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Sulfide	ND		0.500	0.374		mg/L		75	70 - 130	2	30

Method: SM 5310C - TOC

Lab Sample ID: MB 440-584163/8
Matrix: Water
Analysis Batch: 584163

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			12/05/19 06:31	1

Lab Sample ID: LCS 440-584163/7
Matrix: Water
Analysis Batch: 584163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	4.96		mg/L		99	85 - 115

Lab Sample ID: MRL 440-584163/6
Matrix: Water
Analysis Batch: 584163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.0763	J	mg/L		76	50 - 150

Lab Sample ID: 440-256127-J-6 MS
Matrix: Water
Analysis Batch: 584163

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.8		5.00	10.5		mg/L		115	85 - 115

Lab Sample ID: 440-256127-J-6 MSD
Matrix: Water
Analysis Batch: 584163

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	4.8		5.00	10.5		mg/L		114	85 - 115	0	20

Lab Sample ID: MB 440-584501/8
Matrix: Water
Analysis Batch: 584501

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			12/07/19 10:03	1

Lab Sample ID: LCS 440-584501/7
Matrix: Water
Analysis Batch: 584501

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	4.91		mg/L		98	85 - 115

Lab Sample ID: MRL 440-584501/6
Matrix: Water
Analysis Batch: 584501

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.104		mg/L		104	50 - 150

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256238-1

Method: SM 5310C - TOC

Lab Sample ID: 440-256413-C-2 MS
Matrix: Water
Analysis Batch: 584501

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	2.3		5.00	7.74		mg/L		108	85 - 115		

Lab Sample ID: 440-256413-C-2 MSD
Matrix: Water
Analysis Batch: 584501

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	2.3		5.00	7.79		mg/L		109	85 - 115	1	20

GC/MS VOA

Analysis Batch: 583930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-1	MW-5	Total/NA	Water	8260B	
440-256238-2	CM-10R	Total/NA	Water	8260B	
440-256238-3	DW-3	Total/NA	Water	8260B	
440-256238-4	DW-5	Total/NA	Water	8260B	
440-256238-5	MW-1	Total/NA	Water	8260B	
440-256238-6	PZ-4	Total/NA	Water	8260B	
440-256238-7	Field Blank	Total/NA	Water	8260B	
440-256238-8	Trip Blank	Total/NA	Water	8260B	
MB 440-583930/5	Method Blank	Total/NA	Water	8260B	
LCS 440-583930/1004	Lab Control Sample	Total/NA	Water	8260B	
440-256238-3 MS	DW-3	Total/NA	Water	8260B	
440-256238-3 MSD	DW-3	Total/NA	Water	8260B	

Analysis Batch: 583939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-1	MW-5	Total/NA	Water	8260B	
440-256238-2	CM-10R	Total/NA	Water	8260B	
440-256238-3	DW-3	Total/NA	Water	8260B	
440-256238-4	DW-5	Total/NA	Water	8260B	
440-256238-5	MW-1	Total/NA	Water	8260B	
440-256238-6	PZ-4	Total/NA	Water	8260B	
440-256238-7	Field Blank	Total/NA	Water	8260B	
440-256238-8	Trip Blank	Total/NA	Water	8260B	
MB 440-583939/6	Method Blank	Total/NA	Water	8260B	
LCS 440-583939/1002	Lab Control Sample	Total/NA	Water	8260B	
440-256094-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-256094-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 583950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-1	MW-5	Total/NA	Water	3520C	
MB 440-583950/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-583950/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-583950/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 584225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-583950/1-A	Method Blank	Total/NA	Water	8270C	583950
LCS 440-583950/2-A	Lab Control Sample	Total/NA	Water	8270C	583950
LCSD 440-583950/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	583950

Analysis Batch: 584408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-1	MW-5	Total/NA	Water	8270C	583950

Prep Batch: 584513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-2	CM-10R	Total/NA	Water	3520C	
440-256238-3	DW-3	Total/NA	Water	3520C	

GC/MS Semi VOA (Continued)

Prep Batch: 584513 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-4	DW-5	Total/NA	Water	3520C	
440-256238-5	MW-1	Total/NA	Water	3520C	
440-256238-6	PZ-4	Total/NA	Water	3520C	
MB 440-584513/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-584513/3-A	Lab Control Sample	Total/NA	Water	3520C	
440-256489-R-1-A MS	Matrix Spike	Total/NA	Water	3520C	
440-256489-S-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	3520C	

Analysis Batch: 584613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-584513/1-A	Method Blank	Total/NA	Water	8270C	584513
LCS 440-584513/3-A	Lab Control Sample	Total/NA	Water	8270C	584513
440-256489-R-1-A MS	Matrix Spike	Total/NA	Water	8270C	584513
440-256489-S-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	8270C	584513

Analysis Batch: 585093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-2	CM-10R	Total/NA	Water	8270C	584513
440-256238-3	DW-3	Total/NA	Water	8270C	584513
440-256238-4	DW-5	Total/NA	Water	8270C	584513
440-256238-5	MW-1	Total/NA	Water	8270C	584513
440-256238-6	PZ-4	Total/NA	Water	8270C	584513

HPLC/IC

Analysis Batch: 583768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-1	MW-5	Total/NA	Water	300.0	
440-256238-1	MW-5	Total/NA	Water	300.0	
440-256238-2	CM-10R	Total/NA	Water	300.0	
440-256238-2	CM-10R	Total/NA	Water	300.0	
440-256238-3	DW-3	Total/NA	Water	300.0	
440-256238-3	DW-3	Total/NA	Water	300.0	
440-256238-4	DW-5	Total/NA	Water	300.0	
440-256238-4 - DL	DW-5	Total/NA	Water	300.0	
440-256238-5	MW-1	Total/NA	Water	300.0	
440-256238-5	MW-1	Total/NA	Water	300.0	
440-256238-6	PZ-4	Total/NA	Water	300.0	
440-256238-6 - DL	PZ-4	Total/NA	Water	300.0	
MB 440-583768/15	Method Blank	Total/NA	Water	300.0	
LCS 440-583768/14	Lab Control Sample	Total/NA	Water	300.0	
440-256238-4 MS	DW-5	Total/NA	Water	300.0	
440-256238-4 MSD	DW-5	Total/NA	Water	300.0	
440-256238-6 MS	PZ-4	Total/NA	Water	300.0	
440-256238-6 MSD	PZ-4	Total/NA	Water	300.0	

Analysis Batch: 583769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-1	MW-5	Total/NA	Water	300.0	
440-256238-2	CM-10R	Total/NA	Water	300.0	
440-256238-3	DW-3	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 583769 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-4	DW-5	Total/NA	Water	300.0	
440-256238-5	MW-1	Total/NA	Water	300.0	
440-256238-6	PZ-4	Total/NA	Water	300.0	
MB 440-583769/15	Method Blank	Total/NA	Water	300.0	
LCS 440-583769/14	Lab Control Sample	Total/NA	Water	300.0	
440-256238-4 MS	DW-5	Total/NA	Water	300.0	
440-256238-4 MSD	DW-5	Total/NA	Water	300.0	
440-256238-6 MS	PZ-4	Total/NA	Water	300.0	
440-256238-6 MSD	PZ-4	Total/NA	Water	300.0	

Metals

Prep Batch: 584013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-1	MW-5	Total Recoverable	Water	3005A	
440-256238-2	CM-10R	Total Recoverable	Water	3005A	
440-256238-3	DW-3	Total Recoverable	Water	3005A	
440-256238-4	DW-5	Total Recoverable	Water	3005A	
440-256238-5	MW-1	Total Recoverable	Water	3005A	
440-256238-6	PZ-4	Total Recoverable	Water	3005A	
MB 440-584013/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-584013/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-256298-I-10-B MS	Matrix Spike	Total Recoverable	Water	3005A	
440-256298-I-10-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 584522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-1	MW-5	Total Recoverable	Water	6010B	584013
440-256238-2	CM-10R	Total Recoverable	Water	6010B	584013
440-256238-3	DW-3	Total Recoverable	Water	6010B	584013
440-256238-4	DW-5	Total Recoverable	Water	6010B	584013
440-256238-5	MW-1	Total Recoverable	Water	6010B	584013
440-256238-6	PZ-4	Total Recoverable	Water	6010B	584013
MB 440-584013/1-A	Method Blank	Total Recoverable	Water	6010B	584013
LCS 440-584013/2-A	Lab Control Sample	Total Recoverable	Water	6010B	584013
440-256298-I-10-B MS	Matrix Spike	Total Recoverable	Water	6010B	584013
440-256298-I-10-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	584013

General Chemistry

Analysis Batch: 584162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-1	MW-5	Total/NA	Water	SM 2320B	
440-256238-2	CM-10R	Total/NA	Water	SM 2320B	
440-256238-3	DW-3	Total/NA	Water	SM 2320B	
440-256238-4	DW-5	Total/NA	Water	SM 2320B	
440-256238-5	MW-1	Total/NA	Water	SM 2320B	
440-256238-6	PZ-4	Total/NA	Water	SM 2320B	
MB 440-584162/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-584162/2	Lab Control Sample	Total/NA	Water	SM 2320B	
440-256238-4 DU	DW-5	Total/NA	Water	SM 2320B	

General Chemistry

Analysis Batch: 584163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-2	CM-10R	Total/NA	Water	SM 5310C	
440-256238-3	DW-3	Total/NA	Water	SM 5310C	
MB 440-584163/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-584163/7	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-584163/6	Lab Control Sample	Total/NA	Water	SM 5310C	
440-256127-J-6 MS	Matrix Spike	Total/NA	Water	SM 5310C	
440-256127-J-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310C	

Analysis Batch: 584501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-1	MW-5	Total/NA	Water	SM 5310C	
440-256238-4	DW-5	Total/NA	Water	SM 5310C	
440-256238-5	MW-1	Total/NA	Water	SM 5310C	
440-256238-6	PZ-4	Total/NA	Water	SM 5310C	
MB 440-584501/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-584501/7	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-584501/6	Lab Control Sample	Total/NA	Water	SM 5310C	
440-256413-C-2 MS	Matrix Spike	Total/NA	Water	SM 5310C	
440-256413-C-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310C	

Analysis Batch: 584866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-2	CM-10R	Total/NA	Water	SM 2540C	
440-256238-3	DW-3	Total/NA	Water	SM 2540C	
440-256238-4	DW-5	Total/NA	Water	SM 2540C	
440-256238-5	MW-1	Total/NA	Water	SM 2540C	
440-256238-6	PZ-4	Total/NA	Water	SM 2540C	
MB 440-584866/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-584866/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-256298-G-11 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 584903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-1	MW-5	Total/NA	Water	SM 2540C	
MB 440-584903/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-584903/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-256223-A-4 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 584939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-1	MW-5	Total/NA	Water	350.1	
440-256238-2	CM-10R	Total/NA	Water	350.1	
440-256238-3	DW-3	Total/NA	Water	350.1	
440-256238-4	DW-5	Total/NA	Water	350.1	
440-256238-5	MW-1	Total/NA	Water	350.1	
440-256238-6	PZ-4	Total/NA	Water	350.1	
MB 440-584939/42	Method Blank	Total/NA	Water	350.1	
LCS 440-584939/43	Lab Control Sample	Total/NA	Water	350.1	
MRL 440-584939/9	Lab Control Sample	Total/NA	Water	350.1	
440-256298-H-1 MS	Matrix Spike	Total/NA	Water	350.1	
440-256298-H-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

General Chemistry

Analysis Batch: 585050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-1	MW-5	Total/NA	Water	SM 4500 S2 D	
440-256238-2	CM-10R	Total/NA	Water	SM 4500 S2 D	
440-256238-3	DW-3	Total/NA	Water	SM 4500 S2 D	
440-256238-4	DW-5	Total/NA	Water	SM 4500 S2 D	
440-256238-5	MW-1	Total/NA	Water	SM 4500 S2 D	
440-256238-6	PZ-4	Total/NA	Water	SM 4500 S2 D	
MB 440-585050/3	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 440-585050/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 440-585050/5	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	
440-256241-D-2 MS	Matrix Spike	Total/NA	Water	SM 4500 S2 D	
440-256241-D-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 585363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-1	MW-5	Total/NA	Water	410.4	
440-256238-2	CM-10R	Total/NA	Water	410.4	
440-256238-3	DW-3	Total/NA	Water	410.4	
440-256238-4	DW-5	Total/NA	Water	410.4	
440-256238-5	MW-1	Total/NA	Water	410.4	
440-256238-6	PZ-4	Total/NA	Water	410.4	
MB 440-585363/3	Method Blank	Total/NA	Water	410.4	
LCS 440-585363/4	Lab Control Sample	Total/NA	Water	410.4	
440-256238-3 MS	DW-3	Total/NA	Water	410.4	
440-256238-3 MSD	DW-3	Total/NA	Water	410.4	

Analysis Batch: 586254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-1	MW-5	Total/NA	Water	SM 4500 CO2 C	
440-256238-2	CM-10R	Total/NA	Water	SM 4500 CO2 C	
440-256238-3	DW-3	Total/NA	Water	SM 4500 CO2 C	
440-256238-5	MW-1	Total/NA	Water	SM 4500 CO2 C	
440-256238-6	PZ-4	Total/NA	Water	SM 4500 CO2 C	
MB 440-586254/1	Method Blank	Total/NA	Water	SM 4500 CO2 C	
440-256238-1 DU	MW-5	Total/NA	Water	SM 4500 CO2 C	

Analysis Batch: 586724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256238-4	DW-5	Total/NA	Water	SM 4500 CO2 C	
MB 440-586724/1	Method Blank	Total/NA	Water	SM 4500 CO2 C	
440-257484-L-1 DU	Duplicate	Total/NA	Water	SM 4500 CO2 C	

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Geo-Logic Associates
Job ID: 440-256238-1
Project/Site: Republic Sunshine Canyon

Laboratory: Eurofins TestAmerica, Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-20
Arizona	State	AZ0671	10-14-20
California	Los Angeles County Sanitation Districts	10256	06-30-20
California	State	2706	06-30-20
Guam	State	19-005R	01-23-20
Hawaii	State	CA01531	01-29-20
Kansas	NELAP	E-10420	07-31-20
Nevada	State	CA015312020-4	07-31-20
New Mexico	State	CA01531	01-29-20
Oregon	NELAP	4028 - 006	01-29-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-18-00214	07-09-21
Washington	State	C900	09-03-20

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
Phone: 949.261.1022 Fax:

Chain of Custody Record 206657

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Kyle Welchans	Site Contact: J. Mills	Date: 12/4/19	COC No:
Company Name: GLA / Republic	Tel/Fax: 858-451-1136	Lab Contact: Rossina	Carrier: TA	1 of 1 COCs
Address: 11415 W. Bernardo Ct	Analysis Turnaround Time			Sampler: NR, BS, CV
City/State/Zip: San Diego CA 92127	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 858-451-1136	TAT if different from Below			Walk-in Client
Fax: 858-451-1087	☐ 2 weeks			Lab Sampling:
Project Name: Republic Services	☐ 1 week			Job / SDG No.:
Site: Sunshine Canyon	☐ 2 days			
PO#	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	EPA 8260B - VOCs include	40 CFR Part 258 Appx I	VOCs, Dichlorodifluoromethane and MTBE	EPA 8270 1,4-Dioxane	EPA 310.1 - Total Alkalinity	Bicarbonate	EPA 350.2 - Ammonia as N	EPA 300.0 - Chloride, Bromide	Nitrate-N, Sulfate	EPA 6010B - Total Ca, Fe, Mg	Mn, K, Na	EPA 415.1 TOC / EPA 440.1 TDS	SM-4500-CO2 C - Carbon Dioxide	EPA 410.4 - COD	EPA 340.2 - Fluoride	EPA 376.2 - Sulfide	Sample Specific Notes
MW-5	12/3/19	1505	G	GW	13			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	JLL 12/9/19
CM-10R	12/4/19	1215			13			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
DW-3	12/4/19	1118			13			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
DW-5	12/4/19	0900			13			X	X	X	X	X	X	X	X	Y	X	X	X	X	X	X	X	X	
MW-1	12/4/19	1100			13			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
PZ-4	12/4/19	1000			13			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
FIELD BLANK	12/4/19	—		LAB H_2O	4			X	X	X	X														
TRIP BLANK	12/4/19	—		LAB H_2O	4			X	X	X	X														

440-256238 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact ☐ Yes ☐ No	Custody Seal No	Cooler Temp. (°C). Obs'd _____ Corr'd: _____	Therm ID No :

Relinquished by	Company	Date/Time	Received by	Company:	Date/Time.
[signature]	GLA	12/4/19 1400	Will Rivera	TA-IRV	12/4/19 1400
Relinquished by: Will. Rivera	Company: TA-IRV	Date/Time: 12/4/19 1620	Received by:	Company	Date/Time:
Relinquished by:	Company:	Date/Time	Received in Laboratory by:	Company: TA IRV	Date/Time: 12/4/19 1620

1.1/1.5; 0.8/1.2 #94

12/11/2019

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-256238-1

Login Number: 256238

List Source: Eurofins TestAmerica, Irvine

List Number: 1

Creator: Soderblom, Tim

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-256439-1
Client Project/Site: Republic Sunshine Canyon

For:
Geo-Logic Associates
11415 West Bernardo Court
Suite 200
San Diego, California 92127

Attn: Kyle Welchans

Authorized for release by:
12/17/2019 11:12:17 AM

Rossina Tomova, Project Manager I
(949)260-3276
rossina.tomova@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Client Sample Results 5
Method Summary 14
Lab Chronicle 15
QC Sample Results 17
QC Association Summary 33
Definitions/Glossary 36
Certification Summary 37
Chain of Custody 38
Receipt Checklists 39

Sample Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256439-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-256439-1	MW-9	Water	12/05/19 08:35	12/05/19 16:37	
440-256439-2	DW-2	Water	12/05/19 10:00	12/05/19 16:37	
440-256439-3	Field Blank	Water	12/05/19 00:01	12/05/19 16:37	
440-256439-4	Trip Blank	Water	12/05/19 00:01	12/05/19 16:37	

Job ID: 440-256439-1

Laboratory: Eurofins TestAmerica, Irvine

Narrative

Job Narrative
440-256439-1

Comments
No additional comments.

Receipt
The samples were received on 12/5/2019 4:37 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.1º C.

GC/MS VOA
Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 440-584197 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 440-584196 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
Method 300.0: The following samples were diluted for Bromide and/or Fluoride due to the nature of the sample matrix: MW-9 (440-256439-1) and DW-2 (440-256439-2). Elevated reporting limits (RLs) are provided.

Method 300.0: The following samples were diluted for Nitrate as N due to the nature of the sample matrix: MW-9 (440-256439-1) and DW-2 (440-256439-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6010B: The method blank for preparation batch 440-584219 and analytical batch 440-584599 contained Sodium and Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 6010B: The method blank for preparation batch 440-584219 and analytical batch 440-584599 contained Magnesium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 3520C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with 8270C preparation batch 440-584899. LCS was performed in duplicate to provide precision of data.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256439-1

Client Sample ID: MW-9
Date Collected: 12/05/19 08:35
Date Received: 12/05/19 16:37

Lab Sample ID: 440-256439-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/06/19 10:38	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/06/19 10:38	1
Acrolein	ND	F1	50	2.5	ug/L			12/06/19 10:18	1
Acrylonitrile	ND		50	1.0	ug/L			12/06/19 10:18	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/06/19 10:38	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/06/19 10:38	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/06/19 10:38	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/06/19 10:38	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/06/19 10:38	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/06/19 10:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/06/19 10:38	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/06/19 10:38	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/06/19 10:38	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/06/19 10:38	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/06/19 10:38	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/06/19 10:38	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/06/19 10:38	1
1,4-Dichlorobenzene	**0.48**	**J**	0.50	0.25	ug/L			12/06/19 10:38	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/06/19 10:38	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/06/19 10:38	1
2-Hexanone	ND		5.0	2.5	ug/L			12/06/19 10:38	1
Acetone	ND		20	10	ug/L			12/06/19 10:38	1
Acetonitrile	ND		20	10	ug/L			12/06/19 10:38	1
Acrolein	ND		5.0	2.5	ug/L			12/06/19 10:38	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/06/19 10:38	1
Benzene	ND		0.50	0.25	ug/L			12/06/19 10:38	1
Allyl chloride	ND		1.0	0.50	ug/L			12/06/19 10:38	1
Bromoform	ND		1.0	0.40	ug/L			12/06/19 10:38	1
Bromomethane	ND		0.50	0.25	ug/L			12/06/19 10:38	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/06/19 10:38	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/06/19 10:38	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/06/19 10:38	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/06/19 10:38	1
Chloroethane	ND		1.0	0.40	ug/L			12/06/19 10:38	1
Chloroform	ND		0.50	0.25	ug/L			12/06/19 10:38	1
Chloromethane	ND		0.50	0.25	ug/L			12/06/19 10:38	1
cis-1,2-Dichloroethene	**0.88**		0.50	0.25	ug/L			12/06/19 10:38	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/06/19 10:38	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/06/19 10:38	1
Dibromomethane	ND		0.50	0.25	ug/L			12/06/19 10:38	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/06/19 10:38	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/06/19 10:38	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/06/19 10:38	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/06/19 10:38	1
Iodomethane	ND		2.0	1.0	ug/L			12/06/19 10:38	1
Isobutyl alcohol	ND		25	13	ug/L			12/06/19 10:38	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/06/19 10:38	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/06/19 10:38	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/06/19 10:38	1

Client Sample ID: MW-9

Date Collected: 12/05/19 08:35
Date Received: 12/05/19 16:37

Lab Sample ID: 440-256439-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		2.0	0.88	ug/L			12/06/19 10:38	1
Methyl tert-butyl ether	**0.64**		0.50	0.25	ug/L			12/06/19 10:38	1
Naphthalene	ND		1.0	0.40	ug/L			12/06/19 10:38	1
o-Xylene	ND		0.50	0.25	ug/L			12/06/19 10:38	1
Propionitrile	ND		20	10	ug/L			12/06/19 10:38	1
Styrene	ND		0.50	0.25	ug/L			12/06/19 10:38	1
t-Butanol	**23**		10	5.0	ug/L			12/06/19 10:38	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/06/19 10:38	1
Tetrahydrofuran	**6.1**	**J F1**	10	5.0	ug/L			12/06/19 10:38	1
Toluene	ND		0.50	0.25	ug/L			12/06/19 10:38	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/06/19 10:38	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/06/19 10:38	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/06/19 10:38	1
Trichloroethene	ND		0.50	0.25	ug/L			12/06/19 10:38	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/06/19 10:38	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/06/19 10:38	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/06/19 10:38	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/06/19 10:38	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/06/19 10:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/06/19 10:38	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorodifluoromethane	*1.2*	*J*	*ug/L*		*2.19*	*75-45-6*		*12/06/19 10:38*	*1*
Ethyl ether	*1.2*	*J*	*ug/L*		*4.03*	*60-29-7*		*12/06/19 10:38*	*1*
Unknown	*5.3*	*T J*	*ug/L*		*5.05*			*12/06/19 10:38*	*1*
Unknown	*5.4*	*T J*	*ug/L*		*15.64*			*12/06/19 10:38*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*111*		*80 - 128*		*12/06/19 10:18*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*12/06/19 10:18*	*1*
Toluene-d8 (Surr)	*102*		*80 - 128*		*12/06/19 10:38*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/06/19 10:38*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/06/19 10:18*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/06/19 10:38*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**21**		1.0	0.25	ug/L		12/10/19 08:58	12/11/19 10:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*66*		*30 - 120*	*12/10/19 08:58*	*12/11/19 10:53*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**3.0**		2.5	1.3	mg/L			12/05/19 23:02	5
Nitrate as N	ND		0.55	0.28	mg/L			12/05/19 23:02	5
Chloride	**170**		25	13	mg/L			12/06/19 12:25	50
Fluoride	**1.9**	**J**	2.5	1.3	mg/L			12/05/19 23:02	5
Sulfate	**1900**		25	13	mg/L			12/06/19 12:25	50

Client Sample ID: MW-9

Lab Sample ID: 440-256439-1

Date Collected: 12/05/19 08:35

Matrix: Water

Date Received: 12/05/19 16:37

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.2		0.050	0.025	mg/L		12/06/19 08:36	12/08/19 17:54	1
Calcium	410	B	0.10	0.050	mg/L		12/06/19 08:36	12/08/19 17:54	1
Iron	53		0.10	0.050	mg/L		12/06/19 08:36	12/08/19 17:54	1
Magnesium	220	B	0.020	0.010	mg/L		12/06/19 08:36	12/08/19 17:54	1
Manganese	4.6		0.020	0.015	mg/L		12/06/19 08:36	12/08/19 17:54	1
Potassium	24		0.50	0.25	mg/L		12/06/19 08:36	12/08/19 17:54	1
Sodium	330	B	0.50	0.26	mg/L		12/06/19 08:36	12/08/19 17:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	6.8		0.20	0.10	mg/L			12/09/19 18:17	1
Chemical Oxygen Demand	84		20	10	mg/L			12/15/19 15:59	1
Total Dissolved Solids	3800		20	10	mg/L			12/11/19 09:33	1
Total Sulfide	ND		0.050	0.027	mg/L			12/10/19 16:55	1
Total Organic Carbon	34		1.0	0.50	mg/L			12/08/19 09:04	10

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	760		4.0	4.0	mg/L			12/06/19 05:10	1
Bicarbonate Alkalinity as CaCO3	760		4.0	4.0	mg/L			12/06/19 05:10	1
Carbon Dioxide, Free	190		2.0	2.0	mg/L			12/16/19 16:49	1

Client Sample ID: DW-2

Lab Sample ID: 440-256439-2

Date Collected: 12/05/19 10:00

Matrix: Water

Date Received: 12/05/19 16:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/06/19 12:04	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/06/19 12:04	1
Acrolein	ND		50	2.5	ug/L			12/06/19 11:32	1
Acrylonitrile	ND		50	1.0	ug/L			12/06/19 11:32	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/06/19 12:04	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/06/19 12:04	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/06/19 12:04	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/06/19 12:04	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/06/19 12:04	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/06/19 12:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/06/19 12:04	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/06/19 12:04	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/06/19 12:04	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/06/19 12:04	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/06/19 12:04	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/06/19 12:04	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/06/19 12:04	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/06/19 12:04	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/06/19 12:04	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/06/19 12:04	1
2-Hexanone	ND		5.0	2.5	ug/L			12/06/19 12:04	1
Acetone	ND		20	10	ug/L			12/06/19 12:04	1
Acetonitrile	ND		20	10	ug/L			12/06/19 12:04	1
Acrolein	ND		5.0	2.5	ug/L			12/06/19 12:04	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256439-1

Client Sample ID: DW-2
Date Collected: 12/05/19 10:00
Date Received: 12/05/19 16:37

Lab Sample ID: 440-256439-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrylonitrile	ND		2.0	1.0	ug/L			12/06/19 12:04	1
Benzene	ND		0.50	0.25	ug/L			12/06/19 12:04	1
Allyl chloride	ND		1.0	0.50	ug/L			12/06/19 12:04	1
Bromoform	ND		1.0	0.40	ug/L			12/06/19 12:04	1
Bromomethane	ND		0.50	0.25	ug/L			12/06/19 12:04	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/06/19 12:04	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/06/19 12:04	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/06/19 12:04	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/06/19 12:04	1
Chloroethane	ND		1.0	0.40	ug/L			12/06/19 12:04	1
Chloroform	ND		0.50	0.25	ug/L			12/06/19 12:04	1
Chloromethane	ND		0.50	0.25	ug/L			12/06/19 12:04	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/06/19 12:04	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/06/19 12:04	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/06/19 12:04	1
Dibromomethane	ND		0.50	0.25	ug/L			12/06/19 12:04	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/06/19 12:04	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/06/19 12:04	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/06/19 12:04	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/06/19 12:04	1
Iodomethane	ND		2.0	1.0	ug/L			12/06/19 12:04	1
Isobutyl alcohol	ND		25	13	ug/L			12/06/19 12:04	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/06/19 12:04	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/06/19 12:04	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/06/19 12:04	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/06/19 12:04	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/06/19 12:04	1
Naphthalene	ND		1.0	0.40	ug/L			12/06/19 12:04	1
o-Xylene	ND		0.50	0.25	ug/L			12/06/19 12:04	1
Propionitrile	ND		20	10	ug/L			12/06/19 12:04	1
Styrene	ND		0.50	0.25	ug/L			12/06/19 12:04	1
t-Butanol	ND		10	5.0	ug/L			12/06/19 12:04	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/06/19 12:04	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/06/19 12:04	1
Toluene	ND		0.50	0.25	ug/L			12/06/19 12:04	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/06/19 12:04	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/06/19 12:04	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/06/19 12:04	1
Trichloroethene	ND		0.50	0.25	ug/L			12/06/19 12:04	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/06/19 12:04	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/06/19 12:04	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/06/19 12:04	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/06/19 12:04	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/06/19 12:04	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/06/19 12:04	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*11*	*T J*	*ug/L*		*6.52*			*12/06/19 12:04*	*1*

Client Sample ID: DW-2

Lab Sample ID: 440-256439-2

Date Collected: 12/05/19 10:00

Matrix: Water

Date Received: 12/05/19 16:37

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*108*		*80 - 128*		*12/06/19 11:32*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*12/06/19 11:32*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*12/06/19 12:04*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/06/19 12:04*	*1*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*12/06/19 11:32*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*12/06/19 12:04*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.96	0.24	ug/L		12/10/19 08:58	12/11/19 11:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	*68*		*30 - 120*	*12/10/19 08:58*	*12/11/19 11:15*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		1.0	0.50	mg/L			12/05/19 23:37	2
Nitrate as N	ND		0.22	0.11	mg/L			12/05/19 23:37	2
Chloride	**11**		1.0	0.50	mg/L			12/05/19 23:37	2
Fluoride	**0.72**	**J**	1.0	0.50	mg/L			12/05/19 23:37	2
Sulfate	**1100**		50	25	mg/L			12/06/19 00:48	100

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.62**		0.050	0.025	mg/L		12/06/19 08:36	12/08/19 18:04	1
Calcium	**93**	**B**	0.10	0.050	mg/L		12/06/19 08:36	12/08/19 18:04	1
Iron	**1.3**		0.10	0.050	mg/L		12/06/19 08:36	12/08/19 18:04	1
Magnesium	**66**	**B**	0.020	0.010	mg/L		12/06/19 08:36	12/08/19 18:04	1
Manganese	**0.14**		0.020	0.015	mg/L		12/06/19 08:36	12/08/19 18:04	1
Potassium	**4.2**		0.50	0.25	mg/L		12/06/19 08:36	12/08/19 18:04	1
Sodium	**430**	**B**	0.50	0.26	mg/L		12/06/19 08:36	12/08/19 18:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**3.6**		0.20	0.10	mg/L			12/09/19 18:23	1
Chemical Oxygen Demand	ND		20	10	mg/L			12/15/19 15:59	1
Total Dissolved Solids	**1900**		20	10	mg/L			12/11/19 09:33	1
Total Sulfide	ND		0.050	0.027	mg/L			12/10/19 16:55	1
Total Organic Carbon	**1.7**		0.10	0.050	mg/L			12/07/19 16:47	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**360**		4.0	4.0	mg/L			12/06/19 04:46	1
Bicarbonate Alkalinity as CaCO3	**360**		4.0	4.0	mg/L			12/06/19 04:46	1
Carbon Dioxide, Free	**16**		2.0	2.0	mg/L			12/16/19 16:49	1

Client Sample ID: Field Blank

Lab Sample ID: 440-256439-3

Date Collected: 12/05/19 00:01

Matrix: Water

Date Received: 12/05/19 16:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/06/19 09:42	1

Client Sample ID: Field Blank
Date Collected: 12/05/19 00:01
Date Received: 12/05/19 16:37

Lab Sample ID: 440-256439-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/06/19 09:42	1
Acrolein	ND		50	2.5	ug/L			12/06/19 09:29	1
Acrylonitrile	ND		50	1.0	ug/L			12/06/19 09:29	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/06/19 09:42	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/06/19 09:42	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/06/19 09:42	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/06/19 09:42	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/06/19 09:42	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/06/19 09:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/06/19 09:42	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/06/19 09:42	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/06/19 09:42	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/06/19 09:42	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/06/19 09:42	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/06/19 09:42	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/06/19 09:42	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/06/19 09:42	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/06/19 09:42	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/06/19 09:42	1
2-Hexanone	ND		5.0	2.5	ug/L			12/06/19 09:42	1
Acetone	ND		20	10	ug/L			12/06/19 09:42	1
Acetonitrile	ND		20	10	ug/L			12/06/19 09:42	1
Acrolein	ND		5.0	2.5	ug/L			12/06/19 09:42	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/06/19 09:42	1
Benzene	ND		0.50	0.25	ug/L			12/06/19 09:42	1
Allyl chloride	ND		1.0	0.50	ug/L			12/06/19 09:42	1
Bromoform	ND		1.0	0.40	ug/L			12/06/19 09:42	1
Bromomethane	ND		0.50	0.25	ug/L			12/06/19 09:42	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/06/19 09:42	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/06/19 09:42	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/06/19 09:42	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/06/19 09:42	1
Chloroethane	ND		1.0	0.40	ug/L			12/06/19 09:42	1
Chloroform	ND		0.50	0.25	ug/L			12/06/19 09:42	1
Chloromethane	ND		0.50	0.25	ug/L			12/06/19 09:42	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/06/19 09:42	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/06/19 09:42	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/06/19 09:42	1
Dibromomethane	ND		0.50	0.25	ug/L			12/06/19 09:42	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/06/19 09:42	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/06/19 09:42	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/06/19 09:42	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/06/19 09:42	1
Iodomethane	ND		2.0	1.0	ug/L			12/06/19 09:42	1
Isobutyl alcohol	ND		25	13	ug/L			12/06/19 09:42	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/06/19 09:42	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/06/19 09:42	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/06/19 09:42	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/06/19 09:42	1

Client Sample ID: Field Blank

Lab Sample ID: 440-256439-3
Matrix: Water
Date Collected: 12/05/19 00:01
Date Received: 12/05/19 16:37

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/06/19 09:42	1
Naphthalene	ND		1.0	0.40	ug/L			12/06/19 09:42	1
o-Xylene	ND		0.50	0.25	ug/L			12/06/19 09:42	1
Propionitrile	ND		20	10	ug/L			12/06/19 09:42	1
Styrene	ND		0.50	0.25	ug/L			12/06/19 09:42	1
t-Butanol	ND		10	5.0	ug/L			12/06/19 09:42	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/06/19 09:42	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/06/19 09:42	1
Toluene	ND		0.50	0.25	ug/L			12/06/19 09:42	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/06/19 09:42	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/06/19 09:42	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/06/19 09:42	1
Trichloroethene	ND		0.50	0.25	ug/L			12/06/19 09:42	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/06/19 09:42	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/06/19 09:42	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/06/19 09:42	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/06/19 09:42	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/06/19 09:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/06/19 09:42	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*11*	*T J*	*ug/L*		*6.52*			*12/06/19 09:42*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*109*		*80 - 128*		*12/06/19 09:29*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/06/19 09:29*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*12/06/19 09:42*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/06/19 09:42*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/06/19 09:29*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/06/19 09:42*	*1*

Client Sample ID: Trip Blank

Lab Sample ID: 440-256439-4
Matrix: Water
Date Collected: 12/05/19 00:01
Date Received: 12/05/19 16:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/06/19 10:10	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/06/19 10:10	1
Acrolein	ND		50	2.5	ug/L			12/06/19 09:54	1
Acrylonitrile	ND		50	1.0	ug/L			12/06/19 09:54	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/06/19 10:10	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/06/19 10:10	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/06/19 10:10	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/06/19 10:10	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/06/19 10:10	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/06/19 10:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/06/19 10:10	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/06/19 10:10	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/06/19 10:10	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256439-1

Client Sample ID: Trip Blank
Date Collected: 12/05/19 00:01
Date Received: 12/05/19 16:37

Lab Sample ID: 440-256439-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/06/19 10:10	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/06/19 10:10	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/06/19 10:10	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/06/19 10:10	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/06/19 10:10	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/06/19 10:10	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/06/19 10:10	1
2-Hexanone	ND		5.0	2.5	ug/L			12/06/19 10:10	1
Acetone	ND		20	10	ug/L			12/06/19 10:10	1
Acetonitrile	ND		20	10	ug/L			12/06/19 10:10	1
Acrolein	ND		5.0	2.5	ug/L			12/06/19 10:10	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/06/19 10:10	1
Benzene	ND		0.50	0.25	ug/L			12/06/19 10:10	1
Allyl chloride	ND		1.0	0.50	ug/L			12/06/19 10:10	1
Bromoform	ND		1.0	0.40	ug/L			12/06/19 10:10	1
Bromomethane	ND		0.50	0.25	ug/L			12/06/19 10:10	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/06/19 10:10	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/06/19 10:10	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/06/19 10:10	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/06/19 10:10	1
Chloroethane	ND		1.0	0.40	ug/L			12/06/19 10:10	1
Chloroform	ND		0.50	0.25	ug/L			12/06/19 10:10	1
Chloromethane	ND		0.50	0.25	ug/L			12/06/19 10:10	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/06/19 10:10	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/06/19 10:10	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/06/19 10:10	1
Dibromomethane	ND		0.50	0.25	ug/L			12/06/19 10:10	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/06/19 10:10	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/06/19 10:10	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/06/19 10:10	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/06/19 10:10	1
Iodomethane	ND		2.0	1.0	ug/L			12/06/19 10:10	1
Isobutyl alcohol	ND		25	13	ug/L			12/06/19 10:10	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/06/19 10:10	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/06/19 10:10	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/06/19 10:10	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/06/19 10:10	1
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/06/19 10:10	1
Naphthalene	ND		1.0	0.40	ug/L			12/06/19 10:10	1
o-Xylene	ND		0.50	0.25	ug/L			12/06/19 10:10	1
Propionitrile	ND		20	10	ug/L			12/06/19 10:10	1
Styrene	ND		0.50	0.25	ug/L			12/06/19 10:10	1
t-Butanol	ND		10	5.0	ug/L			12/06/19 10:10	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/06/19 10:10	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/06/19 10:10	1
Toluene	ND		0.50	0.25	ug/L			12/06/19 10:10	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/06/19 10:10	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/06/19 10:10	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/06/19 10:10	1

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256439-1

Client Sample ID: Trip Blank
Date Collected: 12/05/19 00:01
Date Received: 12/05/19 16:37

Lab Sample ID: 440-256439-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.50	0.25	ug/L			12/06/19 10:10	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/06/19 10:10	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/06/19 10:10	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/06/19 10:10	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/06/19 10:10	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/06/19 10:10	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/06/19 10:10	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*10*	*T J*	*ug/L*		*6.52*			*12/06/19 10:10*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*109*		*80 - 128*		*12/06/19 09:54*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*12/06/19 09:54*	*1*
Toluene-d8 (Surr)	*104*		*80 - 128*		*12/06/19 10:10*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/06/19 10:10*	*1*
Dibromofluoromethane (Surr)	*100*		*76 - 132*		*12/06/19 09:54*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/06/19 10:10*	*1*

Method Summary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256439-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL IRV
300.0	Anions, Ion Chromatography	MCAWW	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
350.1	Nitrogen, Ammonia	MCAWW	TAL IRV
410.4	COD	MCAWW	TAL IRV
SM 2320B	Alkalinity	SM	TAL IRV
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL IRV
SM 4500 CO2 C	Free Carbon Dioxide	SM	TAL IRV
SM 4500 S2 D	Sulfide, Total	SM	TAL IRV
SM 5310C	TOC	SM	TAL IRV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL IRV
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL IRV
5030B	Purge and Trap	SW846	TAL IRV

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client Sample ID: MW-9

Lab Sample ID: 440-256439-1

Date Collected: 12/05/19 08:35

Matrix: Water

Date Received: 12/05/19 16:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	584196	12/06/19 10:38	WC	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	584197	12/06/19 10:18	DCI	TAL IRV
Total/NA	Prep	3520C			990 mL	1.0 mL	584899	12/10/19 08:58	NAM	TAL IRV
Total/NA	Analysis	8270C		1			585192	12/11/19 10:53	YCL	TAL IRV
Total/NA	Analysis	300.0		5			583996	12/05/19 23:02	NTN	TAL IRV
Total/NA	Analysis	300.0		5			583997	12/05/19 23:02	NTN	TAL IRV
Total/NA	Analysis	300.0		50			583997	12/06/19 12:25	NTN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	584219	12/06/19 08:36	EP	TAL IRV
Total Recoverable	Analysis	6010B		1			584599	12/08/19 17:54	KE	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584939	12/09/19 18:17	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	586052	12/15/19 15:59	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			584231	12/06/19 05:10	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	585231	12/11/19 09:33	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586253	12/16/19 16:49	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	585050	12/10/19 16:55	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		10	100 mL	100 mL	584569	12/08/19 09:04	YZ	TAL IRV

Client Sample ID: DW-2

Lab Sample ID: 440-256439-2

Date Collected: 12/05/19 10:00

Matrix: Water

Date Received: 12/05/19 16:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	584196	12/06/19 12:04	WC	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	584197	12/06/19 11:32	DCI	TAL IRV
Total/NA	Prep	3520C			1040 mL	1.0 mL	584899	12/10/19 08:58	NAM	TAL IRV
Total/NA	Analysis	8270C		1			585192	12/11/19 11:15	YCL	TAL IRV
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	583996	12/05/19 23:37	NTN	TAL IRV
Total/NA	Analysis	300.0		2	5 mL	1.0 mL	583997	12/05/19 23:37	NTN	TAL IRV
Total/NA	Analysis	300.0		100			583997	12/06/19 00:48	NTN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	584219	12/06/19 08:36	EP	TAL IRV
Total Recoverable	Analysis	6010B		1			584599	12/08/19 18:04	KE	TAL IRV
Total/NA	Analysis	350.1		1	0.8 mL	8.0 mL	584939	12/09/19 18:23	KMY	TAL IRV
Total/NA	Analysis	410.4		1	2 mL	2 mL	586052	12/15/19 15:59	KYP	TAL IRV
Total/NA	Analysis	SM 2320B		1			584231	12/06/19 04:46	YZ	TAL IRV
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	585231	12/11/19 09:33	XL	TAL IRV
Total/NA	Analysis	SM 4500 CO2 C		1	25 mL	25 mL	586253	12/16/19 16:49	KYP	TAL IRV
Total/NA	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	585050	12/10/19 16:55	KMY	TAL IRV
Total/NA	Analysis	SM 5310C		1	100 mL	100 mL	584501	12/07/19 16:47	YZ	TAL IRV

Lab Chronicle

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256439-1

Client Sample ID: Field Blank

Lab Sample ID: 440-256439-3

Date Collected: 12/05/19 00:01
Matrix: Water
Date Received: 12/05/19 16:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	584196	12/06/19 09:42	WC	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	584197	12/06/19 09:29	DCI	TAL IRV

Client Sample ID: Trip Blank

Lab Sample ID: 440-256439-4

Date Collected: 12/05/19 00:01
Matrix: Water
Date Received: 12/05/19 16:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	584196	12/06/19 10:10	WC	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	584197	12/06/19 09:54	DCI	TAL IRV

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-584196/4
Matrix: Water
Analysis Batch: 584196

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/06/19 09:14	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/06/19 09:14	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/06/19 09:14	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/06/19 09:14	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/06/19 09:14	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/06/19 09:14	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/06/19 09:14	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/06/19 09:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/06/19 09:14	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/06/19 09:14	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/06/19 09:14	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/06/19 09:14	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/06/19 09:14	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/06/19 09:14	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/06/19 09:14	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/06/19 09:14	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/06/19 09:14	1
2-Chloro-1,3-butadiene	ND		1.0	0.50	ug/L			12/06/19 09:14	1
2-Hexanone	ND		5.0	2.5	ug/L			12/06/19 09:14	1
Acetone	ND		20	10	ug/L			12/06/19 09:14	1
Acetonitrile	ND		20	10	ug/L			12/06/19 09:14	1
Acrolein	ND		5.0	2.5	ug/L			12/06/19 09:14	1
Acrylonitrile	ND		2.0	1.0	ug/L			12/06/19 09:14	1
Benzene	ND		0.50	0.25	ug/L			12/06/19 09:14	1
Allyl chloride	ND		1.0	0.50	ug/L			12/06/19 09:14	1
Bromoform	ND		1.0	0.40	ug/L			12/06/19 09:14	1
Bromomethane	ND		0.50	0.25	ug/L			12/06/19 09:14	1
Carbon disulfide	ND		1.0	0.50	ug/L			12/06/19 09:14	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/06/19 09:14	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/06/19 09:14	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/06/19 09:14	1
Chloroethane	ND		1.0	0.40	ug/L			12/06/19 09:14	1
Chloroform	ND		0.50	0.25	ug/L			12/06/19 09:14	1
Chloromethane	ND		0.50	0.25	ug/L			12/06/19 09:14	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/06/19 09:14	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/06/19 09:14	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/06/19 09:14	1
Dibromomethane	ND		0.50	0.25	ug/L			12/06/19 09:14	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/06/19 09:14	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/06/19 09:14	1
Ethyl methacrylate	ND		2.0	1.0	ug/L			12/06/19 09:14	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/06/19 09:14	1
Iodomethane	ND		2.0	1.0	ug/L			12/06/19 09:14	1
Isobutyl alcohol	ND		25	13	ug/L			12/06/19 09:14	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/06/19 09:14	1
Methylacrylonitrile	ND		10	2.5	ug/L			12/06/19 09:14	1
Methyl methacrylate	ND		2.0	1.0	ug/L			12/06/19 09:14	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/06/19 09:14	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-584196/4
Matrix: Water
Analysis Batch: 584196

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50	0.25	ug/L			12/06/19 09:14	1
Naphthalene	ND		1.0	0.40	ug/L			12/06/19 09:14	1
o-Xylene	ND		0.50	0.25	ug/L			12/06/19 09:14	1
Propionitrile	ND		20	10	ug/L			12/06/19 09:14	1
Styrene	ND		0.50	0.25	ug/L			12/06/19 09:14	1
t-Butanol	ND		10	5.0	ug/L			12/06/19 09:14	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/06/19 09:14	1
Tetrahydrofuran	ND		10	5.0	ug/L			12/06/19 09:14	1
Toluene	ND		0.50	0.25	ug/L			12/06/19 09:14	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/06/19 09:14	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/06/19 09:14	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.5	ug/L			12/06/19 09:14	1
Trichloroethene	ND		0.50	0.25	ug/L			12/06/19 09:14	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/06/19 09:14	1
Vinyl acetate	ND		4.0	2.0	ug/L			12/06/19 09:14	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/06/19 09:14	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/06/19 09:14	1
2-Butanone (MEK)	ND		5.0	2.5	ug/L			12/06/19 09:14	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.5	ug/L			12/06/19 09:14	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
n-Nonyl Aldehyde	*2.75*	*J*	*ug/L*		*13.23*	*124-19-6*		*12/06/19 09:14*	*1*
Unknown	*4.64*	*T J*	*ug/L*		*16.61*			*12/06/19 09:14*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 128*		*12/06/19 09:14*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*12/06/19 09:14*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/06/19 09:14*	*1*

Lab Sample ID: LCS 440-584196/1002
Matrix: Water
Analysis Batch: 584196

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	25.0	25.0		ug/L		100	63 - 130
1,1,1,2-Tetrachloroethane	25.0	25.1		ug/L		100	60 - 141
1,1,1-Trichloroethane	25.0	23.8		ug/L		95	70 - 130
1,1,2,2-Tetrachloroethane	25.0	23.9		ug/L		96	63 - 130
1,1,2-Trichloroethane	25.0	26.6		ug/L		106	70 - 130
1,1-Dichloroethane	25.0	25.3		ug/L		101	64 - 130
1,1-Dichloroethene	25.0	23.1		ug/L		92	70 - 130
1,1-Dichloropropene	25.0	25.0		ug/L		100	70 - 130
1,2,4-Trichlorobenzene	25.0	26.3		ug/L		105	60 - 140
1,2-Dibromo-3-Chloropropane	25.0	28.4		ug/L		113	52 - 140
1,2-Dichlorobenzene	25.0	23.8		ug/L		95	70 - 130
1,2-Dichloroethane	25.0	24.5		ug/L		98	57 - 138
1,2-Dichloropropane	25.0	27.0		ug/L		108	67 - 130
1,3-Dichlorobenzene	25.0	24.6		ug/L		98	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-584196/1002
Matrix: Water
Analysis Batch: 584196

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	25.0	26.2		ug/L		105	70 - 130
1,4-Dichlorobenzene	25.0	23.8		ug/L		95	70 - 130
2,2-Dichloropropane	25.0	30.7		ug/L		123	68 - 141
2-Hexanone	125	135		ug/L		108	10 - 150
Acetone	125	145		ug/L		116	10 - 150
Acetonitrile	250	308		ug/L		123	49 - 142
Acrolein	24.7	30.3		ug/L		123	10 - 145
Acrylonitrile	250	260		ug/L		104	48 - 140
Benzene	25.0	24.7		ug/L		99	68 - 130
Allyl chloride	25.0	26.9		ug/L		108	60 - 140
Bromoform	25.0	29.9		ug/L		119	60 - 148
Bromomethane	25.0	22.5		ug/L		90	64 - 139
Carbon disulfide	25.0	20.9		ug/L		84	52 - 136
Carbon tetrachloride	25.0	23.3		ug/L		93	60 - 150
Chlorobenzene	25.0	24.7		ug/L		99	70 - 130
Bromochloromethane	25.0	26.4		ug/L		105	70 - 130
Chloroethane	25.0	21.2		ug/L		85	64 - 135
Chloroform	25.0	23.8		ug/L		95	70 - 130
Chloromethane	25.0	22.0		ug/L		88	47 - 140
cis-1,2-Dichloroethene	25.0	24.7		ug/L		99	70 - 133
cis-1,3-Dichloropropene	25.0	27.0		ug/L		108	70 - 133
Dibromochloromethane	25.0	27.3		ug/L		109	69 - 145
Dibromomethane	25.0	26.3		ug/L		105	70 - 130
Bromodichloromethane	25.0	27.2		ug/L		109	70 - 132
Dichlorodifluoromethane	25.0	18.3		ug/L		73	29 - 150
Ethyl methacrylate	25.0	27.8		ug/L		111	60 - 140
Ethylbenzene	25.0	24.3		ug/L		97	70 - 130
Iodomethane	25.0	21.8		ug/L		87	60 - 140
Isobutyl alcohol	625	829		ug/L		133	56 - 140
m,p-Xylene	25.0	25.3		ug/L		101	70 - 130
Methylene Chloride	25.0	20.4		ug/L		81	52 - 130
Methyl tert-butyl ether	25.0	25.0		ug/L		100	63 - 131
Naphthalene	25.0	27.0		ug/L		108	60 - 140
o-Xylene	25.0	25.1		ug/L		100	70 - 130
Propionitrile	250	278		ug/L		111	52 - 142
Styrene	25.0	27.8		ug/L		111	70 - 134
t-Butanol	250	319		ug/L		128	70 - 130
Tetrachloroethene	25.0	23.5		ug/L		94	70 - 130
Tetrahydrofuran	50.0	49.5		ug/L		99	36 - 147
Toluene	25.0	23.0		ug/L		92	70 - 130
trans-1,2-Dichloroethene	25.0	24.3		ug/L		97	70 - 130
trans-1,3-Dichloropropene	25.0	29.1		ug/L		116	70 - 132
trans-1,4-Dichloro-2-butene	25.0	30.6		ug/L		122	44 - 140
Trichloroethene	25.0	25.2		ug/L		101	70 - 130
Trichlorofluoromethane	25.0	22.2		ug/L		89	60 - 150
Vinyl acetate	25.0	28.4		ug/L		113	48 - 140
Vinyl chloride	25.0	20.6		ug/L		82	59 - 133
1,2-Dibromoethane (EDB)	25.0	26.7		ug/L		107	70 - 130
2-Butanone (MEK)	125	128		ug/L		103	44 - 150

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-584196/1002
Matrix: Water
Analysis Batch: 584196

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
4-Methyl-2-pentanone (MIBK)			125	126		ug/L		101	59 - 149		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*98*		*80 - 128*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*76 - 132*

Lab Sample ID: 440-256439-1 MS
Matrix: Water
Analysis Batch: 584196

Client Sample ID: MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,3-Trichloropropane	ND		10.0	9.78		ug/L		98	60 - 130		
1,1,1,2-Tetrachloroethane	ND		10.0	9.50		ug/L		95	60 - 149		
1,1,1-Trichloroethane	ND		10.0	9.06		ug/L		91	70 - 130		
1,1,2,2-Tetrachloroethane	ND		10.0	10.0		ug/L		100	63 - 130		
1,1,2-Trichloroethane	ND		10.0	10.4		ug/L		104	70 - 130		
1,1-Dichloroethane	ND		10.0	9.32		ug/L		93	65 - 130		
1,1-Dichloroethene	ND		10.0	8.65		ug/L		87	70 - 130		
1,1-Dichloropropene	ND		10.0	9.75		ug/L		98	64 - 130		
1,2,4-Trichlorobenzene	ND		10.0	10.7		ug/L		107	60 - 140		
1,2-Dibromo-3-Chloropropane	ND		10.0	10.8		ug/L		108	48 - 140		
1,2-Dichlorobenzene	ND		10.0	9.70		ug/L		97	70 - 130		
1,2-Dichloroethane	ND		10.0	9.53		ug/L		95	56 - 146		
1,2-Dichloropropane	ND		10.0	10.5		ug/L		105	69 - 130		
1,3-Dichlorobenzene	ND		10.0	9.76		ug/L		98	70 - 130		
1,3-Dichloropropane	ND		10.0	10.4		ug/L		104	70 - 130		
1,4-Dichlorobenzene	0.48	J	10.0	9.87		ug/L		94	70 - 130		
2,2-Dichloropropane	ND		10.0	11.6		ug/L		116	69 - 138		
2-Chloro-1,3-butadiene	ND		25.0	18.5		ug/L		74	49 - 140		
2-Hexanone	ND		50.0	57.7		ug/L		115	10 - 150		
Acetone	ND		50.0	43.3		ug/L		87	10 - 150		
Acetonitrile	ND		100	87.9		ug/L		88	37 - 140		
Acrolein	ND		9.88	7.17		ug/L		73	10 - 147		
Acrylonitrile	ND		100	97.9		ug/L		98	38 - 144		
Benzene	ND		10.0	9.59		ug/L		96	66 - 130		
Allyl chloride	ND		10.0	10.0		ug/L		100	52 - 140		
Bromoform	ND		10.0	11.4		ug/L		114	59 - 150		
Bromomethane	ND		10.0	8.59		ug/L		86	62 - 131		
Carbon disulfide	ND		10.0	8.00		ug/L		80	49 - 140		
Carbon tetrachloride	ND		10.0	8.92		ug/L		89	60 - 150		
Chlorobenzene	ND		10.0	9.82		ug/L		98	70 - 130		
Bromochloromethane	ND		10.0	10.0		ug/L		100	70 - 130		
Chloroethane	ND		10.0	8.06		ug/L		81	68 - 130		
Chloroform	ND		10.0	8.92		ug/L		89	70 - 130		
Chloromethane	ND		10.0	7.90		ug/L		79	39 - 144		
cis-1,2-Dichloroethene	0.88		10.0	10.3		ug/L		94	70 - 130		
cis-1,3-Dichloropropene	ND		10.0	10.6		ug/L		106	70 - 133		

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256439-1 MS
Matrix: Water
Analysis Batch: 584196

Client Sample ID: MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromochloromethane	ND		10.0	10.5		ug/L		105	70 - 148
Dibromomethane	ND		10.0	9.94		ug/L		99	70 - 130
Bromodichloromethane	ND		10.0	10.4		ug/L		104	70 - 138
Dichlorodifluoromethane	ND		10.0	7.88		ug/L		79	25 - 142
Ethyl methacrylate	ND		10.0	11.3		ug/L		113	10 - 150
Ethylbenzene	ND		10.0	9.97		ug/L		100	70 - 130
Iodomethane	ND		10.0	7.55		ug/L		76	60 - 140
Isobutyl alcohol	ND		250	104		ug/L		42	10 - 150
m,p-Xylene	ND		10.0	9.91		ug/L		99	70 - 133
Methylacrylonitrile	ND		250	221		ug/L		89	55 - 141
Methyl methacrylate	ND		50.0	61.1		ug/L		122	51 - 140
Methylene Chloride	ND		10.0	7.90		ug/L		79	52 - 130
Methyl tert-butyl ether	0.64		10.0	9.92		ug/L		93	70 - 130
Naphthalene	ND		10.0	10.7		ug/L		107	60 - 140
o-Xylene	ND		10.0	9.94		ug/L		99	70 - 133
Propionitrile	ND		100	94.0		ug/L		94	38 - 146
Styrene	ND		10.0	10.6		ug/L		106	29 - 150
t-Butanol	23		100	126		ug/L		104	70 - 130
Tetrachloroethene	ND		10.0	11.0		ug/L		110	70 - 137
Tetrahydrofuran	6.1	J F1	20.0	44.7	F1	ug/L		193	22 - 140
Toluene	ND		10.0	9.47		ug/L		95	70 - 130
trans-1,2-Dichloroethene	ND		10.0	9.02		ug/L		90	70 - 130
trans-1,3-Dichloropropene	ND		10.0	11.6		ug/L		116	70 - 138
trans-1,4-Dichloro-2-butene	ND		10.0	9.91		ug/L		99	10 - 150
Trichloroethene	ND		10.0	9.65		ug/L		97	70 - 130
Trichlorofluoromethane	ND		10.0	7.34		ug/L		73	60 - 150
Vinyl acetate	ND		10.0	10.4		ug/L		104	23 - 150
Vinyl chloride	ND		10.0	7.71		ug/L		77	50 - 137
1,2-Dibromoethane (EDB)	ND		10.0	10.3		ug/L		103	70 - 131
2-Butanone (MEK)	ND		50.0	49.8		ug/L		100	48 - 140
4-Methyl-2-pentanone (MIBK)	ND		50.0	53.5		ug/L		107	52 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*76 - 132*

Lab Sample ID: 440-256439-1 MSD
Matrix: Water
Analysis Batch: 584196

Client Sample ID: MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	ND		10.0	9.99		ug/L		100	60 - 130	2	30
1,1,1,2-Tetrachloroethane	ND		10.0	9.64		ug/L		96	60 - 149	1	20
1,1,1-Trichloroethane	ND		10.0	8.77		ug/L		88	70 - 130	3	20
1,1,2,2-Tetrachloroethane	ND		10.0	10.1		ug/L		101	63 - 130	1	30
1,1,2-Trichloroethane	ND		10.0	10.5		ug/L		105	70 - 130	1	25
1,1-Dichloroethane	ND		10.0	9.33		ug/L		93	65 - 130	0	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256439-1 MSD
Matrix: Water
Analysis Batch: 584196

Client Sample ID: MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		10.0	8.63		ug/L		86	70 - 130	0	20
1,1-Dichloropropene	ND		10.0	9.93		ug/L		99	64 - 130	2	20
1,2,4-Trichlorobenzene	ND		10.0	10.8		ug/L		108	60 - 140	1	20
1,2-Dibromo-3-Chloropropane	ND		10.0	11.3		ug/L		113	48 - 140	5	30
1,2-Dichlorobenzene	ND		10.0	9.84		ug/L		98	70 - 130	1	20
1,2-Dichloroethane	ND		10.0	9.61		ug/L		96	56 - 146	1	20
1,2-Dichloropropane	ND		10.0	10.5		ug/L		105	69 - 130	0	20
1,3-Dichlorobenzene	ND		10.0	9.74		ug/L		97	70 - 130	0	20
1,3-Dichloropropane	ND		10.0	10.2		ug/L		102	70 - 130	2	25
1,4-Dichlorobenzene	0.48	J	10.0	10.1		ug/L		96	70 - 130	2	20
2,2-Dichloropropane	ND		10.0	11.1		ug/L		111	69 - 138	4	25
2-Chloro-1,3-butadiene	ND		25.0	18.3		ug/L		73	49 - 140	1	40
2-Hexanone	ND		50.0	56.6		ug/L		113	10 - 150	2	35
Acetone	ND		50.0	48.7		ug/L		97	10 - 150	12	35
Acetonitrile	ND		100	103		ug/L		103	37 - 140	15	40
Acrolein	ND		9.88	8.64		ug/L		88	10 - 147	19	40
Acrylonitrile	ND		100	102		ug/L		102	38 - 144	4	40
Benzene	ND		10.0	9.68		ug/L		97	66 - 130	1	20
Allyl chloride	ND		10.0	10.1		ug/L		101	52 - 140	1	40
Bromoform	ND		10.0	11.4		ug/L		114	59 - 150	0	25
Bromomethane	ND		10.0	8.56		ug/L		86	62 - 131	0	25
Carbon disulfide	ND		10.0	8.04		ug/L		80	49 - 140	1	20
Carbon tetrachloride	ND		10.0	8.75		ug/L		88	60 - 150	2	25
Chlorobenzene	ND		10.0	9.97		ug/L		100	70 - 130	1	20
Bromochloromethane	ND		10.0	10.3		ug/L		103	70 - 130	2	25
Chloroethane	ND		10.0	8.09		ug/L		81	68 - 130	0	25
Chloroform	ND		10.0	9.23		ug/L		92	70 - 130	3	20
Chloromethane	ND		10.0	8.54		ug/L		85	39 - 144	8	25
cis-1,2-Dichloroethene	0.88		10.0	10.3		ug/L		95	70 - 130	0	20
cis-1,3-Dichloropropene	ND		10.0	10.4		ug/L		104	70 - 133	2	20
Dibromochloromethane	ND		10.0	10.6		ug/L		106	70 - 148	1	25
Dibromomethane	ND		10.0	10.3		ug/L		103	70 - 130	4	25
Bromodichloromethane	ND		10.0	10.3		ug/L		103	70 - 138	1	20
Dichlorodifluoromethane	ND		10.0	8.56		ug/L		86	25 - 142	8	30
Ethyl methacrylate	ND		10.0	11.3		ug/L		113	10 - 150	0	40
Ethylbenzene	ND		10.0	9.98		ug/L		100	70 - 130	0	20
Iodomethane	ND		10.0	7.52		ug/L		75	60 - 140	0	30
Isobutyl alcohol	ND		250	130		ug/L		52	10 - 150	22	35
m,p-Xylene	ND		10.0	10.0		ug/L		100	70 - 133	1	25
Methylacrylonitrile	ND		250	221		ug/L		88	55 - 141	0	40
Methyl methacrylate	ND		50.0	61.5		ug/L		123	51 - 140	1	40
Methylene Chloride	ND		10.0	8.00		ug/L		80	52 - 130	1	20
Methyl tert-butyl ether	0.64		10.0	10.2		ug/L		95	70 - 130	3	25
Naphthalene	ND		10.0	11.0		ug/L		110	60 - 140	3	30
o-Xylene	ND		10.0	10.1		ug/L		101	70 - 133	2	20
Propionitrile	ND		100	97.1		ug/L		97	38 - 146	3	40
Styrene	ND		10.0	10.7		ug/L		107	29 - 150	1	35
t-Butanol	23		100	144		ug/L		122	70 - 130	13	25
Tetrachloroethene	ND		10.0	10.8		ug/L		108	70 - 137	2	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256439-1 MSD
Matrix: Water
Analysis Batch: 584196

Client Sample ID: MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrahydrofuran	6.1	J F1	20.0	38.7	F1	ug/L		163	22 - 140	14	30
Toluene	ND		10.0	9.25		ug/L		93	70 - 130	2	20
trans-1,2-Dichloroethene	ND		10.0	9.08		ug/L		91	70 - 130	1	20
trans-1,3-Dichloropropene	ND		10.0	11.3		ug/L		113	70 - 138	2	25
trans-1,4-Dichloro-2-butene	ND		10.0	10.1		ug/L		101	10 - 150	2	30
Trichloroethene	ND		10.0	9.95		ug/L		99	70 - 130	3	20
Trichlorofluoromethane	ND		10.0	7.86		ug/L		79	60 - 150	7	25
Vinyl acetate	ND		10.0	11.1		ug/L		111	23 - 150	6	30
Vinyl chloride	ND		10.0	7.87		ug/L		79	50 - 137	2	30
1,2-Dibromoethane (EDB)	ND		10.0	10.4		ug/L		104	70 - 131	0	25
2-Butanone (MEK)	ND		50.0	54.8		ug/L		110	48 - 140	10	40
4-Methyl-2-pentanone (MIBK)	ND		50.0	53.6		ug/L		107	52 - 150	0	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*97*		*80 - 128*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*76 - 132*

Lab Sample ID: MB 440-584197/4
Matrix: Water
Analysis Batch: 584197

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	ND		50	2.5	ug/L			12/06/19 09:05	1
Acrylonitrile	ND		50	1.0	ug/L			12/06/19 09:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*110*		*80 - 128*		*12/06/19 09:05*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/06/19 09:05*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*12/06/19 09:05*	*1*

Lab Sample ID: LCS 440-584197/1002
Matrix: Water
Analysis Batch: 584197

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Acrolein			24.7	18.5	J	ug/L		75	10 - 145		
Acrylonitrile			250	224		ug/L		90	48 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*105*		*80 - 128*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*76 - 132*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-256439-1 MS
Matrix: Water
Analysis Batch: 584197

Client Sample ID: MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Acrolein	ND	F1	9.88	ND	F1	ug/L		0	10 - 147		
Acrylonitrile	ND		100	65.4		ug/L		65	38 - 144		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*108*		*80 - 128*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*76 - 132*

Lab Sample ID: 440-256439-1 MSD
Matrix: Water
Analysis Batch: 584197

Client Sample ID: MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acrolein	ND	F1	9.88	3.92	J	ug/L		40	10 - 147	NC	40
Acrylonitrile	ND		100	97.9		ug/L		98	38 - 144	40	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*108*		*80 - 128*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*76 - 132*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-584899/1-A
Matrix: Water
Analysis Batch: 585192

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 584899

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1.0	0.25	ug/L		12/10/19 08:58	12/11/19 09:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*76*		*30 - 120*	*12/10/19 08:58*	*12/11/19 09:28*	*1*

Lab Sample ID: LCS 440-584899/3-A
Matrix: Water
Analysis Batch: 585192

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 584899

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			2.00	1.35		ug/L		68	35 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*66*		*30 - 120*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-584899/4-A
Matrix: Water
Analysis Batch: 585192

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 584899

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			2.00	1.32		ug/L		66	35 - 120	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*63*		*30 - 120*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-583996/6
Matrix: Water
Analysis Batch: 583996

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.11	0.055	mg/L			12/05/19 13:58	1

Lab Sample ID: LCS 440-583996/7
Matrix: Water
Analysis Batch: 583996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N			1.13	1.11		mg/L		98	90 - 110

Lab Sample ID: 440-256222-A-4 MS
Matrix: Water
Analysis Batch: 583996

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	9.2		22.6	31.9		mg/L		101	80 - 120

Lab Sample ID: 440-256222-A-4 MSD
Matrix: Water
Analysis Batch: 583996

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	9.2		22.6	32.0		mg/L		101	80 - 120	0	20

Lab Sample ID: MB 440-583997/6
Matrix: Water
Analysis Batch: 583997

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.50	0.25	mg/L			12/05/19 13:58	1
Chloride	ND		0.50	0.25	mg/L			12/05/19 13:58	1
Fluoride	ND		0.50	0.25	mg/L			12/05/19 13:58	1
Sulfate	ND		0.50	0.25	mg/L			12/05/19 13:58	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 440-583997/7
Matrix: Water
Analysis Batch: 583997

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromide			5.00	4.92		mg/L		98	90 - 110		
Chloride			5.00	4.90		mg/L		98	90 - 110		
Fluoride			5.00	4.91		mg/L		98	90 - 110		
Sulfate			5.00	5.07		mg/L		101	90 - 110		

Lab Sample ID: 440-256222-A-4 MS
Matrix: Water
Analysis Batch: 583997

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	ND		100	100		mg/L		100	80 - 120
Chloride	120		100	229		mg/L		111	80 - 120
Fluoride	ND		100	100		mg/L		100	80 - 120
Sulfate	110		100	208		mg/L		101	80 - 120

Lab Sample ID: 440-256222-A-4 MSD
Matrix: Water
Analysis Batch: 583997

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	ND		100	101		mg/L		101	80 - 120	1	20
Chloride	120		100	229		mg/L		111	80 - 120	0	20
Fluoride	ND		100	100		mg/L		100	80 - 120	0	20
Sulfate	110		100	209		mg/L		103	80 - 120	1	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-584219/1-A
Matrix: Water
Analysis Batch: 584599

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 584219

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.025	mg/L		12/06/19 08:36	12/08/19 17:46	1
Calcium	0.129		0.10	0.050	mg/L		12/06/19 08:36	12/08/19 17:46	1
Iron	ND		0.10	0.050	mg/L		12/06/19 08:36	12/08/19 17:46	1
Magnesium	0.0135	J	0.020	0.010	mg/L		12/06/19 08:36	12/08/19 17:46	1
Manganese	ND		0.020	0.015	mg/L		12/06/19 08:36	12/08/19 17:46	1
Potassium	ND		0.50	0.25	mg/L		12/06/19 08:36	12/08/19 17:46	1
Sodium	0.753		0.50	0.26	mg/L		12/06/19 08:36	12/08/19 17:46	1

Lab Sample ID: LCS 440-584219/2-A
Matrix: Water
Analysis Batch: 584599

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 584219

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Boron			1.00	0.987		mg/L		99	80 - 120		
Calcium			5.00	5.00		mg/L		100	80 - 120		
Iron			1.00	1.06		mg/L		106	80 - 120		
Magnesium			5.00	4.95		mg/L		99	80 - 120		
Manganese			1.00	0.990		mg/L		99	80 - 120		

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-584219/2-A
Matrix: Water
Analysis Batch: 584599

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 584219

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	10.0	9.90		mg/L		99	80 - 120
Sodium	10.0	10.6		mg/L		106	80 - 120

Lab Sample ID: 440-256439-1 MS
Matrix: Water
Analysis Batch: 584599

Client Sample ID: MW-9
Prep Type: Total Recoverable
Prep Batch: 584219

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.2		1.00	2.17		mg/L		99	75 - 125
Calcium	410	B	5.00	409	4	mg/L		-106	75 - 125
Iron	53		1.00	52.4	4	mg/L		-51	75 - 125
Magnesium	220	B	5.00	218	4	mg/L		-6	75 - 125
Manganese	4.6		1.00	5.44	4	mg/L		82	75 - 125
Potassium	24		10.0	33.2		mg/L		93	75 - 125
Sodium	330	B	10.0	333	4	mg/L		7	75 - 125

Lab Sample ID: 440-256439-1 MSD
Matrix: Water
Analysis Batch: 584599

Client Sample ID: MW-9
Prep Type: Total Recoverable
Prep Batch: 584219

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.2		1.00	2.14		mg/L		96	75 - 125	1	20
Calcium	410	B	5.00	403	4	mg/L		-226	75 - 125	1	20
Iron	53		1.00	51.9	4	mg/L		-100	75 - 125	1	20
Magnesium	220	B	5.00	217	4	mg/L		-28	75 - 125	1	20
Manganese	4.6		1.00	5.38	4	mg/L		76	75 - 125	1	20
Potassium	24		10.0	32.8		mg/L		89	75 - 125	1	20
Sodium	330	B	10.0	328	4	mg/L		-40	75 - 125	1	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 440-584939/42
Matrix: Water
Analysis Batch: 584939

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.20	0.10	mg/L			12/09/19 16:02	1

Lab Sample ID: LCS 440-584939/43
Matrix: Water
Analysis Batch: 584939

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	5.00	4.86		mg/L		97	90 - 110

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: MRL 440-584939/9
Matrix: Water
Analysis Batch: 584939

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia (as N)			0.200	0.184	J	mg/L		92	50 - 150		

Lab Sample ID: 440-256298-H-1 MS
Matrix: Water
Analysis Batch: 584939

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia (as N)	0.40		5.00	5.72		mg/L		106	90 - 110		

Lab Sample ID: 440-256298-H-1 MSD
Matrix: Water
Analysis Batch: 584939

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	0.40		5.00	5.71		mg/L		106	90 - 110	0	15

Method: 410.4 - COD

Lab Sample ID: MB 440-586052/3
Matrix: Water
Analysis Batch: 586052

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	10	mg/L			12/15/19 15:57	1

Lab Sample ID: LCS 440-586052/4
Matrix: Water
Analysis Batch: 586052

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			200	191		mg/L		95	90 - 110		

Lab Sample ID: 440-256378-A-2 MS
Matrix: Water
Analysis Batch: 586052

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	ND		200	190		mg/L		95	70 - 120		

Lab Sample ID: 440-256378-A-2 MSD
Matrix: Water
Analysis Batch: 586052

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	ND		200	197		mg/L		99	70 - 120	4	15

Method: 410.4 - COD (Continued)

Lab Sample ID: 440-257056-A-1 DU
Matrix: Water
Analysis Batch: 586052

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chemical Oxygen Demand	71			74.9		mg/L				5	15

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 440-584231/3
Matrix: Water
Analysis Batch: 584231

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		4.0	4.0	mg/L			12/06/19 04:37	1
Bicarbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			12/06/19 04:37	1

Lab Sample ID: LCS 440-584231/2
Matrix: Water
Analysis Batch: 584231

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity as CaCO3			68.2	68.9		mg/L		101	80 - 120		

Lab Sample ID: 440-256439-2 DU
Matrix: Water
Analysis Batch: 584231

Client Sample ID: DW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	360			361		mg/L				0.2	20
Bicarbonate Alkalinity as CaCO3	360			361		mg/L				0.2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 440-585231/1
Matrix: Water
Analysis Batch: 585231

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	5.0	mg/L			12/11/19 09:33	1

Lab Sample ID: LCS 440-585231/2
Matrix: Water
Analysis Batch: 585231

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	972		mg/L		97	90 - 110		

Lab Sample ID: 440-256439-1 DU
Matrix: Water
Analysis Batch: 585231

Client Sample ID: MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	3800			3680		mg/L				4	5

Method: SM 4500 CO2 C - Free Carbon Dioxide

Lab Sample ID: MB 440-586253/1
Matrix: Water
Analysis Batch: 586253

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon Dioxide, Free	ND		2.0	2.0	mg/L			12/16/19 16:49	1

Lab Sample ID: 440-256012-K-1 DU
Matrix: Water
Analysis Batch: 586253

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Carbon Dioxide, Free	84			86.2		mg/L				2	20

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-585050/3
Matrix: Water
Analysis Batch: 585050

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Sulfide	ND		0.050	0.027	mg/L			12/10/19 16:54	1

Lab Sample ID: LCS 440-585050/4
Matrix: Water
Analysis Batch: 585050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Sulfide			0.500	0.483		mg/L		97	80 - 120		

Lab Sample ID: LCSD 440-585050/5
Matrix: Water
Analysis Batch: 585050

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Sulfide			0.500	0.492		mg/L		98	80 - 120	2	20

Lab Sample ID: 440-256241-D-2 MS
Matrix: Water
Analysis Batch: 585050

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Sulfide	ND		0.500	0.367		mg/L		73	70 - 130		

Lab Sample ID: 440-256241-D-2 MSD
Matrix: Water
Analysis Batch: 585050

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Sulfide	ND		0.500	0.374		mg/L		75	70 - 130	2	30

Method: SM 5310C - TOC

Lab Sample ID: MB 440-584501/8
Matrix: Water
Analysis Batch: 584501

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			12/07/19 10:03	1

Lab Sample ID: LCS 440-584501/7
Matrix: Water
Analysis Batch: 584501

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	4.91		mg/L		98	85 - 115

Lab Sample ID: MRL 440-584501/6
Matrix: Water
Analysis Batch: 584501

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.104		mg/L		104	50 - 150

Lab Sample ID: 440-256413-C-2 MS
Matrix: Water
Analysis Batch: 584501

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	2.3		5.00	7.74		mg/L		108	85 - 115

Lab Sample ID: 440-256413-C-2 MSD
Matrix: Water
Analysis Batch: 584501

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	2.3		5.00	7.79		mg/L		109	85 - 115	1	20

Lab Sample ID: MB 440-584569/8
Matrix: Water
Analysis Batch: 584569

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			12/08/19 06:20	1

Lab Sample ID: LCS 440-584569/7
Matrix: Water
Analysis Batch: 584569

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	5.03		mg/L		101	85 - 115

Lab Sample ID: MRL 440-584569/6
Matrix: Water
Analysis Batch: 584569

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.103		mg/L		103	50 - 150

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256439-1

Method: SM 5310C - TOC

Lab Sample ID: 320-56809-L-1 MS
Matrix: Water
Analysis Batch: 584569

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	1.0		5.00	6.44		mg/L		108	85 - 115		

Lab Sample ID: 320-56809-L-1 MSD
Matrix: Water
Analysis Batch: 584569

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	1.0		5.00	6.47		mg/L		109	85 - 115	1	20

Lab Sample ID: 320-56809-L-1 DU
Matrix: Water
Analysis Batch: 584569

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	1.0		0.989		mg/L		3	20

GC/MS VOA

Analysis Batch: 584196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256439-1	MW-9	Total/NA	Water	8260B	
440-256439-2	DW-2	Total/NA	Water	8260B	
440-256439-3	Field Blank	Total/NA	Water	8260B	
440-256439-4	Trip Blank	Total/NA	Water	8260B	
MB 440-584196/4	Method Blank	Total/NA	Water	8260B	
LCS 440-584196/1002	Lab Control Sample	Total/NA	Water	8260B	
440-256439-1 MS	MW-9	Total/NA	Water	8260B	
440-256439-1 MSD	MW-9	Total/NA	Water	8260B	

Analysis Batch: 584197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256439-1	MW-9	Total/NA	Water	8260B	
440-256439-2	DW-2	Total/NA	Water	8260B	
440-256439-3	Field Blank	Total/NA	Water	8260B	
440-256439-4	Trip Blank	Total/NA	Water	8260B	
MB 440-584197/4	Method Blank	Total/NA	Water	8260B	
LCS 440-584197/1002	Lab Control Sample	Total/NA	Water	8260B	
440-256439-1 MS	MW-9	Total/NA	Water	8260B	
440-256439-1 MSD	MW-9	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 584899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256439-1	MW-9	Total/NA	Water	3520C	
440-256439-2	DW-2	Total/NA	Water	3520C	
MB 440-584899/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-584899/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-584899/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 585192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256439-1	MW-9	Total/NA	Water	8270C	584899
440-256439-2	DW-2	Total/NA	Water	8270C	584899
MB 440-584899/1-A	Method Blank	Total/NA	Water	8270C	584899
LCS 440-584899/3-A	Lab Control Sample	Total/NA	Water	8270C	584899
LCSD 440-584899/4-A	Lab Control Sample Dup	Total/NA	Water	8270C	584899

HPLC/IC

Analysis Batch: 583996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256439-1	MW-9	Total/NA	Water	300.0	
440-256439-2	DW-2	Total/NA	Water	300.0	
MB 440-583996/6	Method Blank	Total/NA	Water	300.0	
LCS 440-583996/7	Lab Control Sample	Total/NA	Water	300.0	
440-256222-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
440-256222-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 583997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256439-1	MW-9	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 583997 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256439-1	MW-9	Total/NA	Water	300.0	
440-256439-2	DW-2	Total/NA	Water	300.0	
440-256439-2	DW-2	Total/NA	Water	300.0	
MB 440-583997/6	Method Blank	Total/NA	Water	300.0	
LCS 440-583997/7	Lab Control Sample	Total/NA	Water	300.0	
440-256222-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
440-256222-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 584219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256439-1	MW-9	Total Recoverable	Water	3005A	
440-256439-2	DW-2	Total Recoverable	Water	3005A	
MB 440-584219/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-584219/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-256439-1 MS	MW-9	Total Recoverable	Water	3005A	
440-256439-1 MSD	MW-9	Total Recoverable	Water	3005A	

Analysis Batch: 584599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256439-1	MW-9	Total Recoverable	Water	6010B	584219
440-256439-2	DW-2	Total Recoverable	Water	6010B	584219
MB 440-584219/1-A	Method Blank	Total Recoverable	Water	6010B	584219
LCS 440-584219/2-A	Lab Control Sample	Total Recoverable	Water	6010B	584219
440-256439-1 MS	MW-9	Total Recoverable	Water	6010B	584219
440-256439-1 MSD	MW-9	Total Recoverable	Water	6010B	584219

General Chemistry

Analysis Batch: 584231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256439-1	MW-9	Total/NA	Water	SM 2320B	
440-256439-2	DW-2	Total/NA	Water	SM 2320B	
MB 440-584231/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-584231/2	Lab Control Sample	Total/NA	Water	SM 2320B	
440-256439-2 DU	DW-2	Total/NA	Water	SM 2320B	

Analysis Batch: 584501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256439-2	DW-2	Total/NA	Water	SM 5310C	
MB 440-584501/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-584501/7	Lab Control Sample	Total/NA	Water	SM 5310C	
MRL 440-584501/6	Lab Control Sample	Total/NA	Water	SM 5310C	
440-256413-C-2 MS	Matrix Spike	Total/NA	Water	SM 5310C	
440-256413-C-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310C	

Analysis Batch: 584569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256439-1	MW-9	Total/NA	Water	SM 5310C	
MB 440-584569/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 440-584569/7	Lab Control Sample	Total/NA	Water	SM 5310C	

General Chemistry (Continued)

Analysis Batch: 584569 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 440-584569/6	Lab Control Sample	Total/NA	Water	SM 5310C	
320-56809-L-1 MS	Matrix Spike	Total/NA	Water	SM 5310C	
320-56809-L-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310C	
320-56809-L-1 DU	Duplicate	Total/NA	Water	SM 5310C	

Analysis Batch: 584939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256439-1	MW-9	Total/NA	Water	350.1	
440-256439-2	DW-2	Total/NA	Water	350.1	
MB 440-584939/42	Method Blank	Total/NA	Water	350.1	
LCS 440-584939/43	Lab Control Sample	Total/NA	Water	350.1	
MRL 440-584939/9	Lab Control Sample	Total/NA	Water	350.1	
440-256298-H-1 MS	Matrix Spike	Total/NA	Water	350.1	
440-256298-H-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 585050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256439-1	MW-9	Total/NA	Water	SM 4500 S2 D	
440-256439-2	DW-2	Total/NA	Water	SM 4500 S2 D	
MB 440-585050/3	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 440-585050/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 440-585050/5	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	
440-256241-D-2 MS	Matrix Spike	Total/NA	Water	SM 4500 S2 D	
440-256241-D-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 585231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256439-1	MW-9	Total/NA	Water	SM 2540C	
440-256439-2	DW-2	Total/NA	Water	SM 2540C	
MB 440-585231/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-585231/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-256439-1 DU	MW-9	Total/NA	Water	SM 2540C	

Analysis Batch: 586052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256439-1	MW-9	Total/NA	Water	410.4	
440-256439-2	DW-2	Total/NA	Water	410.4	
MB 440-586052/3	Method Blank	Total/NA	Water	410.4	
LCS 440-586052/4	Lab Control Sample	Total/NA	Water	410.4	
440-256378-A-2 MS	Matrix Spike	Total/NA	Water	410.4	
440-256378-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	
440-257056-A-1 DU	Duplicate	Total/NA	Water	410.4	

Analysis Batch: 586253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-256439-1	MW-9	Total/NA	Water	SM 4500 CO2 C	
440-256439-2	DW-2	Total/NA	Water	SM 4500 CO2 C	
MB 440-586253/1	Method Blank	Total/NA	Water	SM 4500 CO2 C	
440-256012-K-1 DU	Duplicate	Total/NA	Water	SM 4500 CO2 C	

Definitions/Glossary

Client: Geo-Logic Associates
Project/Site: Republic Sunshine Canyon

Job ID: 440-256439-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
J	Indicates an Estimated Value for TICs
T	Result is a tentatively identified compound (TIC) and an estimated value.

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Geo-Logic Associates
Job ID: 440-256439-1
Project/Site: Republic Sunshine Canyon

Laboratory: Eurofins TestAmerica, Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-20
Arizona	State	AZ0671	10-14-20
California	Los Angeles County Sanitation Districts	10256	06-30-20
California	State	2706	06-30-20
Guam	State	19-005R	01-23-20
Hawaii	State	CA01531	01-29-20
Kansas	NELAP	E-10420	07-31-20
Nevada	State	CA015312020-4	07-31-20
New Mexico	State	CA01531	01-29-20
Oregon	NELAP	4028 - 006	01-29-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-18-00214	07-09-21
Washington	State	C900	09-03-20

TestAmerica Irvine
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Suite 100
Irvine, CA 92614
Phone: 949.261.1022 Fax:

Chain of Custody Record

206641

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TestAmerica Laboratories, Inc.

TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: KYLE WELCHANS	Site Contact: J. MILLS	Date: 12/5/19	COC No
Company Name: GLA / REPUBLIC	Tel/Fax: 858-451-1136	Lab Contact: ROSSINI	Carrier: TA	1 of 1 COCs
Address: 11415 W BERNARDO CT	Analysis Turnaround Time			Sampler:
City/State/Zip: SAN DIEGO CA 92127	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 858-451-1136	TAT if different from Below _____			Walk-in Client:
Fax: 858-451-1087	☐ 2 weeks			Lab Sampling:
Project Name: REPUBLIC SERVICES	☐ 1 week			Job / SDG No :
Site: SUNSHINE CANYON	☐ 2 days			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 8260B - VOCs - 40 CFR	Part 258 Appx I VOCs, MTBE	Dichlorodifluoromethane	EPA 8270 - 1,4 Dioxane	EPA 310.1 - Total Alkalinity	and Bicarbonate	EPA 350.2 - Ammonia as N	EPA 300.0 - Chloride, Bromide	Nitrate-N Sulfate	EPA 6010B - Total Ca, Fe, Mg	Na, K	SM 4500-CO2-C - Carbon Dioxide	EPA 410.4 - COD	EPA 160.1 - TDS	EPA 415.1 - TOC	EPA 340.2 - Fluoride	EPA 376.2 - Sulfide	Sample Specific Notes
MW-9	12/5/19	0835	G	GW	13			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
DW-2	12/5/19	1000	G	GW	13			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
FIELD BLANK	12/5/19	—	G	LAB H2O	4			X	X	X															
TRIP BLANK	12/5/19	—	G	LAB H2O	4			X	X	X															

12/5/19

440-256439 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No | Cooler Temp (°C) Obs'd. _____ Corr'd: _____ | Therm ID No _____

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
[signature]	GLA	12-5-19 1225	Will Reiva	TA-IRV	12/5/19 1225
Will Reiva	TA-IRV	12/5/19 1637	Received by	Company:	Date/Time:
Relinquished by:	Company	Date/Time	Received in Laboratory by: [signature]	Company: TA IRV	Date/Time: 12/5/19 16.37

0.9/1.1 #84

12/17/2019

Login Sample Receipt Checklist

Client: Geo-Logic Associates

Job Number: 440-256439-1

Login Number: 256439
List Number: 1
Creator: Soderblom, Tim

List Source: Eurofins TestAmerica, Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX C

MONTHLY VADOSE ZONE GAS MONITORING REPORTS

Geo-Logic ASSOCIATES

SUNSHINE CANYON COUNTY PERIMETER PROBE MONITORING DATA

TECHNICIAN: Aromo/Sarlo/Diaz TEMPERATURE: 86 BARO. PRESSURE: 27.90

GEM SERIAL #: GS00485/GS02765 WEATHER CONDITIONS: Cloudy

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
202									
A-10								2	REMOVED DUE TO CONSTRUCTION
B-25								2	REMOVED DUE TO CONSTRUCTION
C-38								3	REMOVED DUE TO CONSTRUCTION
203									
A-10	07-25-19	07:59	+0.02	0.0	4.3	16.1	79.6	2	
B-25	07-25-19	08:03	-0.03	0.0	4.8	14.6	80.7	2	
C-40	07-25-19	08:07	0.00	0.0	3.7	15.4	80.8	3	
206									
A-10	7.25.19	1028	+.20	Ø	8.8	12.0	79.2	2	
B-25	7.25.19	1030	+.23	Ø	10.1	10.9	79.0	2	
C-40	7.25.19	1032	+.17	Ø	14.4	9.3	76.3	3	
207									
A-10	7.25-19	1041	+.05	Ø	.1	20.1	79.8	2	
B-25	7.25-19	1045	+.17	Ø	.1	20.3	79.6	2	
C-40	7.25-19	1047	+.20	Ø	Ø	20.3	79.7	3	
208									
A-9.1	7.25.19	1016	+.17	Ø	3.8	17.6	78.6	2	
B-25	7.25.19	1018	+.16	Ø	7.2	14.1	78.7	2	
C-40	7.25.19	1020	+.13	Ø	.1	20.2	79.7	3	
210									
A-10	7.25.19	928	-.17	Ø	Ø	20.6	79.4	2	
B-25	7.25.19	930	+.11	Ø	Ø	20.6	79.4	2	
C-39	7.25.19	932	-.02	Ø	Ø	20.6	79.4	3	
242									
C-42	7.25.19	946	+.10	Ø	1.9	17.8	80.3	3	
D-60	7.25-19	949	-.35	Ø	3.9	12.9	83.2	4	
E-78	7.25.19	953	+.14	Ø	3.9	14.3	81.8	4	
243									
A-11	07-25-19	09:27	-0.03	0.3	14.2	0.2	85.3	2	
B-20	07-25-19	09:30	+0.02	0.0	12.5	4.9	82.6	2	
C-33	07-25-19	09:34	+0.04	0.0	12.3	5.3	82.4	3	

SCS SIGNATURE: [signature] LEA SIGNATURE

SUNSHINE CANYON - COUNTY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
244									
A-11	7.25.19	1002	+.16	0	11.1	7.4	81.5	2	
B-21	7.25.19	1004	+.13	0	4.9	15.3	79.8	2	
C-36	7.25.19	1006	+.13	0	2.2	18.2	79.6	3	
245									
A-11	07-25-19	08:23	+0.01	0.0	15.0	5.2	79.7	2	
B-20	07-25-19	08:26	0.00	0.2	24.5	0.4	74.9	2	
C-35	07-25-19	08:33	-0.05	0.0	23.6	0.7	75.7	3	
D-50	07-25-19	08:38	-0.01	0.0	17.6	1.4	81.0	4	
E-64	07-25-19	08:47	+0.03	0.0	2.5	16.7	80.8	4	
246									
A-9								2	REMOVED DUE TO CONSTRUCTION
B-16								2	REMOVED DUE TO CONSTRUCTION
205R									
A-11	07-25-19	09:52	+0.02	0.0	7.2	13.9	78.9	2	
B-20	07-25-19	09:55	-0.09	0.0	9.4	10.5	80.0	2	
C-33	07-25-19	09:59	-0.35	1.5	43.3	2.2	52.9	3	
D-48	07-25-19	10:05	-0.17	2.4	50.3	0.0	47.3	4	
E-62	07-25-19	10:09	-1.14	0.0	23.9	1.3	74.9	4	
239									
A-11	7.25.19	850	+.07	0	9.2	16.2	74.6	2	
B-20	7.25.19	852	+.04	0	.1	20.7	79.2	2	
C-35	7.25.19	854	+.02	0	0	20.8	79.2	3	
D-50	7.25.19	857	+.08	0	0	20.7	79.7	4	
E-64	7.25.19	901	+.11	0	0	20.7	79.3	4	
240									
A-11	7.25.19	800	+.07	0	.2	20.6	79.2	2	
B-20	7.25.19	802	+.08	0	.3	20.5	79.2	2	
C-33	7.25.19	804	-.05	0	0	20.7	79.3	3	
D-49	7.25.19	807	+.07	0	.1	20.5	79.4	4	
E-61	7.25.19	811	+.26	0	0	20.6	79.4	4	

SCS SINGNATURE:  LEA SIGNATURE:_____

SUNSHINE CANYON - COUNTY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
VADOSE									
ZONE									
PV203D	07-25-19	09:06	-10.73	0.0	0.0	20.6	79.4		
PV204D	7.25.19	952	-2.41	Ø	Ø	20.4	79.6		
PV211D	07-25-19	08:55	-8.31	0.0	0.0	20.5	79.4		

SCS SIGNATURE: _____ LEA SIGNATURE: _____

SUNSHINE CANYON CITY PERIMETER PROBE MONITORING DATA

TECHNICIAN: ARMD | TEMPERATURE: 90 | BARO. PRESSURE: 28.23

GEM SERIAL #: 500485 | WEATHER CONDITIONS: cloudy

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
213									
A-13	7-23-19	749	+.05	0	1.2	19.9	78.9	2	
B-29	7-23-19	751	+.02	0	.1	20.9	79.0	2	
C-45	7-23-19	753	-.23	0	0	20.9	79.1	3	
D-61	7-23-19	754	-.06	0	.1	20.8	79.1	4	
E-77	7-23-19	803	-11.20	0	0	20.9	79.1	4	
214									
A-13	7-22-19	815	-.01	0	3.0	17.6	79.4	2	
B-30	7-23-19	817	-1.24	0	.0	20.9	79.1	2	
C-48	7-23-19	821	-8.73	0	0	20.9	79.1	3	
215									
A-13	7-23-19	828	+.13	0	5.4	9.7	84.9	2	
B-30	7-23-19	830	-.10	0	0	20.8	79.2	2	
C-47	7-23-19	832	+.08	0	0	20.9	79.1	3	
D-64	7-23-19	835	+.02	0	.2	20.5	79.3	4	
E-81	7-23-19	839	+.11	0	3.9	13.6	82.5	4	
216									
A-14	7-23-19	850	+.14	0	.1	20.5	79.4	2	
B-43	7-23-19	852	-.01	0	0	20.8	79.2	2	
C-62	7-23-19	854	+.02	0	0	20.8	79.2	3	
D-86	7-23-19	857	+.08	0	.2	20.4	79.4	4	
E-110	7-23-19	901	+.12	0	3.4	14.2	82.4	4	
217									
A-13	7-23-19	947	+.09	0	4.1	15.6	80.3	2	
B-30	7-23-19	949	+.14	0	2.8	18.0	79.2	2	
218R									
A-11	7-23-19	1009	+.05	0	17.8	7.0	75.9	2	
B-26.5	7-23-19	1011	+.12	0	11.7	11.0	77.3	2	
B-30	7-23-19	1013	+.08	0	14.1	17.0	68.9	2	
219									
A-13	7-23-19	1046	+.12	.1	0	20.8	79.1	2	
B-64	7-23-19	1048	+.12	0	0	20.7	79.3	2	
C-115	7-23-19	1050	+.05	0	.2	20.4	79.4	3	
D-166	7-23-19	1053	+.11	0	0	20.6	79.4	4	
E-217	7-23-19	1057	+.14	0	1.5	19.0	79.5	4	

SCS SIGNATURE: _____ LEA SIGNATURE _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

G5027765

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
220									
A-14	07-23-19	08:33	+0.04	0.0	1.2	19.5	79.3	2	
B-40	07-23-19	08:36	-0.22	0.0	0.1	20.3	79.6	2	
C-87	07-23-19	08:40	-0.14	0.0	0.3	20.4	79.3	3	
D-124	07-23-19	08:46	-0.47	0.0	0.2	20.4	79.4	4	
E-158	07-23-19	08:51	-0.09	0.0	0.1	20.4	79.5	4	
220B									
A-14	07-23-19	08:59	+0.04	0.0	3.5	16.7	79.8	2	
B-38	07-23-19	09:02	-0.02	0.0	0.1	20.4	79.5	2	
C-62	07-23-19	09:07	-0.12	0.0	5.7	12.7	81.7	3	
D-86	07-23-19	09:11	-0.09	0.0	4.6	13.4	82.0	4	
E-110	07-23-19	09:16	-0.03	0.0	3.0	17.2	79.8	4	
221									
A-13	07-23-19	09:28	-0.06	0.0	0.4	20.1	79.5	2	
B-56	07-23-19	09:31	-0.08	0.0	0.4	20.3	79.3	2	
C-99	07-23-19	09:35	-0.20	0.0	0.3	20.2	79.5	3	
D-142	07-23-19	09:40	-0.04	0.0	0.0	20.7	79.2	4	
E-185	07-23-19	09:45	-0.01	0.0	0.0	20.8	79.2	4	
222									
A-13	07-23-19	09:54	-0.04	0.0	0.7	20.0	79.3	2	
B-54.8	07-23-19	10:01	-0.17	0.0	0.0	20.6	79.3	2	
C-96.5	07-23-19	10:07	+0.03	0.0	0.1	20.6	79.3	3	
D-138.3	07-23-19	10:13	-0.03	0.0	0.7	19.7	79.6	4	
E-180	07-23-19	10:18	-1.11	0.0	0.2	20.4	79.3	4	
223									
A-13	07-23-19	10:43	0.00	0.0	7.8	9.7	82.5	2	
B-37.5	07-23-19	10:46	-0.01	0.0	9.3	6.5	84.2	2	
C-62	07-23-19	10:50	+0.02	0.0	4.8	12.8	82.4	3	
D-86.5	07-23-19	10:58	+0.03	0.0	2.6	17.0	80.4	4	
E-111	07-23-19	11:03	+0.02	0.0	4.1	14.4	81.5	4	
224									
A-13	07-23-19	13:43	0.00	0.0	1.1	19.6	79.3	2	
B-67.5	07-23-19	13:46	+0.03	0.0	0.0	20.5	79.5	2	
C-122	07-23-19	13:49	0.00	0.0	0.0	20.3	79.7	3	
D-177.5	07-23-19	13:56	-13.49	0.0	0.0	20.3	79.7	4	
E-232	07-23-19	14:01	-10.29	0.0	0.0	20.2	79.8	4	

SCS SINGNATURE: _____ LEA SIGNATURE: _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

G502765

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
225									
A-13	07-23-19	14:15	-0.06	0.1	9.1	10.6	80.2	2	
B-72	07-23-19	14:17	-4.49	0.1	3.6	16.3	80.1	2	
C-1131	07-23-19	14:21	-9.92	0.3	12.2	7.4	80.0	3	
D-190	07-23-19	14:26	-10.67	0.0	0.2	20.8	79.0	4	
E-244	07-23-19	14:33	-10.56	0.0	3.5	16.5	80.0	4	
226									
A-13	07-23-19	14:40	-0.01	0.0	0.0	20.9	79.1	2	
B-64	07-23-19	14:45	-7.25	0.0	0.0	20.6	79.4	2	
C-114	07-23-19	14:48	-9.87	0.0	0.0	20.8	79.2	3	
D-164	07-23-19	14:57	-9.18	0.0	0.0	20.7	79.3	4	
E-208	07-23-19	15:03	-10.50	0.0	0.2	20.3	79.5	4	
227									
A-13	07-23-19	15:14	0.00	0.0	0.0	20.5	79.5	2	
B-48.7	07-23-19	15:17	-0.10	0.0	0.0	20.5	79.5	2	
C-84.4	07-23-19	15:22	-0.19	0.0	0.4	20.0	79.7	3	
D-114	07-23-19	15:26	-0.45	0.0	0.0	20.7	79.3	4	
E-115.7	07-23-19	15:31	-0.15	0.0	0.3	19.7	80.0	4	
228									
A-13	07-23-19	15:38	+0.02	0.0	0.5	19.9	79.6	2	
B-63	07-23-19	15:41	+0.02	0.0	2.6	13.1	84.4	2	
C-113	07-23-19	15:46	-0.03	0.0	0.0	20.4	79.6	3	
D-163	07-23-19	15:50	-0.06	0.0	0.2	20.2	79.6	4	
E-213	07-23-19	15:55	-0.06	0.1	1.7	15.6	82.7	4	
229									
A-13	7-23-19	1114	-.25	.1	0	20.7	79.2	2	
B-48.7	7-23-19	1116	-9.25	0	0	20.7	79.3	2	
C-84.4	7-23-19	1118	-7.69	0	0	20.8	79.2	3	
D-114	7-23-19	1121	-14.85	0	0	20.8	79.2	4	
E-155.7	7-23-19	1125	-23.50	0	0	20.8	79.2	4	
230									
A-16								2	REMOVED DUE TO CONSTRUCTION
B-33								2	REMOVED DUE TO CONSTRUCTION
C-50								3	REMOVED DUE TO CONSTRUCTION
231									
A-13								2	REMOVED DUE TO CONSTRUCTION
B-26								2	REMOVED DUE TO CONSTRUCTION
C-39								3	REMOVED DUE TO CONSTRUCTION
D-51								4	REMOVED DUE TO CONSTRUCTION
E-66								4	REMOVED DUE TO CONSTRUCTION

SCS SIGNATURE: 

LEA SIGNATURE: _____

SUNSHINE CANYON CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
241									
A-13	7-23-19	1331	+4.71	0	0	19.7	80.3	2	
B-28	7-23-19	1333	-5.44	0	0	19.8	80.2	2	
C-47	7-23-19	1335	+.22	0	0	19.7	80.3	3	
D-64	7-23-19	1338	+.31	0	0	19.7	80.3	4	
E-85	7-23-19	1342	-10.58	0	0	19.7	80.3	4	

SCS SIGNATURE: _____

LEA SIGNATURE: _____

SUNSHINE CANYON COUNTY PERIMETER PROBE MONITORING DATA

TECHNICIAN: A Romo / Saulo Diaz TEMPERATURE: 88 BARO. PRESSURE: 27.92

GEM SERIAL #: G505465 G502765 WEATHER CONDITIONS: SUNNY

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
202									
A-10								2	REMOVED DUE TO CONSTRUCTION
B-25								2	REMOVED DUE TO CONSTRUCTION
C-38								3	REMOVED DUE TO CONSTRUCTION
203									
A-10	08-22-19	08:57	+0.03	0.0	4.2	16.6	79.2	2	
B-25	08-22-19	09:00	+0.01	0.0	4.8	14.7	80.5	2	
C-40	08-22-19	09:04	0.0	0.0	3.7	15.7	80.6	3	
206									
A-10	8-22-19	1027	+.43	Ø	10.0	10.9	79.1	2	
B-25	8-22-19	1029	+.03	Ø	12.4	9.0	78.6	2	
C-40	8-22-19	1031	+.01	Ø	17.2	7.1	75.7	3	
207									
A-10	8-22-19	1040	-.24	Ø	Ø	20.6	79.4	2	
B-25	8-22-19	1042	+.12	Ø	.1	20.7	79.2	2	
C-40	8-22-19	1044	+.50	Ø	Ø	20.9	79.1	3	
208									
A-9.1	8-22-19	1015	+.11	Ø	4.1	17.3	78.6	2	
B-25	8-22-19	1017	+.03	Ø	8.4	13.3	78.3	2	
C-40	8-22-19	1019	+.14	Ø	.1	20.6	79.3	3	
210									
A-10	8-22-19	854	-.41	Ø	Ø	20.2	79.8	2	
B-25	8-22-19	856	-.02	Ø	Ø	20.3	79.7	2	
C-39	8-22-19	858	-.03	Ø	.1	20.4	79.5	3	
242									
C-42	8-22-19	928	-.06	Ø	3.4	17.3	79.3	3	
D-60	8-22-19	931	+.08	Ø	6.5	7.5	86.0	4	
E-78	8-22-19	935	+.08	Ø	3.4	17.2	79.4	4	
243									
A-11	08-22-19	08:06	-0.01	0.0	13.6	1.7	84.7	2	
B-20	08-22-19	08:11	+0.01	0.0	9.7	7.2	83.1	2	
C-33	08-22-19	08:17	+0.03	0.0	9.6	7.8	82.6	3	

SCS SIGNATURE: _____ LEA SIGNATURE _____

SUNSHINE CANYON - COUNTY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
244									
A-11	8-22-19	951	-.07	.1	17.1	1.1	81.7	2	
B-21	8-22-19	953	+.12	.1	16.8	4.0	79.1	2	
C-36	8-22-19	956	+.04	0	6.6	14.4	79.0	3	
245									
A-11	08-22-19	09:20	+0.01	0.0	16.8	3.5	79.7	2	
B-20	08-22-19	09:24	+0.05	0.1	23.8	0.3	75.8	2	
C-35	08-22-19	09:34	+0.04	0.0	21.5	1.6	76.9	3	
D-50	08-22-19	09:41	+0.01	0.0	17.0	1.2	81.8	4	
E-64	08-22-19	09:47	+0.01	0.0	3.0	16.2	80.8	4	
246									
A-9								2	REMOVED DUE TO CONSTRUCTION
B-16								2	REMOVED DUE TO CONSTRUCTION
205R									
A-11	08-22-19	07:39	+0.01	0.0	7.0	14.7	78.3	2	
B-20	08-22-19	07:42	-0.06	0.0	23.9	1.1	75.0	2	
C-33	08-22-19	07:47	-0.29	1.7	45.4	0.9	52.0	3	
D-48	08-22-19	07:53	-0.13	2.6	49.2	0.0	48.2	4	
E-62	08-22-19	07:58	-0.77	0.0	25.4	0.7	73.9	4	
239									
A-11	8-22-19	822	-.07	0	13.3	14.6	72.1	2	
B-20	8-22-19	824	+.25	0	.1	20.9	79.0	2	
C-35	8-22-19	826	-.08	0	.1	20.9	79.0	3	
D-50	8-22-19	829	-.02	0	.1	20.7	79.2	4	
E-64	8-22-19	833	+.02	0	.1	20.4	79.5	4	
240									
A-11	8-22-19	800	-.08	0	12.4	10.9	76.7	2	
B-20	8-22-19	804	+.02	0	.3	20.8	79.3	2	
C-33	8-22-19	806	-.04	0	.1	20.9	79.0	3	
D-49	8-22-19	809	-.11	0	.2	20.8	79.0	4	
E-61	8-22-19	813	-.02	.1	.1	20.9	78.9	4	

SCS SINGNATURE: _____

LEA SIGNATURE: _____

SUNSHINE CANYON - COUNTY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
VADOSE									
ZONE									
PV203D	08-22-19	10:08	-8.95	0.0	0.0	20.9	79.1		
PV204D	8-22-19	1048	-2.14	0	0	21.2	78.8		
PV211D	08-22-19	09:55	-6.4	0.0	0.0	20.9	79.1		

SCS SIGNATURE: _____

LEA SIGNATURE: _____

PERIMETER PROBE MONITORING DATA

TECHNICIAN: A Romo | TEMPERATURE: 88 | BARO. PRESSURE: 28.11

GEM SERIAL #: G5004185 | WEATHER CONDITIONS: SUNNY

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
213									
A-13	8-20-19	728	+.2	0	.2	20.5	79.3	2	
B-29	8-20-19	730	-.05	0	0	20.8	79.2	2	
C-45	8-20-19	733	-.04	0	0	20.9	79.1	3	
D-61	8-20-19	737	-.46	0	.1	20.8	79.1	4	
E-77	8-20-19	741	-6.05	0	0	21.0	79.0	4	
214									
A-13	8-20-19	804	-.35	0	4.5	16.3	79.2	2	
B-30	8-20-19	806	-9.37	0	.1	20.8	79.1	2	
C-48	8-20-19	808	-10.92	0	0	20.9	79.1	3	
215									
A-13	8-20-19	815	+.03	0	5.3	10.6	84.1	2	
B-30	8-20-19	821	+.11	0	.3	20.1	79.6	2	
C-47	8-20-19	823	+.04	0	0	20.6	79.4	3	
D-64	8-20-19	826	+.11	0	.3	20.2	79.5	4	
E-81	8-20-19	830	+.15	0	3.5	14.3	82.2	4	
216									
A-14	8-20-19	851	+.09	0	0	20.6	79.4	2	
B-43	8-20-19	853	-.04	0	0	20.7	79.3	2	
C-62	8-20-19	856	+.03	0	0	20.7	79.3	3	
D-86	8-20-19	859	+.12	0	0	20.8	79.2	4	
E-110	8-20-19	904	+.14	0	.1	20.8	79.1	4	
217									
A-13	8-20-19	926	+.13	0	3.9	16.5	79.6	2	
B-30	8-20-19	928	+.02	0	2.8	18.0	79.2	2	
218R									
A-11	8-20-19	939	+.12	0	18.3	7.1	74.6	2	
B-26.5	8-20-19	941	+.14	0	11.6	11.1	77.3	2	
B-30	8-20-19	944	+.18	0	7.3	18.2	74.5	2	
219									
A-13	8-20-19	1004	+.25	0	.5	19.7	79.8	2	
B-64	8-20-19	1006	+.25	0	.1	19.8	80.1	2	
C-115	8-20-19	1009	+.24	0	.2	19.6	80.2	3	
D-166	8-20-19	1012	+.16	0	0	20.0	80.0	4	
E-217	8-20-19	1017	+.28	0	1.5	18.1	80.4	4	

SCS SIGNATURE: _____

LEA SIGNATURE _____

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
220									
A-14	08/20/19	8:20	-0.23	0	1.2	19.9	78.8	2	
B-40	08/20/19	8:23	-0.32	0	0.1	20.7	79.2	2	
C-87	08/20/19	8:28	-0.36	0	0.3	20.6	79.1	3	
D-124	08/20/19	8:33	-0.45	0	0.2	20.7	79.1	4	
E-158	08/20/19	8:39	-0.36	0	0.1	20.9	79.0	4	
220B									
A-14	08/20/19	8:47	-0.20	0	3.6	17.4	79.0	2	
B-38	08/20/19	8:50	-0.18	0	0.1	20.7	79.1	2	
C-62	08/20/19	8:52	-0.28	0	5.4	13.6	81.0	3	
D-86	08/20/19	8:59	-0.17	0	5.0	13.4	81.6	4	
E-110	08/20/19	9:04	-0.15	0	2.9	18.0	79.1	4	
221									
A-13	08/20/19	9:19	-0.15	0	0.5	20.5	79.0	2	
B-56	08/20/19	9:22	-0.16	0	0.3	20.6	79.1	2	
C-99	08/20/19	9:26	-0.26	0	0.3	20.5	79.2	3	
D-142	08/20/19	9:31	-0.08	0	0.1	20.7	79.2	4	
E-185	08/20/19	9:35	-0.06	0	0.1	20.7	79.2	4	
222									
A-13	08/20/19	9:43	-0.09	0	0.7	19.8	79.5	2	
B-54.8	08/20/19	9:46	-0.11	0	0	20.5	79.5	2	
C-96.5	08/20/19	9:51	-0.03	0	0.1	20.3	79.7	3	
D-138.3	08/20/19	9:56	-0.01	0	0.8	19.1	80.1	4	
E-180	08/20/19	10:01	-0.52	0	0.2	19.6	80.2	4	
223									
A-13	08/20/19	10:20	+0.05	0	7.8	9.1	83.1	2	
B-37.5	08/20/19	10:23	+0.08	0	9.3	5.9	84.8	2	
C-62	08/20/19	10:28	+0.05	0	5.8	11.2	83.0	3	
D-86.5	08/20/19	10:35	-0.04	0	2.6	16.9	80.6	4	
E-111	08/20/19	10:38	-0.02	0	3.4	15.3	81.3	4	
224									
A-13	08/20/19	10:52	-0.01	0	0.6	20.3	79.0	2	
B-67.5	08/20/19	10:57	-0.01	0	0	20.9	79.1	2	
C-122	08/20/19	11:04	-0.02	0	0	20.9	79.1	3	
D-177.5	08/20/19	11:12	-14.10	0	0	20.9	79.1	4	
E-232	08/20/19	11:17	-10.11	0	0	20.9	79.1	4	

SCS SINGNATURE: Armando Martinez

LEA SIGNATURE: _____

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
225									
A-13	08/20/19	13:39	-0.24	0	12.1	8.1	79.8	2	
B-72	08/20/19	13:44	-9.62	0	5.0	14.5	80.5	2	
C-1131	08/20/19	13:46	-9.73	0	15.0	5.3	78.7	3	
D-190	08/20/19	13:51	-10.27	0	0.4	19.2	80.5	4	
E-244	08/20/19	13:56	-4.61	0	0.2	19.2	80.6	4	
226									
A-13	08/20/19	14:05	-0.02	0	0.4	18.9	80.7	2	
B-64	08/20/19	14:07	-6.88	0	0	19.4	80.6	2	
C-114	08/20/19	14:12	-9.58	0	0	19.5	80.5	3	
D-164	08/20/19	14:17	-7.41	0	0	19.7	80.3	4	
E-208	08/20/19	14:22	-9.42	0	0.3	19.3	80.3	4	
227									
A-13	08/20/19	14:57	+0.11	0	1.2	16.6	82.2	2	
B-48.7	08/20/19	14:59	+0.47	0.3	5.4	1.6	92.7	2	
C-84.4	08/20/19	15:04	+0.18	0	2.0	15.0	83.0	3	
D-114	08/20/19	15:08	+0.17	0	0	20.5	79.5	4	
E-115.7	08/20/19	15:13	+0.14	0	0.6	19.9	79.4	4	
228									
A-13	08/20/19	14:33	+0.06	0	0.8	19.3	80.0	2	
B-63	08/20/19	14:36	+0.11	0	3.5	11.6	85.0	2	
C-113	08/20/19	14:40	+0.03	0	1.2	17.6	81.2	3	
D-163	08/20/19	14:45	+0.46	0	0.4	20.0	79.6	4	
E-213	08/20/19	14:50	+0.27	0	2.2	15.1	82.7	4	
229									
A-13	8-20-19	1038	-.09	0	0	20.0	80.0	2	
B-48.7	8-20-19	1040	-7.34	0	0	20.1	79.9	2	
C-84.4	8-20-19	1042	-10.07	0	0	21.2	79.8	3	
D-114	8-20-19	1045	-13.38	0	0	20.5	79.5	4	
E-155.7	8-20-19	1049	-21.33	0	0	20.7	79.3	4	
230									
A-16								2	REMOVED DUE TO CONSTRUCTION
B-33								2	REMOVED DUE TO CONSTRUCTION
C-50								3	REMOVED DUE TO CONSTRUCTION
231									
A-13								2	REMOVED DUE TO CONSTRUCTION
B-26								2	REMOVED DUE TO CONSTRUCTION
C-39								3	REMOVED DUE TO CONSTRUCTION
D-51								4	REMOVED DUE TO CONSTRUCTION
E-66								4	REMOVED DUE TO CONSTRUCTION

SCS SIGNATURE: Amanda Martinez

LEA SIGNATURE: _____

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
241									
A-13	8-20-19	1114	+.28	0	0	20.7	79.3	2	
B-28	8-20-19	1119	-5.28	0	0	20.7	79.3	2	
C-47	8-20-19	1121	+.26	0	0	20.7	79.3	3	
D-64	8-20-19	1124	-4.16	0	0	20.6	79.4	4	
E-85	8-20-19	1128	-10.81	0	0	20.5	79.5	4	

SCS SIGNATURE: _____

LEA SIGNATURE: _____

SUNSHINE CANYON COUNTY PERIMETER PROBE MONITORING DATA

TECHNICIAN: A Romo / Sam D Diaz TEMPERATURE: 72 BARO. PRESSURE: 28.06

GEM SERIAL #: G502765 / G505465 WEATHER CONDITIONS: OVERCAST

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
202									
A-10								2	REMOVED DUE TO CONSTRUCTION
B-25								2	REMOVED DUE TO CONSTRUCTION
C-38								3	REMOVED DUE TO CONSTRUCTION
203									
A-10	09-26-19	07:52	-0.02	0.0	3.8	17.2	78.9	2	
B-25	09-26-19	07:55	-0.02	0.0	5.0	14.8	80.2	2	
C-40	09-26-19	07:59	-0.02	0.0	4.0	15.7	80.2	3	
206									
A-10	9-26-19	1016	-.12	0	10.0	11.2	78.8	2	
B-25	9-26-19	1018	-.13	0	4.8	10.1	78.1	2	
C-40	9-26-19	1020	+.10	0	16.8	7.7	75.5	3	
207									
A-10	9-26-19	1034	-.44	0	.1	20.5	79.4	2	
B-25	9-26-19	1036	+.12	0	.1	20.6	79.3	2	
C-40	9-26-19	1039	-.08	0	0	20.8	79.2	3	
208									
A-9.1	9-26-19	954	-.14	0	.1	20.5	79.4	2	
B-25	9-26-19	958	-.25	0	7.5	14.3	78.2	2	
C-40	9-26-19	1000	-.23	0	.2	20.2	79.6	3	
210									
A-10	9-26-19	853	-.76	0	.1	20.9	79.0	2	
B-25	9-26-19	855	-.35	0	.1	20.9	79.0	2	
C-39	9-26-19	857	-.36	0	.1	20.9	79.0	3	
242									
C-42	9-26-19	911	-.25	0	3.1	16.8	79.6	3	
D-60	9-26-19	914	-.30	0	9.0	3.4	87.6	4	
E-78	9-26-19	918	-.21	0	5.7	13.6	80.7	4	
243									
A-11	09-26-19	09:10	-0.10	0.2	14.5	0.3	85.0	2	
B-20	09-26-19	09:13	0.00	0.0	7.0	9.4	83.6	2	
C-33	09-26-19	09:17	+0.02	0.0	6.9	9.9	83.2	3	

SCS SIGNATURE: _____ LEA SIGNATURE _____

SUNSHINE CANYON - COUNTY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
244									
A-11	9-26-19	932	-.22	0	.1	20.8	79.1	2	
B-21	9-26-19	934	-.34	0	12.0	9.5	78.5	2	
C-36	9-26-19	937	-.31	0	5.9	15.8	78.3	3	
245									
A-11	09-26-19	08:10	-0.04	0.0	12.5	8.6	78.8	2	
B-20	09-26-19	08:13	-0.03	0.1	22.4	2.9	74.7	2	
C-35	09-26-19	08:17	-0.08	0.0	22.6	1.6	75.8	3	
D-50	09-26-19	08:21	-0.08	0.0	17.2	2.0	80.8	4	
E-64	09-26-19	08:26	-0.06	0.0	1.2	19.5	79.4	4	
246									
A-9								2	REMOVED DUE TO CONSTRUCTION
B-16								2	REMOVED DUE TO CONSTRUCTION
205R									
A-11	09-26-19	09:50	+0.01	0.0	5.7	15.1	79.1	2	
B-20	09-26-19	09:53	-0.09	0.0	10.7	11.1	78.2	2	
C-33	09-26-19	09:57	-0.42	1.4	41.8	2.4	54.4	3	
D-48	09-26-19	10:02	-0.49	2.4	48.6	0.0	48.9	4	
E-62	09-26-19	10:07	-0.94	0.1	25.6	0.8	73.5	4	
239									
A-11	9-26-19	831	-.34	0	15.6	13.4	71.0	2	
B-20	9-26-19	833	-.40	0	.1	21.0	78.9	2	
C-35	9-26-19	835	-.34	0	.1	20.9	79.0	3	
D-50	9-26-19	840	-.36	0	.1	20.9	79.0	4	
E-64	9-26-19	844	-.32	0	.1	21.0	78.9	4	
240									
A-11	9-26-19	801	-.87	.1	2.4	18.9	78.4	2	
B-20	9-26-19	803	-.48	0	.7	20.7	78.1	2	
C-33	9-26-19	806	-.34	0	.1	21.0	78.9	3	
D-49	9-26-19	810	-.31	0	.2	20.9	78.9	4	
E-61	9-26-19	814	-.34	.1	.1	21.0	78.8	4	

SCS SINGNATURE: _____

LEA SIGNATURE: _____

SUNSHINE CANYON COUNTY PERIMETER PROBE MONITORING DATA

TECHNICIAN: Saulo DIAZ TEMPERATURE: 72° F BARO. PRESSURE: 28.06

GEM SERIAL #: 6505465 WEATHER CONDITIONS: Overcast

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
202R									
A	09-26-19	07:36	-0.11	0.0	20.3	0.1	79.6	2	
B	09-26-19	07:39	-1.83	0.0	0.0	20.6	79.4	2	
C	09-26-19	07:43	-7.26	0.0	0.0	20.6	79.3	3	
~~D~~								~~3~~	

SCS SIGNATURE: Saulo P LEA SIGNATURE _____

SUNSHINE CANYON - COUNTY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
VADOSE									
ZONE									
PV203D	09-26-19	08:56	-8.45	0.0	0.0	20.5	79.5		
PV204D	9-26-19	1044	-2.91	0	0	20.9	79.1		
PV211D	09-26-19	08:47	-5.61	0.0	0.0	20.5	79.5		

SCS SIGNATURE: 

LEA SIGNATURE: _____

SUNSHINE CANYON CITY PERIMETER PROBE MONITORING DATA

TECHNICIAN: A ROMO | TEMPERATURE: 80 | BARO. PRESSURE: 28.22

GEM SERIAL #: G502765 | WEATHER CONDITIONS: SUNNY

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
213									
A-13	9-24-19	749	-.33	0	3.1	17.3	79.6	2	
B-29	9-24-19	751	-.29	0	.1	21.1	78.8	2	
C-45	9-24-19	756	-.30	0	.1	20.9	79.0	3	
D-61	9-24-19	759	-.83	0	.1	20.7	79.2	4	
E-77	9-24-19	804	-1.84	0	.1	20.8	79.7	4	
214									
A-13	9-24-19	813	-.43	.1	6.1	14.8	79.0	2	
B-30	9-24-19	815	-11.11	.1	.1	20.6	79.2	2	
C-48	9-24-19	817	-12.32	.1	.1	20.7	79.1	3	
215									
A-13	9-24-19	849	-.28	.1	6.6	8.7	84.6	2	
B-30	9-24-19	852	-.24	.1	4.7	13.0	82.2	2	
C-47	9-24-19	854	-.18	.1	.1	20.8	79.0	3	
D-64	9-24-19	857	-.34	.1	.6	19.9	79.4	4	
E-81	9-24-19	901	-.20	.1	4.7	11.9	83.3	4	
216									
A-14	9-24-19	912	-.23	0	6.3	9.3	84.4	2	
B-43	9-24-19	914	-.16	0	3.9	14.1	82.0	2	
C-62	9-24-19	916	-.36	0	.1	20.8	79.1	3	
D-86	9-24-19	919	-.15	0	.5	20.0	79.5	4	
E-110	9-24-19	923	-.24	0	4.5	12.3	83.2	4	
217									
A-13	9-24-19	1115	+.02	0	.1	20.8	79.1	2	
B-30	9-24-19	1117	+.03	0	0	20.9	79.1	2	
218R									
A-11	9-24-19	946	-.12	0	23.2	3.1	73.2	2	
B-26.5	9-24-19	948	-.17	0	14.1	10.1	75.8	2	
B-30	9-24-19	950	-.01	0	.7	20.2	79.1	2	
219									
A-13	9-24-19	1009	-.08	0	1.0	19.3	79.7	2	
B-64	9-24-19	1011	-.05	0	.1	20.3	79.6	2	
C-115	9-24-19	1013	-.07	0	1.4	18.6	80.0	3	
D-166	9-24-19	1016	-.05	0	.7	19.8	79.5	4	
E-217	9-24-19	1020	-.06	0	1.9	18.4	79.7	4	

SCS SIGNATURE: _____

LEA SIGNATURE _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

6505465

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
220									
A-14	09-24-19	07:29	+0.04	0.0	1.2	20.0	78.8	2	
B-40	09-24-19	07:35	+0.01	0.0	0.1	20.9	79.0	2	
C-87	09-24-19	07:40	-0.14	0.0	0.2	20.9	78.9	3	
D-124	09-24-19	07:48	-0.29	0.0	0.1	20.4	79.4	4	
E-158	09-24-19	07:53	-0.06	0.0	0.1	20.6	79.4	4	
220B									
A-14	09-24-19	07:59	-0.05	0.0	3.2	17.5	79.3	2	
B-38	09-24-19	08:02	-0.11	0.0	0.2	20.4	79.4	2	
C-62	09-24-19	08:06	-0.26	0.0	5.8	13.8	80.4	3	
D-86	09-24-19	08:11	-0.09	0.0	3.9	16.7	79.4	4	
E-110	09-24-19	08:16	-0.12	0.0	2.7	18.1	79.2	4	
221									
A-13	09-24-19	08:23	-0.04	0.0	0.4	20.3	79.2	2	
B-56	09-24-19	08:26	-0.03	0.0	0.2	20.5	79.3	2	
C-99	09-24-19	08:30	-0.34	0.0	0.3	20.4	79.4	3	
D-142	09-24-19	08:35	-0.09	0.0	0.0	20.7	79.3	4	
E-185	09-24-19	08:39	-0.04	0.0	0.0	20.5	79.5	4	
222									
A-13	09-24-19	08:45	0.00	0.0	0.8	19.3	80.0	2	
B-54.8	09-24-19	08:48	-0.10	0.0	0.0	20.3	79.7	2	
C-96.5	09-24-19	08:53	-0.06	0.0	0.0	20.4	79.5	3	
D-138.3	09-24-19	08:58	-0.09	0.0	0.8	19.2	79.9	4	
E-180	09-24-19	09:01	-0.64	0.0	0.0	20.4	79.5	4	
223									
A-13	09-24-19	09:13	+0.03	0.0	7.7	9.0	83.3	2	
B-37.5	09-24-19	09:16	-0.01	0.0	8.2	7.6	84.2	2	
C-62	09-24-19	09:20	-0.01	0.0	1.2	18.2	80.6	3	
D-86.5	09-24-19	09:25	+0.01	0.0	2.5	16.9	80.6	4	
E-111	09-24-19	09:29	+0.01	0.0	3.8	14.7	81.5	4	
224									
A-13	09-24-19	09:45	-0.01	0.0	0.3	20.6	79.1	2	
B-67.5	09-24-19	09:48	-0.01	0.0	0.0	20.9	79.1	2	
C-122	09-24-19	09:54	-0.05	0.0	0.0	20.1	79.9	3	
D-177.5	09-24-19	09:58	-13.96	0.0	0.0	20.0	80.0	4	
E-232	09-24-19	10:05	-10.25	0.0	0.0	20.3	79.7	4	

SCS SINGNATURE: 

LEA SIGNATURE: _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

G505465

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
225									
A-13	09-24-19	10:31	-0.05	0.0	9.2	10.2	80.7	2	
B-72	09-24-19	10:33	-4.73	0.0	3.7	15.7	80.6	2	
C-1131	09-24-19	10:38	-9.83	0.0	11.1	8.3	80.6	3	
D-190	09-24-19	10:43	-10.55	0.0	0.2	19.5	80.3	4	
E-244	09-24-19	10:47	-10.08	0.0	3.2	16.5	80.3	4	
226									
A-13	09-24-19	11:05	+0.01	0.0	0.4	20.0	79.6	2	
B-64	09-24-19	11:08	-7.74	0.0	0.0	20.5	79.4	2	
C-114	09-24-19	11:13	-10.26	0.0	0.0	20.5	79.5	3	
D-164	09-24-19	11:18	-9.49	0.0	0.0	20.4	79.6	4	
E-208	09-24-19	11:22	-9.27	0.0	0.2	19.8	80.0	4	
227									
A-13	09-24-19	13:45	0.00	0.0	0.8	18.0	81.1	2	
B-48.7	09-24-19	13:48	+0.44	0.0	0.1	19.8	80.2	2	
C-84.4	09-24-19	13:52	+0.12	0.0	0.9	18.3	80.8	3	
D-114	09-24-19	13:58	+0.14	0.0	0.4	19.5	80.0	4	
E-115.7	09-24-19	14:03	+0.30	0.0	0.6	19.0	80.5	4	
228									
A-13	09-24-19	14:10	+0.05	0.0	0.7	19.2	80.1	2	
B-63	09-24-19	14:13	+0.63	0.0	3.2	12.1	84.7	2	
C-113	09-24-19	14:17	+0.28	0.0	0.8	18.8	80.4	3	
D-163	09-24-19	14:21	+0.21	0.0	0.2	20.8	78.9	4	
E-213	09-24-19	14:26	+0.61	0.0	1.9	16.4	81.7	4	
229									
A-13	9-24-19	1044	-1.34	Ø	Ø	21.0	79.0	2	
B-48.7	9-24-19	1046	-5.77	Ø	Ø	20.9	79.1	2	
C-84.4	9-24-19	1051	-7.29	Ø	Ø	21.0	79.0	3	
D-114	9-24-19	1054	-15.98	Ø	Ø	21.0	79.0	4	
E-155.7	9-24-19	1058	-24.41	Ø	Ø	21.0	79.0	4	
230									
A-16								2	REMOVED DUE TO CONSTRUCTION
B-33								2	REMOVED DUE TO CONSTRUCTION
C-50								3	REMOVED DUE TO CONSTRUCTION
231									
A-13								2	REMOVED DUE TO CONSTRUCTION
B-26								2	REMOVED DUE TO CONSTRUCTION
C-39								3	REMOVED DUE TO CONSTRUCTION
D-51								4	REMOVED DUE TO CONSTRUCTION
E-66								4	REMOVED DUE TO CONSTRUCTION

SCS SIGNATURE: _____ LEA SIGNATURE: _____

SUNSHINE CANYON CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
241									
A-13	9-24-19	1330	-4.71	.1	Ø	21.0	78.9	2	
B-28	9-24-19	1332	-12.28	Ø	Ø	21.0	79.0	2	
C-47	9-24-19	1334	-.06	Ø	Ø	20.9	79.1	3	
D-64	9-24-19	1339	+.18	Ø	Ø	20.8	79.2	4	
E-85	9-24-19	1343	-6.39	Ø	Ø	20.9	79.1	4	

SCS SIGNATURE: _____

LEA SIGNATURE: _____

SUNSHINE CANYON CITY PERIMETER PROBE MONITORING DATA

TECHNICIAN: A ROLLO | TEMPERATURE: 85 | BARO. PRESSURE: 28.38

GEM SERIAL #: 6500485 | WEATHER CONDITIONS: SUNNY

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
213									
A-13	10-22-19	749	-.04	0	2.3	17.5	80.2	2	
B-29	10-22-19	751	+.01	0	.1	19.8	80.1	2	
C-45	10-22-19	753	-1.13	0	.1	20.9	79.0	3	
D-61	10-22-19	756	-1.16	0	.1	20.8	79.1	4	
E-77	10-22-19	801	-9.58	0	.1	20.8	79.1	4	
214									
A-13	10-22-19	819	-.13	0	5.1	16.2	78.7	2	
B-30	10-22-19	821	-11.50	0	.1	20.6	79.3	2	
C-48	10-22-19	823	-13.13	0	0	20.8	79.2	3	
215									
A-13	10-22-19	830	-.08	0	4.9	11.0	84.1	2	
B-30	10-22-19	832	+.04	0	4.0	17.8	82.2	2	
C-47	10-22-19	834	+.01	0	.1	20.7	79.2	3	
D-64	10-22-19	837	-.01	0	.3	20.3	79.4	4	
E-81	10-22-19	841	+.07	0	3.5	13.9	82.6	4	
216									
A-14	10-22-19	920	+.10	0	0	20.9	79.1	2	
B-43	10-22-19	926	0	0	.1	20.8	79.1	2	
C-62	10-22-19	928	+.05	0	0	20.8	79.2	3	
D-86	10-22-19	931	+.01	0	0	20.7	79.3	4	
E-110	10-22-19	935	+.09	0	.1	20.6	79.3	4	
217									
A-13	10-22-19	951	+.11	0	4.2	16.7	79.1	2	
B-30	10-22-19	953	+.10	0	2.6	18.3	79.1	2	
218R									
A-11	10-22-19	1003	+.15	0	17.6	8.0	74.4	2	
B-26.5	10-22-19	1005	+.09	0	13.1	11.4	75.5	2	
B-30	10-22-19	1007	+.69	0	7.4	19.5	73.1	2	
219									
A-13								2	
B-64								2	
C-115								3	
D-166								4	
E-217								4	

SCS SIGNATURE: _____ LEA SIGNATURE _____

SUNSHINE CANYON CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
241									
A-13	10-22-19	1021	-3.65	0	0	20.2	79.8	2	
B-28	10-22-19	1024	-2.87	0	0	20.3	79.7	2	
C-47	10-22-19	1026	+.14	0	.1	20.2	79.7	3	
D-64	10-22-19	1029	+.19	0	.1	20.3	79.6	4	
E-85	10-22-19	1033	-5.11	0	0	20.4	79.6	4	

SCS SIGNATURE: _____

LEA SIGNATURE: _____

SUNSHINE CANYON COUNTY PERIMETER PROBE MONITORING DATA

TECHNICIAN: A. Martinez / MARCOS | TEMPERATURE: 86° | BARO. PRESSURE: 30.07 / 28.29

GEM SERIAL #: G506081 / G505485 | WEATHER CONDITIONS: Windy

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
202									
A-10								2	REMOVED DUE TO CONSTRUCTION
B-25								2	REMOVED DUE TO CONSTRUCTION
C-38								3	REMOVED DUE TO CONSTRUCTION
203									
A-10	10-24-19	10:25	+.24	0	3.1	17.5	79.3	2	
B-25	10-24-19	10:28	+.22	0	4.3	15.4	80.3	2	
C-40	10-24-19	10:31	+.19	0	3.0	16.8	80.2	3	
206									
A-10	10/24	10:12	-0.02	0.0	12.9	9.0	78.1	2	
B-25	10/24	10:14	-0.05	0.0	15.7	7.8	76.6	2	
C-40	10/24	10:17	-0.13	0.0	20.5	6.7	72.8	3	
207									
A-10	10/24	9:55	-0.68	0.0	0.2	20.9	79.0	2	
B-25	10/24	9:57	-0.04	0.4	0.5	20.6	78.6	2	
C-40	10/24	10:00	+0.11	0.0	0.1	21.1	78.9	3	
208									
A-9.1	10/24	9:41	-0.02	0.0	2.9	18.8	78.3	2	
B-25	10/24	9:43	-0.45	0.0	0.6	19.8	79.6	2	
C-40	10/24	9:46	-0.02	0.0	7.8	14.7	77.5	3	
210									
A-10	10/24	8:35	-0.03	0.0	0.2	20.4	79.4	2	
B-25	10/24	8:38	-0.15	0.7	0.5	20.2	78.7	2	
C-39	10/24	8:40	-0.25	0.3	0.3	20.2	79.3	3	
242									
C-42	10/24	8:51	+0.03	0.0	2.3	18.6	79.1	3	
D-60	10/24	8:55	+0.18	0.0	7.5	7.7	84.8	4	
E-78	10/24	9:00	-0.02	0.0	3.4	17.4	79.2	4	
243									
A-11	10/24/19	8:43	+.10	0.2	14.2	0	85.6	2	
B-20	10/24/19	8:46	+.24	0	9.0	5.3	85.7	2	
C-33	10/24/19	8:51	+.13	0	8.8	5.9	85.3	3	

SCS SIGNATURE:_____ LEA SIGNATURE_____

SUNSHINE CANYON - COUNTY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
244									
A-11	10/24	9:13	-0.11	0.0	19.7	1.0	79.3	2	
B-21	10/24	9:15	-0.19	0.1	18.3	3.6	78.1	2	
C-36	10/24	9:18	-0.65	0.0	12.3	10.3	77.3	3	
245									
A-11	10/24/19	9:04	+.16	0	11.3	9.9	78.8	2	
B-20	10/24/19	9:07	+.08	.1	23.0	2.3	74.6	2	
C-35	10/24/19	9:13	+.10	0	21.7	21.7	78.0	3	
D-50	10/24/19	9:18	+.06	0	17.6	17.6	81.0	4	
E-64	10/24/19	9:24	+.17	0	1.9	1.9	80.6	4	
246									
A-9								2	REMOVED DUE TO CONSTRUCTION
B-16								2	REMOVED DUE TO CONSTRUCTION
205R									
A-11	10/24/19	7:55	+.08	0	5.7	15.1	79.2	2	
B-20	10/24/19	7:59	-.19	0	22.1	2.5	75.4	2	
C-33	10/24/19	8:04	-.44	1.7	45.9	1.7	51.7	3	
D-48	10/24/19	8:11	+.03	2.5	49.9	0	47.6	4	
E-62	10/24/19	8:18	-.41	.1	26.1	.6	73.3	4	
239									
A-11	10/24	8:11	-.04	0.1	32.3	7.0	60.7	2	
B-20	10/24	8:14	+0.05	0.0	0.2	20.6	79.1	2	
C-35	10/24	8:17	-0.05	0.0	0.1	20.5	79.4	3	
D-50	10/24	8:21	-0.05	0.0	0.2	20.3	79.5	4	
E-64	10/24	8:26	-0.08	0.0	0.2	20.2	79.7	4	
240									
A-11	10/24	10:43	-0.03	0.2	12.5	9.5	77.9	2	
B-20	10/24	10:45	-0.15	0.2	1.0	20.8	78.1	2	
C-33	10/24	10:48	-0.12	0.1	0.1	21.4	78.4	3	
D-49	10/24	10:51	-0.01	0.0	0.3	20.7	79.0	4	
E-61	10/24	10:55	-288	0.8	0.1	20.7	78.3	4	

SCS SINGNATURE:_____ LEA SIGNATURE:_____

SUNSHINE CANYON COUNTY PERIMETER PROBE MONITORING DATA

TECHNICIAN: A. Martinez | TEMPERATURE: 87° | BARO. PRESSURE: 30.07

GEM SERIAL #: G500485 | WEATHER CONDITIONS: Windy 21 mph

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
202R									
A	10-24-19	10:43	+0.12	0	17.7	0	82.2	2	
B	10-24-19	10:48	-2.34	0	0	20.8	79.2	2	
C	10-24-19	10:52	-8.42	0	0	20.9	79.0	3	

SCS SIGNATURE:_____ LEA SIGNATURE_____

SUNSHINE CANYON - COUNTY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
VADOSE									
ZONE									
PV203D									N/A
PV204D	10/24	10:03	-0.04	0.0	0.1	21.0	78.9		
PV211D	10-24-19	9:34	-3.61	~~0~~	0.1	20.1	79.9		

SCS SIGNATURE:_____ LEA SIGNATURE:_____

SUNSHINE CANYON COUNTY PERIMETER PROBE MONITORING DATA

TECHNICIAN: A ROMO | TEMPERATURE: 68 | BARO. PRESSURE: 28.15

GEM SERIAL #: G500485 | WEATHER CONDITIONS: cloudy

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
202									
A-10								2	REMOVED DUE TO CONSTRUCTION
B-25								2	REMOVED DUE TO CONSTRUCTION
C-38								3	REMOVED DUE TO CONSTRUCTION
203									
A-10	11-21-19	7:29	0	0	3.1	18.1	78.9	2	
B-25	11-21-19	7:31	-.01	0	5.2	15.1	79.6	2	
C-40	11-21-19	7:35	0	0	4.3	15.6	80.1	3	
206									
A-10	11-21-19	1344	+.13	0	9.5	12.3	78.2	2	
B-25	11-21-19	1346	+.11	0	12.0	11.2	76.8	2	
C-40	11-21-19	1348	+.08	0	15.2	10.4	74.4	3	
207									
A-10	11-21-19	1358	-.36	0	.1	20.9	79.0	2	
B-25	11-21-19	1401	+.01	0	0	21.0	79.0	2	
C-40	11-21-19	1403	+.01	0	0	21.0	79.0	3	
208									
A-9.1	11-21-19	1331	+.15	0	.1	20.9	79.0	2	
B-25	11-21-19	1333	+.15	0	4.0	17.4	78.6	2	
C-40	11-21-19	1335	+.28	0	.5	20.2	79.3	3	
210									
A-10	11-21-19	1109	-.04	0	.1	20.8	79.1	2	
B-25	11-21-19	1111	+.02	0	.1	20.8	79.1	2	
C-39	11-21-19	1113	+.01	0	.1	20.8	79.1	3	
242									
C-42	11-21-19	1133	+.10	0	1.7	18.1	80.2	3	
D-60	11-21-19	1126	+.09	0	4.4	12.6	83.0	4	
E-78	11-21-19	1130	+.10	0	.1	20.2	79.7	4	
243									
A-11	11-21-19	915	-.13	.4	13.9	0	85.7	2	
B-20	11-21-19	9:17	-.03	0	7.1	8.6	84.3	2	
C-33	11-21-19	9:25	+.33	0	4.1	13.5	82.4	3	

SCS SIGNATURE: _____

LEA SIGNATURE _____

SUNSHINE CANYON - COUNTY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
244									
A-11	11-21-19	1141	.00	0	9.0	10.9	80.1	2	
B-21	11-21-19	1143	+.14	0	7.6	13.3	79.1	2	
C-36	11-21-19	1145	+.19	0	2.1	18.4	79.5	3	
245									
A-11	11-21-19	7:47	-.01	0	11.2	9.8	79.0	2	
B-20	11-21-19	7:53	-.01	.1	19.8	2.0	78.2	2	
C-35	11-21-19	7:56	-.06	0	23.8	1.1	75.2	3	
D-50	11-21-19	8:01	-.16	0	19.5	2	80.5	4	
E-64	11-21-19	8:06	-.05	0	2.6	16.6	80.9	4	
246									
A-9									
B-16								2	REMOVED DUE TO CONSTRUCTION
								2	REMOVED DUE TO CONSTRUCTION
205R									
A-11	11-21-19	9:37	-.04	0	5.6	14.4	80.0	2	
B-20	11-21-19	9:40	-.38	0	22.7	3.0	74.3	2	
C-33	11-21-19	9:45	-.71	1.7	47.9	.4	50.0	3	
D-48	11-21-19	9:50	-.64	2.8	53.4	0	43.8	4	
E-62	11-21-19	9:54	-1.03	.3	27.5	.6	71.7	4	
239									
A-11	11-21-19	1043	-.07	0	9.2	17.0	73.8	2	
B-20	11-21-19	1045	+.06	0	.1	20.9	79.0	2	
C-35	11-21-19	1049	-.02	0	.1	20.9	79.0	3	
D-50	11-21-19	1052	+.03	0	.1	20.9	79.0	4	
E-64	11-21-19	1056	-1.05	0	.1	20.9	79.0	4	
240									
A-11	11-21-19	1021	+.02	0	.3	20.4	79.3	2	
B-20	11-21-19	1023	-.64	0	.1	20.6	79.3	2	
C-33	11-21-19	1025	-.17	0	.1	20.7	79.2	3	
D-49	11-21-19	1028	-.02	0	.1	20.8	79.1	4	
E-61	11-21-19	1032	+.22	0	.1	20.9	79.0	4	

27 93

SCS SINGNATURE: _____

LEA SIGNATURE: _____

SUNSHINE CANYON COUNTY PERIMETER PROBE MONITORING DATA

TECHNICIAN: Saulo Diaz | TEMPERATURE: 48° | BARO. PRESSURE: 29.82"

GEM SERIAL #: 9504541 | WEATHER CONDITIONS: Clear

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
202R									
A	11-20-19	06:56	-0.10	0.0	17.7	0.1	82.1	2	
B	11-21-19	07:04	+0.18	0.0	1.9	0.0	98.1	2	
C	11-21-19	07:10	-4.82	0.0	0.1	20.7	79.3	3	
D								3	

SCS SIGNATURE: _____

LEA SIGNATURE _____

SUNSHINE CANYON - COUNTY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
VADOSE									
ZONE									
PV203D	11-21-19	13:51	-2.06	0.1	0.1	20.6	79.2		
PV204D	11-21-19	1407	-3.36	0	.1	20.9	79.0		
PV211D	11-21-19	08:20	0.00	0.0	0.1	20.6	79.4		

SCS SIGNATURE: _____

LEA SIGNATURE: _____

SUNSHINE CANYON CITY PERIMETER PROBE MONITORING DATA

TECHNICIAN: ARomo | TEMPERATURE: 75 | BARO. PRESSURE: 28.32

GEM SERIAL #: G500485 | WEATHER CONDITIONS: cloudy

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
213									
A-13	11-19-19	729	+.03	0	.2	20.6	79.2	2	
B-29	11-19-19	731	+.01	0	.2	19.8	80.0	2	
C-45	11-19-19	733	+.03	0	.1	20.7	79.2	3	
D-61	11-19-19	736	-.17	0	.1	20.7	79.2	4	
E-77	11-19-19	740	-11.80	0	.1	20.8	79.1	4	
214									
A-13	11-19-19	801	+.05	0	.7	20.1	79.2	2	
B-30	11-19-19	803	-7.47	0	.1	20.7	79.2	2	
C-48	11-19-19	805	-10.14	0	.1	20.7	79.2	3	
215									
A-13	11-19-19	820	+.04	0	6.0	7.4	86.6	2	
B-30	11-19-19	822	+.08	0	3.9	13.8	82.3	2	
C-47	11-19-19	824	+.25	0	0	20.6	79.4	3	
D-64	11-19-19	827	+.10	0	.2	20.3	79.5	4	
E-81	11-19-19	831	+.16	0	4.2	11.7	84.1	4	
216									
A-14	11-19-19	842	+.12	0	1.9	17.0	81.1	2	
B-43	11-19-19	844	+.09	0	3.4	15.1	81.5	2	
C-62	11-19-19	846	+.16	0	6.8	8.3	84.9	3	
D-86	11-19-19	849	+.21	0	3.8	11.3	84.9	4	
E-110	11-19-19	853	+.20	0	1.5	17.8	80.7	4	
217									
A-13	11-19-19	1536	-.15	0	1.1	20.2	78.7	2	
B-30	11-19-19	1538	-.35	0	.1	21.1	78.8	2	
218R									
A-11	11-19-19	917	+.08	0	19.0	5.5	75.5	2	
B-26.5	11-19-19	919	+.13	0	14.8	10.6	74.6	2	
B-30	11-19-19	921	+.16	0	12.1	17.6	70.3	2	
219									
A-13								2	
B-64								2	
C-115								3	
D-166								4	
E-217								4	

SCS SIGNATURE: _____

LEA SIGNATURE _____

SUNSHINE CANYON CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
241									
A-13	11-19-19	935	-3.50	0	0	20.8	79.2	2	
B-28	11-19-19	937	-4.18	0	0	20.8	79.2	2	
C-47	11-19-19	939	+.12	0	0	20.8	79.2	3	
D-64	11-19-19	947	+.13	0	0	20.8	79.2	4	
E-85	11-19-19	945	-7.44	0	0	20.7	79.3	4	

SCS SIGNATURE: _____

LEA SIGNATURE: _____

SUNSHINE CANYON CITY PERIMETER PROBE MONITORING DATA

TECHNICIAN: Saulo DIAZ | TEMPERATURE: 64° | BARO. PRESSURE: 28.45"

GEM SERIAL #: G504541 | WEATHER CONDITIONS: clear

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
213									
A-13								2	
B-29								2	
C-45								3	
D-61								4	
E-77								4	
214									
A-13								2	
B-30								2	
C-48								3	
215									
A-13								2	
B-30								2	
C-47								3	
D-64								4	
E-81								4	
216									
A-14								2	
B-43								2	
C-62								3	
D-86								4	
E-110								4	
217									
A-13								2	
B-30								2	
218R									
A-11								2	
B-26.5								2	
B-30								2	
219									
A-13	11-22-19	10:19	-0.01	0.0	0.9	19.3	79.8	2	
B-64	11-22-19	10:22	+0.03	0.0	8.1	4.4	87.5	2	
C-115	11-22-19	10:26	+0.01	0.0	1.6	18.0	80.4	3	
D-166	11-22-19	10:31	-0.01	0.0	1.4	18.6	80.1	4	
E-217	11-22-19	10:36	+0.01	0.0	3.5	14.9	81.7	4	

SCS SIGNATURE: Saulo Diaz

LEA SIGNATURE _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
220									
A-14	11/22/19	07:09	-0.03	0	3.5	18.3	78.2	2	
B-40	11/22/19	07:12	-0.09	0	0.1	20.0	80.0	2	
C-87	11/22/19	07:16	-0.17	0	1.1	19.7	79.2	3	
D-124	11/22/19	07:22	-0.09	0	0.1	20.2	79.7	4	
E-158	11/22/19	07:28	-0.07	0	0.1	20.2	79.7	4	
220B									
A-14	11/22/19	07:40	-0.24	0	0.1	20.2	79.6	2	
B-38	11/22/19	07:43	-0.11	0	0.1	20.2	79.6	2	
C-62	11/22/19	07:51	-0.36	0	5.3	14.9	79.7	3	
D-86	11/22/19	08:33	-0.35	0	3.9	16.5	79.6	4	
E-110	11/22/19	08:38	-0.44	0	2.2	19.2	78.6	4	
221									
A-13	11/22/19	08:50	-0.33	0	0.8	20.9	78.3	2	
B-56	11/22/19	08:54	-0.51	0	0.3	20.7	79.0	2	
C-99	11/22/19	08:58	-0.85	0	0.5	20.5	79.0	3	
D-142	11/22/19	09:04	-0.39	0	0.1	20.5	79.4	4	
E-185	11/22/19	09:10	-0.29	0	0.2	20.4	79.5	4	
222									
A-13	11/22/19	09:17	-0.18	0	2.0	18.6	79.4	2	
B-54.8	11/22/19	09:20	-0.19	0	0.1	20.4	79.6	2	
C-96.5	11/22/19	09:24	-0.19	0	0.3	20.1	79.7	3	
D-138.3	11/22/19	09:29	-0.21	0	3.1	17.3	79.7	4	
E-180	11/22/19	09:34	-2.24	0	3.0	15.6	81.4	4	
223									
A-13	11/22/19	09:46	-0.62	0	8.2	7.7	84.0	2	
B-37.5	11/22/19	09:49	-0.15	0.9	8.7	6.0	84.3	2	
C-62	11/22/19	09:54	-0.18	0	1.8	17.7	80.6	3	
D-86.5	11/22/19	09:59	-0.14	0	2.4	17.3	80.3	4	
E-111	11/22/19	10:04	-0.20	0	2.6	17.1	80.4	4	
224									
A-13	11-22-19	06:49	+0.02	0.0	2.3	19.5	78.2	2	
B-67.5	11-22-19	06:53	+0.02	0.0	0.1	20.8	79.2	2	
C-122	11-22-19	07:01	-0.02	0.0	0.1	20.8	79.2	3	
D-177.5	11-22-19	07:06	-14.45	0.0	0.1	20.9	79.0	4	
E-232	11-22-19	07:10	-9.68	0.0	0.1	20.7	79.2	4	

SCS SINGNATURE: Amando Martinez

LEA SIGNATURE: _____

64° F 28.45"
NE 3mph clear
G504541

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
225									
A-13	11-22-19	07:25	-0.06	0.0	7.3	13.3	79.4	2	
B-72	11-22-19	07:28	-5.15	0.0	3.1	17.5	79.4	2	
C-1131	11-22-19	07:32	-12.10	0.0	11.3	10.0	78.8	3	
D-190	11-22-19	07:37	-12.77	0.0	0.2	20.4	79.4	4	
E-244	11-22-19	07:42	-12.73	0.0	0.1	20.5	79.4	4	
226									
A-13	11-22-19	07:52	0.00	0.0	0.2	20.1	79.7	2	
B-64	11-22-19	07:56	-10.77	0.0	0.1	20.3	79.6	2	
C-114	11-22-19	08:00	-12.23	0.0	0.1	20.0	79.9	3	
D-164	11-22-19	08:08	-11.97	0.0	0.1	20.5	79.5	4	
E-208	11-22-19	08:12	-12.95	0.0	0.1	20.3	79.6	4	
227									
A-13	11-22-19	08:20	-0.06	0.0	0.1	20.6	79.3	2	
B-48.7	11-22-19	08:24	-2.51	0.0	0.2	20.4	79.4	2	
C-84.4	11-22-19	08:30	-1.31	0.0	0.9	19.7	79.4	3	
D-114	11-22-19	08:35	-2.06	0.0	1.4	19.3	79.3	4	
E-115.7	11-22-19	08:40	-0.93	0.0	0.7	19.4	79.9	4	
228									
A-13	11-22-19	08:49	-0.03	0.0	0.8	19.2	80.0	2	
B-63	11-22-19	08:52	-2.97	0.0	3.2	11.5	85.3	2	
C-113	11-22-19	08:56	-1.79	0.0	0.1	20.4	79.5	3	
D-163	11-22-19	08:59	-1.28	0.0	0.5	20.0	79.5	4	
E-213	11-22-19	09:03	-1.72	0.0	2.3	15.3	82.4	4	
229									
A-13	11-22-19	09:38	-1.44	0.0	0.7	19.1	80.2	2	
B-48.7	11-22-19	09:40	-10.30	0.0	0.2	20.5	79.3	2	
C-84.4	11-22-19	09:44	-10.76	0.0	0.1	20.7	79.2	3	
D-114	11-22-19	09:49	-16.91	0.0	0.4	20.0	79.6	4	
E-155.7	11-22-19	09:54	-24.28	0.0	0.1	20.9	79.0	4	
230									
A-16								2	REMOVED DUE TO CONSTRUCTION
B-33								2	REMOVED DUE TO CONSTRUCTION
C-50								3	REMOVED DUE TO CONSTRUCTION
231									
A-13								2	REMOVED DUE TO CONSTRUCTION
B-26								2	REMOVED DUE TO CONSTRUCTION
C-39								3	REMOVED DUE TO CONSTRUCTION
D-51								4	REMOVED DUE TO CONSTRUCTION
E-66								4	REMOVED DUE TO CONSTRUCTION

SCS SIGNATURE: _____ LEA SIGNATURE: _____

SUNSHINE CANYON COUNTY PERIMETER PROBE MONITORING DATA

Saulo Diaz 59° 28.37

TECHNICIAN: A Road TEMPERATURE: 60 BARO. PRESSURE: 28.14

GEM SERIAL #: G500485 WEATHER CONDITIONS: SUNNY

G502765

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
202									
A-10								2	REMOVED DUE TO CONSTRUCTION
B-25								2	REMOVED DUE TO CONSTRUCTION
C-38								3	REMOVED DUE TO CONSTRUCTION
203									
A-10	12-19-19	07:32	+0.01	0.0	3.7	17.2	79.1	2	
B-25	12-19-19	07:34	-0.07	0.0	5.2	15.4	79.4	2	
C-40	12-19-19	07:38	-0.01	0.0	4.4	15.9	79.7	3	
206									
A-10	12-19-19	1011	-.04	0	6.9	13.0	80.1	2	
B-25	12-19-19	1013	-.08	0	8.1	13.9	78.0	2	
C-40	12-19-19	1015	-.15	0	9.1	13.8	77.1	3	
207									
A-10	12-19-19	945	-.72	.1	1.1	20.2	78.6	2	
B-25	12-19-19	947	-.16	0	.1	21.2	78.7	2	
C-40	12-19-19	951	-.09	0	.2	20.8	79.0	3	
208									
A-9.1	12-19-19	909	-.10	0	.1	20.9	79.2	2	
B-25	12-19-19	911	-.10	0	3.8	17.7	78.5	2	
C-40	12-19-19	913	-.09	0	1.0	19.4	79.6	3	
210									
A-10	12-19-19	814	-.13	0	1.0	19.7	79.3	2	
B-25	12-19-19	816	-.15	0	.2	20.3	79.5	2	
C-39	12-19-19	818	-.15	0	.1	20.6	79.3	3	
242									
C-42	12-19-19	828	-.03	0	1.4	19.6	79.0	3	
D-60	12-19-19	832	-.11	0	1.3	19.6	79.1	4	
E-78	12-19-19	836	-.07	0	2.2	18.3	79.5	4	
243									
A-11	12-19-19	06:46	-0.12	0.2	12.8	0.2	86.8	2	
B-20	12-19-19	06:50	+0.07	0.0	2.3	14.8	83.0	2	
C-33	12-19-19	06:53	-0.03	0.0	1.8	15.1	83.1	3	

28.14

SCS SIGNATURE: _____ LEA SIGNATURE _____

SUNSHINE CANYON - COUNTY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
244									
A-11	12-19-19	852	-.09	100	13.5	6.0	80.5	2	
B-21	12-19-19	854	-.08	0	5.3	16.0	78.7	2	
C-36	12-19-19	856	-.23	0	5.4	16.5	78.1	3	
245									
A-11	12-19-19	07:45	-0.03	0.0	12.6	6.4	81.0	2	
B-20	12-19-19	07:49	+0.01	0.2	22.5	2.0	75.3	2	
C-35	12-19-19	07:53	-0.04	0.0	22.0	1.3	76.6	3	
D-50	12-19-19	07:57	-0.02	0.1	17.5	1.3	81.1	4	
E-64	12-19-19	08:02	-0.9	0.0	5.1	13.4	81.5	4	
246									
A-9								2	REMOVED DUE TO CONSTRUCTION
B-16								2	REMOVED DUE TO CONSTRUCTION
205R									
A-11	12-19-19	08:36	-0.05	0.0	8.1	8.0	83.9	2	
B-20	12-19-19	08:40	-0.29	0.0	22.1	0.9	77.0	2	
C-33	12-19-19	08:44	-0.67	1.7	38.7	2.4	57.2	3	
D-48	12-19-19	08:48	-0.56	2.5	45.1	0.0	52.4	4	
E-62	12-19-19	08:53	-0.98	0.1	23.3	0.9	75.7	4	
239									
A-11	12-19-19	745	-.15	0	11.6	16.0	72.4	2	
B-20	12-19-19	747	-.15	0	.1	20.9	79.0	2	
C-35	12-19-19	749	-.11	0	.1	21.0	78.9	3	
D-50	12-19-19	752	-.07	0	.1	21.0	78.9	4	
E-64	12-19-19	756	-.13	0	.1	20.9	79.0	4	
240									
A-11	12-19-19	716	-.12	0	10.8	13.1	76.1	2	
B-20	12-19-19	718	-.19	0	.2	21.0	78.8	2	
C-33	12-19-19	720	-.12	0	.1	20.9	79.0	3	
D-49	12-19-19	725	-.14	0	.5	20.7	78.8	4	
E-61	12-19-19	729	-.15	.1	.1	20.9	78.9	4	

SCS SINGNATURE: _____

LEA SIGNATURE: _____

SUNSHINE CANYON - COUNTY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
VADOSE									
ZONE									
PV203D	12-20-19	06:45	-1.96	0.1	1.9	19.6	78.5		
PV204D	12-19-19	9:59	-3.59	0	.1	20.8	79.1		
PV211D	12-19-19	09:33	-0.02	0.2	0.3	20.3	79.2		

SCS SIGNATURE: _____

LEA SIGNATURE: _____

SUNSHINE CANYON COUNTY PERIMETER PROBE MONITORING DATA

TECHNICIAN: Sam & Diaz | TEMPERATURE: 59° | BARO. PRESSURE: 28.32"

GEM SERIAL #: G5027 65 | WEATHER CONDITIONS: Clear

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
202R									
A	12-19-19	07:11	-0.13	0.0	16.2	0.2	83.6	2	
B	12-19-19	07:15	-0.65	0.0	0.5	19.7	79.8	2	
C	12-19-19	07:18	-6.95	0.0	0.1	20.6	79.3	3	
D								3	

SCS SIGNATURE [signature]

LEA SIGNATURE _____

SUNSHINE CANYON CITY PERIMETER PROBE MONITORING DATA

TECHNICIAN: Saulo DIAZ | TEMPERATURE: 48° | BARO. PRESSURE: 30.11"

GEM SERIAL #: G502765 | WEATHER CONDITIONS: Mostly Cloudy

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% CH4	% CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
213									
A-13	12-18-19	08:37	-0.08	0.0	0.1	20.5	79.4	2	
B-29	12-18-19	08:40	0.00	0.0	0.1	20.6	79.3	2	
C-45	12-18-19	08:44	-0.33	0.0	0.1	20.6	79.3	3	
D-61	12-18-19	08:48	-0.92	0.0	0.1	20.4	79.4	4	
E-77	12-18-19	08:53	-11.99	0.0	0.1	20.4	79.4	4	
214									
A-13	12-18-19	09:12	0.00	0.0	0.4	19.5	80.1	2	
B-30	12-18-19	09:15	-7.77	0.0	0.7	19.5	79.7	2	
C-48	12-18-19	09:20	-10.08	0.0	2.8	18.0	79.2	3	
215									
A-13	12-18-19	09:32	0.00	0.0	4.8	10.2	85.0	2	
B-30	12-18-19	09:35	-0.01	0.0	4.4	12.7	82.8	2	
C-47	12-18-19	09:39	+0.30	0.0	0.1	20.4	79.5	3	
D-64	12-18-19	09:44	+0.14	0.0	0.3	20.1	79.6	4	
E-81	12-18-19	09:50	+0.18	0.0	3.3	13.9	82.8	4	
216									
A-14	12-18-19	10:02	-0.02	0.0	0.1	20.4	79.5	2	
B-43	12-18-19	10:05	-0.03	0.0	2.5	16.7	80.7	2	
C-62	12-18-19	10:09	-0.04	0.0	6.8	8.8	84.3	3	
D-86	12-18-19	10:14	-0.02	0.0	0.3	19.6	80.1	4	
E-110	12-18-19	10:18	+0.05	0.0	1.4	17.9	80.7	4	
217									
A-13	12-18-19	10:26	0.00	0.0	7.4	14.6	78.0	2	
B-30	12-18-19	10:30	+0.04	0.0	5.1	15.7	79.2	2	
218R									
A-11	12-18-19	10:46	+0.02	0.0	25.4	0.0	74.5	2	
B-26.5	12-18-19	10:50	+0.05	0.0	30.4	0.2	69.4	2	
B-30	12-18-19	10:53	+0.13	0.0	39.1	11.1	49.8	2	
219									
A-13	12-18-19	11:11	+0.08	0.0	1.3	18.8	79.9	2	
B-64	12-18-19	11:15	+0.09	0.0	6.8	6.7	86.6	2	
C-115	12-18-19	11:19	+0.03	0.0	1.4	18.2	80.4	3	
D-166	12-18-19	11:24	+0.02	0.0	1.1	18.8	80.1	4	
E-217	12-18-19	11:29	+0.09	0.0	3.2	15.1	81.7	4	

SCS SIGNATURE: Saulo D

LEA SIGNATURE _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
220									
A-14	12-17-19	13:23	+0.03	0.0	3.6	17.3	79.1	2	
B-40	12-17-19	13:26	-0.02	0.0	4.3	13.5	82.2	2	
C-87	12-17-19	13:29	-0.02	0.0	4.9	15.3	79.8	3	
D-124	12-17-19	13:34	-0.06	0.0	2.1	18.0	79.9	4	
E-158	12-17-19	13:42	-0.04	0.0	0.5	19.8	79.7	4	
220B									
A-14	12-17-19	14:03	-0.09	0.1	3.2	16.3	80.4	2	
B-38	12-17-19	14:07	-0.03	0.0	9.8	4.1	86.1	2	
C-62	12-17-19	14:12	+0.05	0.0	10.5	0.9	88.6	3	
D-86	12-17-19	14:20	0.00	0.0	8.5	4.8	86.7	4	
E-110	12-17-19	14:29	+0.08	0.0	2.5	16.9	80.6	4	
221									
A-13	12-17-19	10:36	+0.03	0.0	0.2	20.1	79.7	2	
B-56	12-17-19	10:39	0.00	0.0	0.1	20.3	79.6	2	
C-99	12-17-19	10:43	-0.04	0.0	0.7	19.9	79.4	3	
D-142	12-17-19	10:49	+0.01	0.0	0.1	20.3	79.6	4	
E-185	12-17-19	10:55	+0.05	0.0	0.2	20.1	79.7	4	
222									
A-13	12-17-19	11:10	-0.03	0.0	4.2	15.7	80.1	2	
B-54.8	12-17-19	11:13	+0.03	0.0	0.8	17.1	82.1	2	
C-96.5	12-17-19	11:16	+0.08	0.0	0.3	20.1	79.6	3	
D-138.3	12-17-19	11:22	+0.01	0.0	5.6	13.8	80.6	4	
E-180	12-17-19	11:26	-1.42	0.0	1.1	19.1	79.8	4	
223									
A-13	12-17-19	09:59	+0.05	0.0	6.9	11.3	81.8	2	
B-37.5	12-17-19	10:02	+0.02	0.3	8.0	8.9	82.8	2	
C-62	12-17-19	10:06	+0.03	0.0	1.3	18.5	80.2	3	
D-86.5	12-17-19	10:13	+0.10	0.0	2.3	17.4	80.3	4	
E-111	12-17-19	10:21	+0.03	0.0	2.5	16.9	80.6	4	
224									
A-13	12-17-19	06:43	0.00	0.0	0.7	19.6	79.7	2	
B-67.5	12-17-19	06:45	-0.14	0.0	0.5	20.2	79.3	2	
C-122	12-17-19	06:51	-0.21	0.0	0.1	20.6	79.3	3	
D-177.5	12-17-19	07:00	-11.25	0.0	0.1	20.6	79.3	4	
E-232	12-17-19	07:05	-9.73	0.0	0.1	20.8	79.1	4	

SCS SINGNATURE: _____ LEA SIGNATURE: _____

SUNSHINE CANYON - CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
225									
A-13	12-17-19	07:15	-0.07	0.0	9.4	9.8	80.8	2	
B-72	12-17-19	07:17	-4.13	0.0	3.7	16.3	80.0	2	
C-1131	12-17-19	07:21	-10.7	0.3	13.4	6.1	80.2	3	
D-190	12-17-19	07:27	-11.33	0.0	0.1	20.5	79.4	4	
E-244	12-17-19	07:32	-11.53	0.0	0.7	19.8	79.5	4	
226									
A-13	12-17-19	07:41	-0.08	0.1	0.1	20.2	79.6	2	
B-64	12-17-19	07:45	-9.77	0.1	0.2	20.0	79.7	2	
C-114	12-17-19	07:48	-11.18	0.1	0.2	20.0	79.7	3	
D-164	12-17-19	07:55	-10.33	0.0	0.1	20.4	79.5	4	
E-208	12-17-19	08:01	-12.02	0.0	0.1	20.4	79.5	4	
227									
A-13	12-17-19	08:15	-0.10	0.0	0.1	20.4	79.5	2	
B-48.7	12-17-19	08:17	-1.50	0.0	0.1	20.3	79.6	2	
C-84.4	12-17-19	08:21	-1.42	0.0	0.2	20.1	79.7	3	
D-114	12-17-19	08:28	-2.02	0.0	0.2	20.0	79.8	4	
E-115.7	12-17-19	08:33	-1.60	0.0	0.3	19.8	79.9	4	
228									
A-13	12-17-19	08:48	+0.02	0.0	0.9	19.0	80.1	2	
B-63	12-17-19	08:50	-1.67	0.0	3.0	13.7	83.3	2	
C-113	12-17-19	08:55	-1.06	0.0	0.1	20.2	79.7	3	
D-163	12-17-19	08:57	-1.54	0.0	0.7	19.6	79.7	4	
E-213	12-17-19	09:03	-1.82	0.0	2.1	16.1	81.8	4	
229									
A-13	12-17-19	09:20	-1.16	0.0	1.3	17.4	81.3	2	
B-48.7	12-17-19	09:23	-9.18	0.0	0.3	19.6	80.1	2	
C-84.4	12-17-19	09:27	-8.25	0.0	0.6	19.0	80.4	3	
D-114	12-17-19	09:33	-15.59	0.0	0.8	18.5	80.7	4	
E-155.7	12-17-19	09:38	-22.56	0.0	0.1	20.3	79.6	4	
230									
A-16								2	REMOVED DUE TO CONSTRUCTION
B-33								2	REMOVED DUE TO CONSTRUCTION
C-50								3	REMOVED DUE TO CONSTRUCTION
231									
A-13								2	REMOVED DUE TO CONSTRUCTION
B-26								2	REMOVED DUE TO CONSTRUCTION
C-39								3	REMOVED DUE TO CONSTRUCTION
D-51								4	REMOVED DUE TO CONSTRUCTION
E-66								4	REMOVED DUE TO CONSTRUCTION

SCS SIGNATURE: _____ LEA SIGNATURE: _____

SUNSHINE CANYON CITY PERIMETER PROBE MONITORING DATA

PROBE NUMBER	DATE	TIME	PRESSURE (+/-)	% VOL CH4	% VOL CO2	% O2	% BAL	PURGE TIME (MIN)	COMMENTS
241									
A-13	12-18-19	08:09	-4.28	0.0	0.1	20.6	79.3	2	
B-28	12-18-19	08:12	-5.06	0.0	0.1	20.7	79.2	2	
C-47	12-18-19	08:16	+0.02	0.0	0.1	20.8	79.1	3	
D-64	12-18-19	08:21	-0.01	0.0	0.1	20.7	79.2	4	
E-85	12-18-19	08:26	-9.37	0.0	0.1	20.8	79.1	4	

SCS SIGNATURE: _____

LEA SIGNATURE: _____

APPENDIX D

NPDES CERTIFICATION OF COMPLETION

SUNSHINE CANYON
Landfill

14747 San Fernando Road
Sylmar, CA 91342

February 15, 2020

Operating Records
Sunshine Canyon Landfill
14747 San Fernando Road
Sylmar, CA 91342

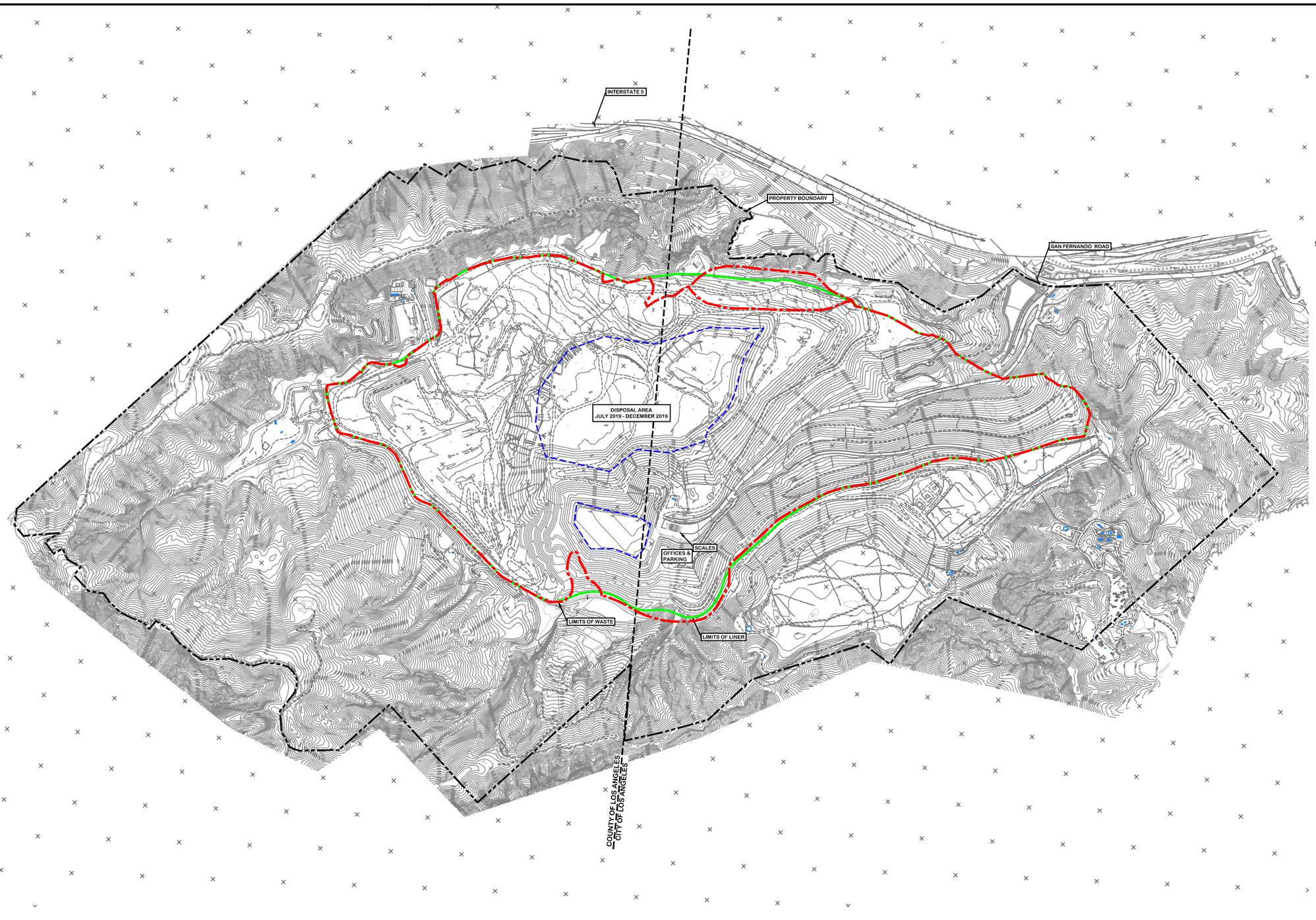
Please be advised that all standard observations for the landfill were done in accordance with the NPDES monitoring and reporting requirements. Records of observations are kept at the Sunshine Canyon Landfill's Operating Records and are submitted to the RWQCB in the storm water table due annually by July 1st.

Sincerely,

Chris Coyle
General Manager
Sunshine Canyon Landfill

APPENDIX E

WASTE PLACEMENT AREAS



NORTH

GRAPHIC SCALE

500' 0' 250' 500' 1000' 2000'

LEGEND

- 1500 EXISTING 10 FT CONTOUR
- PROPERTY BOUNDARY
- CITY/COUNTY LIMIT
- APPROVED LIMITS OF REFUSE PER 2002 JTD
- PERMIT LINER LIMIT

This drawing has not been published but rather has been prepared by Geo-Logic Associates, Inc. for use by the client named in the title block, solely in respect of the construction operation, and maintenance of the facility named in the title block. Geo-Logic Associates, Inc. shall not be liable for the use of this drawing on any other facility or for any other purpose.

FOR_REVIEW_ONLY

EXISTING TOPOGRAPHY PREPARED BY COOPER AERIAL SURVEYS DATED FEBRUARY 8, 2018 WITH SUPPLEMENTAL SURVEY PROVIDED BY VERTEX SURVEY INC. ON AUGUST 5, 2019

REV. NO.	DATE	DESCRIPTION	APPROVED BY
REV1	DATE1	DESCRIPTION	DRAWN1
REV2	DATE2	DESCRIPTION2	DRAWN2
REV3	DATE3	DESCRIPTION3	DRAWN3
REV4	DATE4	DESCRIPTION4	DRAWN4
REV5	DATE5	DESCRIPTION5	DRAWN5
REV6	DATE6	DESCRIPTION6	DRAWN6

DATE OF ISSUE: FEBRUARY 2020
DESIGNED BY: C BARRETT
DRAWN BY: C BARRETT
CHECKED BY: R JOHNSON
APPROVED BY: R JOHNSON

DIGALERT 811

Geo-Logic ASSOCIATES
2777 E. GUASTI RD.
ONTARIO, CA 91761
909) 626-2282
www.geo-logic.com

REPUBLIC SERVICES

SUNSHINE CANYON LANDFILL
SYLMAR, CALIFORNIA
SEMIANNUAL GROUNDWATER MONITORING REPORT

DISPOSAL AREAS - JULY 2019-DECEMBER 2019

DWG NO. 1

PROJECT NO. SO19.1074

C:\Users\cbarrett\Documents\Allied-Republic\Sunshine Canyon LF\Exhibits\Semi-annual Report\DWG SETS\SO19.1074-SCL-2019H2-SMI-ANNUAL REPORT.dwg Feb 13, 2020 - 5:2pm By: cbarrett

APPENDIX F

WASTE ACCEPTANCE REPORTS

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231316610	9/23/2022	

I. Decision Request: ☐ Initial ☑ Recertification ☐ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: Providence Saint Joseph Medical Center

Generator Site Address: 501 South Buena Vista Street

City: Burbank **County:** **State:** CA **Zip:**

Name of Waste: Autoclave Medical Waste and Solid Waste

Estimated Annual Volume: 1130 Tons

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

The generator must comply with all Federal, State and Local regulations regarding Disinfected (Steam Sterilized, Microwaved, Treated) Medical Waste.

This material must be buried immediately upon receipt at the landfill.

Special Waste Analyst Signature: _____ **Name (Printed):** Suzanne Glass

Date: 9/26/2019

III. Facility Decision: ☐ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: _____ **Name (Printed):** CHRIS COYLE, GM

Date: 9/26/2019

Special Waste Profile - Recertification

REPUBLIC SERVICES

Disposal Facility: 5123 Sunshine Canyon Landfill CA

Waste Profile #: 5123 13 16610

Sales Rep #:

I. Generator Information

Generator Name: Providence Saint Joseph Medical Center

Generator Site Address: 501 South Buena Vista Street

City: Burbank County: Los Angeles State: California Zip: 91505

State ID/Reg No: State Approval/Waste Code: NAICS:

Generator Mailing Address ☐ (if different)

City: County: State: --Select State-- Zip:

Generator Contact Name: Donnie Smith Email: Donnie.Smith@Providence.org

Phone Number: 818-847-3854 Ext: Fax Number:

II. Waste Stream Information

Name of Waste: Autoclave Medical Waste and Solid Waste

Check Section 1 or 2 below

1. ☐ ***There has been a change*** in the characteristics of the waste stream due to the following:
   a. Change of a raw material used in the waste generating process.
   b. Change in the waste generating process itself.
   c. Change in a physical characteristic of the waste.
   d. New information has been documented concerning the human health effects of exposure to the waste.

   If any of these changes have occurred, a new profile sheet must be completed, and new analysis and/or SDS must be provided as appropriate.

2. ☑ ***There have been no changes*** that would alter the physical characteristics of the special waste stream. Updated analytical may be required.

III. Representative Sample Certification

☑ **No Sample Taken**

☐ **Sample Taken** **Type of Sample** --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ **Yes** ☐ **No**

Sample Date:

Sample ID Numbers:

Special Waste Profile - Recertification

REPUBLIC SERVICES

IV. Certification

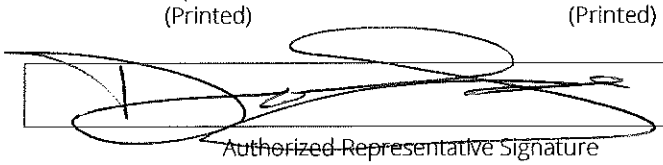
I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original."

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

Donnie Smith	Manager	Providence Saint Joseph Medical Center
Authorized Representative Name (Printed)	Title (Printed)	Company Name
		9/25/2019
Authorized Representative Signature		Date

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231317938	9/29/2022	

I. Decision Request: ☐ Initial ☑ Recertification ☐ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: Irwin Naturals

Generator Site Address: 5310 Beethoven Street

City: Los Angeles **County:** **State:** CA **Zip:**

Name of Waste: Outdated Nutritional Raw Materials And Finished Good Products

Estimated Annual Volume: 160 Cubic Yards

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

Special Waste Analyst Signature: _____ **Name (Printed):** KEITH DIAMANTI

Date: 9/26/2019

III. Facility Decision: ☐ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: **Name (Printed):** CHRIS COYLE, GM

Date: 9/26/2019

Special Waste Profile - Recertification

REPUBLIC SERVICES

Disposal Facility: 5123 Sunshine Canyon Landfill CA

Waste Profile #: 5123 13 17938

Sales Rep #:

I. Generator Information

Generator Name: Irwin Naturals

Generator Site Address: 5310 Beethoven Street

City: Los Angeles County: Los Angeles State: California Zip: 90066

State ID/Reg No: NA State Approval/Waste Code: NA NAICS: NA

Generator Mailing Address ☐ (if different) 5310 Beethoven Street

City: Los Angeles County: Los Angeles State: California Zip: 90066

Generator Contact Name: Shawn Sparks Email: shawn@irwinnaturals.com

Phone Number: 310-306-3636 Ext: Fax Number: 310-301-7408

II. Waste Stream Information

Name of Waste: Expired dietary supplement finished goods (soft gels and tablets)

Check Section 1 or 2 below

1. ☐ ***There has been a change*** in the characteristics of the waste stream due to the following:
   a. Change of a raw material used in the waste generating process.
   b. Change in the waste generating process itself.
   c. Change in a physical characteristic of the waste.
   d. New information has been documented concerning the human health effects of exposure to the waste.

   If any of these changes have occurred, a new profile sheet must be completed, and new analysis and/or SDS must be provided as appropriate.

2. ☑ ***There have been no changes*** that would alter the physical characteristics of the special waste stream. Updated analytical may be required.

III. Representative Sample Certification

☑ **No Sample Taken**

☐ **Sample Taken** **Type of Sample** --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ **Yes** ☐ **No**

Sample Date: Sample ID Numbers:

Special Waste Profile - Recertification

REPUBLIC SERVICES

IV. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original."

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

Shawn Sparks	VP of Quality	Irwin Naturals
Authorized Representative Name (Printed)	Title (Printed)	Company Name
		9/25/19
Authorized Representative Signature		Date

Republic Services

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231319903	11/17/2022	

I. Decision Request: ☐ Initial ☑ Recertification ☐ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: Saint John's Health Center

Generator Site Address: 2121 Santa Monica Blvd

City	County	State	Zip
Santa Monica		CA	

Name of Waste: Medical Waste / Autoclave

Estimated Annual Volume: 570 Cubic Yards

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

The generator must comply with all Federal, State and Local regulations regarding Disinfected (Steam Sterilized, Microwaved, Treated) Medical Waste.

This material must be buried immediately upon receipt at the landfill.

Special Waste Analyst Signature: _____ **Name (Printed):** Suzanne Glass

Date: 11/19/2019

III. Facility Decision: ☒ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee **Name (Printed):** CHRIS COYLE, GM

Date: 11/19/2019

Special Waste Profile - Recertification

REPUBLIC SERVICES

Disposal Facility: 5123 Sunshine Canyon Landfill CA

Waste Profile #: 5123.13.19903

Sales Rep #:

I. Generator Information

Generator Name: Saint John's

Generator Site Address: 1328 22nd Street

City: Santa Monica County: Los Angeles State: California Zip: 90404

State ID/Reg No: State Approval/Waste Code: 5123.19903 NAICS:

Generator Mailing Address ☐ (if different)

City: County: State: --Select State-- Zip:

Generator Contact Name: Nancy Castaneda Email: Nancy.Castaneda@Providence.org

Phone Number: 310-829-8431 Ext: Fax Number: 310-829-6512

II. Waste Stream Information

Name of Waste: Medical Waste/Autoclave/Hospital Trash

Check Section 1 or 2 below

1. ☐ ***There has been a change*** in the characteristics of the waste stream due to the following:
   a. Change of a raw material used in the waste generating process.
   b. Change in the waste generating process itself.
   c. Change in a physical characteristic of the waste.
   d. New information has been documented concerning the human health effects of exposure to the waste.

   If any of these changes have occurred, a new profile sheet must be completed, and new analysis and/or SDS must be provided as appropriate.

2. ☑ ***There have been no changes*** that would alter the physical characteristics of the special waste stream. Updated analytical may be required.

III. Representative Sample Certification

☑ **No Sample Taken**

☐ **Sample Taken** **Type of Sample** --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ **Yes** ☐ **No**

Sample Date:

Sample ID Numbers:

Special Waste Profile - Recertification

REPUBLIC SERVICES

IV. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original."

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

Nancy Castaneda	Administrative Assistant	Saint John's
Authorized Representative Name (Printed)	Title (Printed)	Company Name
Nancy Castaneda	11-18-19	
Authorized Representative Signature		Date

Republic Services

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

Waste Profile #	Expiration Date
5123153583	3/5/2021

I. Decision Request: ☐ Initial ☑ Recertification ☐ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: Medical Waste Services LLC

Generator Site Address: 7321 Quimby Street

City: Paramount **County:** **State:** CA **Zip:**

Name of Waste: Treated Medical Waste Treated APHIS Foreign Garbage FDA Confiscated Materials

Estimated Annual Volume: 2100 Tons

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

The generator must comply with all Federal, State and Local regulations regarding Disinfected (Steam Sterilized, Microwaved, Treated) Medical/APHIS Waste.

With each shipment the generator must provide a Certification demonstrating the waste has been autoclaved (Certificate of Treatment).

This material must be buried immediately upon receipt at the landfill.

Special Waste Analyst Signature: Holly M Wilson **Name (Printed):** Holly Wilson

Date: 12/10/2019

III. Facility Decision: ☑ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: **Name (Printed):** Chris Coyle

Date: 12/10/2019

Special Waste Profile - Recertification

REPUBLIC SERVICES

Disposal Facility: 5123 Sunshine Canyon Landfill CA

Waste Profile #: 5123153583

Sales Rep #:

I. Generator Information

Generator Name: Medical Waste Services, LLC

Generator Site Address: 7321 Quimby Street

City: Paramount County: Los Angeles State: California Zip: 90723

State ID/Reg No: TS/OST-94 State Approval/Waste Code: NAICS: 56221

Generator Mailing Address ☐ (if different) Same

City: County: State: --Select State-- Zip:

Generator Contact Name: Terry Shain Email: tshain@mws-1.com

Phone Number: 888-610-1311 Ext: Fax Number: 562-529-3717

II. Waste Stream Information

Name of Waste: Treated medical waste, treated APHIS waste/foreign garbage, FDA confiscated items

Check Section 1 or 2 below

1. ☐ ***There has been a change*** in the characteristics of the waste stream due to the following:
   a. Change of a raw material used in the waste generating process.
   b. Change in the waste generating process itself.
   c. Change in a physical characteristic of the waste.
   d. New information has been documented concerning the human health effects of exposure to the waste.

   If any of these changes have occurred, a new profile sheet must be completed, and new analysis and/or SDS must be provided as appropriate.

2. ☑ ***There have been no changes*** that would alter the physical characteristics of the special waste stream. Updated analytical may be required.

III. Representative Sample Certification

☑ **No Sample Taken**

☐ **Sample Taken** **Type of Sample** --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ **Yes** ☐ **No**

Sample Date: Sample ID Numbers:

Special Waste Profile - Recertification

REPUBLIC SERVICES

IV. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original."

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

Terry Shain	Vice President, Operations	Medical Waste Services, LLC
Authorized Representative Name (Printed)	Title (Printed)	Company Name
		12-10-2019
Authorized Representative Signature		Date

REPUBLIC SERVICES, INC.

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231910278	6/27/2020	

I. Decision Request: ☑ Initial ☐ Recertification ☐ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: NORWALK LA MIRADA UNIFIED SCHOOL DISTRICT

Generator Site Address: 11356 LEFFINGWELL RD

City: NORWALK	County:	State: CA	Zip:

Name of Waste: SOIL FROM EXCAVATION

Estimated Annual Volume: 8 Tons

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

Special Waste Analyst Signature: Joseph M. Sorokach **Name (Printed):** Joseph Sorokach

Date: 7/10/2019

III. Facility Decision: ☒ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: **Name (Printed):** Chris Coyle

Date: 7/10/2019

Special Waste Profile

REPUBLIC SERVICES

Disposal Facility: 5123 Sunshine Canyon Landfill CA

Waste Profile #: 5123 19 10278

Sales Rep #:

I. Generator Information

Generator Name: NORWALK LA MIRADA UNIFIED SCHOOL DISTRICT

Generator Site Address: 11356 LEFFINGWELL ROAD

City: NORWALK County: LA State: California Zip: 90650

State ID/Reg No: State Approval/Waste Code: NAICS #:

Generator Mailing Address ☑ (if different) 12820 PIONEER BLVD

City: NORWALK County: LA State: California Zip: 90650

Generator Contact Name: MS. BOMEE YOON AS AN AGENT OF NLMUSD Email: BYOON@NLMUSD.K12.CA.US

Phone Number: 562-868-9014 Ext: Fax Number:

II. Billing Information

Bill To: ENVIRONMENTAL MANAGEMENT TECHNOLOGIES Contact Name: MARIA SALAZAR

Billing Address: 1456 S. GAGE STREET Email: MARIA@EMT4ENV.COM

City: SAN BERNARDINO State: California Zip: 92408 Phone: 800-579-6834

III. Waste Stream Information

Name of Waste: SOIL FROM EXCAVATION

Process Generating Waste: EXCAVATION OF SOIL FROM UNDERNEATH A HIGH SCHOOL TENNIS COURT

Type of Waste: Pollution Control Waste Physical State: Solid Method of Shipment: Bulk

Estimated Volume: 8 Volume Type: Tons

Frequency: One-time Event (single project) Disposal Consideration: Landfill

IV. Representative Sample Certification

☐ **No Sample Taken**

☑ **Sample Taken** **Type of Sample** Composite Sample

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☑ **Yes** ☐ **No**

Sample Date: 6/25/19

Sample ID Numbers or SDS: 416618-001

Remember to attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

Special Waste Profile

REPUBLIC SERVICES

V. Physical Characteristics of Waste

Characteristic Components (must equal 100%:)	% By Weight (out of 100% - ranges acceptable):
1. SOIL	100%
2.	
3.	
4.	
5.	

Color:	Odor (describe): B.Y.	Does Waste Contain Free Liquids?	% Solids:	pH:	Flash Point:
BROWN	EARTHY 7-9-18	☐ Yes ☑ No	100%	N/A	N/A °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

RCRA Regulatory Questions

1. Does this waste or generating process contain regulated concentrations of the following Pesticides and/ or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33? ☐ Yes ☑ No
2. Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261.23(a)(5)]? ☐ Yes ☑ No
3. Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761? ☐ Yes ☑ No
4. Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents? ☐ Yes ☑ No
5. Has this waste been delisted under 40 CFR 260.20 and 260.22? If yes, attach the final decision to delist the waste as published in the Federal Register. ☐ Yes ☑ No
6. Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations? If Yes, identify the applicable waste code and specify if the waste is hazardous as defined by Federal, State or both? ☐ Yes ☑ No
7. Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31? ☐ Yes ☑ No
8. Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations? ☐ Yes ☑ No
9. Is this a regulated Radioactive Waste as defined by Federal and/or State regulations? ☐ Yes ☑ No
10. Is this a solid waste that is not a hazardous waste in accordance with 40 CFR 261.4(b)? If yes, please provide the corresponding regulatory citation. ☐ Yes ☑ No

Republic Services Waste Handling Questions

1. Does this waste generate heat or react when contacted with water/moisture? ☐ Yes ☑ No
2. Does the waste contain sulfur or sulfur by-products? ☐ Yes ☑ No
3. Is this waste generated at a State or Federal Superfund cleanup site subject to regulation under CERCLA? ☐ Yes ☑ No

4a. Is this waste from a TSD facility, TSD-like facility or consolidator (i.e. multiple wastes/multiple generators)? ☐ Yes ☑ No

4b. If yes to the above question, please provide clarification.

Special Waste Profile

REPUBLIC SERVICES

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

BOMEE YOON, AS AN AGENT OF NLMUSD	FACILITIES COORDINATOR	NORWALK-LA MIRADA UNIFIED SCHOOL DISTRICT
Authorized Representative Name (Printed)	Title (Printed)	Company Name
[signature]	7/8/19	
Representative Signature	Date	

Enthalpy Analytical, LLC
931 W. Barkley Ave - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client:	Ninyo & Moore
Address:	475 Goddard Suite 200 Irvine, CA 92618
Attn:	Patrick Cullip

Lab Request:	416618
Report Date:	06/27/2019
Date Received:	06/25/2019
Client ID:	15461

Comments: Norwalk HS PEA
#209800002
11356 Leffingwell Rd., Norwalk, CA

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
416618-001	WC-062519

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 45 days from date received.

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Matrix:	Solid	**Client:**	Ninyo & Moore	**Collector:**	Client
Sampled:	06/25/2019 13:10	**Site:**			
Sample #:	**416618-001**	**Client Sample #:**	WC-062519	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1203590		
Antimony	**1.56 J**	1	0.37	3	mg/Kg	06/26/19	06/26/19	KLN	
Arsenic	**7.94**	1	0.36	1	mg/Kg	06/26/19	06/26/19	KLN	
Barium	**128**	1	0.23	1	mg/Kg	06/26/19	06/26/19	KLN	
Beryllium	ND	1	0.17	0.5	mg/Kg	06/26/19	06/26/19	KLN	
Cadmium	**0.83**	1	0.21	0.5	mg/Kg	06/26/19	06/26/19	KLN	
Chromium	**26.2**	1	0.13	1	mg/Kg	06/26/19	06/26/19	KLN	
Cobalt	**12.2**	1	0.19	0.5	mg/Kg	06/26/19	06/26/19	KLN	
Copper	**24.1**	1	0.31	1	mg/Kg	06/26/19	06/26/19	KLN	
Lead	**21.9**	1	0.32	1	mg/Kg	06/26/19	06/26/19	KLN	
Molybdenum	ND	1	0.13	1	mg/Kg	06/26/19	06/26/19	KLN	
Nickel	**18.1**	1	0.2	1.5	mg/Kg	06/26/19	06/26/19	KLN	
Selenium	ND	1	0.72	3	mg/Kg	06/26/19	06/26/19	KLN	
Silver	ND	1	0.13	0.5	mg/Kg	06/26/19	06/26/19	KLN	
Thallium	ND	1	0.42	3	mg/Kg	06/26/19	06/26/19	KLN	
Vanadium	**41.7**	1	0.37	0.5	mg/Kg	06/26/19	06/26/19	KLN	
Zinc	**111**	1	0.28	5	mg/Kg	06/26/19	06/26/19	KLN	
Method: EPA 7471A *NELAC*	Prep Method: EPA 7471A						QCBatchID: QC1203597		
Mercury	**0.12 J**	1	0.039	0.14	mg/Kg	06/26/19	06/26/19	JP	
Method: EPA 8015B *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1203545		
TPH Diesel	**2.30 J**	1	0.022	3	mg/Kg	06/25/19	06/26/19	TW	B
TPH Motor Oil	ND	1	2.1	5	mg/Kg	06/25/19	06/26/19	TW	
Surrogate	*% Recovery*		*Limits*	*Notes*					
Triacontane (SUR)	*141*		*50-150*						
Method: EPA 8015B *NELAC*	Prep Method: EPA 5030						QCBatchID: QC1203417		
TPH Gasoline	ND	1	0.239	3	mg/Kg		06/25/19	EW	
Surrogate	*% Recovery*		*Limits*	*Notes*					
4-Bromofluorobenzene (SUR)	*85*		*60-140*						
Method: EPA 8260B *NELAC*	Prep Method: EPA 5030						QCBatchID: QC1203531		
1,1,1,2-Tetrachloroethane	ND	1	0.24	5	ug/Kg		06/25/19		
1,1,1-Trichloroethane	ND	1	0.15	5	ug/Kg		06/25/19		
1,1,2,2-Tetrachloroethane	ND	1	0.29	5	ug/Kg		06/25/19		
1,1,2-Trichloroethane	ND	1	0.22	5	ug/Kg		06/25/19		
1,1,2-Trichlorotrifluoroethane	ND	1	0.74	5	ug/Kg		06/25/19		
1,1-Dichloroethane	ND	1	0.23	5	ug/Kg		06/25/19		
1,1-Dichloroethene	ND	1	0.18	5	ug/Kg		06/25/19		
1,1-Dichloropropene	ND	1	0.21	5	ug/Kg		06/25/19		
1,2,3-Trichlorobenzene	ND	1	0.18	5	ug/Kg		06/25/19		
1,2,3-Trichloropropane	ND	1	0.2	5	ug/Kg		06/25/19		
1,2,4-Trichlorobenzene	ND	1	0.33	5	ug/Kg		06/25/19		
1,2,4-Trimethylbenzene	ND	1	0.28	5	ug/Kg		06/25/19		
1,2-Dibromo-3-chloropropane	ND	1	0.2	5	ug/Kg		06/25/19		
1,2-Dibromoethane	ND	1	0.12	5	ug/Kg		06/25/19		
1,2-Dichlorobenzene	ND	1	0.18	5	ug/Kg		06/25/19		
1,2-Dichloroethane	ND	1	0.14	5	ug/Kg		06/25/19		
1,2-Dichloropropane	ND	1	0.34	5	ug/Kg		06/25/19		
1,3,5-Trimethylbenzene	ND	1	0.23	5	ug/Kg		06/25/19		
1,3-Dichlorobenzene	ND	1	0.21	5	ug/Kg		06/25/19		
1,3-Dichloropropane	ND	1	0.19	5	ug/Kg		06/25/19		
1,4-Dichlorobenzene	ND	1	0.24	5	ug/Kg		06/25/19		
2,2-Dichloropropane	ND	1	0.19	5	ug/Kg		06/25/19		
2-Butanone (MEK)	**35 J**	1	0.72	100	ug/Kg		06/25/19		
2-Chlorotoluene	ND	1	0.25	5	ug/Kg		06/25/19		

Matrix:	Solid	**Client:**	Ninyo & Moore	**Collector:**	Client
Sampled:	06/25/2019 13:10	**Site:**			
Sample #:	**416618-001**	**Client Sample #:**	WC-062519	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
4-Chlorotoluene	ND	1	0.22	5	ug/Kg		06/25/19		
4-Isopropyltoluene	ND	1	0.27	5	ug/Kg		06/25/19		
4-Methyl-2-pentanone (MIBK)	ND	1	0.17	5	ug/Kg		06/25/19		
Acetone	ND	1	50	100	ug/Kg		06/25/19		
Allyl Chloride	ND	1	0.14	5	ug/Kg		06/25/19		
Benzene	ND	1	0.18	5	ug/Kg		06/25/19		
Bromobenzene	ND	1	0.3	5	ug/Kg		06/25/19		
Bromochloromethane	ND	1	0.18	5	ug/Kg		06/25/19		
Bromodichloromethane	ND	1	0.2	5	ug/Kg		06/25/19		
Bromoform	ND	1	0.19	5	ug/Kg		06/25/19		
Bromomethane	ND	1	0.22	5	ug/Kg		06/25/19		
Carbon Tetrachloride	ND	1	0.18	5	ug/Kg		06/25/19		
Chlorobenzene	ND	1	0.18	5	ug/Kg		06/25/19		
Chlorodibromomethane	ND	1	0.19	5	ug/Kg		06/25/19		
Chloroethane	ND	1	0.2	5	ug/Kg		06/25/19		
Chloroform	ND	1	0.17	5	ug/Kg		06/25/19		
Chloromethane	ND	1	0.21	5	ug/Kg		06/25/19		
cis-1,2-Dichloroethene	ND	1	0.2	5	ug/Kg		06/25/19		
cis-1,3-dichloropropene	ND	1	0.2	5	ug/Kg		06/25/19		
cis-1,4-dichloro-2-butene	ND	1	0.2	5	ug/Kg		06/25/19		
Dibromomethane	ND	1	0.23	5	ug/Kg		06/25/19		
Dichlorodifluoromethane	ND	1	0.23	5	ug/Kg		06/25/19		
Di-isopropyl ether (DIPE)	ND	1	0.21	5	ug/Kg		06/25/19		
Ethylbenzene	ND	1	0.25	5	ug/Kg		06/25/19		
Ethyl-tertbutylether (ETBE)	ND	1	0.42	5	ug/Kg		06/25/19		
Hexachlorobutadiene	ND	1	0.38	5	ug/Kg		06/25/19		
Isopropylbenzene	ND	1	0.17	5	ug/Kg		06/25/19		
m and p-Xylene	ND	1	0.21	5	ug/Kg		06/25/19		
Methylene chloride	**4.6 J**	1	0.22	5	ug/Kg		06/25/19		
Methyl-t-butyl Ether (MTBE)	ND	1	0.25	5	ug/Kg		06/25/19		
Naphthalene	ND	1	0.28	5	ug/Kg		06/25/19		
N-butylbenzene	ND	1	0.16	5	ug/Kg		06/25/19		
N-propylbenzene	ND	1	0.19	5	ug/Kg		06/25/19		
o-Xylene	ND	1	0.13	5	ug/Kg		06/25/19		
Sec-butylbenzene	ND	1	0.34	5	ug/Kg		06/25/19		
Styrene	ND	1	0.23	5	ug/Kg		06/25/19		
t-Butyl alcohol (TBA)	ND	1	8.8	10	ug/Kg		06/25/19		
Tert-amylmethylether (TAME)	ND	1	0.19	5	ug/Kg		06/25/19		
Tert-butylbenzene	ND	1	0.18	5	ug/Kg		06/25/19		
Tetrachloroethene	ND	1	0.2	5	ug/Kg		06/25/19		
Toluene	ND	1	0.23	5	ug/Kg		06/25/19		
trans-1,2-dichloroethene	ND	1	0.23	5	ug/Kg		06/25/19		
trans-1,3-dichloropropene	ND	1	0.14	5	ug/Kg		06/25/19		
trans-1,4-dichloro-2-butene	ND	1	0.38	5	ug/Kg		06/25/19		
Trichloroethene	ND	1	0.39	5	ug/Kg		06/25/19		
Trichlorofluoromethane	ND	1	0.25	5	ug/Kg		06/25/19		
Vinyl Chloride	ND	1	0.18	5	ug/Kg		06/25/19		
Xylenes (Total)	ND	1	0.45	5	ug/Kg		06/25/19		

Surrogate	*% Recovery*	*Limits*	*Notes*
1,2-Dichloroethane-d4 (SUR)	*95*	*70-145*	
4-Bromofluorobenzene (SUR)	*117*	*70-145*	
Dibromofluoromethane (SUR)	*101*	*70-145*	
Toluene-d8 (SUR)	*103*	*70-145*	

QCBatchID: QC1203417 **Analyst:** sandyw **Method:** EPA 8015B

Matrix: Solid **Analyzed:** 06/25/2019 **Instrument:** VOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1203417MB1					
TPH Gasoline	ND	mg/Kg	0.239	3	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1203417LCS1											
TPH Gasoline	5		5.9		mg/Kg	118			70-130		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1203417MS1, QC1203417MSD1												**Source: 416618-001**
TPH Gasoline	ND	5	5	5.4	5.6	mg/Kg	108	112	3.6	70-130	20	

QCBatchID: QC1203531	**Analyst:** Rlee		**Method:** EPA 8260B		
Matrix: Solid	**Analyzed:** 06/25/2019		**Instrument:** VOA-MS (group)		

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1203531MB1					
1,1,1,2-Tetrachloroethane	ND	ug/Kg	0.24	5	
1,1,1-Trichloroethane	ND	ug/Kg	0.15	5	
1,1,2,2-Tetrachloroethane	ND	ug/Kg	0.29	5	
1,1,2-Trichloroethane	ND	ug/Kg	0.22	5	
1,1,2-Trichlorotrifluoroethane	ND	ug/Kg	0.74	5	
1,1-Dichloroethane	ND	ug/Kg	0.23	5	
1,1-Dichloroethene	ND	ug/Kg	0.18	5	
1,1-Dichloropropene	ND	ug/Kg	0.21	5	
1,2,3-Trichlorobenzene	ND	ug/Kg	0.18	5	
1,2,3-Trichloropropane	ND	ug/Kg	0.2	5	
1,2,4-Trichlorobenzene	ND	ug/Kg	0.33	5	
1,2,4-Trimethylbenzene	ND	ug/Kg	0.28	5	
1,2-Dibromo-3-chloropropane	ND	ug/Kg	0.2	5	
1,2-Dibromoethane	ND	ug/Kg	0.12	5	
1,2-Dichlorobenzene	ND	ug/Kg	0.18	5	
1,2-Dichloroethane	ND	ug/Kg	0.14	5	
1,2-Dichloropropane	ND	ug/Kg	0.34	5	
1,3,5-Trimethylbenzene	ND	ug/Kg	0.23	5	
1,3-Dichlorobenzene	ND	ug/Kg	0.21	5	
1,3-Dichloropropane	ND	ug/Kg	0.19	5	
1,4-Dichlorobenzene	ND	ug/Kg	0.24	5	
2,2-Dichloropropane	ND	ug/Kg	0.19	5	
2-Butanone (MEK)	ND	ug/Kg	0.72	100	
2-Chlorotoluene	ND	ug/Kg	0.25	5	
4-Chlorotoluene	ND	ug/Kg	0.22	5	
4-Isopropyltoluene	ND	ug/Kg	0.27	5	
4-Methyl-2-pentanone (MIBK)	ND	ug/Kg	0.17	5	
Acetone	ND	ug/Kg	50	100	
Allyl Chloride	ND	ug/Kg	0.14	5	
Benzene	ND	ug/Kg	0.18	5	
Bromobenzene	ND	ug/Kg	0.3	5	
Bromochloromethane	ND	ug/Kg	0.18	5	
Bromodichloromethane	ND	ug/Kg	0.2	5	
Bromoform	ND	ug/Kg	0.19	5	
Bromomethane	ND	ug/Kg	0.22	5	
Carbon Tetrachloride	ND	ug/Kg	0.18	5	
Chlorobenzene	ND	ug/Kg	0.18	5	
Chlorodibromomethane	ND	ug/Kg	0.19	5	
Chloroethane	ND	ug/Kg	0.2	5	
Chloroform	ND	ug/Kg	0.17	5	
Chloromethane	ND	ug/Kg	0.21	5	
cis-1,2-Dichloroethene	ND	ug/Kg	0.2	5	
cis-1,3-dichloropropene	ND	ug/Kg	0.2	5	
cis-1,4-dichloro-2-butene	ND	ug/Kg	0.2	5	
Dibromomethane	ND	ug/Kg	0.23	5	
Dichlorodifluoromethane	ND	ug/Kg	0.23	5	
Di-isopropyl ether (DIPE)	ND	ug/Kg	0.21	5	
Ethylbenzene	ND	ug/Kg	0.25	5	
Ethyl-tertbutylether (ETBE)	ND	ug/Kg	0.42	5	
Hexachlorobutadiene	ND	ug/Kg	0.38	5	
Isopropylbenzene	ND	ug/Kg	0.17	5	
m and p-Xylene	ND	ug/Kg	0.21	5	

QCBatchID: QC1203531 **Analyst:** Rlee **Method:** EPA 8260B

Matrix: Solid **Analyzed:** 06/25/2019 **Instrument:** VOA-MS (group)

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1203531MB1					
Methylene chloride	**2.6 J**	ug/Kg	0.22	5	
Methyl-t-butyl Ether (MTBE)	ND	ug/Kg	0.25	5	
Naphthalene	ND	ug/Kg	0.28	5	
N-butylbenzene	ND	ug/Kg	0.16	5	
N-propylbenzene	ND	ug/Kg	0.19	5	
o-Xylene	ND	ug/Kg	0.13	5	
Sec-butylbenzene	ND	ug/Kg	0.34	5	
Styrene	ND	ug/Kg	0.23	5	
t-Butyl alcohol (TBA)	ND	ug/Kg	8.8	10	
Tert-amylmethylether (TAME)	ND	ug/Kg	0.19	5	
Tert-butylbenzene	ND	ug/Kg	0.18	5	
Tetrachloroethene	ND	ug/Kg	0.2	5	
Toluene	ND	ug/Kg	0.23	5	
trans-1,2-dichloroethene	ND	ug/Kg	0.23	5	
trans-1,3-dichloropropene	ND	ug/Kg	0.14	5	
trans-1,4-dichloro-2-butene	ND	ug/Kg	0.38	5	
Trichloroethene	ND	ug/Kg	0.39	5	
Trichlorofluoromethane	ND	ug/Kg	0.25	5	
Vinyl Chloride	ND	ug/Kg	0.18	5	
Xylenes (Total)	ND	ug/Kg	0.45	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1203531LCS1, QC1203531LCSD1											
1,1-Dichloroethene	50	50	52	51	ug/Kg	104	102	2	59-172	22	
Benzene	50	50	52	51	ug/Kg	104	102	2	62-137	24	
Chlorobenzene	50	50	54	52	ug/Kg	108	104	4	60-133	24	
Methyl-t-butyl Ether (MTBE)	50	50	50	51	ug/Kg	100	102	2	62-137	21	
Toluene	50	50	49	54	ug/Kg	98	108	10	59-139	21	
Trichloroethene	50	50	56	60	ug/Kg	112	120	7	66-142	21	

QCBatchID: QC1203545 **Analyst:** Jarriaga **Method:** EPA 8015B

Matrix: Solid **Analyzed:** 06/25/2019 **Instrument:** SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1203545MB1					
TPH Diesel	**1.46**	mg/Kg	0.022	1	B
TPH Motor Oil	ND	mg/Kg	2.1	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1203545LCS1											
TPH Diesel	25		24.2		mg/Kg	97			52-122		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1203545MS1, QC1203545MSD1												**Source: 416592-001**
TPH Diesel	9260	25	25	9770	9760	mg/Kg	2040	2000	0.1	70-130	20	NC

Duplicate Summary

Analyte	Sample Amount	Duplicate Amount	Units	RPD	Limits RPD	Notes
QC1203545DUP1						**Source: 416592-001**
TPH Diesel	9260	9290	mg/Kg	0.3		

QCBatchID: QC1203590 **Analyst:** dswafford **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 06/26/2019 **Instrument:** AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1203590MB1					
Antimony	ND	mg/Kg	0.37	3	
Arsenic	**0.98 J**	mg/Kg	0.36	1	
Barium	ND	mg/Kg	0.23	1	
Beryllium	ND	mg/Kg	0.17	0.5	
Cadmium	**0.34 J**	mg/Kg	0.21	0.5	
Chromium	ND	mg/Kg	0.13	1	
Cobalt	ND	mg/Kg	0.19	0.5	
Copper	**0.83 J**	mg/Kg	0.31	1	
Lead	**0.93 J**	mg/Kg	0.32	1	
Molybdenum	ND	mg/Kg	0.13	1	
Nickel	ND	mg/Kg	0.2	1.5	
Selenium	ND	mg/Kg	0.72	3	
Silver	**0.29 J**	mg/Kg	0.13	0.5	
Thallium	ND	mg/Kg	0.42	3	
Vanadium	ND	mg/Kg	0.37	0.5	
Zinc	ND	mg/Kg	0.28	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1203590LCS1											
Antimony	100		105		mg/Kg	105			80-120		
Arsenic	100		106		mg/Kg	106			80-120		
Barium	100		95.6		mg/Kg	96			80-120		
Beryllium	100		105		mg/Kg	105			80-120		
Cadmium	100		100		mg/Kg	100			80-120		
Chromium	100		98.9		mg/Kg	99			80-120		
Cobalt	100		106		mg/Kg	106			80-120		
Copper	100		89.9		mg/Kg	90			80-120		
Lead	100		116		mg/Kg	116			80-120		
Molybdenum	100		108		mg/Kg	108			80-120		
Nickel	100		118		mg/Kg	118			80-120		
Selenium	100		107		mg/Kg	107			80-120		
Silver	100		109		mg/Kg	109			80-120		
Thallium	100		111		mg/Kg	111			80-120		
Vanadium	100		103		mg/Kg	103			80-120		
Zinc	100		113		mg/Kg	113			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1203590MS1, QC1203590MSD1												**Source: 416618-001**
Antimony	1.56	100	100	34.4	34.9	mg/Kg	33	33	1.4	75-125	20	M
Arsenic	7.94	100	100	102	104	mg/Kg	94	96	1.9	75-125	20	
Barium	128	100	100	205	201	mg/Kg	77	73	2.0	75-125	20	M
Beryllium	ND	100	100	98.3	97.2	mg/Kg	100	97	1.1	75-125	20	
Cadmium	0.83	100	100	87.3	87.3	mg/Kg	86	86	0.0	75-125	20	
Chromium	26.2	100	100	111	112	mg/Kg	85	86	0.9	75-125	20	
Cobalt	12.2	100	100	101	99.8	mg/Kg	89	88	1.2	75-125	20	
Copper	24.1	100	100	109	105	mg/Kg	85	81	3.7	75-125	20	
Lead	21.9	100	100	110	113	mg/Kg	88	91	2.7	75-125	20	
Molybdenum	ND	100	100	96.0	98.4	mg/Kg	97	98	2.5	75-125	20	

QCBatchID: QC1203590 **Analyst:** dswafford **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 06/26/2019 **Instrument:** AAICP (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1203590MS1, QC1203590MSD1												**Source: 416618-001**
Nickel	18.1	100	100	108	110	mg/Kg	90	92	1.8	75-125	20	
Selenium	ND	100	100	89.2	88.0	mg/Kg	93	88	1.4	75-125	20	
Silver	ND	100	100	93.8	94.9	mg/Kg	95	95	1.2	75-125	20	
Thallium	ND	100	100	89.2	90.7	mg/Kg	89	91	1.7	75-125	20	
Vanadium	41.7	100	100	134	134	mg/Kg	92	92	0.0	75-125	20	
Zinc	111	100	100	229	427	mg/Kg	118	316	60.4	75-125	20	M

QCBatchID: QC1203597 **Analyst:** JParedes **Method:** EPA 7471A

Matrix: Solid **Analyzed:** 06/26/2019 **Instrument:** AAICP-HG1

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1203597MB1					
Mercury	ND	mg/Kg	0.039	0.14	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1203597LCS1											
Mercury	0.83		0.82		mg/Kg	99			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1203597MS1, QC1203597MSD1												**Source: 416618-001**
Mercury	0.12	0.83	0.83	0.82	0.90	mg/Kg	84	94	9.3	75-125	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
BQ4	Minor Dissolved Oxygen loss was observed in the blank water check, however, the LCS was within criteria, validating the batch.
BQ5	Minor Dissolved Oxygen loss was observed in the blank water check.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
IR	Inconclusive Result. Legionella is present, however, there is possible non-specific agglutination preventing specific identification.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
L2	LCS did not meet recovery criteria, however, the MS and/or MSD met LCS recovery criteria, validating the batch.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 4166 18

Page: 1 of 1

Turn Around Time (rush by advanced notice only)

Standard:		5 Day:		3 Day:	
2 Day:	X	1 Day:		Custom TAT:	

Enthalpy Analytical - Orange

931 W. Barkley Avenue, Orange, CA 92868

Phone 714-771-6900

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Ninyo & Moore	Quote #:	
Report To:	Patrick Cullip	Proj. Name:	Norwalk HS PEA
Email:	pcullip@ninyoandmoore.com	Proj. #:	209800002
Address:	475 Goddard	P.O. #:	
	Irvine, CA 92618	Address:	11356 Leffingwell Rd,
Phone:	(949) 753-7070	Global ID:	Norwalk, CA
Fax:	(949) 753-7071	Sampled By:	Dennis

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	T-22 Metals (6010B/7471A)	VOCs (8260B)	TPHg, d, mo (8015B)	Test Instructions / Comments
1	WC-062519	6/25/19	1310	SOIL	2 4-oz jars	ICE	X	X	X	cc. Dennis Fee, Jay Roberts
2										
3										
4										
5										
6										
7										
8										
9										
10										

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Dennis Fee	Ninyo & Moore	6/25/19 1443
1 Received By:				6/25/19 1443
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

12.5 / 2.0

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Ninyo & Moore Project: Norwalk HS PEA

Date Received: 6/25/19 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 12.5 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 2.6 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)		✓	
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 6/25/19

AGENT SPECIAL WASTE SERVICE AGREEMENT
NON-HAZARDOUS WASTES

REPUBLIC SERVICES

Special Waste Profile Number: **5123 19 10278**

Agent Billing Information

Name: ENVIRONMENTAL MANAGEMENT TECHNOLOGIES (ACCT 333387)
Address: 1456 S GAGE ST
City: SAN BERNARDINO
State: CA Zip: 92408
Phone: 800.579.6834 Fax:
Contact: MARIA SALAZAR

Republic Waste Location (Company)

SUNSHINE CANYON LANDFILL (5123
14747 SAN FERNANDO ROAD
SYLMAR, CA 91342
818.362.2141

Project: NORWALK LA MIRADA UNIFIED SCHOOL DIST **County and State of Origin:** LOS ANGELES, CA
Generator Address: 11356 LEFFINGWELL RD, NORWALK
Additional Information: CONTACT: BOMEE YOON 562.868.9014

1. **Special Waste Service**. Subject to the terms and conditions contained herein, the Company and the Agent agree to be legally bound hereby and the Company agrees to accept at its facility identified above ("Facility"), Acceptable Waste (as defined in Section 6) delivered by Agent.

[redacted]

Agent shall also be liable for all taxes, fees, or other charges imposed by federal, state, local or provincial laws and regulations.

Cannot Exceed Daily Volume of 8 TONS Without Prior Approval of Company.

(B) **Incorporation by Reference**. In addition to Special Waste Profile(s), the following documents are incorporated by reference into this Agreement as if fully set forth herein.

1)N/A
2)NA/

3. **Term of Agreement**. This Agreement is effective for 12 months, commencing 7/10/2019 and shall automatically be renewed for a similar term thereafter unless either party shall give written notice (via certified mail) of termination to the other party at least thirty (30) days before the expiration of the then-current term.

THE COMPANY AND THE AGENT, IN CONSIDERATION OF THE MUTUAL OBLIGATIONS CONTAINED HEREIN, AGREE THAT THIS IS A LEGALLY BINDING AGREEMENT WHICH IS SUBJECT TO THE TERMS AND CONDITIONS SET FORTH ON THIS PAGE AND ON THE REVERSE SIDE OF THIS DOCUMENT. IN ADDITION, THE GENERATOR IS CERTIFYING THE ATTACHED TERMS AND CONDITIONS HAVE BEEN REVIEWED AND INITIALLED AT THE BOTTOM OF THE PAGE.

AGENT

SIGNATURE (AUTHORIZED REPRESENTATIVE)
JEREMY BROWN
NAME AND TITLE (PLEASE PRINT)
7-10-19
DATE

REPUBLIC SERVICES/COMPANY

SIGNATURE (AUTHORIZED REPRESENTATIVE)
MICHAEL J. RICEY DIR COM MFG SVCS
NAME AND TITLE (PLEASE PRINT)
7-10-19
DATE

Terms and Conditions of Agent Special Waste Service Agreement

4. The Agreement. This agreement of the parties ("Agreement") for the disposal of Acceptable Waste shall consist of this Agreement, riders to the Agreement (if any), any Special Waste Profiles (including approved changes and re-certifications) and any Application, permit and approval that may be applicable to the disposal of such Acceptable Waste ("Acceptable Waste Documentation")

5. Waste Accepted at Facility. Agent represents, warrants and covenants that the waste delivered to Company at its Facility hereunder will be Acceptable Waste and will not contain any unacceptable quantity of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances, as defined by applicable federal, state, local or provincial laws or regulations. Any waste which does not meet these requirements shall hereinafter be referred to as "Unacceptable Waste". The Agent shall in all matters relating to the collection, transportation and disposal of the Acceptable Waste hereunder, comply with all applicable federal, state and local laws, regulations, rules and orders regarding the same (collectively, "Applicable Laws").

6. Acceptable Waste. Only waste that satisfies each of the following criteria shall be accepted for disposal at the Facility ("Acceptable Waste"): (a) the waste conforms to the description set forth in the Acceptable Waste Documentation; (b) the waste does not contain any Unacceptable Waste; (c) the waste is accurately reflected on any Special Waste Profile(s) as directed by the Company pursuant to Section 7; (d) the waste is acceptable for disposal at the Facility under all Applicable Laws; and (e) the transportation to and disposal of the waste at the Facility is otherwise in accordance with this Agreement. The parties may incorporate additional Acceptable Waste as part of this Agreement if prior to delivery of such Acceptable Waste to Company, Agent has provided an Application for such Special Waste and Company has approved disposal of such Acceptable Waste within the limitations and conditions contained in Company's written notice of approval of Special Waste. Title to and liability for any and all Acceptable Waste handled or disposed of by Company shall at all times remain with Generator and Agent.

7. Rights of Refusal/Rejection. The Agent shall inspect all Special Waste at the place(s) of collection and shall remove any and all Unacceptable Waste. Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility including if the Company believes (a) the Agent has breached (or is breaching) its representations, warranties, covenants or agreements hereunder, or any Applicable Laws; or (b) that the waste contains Unacceptable Waste. The Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility if the Company has reason to believe, in its sole discretion, that the waste: (1) emits excessive odors; (2) negatively impacts operations at the Facility. The Company shall have the right to inspect all vehicles of waste haulers, including the Agent's vehicles, in order to determine whether the waste is Acceptable Waste pursuant to this Agreement and Applicable Laws. The Company's exercise, or failure to exercise, its rights hereunder shall not operate to relieve the Agent of its responsibilities or liability under this Agreement.

8. Limited License to Enter. This Agreement provides Agent with a license to enter the Facility for the limited purpose of, and only to the extent necessary for, off-loading Acceptable Waste at the Facility in the manner directed by Company. Except in an emergency, Agent's personnel shall not leave the immediate vicinity of their vehicle. After off-loading the Acceptable Waste, Agent's personnel shall promptly leave the Facility. Under no circumstances shall Agent or its personnel engage in any scavenging of waste or other materials at the Facility. The Company reserves the right to make and enforce reasonable rules and regulations concerning the operation of the Facility, the conduct of the drivers and others on the Facility premises, quantities and sources of waste, and any other matters necessary or desirable for the safe, legal and efficient operation of the Facility including, but not limited to, speed limits on haul roads imposed by the Company, and the wearing of hard hats and other personal protection equipment by all individuals allowed on the Facility premises. Agent agrees to conform to such rules and regulations as they may be established and amended from time to time. Company may refuse to accept waste from and shall deny an entrance license to, any of Agent's personnel whom Company believes is under the influence of alcohol or other chemical substances. Agent shall be solely responsible for its employees and subcontractors performing their obligations in a safe manner when at the facility of Company.

9. Charges and Payment. Payment shall be made by Agent within thirty (30) days after receipt of invoice from Company. If any amount is overdue, the Company may terminate this Agreement. Agent agrees to pay a finance charge equal to the maximum interest rate permitted by law. Agent shall be liable for all taxes, fees, or other charges imposed upon the disposal of the Acceptable Waste by federal, state, local or provincial laws and regulations. Company, from time to time, may modify its rates upon thirty (30) days written notice to Agent. For the purposes of this section, written notice may be provided via email, certified mail, or overnight courier. Agent hereby agrees that the Company's right to receive payments under this Agreement is unconditional and is not conditioned upon Agent first receiving payment from Generator or any other party.

10. Termination. Company shall have the right to immediately terminate and/or suspend this Agreement upon the occurrence of any of the following events of default: (a) Agent's failure to timely pay any amounts due under this Agreement to Company; (b) Agent's breach of any of its obligations, representations, warrants or covenants under this Agreement or any Acceptable Waste Documentation; or (c) the filing of a voluntary or involuntary petition for reorganization or bankruptcy against Agent. Agent shall be liable for any losses, claims, expenses and damages incurred by Company as a result of suspension or termination hereunder. Agent's obligations, representations, warranties and covenants regarding the Acceptable Waste delivered and all indemnities contained in this Agreement shall survive expiration and termination of this Agreement. Additionally, Company shall have the right to terminate this Agreement for convenience at any time on 30 days' notice to Agent.

11. Driver's Knowledge and Authority. Agent represents, warrants and covenants that its drivers who deliver Acceptable Waste to Company's Facility have been advised by Agent of the Company's prohibition on deliveries of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances or any other Unacceptable Waste to the Facility, of Company's restrictions on deliveries of Special Waste to the Facility of the definitions of "Hazardous Waste and Hazardous Substances" as provided by applicable federal, state and local law, rules and regulations and "Special Waste" as provided herein, and of the terms of this license to enter Company's Facility.

12. Indemnification. Agent shall indemnify, defend and hold harmless the Company and its subsidiaries, affiliates and parent corporations, as applicable and their respective officers, directors, lenders, employees, subcontractors and agents from and against any and all claims, suits, losses, liabilities, assessments, damages, fines, costs and expenses, including reasonable attorneys fees arising under federal, state or local laws, regulations or ordinances, or relating to the (a) the transportation to and/or disposal of any Unacceptable Waste at the Facility, whether or not Agent or Company was negligent in failing to identify the Unacceptable Waste; (b) the reloading and/or removal of Unacceptable Waste at the Facility; (c) any penalties, fines or remediation activities incurred by or imposed as the result of the transportation and/or disposal of Unacceptable Waste; (d) any increased inspection, testing, study and analysis costs made necessary due to reasonable concerns of Company as to the content of the waste transported and/or disposed of at the Facility following discovery of potentially Unacceptable Waste; and (e) the Company's inability to use the Facility due to the presence of Unacceptable Waste including without limitation any consequential damages. Company may also, in its sole discretion, require Agent to promptly remove the Unacceptable Waste at Agent's sole expense. This indemnification and other obligations stated in this paragraph shall survive the termination of this Agreement.

13. Insurance. Agent shall maintain in full force and effect throughout the term of this Agreement the following types of insurance in at least the amounts specified below:

Coverages	Minimum Amounts of Insurance
Worker's Compensation	Statutory
Employer's Liability	$1,000,000
General Liability	$1,000,000 combined single limit
Automobile Liability (where Agent hauling)	$1,000,000 combined single limit

All insurance will be by insurers authorized to do business in the state in which the Facility is located. Agent shall deliver the Certificates of Insurance evidencing the foregoing policies to Company before Agent delivers any waste to the Facility pursuant to this Agreement. In addition, the (i) Commercial General Liability (including the Umbrella/Excess policy) policy must include Contractual Liability coverage specifically covering Agent's indemnification of Company, and (ii) The Commercial General Liability, Automobile Liability and the Umbrella/Excess Liability policies must be written on an "occurrence form". Said polices shall not thereafter be canceled, be permitted to expire or laps, or be changed without 30 days advance written notice has been given to Company. With the exception of workers' compensation, Company shall be shown as additional insureds under all of the insurance policies required by this Section 13. The policies required by this Section 13 shall be primary and non-contributory with respect to Company, and the insurance providers shall agree to waive their rights of subrogation against Company.

14. Failure to Perform. Except for Generator's obligation to pay amounts due to Company, neither party hereto shall be liable for its failure to perform hereunder due to circumstances not its fault and beyond its reasonable control, including, but not limited to, strikes or other labor disputes, riots, protests, civil disturbances or sabotage, changes in law, fines, floods, compliance with government requests, explosions, accidents, weather, lack of required natural resources, or acts of God affecting either party hereto. In the event of any of the circumstances provided for in the preceding sentence, including, but not limited, to whether any federal, state or local court or governmental authority takes any action which would (i) close or restrict operations at the Facility, (ii) limit the quantity or prohibit the disposal of Acceptable Waste at the Facility, or (iii) limit the ability of or prohibit Agent from delivering Acceptable Waste to the Facility, the Company shall have the right, at its option, to reduce, suspend or terminate Agent's access to the Facility immediately, without prior notice and without any additional liabilities between the parties, other than Agent's payment obligation hereunder. Neither Party is required hereunder to settle any labor dispute against its own best judgment.

15. Assignment. Agent may not assign, transfer or otherwise vest in any other Company, entity or person, in whole or in part, any of its rights or obligations under the Agreement without the prior written consent of the Company, provided, however, that the Company may without any such prior written consent, assign its rights and/or obligations under the Agreement to a subsidiary or affiliate corporation.

16. Right of Disposal. This Agreement does not grant any rights to dispose of waste other than in accordance herewith.

17. Continuing Compliance. The Agent has a continuing obligation to inform the Company of any new information, or information not previously provided to the Company by Agent and/or Generator which may affect the acceptability of the waste by the Company. Further, the Agent shall comply with all Company requests for evidence of Agent's continuing compliance with the terms of the Agreement including but not limited to the following: (i) providing new, updated Special Waste profiles on the waste(s) offered for disposal or, (ii) providing appropriate certification that the Special Waste being offered for disposal is accurately reflected by the appropriate Special Waste Profile or, (iii) re-sample the waste at Agent's expense if reasonable cause exists as to its acceptability under the terms of this Agreement or, (iv) allow the Company to re-sample the waste at Agent's expense if reasonable cause exists as to its acceptability under the terms of this Agreement or any Acceptable Waste Documentation.

18. Miscellaneous.

(A) This Agreement shall be governed by the laws of the State in which the Facility is located.

(B) No waiver of a breach of any of the obligations contained in the Agreement shall be construed to be a waiver of any prior or succeeding breach of the same obligation or of any other obligation of this Agreement.

(C) Unless otherwise provided for herein, no modification, release, discharge or waiver of any provision or obligation hereof shall be of any force, or effect, unless in writing signed by all parties to this Agreement.

(D) Agent shall treat as confidential and not disclose to others during or subsequent to the terms of this Agreement, except as is necessary to perform this Agreement, or to comply with any applicable law or regulation any information (including any technical information, experience or data) regarding the Company's plans, programs, plants, processes, products, costs, equipment or operations which may come within the knowledge of the Agent or its employees in the performance of this Agreement, without in each instance securing the prior written consent of the other Company.

(E) If any term, phrase, obligation or provision of this Agreement shall be held to be invalid, illegal or unenforceable in any respect, this Agreement shall remain in effect and be construed without regard to such term, phrase, obligation or provision.

(F) This Agreement constitutes the entire understanding between the parties, replacing and amending any prior agreements between the parties, and shall be binding upon all parties hereto, their successors, heirs, representatives and assigns. Any provision, term or condition in any acknowledgement, purchase order or other response by Agent which is in addition to or different from the provisions of this Agreement shall be deemed objected to by the Company and shall be of no effect.

(G) Agent represents, warrants and covenants that it is and during the term of this Agreement, will remain, in compliance with and will perform its obligations pursuant to all applicable laws and regulations and shall indemnify, defend and hold harmless the Company from any breach thereof.

(H) It is the understanding and agreement of the parties that the Company is an independent contractor, and is not an agent, nor an authorized representative of the Agent. It is the further understanding and agreement of the parties that Agent is an authorized representative of Generator.

(I) Company may provide any of the Services covered by this Agreement through any of its affiliates or subcontractors, provided that Company shall remain responsible for the performance of all such services and obligations in accordance with this Agreement

19. Notices. Unless otherwise provided herein, all notices herein provided for shall be considered as having been given upon being placed in the mail, certified postage prepaid addressed to the Company or Agent at the address herein set forth in this Agreement or to such other address as may be given to the other party in writing.

20. Liquidated Damages. If Agent terminates this Agreement before its expiration other than as a result of a breach by Company, Agent shall pay Company an amount equal to the most recent month's monthly charges multiplied by the lesser of (a) six months or (b) the number of months remaining in the term. Agent acknowledges that in the event of such a termination, actual damages to Company would be uncertain and difficult to ascertain, such amount is the best, reasonable and objective estimate of the actual damages to Company, such amount does not constitute a penalty, and such amount is reasonable under the circumstances. Any amount payable under this paragraph shall be in addition to amounts already owing under this Agreement.

AGENT: _____ REPUBLIC SERVICES/COMPANY: _____

REPUBLIC SERVICES, INC.

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231910450	7/11/2020	

I. Decision Request: ☑ Initial ☐ Recertification ☐ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: PANDA PRODUCE INC

Generator Site Address: 1901 E VIOLET ST

City: LOS ANGELES **County:** **State:** CA **Zip:**

Name of Waste: PLANT TRASH/WASTE-TARO STEMS

Estimated Annual Volume: 3,600 Pounds

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

FOOD WASTE: This waste must be buried immediately upon receipt at the landfill.

Special Waste Analyst Signature: Joseph M. Sorokach **Name (Printed):** Joseph Sorokach

Date: 7/11/2019

III. Facility Decision: ☑ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: **Name (Printed):** Chris Coyle

Date: 7/11/2019

Special Waste Profile

REPUBLIC SERVICES

Disposal Facility: 5123 Sunshine Canyon Landfill CA

Waste Profile #: 5123 19 10450

Sales Rep #:

I. Generator Information

Generator Name: PANDA PRODUCE INC.

Generator Site Address: 1901 E. VIOLET ST.

City: LOS ANGELES County: LOS ANGELES State: California Zip: 90021

State ID/Reg No: NA State Approval/Waste Code: NA NAICS #: NA

Generator Mailing Address ☐ (if different)

City: LOS ANGELES County: LOS ANGELES State: California Zip: 90021

Generator Contact Name: NORMAN PHAN Email: PANDA@PANDAPRODUCE.COM

Phone Number: 2136273118 Ext: Fax Number: 2136273152

II. Billing Information

Bill To: PANDA PRODUCE INC. Contact Name: NORMAN PHAN

Billing Address: 1901 E. VIOLET ST Email: PANDA@PANDAPRODUCE.COM

City: LOS ANGELES State: California Zip: 90021 Phone: 2136273118

III. Waste Stream Information

Name of Waste: PLANT TRASH/WASTE-TARO STEMS

Process Generating Waste: 120 BAGS OF TARO STEMS WILL BE BAGGED IN 2 ML THICK GARBAGE BAGS AND WILL BE DISPOSED OF AT SUNSHINE CANYON LANDFILL IN SLYMAR CALIFORNIA.

Type of Waste: Pollution Control Waste Physical State: Solid Method of Shipment: Bagged

Estimated Volume: 3,600 Volume Type: Pounds

Frequency: One-time Event (single projec Disposal Consideration: Landfill

IV. Representative Sample Certification

☑ **No Sample Taken**

☐ **Sample Taken** **Type of Sample** --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ **Yes** ☐ **No**

Sample Date:

Sample ID Numbers or SDS:

Remember to attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

Special Waste Profile

REPUBLIC SERVICES

V. Physical Characteristics of Waste

Characteristic Components (must equal 100%:)	% By Weight (out of 100% - ranges acceptable):
1. LONG GREEN SPONGY STEMS	100
2.	
3.	
4.	
5.	

Color:	Odor (describe):	Does Waste Contain Free Liquids?	% Solids:	pH:	Flash Point:
GREEN	NO ODOR	☐ Yes ☑ No	100	NA	NA °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

RCRA Regulatory Questions

1. Does this waste or generating process contain regulated concentrations of the following Pesticides and/ or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	☐ Yes ☑ No
2. Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261.23(a)(5)]?	☐ Yes ☑ No
3. Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	☐ Yes ☑ No
4. Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	☐ Yes ☑ No
5. Has this waste been delisted under 40 CFR 260.20 and 260.22? If yes, attach the final decision to delist the waste as published in the Federal Register.	☐ Yes ☑ No
6. Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations? If Yes, identify the applicable waste code and specify if the waste is hazardous as defined by Federal, State or both?	☐ Yes ☑ No
7. Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31?	☐ Yes ☑ No
8. Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	☐ Yes ☑ No
9. Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	☐ Yes ☑ No
10. Is this a solid waste that is not a hazardous waste in accordance with 40 CFR 261.4(b)? If yes, please provide the corresponding regulatory citation.	☐ Yes ☑ No

Republic Services Waste Handling Questions

1. Does this waste generate heat or react when contacted with water/moisture?	☐ Yes ☑ No
2. Does the waste contain sulfur or sulfur by-products?	☐ Yes ☑ No
3. Is this waste generated at a State or Federal Superfund cleanup site subject to regulation under CERCLA?	☐ Yes ☑ No
4a. Is this waste from a TSD facility, TSD-like facility or consolidator (i.e. multiple wastes/multiple generators)?	☐ Yes ☑ No

4b. If yes to the above question, please provide clarification.

Special Waste Profile

REPUBLIC SERVICES

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

YVETTE PHAN	ACCOUNTING	PANDA PRODUCE INC.
Authorized Representative Name (Printed)	Title (Printed)	Company Name
Representative Signature	7/11/19	
	Date	

SPECIAL WASTE SERVICE AGREEMENT
NON-HAZARDOUS WASTES

REPUBLIC SERVICES

Special Waste Profile Number: 5123 19 10450

Generator Billing Information		Republic Waste Location (Company)
Name:	PANDA PRODUCE INC (ACCT 321 CASH)	SUNSHINE CANYON LANDFILL (5123)
Address:	1901 E VIOLET ST	14747 SAN FERNANDO RD
		SYLMAR, CA 91342
City:	LOS ANGELES	818.362.2141
State:	CA Zip: 90021	
Phone:	213.627.3118 Fax:	
Contact:	NORMAN PHAN	

Project: FOOD PRODUCTS---TARO STEMS **County and State of Origin:** LOS ANGELES, CA

Additional Information: SITE: SAME AS BILLING

1. **Special Waste Service**. Subject to the terms and conditions contained herein, the Company and the Generator agree to be legally bound hereby, and the Company agrees to accept at its facility identified above ("Facility"), Acceptable Waste (as defined in Section 6) delivered by Generator.

[redacted]

Generator shall also be liable for all taxes, fees, or other charges imposed by federal, state, local or provincial laws and regulations.

Cannot Exceed Daily Volume of 3600 POUNDS Without Prior Approval of Company.

(B) **Incorporation by Reference**. In addition to Special Waste Profile(s), the following documents are incorporated by reference into this Agreement as if fully set forth herein.

1)N/A

2)N/A

3. **Term of Agreement**. This Agreement is effective for 12 months, commencing 07/15/2019 and shall automatically be renewed for a similar term thereafter unless either party shall give written notice (via certified mail) of termination to the other party at least thirty (30) days before the expiration of the then-current term.

THE COMPANY AND THE GENERATOR, IN CONSIDERATION OF THE MUTUAL OBLIGATIONS CONTAINED HEREIN, AGREE THAT THIS IS A LEGALLY BINDING AGREEMENT WHICH IS SUBJECT TO THE TERMS AND CONDITIONS SET FORTH ON THIS PAGE AND ON THE REVERSE SIDE OF THIS DOCUMENT. IN ADDITION, THE GENERATOR IS CERTIFYING THE ATTACHED TERMS AND CONDITIONS HAVE BEEN REVIEWED AND INITIALLED AT THE BOTTOM OF THE PAGE.

GENERATOR

SIGNATURE (AUTHORIZED REPRESENTATIVE)

Yvette Phan, Accounting

NAME AND TITLE (PLEASE PRINT)

7/15/19

DATE

REPUBLIC SERVICES/COMPANY

SIGNATURE (AUTHORIZED REPRESENTATIVE)

NAME AND TITLE (PLEASE PRINT)

7-15-19

DATE

Terms and Conditions of Special Waste Service Agreement

The Agreement. This agreement of the parties ("Agreement") for the disposal of Acceptable Waste shall consist of this Agreement, riders to the Agreement (if any), any Special Waste Profiles (including any approved changes and re-certifications) and any Application, permit and approval that may be applicable to the disposal of such Acceptable Waste ("Acceptable Waste Documentation").

Waste Accepted at Facility. Generator represents, warrants and covenants that the waste delivered to Company at its Facility hereunder will be Acceptable Waste and will not contain any unacceptable quantity of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances, as defined by applicable federal, state, local or provincial laws or regulations. Any waste which does not meet these requirements shall hereinafter be referred to as "Unacceptable Waste". The Generator shall in all matters relating to the collection, transportation and disposal of the Acceptable Waste hereunder, comply with all applicable federal, state and local laws, regulations, rules and orders regarding the same (collectively, "Applicable Laws").

Acceptable Waste. Only waste that satisfies each of the following criteria shall be accepted for disposal at the Facility ("Acceptable Waste"): (a) the waste conforms to the description set forth in the Acceptable Waste Documentation; (b) the waste does not contain any Unacceptable Waste; (c) the waste is accurately reflected on any Special Waste Profile(s) as directed by the Company pursuant to Section 7; (d) the waste is acceptable for disposal at the Facility under all Applicable Laws; and (e) the transportation to and disposal of the waste at the Facility is otherwise in accordance with this Agreement. The parties may incorporate additional Acceptable Waste as part of this Agreement if prior to delivery of such Waste to Company, Generator has provided an Application for such Acceptable Waste and Company has approved disposal of such Acceptable Waste within the limitations and conditions contained in Company's written notice of approval of Special Waste Disposal. Title to and liability for any and all Acceptable Waste handled or disposed of by Company shall at all times remain with Generator and Broker (if a Broker is involved).

Rights of Refusal/Rejection. The Generator shall inspect all waste at the place(s) of collection and shall remove any and all Unacceptable Waste. Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility including if the Company believes (a) Generator has breached (or is breaching) its representations, warranties, covenants or agreements in this Agreement or any Acceptable Waste Documentation, or any Applicable Laws; or (b) that the waste contains Unacceptable Waste. The Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility if the Company has reason to believe, in its sole discretion, that the waste: (1) emits excessive odors; (2) negatively impacts operations at the Facility. Company shall have the right to inspect all vehicles and containers of waste haulers, including the Generator's vehicles, in order to determine whether the waste is Acceptable Waste pursuant to this Agreement and all Applicable Laws. The Company's exercise, or failure to exercise, its rights hereunder shall not operate to relieve the Generator of its responsibilities or liability under this Agreement.

Limited License to Enter. This Agreement provides Generator with a license to enter the Facility for the limited purpose of, and only to the extent necessary for, off-loading Acceptable Waste at the Facility in the manner directed by Company. Except in an emergency, Generator's personnel shall not leave the immediate vicinity of their vehicle. After off-loading the Acceptable Waste, Generator's personnel shall promptly leave the Facility. Under no circumstances shall Generator or its personnel engage in any scavenging of waste or other materials at the Facility. The Company reserves the right to make and enforce reasonable rules and regulations concerning the operation of the Facility, the conduct of the drivers and others on the Facility premises, quantities and sources of waste, and any other matters necessary or desirable for the safe, legal and efficient operation of the Facility including, but not limited to, speed limits on haul roads imposed by the Company, and the wearing of hard hats and other personal protection equipment by all individuals allowed on the Facility premises. Generator agrees to conform to such rules and regulations as they may be established and amended from time to time. Company may refuse to accept waste from and shall deny an entrance license to, any of Generator's personnel whom Company believes is under the influence of alcohol or other chemical substances. Generator shall be solely responsible for its employees and subcontractors performing their obligations in a safe manner when at the facility of Company.

Charges and Payment. Payment shall be made by Generator within thirty (30) days after receipt of invoice from Company. If any amount is overdue, the Company may terminate this Agreement. Generator agrees to pay a finance charge equal to the maximum interest rate permitted by law. Generator shall be liable for all taxes, fees, or other charges imposed upon the disposal of the Acceptable Waste by federal, state, local or provincial laws and regulations. Company, from time to time, may modify its rates upon thirty (30) days written notice to Generator. For the purposes of this section, written notice may be provided via email, certified mail, or overnight courier.

). Termination. Company shall have the right to immediately terminate and/or suspend this Agreement upon the occurrence of any of the following events of default: (a) Generator's failure to timely pay any amounts due under this Agreement to Company; (b) Generator's breach of any of its obligations, representations, warrants or covenants under this Agreement or any Acceptable Waste Documentation; or (c) the filing of a voluntary or involuntary petition for reorganization or bankruptcy against Generator. Generator shall be liable for any losses, claims, expenses and damages incurred by Company as a result of suspension or termination hereunder. Generator's obligations, representations, warranties and covenants regarding the Acceptable Waste delivered and all indemnities contained in this Agreement shall survive expiration and termination of this Agreement. Additionally, Company shall have the right to terminate this Agreement for convenience at any time on 30 days' notice to Generator.

I. Driver's Knowledge and Authority. Generator represents, warrants and covenants that its drivers who deliver Acceptable Waste to Company's Facility have been advised by Generator of the Company's prohibition on deliveries of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances or any other Unacceptable Waste to the Facility of Company's restrictions on deliveries of Special Waste to the Facility, of the definitions of "Hazardous Waste and Hazardous Substances" as provided by applicable federal, state and local law, rules and regulations and "Special Waste" as provided herein, and of the terms of this license to enter Company's Facility.

2. Indemnification. Generator shall indemnify, defend and hold harmless the Company and its subsidiaries, affiliates and parent corporations, as applicable and their respective officers, directors, lenders, employees, subcontractors and agents from and against any and all claims, suits, losses, liabilities, assessments, damages, fines, costs and expenses, including reasonable attorneys fees arising under federal, state or local laws, regulations or ordinances, or relating to the (a) the transportation to and/or disposal of any Unacceptable Waste at the Facility, whether or not Generator or Company was negligent in failing to identify the Unacceptable Waste; (b) the reloading and/or removal of Unacceptable Waste at the Facility; (c) any penalties, fines or remediation activities incurred by or imposed as the result of the transportation and/or disposal of Unacceptable Waste; (d) any increased inspection, testing, study and analysis costs made necessary due to reasonable concerns of Company as to the content of the waste transported and/or disposed of at the Facility following discovery of potentially Unacceptable Waste; and (e) the Company's inability to use the Facility due to the presence of Unacceptable Waste including without limitation any consequential damages. Company may also, in its sole discretion, require Generator to promptly remove the Unacceptable Waste at Generator's sole expense. This indemnification and other obligations stated in this paragraph shall survive the termination of this Agreement.

3. Insurance. Generator shall maintain in full force and effect throughout the term of this Agreement the following types of insurance in at least the amounts specified below:

Coverages	Minimum Amounts of Insurance
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Employer's Liability	$1,000,000
General Liability	$1,000,000 combined single limit
Automobile Liability (if Generator hauling)	$1,000,000 combined single limit

All insurance will be by insurers authorized to do business in the state in which the Facility is located. Generator shall deliver the Certificates of Insurance evidencing the foregoing policies to Company before Generator delivers any waste to the Facility pursuant to this Agreement. In addition, the (i) Commercial General Liability (including the Umbrella/Excess policy) policy must include Contractual Liability coverage specifically covering Generator's indemnification of Company, and (ii) The Commercial General Liability, Automobile Liability and the Umbrella/Excess Liability policies must be written on an "occurrence form". Said polices shall not thereafter be canceled, be permitted to expire or laps, or be changed without 30 days advance written notice has been given to Company. With the exception of workers' compensation, Company shall be shown as additional insureds under all of the insurance policies required by this Section 13. The policies required by this Section 13 shall be primary and non-contributory with respect to Company, and the insurance providers shall agree to waive their rights of subrogation against Company.

14. Failure to Perform. Except for Generator's obligation to pay amounts due to Company, neither party hereto shall be liable for its failure to perform hereunder due to circumstances not its fault and beyond its reasonable control, including, but not limited to, strikes or other labor disputes, riots, protests, civil disturbances or sabotage, changes in law, fires, floods, compliance with government requests, explosions, accidents, weather, lack of required natural resources, or acts of God affecting either party hereto. In the event of any of the circumstances provided for in the preceding sentence, including, but not limited to, whether any federal, state or local court or governmental authority takes any action which would (i) close or restrict operations at the Facility, (ii) limit the quantity or prohibit the disposal of Acceptable Waste at the Facility, or (iii) limit the ability of or prohibit Generator from delivering Acceptable Waste to the Facility, the Company shall have the right, at its option, to reduce, suspend or terminate Generator's access to the Facility immediately, without prior notice and without any additional liabilities between the parties, other than Generator's payment obligation hereunder. Neither Party is required hereunder to settle any labor dispute against its own best judgment.

15. Assignment. Generator may not assign, transfer or otherwise vest in any other Company, entity or person, in whole or in part, any of its rights or obligations under the Agreement without the prior written consent of the Company, provided, however, that the Company may without any such prior written consent, assign its rights and/or obligations under the Agreement to a subsidiary or affiliate corporation.

16. Right of Disposal. This Agreement does not grant any rights to dispose of waste other than in accordance herewith.

17. Continuing Compliance. The Generator has a continuing obligation to inform the Company of any new information, or information not previously provided to the Company by Generator which may affect the acceptability of the waste by the Company. Further, the Generator shall comply with all Company requests for evidence of Generator's continuing compliance with the terms of the Agreement including but not limited to the following: (i) providing new, updated Special Waste profiles on the waste(s) offered for disposal or, (ii) providing appropriate certification that the waste being offered for disposal is accurately reflected by the appropriate Special Waste Profile or, (iii) re-sample the waste at Generator's expense if reasonable cause exists as to its acceptability under the terms of this Agreement or, (iv) allow the Company to re-sample the waste at Generator's expense if reasonable cause exists as to its acceptability under the terms of this Agreement or any Acceptable Waste Documentation.

18. Miscellaneous.

(A) This Agreement shall be governed by the laws of the State in which the Facility is located.

(B) No waiver of a breach of any of the obligations contained in the Agreement shall be construed to be a waiver of any prior or succeeding breach of the same obligation or of any other obligation of this Agreement.

(C) Unless otherwise provided for herein, no modification, release, discharge or waiver of any provision or obligation hereof shall be of any force, or effect, unless in writing signed by all parties to this Agreement.

(D) Generator shall treat as confidential and not disclose to others during or subsequent to the terms of this Agreement, except as is necessary to perform this Agreement, or to comply with any applicable law or regulation any information (including any technical information, experience or date) regarding the Company's plans, programs, plants, processes, products, costs, equipment or operations which may come within the knowledge of the Generator or its employees in the performance of this Agreement, without in each instance securing the prior written consent of the other Company.

(E) If any term, phrase, obligation or provision of this Agreement shall be held to be invalid, illegal or unenforceable in any respect, this Agreement shall remain in effect and be construed without regard to such term, phrase, obligation or provision.

(F) This Agreement constitutes the entire understanding between the parties, replacing and amending any prior agreements between the parties, and shall be binding upon all parties hereto, their successors, heirs, representatives and assigns. Any provision, term or condition in any acknowledgement, purchase order or other response by Generator which is in addition to or different from the provisions of this Agreement shall be deemed objected to by the Company and shall be of no effect.

(G) Generator represents, warrants and covenants that it is and, during the term of this Agreement will remain, in compliance with and will perform its obligations pursuant to all applicable laws and regulations and shall indemnify, defend and hold harmless the Company from any breach thereof.

(H) It is the understanding and agreement of the parties that the Company is an independent contractor, and is not an agent, nor an authorized representative of the Generator.

(I) Company may provide any of the Services covered by this Agreement through any of its affiliates or subcontractors, provided that Company shall remain responsible for the performance of all such services and obligations in accordance with this Agreement

20. Notices. Unless otherwise provided herein, all notices herein provided for shall be considered as having been given upon being placed in the mail, certified postage prepaid addressed to the Company or Generator at the address herein set forth in this Agreement or to such other address as may be given to the other party in writing.

21. Liquidated Damages. If Generator terminates this Agreement before its expiration other than as a result of a breach by Company, Generator shall pay Company an amount equal to the most recent month's monthly charges multiplied by the lesser of (a) six months or (b) the number of months remaining in the term. Generator acknowledges that in the event of such a termination, actual damages to Company would be uncertain and difficult to ascertain, such amount is the best, reasonable and objective estimate of the actual damages to Company, such amount does not constitute a penalty, and such amount is reasonable under the circumstances. Any amount payable under this paragraph shall be in addition to amounts already owing under this Agreement.

GENERATOR: _____ REPUBLIC SERVICES/COMPANY: _____

REPUBLIC SERVICES, INC.

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231910544	7/11/2020	
I. Decision Request:	☑ Initial ☐ Recertification ☐ Change		

Disposal Facility: 5123 - Sunshine Canyon Landfill
Generator Name: SOUTHERN CALIFORNIA EDISON
Generator Site Address: INTERSECTION OF PARKWAY AND PARKVIEW

City: MANHATTAN BEACH	**County:**	**State:** CA	**Zip:**

Name of Waste: NON HAZ SOIL
Estimated Annual Volume: 100 Tons

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

Special Waste Analyst Signature: Joseph M. Sorokach
Date: 7/12/2019

Name (Printed): Joseph Sorokach

III. Facility Decision: ☑ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee:
Date: 7/12/2019

Name (Printed): Chris Coyle

Special Waste Profile

REPUBLIC SERVICES

Disposal Facility: 5123 Sunshine Canyon Landfill CA

Waste Profile #: 5123 19 10544

Sales Rep #:

I. Generator Information

Generator Name: Southern California Edison

Generator Site Address: Intersection of Parkway and Parkview

City: Manhattan Beach County: LA State: California Zip: 90266

State ID/Reg No: State Approval/Waste Code: NAICS #:

Generator Mailing Address ☑ (if different) Po Box 700

City: Rosemead County: LA State: California Zip: 91770

Generator Contact Name: Ryan Castillo Email: ryan.castillo@sce.com

Phone Number: 6266560453 Ext: Fax Number:

II. Billing Information

Bill To: W.A. Rasic Contact Name: Chris Galvin

Billing Address: 4150 Long Beach Blvd Email: Cgalvin@warasic.com

City: Long Beach State: California Zip: 90807 Phone: 562 928 6111

III. Waste Stream Information

Name of Waste: Non-hazardous soil

Process Generating Waste: Excavation of soil in order to install underground electrical equipment

Type of Waste: Industrial Process Waste Physical State: Solid Method of Shipment: Bulk

Estimated Volume: 100 Volume Type: Tons

Frequency: One-time Event (single project) Disposal Consideration: Landfill

IV. Representative Sample Certification

☐ **No Sample Taken**

☑ **Sample Taken** **Type of Sample** Composite Sample

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☑ **Yes** ☐ **No**

Sample Date: 7/10/19

Sample ID Numbers or SDS: S1, S2, S3, S4

Remember to attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

Special Waste Profile

REPUBLIC SERVICES

V. Physical Characteristics of Waste

Characteristic Components (must equal 100%:)	% By Weight (out of 100% - ranges acceptable):
1. Soil	100
2.	
3.	
4.	
5.	

Color:	Odor (describe):	Does Waste Contain Free Liquids?	% Solids:	pH:	Flash Point:
Br/Bl	Hydrocarbon	☐ Yes ☑ No	100	NA	NA °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

RCRA Regulatory Questions

1. Does this waste or generating process contain regulated concentrations of the following Pesticides and/ or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	☐ Yes ☑ No
2. Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261.23(a)(5)]?	☐ Yes ☑ No
3. Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	☐ Yes ☑ No
4. Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	☐ Yes ☑ No
5. Has this waste been delisted under 40 CFR 260.20 and 260.22? If yes, attach the final decision to delist the waste as published in the Federal Register.	☐ Yes ☑ No
6. Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations? If Yes, identify the applicable waste code and specify if the waste is hazardous as defined by Federal, State or both?	☐ Yes ☑ No
7. Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31?	☐ Yes ☑ No
8. Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	☐ Yes ☑ No
9. Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	☐ Yes ☑ No
10. Is this a solid waste that is not a hazardous waste in accordance with 40 CFR 261.4(b)? If yes, please provide the corresponding regulatory citation.	☐ Yes ☑ No

Republic Services Waste Handling Questions

1. Does this waste generate heat or react when contacted with water/moisture?	☐ Yes ☑ No
2. Does the waste contain sulfur or sulfur by-products?	☐ Yes ☑ No
3. Is this waste generated at a State or Federal Superfund cleanup site subject to regulation under CERCLA?	☐ Yes ☑ No
4a. Is this waste from a TSD facility, TSD-like facility or consolidator (i.e. multiple wastes/multiple generators)?	☐ Yes ☑ No

4b. If yes to the above question, please provide clarification.

Special Waste Profile

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

Ryan Castillo	Program Manager	Southern California Edison
Authorized Representative Name (Printed)	Title (Printed)	Company Name
		7/12/19
Representative Signature		Date

American Environmental Testing Laboratory Inc.
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Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Ordered By

Southern California Edison Company
1 Innovation Way
Pomona, CA 91768-

Telephone: (909)274-1646
Attention: Ryan Castillo

Number of Pages	**31**
Date Received	**07/10/2019**
Date Reported	**07/11/2019**

Job Number	Order Date	Client
99088	07/10/2019	SCE

Project ID: IO# TBD
Project Name: Manhattan Beach Vault
Site: Manhattan Beach
7314 Scout Ave.
Bell Gardens, CA 90201

Enclosed please find results of analyses of 4 soil samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

AMERICAN ENVIRONMENTAL TESTING LABORATORY

2834 NORTH NAOMI ST. BURBANK, CALIFORNIA 91504 DHS # 1541 LACSD# 10181
TEL (888) 288-AETL (818) 845-8200 FAX (818) 845-8840 www.aetlab.com

CHAIN OF CUSTODY RECORD

113483

AETL JOB No. 99088

Page 1 of 1

COMPANY	Rubicon
PROJECT MANAGER	Mohsen Mehraa / Ryan Castillo (SCE)
COMPANY ADDRESS	12831 Newport Ave. #200, Tustin, CA
PHONE	(714) 573-0081
FAX	
PROJECT NAME	Manhattan Beach Vault
PROJECT #	
SITE NAME AND ADDRESS	Manhattan Beach Vault 7314 Scout Ave. Bell Gardens, CA
PO #	

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.
1	S1	99088.01	7/10/19	1200	Soil	1 Jar	
2	S2	99088.02		1206			
3	S3	99088.03		1210			
4	S4	99088.04		1220			
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							

ANALYSIS REQUESTED

	PCBs	TPH - gld / o	Metals	Pesticides 8081A	Herbicides 8151A	VOCs 8260B
1	X	X	X	X	X	X
2	X	X	X	X	X	X
3	X	X	X	X	X	X
4	X	X	X	X	X	X

TEST INSTRUCTIONS & COMMENTS

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	4	PROPERLY COOLED (Y) N / NA	
CUSTODY SEALS Y / (N) NA		SAMPLES INTACT (Y) N / NA	
RECEIVED IN GOOD COND. (Y) N		SAMPLES ACCEPTED (Y) N	

TURN AROUND TIME

☐ NORMAL ☒ RUSH ☐ SAME DAY ☒ NEXT DAY ☐ 2 DAYS ☐ 3 DAYS

DATA DELIVERABLE REQUIRED

☐ HARD COPY ☐ PDF ☐ GEOTRACKER (GLOBAL ID) _____ ☐ OTHER (PLEASE SPECIFY) _____

	RELINQUISHED BY SAMPLER: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature			
Printed Name	Peter Lee		
Date / Time	7/10/19 1315		7/10/19 1700
	RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY LABORATORY: AETL 3.
Signature			
Printed Name			Sergey
Date / Time	7/10/19 1315		7/10/19 1200

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

AMERICAN ENVIRONMENTAL TESTING LABORATORY
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TEL (888) 288-AETL (818) 845-8200 FAX (818) 845-8840 www.aetlab.com

COOLER RECEIPT FORM

Client Name: Rubicon
Project Name:
AETL Job Number: 99088
Date Received: 7/10/19 Received by: Sergey
Carrier: ☑ AETL Courier ☐ Client ☐ GSO ☐ FedEx ☐ UPS
☐ Others:

Samples were received in: ☑ Cooler (1) ☐ Other (Specify):
Inside temperature of shipping container No 1: 3.2°C, No 2: _____, No 3: _____
Type of sample containers: ☐ VOA, ☐ Glass bottles, ☐ ☑ Wide mouth jars, ☐ ☐ HDPE bottles, ☐ Metal sleeves, ☐ Others (Specify):
How are samples preserved: ☐ None, ☐ Ice , ☑ Blue Ice, ☐ Dry Ice
☑ None, ☐ HNO_3, ☐ NaOH, ☐ ZnOAc, ☐ HCl, ☐ $Na_2S_2O_3$, ☐ MeOH
☐ Other (Specify):

	Yes	No, explain below	Name, if client was notified.
1. Are the COCs Correct?	✓		
2. Are the Sample labels legible?	✓		
3. Do samples match the COC?	✓		
4. Are the required analyses clear?	✓		
5. Is there enough samples for required analysis?	✓		
6. Are samples sealed with evidence tape?		✓	
7. Are sample containers in good condition?	✓		
8. Are samples preserved?	✓		
9. Are samples preserved properly for the intended analysis?	✓		
10. Are the VOAs free of headspace?	NA		
11. Are the jars free of headspace?	✓		

Explain all "No" answers for above questions:

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Ordered By

Southern California Edison Company
1 Innovation Way
Pomona, CA 91768-

Telephone: (909)274-1646
Attention: Ryan Castillo

Project ID: IO# TBD
Date Received 07/10/2019
Date Reported 07/11/2019

Job Number	Order Date	Client
99088	07/10/2019	SCE

CERTIFICATE OF ANALYSIS
CASE NARRATIVE

AETL received 4 samples with the following specification on 07/10/2019.

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
99088.01	S1	07/10/2019	Soil	1
99088.02	S2	07/10/2019	Soil	1
99088.03	S3	07/10/2019	Soil	1
99088.04	S4	07/10/2019	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
(6010B/7000CAM) ^ SCE	07/11/2019	2	Rush	mg/Kg
(8081A)	07/11/2019	2	Rush	ug/Kg
(8082) ^ SCE-1PPM	07/11/2019	2	Rush	mg/Kg
(8151A)	07/11/2019	2	Rush	ug/Kg
(8260B) ^ SCE	07/11/2019	2	Rush	mg/Kg
(M8015D) ^ SCE-C13C40	07/11/2019	2	Rush	mg/Kg
(M8015G) ^ SCE-C4-C12	07/11/2019	2	Rush	mg/Kg

The samples were analyzed as specified on the enclosed chain of custody.
No analytical non-conformances were encountered.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

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ANALYTICAL RESULTS

Ordered By

Southern California Edison Company
1 Innovation Way
Pomona, CA 91768-

Site

Manhattan Beach
7314 Scout Ave.
Bell Gardens, CA 90201

Telephone: (909)274-1646
Attn: Ryan Castillo
Page: **2**

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 0711191A1

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			07/11/2019				
Preparation Method			5030				
Date Analyzed			07/11/2019				
Matrix			Soil				
Units			mg/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Acetone	0.025	0.025	ND				
Benzene	0.001	0.001	ND				
Bromobenzene (Phenyl bromide)	0.005	0.005	ND				
Bromochloromethane	0.005	0.005	ND				
Bromodichloromethane	0.005	0.005	ND				
Bromoform (Tribromomethane)	0.025	0.025	ND				
Bromomethane (Methyl bromide)	0.015	0.015	ND				
2-Butanone (MEK)	0.025	0.025	ND				
n-Butylbenzene	0.005	0.005	ND				
sec-Butylbenzene	0.005	0.005	ND				
tert-Butylbenzene	0.005	0.005	ND				
Carbon Disulfide	0.025	0.025	ND				
Carbon tetrachloride	0.005	0.005	ND				
Chlorobenzene	0.005	0.005	ND				
Chloroethane	0.015	0.015	ND				
2-Chloroethyl vinyl ether	0.050	0.050	ND				
Chloroform (Trichloromethane)	0.005	0.005	ND				
Chloromethane (Methyl chloride)	0.015	0.015	ND				
2-Chlorotoluene	0.005	0.005	ND				
4-Chlorotoluene	0.005	0.005	ND				
1,2-Dibromo-3-chloropropane (DBCP)	0.005	0.005	ND				
Dibromochloromethane	0.005	0.005	ND				
1,2-Dibromoethane (EDB)	0.005	0.005	ND				
Dibromomethane	0.005	0.005	ND				
1,2-Dichlorobenzene	0.005	0.005	ND				
1,3-Dichlorobenzene	0.005	0.005	ND				
1,4-Dichlorobenzene	0.005	0.005	ND				
Dichlorodifluoromethane	0.015	0.015	ND				

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ANALYTICAL RESULTS

Project ID: IO# TBD
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99088	07/10/2019	SCE

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Client Sample I.D.							
Date Sampled							
Date Prepared			07/11/2019				
Preparation Method			5030				
Date Analyzed			07/11/2019				
Matrix			Soil				
Units			mg/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
1,1-Dichloroethane	0.005	0.005	ND				
1,2-Dichloroethane (EDC)	0.005	0.005	ND				
1,1-Dichloroethene	0.005	0.005	ND				
cis-1,2-Dichloroethene	0.005	0.005	ND				
trans-1,2-Dichloroethene	0.005	0.005	ND				
1,2-Dichloropropane	0.005	0.005	ND				
1,3-Dichloropropane	0.005	0.005	ND				
2,2-Dichloropropane	0.005	0.005	ND				
1,1-Dichloropropene	0.005	0.005	ND				
cis-1,3-Dichloropropene	0.005	0.005	ND				
trans-1,3-Dichloropropene	0.005	0.005	ND				
Ethylbenzene	0.001	0.001	ND				
Hexachlorobutadiene	0.015	0.015	ND				
2-Hexanone	0.025	0.025	ND				
Iodomethane	0.005	0.005	ND				
Isopropylbenzene	0.005	0.005	ND				
p-Isopropyltoluene	0.005	0.005	ND				
4-Methyl-2-pentanone (MIBK)	0.025	0.025	ND				
Methyl-tert-butyl ether (MTBE)	0.002	0.002	ND				
Methylene chloride (DCM)	0.025	0.025	ND				
Naphthalene	0.005	0.005	ND				
n-Propylbenzene	0.005	0.005	ND				
Styrene	0.005	0.005	ND				
1,1,1,2-Tetrachloroethane	0.005	0.005	ND				
1,1,2,2-Tetrachloroethane	0.005	0.005	ND				
Tetrachloroethene	0.002	0.002	ND				
Toluene (Methyl benzene)	0.001	0.001	ND				
1,2,3-Trichlorobenzene	0.005	0.005	ND				
1,2,4-Trichlorobenzene	0.005	0.005	ND				
1,1,1-Trichloroethane	0.005	0.005	ND				
1,1,2-Trichloroethane	0.005	0.005	ND				
Trichloroethene	0.0015	0.0015	ND				
Trichlorofluoromethane	0.005	0.005	ND				
1,2,3-Trichloropropane	0.001	0.001	ND				

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ANALYTICAL RESULTS

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

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QC Batch No: 0711191A1

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Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
1,2,4-Trimethylbenzene	0.005	0.005	ND				
1,3,5-Trimethylbenzene	0.005	0.005	ND				
Vinyl Acetate	0.025	0.025	ND				
Vinyl chloride (Chloroethene)	0.005	0.005	ND				
o-Xylene	0.001	0.001	ND				
m,p-Xylenes	0.001	0.001	ND				
Our Lab I.D.			Method Blank				
Surrogates	**%Rec.Limit**		**% Rec.**				
Bromofluorobenzene	75-125		108				
Dibromofluoromethane	75-125		109				
Toluene-d8	75-125		101				

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ANALYTICAL RESULTS

Ordered By

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1 Innovation Way
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Site

Manhattan Beach
7314 Scout Ave.
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Telephone: (909)274-1646
Attn: Ryan Castillo
Page: **5**

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 0711191A1

Our Lab I.D.			99088.01	99088.02			
Client Sample I.D.			S1	S2			
Date Sampled			07/10/2019	07/10/2019			
Date Prepared			07/11/2019	07/11/2019			
Preparation Method			5030	5030			
Date Analyzed			07/11/2019	07/11/2019			
Matrix			Soil	Soil			
Units			mg/Kg	mg/Kg			
Dilution Factor			50	50			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Acetone	1.250	1.250	ND	ND			
Benzene	0.050	0.050	ND	ND			
Bromobenzene (Phenyl bromide)	0.250	0.250	ND	ND			
Bromochloromethane	0.250	0.250	ND	ND			
Bromodichloromethane	0.250	0.250	ND	ND			
Bromoform (Tribromomethane)	1.250	1.250	ND	ND			
Bromomethane (Methyl bromide)	0.750	0.750	ND	ND			
2-Butanone (MEK)	1.250	1.250	ND	ND			
n-Butylbenzene	0.250	0.250	0.420	ND			
sec-Butylbenzene	0.250	0.250	ND	ND			
tert-Butylbenzene	0.250	0.250	ND	ND			
Carbon Disulfide	1.250	1.250	ND	ND			
Carbon tetrachloride	0.250	0.250	ND	ND			
Chlorobenzene	0.250	0.250	ND	ND			
Chloroethane	0.750	0.750	ND	ND			
2-Chloroethyl vinyl ether	2.500	2.500	ND	ND			
Chloroform (Trichloromethane)	0.250	0.250	ND	ND			
Chloromethane (Methyl chloride)	0.750	0.750	ND	ND			
2-Chlorotoluene	0.250	0.250	ND	ND			
4-Chlorotoluene	0.250	0.250	ND	ND			
1,2-Dibromo-3-chloropropane (DBCP)	0.250	0.250	ND	ND			
Dibromochloromethane	0.250	0.250	ND	ND			
1,2-Dibromoethane (EDB)	0.250	0.250	ND	ND			
Dibromomethane	0.250	0.250	ND	ND			
1,2-Dichlorobenzene	0.250	0.250	ND	ND			
1,3-Dichlorobenzene	0.250	0.250	ND	ND			
1,4-Dichlorobenzene	0.250	0.250	ND	ND			
Dichlorodifluoromethane	0.750	0.750	ND	ND			

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Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 0711191A1

Our Lab I.D.			99088.01	99088.02			
Client Sample I.D.			S1	S2			
Date Sampled			07/10/2019	07/10/2019			
Date Prepared			07/11/2019	07/11/2019			
Preparation Method			5030	5030			
Date Analyzed			07/11/2019	07/11/2019			
Matrix			Soil	Soil			
Units			mg/Kg	mg/Kg			
Dilution Factor			50	50			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
1,1-Dichloroethane	0.250	0.250	ND	ND			
1,2-Dichloroethane (EDC)	0.250	0.250	ND	ND			
1,1-Dichloroethene	0.250	0.250	ND	ND			
cis-1,2-Dichloroethene	0.250	0.250	ND	ND			
trans-1,2-Dichloroethene	0.250	0.250	ND	ND			
1,2-Dichloropropane	0.250	0.250	ND	ND			
1,3-Dichloropropane	0.250	0.250	ND	ND			
2,2-Dichloropropane	0.250	0.250	ND	ND			
1,1-Dichloropropene	0.250	0.250	ND	ND			
cis-1,3-Dichloropropene	0.250	0.250	ND	ND			
trans-1,3-Dichloropropene	0.250	0.250	ND	ND			
Ethylbenzene	0.050	0.050	ND	ND			
Hexachlorobutadiene	0.750	0.750	ND	ND			
2-Hexanone	1.250	1.250	ND	ND			
Iodomethane	0.250	0.250	ND	ND			
Isopropylbenzene	0.250	0.250	ND	ND			
p-Isopropyltoluene	0.250	0.250	0.303	ND			
4-Methyl-2-pentanone (MIBK)	1.250	1.250	ND	ND			
Methyl-tert-butyl ether (MTBE)	0.100	0.100	ND	ND			
Methylene chloride (DCM)	1.250	1.250	ND	ND			
Naphthalene	0.250	0.250	3.03	0.985			
n-Propylbenzene	0.250	0.250	ND	ND			
Styrene	0.250	0.250	ND	ND			
1,1,1,2-Tetrachloroethane	0.250	0.250	ND	ND			
1,1,2,2-Tetrachloroethane	0.250	0.250	ND	ND			
Tetrachloroethene	0.100	0.100	ND	ND			
Toluene (Methyl benzene)	0.050	0.050	ND	ND			
1,2,3-Trichlorobenzene	0.250	0.250	ND	ND			
1,2,4-Trichlorobenzene	0.250	0.250	ND	ND			
1,1,1-Trichloroethane	0.250	0.250	ND	ND			
1,1,2-Trichloroethane	0.250	0.250	ND	ND			
Trichloroethene	0.0750	0.0750	ND	ND			
Trichlorofluoromethane	0.250	0.250	ND	ND			
1,2,3-Trichloropropane	0.050	0.050	ND	ND			

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ANALYTICAL RESULTS

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 0711191A1

Our Lab I.D.			**99088.01**	**99088.02**			
Client Sample I.D.			S1	S2			
Date Sampled			07/10/2019	07/10/2019			
Date Prepared			07/11/2019	07/11/2019			
Preparation Method			5030	5030			
Date Analyzed			07/11/2019	07/11/2019			
Matrix			Soil	Soil			
Units			mg/Kg	mg/Kg			
Dilution Factor			50	50			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
1,2,4-Trimethylbenzene	0.250	0.250	1.25	0.414			
1,3,5-Trimethylbenzene	0.250	0.250	ND	ND			
Vinyl Acetate	1.250	1.250	ND	ND			
Vinyl chloride (Chloroethene)	0.250	0.250	ND	ND			
o-Xylene	0.050	0.050	0.171	ND			
m,p-Xylenes	0.050	0.050	0.124	ND			
Our Lab I.D.			**99088.01**	**99088.02**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
Bromofluorobenzene	75-125		103	104			
Dibromofluoromethane	75-125		97.3	99.0			
Toluene-d8	75-125		100	99.8			

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Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 0711191A1

Our Lab I.D.			99088.03	99088.04			
Client Sample I.D.			S3	S4			
Date Sampled			07/10/2019	07/10/2019			
Date Prepared			07/11/2019	07/11/2019			
Preparation Method			5030	5030			
Date Analyzed			07/11/2019	07/11/2019			
Matrix			Soil	Soil			
Units			mg/Kg	mg/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Acetone	0.025	0.025	ND	ND			
Benzene	0.001	0.001	ND	ND			
Bromobenzene (Phenyl bromide)	0.005	0.005	ND	ND			
Bromochloromethane	0.005	0.005	ND	ND			
Bromodichloromethane	0.005	0.005	ND	ND			
Bromoform (Tribromomethane)	0.025	0.025	ND	ND			
Bromomethane (Methyl bromide)	0.015	0.015	ND	ND			
2-Butanone (MEK)	0.025	0.025	ND	ND			
n-Butylbenzene	0.005	0.005	ND	ND			
sec-Butylbenzene	0.005	0.005	ND	ND			
tert-Butylbenzene	0.005	0.005	ND	ND			
Carbon Disulfide	0.025	0.025	ND	ND			
Carbon tetrachloride	0.005	0.005	ND	ND			
Chlorobenzene	0.005	0.005	ND	ND			
Chloroethane	0.015	0.015	ND	ND			
2-Chloroethyl vinyl ether	0.050	0.050	ND	ND			
Chloroform (Trichloromethane)	0.005	0.005	ND	ND			
Chloromethane (Methyl chloride)	0.015	0.015	ND	ND			
2-Chlorotoluene	0.005	0.005	ND	ND			
4-Chlorotoluene	0.005	0.005	ND	ND			
1,2-Dibromo-3-chloropropane (DBCP)	0.005	0.005	ND	ND			
Dibromochloromethane	0.005	0.005	ND	ND			
1,2-Dibromoethane (EDB)	0.005	0.005	ND	ND			
Dibromomethane	0.005	0.005	ND	ND			
1,2-Dichlorobenzene	0.005	0.005	ND	ND			
1,3-Dichlorobenzene	0.005	0.005	ND	ND			
1,4-Dichlorobenzene	0.005	0.005	ND	ND			
Dichlorodifluoromethane	0.015	0.015	ND	ND			

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ANALYTICAL RESULTS

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 0711191A1

Our Lab I.D.			99088.03	99088.04			
Client Sample I.D.			S3	S4			
Date Sampled			07/10/2019	07/10/2019			
Date Prepared			07/11/2019	07/11/2019			
Preparation Method			5030	5030			
Date Analyzed			07/11/2019	07/11/2019			
Matrix			Soil	Soil			
Units			mg/Kg	mg/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
1,1-Dichloroethane	0.005	0.005	ND	ND			
1,2-Dichloroethane (EDC)	0.005	0.005	ND	ND			
1,1-Dichloroethene	0.005	0.005	ND	ND			
cis-1,2-Dichloroethene	0.005	0.005	ND	ND			
trans-1,2-Dichloroethene	0.005	0.005	ND	ND			
1,2-Dichloropropane	0.005	0.005	ND	ND			
1,3-Dichloropropane	0.005	0.005	ND	ND			
2,2-Dichloropropane	0.005	0.005	ND	ND			
1,1-Dichloropropene	0.005	0.005	ND	ND			
cis-1,3-Dichloropropene	0.005	0.005	ND	ND			
trans-1,3-Dichloropropene	0.005	0.005	ND	ND			
Ethylbenzene	0.001	0.001	ND	ND			
Hexachlorobutadiene	0.015	0.015	ND	ND			
2-Hexanone	0.025	0.025	ND	ND			
Iodomethane	0.005	0.005	ND	ND			
Isopropylbenzene	0.005	0.005	ND	ND			
p-Isopropyltoluene	0.005	0.005	0.0147	ND			
4-Methyl-2-pentanone (MIBK)	0.025	0.025	ND	ND			
Methyl-tert-butyl ether (MTBE)	0.002	0.002	ND	ND			
Methylene chloride (DCM)	0.025	0.025	ND	ND			
Naphthalene	0.005	0.005	ND	0.00963			
n-Propylbenzene	0.005	0.005	ND	ND			
Styrene	0.005	0.005	ND	ND			
1,1,1,2-Tetrachloroethane	0.005	0.005	ND	ND			
1,1,2,2-Tetrachloroethane	0.005	0.005	ND	ND			
Tetrachloroethene	0.002	0.002	ND	ND			
Toluene (Methyl benzene)	0.001	0.001	ND	ND			
1,2,3-Trichlorobenzene	0.005	0.005	ND	ND			
1,2,4-Trichlorobenzene	0.005	0.005	ND	ND			
1,1,1-Trichloroethane	0.005	0.005	ND	ND			
1,1,2-Trichloroethane	0.005	0.005	ND	ND			
Trichloroethene	0.0015	0.0015	ND	ND			
Trichlorofluoromethane	0.005	0.005	ND	ND			
1,2,3-Trichloropropane	0.001	0.001	ND	ND			

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ANALYTICAL RESULTS

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 0711191A1

Our Lab I.D.			**99088.03**	**99088.04**			
Client Sample I.D.			S3	S4			
Date Sampled			07/10/2019	07/10/2019			
Date Prepared			07/11/2019	07/11/2019			
Preparation Method			5030	5030			
Date Analyzed			07/11/2019	07/11/2019			
Matrix			Soil	Soil			
Units			mg/Kg	mg/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
1,2,4-Trimethylbenzene	0.005	0.005	0.0300	0.00562			
1,3,5-Trimethylbenzene	0.005	0.005	0.0107	ND			
Vinyl Acetate	0.025	0.025	ND	ND			
Vinyl chloride (Chloroethene)	0.005	0.005	ND	ND			
o-Xylene	0.001	0.001	0.00670	0.00104			
m,p-Xylenes	0.001	0.001	0.00185	ND			
Our Lab I.D.			**99088.03**	**99088.04**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
Bromofluorobenzene	75-125		118	112			
Dibromofluoromethane	75-125		94.9	102			
Toluene-d8	75-125		100	104			

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Attn: Ryan Castillo
Page: **11**

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 070919OB3

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			07/10/2019				
Preparation Method			5030				
Date Analyzed			07/11/2019				
Matrix			Soil				
Units			mg/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
TPH as Gasoline and Light HC. (C4-C12)	10.0	10.0	ND				
Our Lab I.D.			Method Blank				
Surrogates	**%Rec.Limit**		**% Rec.**				
Bromofluorobenzene	75-125		105				

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Page: **12**

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 070919OB3

Our Lab I.D.			**99088.01**	**99088.02**			
Client Sample I.D.			S1	S2			
Date Sampled			07/10/2019	07/10/2019			
Date Prepared			07/10/2019	07/10/2019			
Preparation Method			5030	5030			
Date Analyzed			07/11/2019	07/11/2019			
Matrix			Soil	Soil			
Units			mg/Kg	mg/Kg			
Dilution Factor			5	5			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
TPH as Gasoline and Light HC. (C4-C12)	50	50	143	72.6			
Our Lab I.D.			**99088.01**	**99088.02**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
Bromofluorobenzene	75-125		106	97.8			

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Page: **13**

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 070919OB3

Our Lab I.D.			99088.03	99088.04			
Client Sample I.D.			S3	S4			
Date Sampled			07/10/2019	07/10/2019			
Date Prepared			07/10/2019	07/10/2019			
Preparation Method			5030	5030			
Date Analyzed			07/11/2019	07/11/2019			
Matrix			Soil	Soil			
Units			mg/Kg	mg/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
TPH as Gasoline and Light HC. (C4-C12)	10.0	10.0	ND	ND			
Our Lab I.D.			99088.03	99088.04			
Surrogates	%Rec.Limit		% Rec.	% Rec.			
Bromofluorobenzene	75-125		103	111			

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Page: **14**

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 071119PB1

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			07/11/2019				
Preparation Method			3550B				
Date Analyzed			07/11/2019				
Matrix			Soil				
Units			mg/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
TPH as Diesel (C13-C22)	10.0	10.0	ND				
TPH as Heavy Hydrocarbons (C23-C40)	100	100	ND				
TPH Total as Diesel and Heavy HC.C13-C40	100	100	ND				
Our Lab I.D.			Method Blank				
Surrogates	**%Rec.Limit**		**% Rec.**				
Chlorobenzene	75-125		116				

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Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 071119PB1

Our Lab I.D.			99088.01	99088.02	99088.03	99088.04	
Client Sample I.D.			S1	S2	S3	S4	
Date Sampled			07/10/2019	07/10/2019	07/10/2019	07/10/2019	
Date Prepared			07/11/2019	07/11/2019	07/11/2019	07/11/2019	
Preparation Method			3550B	3550B	3550B	3550B	
Date Analyzed			07/11/2019	07/11/2019	07/11/2019	07/11/2019	
Matrix			Soil	Soil	Soil	Soil	
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	
Dilution Factor			2	2	2	2	
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	
TPH as Diesel (C13-C22)	20	20	1,520	590	191	471	
TPH as Heavy Hydrocarbons (C23-C40)	200	200	1,670	626	226	545	
TPH Total as Diesel and Heavy HC.C13-C40	200	200	3,190	1,220	417	1,020	
Our Lab I.D.			99088.01	99088.02	99088.03	99088.04	
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	
Chlorobenzene	75-125		105	106	104	106	

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Page: **16**

Site

Manhattan Beach
7314 Scout Ave.
Bell Gardens, CA 90201

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8081A), Organochlorine Pesticides by GC

QC Batch No: 071119EB1

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			07/11/2019				
Preparation Method			3550B				
Date Analyzed			07/11/2019				
Matrix			Soil				
Units			ug/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Aldrin	1.0	2.0	ND				
Chlordane (Total)	1.0	2.0	ND				
Chlordane (alpha)	1.0	2.0	ND				
4,4'-DDD (DDD)	1.0	2.0	ND				
4,4'-DDE (DDE)	1.0	2.0	ND				
4,4'-DDT (DDT)	1.0	2.0	ND				
Dieldrin	1.0	2.0	ND				
Endosulfan 1	1.0	2.0	ND				
Endosulfan 11	1.0	2.0	ND				
Endosulfan sulfate	1.0	2.0	ND				
Endrin	1.0	2.0	ND				
Endrin aldehyde	1.0	2.0	ND				
Endrin ketone	1.0	2.0	ND				
Chlordane (gamma)	1.0	2.0	ND				
Heptachlor	1.0	2.0	ND				
Heptachlor epoxide	1.0	2.0	ND				
alpha-Hexachlorocyclohexane (Alpha-BHC)	1.0	2.0	ND				
beta-Hexachlorocyclohexane (Betta-BHC)	1.0	2.0	ND				
delta-Hexachlorocyclohexane (Delta-BHC)	1.0	2.0	ND				
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	1.0	2.0	ND				
Methoxychlor	5.0	10.0	ND				
Toxaphene	80.0	170.0	ND				

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ANALYTICAL RESULTS

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8081A), Organochlorine Pesticides by GC

Our Lab I.D.			Method Blank				
Surrogates	**%Rec.Limit**		**% Rec.**				
Decachlorobiphenyl	30-150		70.0				
Tetrachloro-m-xylene	30-150		62.8				

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Page: **18**

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8081A), Organochlorine Pesticides by GC

QC Batch No: 071119EB1

Our Lab I.D.			99088.01	99088.02	99088.03	99088.04	
Client Sample I.D.			S1	S2	S3	S4	
Date Sampled			07/10/2019	07/10/2019	07/10/2019	07/10/2019	
Date Prepared			07/11/2019	07/11/2019	07/11/2019	07/11/2019	
Preparation Method			3550B	3550B	3550B	3550B	
Date Analyzed			07/11/2019	07/11/2019	07/11/2019	07/11/2019	
Matrix			Soil	Soil	Soil	Soil	
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	
Dilution Factor			2	2	2	2	
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	
Aldrin	2.0	4.0	ND	ND	ND	ND	
Chlordane (Total)	2.0	4.0	ND	ND	ND	ND	
Chlordane (alpha)	2.0	4.0	ND	ND	ND	ND	
4,4'-DDD (DDD)	2.0	4.0	ND	ND	ND	ND	
4,4'-DDE (DDE)	2.0	4.0	ND	ND	ND	ND	
4,4'-DDT (DDT)	2.0	4.0	ND	ND	ND	ND	
Dieldrin	2.0	4.0	ND	ND	ND	ND	
Endosulfan 1	2.0	4.0	ND	ND	ND	ND	
Endosulfan 11	2.0	4.0	ND	ND	ND	ND	
Endosulfan sulfate	2.0	4.0	ND	ND	ND	ND	
Endrin	2.0	4.0	ND	ND	ND	ND	
Endrin aldehyde	2.0	4.0	ND	ND	ND	ND	
Endrin ketone	2.0	4.0	ND	ND	ND	ND	
Chlordane (gamma)	2.0	4.0	ND	ND	ND	ND	
Heptachlor	2.0	4.0	ND	ND	ND	ND	
Heptachlor epoxide	2.0	4.0	ND	ND	ND	ND	
alpha-Hexachlorocyclohexane (Alpha-BHC)	2.0	4.0	ND	ND	ND	ND	
beta-Hexachlorocyclohexane (Betta-BHC)	2.0	4.0	ND	ND	ND	ND	
delta-Hexachlorocyclohexane (Delta-BHC)	2.0	4.0	ND	ND	ND	ND	
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	2.0	4.0	ND	ND	ND	ND	
Methoxychlor	10	20	ND	ND	ND	ND	
Toxaphene	160	340	ND	ND	ND	ND	

Comment(s):
99088.01: Analyzed under dilution due to matrix interference 99088.02: Analyzed under dilution due to matrix interference 99088.03: Analyzed under dilution due to matrix interference 99088.04: Analyzed under dilution due to matrix interference

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ANALYTICAL RESULTS

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8081A), Organochlorine Pesticides by GC

Our Lab I.D.			99088.01	99088.02	99088.03	99088.04	
Surrogates	%Rec.Limit		% Rec.	% Rec.	% Rec.	% Rec.	
Decachlorobiphenyl	30-150		48.4	74.8	50.8	44.8	
Tetrachloro-m-xylene	30-150		44.4	63.2	55.2	54.0	

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Page: **20**

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8082), Polychlorinated Biphenyls (PCBs) by GC

QC Batch No: 071119ZB1

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			07/11/2019				
Preparation Method			3550B				
Date Analyzed			07/11/2019				
Matrix			Soil				
Units			mg/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Aroclor-1016 (PCB-1016)	1.0	1.0	ND				
Aroclor-1221 (PCB-1221)	1.0	1.0	ND				
Aroclor-1232 (PCB-1232)	1.0	1.0	ND				
Aroclor-1242 (PCB-1242)	1.0	1.0	ND				
Aroclor-1248 (PCB-1248)	1.0	1.0	ND				
Aroclor-1254 (PCB-1254)	1.0	1.0	ND				
Aroclor-1260 (PCB-1260)	1.0	1.0	ND				
Aroclor-1262 (PCB-1262)	1.0	1.0	ND				
Aroclor-1268 (PCB-1268)	1.0	1.0	ND				
Our Lab I.D.			Method Blank				
Surrogates	**%Rec.Limit**		**% Rec.**				
Decachlorobiphenyl	30-150		98.8				
Tetrachloro-m-xylene	30-150		103				

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Page: **21**

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8082), Polychlorinated Biphenyls (PCBs) by GC

QC Batch No: 071119ZB1

Our Lab I.D.			99088.01	99088.02	99088.03	99088.04	
Client Sample I.D.			S1	S2	S3	S4	
Date Sampled			07/10/2019	07/10/2019	07/10/2019	07/10/2019	
Date Prepared			07/11/2019	07/11/2019	07/11/2019	07/11/2019	
Preparation Method			3550B	3550B	3550B	3550B	
Date Analyzed			07/11/2019	07/11/2019	07/11/2019	07/11/2019	
Matrix			Soil	Soil	Soil	Soil	
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	
Dilution Factor			2	2	2	2	
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	
Aroclor-1016 (PCB-1016)	2.0	2.0	ND	ND	ND	ND	
Aroclor-1221 (PCB-1221)	2.0	2.0	ND	ND	ND	ND	
Aroclor-1232 (PCB-1232)	2.0	2.0	ND	ND	ND	ND	
Aroclor-1242 (PCB-1242)	2.0	2.0	ND	ND	ND	ND	
Aroclor-1248 (PCB-1248)	2.0	2.0	ND	ND	ND	ND	
Aroclor-1254 (PCB-1254)	2.0	2.0	ND	ND	ND	ND	
Aroclor-1260 (PCB-1260)	2.0	2.0	ND	ND	ND	ND	
Aroclor-1262 (PCB-1262)	2.0	2.0	ND	ND	ND	ND	
Aroclor-1268 (PCB-1268)	2.0	2.0	ND	ND	ND	ND	

Comment(s):
99088.01: Analyzed under dilution due to matrix interference 99088.02: Analyzed under dilution due to matrix interference 99088.03: Analyzed under dilution due to matrix interference 99088.04: Analyzed under dilution due to matrix interference

Our Lab I.D.			99088.01	99088.02	99088.03	99088.04	
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	
Decachlorobiphenyl	30-150		82.8	99.2	90.8	72.4	
Tetrachloro-m-xylene	30-150		70.4	81.6	105	64.0	

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Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8151A), Chlorinated Herbicides by GC/ECD

QC Batch No: 071119MB1

Our Lab I.D.			Method Blank	**99088.03**	**99088.04**		
Client Sample I.D.				S3	S4		
Date Sampled				07/10/2019	07/10/2019		
Date Prepared			07/11/2019	07/11/2019	07/11/2019		
Preparation Method			3550B	3550B	3550B		
Date Analyzed			07/11/2019	07/11/2019	07/11/2019		
Matrix			Soil	Soil	Soil		
Units			ug/Kg	ug/Kg	ug/Kg		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
Acifluorfen	20	20	ND	ND	ND		
Bentazon	10	10	ND	ND	ND		
Chloramben	10	10	ND	ND	ND		
2,4-D	10	10	ND	ND	ND		
Dalapon	20	20	ND	ND	ND		
2,4-DB	10	10	ND	ND	ND		
DCPA diacid	20	20	ND	ND	ND		
Dicamba	10	10	ND	ND	ND		
3,5-Dichlorobenzoic acid	10	10	ND	ND	ND		
Dichloroprop	10	10	ND	ND	ND		
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	20	20	ND	ND	ND		
MCPA	2000	2000	ND	ND	ND		
MCPP	2000	2000	ND	ND	ND		
4-Nitrophenol	10	10	ND	ND	ND		
Pentachlorophenol (PCP)	10	10	ND	ND	ND		
Picloram	10	10	ND	ND	ND		
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	10	10	ND	ND	ND		
2,4,5-TP	10	10	ND	ND	ND		
Our Lab I.D.			Method Blank	**99088.03**	**99088.04**		
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**		
DCAA	40-150		69.6	52.0	50.4		

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Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8151A), Chlorinated Herbicides by GC/ECD

QC Batch No: 071119MB1

Our Lab I.D.			**99088.01**	**99088.02**			
Client Sample I.D.			S1	S2			
Date Sampled			07/10/2019	07/10/2019			
Date Prepared			07/11/2019	07/11/2019			
Preparation Method			3550B	3550B			
Date Analyzed			07/11/2019	07/11/2019			
Matrix			Soil	Soil			
Units			ug/Kg	ug/Kg			
Dilution Factor			5	5			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Acifluorfen	100	100	ND	ND			
Bentazon	50	50	ND	ND			
Chloramben	50	50	ND	ND			
2,4-D	50	50	ND	ND			
Dalapon	100	100	ND	ND			
2,4-DB	50	50	ND	ND			
DCPA diacid	100	100	ND	ND			
Dicamba	50	50	ND	ND			
3,5-Dichlorobenzoic acid	50	50	ND	ND			
Dichloroprop	50	50	ND	ND			
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	100	100	ND	ND			
MCPA	10000	10000	ND	ND			
MCPP	10000	10000	ND	ND			
4-Nitrophenol	50	50	ND	ND			
Pentachlorophenol (PCP)	50	50	ND	ND			
Picloram	50	50	ND	ND			
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	50	50	ND	ND			
2,4,5-TP	50	50	ND	ND			
Our Lab I.D.			**99088.01**	**99088.02**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
DCAA	40-150		89.2	44.6			

Comment(s):
99088.01: Analyzed under dilution due to matrix interference 99088.02: Analyzed under dilution due to matrix interference

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Page: **24**

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 0710192C6

Our Lab I.D.			Method Blank	99088.01	99088.02	99088.03	99088.04
Client Sample I.D.				S1	S2	S3	S4
Date Sampled				07/10/2019	07/10/2019	07/10/2019	07/10/2019
Date Prepared			07/10/2019	07/10/2019	07/10/2019	07/10/2019	07/10/2019
Preparation Method			3050B	3050B	3050B	3050B	3050B
Date Analyzed			07/11/2019	07/11/2019	07/11/2019	07/11/2019	07/11/2019
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Antimony	5.0	5.0	ND	ND	ND	ND	ND
Arsenic	2.5	2.5	ND	ND	ND	ND	ND
Barium	5.0	5.0	ND	40.9	40.3	36.6	30.6
Beryllium	2.5	2.5	ND	ND	ND	ND	ND
Cadmium	2.5	2.5	ND	ND	ND	ND	ND
Chromium	5.0	5.0	ND	9.04	8.70	8.64	8.36
Cobalt	5.0	5.0	ND	ND	ND	ND	ND
Copper	5.0	5.0	ND	5.04	ND	ND	ND
Lead	5.0	5.0	ND	ND	ND	ND	ND
Mercury (By EPA 7471)	0.2	0.2	ND	ND	ND	ND	ND
Molybdenum	5.0	5.0	ND	ND	ND	ND	ND
Nickel	5.0	5.0	ND	5.81	5.30	5.75	ND
Selenium	5.0	5.0	ND	ND	ND	ND	ND
Silver	5.0	5.0	ND	ND	ND	ND	ND
Thallium	5.0	5.0	ND	ND	ND	ND	ND
Vanadium	5.0	5.0	ND	15.4	14.6	13.8	11.7
Zinc	5.0	5.0	ND	16.6	16.1	15.5	14.4

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Page: **25**

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 0710192C6; LCS: Clean Sand; LCS Prepared: 07/10/2019; LCS Analyzed: 07/11/2019; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Antimony	50.0	53.5	107	50.0	53.7	107	<1	75-125	<15	
Arsenic	50.0	51.8	104	50.0	51.6	103	<1	75-125	<15	
Barium	50.0	51.2	102	50.0	51.2	102	<1	75-125	<15	
Beryllium	50.0	50.3	101	50.0	50.3	101	<1	75-125	<15	
Cadmium	50.0	51.3	103	50.0	51.4	103	<1	75-125	<15	
Chromium	50.0	52.0	104	50.0	52.0	104	<1	75-125	<15	
Cobalt	50.0	49.4	98.8	50.0	49.2	98.4	<1	75-125	<15	
Copper	50.0	49.9	99.8	50.0	50.1	100	<1	75-125	<15	
Lead	50.0	48.9	97.8	50.0	48.9	97.8	<1	75-125	<15	
Mercury (By EPA 7471)	0.500	0.510	102	0.500	0.510	102	<1	75-125	<15	
Molybdenum	50.0	50.5	101	50.0	50.4	101	<1	75-125	<15	
Nickel	50.0	49.9	99.8	50.0	50.0	100	<1	75-125	<15	
Selenium	50.0	51.8	104	50.0	51.2	102	1.94	75-125	<15	
Silver	50.0	50.8	102	50.0	50.9	102	<1	75-125	<15	
Thallium	50.0	47.7	95.4	50.0	47.5	95.0	<1	75-125	<15	
Vanadium	50.0	51.8	104	50.0	51.9	104	<1	75-125	<15	
Zinc	50.0	53.5	107	50.0	53.6	107	<1	75-125	<15	

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Attn: Ryan Castillo
Page: **26**

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8081A), Organochlorine Pesticides by GC

QC Batch No: 071119EB1; Dup or Spiked Sample: 99078.01; LCS: Clean Sand; QC Prepared: 07/11/2019; QC Analyzed: 07/11/2019; Units: ug/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Aldrin	0.00	20.0	9.38	46.9	20.0	7.44 #	37.2	23.1	40-150	<40
4,4'-DDT (DDT)	0.00	50.0	27.6	55.2	50.0	16.7 #	33.4	49.2	40-150	<40
Dieldrin	0.00	50.0	33.5	67.0	50.0	31.5	63.0	6.15	40-150	<40
Endrin	0.00	50.0	37.1	74.2	50.0	33.8	67.6	9.31	40-150	<40
Heptachlor	0.00	20.0	11.5	57.5	20.0	10.3	51.5	11.0	40-150	<40
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	0.00	20.0	12.3	61.5	20.0	11.9	59.5	3.31	40-150	<40
Surrogates										
Decachlorobiphenyl	0.00	25.0	15.8	63.2	25.0	14.1	56.4	10.8	30-150	<40
Tetrachloro-m-xylene	0.00	25.0	14.8	59.2	25.0	15.0	60.0	1.35	30-150	<40

QC Batch No: 071119EB1; Dup or Spiked Sample: 99078.01; LCS: Clean Sand; QC Prepared: 07/11/2019; QC Analyzed: 07/11/2019; Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Aldrin	20.0	12.5	62.5	20.0	11.7	58.5	6.61	50-150	<40	
4,4'-DDT (DDT)	50.0	33.5	67.0	50.0	31.7	63.4	5.52	50-150	<40	
Dieldrin	50.0	32.3	64.6	50.0	30.3	60.6	6.39	50-150	<40	
Endrin	50.0	33.3	66.6	50.0	31.4	62.8	5.87	50-150	<40	
Heptachlor	20.0	12.2	61.0	20.0	11.5	57.5	5.91	50-150	<40	
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	20.0	11.7	58.5	20.0	10.9	54.5	7.08	50-150	<40	
Surrogates										
Decachlorobiphenyl	25.0	15.8	63.2	25.0	16.3	65.2	3.16	30-150	<40	
Tetrachloro-m-xylene	25.0	15.1	60.4	25.0	14.5	58.0	3.97	30-150	<40	

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Ordered By

Southern California Edison Company
1 Innovation Way
Pomona, CA 91768-

Telephone: (909)274-1646
Attn: Ryan Castillo

Site

Manhattan Beach
7314 Scout Ave.
Bell Gardens, CA 90201

Page: **27**

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8082), Polychlorinated Biphenyls (PCBs) by GC

QC Batch No: 071119ZB1; Dup or Spiked Sample: 99074.02; LCS: Clean Sand; QC Prepared: 07/11/2019; QC Analyzed: 07/11/2019; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Aroclor-1016 (PCB-1016)	0.00	0.500	0.480	96.0	0.500	0.470	94.4	1.68	50-150	<20
Aroclor-1260 (PCB-1260)	0.00	0.500	0.580	115	0.500	0.480	96.2	17.8	50-150	<20
Surrogates										
Decachlorobiphenyl	0.00	0.0250	0.0283	113	0.0250	0.0240	96.0	15.0	30-150	<20
Tetrachloro-m-xylene	0.00	0.0250	0.0251	100	0.0250	0.0224	89.6	10.4	30-150	<20

QC Batch No: 071119ZB1; Dup or Spiked Sample: 99074.02; LCS: Clean Sand; QC Prepared: 07/11/2019; QC Analyzed: 07/11/2019; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Aroclor-1016 (PCB-1016)	0.500	0.440	88.8	0.500	0.470	93.4	5.05	50-150	<20	
Aroclor-1260 (PCB-1260)	0.500	0.470	93.8	0.500	0.500	100	6.40	50-150	<20	
Surrogates										
Decachlorobiphenyl	0.0250	0.0241	96.4	0.0250	0.0260	104	7.88	30-150	<20	
Tetrachloro-m-xylene	0.0250	0.0230	92.0	0.0250	0.0247	98.8	7.39	30-150	<20	

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Page: **28**

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8151A), Chlorinated Herbicides by GC/ECD

QC Batch No: 071119MB1; Dup or Spiked Sample: 99041.01; LCS: Clean Sand; QC Prepared: 07/11/2019; QC Analyzed: 07/11/2019; Units: ug/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
2,4-D	0.00	25.0	22.4	89.6	25.0	22.3	89.2	<1	40-140	<40
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	0.00	25.0	18.5	74.0	25.0	18.1	72.4	2.19	40-140	<40
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	0.00	25.0	19.2	76.8	25.0	17.7	70.8	8.13	40-140	<40
Surrogates										
DCAA	0.00	50.0	49.1	98.2	50.0	64.3	129	31.4	40-140	<40

QC Batch No: 071119MB1; Dup or Spiked Sample: 99041.01; LCS: Clean Sand; QC Prepared: 07/11/2019; QC Analyzed: 07/11/2019; Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
2,4-D	25.0	20.8	83.2	25.0	20.6	82.4	<1	50-140	<40	
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	25.0	18.7	74.8	25.0	18.4	73.6	1.62	50-140	<40	
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	25.0	19.0	76.0	25.0	18.8	75.2	1.06	50-140	<40	
LCS										
Dalapon	25.0	32.3	129	25.0	34.1	136	5.28	50-140	<40	
2,4-DB	25.0	17.2	68.8	25.0	15.5	62.0	10.4	50-140	<40	
Dicamba	25.0	18.9	75.6	25.0	18.6	74.4	1.60	50-140	<40	
Dichloroprop	25.0	22.4	89.6	25.0	21.2	84.8	5.50	50-140	<40	
MCPA	2,500	2,590	104	2,500	2,550	102	1.94	50-140	<40	
MCPP	2,500	2,640	105	2,500	2,590	104	<1	50-140	<40	
2,4,5-TP	25.0	21.3	85.2	25.0	20.9	83.6	1.90	50-140	<40	
Surrogates										
DCAA	50.0	46.6	93.2	50.0	48.3	96.6	3.65	50-140	<40	

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Page: **29**

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 0711191A1; LCS: Clean Sand; LCS Prepared: 07/11/2019; LCS Analyzed: 07/11/2019; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Benzene	0.0500	0.0510	102	0.0500	0.0510	102	<1	75-125	<20	
Carbon tetrachloride	0.0500	0.0545	109	0.0500	0.0550	110	<1	75-125	<20	
Chlorobenzene	0.0500	0.0540	108	0.0500	0.0545	109	<1	75-125	<20	
Chloroform (Trichloromethane)	0.0500	0.0515	103	0.0500	0.0520	104	<1	75-125	<20	
1,2-Dichlorobenzene	0.0500	0.0585	117	0.0500	0.0585	117	<1	75-125	<20	
1,1-Dichloroethane	0.0500	0.0555	111	0.0500	0.0560	112	<1	75-125	<20	
1,1-Dichloroethene	0.0500	0.0530	106	0.0500	0.0545	109	2.8	75-125	<20	
cis-1,2-Dichloroethene	0.0500	0.0530	106	0.0500	0.0530	106	<1	75-125	<20	
Ethylbenzene	0.0500	0.0540	108	0.0500	0.0545	109	<1	75-125	<20	
Methyl-tert-butyl ether (MTBE)	0.0500	0.0530	106	0.0500	0.0530	106	<1	75-125	<20	
n-Propylbenzene	0.0500	0.0605	121	0.0500	0.0610	122	<1	75-125	<20	
Toluene (Methyl benzene)	0.0500	0.0540	108	0.0500	0.0545	109	<1	75-125	<20	
1,1,1-Trichloroethane	0.0500	0.0550	110	0.0500	0.0555	111	<1	75-125	<20	
1,1,2-Trichloroethane	0.0500	0.0481	96.2	0.0500	0.0485	97.0	<1	75-125	<20	
Trichloroethene	0.0500	0.0520	104	0.0500	0.0520	104	<1	75-125	<20	
1,2,4-Trimethylbenzene	0.0500	0.0580	116	0.0500	0.0575	115	<1	75-125	<20	
1,3,5-Trimethylbenzene	0.0500	0.0580	116	0.0500	0.0580	116	<1	75-125	<20	
o-Xylene	0.0500	0.0520	104	0.0500	0.0530	106	1.9	75-125	<20	
m,p-Xylenes	0.100	0.104	104	0.100	0.105	105	<1	75-125	<20	
Surrogates										
Bromofluorobenzene	0.0500	0.0550	110	0.0500	0.0555	111	<1	75-125	<20	
Dibromofluoromethane	0.0500	0.0500	100	0.0500	0.0500	100	<1	75-125	<20	
Toluene-d8	0.0500	0.0510	102	0.0500	0.0515	103	<1	75-125	<20	

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Page: **30**

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 071119PB1; Dup or Spiked Sample: 99064.06; LCS: Clean Sand; QC Prepared: 07/11/2019; QC Analyzed: 07/11/2019; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
TPH as Diesel (C13-C22)	0.00	500	513	103	500	511	102	<1	75-125	<20
Surrogates										
Chlorobenzene	0.00	100	115	115	100	113	113	1.74	75-125	<20

QC Batch No: 071119PB1; Dup or Spiked Sample: 99064.06; LCS: Clean Sand; QC Prepared: 07/11/2019; QC Analyzed: 07/11/2019; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit						
TPH as Diesel (C13-C22)	500	548	110	75-125						
Surrogates										
Chlorobenzene	100	115	115	75-125						

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Page: **31**

Project ID: IO# TBD
Project Name: Manhattan Beach Vault

AETL Job Number	Submitted	Client
99088	07/10/2019	SCE

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 070919OB3; LCS: Clean Sand; LCS Prepared: 07/10/2019; LCS Analyzed: 07/10/2019; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
TPH as Gasoline and Light HC. (C4-C12)	1.00	0.998	99.8	1.00	0.997	99.7	<1	75-125	<20	
Surrogates										
Bromofluorobenzene	0.0500	0.0540	108	0.0500	0.0515	103	4.7	75-125	<20	

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Data Qualifiers and Descriptors

Data Qualifier:

#:	Recovery is not within acceptable control limits.
*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above PQL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

AGENT SPECIAL WASTE SERVICE AGREEMENT
NON-HAZARDOUS WASTES

REPUBLIC SERVICES

Special Waste Profile Number: **5123 19 10544**

Agent Billing Information

Name: W A RASIC (ACCT 333339)
Address: 4150 LONG BEACH BLVD
City: LONG BEACH
State: CA Zip: 90807
Phone: 562.928.6111 Fax:
Contact: CHRIS GALVAN

Republic Waste Location (Company)

SUNSHINE CANYON LANDFILL (5123
14747 SAN FERNANDO ROAD
SYLMAR, CA 91342
818.362.2141

Project: SOUTHERN CALIFORNIA EDISON **County and State of Origin:** LOS ANGELES, CA
Generator Address: INTERSECTION OF PARKWAY AND PARKVIEW, MANHATTAN BEACH
Additional Information: CONTACT: RYAN CASTILLO 626.656.0453

1. **Special Waste Service**. Subject to the terms and conditions contained herein, the Company and the Agent agree to be legally bound hereby and the Company agrees to accept at its facility identified above ("Facility"), Acceptable Waste (as defined in Section 6) delivered by Agent.

[redacted]

Agent shall also be liable for all taxes, fees, or other charges imposed by federal, state, local or provincial laws and regulations.

Cannot Exceed Daily Volume of 100 TONS Without Prior Approval of Company.

(B) **Incorporation by Reference**. In addition to Special Waste Profile(s), the following documents are incorporated by reference into this Agreement as if fully set forth herein.

1)N/A
2)N/A

3. **Term of Agreement**. This Agreement is effective for 12 months, commencing 7/15/2019 and shall automatically be renewed for a similar term thereafter unless either party shall give written notice (via certified mail) of termination to the other party at least thirty (30) days before the expiration of the then-current term.

THE COMPANY AND THE AGENT, IN CONSIDERATION OF THE MUTUAL OBLIGATIONS CONTAINED HEREIN, AGREE THAT THIS IS A LEGALLY BINDING AGREEMENT WHICH IS SUBJECT TO THE TERMS AND CONDITIONS SET FORTH ON THIS PAGE AND ON THE REVERSE SIDE OF THIS DOCUMENT. IN ADDITION, THE GENERATOR IS CERTIFYING THE ATTACHED TERMS AND CONDITIONS HAVE BEEN REVIEWED AND INITIALLED AT THE BOTTOM OF THE PAGE.

AGENT

SIGNATURE (AUTHORIZED REPRESENTATIVE)

Chris Galvan Superintendent
NAME AND TITLE (PLEASE PRINT)

7-15-19
DATE

REPUBLIC SERVICES/COMPANY

SIGNATURE (AUTHORIZED REPRESENTATIVE)

NAME AND TITLE (PLEASE PRINT)

7-15-19
DATE

Terms and Conditions of Agent Special Waste Service Agreement

4. The Agreement. This agreement of the parties ("Agreement") for the disposal of Acceptable Waste shall consist of this Agreement, riders to the Agreement (if any), any Special Waste Profiles (including approved changes and re-certifications) and any Application, permit and approval that may be applicable to the disposal of such Acceptable Waste ("Acceptable Waste Documentation").

5. Waste Accepted at Facility. Agent represents, warrants and covenants that the waste delivered to Company at its Facility hereunder will be Acceptable Waste and will not contain any unacceptable quantity of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances, as defined by applicable federal, state, local or provincial laws or regulations. Any waste which does not meet these requirements shall hereinafter be referred to as "Unacceptable Waste". The Agent shall in all matters relating to the collection, transportation and disposal of the Acceptable Waste hereunder, comply with all applicable federal, state and local laws, regulations, rules and orders regarding the same (collectively, "Applicable Laws").

6. Acceptable Waste. Only waste that satisfies each of the following criteria shall be accepted for disposal at the Facility ("Acceptable Waste"): (a) the waste conforms to the description set forth in the Acceptable Waste Documentation; (b) the waste does not contain any Unacceptable Waste; (c) the waste is accurately reflected on any Special Waste Profile(s) as directed by the Company pursuant to Section 7; (d) the waste is acceptable for disposal at the Facility under all Applicable Laws; and (e) the transportation to and disposal of the waste at the Facility is otherwise in accordance with this Agreement. The parties may incorporate additional Acceptable Waste as part of this Agreement if prior to delivery of such Acceptable Waste to Company, Agent has provided an Application for such Special Waste and Company has approved disposal of such Acceptable Waste within the limitations and conditions contained in Company's written notice of approval of Special Waste. Title to and liability for any and all Acceptable Waste handled or disposed of by Company shall at all times remain with Generator and Agent.

7. Rights of Refusal/Rejection. The Agent shall inspect all Special Waste at the place(s) of collection and shall remove any and all Unacceptable Waste. Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility including if the Company believes (a) the Agent has breached (or is breaching) its representations, warranties, covenants or agreements hereunder, or any Applicable Laws; or (b) that the waste contains Unacceptable Waste. The Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility if the Company has reason to believe, in its sole discretion, that the waste: (1) emits excessive odors; (2) negatively impacts operations at the Facility. The Company shall have the right to inspect all vehicles of waste haulers, including the Agent's vehicles, in order to determine whether the waste is Acceptable Waste pursuant to this Agreement and Applicable Laws. The Company's exercise, or failure to exercise, its rights hereunder shall not operate to relieve the Agent of its responsibilities or liability under this Agreement.

8. Limited License to Enter. This Agreement provides Agent with a license to enter the Facility for the limited purpose of, and only to the extent necessary for, off-loading Acceptable Waste at the Facility in the manner directed by Company. Except in an emergency, Agent's personnel shall not leave the immediate vicinity of their vehicle. After off-loading the Acceptable Waste, Agent's personnel shall promptly leave the Facility. Under no circumstances shall Agent or its personnel engage in any scavenging of waste or other materials at the Facility. The Company reserves the right to make and enforce reasonable rules and regulations concerning the operation of the Facility, the conduct of the drivers and others on the Facility premises, quantities and sources of waste, and any other matters necessary or desirable for the safe, legal and efficient operation of the Facility including, but not limited to, speed limits on haul roads imposed by the Company, and the wearing of hard hats and other personal protection equipment by all individuals allowed on the Facility premises. Agent agrees to conform to such rules and regulations as they may be established and amended from time to time. Company may refuse to accept waste from and shall deny an entrance license to, any of Agent's personnel whom Company believes is under the influence of alcohol or other chemical substances. Agent shall be solely responsible for its employees and subcontractors performing their obligations in a safe manner when at the facility of Company.

9. Charges and Payment. Payment shall be made by Agent within thirty (30) days after receipt of invoice from Company. If any amount is overdue, the Company may terminate this Agreement. Agent agrees to pay a finance charge equal to the maximum interest rate permitted by law. Agent shall be liable for all taxes, fees, or other charges imposed upon the disposal of the Acceptable Waste by federal, state, local or provincial laws and regulations. Company, from time to time, may modify its rates upon thirty (30) days written notice to Agent. For the purposes of this section, written notice may be provided via email, certified mail, or overnight courier. Agent hereby agrees that the Company's right to receive payments under this Agreement is unconditional and is not conditioned upon Agent first receiving payment from Generator or any other party.

10. Termination. Company shall have the right to immediately terminate and/or suspend this Agreement upon the occurrence of any of the following events of default: (a) Agent's failure to timely pay any amounts due under this Agreement to Company; (b) Agent's breach of any of its obligations, representations, warrants or covenants under this Agreement or any Acceptable Waste Documentation; or (c) the filing of a voluntary or involuntary petition for reorganization or bankruptcy against Agent. Agent shall be liable for any losses, claims, expenses and damages incurred by Company as a result of suspension or termination hereunder. Agent's obligations, representations, warranties and covenants regarding the Acceptable Waste delivered and all indemnities contained in this Agreement shall survive expiration and termination of this Agreement. Additionally, Company shall have the right to terminate this Agreement for convenience at any time on 30 days' notice to Agent.

11. Driver's Knowledge and Authority. Agent represents, warrants and covenants that its drivers who deliver Acceptable Waste to Company's Facility have been advised by Agent of the Company's prohibition on deliveries of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances or any other Unacceptable Waste to the Facility, of Company's restrictions on deliveries of Special Waste to the Facility of the definitions of "Hazardous Waste and Hazardous Substances" as provided by applicable federal, state and local law, rules and regulations and "Special Waste" as provided herein, and of the terms of this license to enter Company's Facility.

12. Indemnification. Agent shall indemnify, defend and hold harmless the Company and its subsidiaries, affiliates and parent corporations, as applicable and their respective officers, directors, lenders, employees, subcontractors and agents from and against any and all claims, suits, losses, liabilities, assessments, damages, fines, costs and expenses, including reasonable attorneys fees arising under federal, state or local laws, regulations or ordinances, or relating to the (a) the transportation to and/or disposal of any Unacceptable Waste at the Facility, whether or not Agent or Company was negligent in failing to identify the Unacceptable Waste; (b) the reloading and/or removal of Unacceptable Waste at the Facility; (c) any penalties, fines or remediation activities incurred by or imposed as the result of the transportation and/or disposal of Unacceptable Waste; (d) any increased inspection, testing, study and analysis costs made necessary due to reasonable concerns of Company as to the content of the waste transported and/or disposed of at the Facility following discovery of potentially Unacceptable Waste; and (e) the Company's inability to use the Facility due to the presence of Unacceptable Waste including without limitation any consequential damages. Company may also, in its sole discretion, require Agent to promptly remove the Unacceptable Waste at Agent's sole expense. This indemnification and other obligations stated in this paragraph shall survive the termination of this Agreement.

13. Insurance. Agent shall maintain in full force and effect throughout the term of this Agreement the following types of insurance in at least the amounts specified below:

Coverages		Minimum Amounts of Insurance
Worker's Compensation		Statutory
Employer's Liability		$1,000,000
General Liability		$1,000,000 combined single limit
Automobile Liability	(where Agent hauling)	$1,000,000 combined single limit

All insurance will be by insurers authorized to do business in the state in which the Facility is located. Agent shall deliver the Certificates of Insurance evidencing the foregoing policies to Company before Agent delivers any waste to the Facility pursuant to this Agreement. In addition, the (i) Commercial General Liability (including the Umbrella/Excess policy) policy must include Contractual Liability coverage specifically covering Agent's indemnification of Company, and (ii) The Commercial General Liability, Automobile Liability and the Umbrella/Excess Liability policies must be written on an "occurrence form". Said polices shall not thereafter be canceled, be permitted to expire or laps, or be changed without 30 days advance written notice has been given to Company. With the exception of workers' compensation, Company shall be shown as additional insureds under all of the insurance policies required by this Section 13. The policies required by this Section 13 shall be primary and non-contributory with respect to Company, and the insurance providers shall agree to waive their rights of subrogation against Company.

14. Failure to Perform. Except for Generator's obligation to pay amounts due to Company, neither party hereto shall be liable for its failure to perform hereunder due to circumstances not its fault and beyond its reasonable control, including, but not limited to, strikes or other labor disputes, riots, protests, civil disturbances or sabotage, changes in law, fires, floods, compliance with government requests, explosions, accidents, weather, lack of required natural resources, or acts of God affecting either party hereto. In the event of any of the circumstances provided for in the preceding sentence, including, but not limited, to whether any federal, state or local court or governmental authority takes any action which would (i) close or restrict operations at the Facility, (ii) limit the quantity or prohibit the disposal of Acceptable Waste at the Facility, or (iii) limit the ability of or prohibit Agent from delivering Acceptable Waste to the Facility, the Company shall have the right, at its option, to reduce, suspend or terminate Agent's access to the Facility immediately, without prior notice and without any additional liabilities between the parties, other than Agent's payment obligation hereunder. Neither Party is required hereunder to settle any labor dispute against its own best judgment.

15. Assignment. Agent may not assign, transfer or otherwise vest in any other Company, entity or person, in whole or in part, any of its rights or obligations under the Agreement without the prior written consent of the Company, provided, however, that the Company may without any such prior written consent, assign its rights and/or obligations under the Agreement to a subsidiary or affiliate corporation.

16. Right of Disposal. This Agreement does not grant any rights to dispose of waste other than in accordance herewith.

17. Continuing Compliance. The Agent has a continuing obligation to inform the Company of any new information, or information not previously provided to the Company by Agent and/or Generator which may affect the acceptability of the waste by the Company. Further, the Agent shall comply with all Company requests for evidence of Agent's continuing compliance with the terms of the Agreement including but not limited to the following: (i) providing new, updated Special Waste profiles on the waste(s) offered for disposal or, (ii) providing appropriate certification that the Special Waste being offered for disposal is accurately reflected by the appropriate Special Waste Profile or, (iii) re-sample the waste at Agent's expense if reasonable cause exists as to its acceptability under the terms of this Agreement or, (iv) allow the Company to re-sample the waste at Agent's expense if reasonable cause exists as to its acceptability under the terms of this Agreement or any Acceptable Waste Documentation.

18. Miscellaneous.

(A) This Agreement shall be governed by the laws of the State in which the Facility is located.

(B) No waiver of a breach of any of the obligations contained in the Agreement shall be construed to be a waiver of any prior or succeeding breach of the same obligation or of any other obligation of this Agreement.

(C) Unless otherwise provided for herein, no modification, release, discharge or waiver of any provision or obligation hereof shall be of any force, or effect, unless in writing signed by all parties to this Agreement.

(D) Agent shall treat as confidential and not disclose to others during or subsequent to the terms of this Agreement, except as is necessary to perform this Agreement, or to comply with any applicable law or regulation any information (including any technical information, experience or date) regarding the Company's plans, programs, plants, processes, products, costs, equipment or operations which may come within the knowledge of the Agent or its employees in the performance of this Agreement, without in each instance securing the prior written consent of the other Company.

(E) If any term, phrase, obligation or provision of this Agreement shall be held to be invalid, illegal or unenforceable in any respect, this Agreement shall remain in effect and be construed without regard to such term, phrase, obligation or provision.

(F) This Agreement constitutes the entire understanding between the parties, replacing and amending any prior agreements between the parties, and shall be binding upon all parties hereto, their successors, heirs, representatives and assigns. Any provision, term or condition in any acknowledgement, purchase order or other response by Agent which is in addition to or different from the provisions of this Agreement shall be deemed objected to by the Company and shall be of no effect.

(G) Agent represents, warrants and covenants that it is and during the term of this Agreement, will remain, in compliance with and will perform its obligations pursuant to all applicable laws and regulations and shall indemnify, defend and hold harmless the Company from any breach thereof.

(H) It is the understanding and agreement of the parties that the Company is an independent contractor, and is not an agent, nor an authorized representative of the Agent. It is the further understanding and agreement of the parties that Agent is an authorized representative of Generator.

(I) Company may provide any of the Services covered by this Agreement through any of its affiliates or subcontractors, provided that Company shall remain responsible for the performance of all such services and obligations in accordance with this Agreement.

19. Notices. Unless otherwise provided herein, all notices herein provided for shall be considered as having been given upon being placed in the mail, certified postage prepaid addressed to the Company or Agent at the address herein set forth in this Agreement or to such other address as may be given to the other party in writing.

20. Liquidated Damages. If Agent terminates this Agreement before its expiration other than as a result of a breach by Company, Agent shall pay Company an amount equal to the most recent month's monthly charges multiplied by the lesser of (a) six months or (b) the number of months remaining in the term. Agent acknowledges that in the event of such a termination, actual damages to Company would be uncertain and difficult to ascertain, such amount is the best, reasonable and objective estimate of the actual damages to Company, such amount does not constitute a penalty, and such amount is reasonable under the circumstances. Any amount payable under this paragraph shall be in addition to amounts already owing under this Agreement.

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231910544	7/11/2020	

I. Decision Request: ☐ Initial ☐ Recertification ☑ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: SOUTHERN CALIFORNIA EDISON

Generator Site Address: INTERSECTION OF PARKWAY AND PARKVIEW

City: MANHATTAN BEACH **County:** **State:** CA **Zip:**

Name of Waste: NON HAZ SOIL

Estimated Annual Volume: 230 Tons

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Per the Special Waste Profile Chang
disposal by 90 TONS.

TOTAL ESTIMATED VOLUME appr

STIMATED VOLUME for

Special Waste Analyst Signature:

Name (Printed): Joseph Sorokach

Date: 7/19/2019

III. Facility Decision: ☐ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee:

Name (Printed): CHRIS COYLE, GM

Date: 7/19/2019

Special Waste Profile - Change

REPUBLIC SERVICES

I. Generator Information

This form may be used to request changes to an existing Special Waste Profile

Generator Name: Southern California Edison

Name of Waste: Non Haz Soil Waste Profile #: 51231910544

II. Purpose of Change

Description of change requested and reason for change
(provide detailed explanation of why the change is requested following the appropriate checked circle below)

More soil than originally anticipated, overall total should have a ceiling of 230 tons

☑ Volume Increase By: 90 tons

Is the analysis originally submitted with the Profile representative of the volume increase? ☑ Yes ☐ No ***If no, complete Section III below***

☐ Extend Expiration Date:

☐ Change or Add Landfill:

☐ Add Additional Laboratory Reports: ***Complete Representative Sample Certification; Section III below***

☐ Add MSDS:

☐ Generator Name Change:

☐ Other:

III. Representative Sample Certification

☑ **No Sample Taken**

☐ **Sample Taken** **Type of Sample** --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ **Yes** ☐ **No**

Sample Date:

Sample ID Numbers:

Special Waste Profile - Change

REPUBLIC SERVICES

IV. Certification

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I hereby certify that the waste and the process generating the waste are unchanged and are accurately represented in the original profile.

Ryan Castillo	Program Mgr	SCE
Authorized Representative Name (Printed)	Title (Printed)	Company Name
Representative Signature		7/18/19
		Date

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231910544	7/11/2020	

I. Decision Request: ☐ Initial ☐ Recertification ☑ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: SOUTHERN CALIFORNIA EDISON

Generator Site Address: INTERSECTION OF PARKWAY AND PARKVIEW

City: MANHATTAN BEACH **County:** **State:** CA **Zip:**

Name of Waste: NON HAZ SOIL

Estimated Annual Volume: 140 Tons

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

Per the Special Waste Profile Change Form dated 18 JULY 2019, the generator has increased the ESTIMATED VOLUME for disposal by 40 TONS.

TOTAL ESTIMATED VOLUME approved for disposal is 140 TONS.

Special Waste Analyst Signature: Joseph M. Sorokach **Name (Printed):** Joseph Sorokach

Date: 7/18/2019

III. Facility Decision: ☐ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: **Name (Printed):** CHRIS COYLE GM

Date: 7/18/2019

Special Waste Profile - Change

REPUBLIC SERVICES

I. Generator Information

This form may be used to request changes to an existing Special Waste Profile

Generator Name: Southern California Edison

Name of Waste: Non Haz Soil

Waste Profile #: 51231910544

II. Purpose of Change

Description of change requested and reason for change
(provide detailed explanation of why the change is requested following the appropriate checked circle below).

More soil shipped than originally anticipated

☑ Volume Increase By: 40

Is the analysis originally submitted with the Profile representative of the volume increase? ☑ **Yes** ☐ **No** ***If no, complete Section III below***

☐ Extend Expiration Date:

☐ Change or Add Landfill:

☐ Add Additional Laboratory Reports: ***Complete Representative Sample Certification; Section III below***

☐ Add MSDS:

☐ Generator Name Change:

☐ Other:

III. Representative Sample Certification

☑ **No Sample Taken**

☐ **Sample Taken** **Type of Sample** --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ **Yes** ☐ **No**

Sample Date:

Sample ID Numbers:

Special Waste Profile - Change

REPUBLIC SERVICES

IV. Certification

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I hereby certify that the waste and the process generating the waste are unchanged and are accurately represented in the original profile.

Ryan Castillo	Program Mgr	SCE
Authorized Representative Name (Printed)	Title (Printed)	Company Name
Representative Signature		7/18/19
		Date

REPUBLIC SERVICES, INC.

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231912532	8/19/2022	

I. Decision Request: ☑ Initial ☐ Recertification ☐ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: WALSH SHEA CORRIDOR CONSTRUCTORS

Generator Site Address: CRENSHAW BLVD, FROM 60TH TO 67TH ST

City: LOS ANGELES **County:** **State:** CA **Zip:**

Name of Waste: WEATHERED WOOD

Estimated Annual Volume: 1000 Cubic Yards

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

Special Waste Analyst Signature: _____ **Name (Printed):** KEITH DIAMANTI

Date: 8/19/2019

III. Facility Decision: ☑ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: _____ **Name (Printed):** Chris Coyle

Date: 8/19/2019

Express Waste Profile

REPUBLIC SERVICES

Disposal Facility: 5123 Sunshine Canyon Landfill CA

Waste Profile # 5123 19 12532

Sales Rep #

I. Generator Information

Generator Name: Walsh Shea Corridor Constructors

Generator Site Address: Crenshaw Blvd. from 60th St. to 67th St.

City: Los Angeles County: Los Angeles State: California Zip: 90043

State ID/Reg No: 30-0412111 State Approval/Waste Code: CAC003028880 NAICS #: 236115

Generator Mailing Address ☑ (if different) 111 N. La Brea Ave.

City: Inglewood County: Los Angeles State: California Zip: 90301

Generator Contact Name: Methuselah Arnold Email: mcarnold@walshgroup.com

Phone Number: 310-770-5755 Ext: Fax Number:

II. Billing Information

Bill To: Walsh Shea Corridor Constructors Contact Name: Methuselah Arnold

Billing Address: 111 N. La Brea Ave. Email: mcarnold@walshgroup.com

City: Inglewood State: California Zip: 90301 Phone: 310-775-8710

III. Waste Stream Information

Name of Waste: ☑ Weathered Wood ☐ RCRA Empty Containers ☐ Treated Medical Waste ☐ Animal Carcass (non-infectious)
☐ Friable Asbestos ☐ Nonfriable Asbestos ☐ Tires ☐ Meth Contaminated Debris

Has a sample of this waste been taken? ☐ Yes ☑ No

Process Generating Waste: Removal of wood lagging in support of excavation (SOE) walls.

Method of Shipment: Bulk Complete if "other"

Frequency: On-going Waste Stream

Estimated Annual Volume: 1,000 Volume Type: Cubic Yards

Color: Brown Odor: Earthy

Express Waste Profile

REPUBLIC SERVICES

IV. Certificatio

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue. I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original."

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process

Methuselah Arnold	Project Engineer	Walsh Shea Corridor Constructors
Authorized Representative Name (Printed)	Title (Printed)	Company Name
		08/20/2019
Authorized Representative Signature		Date

REPUBLIC SERVICES, INC.

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231912569	8/19/2020	

I. Decision Request: ☑ Initial ☐ Recertification ☐ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: HERITAGE DISPOSAL INC

Generator Site Address: 704 S DATE AVE

City: ALHAMBRA **County:** **State:** CA **Zip:**

Name of Waste: RR TIES

Estimated Annual Volume: 3 Cubic Yards

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

Disposal of Weathered Wood must be in accordance with California Health and Safety Code (HSC) Sections 25150.7 and 25150.8.

Special Waste Analyst Signature: Joseph M. Sorokach **Name (Printed):** Joseph Sorokach

Date: 8/20/2019

III. Facility Decision: ☑ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: **Name (Printed):** Chris Cafe

Date: 8/20/2019

Special Waste Profile

REPUBLIC SERVICES

Disposal Facility: 5123 Sunshine Canyon Landfill CA

Waste Profile #: 5123 19 12569

Sales Rep #:

I. Generator Information

Generator Name: Heritage Disposal, Inc.

Generator Site Address: 704 S. Date Ave.

City: Alhambra County: Los Angeles State: California Zip: 91803

State ID/Reg No: State Approval/Waste Code: NAICS #:

Generator Mailing Address ☐ (if different) P. O. Box 1432

City: South Pasadena County: Los Angeles State: California Zip:

Generator Contact Name: Email:

Phone Number: Ext: Fax Number:

II. Billing Information

Bill To: Heritage Disposal, Inc. Contact Name: Cindy Arutunian

Billing Address: P. O. Box 1432 Email: heritagedisposalinc@gmail.com

City: South Pasadena State: California Zip: 91031 Phone: 6265767325

III. Waste Stream Information

Name of Waste: Railroad Ties

Process Generating Waste: we removed them from a job where we were doing clean-up

Type of Waste: Industrial Process Waste Physical State: Solid Method of Shipment: Other

Estimated Volume: 3 Volume Type: Cubic Yards

Frequency: One-time Event (single projec Disposal Consideration: Landfill

IV. Representative Sample Certification

☑ **No Sample Taken**

☐ **Sample Taken** **Type of Sample** --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ **Yes** ☐ **No**

Sample Date:

Sample ID Numbers or SDS:

Remember to attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

Special Waste Profile

REPUBLIC SERVICES

V. Physical Characteristics of Waste

Characteristic Components (must equal 100%:)	% By Weight (out of 100% - ranges acceptable):
1. railroad ties	60
2. tree stumps	40
3.	
4.	
5.	

Color:	Odor (describe):	Does Waste Contain Free Liquids?	% Solids:	pH:	Flash Point:
brown	none	☐ Yes ☑ No	100	N/A ea 8/19/19	N/A ea 8/19/19 °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

RCRA Regulatory Questions

1. Does this waste or generating process contain regulated concentrations of the following Pesticides and/ or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	☐ Yes ☑ No
2. Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261.23(a)(5)]?	☐ Yes ☑ No
3. Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	☐ Yes ☑ No
4. Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	☐ Yes ☑ No
5. Has this waste been delisted under 40 CFR 260.20 and 260.22? If yes, attach the final decision to delist the waste as published in the Federal Register.	☐ Yes ☑ No
6. Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations? If Yes, identify the applicable waste code and specify if the waste is hazardous as defined by Federal, State or both?	☐ Yes ☑ No
7. Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31?	☐ Yes ☑ No
8. Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	☐ Yes ☑ No
9. Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	☐ Yes ☑ No
10. Is this a solid waste that is not a hazardous waste in accordance with 40 CFR 261.4(b)? If yes, please provide the corresponding regulatory citation.	☐ Yes ☑ No

Republic Services Waste Handling Questions

1. Does this waste generate heat or react when contacted with water/moisture?	☐ Yes ☑ No
2. Does the waste contain sulfur or sulfur by-products?	☐ Yes ☑ No
3. Is this waste generated at a State or Federal Superfund cleanup site subject to regulation under CERCLA?	☐ Yes ☑ No
4a. Is this waste from a TSD facility, TSD-like facility or consolidator (i.e. multiple wastes/multiple generators)?	☐ Yes ☑ No

4b. If yes to the above question, please provide clarification.

Special Waste Profile

REPUBLIC SERVICES

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

Cynthia Arutunian	Secretary	Heritage Disposal, Inc.
Authorized Representative Name (Printed)	Title (Printed)	Company Name
Cynthia Arutunian	8/19/19	
Representative Signature	Date	

SPECIAL WASTE SERVICE AGREEMENT
NON-HAZARDOUS WASTES

REPUBLIC SERVICES

Special Waste Profile Number: 5123 19 12569

Generator Billing Information

Name: HERITAGE DISPOSAL INC (CASH ACCT #321)
Address: PO BOX 1432
City: SOUTH PASADENA
State: CA Zip: 91031
Phone: 626.576.7325 Fax:
Contact: CINDY ARUTUNIAN

Republic Waste Location (Company)

SUNSHINE CANYON LANDFILL (5123)
14747 SAN FERNANDO ROAD
SYLMAR, CA 91342
818.833.6500

Project: 704 S DATE AVE, ALHAMBRA
County and State of Origin: LOS ANGELES, CA

Additional Information:

1. **Special Waste Service**. Subject to the terms and conditions contained herein, the Company and the Generator agree to be legally bound hereby, and the Company agrees to accept at its facility identified above ("Facility"), Acceptable Waste (as defined in Section 6) delivered by Generator.

[redacted]

Generator shall also be liable for all taxes, fees, or other charges imposed by federal, state, local or provincial laws and regulations.

Cannot Exceed Daily Volume of 3 CY Without Prior Approval of Company.

(B) Incorporation by Reference. In addition to Special Waste Profile(s), the following documents are incorporated by reference into this Agreement as if fully set forth herein.

1)N/A

2)N/A

3. **Term of Agreement**. This Agreement is effective for 12 months, commencing 8/20/2019 and shall automatically be renewed for a similar term thereafter unless either party shall give written notice (via certified mail) of termination to the other party at least thirty (30) days before the expiration of the then-current term.

THE COMPANY AND THE GENERATOR, IN CONSIDERATION OF THE MUTUAL OBLIGATIONS CONTAINED HEREIN, AGREE THAT THIS IS A LEGALLY BINDING AGREEMENT WHICH IS SUBJECT TO THE TERMS AND CONDITIONS SET FORTH ON THIS PAGE AND ON THE REVERSE SIDE OF THIS DOCUMENT. IN ADDITION, THE GENERATOR IS CERTIFYING THE ATTACHED TERMS AND CONDITIONS HAVE BEEN REVIEWED AND INITIALLED AT THE BOTTOM OF THE PAGE.

GENERATOR

Cynthia Arutunian
SIGNATURE (AUTHORIZED REPRESENTATIVE)

Cynthia Arutunian, Secretary
NAME AND TITLE (PLEASE PRINT)

8/20/19
DATE

REPUBLIC SERVICES/COMPANY

Edward Antolin
SIGNATURE (AUTHORIZED REPRESENTATIVE)

EDWARD ANTOLIN, MESE
NAME AND TITLE (PLEASE PRINT)

8/20/19
DATE

Terms and Conditions of Special Waste Service Agreement

The Agreement. This agreement of the parties ("Agreement") for the disposal of Acceptable Waste shall consist of this Agreement, riders to the Agreement (if any), any Special Waste Profiles (including any approved changes and re-certifications) and any Application, permit and approval that may be applicable to the disposal of such Acceptable Waste ("Acceptable Waste Documentation").

Waste Accepted at Facility. Generator represents, warrants and covenants that the waste delivered to Company at its Facility hereunder will be Acceptable Waste and will not contain any unacceptable quantity of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances, as defined by applicable federal, state, local or provincial laws or regulations. Any waste which does not meet these requirements shall hereinafter be referred to as "Unacceptable Waste". The Generator shall in all matters relating to the collection, transportation and disposal of the Acceptable Waste hereunder, comply with all applicable federal, state and local laws, regulations, rules and orders regarding the same (collectively, "Applicable Laws").

Acceptable Waste. Only waste that satisfies each of the following criteria shall be accepted for disposal at the Facility ("Acceptable Waste"): (a) the waste conforms to the description set forth in the Acceptable Waste Documentation; (b) the waste does not contain any Unacceptable Waste; (c) the waste is accurately reflected on any Special Waste Profile(s) as directed by the Company pursuant to Section 7; (d) the waste is acceptable for disposal at the Facility under all Applicable Laws; and (e) the transportation to and disposal of the waste at the Facility is otherwise in accordance with this Agreement. The parties may incorporate additional Acceptable Waste as part of this Agreement if prior to delivery of such Waste to Company, Generator has provided an Application for such Acceptable Waste and Company has approved disposal of such Acceptable Waste within the limitations and conditions contained in Company's written notice of approval of Special Waste Disposal. Title to and liability for any and all Acceptable Waste handled or disposed of by Company shall at all times remain with Generator and Broker (if a Broker is involved).

Rights of Refusal/Rejection. The Generator shall inspect all waste at the place(s) of collection and shall remove any and all Unacceptable Waste. Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility including if the Company believes (a) Generator has breached (or is breaching) its representations, warranties, covenants or agreements in this Agreement or any Acceptable Waste Documentation, or any Applicable Laws; or (b) that the waste contains Unacceptable Waste. The Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility if the Company has reason to believe, in its sole discretion, that the waste: (1) emits excessive odors; (2) negatively impacts operations at the Facility. Company shall have the right to inspect all vehicles and containers of waste haulers, including the Generator's vehicles, in order to determine whether the waste is Acceptable Waste pursuant to this Agreement and all Applicable Laws. The Company's exercise, or failure to exercise, its rights hereunder shall not operate to relieve the Generator of its responsibilities or liability under this Agreement.

Limited License to Enter. This Agreement provides Generator with a license to enter the Facility for the limited purpose of, and only to the extent necessary for, off-loading Acceptable Waste at the Facility in the manner directed by Company. Except in an emergency, Generator's personnel shall not leave the immediate vicinity of their vehicle. After off-loading the Acceptable Waste, Generator's personnel shall promptly leave the Facility. Under no circumstances shall Generator or its personnel engage in any scavenging of waste or other materials at the Facility. The Company reserves the right to make and enforce reasonable rules and regulations concerning the operation of the Facility, the conduct of the drivers and others on the Facility premises, quantities and sources of waste, and any other matters necessary or desirable for the safe, legal and efficient operation of the Facility including, but not limited to, speed limits on haul roads imposed by the Company, and the wearing of hard hats and other personal protection equipment by all individuals allowed on the Facility premises. Generator agrees to conform to such rules and regulations as they may be established and amended from time to time. Company may refuse to accept waste from and shall deny an entrance license to, any of Generator's personnel whom Company believes is under the influence of alcohol or other chemical substances. Generator shall be solely responsible for its employees and subcontractors performing their obligations in a safe manner when at the facility of Company.

Charges and Payment. Payment shall be made by Generator within thirty (30) days after receipt of invoice from Company. If any amount is overdue, the Company may terminate this Agreement. Generator agrees to pay a finance charge equal to the maximum interest rate permitted by law. Generator shall be liable for all taxes, fees, or other charges imposed upon the disposal of the Acceptable Waste by federal, state, local or provincial laws and regulations. Company, from time to time, may modify its rates upon thirty (30) days written notice to Generator. For the purposes of this section, written notice may be provided via email, certified mail, or overnight courier.

). Termination. Company shall have the right to immediately terminate and/or suspend this Agreement upon the occurrence of any of the following events of default: (a) Generator's failure to timely pay any amounts due under this Agreement to Company; (b) Generator's breach of any of its obligations, representations, warrants or covenants under this Agreement or any Acceptable Waste Documentation; or (c) the filing of a voluntary or involuntary petition for reorganization or bankruptcy against Generator. Generator shall be liable for any losses, claims, expenses and damages incurred by Company as a result of suspension or termination hereunder. Generator's obligations, representations, warranties and covenants regarding the Acceptable Waste delivered and all indemnities contained in this Agreement shall survive expiration and termination of this Agreement. Additionally, Company shall have the right to terminate this Agreement for convenience at any time on 30 days' notice to Generator.

1. Driver's Knowledge and Authority. Generator represents, warrants and covenants that its drivers who deliver Acceptable Waste to Company's Facility have been advised by Generator of the Company's prohibition on deliveries of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances or any other Unacceptable Waste to the Facility of Company's restrictions on deliveries of Special Waste to the Facility, of the definitions of "Hazardous Waste and Hazardous Substances" as provided by applicable federal, state and local law, rules and regulations and "Special Waste" as provided herein, and of the terms of this license to enter Company's Facility.

2. Indemnification. Generator shall indemnify, defend and hold harmless the Company and its subsidiaries, affiliates and parent corporations, as applicable and their respective officers, directors, lenders, employees, subcontractors and agents from and against any and all claims, suits, losses, liabilities, assessments, damages, fines, costs and expenses, including reasonable attorneys fees arising under federal, state or local laws, regulations or ordinances, or relating to the (a) the transportation to and/or disposal of any Unacceptable Waste at the Facility, whether or not Generator or Company was negligent in failing to identify the Unacceptable Waste; (b) the reloading and/or removal of Unacceptable Waste at the Facility; (c) any penalties, fines or remediation activities incurred by or imposed as the result of the transportation and/or disposal of Unacceptable Waste; (d) any increased inspection, testing, study and analysis costs made necessary due to reasonable concerns of Company as to the content of the waste transported and/or disposed of at the Facility following discovery of potentially Unacceptable Waste; and (e) the Company's inability to use the Facility due to the presence of Unacceptable Waste including without limitation any consequential damages. Company may also, in its sole discretion, require Generator to promptly remove the Unacceptable Waste at Generator's sole expense. This indemnification and other obligations stated in this paragraph shall survive the termination of this Agreement.

3. Insurance. Generator shall maintain in full force and effect throughout the term of this Agreement the following types of insurance in at least the amounts specified below:

Coverages	Minimum Amounts of Insurance
Worker's Compensation	Statutory
Employer's Liability	$1,000,000
General Liability	$1,000,000 combined single limit
Automobile Liability (if Generator hauling)	$1,000,000 combined single limit

All insurance will be by insurers authorized to do business in the state in which the Facility is located. Generator shall deliver the Certificates of Insurance evidencing the foregoing policies to Company before Generator delivers any waste to the Facility pursuant to this Agreement. In addition, the (i) Commercial General Liability (including the Umbrella/Excess policy) policy must include Contractual Liability coverage specifically covering Generator's indemnification of Company, and (ii) The Commercial General Liability, Automobile Liability and the Umbrella/Excess Liability policies must be written on an "occurrence form". Said polices shall not thereafter be canceled, be permitted to expire or laps, or be changed without 30 days advance written notice has been given to Company. With the exception of workers' compensation, Company shall be shown as additional insureds under all of the insurance policies required by this Section 13. The policies required by this Section 13 shall be primary and non-contributory with respect to Company, and the insurance providers shall agree to waive their rights of subrogation against Company.

14. Failure to Perform. Except for Generator's obligation to pay amounts due to Company, neither party hereto shall be liable for its failure to perform hereunder due to circumstances not its fault and beyond its reasonable control, including, but not limited to, strikes or other labor disputes, riots, protests, civil disturbances or sabotage, changes in law, fires, floods, compliance with government requests, explosions, accidents, weather, lack of required natural resources, or acts of God affecting either party hereto. In the event of any of the circumstances provided for in the preceding sentence, including, but not limited to, whether any federal, state or local court or governmental authority takes any action which would (i) close or restrict operations at the Facility, (ii) limit the quantity or prohibit the disposal of Acceptable Waste at the Facility, or (iii) limit the ability of or prohibit Generator from delivering Acceptable Waste to the Facility, the Company shall have the right, at its option, to reduce, suspend or terminate Generator's access to the Facility immediately, without prior notice and without any additional liabilities between the parties, other than Generator's payment obligation hereunder. Neither Party is required hereunder to settle any labor dispute against its own best judgment.

15. Assignment. Generator may not assign, transfer or otherwise vest in any other Company, entity or person, in whole or in part, any of its rights or obligations under the Agreement without the prior written consent of the Company, provided, however, that the Company may without any such prior written consent, assign its rights and/or obligations under the Agreement to a subsidiary or affiliate corporation.

16. Right of Disposal. This Agreement does not grant any rights to dispose of waste other than in accordance herewith.

17. Continuing Compliance. The Generator has a continuing obligation to inform the Company of any new information, or information not previously provided to the Company by Generator which may affect the acceptability of the waste by the Company. Further, the Generator shall comply with all Company requests for evidence of Generator's continuing compliance with the terms of the Agreement including but not limited to the following: (i) providing new, updated Special Waste profiles on the waste(s) offered for disposal or, (ii) providing appropriate certification that the waste being offered for disposal is accurately reflected by the appropriate Special Waste Profile or, (iii) re-sample the waste at Generator's expense if reasonable cause exists as to its acceptability under the terms of this Agreement or, (iv) allow the Company to re-sample the waste at Generator's expense if reasonable cause exists as to its acceptability under the terms of this Agreement or any Acceptable Waste Documentation.

18. Miscellaneous.

(A) This Agreement shall be governed by the laws of the State in which the Facility is located.

(B) No waiver of a breach of any of the obligations contained in the Agreement shall be construed to be a waiver of any prior or succeeding breach of the same obligation or of any other obligation of this Agreement.

(C) Unless otherwise provided for herein, no modification, release, discharge or waiver of any provision or obligation hereof shall be of any force, or effect, unless in writing signed by all parties to this Agreement.

(D) Generator shall treat as confidential and not disclose to others during or subsequent to the terms of this Agreement, except as is necessary to perform this Agreement, or to comply with any applicable law or regulation any information (including any technical information, experience or date) regarding the Company's plans, programs, plants, processes, products, costs, equipment or operations which may come within the knowledge of the Generator or its employees in the performance of this Agreement, without in each instance securing the prior written consent of the other Company.

(E) If any term, phrase, obligation or provision of this Agreement shall be held to be invalid, illegal or unenforceable in any respect, this Agreement shall remain in effect and be construed without regard to such term, phrase, obligation or provision.

(F) This Agreement constitutes the entire understanding between the parties, replacing and amending any prior agreements between the parties, and shall be binding upon all parties hereto, their successors, heirs, representatives and assigns. Any provision, term or condition in any acknowledgement, purchase order or other response by Generator which is in addition to or different from the provisions of this Agreement shall be deemed objected to by the Company and shall be of no effect.

(G) Generator represents, warrants and covenants that it is and, during the term of this Agreement will remain, in compliance with and will perform its obligations pursuant to all applicable laws and regulations and shall indemnify, defend and hold harmless the Company from any breach thereof.

(H) It is the understanding and agreement of the parties that the Company is an independent contractor, and is not an agent, nor an authorized representative of the Generator.

(I) Company may provide any of the Services covered by this Agreement through any of its affiliates or subcontractors, provided that Company shall remain responsible for the performance of all such services and obligations in accordance with this Agreement

20. Notices. Unless otherwise provided herein, all notices herein provided for shall be considered as having been given upon being placed in the mail, certified postage prepaid addressed to the Company or Generator at the address herein set forth in this Agreement or to such other address as may be given to the other party in writing.

21. Liquidated Damages. If Generator terminates this Agreement before its expiration other than as a result of a breach by Company, Generator shall pay Company an amount equal to the most recent month's monthly charges multiplied by the lesser of (a) six months or (b) the number of months remaining in the term. Generator acknowledges that in the event of such a termination, actual damages to Company would be uncertain and difficult to ascertain, such amount is the best, reasonable and objective estimate of the actual damages to Company, such amount does not constitute a penalty, and such amount is reasonable under the circumstances. Any amount payable under this paragraph shall be in addition to amounts already owing under this Agreement.

Edward Antolin

GENERATOR: _____ REPUBLIC SERVICES/COMPANY: _____

REPUBLIC SERVICES, INC.

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231912739	8/21/2020	

I. Decision Request: ☑ Initial ☐ Recertification ☐ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: MAY PRODUCE INC

Generator Site Address: 3099 DEL MAR AVE

City: ROSEMEAD **County:** **State:** CA **Zip:**

Name of Waste: PURPLE YAM (SWEET POTATO)

Estimated Annual Volume: 360 Pounds

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

Special Waste Analyst Signature: _____ **Name (Printed):** KEITH DIAMANTI

Date: 8/22/2019

III. Facility Decision: ☑ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: _____ **Name (Printed):** Chris Coyle

Date: 8/22/2019

Special Waste Profile

REPUBLIC SERVICES

Disposal Facility: 5123 Sunshine Canyon Landfill CA

Waste Profile #: 5123 19 12739

Sales Rep #:

I. Generator Information

Generator Name: May Produce Inc.

Generator Site Address: 3099 Del Mar Ave,

City: Rosemead County: USA State: California Zip: 91770

State ID/Reg No: 954720963 State Approval/Waste Code: NA NAICS #:

Generator Mailing Address ☐ (if different)

City: County: State: --Select State-- Zip:

Generator Contact Name: Email:

Phone Number: Ext: Fax Number:

II. Billing Information

Bill To: May Produce Inc. Contact Name: Albert Ku

Billing Address: 3099 Del Mar Ave, Email: albert@mayproduce.com

City: Rosemead State: California Zip: 91770 Phone: 626-572-3168

III. Waste Stream Information

Name of Waste: Purple Yam (sweet potatoes)

Process Generating Waste: USDA found Pests (insects) inside the yam. 12cases @ 30 lbs

Type of Waste: Industrial Process Waste Physical State: Solid Method of Shipment: Bagged

Estimated Volume: 360 Volume Type: Pounds

Frequency: One-time Event (single project) Disposal Consideration: Landfill

IV. Representative Sample Certification

☑ **No Sample Taken**

☐ **Sample Taken** **Type of Sample** --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ **Yes** ☐ **No**

Sample Date:

Sample ID Numbers or SDS:

Remember to attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

Special Waste Profile

REPUBLIC SERVICES

V. Physical Characteristics of Waste

Characteristic Components (must equal 100%:)	% By Weight (out of 100% - ranges acceptable):
1. Purple Yam	100%
2.	
3.	
4.	
5.	

Color:	Odor (describe):	Does Waste Contain Free Liquids?	% Solids:	pH:	Flash Point:
tan	plants	☐ Yes ☑ No	100	N/A	N/A °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

RCRA Regulatory Questions

1. Does this waste or generating process contain regulated concentrations of the following Pesticides and/ or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	☐ Yes ☑ No
2. Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261.23(a)(5)]?	☐ Yes ☑ No
3. Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	☐ Yes ☑ No
4. Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	☐ Yes ☑ No
5. Has this waste been delisted under 40 CFR 260.20 and 260.22? If yes, attach the final decision to delist the waste as published in the Federal Register.	☐ Yes ☑ No
6. Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations? If Yes, identify the applicable waste code and specify if the waste is hazardous as defined by Federal, State or both?	☐ Yes ☑ No
7. Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31?	☐ Yes ☑ No
8. Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	☐ Yes ☑ No
9. Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	☐ Yes ☑ No
10. Is this a solid waste that is not a hazardous waste in accordance with 40 CFR 261.4(b)? If yes, please provide the corresponding regulatory citation.	☐ Yes ☑ No

Republic Services Waste Handling Questions

1. Does this waste generate heat or react when contacted with water/moisture?	☐ Yes ☑ No
2. Does the waste contain sulfur or sulfur by-products?	☐ Yes ☑ No
3. Is this waste generated at a State or Federal Superfund cleanup site subject to regulation under CERCLA?	☐ Yes ☑ No
4a. Is this waste from a TSD facility, TSD-like facility or consolidator (i.e. multiple wastes/multiple generators)?	☐ Yes ☑ No

4b. If yes to the above question, please provide clarification.

Special Waste Profile

REPUBLIC SERVICES

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

Wenjia He	Food Safety Coordinator	May Produce Inc,
Authorized Representative Name (Printed)	Title (Printed)	Company Name
[signature]	08/21/2019	
Representative Signature		Date

Dakon 40 lbs

SPECIAL WASTE SERVICE AGREEMENT
NON-HAZARDOUS WASTES

REPUBLIC SERVICES

Special Waste Profile Number: 5123 19 12739

Generator Billing Information

Name: MAY PRODUCE INC (ACCT 321 CASH)
Address: 3099 DEL MAR AVE
City: ROSEMEAD
State: CA Zip: 91770
Phone: 626.572.3168 Fax:
Contact: ALBERT KU

Republic Waste Location (Company)

SUNSHINE CANYON LANDFILL (5123)
14747 SAN FERNANDO RD
SYLMAR, CA 91342
818.362.2141

Project: FOOD PRODUCTS—PURPLE YAM
County and State of Origin: LOS ANGELES, CA
Additional Information: SITE: SAME AS BILLING

1. **Special Waste Service**. Subject to the terms and conditions contained herein, the Company and the Generator agree to be legally bound hereby, and the Company agrees to accept at its facility identified above ("Facility"), Acceptable Waste (as defined in Section 6) delivered by Generator.

[redacted]

Generator shall also be liable for all taxes, fees, or other charges imposed by federal, state, local or provincial laws and regulations.

Cannot Exceed Daily Volume of 360 POUNDS Without Prior Approval of Company.

(B) **Incorporation by Reference**. In addition to Special Waste Profile(s), the following documents are incorporated by reference into this Agreement as if fully set forth herein.

1)N/A
2)N/A

3. **Term of Agreement**. This Agreement is effective for 12 months, commencing 08/22/2019 and shall automatically be renewed for a similar term thereafter unless either party shall give written notice (via certified mail) of termination to the other party at least thirty (30) days before the expiration of the then-current term.

THE COMPANY AND THE GENERATOR, IN CONSIDERATION OF THE MUTUAL OBLIGATIONS CONTAINED HEREIN, AGREE THAT THIS IS A LEGALLY BINDING AGREEMENT WHICH IS SUBJECT TO THE TERMS AND CONDITIONS SET FORTH ON THIS PAGE AND ON THE REVERSE SIDE OF THIS DOCUMENT. IN ADDITION, THE GENERATOR IS CERTIFYING THE ATTACHED TERMS AND CONDITIONS HAVE BEEN REVIEWED AND INITIALLED AT THE BOTTOM OF THE PAGE.

GENERATOR

SIGNATURE (AUTHORIZED REPRESENTATIVE)
ALBERT KU CFO
NAME AND TITLE (PLEASE PRINT)
8-22-19
DATE

REPUBLIC SERVICES/COMPANY Edward Antolin

SIGNATURE (AUTHORIZED REPRESENTATIVE)
EDWARD ANTOLIN, MESE
NAME AND TITLE (PLEASE PRINT)
8/26/19
DATE

Terms and Conditions of Special Waste Service Agreement

4. The Agreement. This agreement of the parties ("Agreement") for the disposal of Acceptable Waste shall consist of this Agreement, riders to the Agreement (if any), any Special Waste Profiles (including any approved changes and re-certifications) and any Application, permit and approval that may be applicable to the disposal of such Acceptable Waste ("Acceptable Waste Documentation").

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9. Charges and Payment. Payment shall be made by Generator within thirty (30) days after receipt of invoice from Company. If any amount is overdue, the Company may terminate this Agreement. Generator agrees to pay a finance charge equal to the maximum interest rate permitted by law. Generator shall be liable for all taxes, fees, or other charges imposed upon the disposal of the Acceptable Waste by federal, state, local or provincial laws and regulations. Company, from time to time, may modify its rates upon thirty (30) days written notice to Generator. For the purposes of this section, written notice may be provided via email, certified mail, or overnight courier.

10. Termination. Company shall have the right to immediately terminate and/or suspend this Agreement upon the occurrence of any of the following events of default: (a) Generator's failure to timely pay any amounts due under this Agreement to Company; (b) Generator's breach of any of its obligations, representations, warrants or covenants under this Agreement or any Acceptable Waste Documentation; or (c) the filing of a voluntary or involuntary petition for reorganization or bankruptcy against Generator. Generator shall be liable for any losses, claims, expenses and damages incurred by Company as a result of suspension or termination hereunder. Generator's obligations, representations, warranties and covenants regarding the Acceptable Waste delivered and all indemnities contained in this Agreement shall survive expiration and termination of this Agreement. Additionally, Company shall have the right to terminate this Agreement for convenience at any time on 30 days' notice to Generator.

11. Driver's Knowledge and Authority. Generator represents, warrants and covenants that its drivers who deliver Acceptable Waste to Company's Facility have been advised by Generator of the Company's prohibition on deliveries of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances or any other Unacceptable Waste to the Facility of Company's restrictions on deliveries of Special Waste to the Facility, of the definitions of "Hazardous Waste and Hazardous Substances" as provided by applicable federal, state and local law, rules and regulations and "Special Waste" as provided herein, and of the terms of this license to enter Company's Facility.

12. Indemnification. Generator shall indemnify, defend and hold harmless the Company and its subsidiaries, affiliates and parent corporations, as applicable and their respective officers, directors, lenders, employees, subcontractors and agents from and against any and all claims, suits, losses, liabilities, assessments, damages, fines, costs and expenses, including reasonable attorneys fees arising under federal, state or local laws, regulations or ordinances, or relating to the (a) the transportation to and/or disposal of any Unacceptable Waste at the Facility, whether or not Generator or Company was negligent in failing to identify the Unacceptable Waste; (b) the reloading and/or removal of Unacceptable Waste at the Facility; (c) any penalties, fines or remediation activities incurred by or imposed as the result of the transportation and/or disposal of Unacceptable Waste; (d) any increased inspection, testing, study and analysis costs made necessary due to reasonable concerns of Company as to the content of the waste transported and/or disposed of at the Facility following discovery of potentially Unacceptable Waste; and (e) the Company's inability to use the Facility due to the presence of Unacceptable Waste including without limitation any consequential damages. Company may also, in its sole discretion, require Generator to promptly remove the Unacceptable Waste at Generator's sole expense. This indemnification and other obligations stated in this paragraph shall survive the termination of this Agreement.

13. Insurance. Generator shall maintain in full force and effect throughout the term of this Agreement the following types of insurance in at least the amounts specified below:

Coverages	Minimum Amounts of Insurance
Worker's Compensation	Statutory
Employer's Liability	$1,000,000
General Liability	$1,000,000 combined single limit
Automobile Liability (if Generator hauling)	$1,000,000 combined single limit

All insurance will be by insurers authorized to do business in the state in which the Facility is located. Generator shall deliver the Certificates of Insurance evidencing the foregoing policies to Company before Generator delivers any waste to the Facility pursuant to this Agreement. In addition, the (i) Commercial General Liability (including the Umbrella/Excess policy) policy must include Contractual Liability coverage specifically covering Generator's indemnification of Company, and (ii) The Commercial General Liability, Automobile Liability and the Umbrella/Excess Liability policies must be written on an "occurrence form". Said polices shall not thereafter be canceled, be permitted to expire or laps, or be changed without 30 days advance written notice has been given to Company. With the exception of workers' compensation, Company shall be shown as additional insureds under all of the insurance policies required by this Section 13. The policies required by this Section 13 shall be primary and non-contributory with respect to Company, and the insurance providers shall agree to waive their rights of subrogation against Company.

14. Failure to Perform. Except for Generator's obligation to pay amounts due to Company, neither party hereto shall be liable for its failure to perform hereunder due to circumstances not its fault and beyond its reasonable control, including, but not limited to, strikes or other labor disputes, riots, protests, civil disturbances or sabotage, changes in law, fires, floods, compliance with government requests, explosions, accidents, weather, lack of required natural resources, or acts of God affecting either party hereto. In the event of any of the circumstances provided for in the preceding sentence, including, but not limited to, whether any federal, state or local court or governmental authority takes any action which would (i) close or restrict operations at the Facility, (ii) limit the quantity or prohibit the disposal of Acceptable Waste at the Facility, or (iii) limit the ability of or prohibit Generator from delivering Acceptable Waste to the Facility, the Company shall have the right, at its option, to reduce, suspend or terminate Generator's access to the Facility immediately, without prior notice and without any additional liabilities between the parties, other than Generator's payment obligation hereunder. Neither Party is required hereunder to settle any labor dispute against its own best judgment.

15. Assignment. Generator may not assign, transfer or otherwise vest in any other Company, entity or person, in whole or in part, any of its rights or obligations under the Agreement without the prior written consent of the Company, provided, however, that the Company may without any such prior written consent, assign its rights and/or obligations under the Agreement to a subsidiary or affiliate corporation.

16. Right of Disposal. This Agreement does not grant any rights to dispose of waste other than in accordance herewith.

17. Continuing Compliance. The Generator has a continuing obligation to inform the Company of any new information, or information not previously provided to the Company by Generator which may affect the acceptability of the waste by the Company. Further, the Generator shall comply with all Company requests for evidence of Generator's continuing compliance with the terms of the Agreement including but not limited to the following: (i) providing new, updated Special Waste profiles on the waste(s) offered for disposal or, (ii) providing appropriate certification that the waste being offered for disposal is accurately reflected by the appropriate Special Waste Profile or, (iii) re-sample the waste at Generator's expense if reasonable cause exists as to its acceptability under the terms of this Agreement or, (iv) allow the Company to re-sample the waste at Generator's expense if reasonable cause exists as to its acceptability under the terms of this Agreement or any Acceptable Waste Documentation.

18. Miscellaneous.

(A) This Agreement shall be governed by the laws of the State in which the Facility is located.

(B) No waiver of a breach of any of the obligations contained in the Agreement shall be construed to be a waiver of any prior or succeeding breach of the same obligation or of any other obligation of this Agreement.

(C) Unless otherwise provided for herein, no modification, release, discharge or waiver of any provision or obligation hereof shall be of any force, or effect, unless in writing signed by all parties to this Agreement.

(D) Generator shall treat as confidential and not disclose to others during or subsequent to the terms of this Agreement, except as is necessary to perform this Agreement, or to comply with any applicable law or regulation any information (including any technical information, experience or date) regarding the Company's plans, programs, plants, processes, products, costs, equipment or operations which may come within the knowledge of the Generator or its employees in the performance of this Agreement, without in each instance securing the prior written consent of the other Company.

(E) If any term, phrase, obligation or provision of this Agreement shall be held to be invalid, illegal or unenforceable in any respect, this Agreement shall remain in effect and be construed without regard to such term, phrase, obligation or provision.

(F) This Agreement constitutes the entire understanding between the parties, replacing and amending any prior agreements between the parties, and shall be binding upon all parties hereto, their successors, heirs, representatives and assigns. Any provision, term or condition in any acknowledgement, purchase order or other response by Generator which is in addition to or different from the provisions of this Agreement shall be deemed objected to by the Company and shall be of no effect.

(G) Generator represents, warrants and covenants that it is and, during the term of this Agreement will remain, in compliance with and will perform its obligations pursuant to all applicable laws and regulations and shall indemnify, defend and hold harmless the Company from any breach thereof.

(H) It is the understanding and agreement of the parties that the Company is an independent contractor, and is not an agent, nor an authorized representative of the Generator.

(I) Company may provide any of the Services covered by this Agreement through any of its affiliates or subcontractors, provided that Company shall remain responsible for the performance of all such services and obligations in accordance with this Agreement

20. Notices. Unless otherwise provided herein, all notices herein provided for shall be considered as having been given upon being placed in the mail, certified postage prepaid addressed to the Company or Generator at the address herein set forth in this Agreement or to such other address as may be given to the other party in writing.

21. Liquidated Damages. If Generator terminates this Agreement before its expiration other than as a result of a breach by Company, Generator shall pay Company an amount equal to the most recent month's monthly charges multiplied by the lesser of (a) six months or (b) the number of months remaining in the term. Generator acknowledges that in the event of such a termination, actual damages to Company would be uncertain and difficult to ascertain, such amount is the best, reasonable and objective estimate of the actual damages to Company, such amount does not constitute a penalty, and such amount is reasonable under the circumstances. Any amount payable under this paragraph shall be in addition to amounts already owing under this Agreement.

GENERATOR: AR

REPUBLIC SERVICES/COMPANY: Edward Antolin

REPUBLIC SERVICES, INC.

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231913294	8/30/2020	

I. Decision Request: ☑ Initial ☐ Recertification ☐ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: PURATOS WESTERN OPERATIONS

Generator Site Address: 18831 S LAUREL PARK RD

City: RANCHO DOMINGUEZ **County:** **State:** CA **Zip:**

Name of Waste: BAKERY AND CONFECTIONERY GOODS

Estimated Annual Volume: 150,000 Pounds

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

FOOD WASTE: This waste must be buried immediately upon receipt at the landfill.

Special Waste Analyst Signature: Joseph M. Sorokach **Name (Printed):** Joseph Sorokach

Date: 8/30/2019

III. Facility Decision: ☑ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: **Name (Printed):** Chris Coyle

Date: 8/30/2019

Special Waste Profile

REPUBLIC SERVICES

Disposal Facility: 5123 Sunshine Canyon Landfill CA

Waste Profile #: 5123 19 13294

Sales Rep #:

I. Generator Information

Generator Name: Puratos Western Operations

Generator Site Address: 18831 S Laurel Park Road, Rancho Dominguez, CA 90220

City: Rancho Dominguez County: Los Angeles State: California Zip: 90220

State ID/Reg No: State Approval/Waste Code: NAICS #:

Generator Mailing Address ☐ (if different)

City: County: State: --Select State-- Zip:

Generator Contact Name: Pieter Decamps Email: pdecamps@puratos.com

Phone Number: 31063225522 Ext: 254165 Fax Number:

II. Billing Information

Bill To: Puratos Corporation Contact Name: Accounts Payable

Billing Address: 1660 Suckle Highway Email: accountspayable@puratos.com

City: Pennsauken State: New Jersey Zip: 08110 Phone:

III. Waste Stream Information

Name of Waste: Bakery & Confectionery Goods

Process Generating Waste: Reason: Goods are expired (past BBD).
Packaging format for Bakery: paper bags.
Packaging format for Confectionery: plastic pails.

Type of Waste: Industrial Process Waste Physical State: Semi-Solid Method of Shipment: Bagged

Estimated Volume: 150,000 Volume Type: Pounds

Frequency: One-time Event (single project) Disposal Consideration: Landfill

IV. Representative Sample Certification

☑ **No Sample Taken**

☐ **Sample Taken** **Type of Sample** --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ **Yes** ☐ **No**

Sample Date:

Sample ID Numbers or SDS:

Remember to attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

Special Waste Profile

REPUBLIC SERVICES

V. Physical Characteristics of Waste

Characteristic Components (must equal 100%:)	% By Weight (out of 100% - ranges acceptable):
1. Bakery Products	48
2. Confectionery Products	48
3. Bags (paper)	2
4. Pails (plastic)	2
5.	

Color:	Odor (describe):	Does Waste Contain Free Liquids?	% Solids:	pH:	Flash Point:
white/brown	none	☐ Yes ☑ No	100	n/a	n/a °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

RCRA Regulatory Questions

1. Does this waste or generating process contain regulated concentrations of the following Pesticides and/ or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	☐ Yes ☑ No
2. Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261.23(a)(5)]?	☐ Yes ☑ No
3. Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	☐ Yes ☑ No
4. Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	☐ Yes ☑ No
5. Has this waste been delisted under 40 CFR 260.20 and 260.22? If yes, attach the final decision to delist the waste as published in the Federal Register.	☐ Yes ☑ No
6. Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations? If Yes, identify the applicable waste code and specify if the waste is hazardous as defined by Federal, State or both?	☐ Yes ☑ No
7. Does this waste contain regulated concentrations of 2;3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31?	☐ Yes ☑ No
8. Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	☐ Yes ☑ No
9. Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	☐ Yes ☑ No
10. Is this a solid waste that is not a hazardous waste in accordance with 40 CFR 261.4(b)? If yes, please provide the corresponding regulatory citation.	☐ Yes ☑ No

Republic Services Waste Handling Questions

1. Does this waste generate heat or react when contacted with water/moisture?	☐ Yes ☑ No
2. Does the waste contain sulfur or sulfur by-products?	☐ Yes ☑ No
3. Is this waste generated at a State or Federal Superfund cleanup site subject to regulation under CERCLA?	☐ Yes ☑ No
4a. Is this waste from a TSD facility, TSD-like facility or consolidator (i.e. multiple wastes/multiple generators)?	☐ Yes ☑ No

4b. If yes to the above question, please provide clarification.

Special Waste Profile

REPUBLIC SERVICES

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

PIETER DECAMPS	OPERATIONS LIAISON	PURATOS WESTERN OPERATIONS
Authorized Representative Name (Printed)	Title (Printed)	Company Name

	8/30/'18
Representative Signature	Date

SPECIAL WASTE SERVICE AGREEMENT
NON-HAZARDOUS WASTES

REPUBLIC SERVICES

Special Waste Profile Number: 5123 19 13294

Generator Billing Information

Name: PURATOS WESTERN OPERATIONS (ACCT 333413)
Address: 1660 SUCKLE HIGHWAY
City: PENNSAUKEN
State: NJ Zip: 08110
Phone: 856.428.4300 Fax:
Contact: PIETER DECAMPS

Republic Waste Location (Company)

SUNSHINE CANYON LANDFILL (5123)
14747 SAN FERNANDO RD
SYLMAR, CA 91342
818.362.2141

Project: FOOD PRODUCTS **County and State of Origin:** LOS ANGELES, CA

Additional Information: SITE: 18831 S LAUREL PARK RD, RANCHO DOMINGUEZ

1. **Special Waste Service**. Subject to the terms and conditions contained herein, the Company and the Generator agree to be legally bound hereby, and the Company agrees to accept at its facility identified above ("Facility"), Acceptable Waste (as defined in Section 6) delivered by Generator.

[redacted]

Generator shall also be liable for all taxes, fees, or other charges imposed by federal, state, local or provincial laws and regulations.

Cannot Exceed Daily Volume of 150,000 POUNDS Without Prior Approval of Company.

(B) Incorporation by Reference. In addition to Special Waste Profile(s), the following documents are incorporated by reference into this Agreement as if fully set forth herein.

1)N/A

2)N/A

3. **Term of Agreement**. This Agreement is effective for 12 months, commencing 9/3/2019 and shall automatically be renewed for a similar term thereafter unless either party shall give written notice (via certified mail) of termination to the other party at least thirty (30) days before the expiration of the then-current term.

THE COMPANY AND THE GENERATOR, IN CONSIDERATION OF THE MUTUAL OBLIGATIONS CONTAINED HEREIN, AGREE THAT THIS IS A LEGALLY BINDING AGREEMENT WHICH IS SUBJECT TO THE TERMS AND CONDITIONS SET FORTH ON THIS PAGE AND ON THE REVERSE SIDE OF THIS DOCUMENT. IN ADDITION, THE GENERATOR IS CERTIFYING THE ATTACHED TERMS AND CONDITIONS HAVE BEEN REVIEWED AND INITIALLED AT THE BOTTOM OF THE PAGE.

GENERATOR

SIGNATURE (AUTHORIZED REPRESENTATIVE)

PIETER DECAMPS

NAME AND TITLE (PLEASE PRINT)

9/3/2019

DATE

REPUBLIC SERVICES/COMPA Edward Antolin

SIGNATURE (AUTHORIZED REPRESENTATIVE)

EDWARD ANTOLIN, MESE

NAME AND TITLE (PLEASE PRINT)

9/3/2019

DATE

Terms and Conditions of Special Waste Service Agreement

4. The Agreement. This agreement of the parties ("Agreement") for the disposal of Acceptable Waste shall consist of this Agreement, riders to the Agreement (if any), any Special Waste Profiles (including any approved changes and re-certifications) and any Application, permit and approval that may be applicable to the disposal of such Acceptable Waste ("Acceptable Waste Documentation").

5. Waste Accepted at Facility. Generator represents, warrants and covenants that the waste delivered to Company at its Facility hereunder will be Acceptable Waste and will not contain any unacceptable quantity of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances, as defined by applicable federal, state, local or provincial laws or regulations. Any waste which does not meet these requirements shall hereinafter be referred to as "Unacceptable Waste". The Generator shall in all matters relating to the collection, transportation and disposal of the Acceptable Waste hereunder, comply with all applicable federal, state and local laws, regulations, rules and orders regarding the same (collectively, "Applicable Laws").

6. Acceptable Waste. Only waste that satisfies each of the following criteria shall be accepted for disposal at the Facility ("Acceptable Waste"): (a) the waste conforms to the description set forth in the Acceptable Waste Documentation; (b) the waste does not contain any Unacceptable Waste; (c) the waste is accurately reflected on any Special Waste Profile(s) as directed by the Company pursuant to Section 7; (d) the waste is acceptable for disposal at the Facility under all Applicable Laws; and (e) the transportation to and disposal of the waste at the Facility is otherwise in accordance with this Agreement. The parties may incorporate additional Acceptable Waste as part of this Agreement if prior to delivery of such Waste to Company, Generator has provided an Application for such Acceptable Waste and Company has approved disposal of such Acceptable Waste within the limitations and conditions contained in Company's written notice of approval of Special Waste Disposal. Title to and liability for any and all Acceptable Waste handled or disposed of by Company shall at all times remain with Generator and Broker (if a Broker is involved).

7. Rights of Refusal/Rejection. The Generator shall inspect all waste at the place(s) of collection and shall remove any and all Unacceptable Waste. Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility including if the Company believes (a) Generator has breached (or is breaching) its representations, warranties, covenants or agreements in this Agreement or any Acceptable Waste Documentation, or any Applicable Laws; or (b) that the waste contains Unacceptable Waste. The Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility if the Company has reason to believe, in its sole discretion, that the waste: (1) emits excessive odors; (2) negatively impacts operations at the Facility. Company shall have the right to inspect all vehicles and containers of waste haulers, including the Generator's vehicles, in order to determine whether the waste is Acceptable Waste pursuant to this Agreement and all Applicable Laws. The Company's exercise, or failure to exercise, its rights hereunder shall not operate to relieve the Generator of its responsibilities or liability under this Agreement.

8. Limited License to Enter. This Agreement provides Generator with a license to enter the Facility for the limited purpose of, and only to the extent necessary for, off-loading Acceptable Waste at the Facility in the manner directed by Company. Except in an emergency, Generator's personnel shall not leave the immediate vicinity of their vehicle. After off-loading the Acceptable Waste, Generator's personnel shall promptly leave the Facility. Under no circumstances shall Generator or its personnel engage in any scavenging of waste or other materials at the Facility. The Company reserves the right to make and enforce reasonable rules and regulations concerning the operation of the Facility, the conduct of the drivers and others on the Facility premises, quantities and sources of waste, and any other matters necessary or desirable for the safe, legal and efficient operation of the Facility including, but not limited to, speed limits on haul roads imposed by the Company, and the wearing of hard hats and other personal protection equipment by all individuals allowed on the Facility premises. Generator agrees to conform to such rules and regulations as they may be established and amended from time to time. Company may refuse to accept waste from and shall deny an entrance license to, any of Generator's personnel whom Company believes is under the influence of alcohol or other chemical substances. Generator shall be solely responsible for its employees and subcontractors performing their obligations in a safe manner when at the facility of Company.

9. Charges and Payment. Payment shall be made by Generator within thirty (30) days after receipt of invoice from Company. If any amount is overdue, the Company may terminate this Agreement. Generator agrees to pay a finance charge equal to the maximum interest rate permitted by law. Generator shall be liable for all taxes, fees, or other charges imposed upon the disposal of the Acceptable Waste by federal, state, local or provincial laws and regulations. Company, from time to time, may modify its rates upon thirty (30) days written notice to Generator. For the purposes of this section, written notice may be provided via email, certified mail, or overnight courier.

10. Termination. Company shall have the right to immediately terminate and/or suspend this Agreement upon the occurrence of any of the following events of default: (a) Generator's failure to timely pay any amounts due under this Agreement to Company; (b) Generator's breach of any of its obligations, representations, warrants or covenants under this Agreement or any Acceptable Waste Documentation; or (c) the filing of a voluntary or involuntary petition for reorganization or bankruptcy against Generator. Generator shall be liable for any losses, claims, expenses and damages incurred by Company as a result of suspension or termination hereunder. Generator's obligations, representations, warranties and covenants regarding the Acceptable Waste delivered and all indemnities contained in this Agreement shall survive expiration and termination of this Agreement. Additionally, Company shall have the right to terminate this Agreement for convenience at any time on 30 days' notice to Generator.

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12. Indemnification. Generator shall indemnify, defend and hold harmless the Company and its subsidiaries, affiliates and parent corporations, as applicable and their respective officers, directors, lenders, employees, subcontractors and agents from and against any and all claims, suits, losses, liabilities, assessments, damages, fines, costs and expenses, including reasonable attorneys fees arising under federal, state or local laws, regulations or ordinances, or relating to the (a) the transportation to and/or disposal of any Unacceptable Waste at the Facility, whether or not Generator or Company was negligent in failing to identify the Unacceptable Waste; (b) the reloading and/or removal of Unacceptable Waste at the Facility; (c) any penalties, fines or remediation activities incurred by or imposed as the result of the transportation and/or disposal of Unacceptable Waste; (d) any increased inspection, testing, study and analysis costs made necessary due to reasonable concerns of Company as to the content of the waste transported and/or disposed of at the Facility following discovery of potentially Unacceptable Waste; and (e) the Company's inability to use the Facility due to the presence of Unacceptable Waste including without limitation any consequential damages. Company may also, in its sole discretion, require Generator to promptly remove the Unacceptable Waste at Generator's sole expense. This indemnification and other obligations stated in this paragraph shall survive the termination of this Agreement.

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All insurance will be by insurers authorized to do business in the state in which the Facility is located. Generator shall deliver the Certificates of Insurance evidencing the foregoing policies to Company before Generator delivers any waste to the Facility pursuant to this Agreement. In addition, the (i) Commercial General Liability (including the Umbrella/Excess policy) policy must include Contractual Liability coverage specifically covering Generator's indemnification of Company, and (ii) The Commercial General Liability, Automobile Liability and the Umbrella/Excess Liability policies must be written on an "occurrence form". Said polices shall not thereafter be canceled, be permitted to expire or laps, or be changed without 30 days advance written notice has been given to Company. With the exception of workers' compensation, Company shall be shown as additional insureds under all of the insurance policies required by this Section 13. The policies required by this Section 13 shall be primary and non-contributory with respect to Company, and the insurance providers shall agree to waive their rights of subrogation against Company.

14. Failure to Perform. Except for Generator's obligation to pay amounts due to Company, neither party hereto shall be liable for its failure to perform hereunder due to circumstances not its fault and beyond its reasonable control, including, but not limited to, strikes or other labor disputes, riots, protests, civil disturbances or sabotage, changes in law, fires, floods, compliance with government requests, explosions, accidents, weather, lack of required natural resources, or acts of God affecting either party hereto. In the event of any of the circumstances provided for in the preceding sentence, including, but not limited to, whether any federal, state or local court or governmental authority takes any action which would (i) close or restrict operations at the Facility, (ii) limit the quantity or prohibit the disposal of Acceptable Waste at the Facility, or (iii) limit the ability of or prohibit Generator from delivering Acceptable Waste to the Facility, the Company shall have the right, at its option, to reduce, suspend or terminate Generator's access to the Facility immediately, without prior notice and without any additional liabilities between the parties, other than Generator's payment obligation hereunder. Neither Party is required hereunder to settle any labor dispute against its own best judgment.

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18. Miscellaneous.

(A) This Agreement shall be governed by the laws of the State in which the Facility is located.

(B) No waiver of a breach of any of the obligations contained in the Agreement shall be construed to be a waiver of any prior or succeeding breach of the same obligation or of any other obligation of this Agreement.

(C) Unless otherwise provided for herein, no modification, release, discharge or waiver of any provision or obligation hereof shall be of any force, or effect, unless in writing signed by all parties to this Agreement.

(D) Generator shall treat as confidential and not disclose to others during or subsequent to the terms of this Agreement, except as is necessary to perform this Agreement, or to comply with any applicable law or regulation any information (including any technical information, experience or date) regarding the Company's plans, programs, plants, processes, products, costs, equipment or operations which may come within the knowledge of the Generator or its employees in the performance of this Agreement, without in each instance securing the prior written consent of the other Company.

(E) If any term, phrase, obligation or provision of this Agreement shall be held to be invalid, illegal or unenforceable in any respect, this Agreement shall remain in effect and be construed without regard to such term, phrase, obligation or provision.

(F) This Agreement constitutes the entire understanding between the parties, replacing and amending any prior agreements between the parties, and shall be binding upon all parties hereto, their successors, heirs, representatives and assigns. Any provision, term or condition in any acknowledgement, purchase order or other response by Generator which is in addition to or different from the provisions of this Agreement shall be deemed objected to by the Company and shall be of no effect.

(G) Generator represents, warrants and covenants that it is and, during the term of this Agreement will remain, in compliance with and will perform its obligations pursuant to all applicable laws and regulations and shall indemnify, defend and hold harmless the Company from any breach thereof.

(H) It is the understanding and agreement of the parties that the Company is an independent contractor, and is not an agent, nor an authorized representative of the Generator.

(I) Company may provide any of the Services covered by this Agreement through any of its affiliates or subcontractors, provided that Company shall remain responsible for the performance of all such services and obligations in accordance with this Agreement

20. Notices. Unless otherwise provided herein, all notices herein provided for shall be considered as having been given upon being placed in the mail, certified postage prepaid addressed to the Company or Generator at the address herein set forth in this Agreement or to such other address as may be given to the other party in writing.

21. Liquidated Damages. If Generator terminates this Agreement before its expiration other than as a result of a breach by Company, Generator shall pay Company an amount equal to the most recent month's monthly charges multiplied by the lesser of (a) six months or (b) the number of months remaining in the term. Generator acknowledges that in the event of such a termination, actual damages to Company would be uncertain and difficult to ascertain, such amount is the best, reasonable and objective estimate of the actual damages to Company, such amount does not constitute a penalty, and such amount is reasonable under the circumstances. Any amount payable under this paragraph shall be in addition to amounts already owing under this Agreement.

GENERATOR: _____ REPUBLIC SERVICES/COMPANY: Edward Antolin _____ December 2018

REPUBLIC SERVICES, INC.

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231913294	8/30/2020	

I. Decision Request: ☐ Initial ☐ Recertification ☑ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: PURATOS WESTERN OPERATIONS

Generator Site Address: 18831 S LAUREL PARK RD

City: RANCHO DOMINGUEZ **County:** **State:** CA **Zip:**

Name of Waste: BAKERY AND CONFECTIONERY GOODS

Estimated Annual Volume: 350,000 Pounds

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

FOOD WASTE: This waste must be buried immediately upon receipt at the landfill.

Per the Special Waste Profile Change Form dated 01 OCTOBER 2019, the generator has increased the ESTIMATED VOLUME for disposal by 200,000 POUNDS.

TOTAL ESTIMATED VOLUME approved for disposal is 350,000 POUNDS.

Special Waste Analyst Signature: Joseph M. Sorokach **Name (Printed):** Joseph Sorokach

Date: 10/1/2019

III. Facility Decision: ☑ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: **Name (Printed):**

Date: 10/1/2019

Special Waste Profile - Change

REPUBLIC SERVICES

I. Generator Information

This form may be used to request changes to an existing Special Waste Profile

Generator Name: Puratos Western Operations

Name of Waste: Bakery & Confectionery Goods Waste Profile #: 51231913294

II. Purpose of Change

Description of change requested and reason for change
(provide detailed explanation of why the change is requested following the appropriate checked circle below).

Additional disposals - request to increase limit

☑ Volume Increase By: 200,000lbs

Is the analysis originally submitted with the Profile representative of the volume increase? ☑ **Yes** ☐ **No** ***If no, complete Section III below***

☐ Extend Expiration Date:

☐ Change or Add Landfill:

☐ Add Additional Laboratory Reports: ***Complete Representative Sample Certification; Section III below***

☐ Add MSDS:

☐ Generator Name Change:

☐ Other:

III. Representative Sample Certification

☐ **No Sample Taken**

☐ **Sample Taken** **Type of Sample** --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ **Yes** ☐ **No**

Sample Date:

Sample ID Numbers:

Special Waste Profile - Change

REPUBLIC SERVICES

IV. Certification

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I hereby certify that the waste and the process generating the waste are unchanged and are accurately represented in the original profile.

Pieter Decamps	Operations Liaison	Puratos Western Operations
Authorized Representative Name (Printed)	Title (Printed)	Company Name
Representative Signature		10/1/2019
		Date

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231914465	9/23/2020	

I. Decision Request: ☐ Initial ☐ Recertification ☑ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: CHEF MERITO INC

Generator Site Address: 7915 SEPULVEDA BLVD

City: VAN NUYS **County:** **State:** CA **Zip:**

Name of Waste: SEASONING

Estimated Annual Volume: 42,450 Pounds

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

Per the Change to Special Waste Profile Sheet form (dated 10/2/19), the generator has increased the estimated annual volume to 42,450 pounds.

Special Waste Analyst Signature: _____ **Name (Printed):** KEITH DIAMANTI

Date: 10/2/2019

III. Facility Decision: ☐ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: _____ **Name (Printed):** CHRIS COYLE, GM

Date: 10/2/2019

Special Waste Profile - Change

REPUBLIC SERVICES

I. Generator Information

This form may be used to request changes to an existing Special Waste Profile

SO 10/2/19

Generator Name: ~~Suzan Azeredo~~ Chef Merito, Inc.

Name of Waste: Seasoning | Waste Profile #: 51231914465

II. Purpose of Change

Description of change requested and reason for change
(provide detailed explanation of why the change is requested following the appropriate checked circle below).

Weight passed the limit. We have a total of 35,950lbs of expired seasoning that needs to be disposed of.

GR 10/2/19

☑ Volume Increase By: 35,950lbs

Is the analysis originally submitted with the Profile representative of the volume increase? ☑ Yes ☐ No ***If no, complete Section III below***

☐ Extend Expiration Date:

☐ Change or Add Landfill:

☐ Add Additional Laboratory Reports: ***Complete Representative Sample Certification; Section III below***

☐ Add MSDS:

☐ Generator Name Change:

☐ Other:

III. Representative Sample Certification

☑ **No Sample Taken**

☐ **Sample Taken** **Type of Sample** --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ Yes ☐ No

Sample Date:

Sample ID Numbers:

Special Waste Profile - Change

REPUBLIC SERVICES

IV. Certification

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I hereby certify that the waste and the process generating the waste are unchanged and are accurately represented in the original profile.

Suzan Azeredo	Procurement Mgr.	Chef Merito, Inc.
Authorized Representative Name (Printed)	Title (Printed)	Company Name
Representative Signature		10/2/19
		Date

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231914465	9/23/2020	

I. Decision Request: ☐ Initial ☐ Recertification ☑ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: CHEF MERITO INC

Generator Site Address: 7915 SEPULVEDA BLVD

City: VAN NUYS **County:** **State:** CA **Zip:**

Name of Waste: SEASONING

Estimated Annual Volume: 67,450 Pounds

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

Per the Change to Special Waste Profile Sheet form (dated 10/3/19), the generator has increased the estimated annual volume to 67,450 pounds.

Special Waste Analyst Signature: _____ **Name (Printed):** KEITH DIAMANTI

Date: 10/4/2019

III. Facility Decision: ☐ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: _____ **Name (Printed):** CHRIS COYLE GM

Date: 10/4/2019

Special Waste Profile - Change

REPUBLIC SERVICES

I. Generator Information

This form may be used to request changes to an existing Special Waste Profile

Generator Name: Chef Merito, Inc.

Name of Waste: Seasoning Waste Profile #: 51231914465

II. Purpose of Change

Description of change requested and reason for change
(provide detailed explanation of why the change is requested following the appropriate checked circle below).

Weight passed the limit. We have an additional total of 24,590lbs that needs to be disposed of.

☑ Volume Increase By: 25,000 lbs SC 10/4/19

Is the analysis originally submitted with the Profile representative of the volume increase? ☑ Yes ☐ No ***If no, complete Section III below***

☐ Extend Expiration Date:

☐ Change or Add Landfill:

☐ Add Additional Laboratory Reports: ***Complete Representative Sample Certification; Section III below***

☐ Add MSDS:

☐ Generator Name Change:

☐ Other:

III. Representative Sample Certification

☑ **No Sample Taken**

☐ **Sample Taken** **Type of Sample** --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ Yes ☐ No

Sample Date:

Sample ID Numbers:

Special Waste Profile - Change

REPUBLIC SERVICES

IV. Certification

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If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I hereby certify that the waste and the process generating the waste are unchanged and are accurately represented in the original profile.

Suzan Azeredo	Procurement Mgr.	Chef Merito, Inc.
Authorized Representative Name (Printed)	Title (Printed)	Company Name
Representative Signature		10/3/19
		Date

REPUBLIC SERVICES, INC.

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231914465	9/23/2020	

I. Decision Request: ☑ Initial ☐ Recertification ☐ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: CHEF MERITO INC

Generator Site Address: 7915 SEPULVEDA BLVD

City: VAN NUYS	County:	State: CA	Zip:

Name of Waste: SEASONING

Estimated Annual Volume: 6500 Pounds

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

Special Waste Analyst Signature: _____ **Name (Printed):** KEITH DIAMANTI

Date: 9/24/2019

III. Facility Decision: ☒ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: _____ **Name (Printed):** _____

Date: 9/24/2019

Special Waste Profile

REPUBLIC SERVICES

Disposal Facility: 5123 Sunshine Canyon Landfill CA

Waste Profile #: 5123 19 14465

Sales Rep #:

I. Generator Information

Generator Name: Chef Merito, Inc.

Generator Site Address: 7915 Sepulveda Blvd.

City: Van Nuys County: Los Angeles State: California Zip: 91405

State ID/Reg No: State Approval/Waste Code: NAICS #: 311942

Generator Mailing Address ☐ (if different)

City: County: State: --Select State-- Zip:

Generator Contact Name: Suzan A. Email: SuzanAzeredo@chefmerito.com

Phone Number: (818) 787-0100 Ext: 47 Fax Number:

II. Billing Information

Bill To: Chef Merito, Inc. Contact Name: Perla M.

Billing Address: 7915 Sepulveda Blvd. Email: PMora@chefmerito.com

City: Van Nuys State: California Zip: 91405 Phone: (818) 787-0100

III. Waste Stream Information

Name of Waste: Seasoning

Process Generating Waste: 2000 pound totes filled with seasoning had holes due to forklift handling. Due to it being a consumable product it has been cross contaminated with dirty forks. It does not meet our quality standard.

Type of Waste: Industrial Process Waste Physical State: Solid Method of Shipment: Bulk

Estimated Volume: 6,500 Volume Type: Pounds

Frequency: One-time Event (single project) Disposal Consideration: Landfill

IV. Representative Sample Certification

☑ **No Sample Taken**

☐ **Sample Taken** **Type of Sample** --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ **Yes** ☐ **No**

Sample Date:

Sample ID Numbers or SDS: Annato Seeds; Black Pepper Cracked; 40100004381 Cumin Ground; Monosodium Glutamate; Turmeric Oleoresin; SDS- Dehydrated Onion Flakes, Chopped, Minced, Granules & Powder; Sweet Paprika Steam Treated; Salt, Sodium Chloride; Granulated Sugar;

Remember to attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

Special Waste Profile

REPUBLIC SERVICES

V. Physical Characteristics of Waste

Characteristic Components (must equal 100%:)	% By Weight (out of 100% - ranges acceptable):
1. Spices	90-95%
2. Plastic Tote	5-10%
3.	
4.	
5.	

Color:	Odor (describe):	Does Waste Contain Free Liquids?	% Solids:	pH:	Flash Point:
Orange	Spices	☐ Yes ☑ No	100	N/A	203-311 °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

RCRA Regulatory Questions

1. Does this waste or generating process contain regulated concentrations of the following Pesticides and/ or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33? ☐ Yes ☑ No
2. Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261.23(a)(5)]? ☐ Yes ☑ No
3. Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761? ☐ Yes ☑ No
4. Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents? ☐ Yes ☑ No
5. Has this waste been delisted under 40 CFR 260.20 and 260.22? If yes, attach the final decision to delist the waste as published in the Federal Register. ☐ Yes ☑ No
6. Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations? If Yes, identify the applicable waste code and specify if the waste is hazardous as defined by Federal, State or both? ☐ Yes ☑ No
7. Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31? ☐ Yes ☑ No
8. Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations? ☐ Yes ☑ No
9. Is this a regulated Radioactive Waste as defined by Federal and/or State regulations? ☐ Yes ☑ No
10. Is this a solid waste that is not a hazardous waste in accordance with 40 CFR 261.4(b)? If yes, please provide the corresponding regulatory citation. ☐ Yes ☑ No

Republic Services Waste Handling Questions

1. Does this waste generate heat or react when contacted with water/moisture? ☐ Yes ☑ No
2. Does the waste contain sulfur or sulfur by-products? ☐ Yes ☑ No
3. Is this waste generated at a State or Federal Superfund cleanup site subject to regulation under CERCLA? ☐ Yes ☑ No

4a. Is this waste from a TSD facility, TSD-like facility or consolidator (i.e. multiple wastes/multiple generators)? ☐ Yes ☑ No

4b. If yes to the above question, please provide clarification.

Special Waste Profile

REPUBLIC SERVICES

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

Nathaly Aquino	Food & Plant Safety Administrator	Chef Merito, Inc.
Authorized Representative Name (Printed)	Title (Printed)	Company Name
Nathaly Aquino Representative Signature		09/23/19 Date

PAPRIMUR, S.L.

TECHNICAL DATA SHEET

Product SWEET PAPRIKA STEAM TREATED

Health and Safety Data

NO SPECIFICS HAZARDS ARE KNOWN FOR THIS PRODUCT

CLASSIFICATION: Non-hazardous foodstuff.

TRANSPORT REQUIREMENTS: Ambient dry transport.

FIRE HAZARD: Low blast and fire hazard. High flashpoint. Extinguish with water or CO2.

WASTE MANAGEMENT: Dispose of as innocuous waste.

EXPOSURE LIMITS: none described.

Use Requirements and Safety

This product is naturally aromatic and due to prolonged handling may cause skin, nasal, throat or eye irritation in sensitive cases. The use of efficient ventilation or containment is advisable. If this is not practical, the use of personal protective equipments (PPE) such as face masks, gloves and protective overalls is recommended in such cases.

IN CASE OF IRRITATION, WASH AFFECTED BODY PART WITH PLENTY OF WATER IF IRRITATION PERSISTS, SEEK MEDICAL ADVICE.

Suitability for Ethnic Groups and Others

Kosher approved	Yes, neutral product
Halal approved	Yes, official approval available
Suitable for Diabetics	Yes
Suitable for Vegetarians	Yes
Suitable for Vegans	Yes
Suitable for Coeliacs	Yes

DISCLAIMER:
All the information herein provided is truthful to the best of our knowlege. Although great care has been taken to ensure its accuracy, ever changing regulations and individual product features make it necessary to disclaim any warranties or liabilities.

PAPRIMUR, S.L.
P.O.BOX 171, P.O. IND. DE FORTUNA
30620 FORTUNA - MURCIA - SPAIN
TELE (00-34) 968687000
FAX (00-34) 968687068

Quality Manager
Paprimur, S.L.

PAX Spices & Labs Inc.
Spices, Herbs and Oleoresins
"Bringing quality in quantity"
550 N. Rimsdale Ave | Covina, California 91722 | Ph.: 626 -967-7800 Fax: 626-967 -7811
E mail providence@paxspices.com

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICTION

Trade Name	Turmeric Oleoresin
Use	Food Ingredients
Distributor	PAX Spices & Labs Inc.
Address	550 N. Rimsdale Ave. Covina, CA 91722
Telephone Number	(626) 967-7800
Emergency Telephone Number	(626) 241-6979

2. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Entity	Turmeric Oleoresin
C A S Number	84775-52-0
E I N E C S Number	08024-37-1

3. HAZARDS IDENTIFICATION

Hazard Identification	No Hazards

4. FIRST AID MEASURES

Inhalation	In case of excessive inhalation, expose the Person to fresh air if necessary
Eyes	No vapors irritating the eyes
Skin	Use soap and water in case of skin contact
Ingestion	Rinse mouth with water.

5. FIRE – FIGHTING MEASEURES

Suitable Extinguishing Media	Use powder/foam type fire extinguisher

6. ACCIDENTAL RELEASE MEASURES

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FOR PAX Spices & Labs Inc.

CONFIDENTIAL

PAX Spices & Labs Inc.
Spices, Herbs and Oleoresins
"Bringing quality in quantity"
550 N. Rimsdale Ave | Covina, California 91722 | Ph.: 626 -967-7800 Fax: 626-967 -7811
E mail providence@paxspices.com

Personal Precaution	Avoid contact with skin, eyes, and mucus
Environmental Precaution	Prevent entry to sewers
Methods for Cleaning up	Use soap and water

7. HANDLING AND STORAGE

Handling & Storage	Store in full tightly close containers in a Cool, dry place protected from light.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Control/Personal	No Hazards, Natural product
Respiratory Protection	Mouth mask
Hand Protection	Use gloves
Eye Protection	Use goggles
Skin Protection	Use gloves

9. PHYSICAL AND CHEMICAL PROPERTIES

		Auto Inflammability	No
Appearance	Viscous Liquid	Explosive Properties	No
Odor	Aroma of Turmeric	Oxidizing Properties	No
pH Value	NA	Vapor Pressure	No
Boiling Point	NA	Relative Pressure	No
Melting Point	NA	Solubility - Fat	Yes
Flash Point	155°C		
Solubility – Water	No		

Partition Coefficient (n-octanol / Water) NA

10. STABILITY AND REACTIVITY

Stable

11. TOXOLOGICAL INFORMATION

Not toxic

12. ECOLOGICAL INFORMATION

Biodegradable

13. DISPOSAL CONDITIONS

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FOR PAX Spices & Labs Inc.

CONFIDENTIAL

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E mail providence@paxspices.com

Biodegradable

14. TRANSPORT INFORMATION

As per ICAO regulation the product is not dangerous according to prevailing transport regulation

15. REGULATORY INFORMATION

Not Regulated

16. OTHER INFORMATION

Strong, good packaging and reasonable careful handling required

Last review on: January 15, 2017

CONFIDENTIAL

Tom Tharayil | President & CEO

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FOR PAX Spices & Labs Inc.

VEDAN VIETNAM ENTERPRISE CORP, LTD QA Department	SAFETY DATA SHEET: MONOSODIUM GLUTAMATE	MSDS 007-5 08/11/2017

1. Identification of the product and the company

- Identification of the product
  Product name: MSG- Monosodium Glutamate.
  Trade name: MSG- Monosodium Glutamate
- Company/undertaking identification
  Company: VEDAN VIETNAM ENTERPRISE CORP., LTD.
  National Road 51, Hamlet 1A, Phuoc Thai village, Long Thanh District, Dong Nai Province, Vietnam
  Tel: : (+84)251-3825111, Fax: (+84)251-3825138
  Free Hotline: (+84) 1800.599.902
- For use: Used as a flavour enhancer in food processing.

2. Composition/information on ingredients

- CAS-No.: 6106-04-3
- M: 187.13 g/mol
- Molecular formula (Hill): $C_5H_8NNaO_4.H_2O$
- EC-No: 205-538-1

3. Hazards identification

Products which are unlikely to cause unsafety, in conditions of transport, storage and preservation, for proper use and for the right purpose, without causing harm to humans, animals, plants, property and the environment..

4. First aid measures

- After inhalation: fresh air.
- After skin contact: wash off with water.
- After eye contact: rinse out with water. After swallowing of large amounts: Consult doctor if feeling unwell.

5. Fire-fighting measures

- Suitable extinguishing media: Water, foam.
- Special risks: Practically non-Combustible. Development of hazardous combustion gases or vapours possible in the event of fire. Nitrogen oxides may develop in event of fire.

6. Accidental release measures

- Person – related precautionary measure: Avoid generation of dust; do not inhale dust.
- Procedures for cleaning: Take up dry. Forward for disposal. Clean up affected area.
- Environmental-protection measures: Do not allow to enter sewerage system.

7. Handling and storage

Store in a cool and dry place. Keep away from the direct sunlight

8. Exposure controls/personal protection

- Personal protective equipment: Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.
- Respiratory protection: required when dusts are generated.
- Eye protection: required
- Hand protection: not required
- Industrial hygiene: Wash hands after working with substance. Change contaminated clothing.

9. Physical and chemical properties

- Form: crystals or crystalline powder.
- Colour: white
- Odour: weak
- pH value (2% solution) (20 °C): 6.7-7.2
- Melting point: not available
- Boiling point: not available
- Ignition temperature: not available
- Flash point: not available
- Explosion limits lower: not available, upper not available.
- Density: not available
- Solubility in water: soluble in water
- Thermal decomposition: not available

10. Stability and reactivity

- Conditions to be avoided no information available.
- Substances to be avoided no information available.
- Hazardous decomposition products in the event of fire: see chapter 5.
- Further information: releases water of crystallization when heated.

11. Toxicological information

- Further toxicological information: After uptake of large quantities: Nausea, vomiting, dyspnoea.
- Further data: No toxic effects are to be expected when the product is handled appropriately.

12. Ecological information

- Ecotoxic effects: Quantitative data on the ecological effect of this product are not available.
- Further ecologic data: No ecological problems are to be expected when the product is handled and used with due care and attention.

13. Disposal considerations

- Product: There are no uniform for the disposal of products or residues. Product residues generally count as special waste. If having any request, We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste.
- Packaging: Disposal in compliance with official regulations. Handle contaminated packaging in the same way as substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled..

14. Transport information

IATA (Air): Not regulated

15. Regulatory information

- Product quality must comply with QCVN 4-1:2010 / BYT "National technical regulation on food additives – enhancer".
- Labeling contents under the guidance of Decree No. 43/2017/NĐ-CP about labelling.
- Other relevant legal documents..

16. Other information

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

M.S.D.N:3600239719 CÔNG TY CỔ PHẦN HỮU HẠN VEDAN VIỆT NAM H. LONG THÀNH T. ĐỒNG NAI

YANG, CHENG-EN

SAFETY DATA SHEET

Revision Date 14-Oct-2014 **Version** 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier
Product Name Salt, Sodium Chloride

Other means of identification
Product Code(s) SALT, SODIUM CHLORIDE
Synonyms Industrial Grade Sodium Chloride

Recommended use of the chemical and restrictions on use
Recommended Use Industrial (not for food or food contact use).
Uses Advised Against No information available

Details of the supplier of the safety data sheet
Manufacturer Address United Salt Corporation
4800 San Felipe St.
Houston, TX 77056

Emergency telephone number
Company Phone Number 713-877-2677
Emergency Contact: CHEMTREC: +1-703-527-3887 (INTERNATIONAL)
1-800-424-9300 (NORTH AMERICA)

2. HAZARDS IDENTIFICATION

Classification

Serious eye damage/eye irritation	Category 2B.

GHS Label elements, including precautionary statements

Emergency Overview

Warning

Hazard Statements
Causes eye irritation

Appearance White, crystalline. **Physical state** Solid. **Odor** Odorless.

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling.

Precautionary Statements - Response IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/ attention

General Hazards Although not required to be classified under GHS, this product has been self-classified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms Industrial Grade Sodium Chloride.

Chemical Name	CAS-No	Weight %	Trade Secret
Sodium Chloride	7647-14-5	100	*

*** Yellow prussiate of soda in trace amounts is used as an anti-caking agent in the sized salt.**

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact Burning feeling and temporary redness. May cause irritation and redness. Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. If symptoms persist, call a physician.

Skin contact May cause dryness to skin. Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

Inhalation Move to fresh air. Irritating to mucous membranes. May cause throat irritation. If symptoms persist, call a physician.

Ingestion Drink plenty of water. Rinse mouth with water. If symptoms persist, call a physician. Not intended for human or animal consumption.

Protection of First-aiders Use personal protective equipment.

Most important symptoms/effects, acute and delayed

Main Symptoms No information available.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Keep patient under observation. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Material is non-flammable. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical No information available.

Hazardous Combustion Products Carbon monoxide. Carbon dioxide (CO_2).

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions Use personal protective equipment. Avoid dust formation. Avoid contact with the skin and the eyes.

Other information See Section 12 for additional information.

Environmental Precautions

Environmental Precautions See Section 12 for additional Ecological Information.

Methods and Materials for Containment and Cleaning Up

Methods for Containment Prevent further leakage or spillage if safe to do so. Avoid generation and spreading of dust.

Methods for Cleaning Up Use personal protective equipment. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically and collect in suitable container for disposal. Avoid dust formation. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not ingest.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible products Bromine Trifluoride, Lithium.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines Treat as a nuisance dust.

Exposure controls

Engineering Measures Showers
Eyewash stations
Ventilation systems. Ensure adequate ventilation to remove vapors, fumes, dust, etc. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Ensure that eyewash stations and safety showers are close to the workstation location.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses with side-shields. or. Tightly fitting safety goggles. for dusty conditions.

Skin and body protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear latex or Nitrile gloves.

Respiratory protection Effective dust mask. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice. Wash hands and face before breaks and immediately after handling the product. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Physical state	Solid.		
Appearance	White, crystalline.	**Odor**	Odorless.
Color	No information available	**Odor Threshold**	No information available

Property	**Values**	**Note • Method**
pH	No information available	
Melting/freezing point	800 °C / 1472 °F.	
Boiling point/boiling range	1413 °C / 2575 °F.	
Flash Point	No information available	
Evaporation rate	N/A	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper Flammability Limit	No data available.	
Lower Flammability Limit	No data available.	
Vapor pressure	1 MM@ 855 deg	
Vapor density	N/A	
Specific Gravity	2.165	
Water solubility	Appreciable (26.43 % by weight at 20C)	
Solubility in other solvents	No information available	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity, kinematic	No information available	
Viscosity, dynamic	No information available	
Explosive properties	No information available.	
Oxidizing Properties	No information available	

Other information

Softening point	No information available
Molecular Weight	No data available
VOC Content	No data available.
Density	No data available
Bulk Density	No data available.

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under normal conditions.

Possibility of hazardous reactions
None under normal processing.

Hazardous Polymerization
Hazardous polymerization does not occur.

Conditions to Avoid
No information available.

Incompatible Materials
Bromine Trifluoride, Lithium.

Hazardous Decomposition Products
When heated to decomposition (above 1413 C) may emit toxic fumes of Na_2O and Cl_2.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact May cause irritation.
Skin contact Irritating to skin. Prolonged contact may cause redness and irritation.
Inhalation May cause irritation of respiratory tract. Inhalation of dust in high concentration may cause irritation of respiratory system.
Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium Chloride 7647-14-5	= 3 g/kg (Rat)	= 10 g/kg (Rabbit)	> 42 g/m³ (Rat) 1 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity There are no known carcinogenic chemicals in this product.

Reproductive Toxicity No information available.

Specific target organ systemic toxicity (single exposure) No information available.

Specific target organ systemic toxicity (repeated exposure) No information available.

Target Organ Effects Skin, Eyes, Gastrointestinal tract (GI).

Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document . mg/kg

LD50 Oral (mg/kg) 3000 mg/kg (rat) Estimated

LD50 Dermal 10000 mg/kg (rat) Estimated

LC50 Inhalation (DUST) 17572 mg/l (mist) (dust) mg/m³ 4 hour Estimated

12. ECOLOGICAL INFORMATION

Ecotoxicity
0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Sodium Chloride 7647-14-5	-	4747 - 7824: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 5560 - 6080: 96 h Lepomis macrochirus mg/L LC50 flow-through 6020 - 7070: 96 h Pimephales promelas mg/L LC50 static 6420 - 6700: 96 h Pimephales promelas mg/L LC50 static 12946: 96 h Lepomis macrochirus mg/L LC50 static 7050: 96 h Pimephales promelas mg/L LC50 semi-static	340.7 - 469.2: 48 h Daphnia magna mg/L EC50 Static 1000: 48 h Daphnia magna mg/L EC50

Persistence and degradability No information available.

Bioaccumulation No information available.

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste Disposal Methods This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements. Dispose of in accordance with federal, state, and local regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. TRANSPORT INFORMATION

Harmonized Tariff Schedule / Schedule B

HTS/Schedule B Code 2501.00.0000

DOT Not regulated.

TDG Not regulated.

MEX Not regulated.

ICAO Not regulated.

ICAO/IATA Not regulated.

IMDG/IMO Not regulated.

RID Not regulated.

ADR/RID Not regulated.

ADN Not regulated.

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

U.S. EPA Label Information
EPA Pesticide registration number Not applicable

16. OTHER INFORMATION

NFPA	**Health Hazard** 0	**Flammability** 0	**Instability** 0	**Physical and chemical hazards** -
HMIS	**Health Hazard** 1	**Flammability** 0	**Physical Hazard** 0	**Personal protection** X

Technical Contact
Tom Ellis
Technical Manager
7901 FM 1405
Baytown, Texas 77523
Office: 281-303-1101 ext 104

Prepared By
HSE Department
United Salt Corporation
4800 San Felipe St.
Houston, TX 77056

Revision Date 14-Oct-2014

Revision Note

Reason for Revision: GHS Classification

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

end

Fine Foods Industries

MATERIAL SAFETY DATA SHEET

1. PRODUCTS & COMPANY IDENTIFICATION

Product Name: DEHYDRATED ONION FLAKES, CHOPPED, MINCED, GRANULES & POWDER

Name of Company & Manufacturer:

FINE FOODS INDUSTRIES
Haripara Road,
Village: Taveda, Mahuva-364290
Dist: Bhavnagar (Gujarat), INDIA
Emergency Telephone Number: +91 9426221110
Email: info@finefoodsindustries.com
Web: www.finefoodsindustries.com

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Entity:
C A S Number
E I N E C S Number

3. HAZARDS IDENTIFICATION

General
Hazard Symbol
Risk – Phrases
Environment

4. FIRST – AID MEASURES

Inhalation:
Eye Exposure
Skin Exposure
Ingestion:
Others

5. FIRE FIGHTING MEASURES

Extinguishing media:

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Spillage
Environmental precautions

7. HANDLING AND STORAGE

Handling
Storage
Fire Protection

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Respiratory Protection
Eye Protection
Skin Protection

Fine Foods Industries

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Explosive property
Odour Oxidising property
Colour Vapour Pressure
pH Value Density 20 deg C (kg/1)

Viscosity Solubility in water
Freezing Point Solubility in ethanol
Boiling Point Partition Coefficient
Melting Point Specific Gravity 25 deg C (kg/1)
Flash Point of the Volatile Fraction Optical Rotation
Auto Inflammability Refractive Index 25 deg C

10. STABILITY AND REACTIVITY

Reactivity
Decomposition

11. TOXICOLOGY INFORMATION

12. ECOLOGICAL INFORMATION

General

13. DISPOSAL CONSIDERATIONS

14. TRANSPORT INFORMATION

U N Number
Packing Group
Packing Class

15. REGULATORY INFORMATION

Hazard Symbol
Risk Phrases
Safety Phrases
Contain

16. OTHER INFORMATION

The information in the material safety data sheet is based on the property of the material known to SICL at the time the MSDS was issued. The MSDS is intended to provide information for a health and safety assessment of the martial and the circumstances under which it is packaged, stored, or applied in the work place. For such a safety assessment SICL hold on responsibility. This document is not intended for quality assurance purposed.

Compiled By:

Approved By:

Fine Foods Industries
Partner

Safety Data Sheet

Section 1: Identification

Product identifier

Product Name • **Granulated Sugar**

Product Code • N/A

Relevant identified uses of the substance or mixture and uses advised against

Recommended use • Human Food and Sweetening Agent

Details of the supplier of the safety data sheet

Manufacturer • The Amalgamated Sugar Company LLC
1951 S Saturn Way
Boise, Idaho 83709

Telephone (General) • 208-383-6500

Emergency telephone number

Manufacturer • 208-383-6515 – Mike Fowers

Section 2: Hazard Identification

United States (US)
According to OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012
- Dust explosion potential
- Nuisance dust

Label elements

OSHA HCS 2012
- Product is subject to labeling requirements of Federal Food, Drug, and Cosmetic Act, 21 U.S.C. 301 *et seq.* (29 CFR §1910.1200(5)(iii)

Eye
- Irritation to eyes

Explosive

OSHA PEL
- Product is explosive if TWA Dust = 15 milligrams of substance per cubic meter of air (15 mg/m^3). (29 CFR §1926.55 Appendix A)

NIOSH REL
- Product is explosive if TWA Dust = 10 milligrams of substance per cubic meter of air (10 mg/m^3). (The National Institute for Occupational Safety and Health)

Inhalation

OSHA PEL	• Product is an inhalation irritant if TWA = 5 milligrams of substance per cubic meter of air (5 mg/m^3). (29 CFR §1926.55 Appendix A)
NIOSH REL	• Product is an inhalation irritant if TWA = 5 milligrams of substance per cubic meter of air (5 mg/m^3). (The National Institute for Occupational Safety and Health)
Other	• Product has no hazardous components. (29 CFR §1910.1200)
Note	• SDS data pertains to the product as delivered in the original shipping container(s). Risks of adverse effects are lessened by following all prescribed safety precautions including the use of proper personal protective equipment.

Section 3: Composition/Information on Ingredients

Substances

Synonyms	• Sugar • Saccharose • α-D-glucopyranosyl-(1→2)-β-D-fructofuranoside • β-D-fructofuranosyl-(2→1)-α-D-glucopyranoside
CAS No.	• 57-50-1
Formula	• $C_{12}H_{22}O_{11}$
Molecular Weight	• 342.30 g/mol

Section 4: First Aid Measures

Description of first aid measures

Eye	• Flush eyes immediately with copious amounts of water.
Inhalation	• Move affected person to fresh air. Administer oxygen if breathing is difficult.
Note	• Eye and respiratory discomfort may be experienced at high dust concentrations. Pre-existing respiratory conditions or allergies may be aggravated.

Section 5: Fire-Fighting Measures

Extinguishing Media

Suitable Extinguishing Media	• Extinguish with water, foam, carbon dioxide, or dry powder.

Special Hazards

Combustible Dust	• When TWA Dust = 15 milligrams of substance per cubic meter of air. (29 CFR §1926.55 Appendix A)

Hazardous Combustion Products	• Carbon Oxides
Hazardous Decomposition	• When heated acrid smoke and fumes are emitted.
Hazardous Reactivities & Incompatibilities	• Oxidizers, sulfuric acid, and nitric acid
Ignition Temperature	• 420° C

Advice for Firefighters

- Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Avoid dust formation. Avoid breathing vapors, mist or gas. Wear appropriate personal protective equipment.

Methods and material for containment and cleaning up

Spill Cleanup

- Sweep up spilled substance and remove to safe place. Dust deposits should not be allowed to accumulate on surfaces, as this may form an explosive mixture if released into the atmosphere in sufficient concentration. Non-sparking tools should be used.

Section 7: Handling and Storage

Precautions for safe handling

Handling

- Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust may form.

Conditions for safe storage, including any incompatibilities

Storage

- Store at ambient temperature and humidity. Temperature should be less than 32° C Relative humidity should be less than 70%. Precautions should be taken to provide for adequate electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654: Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids 2013 edition, for safe handling. Also refer to NFPA 61: Standard for the Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities 2013 edition.

Section 8: Exposure Controls/Personal Protection

Exposure Limits

Explosive

OSHA PEL
- Product is explosive if TWA Dust = 15 milligrams of substance per cubic meter of air (15 mg/m^3). (29 CFR §1926.55 Appendix A)

NIOSH REL
- Product is explosive if TWA Dust = 10 milligrams of substance per cubic meter of air (10 mg/m^3). (The National Institute for Occupational Safety and Health)

Inhalation

OSHA PEL
- Product is an inhalation is an irritant if TWA = 5 milligrams of substance per cubic meter of air (5 mg/m^3). (29 CFR §1926.55 Appendix A)

NIOSH REL
- Product is an inhalation is an irritant if TWA = 5 milligrams of substance per cubic meter of air (5 mg/m^3). (The National Institute for Occupational Safety and Health)

Exposure Controls

Engineering Controls
- Ventilation should be matched to conditions. Local exhaust ventilation or other engineering controls should be used to maintain airborne levels to an acceptable level. Explosion suppression systems are advised. Use only electrical equipment and powered industrial trucks classified for the appropriate conditions.

Respiratory Protection
- Respirators are to be used if exposure exceeds recommended limits. NIOSH – approved dust mask may be used in dusty conditions.

Hygiene Measures
- Current Good Manufacturing Practices should be followed. Refer to U.S. Food and Drug Administration Code of Federal Regulations 21 CFR 110.

Key to abbreviations
NIOSH = National Institute of Occupational Safety and Health
OSHA = Occupational Safety and Health Administration
TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures.

Section 9: Physical and Chemical Properties

Material Description

Appearance
- Crystalline solid

Color
- White

Density
- 1.5805 g/cu cm @ 17° C

Melting Point
- 185.5° C

Molecular Formula
- $C_{12}H_{22}O_{11}$

Molecular Weight
- 342.30 g/mol

Odor
- Sweet

pH	• 6 – 7 in 50% water solution
Solubility in Water	• Very soluble in water (200 gm/100gm water at 20° C
Taste	• Sweet

Section 10: Stability and Reactivity

Reactivity	• No dangerous reaction know under conditions of normal use
Chemical stability	• Stable product at normal temperatures
Incompatible Materials	• Oxidizers, sulfuric acid, and nitric acid
Conditions to avoid	• Excessive dust
Hazardous Decomposition	• When heated to decomposition acrid smoke and fumes are emitted.

Section 11: Toxicological Information

Information on toxicological effects

Carcinogens	• None listed
Acute Toxicity	
Test results	• Oral LD50 (Rat): 29,700 mg/kg
Chronic Toxicity	• No additional adverse health effects noted
Other Acute	• No additional adverse health effects noted

Section 12: Ecological Information

Toxicity	• Not dangerous to the environment based on ecotoxicity studies

Section 13: Disposal Considerations

General Information	• Dispose of waste in accordance with local authority requirements

Section 14: Transport Information

General Information	• Transport in food grade containers/trailers
Other Information	• No other transportation requirements

Section 15: Regulatory Information

OSHA

- OSHA HCS 2012
- 29 CFR §1910.1200
- 29 CFR §1926.55 Appendix A

U.S. Federal Regulations

- Code of Federal Regulations Title 21 Part 110

Section 16: Other Information

Hazard Ratings

National Fire Protection Association (NFPA)

- Fire = 1
- Health = 0
- Reactivity = 0
- Specific Hazard = None

Preparation Date: **04/20/15**
Revision Date: **04/20/15**
Version **01**
Supersedes **New**

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

National Sugar Marketing LLC
700 Wilmington Island Road
Savannah, GA 31410
Phone: 912-200-3100

Synthite Industries Ltd Synthite Taste Park, Pancode, Kerala 682 310, India
T +91484 3253313
F +91484 3051351
spice@synthite.com

MATERIAL SAFETY DATA SHEET

1) PRODUCT & COMPANY IDENTIFICATION

Trade Name	40100004381 CUMIN GROUND
Use	Food flavouring,
Manufacturer	Synthite Industries Ltd
Address	Synthite Taste Park, Pancode, Kolenchery- 682 310, KERALA, INDIA
Telephone Number	+91 484 3253313
Emergency Telephone Number	+91 484 3243525

2) COMPOSITION / INFORMATON ON INGREDIENTS

Chemical Entity	CUMIN POWDER
C A S Number	Not Available
E I N E C S Number	Not Available

3) HAZARDS IDENTIFICATION

General	Prolonged or repeated contact with skin and eyes or by inhalation may cause irritatio
Hazard Symbol	_
Risk - Phrases	_
Environment	When spilled may contaminate soil, ground and surface water.

4) FIRST AID MEASURES

Inhalation	Remove from exposure site to fresh air. Obtain medical advise.
Eye Exposure	Flush immediately with water for atleast 15 minutes. Contact physician if symptoms persist.
Skin Exposure	Remove contaminated clothes. Wash thoroughly with water and soap. Contact physician if symptoms persis
Ingestion	Rinse mouth with water and obtain medical advise.
Others	Take Risk and Safety Phrases (section 15) into Account.

5) FIRE - FIGHTING MEASURES

Extinguishing Media	Means of extinction:Carbondioxide, dry chemical, foam Do not use a direct water jet on burning material.

Synthite Industries Ltd Synthite Taste Park, Pancode, Kerala 682 310, India T +91484 3253313 F +91484 3051351 spice@synthite.com

MATERIAL SAFETY DATA SHEET

6) ACCIDENTAL RELEASE MEASURES

Personal Precaution	Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.
Spillage	Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Gross spillage should be contained by use of sand or inert powder and disposed of according to the local regulations.
Environmental Precaution	Keep away from drains,surface and ground water and soil.

7) HANDLING AND STORAGE

Handling	Apply according to good manufacturing and industrial hygiene practices with proper ventilation. Do not drink eat or smoke while handling. Respect good personal hygiene.
Storage	Store in a cool, dry and ventilated area away from heat sources and protected from light in tightly closed container.
Fire Protection	Avoid heat, sparks and open flame. Keep away from ignition sources and naked flame.

8) EXPOSURE CONTROLS AND PERSONAL PROTECTION

Respiratory Protection	Avoid excessive inhalation. Apply local ventilation where appropriate.
Eye Protection	Use goggles.
Skin Protection	Avoid skin contact. Use chemically resistant gloves.

9) PHYSICAL AND CHEMICAL PROPERTIES

Appearence	Yellow brown Powder	Explosive Property	Not Determined
Odour	Distinctive acrid aroma characteristic	Oxidising Property	Not Determined
Colour	Grey	Vapour Pressure	Not Determined
pH Value	Not Determined	Density 20 deg C (kg/l)	Not Determined
Viscosity	Not Determined	Solubility in Water	Partially Soluble
Freezing Point	Not Determined	Solubility in Ethanol	Partially Soluble
Boiling Point	Not Determined	Partition Coefficient	Not determined
Melting Point	Not Determined	Specific Gravity 25 deg C (kg/l)	-
Flash Point of the Volatile Fraction	95 deg C	Optical Rotation	-
Auto Inflammability	Not Determined	Refractive Index 25 deg C	-

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spice@synthite.com

MATERIAL SAFETY DATA SHEET

10) STABILITY AND REACTIVITY

Reactivity	Presents no significant reactivity hazard by itself or in contact with water. Avoid contact with strong acids, a
Decomposition	Carbonmonoxide and unidentified organic compounds may be formed during combustion.

11) TOXOLOGICAL INFORMATION

Based on the available toxicological data this substance is according to the criteria of EEC Directive 79/831/E

12) ECOLOGICAL INFORMATION

General	Prevent contamination of soil, ground and surface water.

13) DISPOSAL CONDITIONS

Dispose of according to local regulations. Avoid dispose into drainage systems and into the environment.

14) TRANSPORT INFORMATION

U N Number	Not applicable
Packing Group	Not applicable
Packing Class	Not applicable

15) REGULATORY INFORMATION

Hazard Symbol	-
Risk Phrases	-
Safety Phrases	S 25- Avoid contact with eyes.S 26 - Incase of contact with eyes rinse immediately with plenty of water and seek medical advice.
Contains	None to be reported

16) OTHER INFORMATION :

The information in this material safety data sheet is based on the properties of the material known to SICL at the time the MSDS was issued.the MSDS is intended to provide information for a health and safety assessment of the material and the circumstances under which it is packaged,stored or applied in the work place.For such a safety assessment SICL hold no responsibility.This document is not intended for quality assurance purposes.

NEDSPICE

Material safety data sheet

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME	**BLACK PEPPER CRACKED**
BOTANICAL NAME	Piper nigrum L.
USES	Food Ingredient
MANUFACTURER NAME	NEDSPICE PROCESSING VIETNAM LTD.
EMERGENCY TEL. NO.	+84 650 3718 005
ADDRESS	Hoa Lan - Thuan Giao - Thuan An - Binh Duong - Vietnam
COMPOSITION	Cracked Black Pepper

SECTION 2 – HAZARD IDENTIFICATION

Not regarded as a health hazard under current legislation.

SECTION 3 – COMPOSITION/ INFORMATION ON HAZARDOUS INGREDIENT

None known

SECTION 4 – FIRST AID MEASURES

Eye contact:
Flush with saline solution using standard eyewash. If irritation persists after washing seek medical advice.

Skin contact:
Wash with mild soap and water.

Inhalation:
Remove patient to fresh air.

Ingestion:
Is non-hazardous unless in large quantity when medical advice should be sought.

SECTION 5 – FIRE FIGHTING MEASURES

Extinguishing media:
Water spray, fog and mist, foam, dry chemicals, sand, etc.

Special fire fighting procedures:
No special procedures required

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Not required
ENVIRONMENT PRECAUTIONS	In the event of major (bulk) spillage e.g. while transporting or handling/ storage, use appropriate containment to avoid environmental contamination

SECTION 7 – HANDLING & STORAGE

Storage should be dry, ambient and not exposed to direct sunlight.

STORAGE PRECAUTIONS	There are no hazards posed by storage of this material. Treat as a food - do not store in proximity to materials that are hazardous or could cause taint. The materials should be securely stacked to avoid accidents.
TRANSPORT PRECAUTIONS	Treat as a food. Ensure material is securely stacked to avoid accidents
HANDLING/USE PRECAUTIONS	Products should be handled in accordance with Good Manufacturing Practice (GMP) to avoid sensitization or irritation, i.e. protective clothing and apparatus should be employed as necessary and products should be handled in a well ventilated area ideally with dust extraction. GMP should ensure avoidance of dust levels over 3 mg/m^3.

SECTION 8 – EXPOSURE CONTROLS/ PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS	Levels of total respirable and total inhalable dust have been found to be lower than “occupational exposure limits” detailed in HSE Guidance note EH/40/92.
PERSONAL PROTECTION	No special personal protection equipment needed as this is a food product.

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE	Dark brown to black granule
ODOUR	Characteristic aroma, hot spicy taste
BOILING POINT	Not determined
MELTING POINT	Not determined
FLASH POINT	Not determined

SECTION 10 – STABILITY & REACTIVITY

This product is stable, no dangerous reactions known.

SECTION 11 – TOXICOLOGICAL INFORMATION

Food products. Non-hazardous. No evidence of worker sensitivity exists, but the product might be irritant in quantity_

SECTION 12 – ECOLOGICAL INFORMATION

The product is biodegradable

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of as innocuous waste. Spillages can be swept away although the use of a vacuum cleaner is recommended.

SECTION 14 – TRANSPORT INFORMATION

This product is classified as non-hazardous

SECTION 15 – REGULATORY INFORMATION

S-phrases:
S26 – In case of contact with eyes, rinse immediately with plenty of water and if symptoms develop, seek medical advice.

SECTION 16 – OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its issue. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designed and may not be valid for such material used in combination with any other material or in any process.

SAFETY DATA SHEET

PRODUCT NAME : ANNATO SEEDS

I. IDENTIFICATION OF THE SUBSTANCE AND COMPANY:

Botanical Name : Bixa Orellana L.
Parts Used : Dried Seeds
Trade Name : Annato Seeds Whole, Ground, Powder
Formula : N/A
Supplier :

Majestic International Spice Corporation
6433 Canning Street, Commerce Ca 90040
Phone : (323) 303-3324
Fax : (323) 767-8957

II. HAZARDOUS INGREDIENTS:

Not regarded as health hazard under current legislation.

III. FIRE AND EXPLOSION HAZARD DATA:

Flash Point : N/A
Flammable Limits : N/A

IV. FIRST AID MEASURES:

General : Seek medical attention in case of discomfort.
Eyes : In case of sensitivity promptly wash eyes with lots of water while lifting eyelids. Continue to rinse for at least 15 minutes and seek medical attention
Skin : Seek medical attention if irritation persist after washing
Inhalation: Keep the affected person warm and at rest. Seek prompt medical attention.
Ingestion : Since this is an edible product, this is safe if ingested. For other instances; Never make an unconscious person vomit or drink fluids. Do not induce vomiting. Seek medical attention.
Symptoms: No specific symptoms is noted.

V. FIRE FIGHTING MEASURES:

Extinguishing Media : Water, spray, fog or mist, foam, dry chemicals, sand etc.
Special Fire Fighting Procedures: No special procedures required.

VI. REACTIVITY DATA :

Stability **:** This product is stable in all known normal food storage conditions.
Incompatibility : N/A
Hazardous Decomposition Products: N/A
Hazardous Polymerization: N/A

VII. SPILL OR LEAK PROCEDURES:

Contain spillage and sweep into suitable container and dispose of as non-hazardous waste

VIII. SPECIAL PROTECTION INFORMATION :

Ventilation	: Provide adequate general and local exhaust ventilation
Respiratory Protection	: Dust Mask,
Protective Clothing	: Gloves (Vinyl, Latex) Safety glasses
Other	: Provide Eyewash, quick drench

IX. ECOLOGICAL INFORMATION

Readily biodegradable

X. LABEL FOR SUPPLY:

No hazard label required. This product is not classified as dangerous under Chemicals (Hazard Information and Packaging for Supply) Regulations 1994.

XI. DISCLAIMER:

This information may not be valid for this material used in combination with any other material or in any process. Such information is, to the best of our knowledge and in belief, accurate and reliable as of the date shown. However, guarantee is made to its accuracy, reliability or completeness. It is user's responsibility to satisfy themselves as to the suitability of such information for their own particular use.

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231915163	10/4/2020	

I. Decision Request: ☑ Initial ☐ Recertification ☐ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: BNSF Railway

Generator Site Address: 3770 E. Sheila Street

City: Vernon **County:** **State:** CA **Zip:**

Name of Waste: Sweeping Waste

Estimated Annual Volume: 200 Cubic Yards

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

Special Waste Analyst Signature: Joseph M. Sorokach **Name (Printed):** Joseph Sorokach

Date: 10/7/2019

III. Facility Decision: ☐ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: **Name (Printed):** CHRIS COYLE, GM

Date: 10/7/2019

Special Waste Profile

REPUBLIC SERVICES

Disposal Facility: 5123 Sunshine Canyon Landfill CA

Waste Profile #: 5123 19 15163

Sales Rep #:

I. Generator Information

Generator Name: BNSF Railway

Generator Site Address: 3770 E. Sheila Street

City: Vernon County: Los Angeles State: California Zip: 90040

State ID/Reg No: State Approval/Waste Code: NAICS #:

Generator Mailing Address ☑ (if different) 740 E. Carnegie Drive

City: San Bernardino County: San Bernardino State: California Zip: 92408

Generator Contact Name: Edward Phillips Email: edward.phillips@bnsf.com

Phone Number: 909-386-4082 Ext: Fax Number:

II. Billing Information

Bill To: BNSF Railway Contact Name: Edward Phillips

Billing Address: 740 E. Carnegie Drive Email: edward.phillips@bnsf.com

City: San Bernaridno State: California Zip: 92408 Phone: 909-386-4082

III. Waste Stream Information

Name of Waste: Sweeping Waste

Process Generating Waste: Sweeping of sand and sediment related to normal railyard operations. This is an active railyard.

Type of Waste: Industrial Process Waste Physical State: Solid Method of Shipment: Bulk

Estimated Volume: 200 Volume Type: Cubic Yards

Frequency: On-going Waste Stream Disposal Consideration: Landfill

IV. Representative Sample Certification

☐ **No Sample Taken**

☑ **Sample Taken** **Type of Sample** Grab Sample

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☑ **Yes** ☐ **No**

Sample Date: 08/29/2019

Sample ID Numbers or SDS: J249139-1

Remember to attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

Special Waste Profile

REPUBLIC SERVICES

V. Physical Characteristics of Waste

Characteristic Components (must equal 100%:)	% By Weight (out of 100% - ranges acceptable):
1. Sand, Sediment	100
2.	
3.	
4.	
5.	

Color:	Odor (describe):	Does Waste Contain Free Liquids?	% Solids:	pH:	Flash Point:
light tan	none	☐ Yes ☑ No	100	N/A	N/A °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

RCRA Regulatory Questions

1. Does this waste or generating process contain regulated concentrations of the following Pesticides and/ or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33? ☐ Yes ☑ No
2. Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261.23(a)(5)]? ☐ Yes ☑ No
3. Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761? ☐ Yes ☑ No
4. Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents? ☐ Yes ☑ No
5. Has this waste been delisted under 40 CFR 260.20 and 260.22? If yes, attach the final decision to delist the waste as published in the Federal Register. ☐ Yes ☑ No
6. Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations? If Yes, identify the applicable waste code and specify if the waste is hazardous as defined by Federal, State or both? ☐ Yes ☑ No
7. Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31? ☐ Yes ☑ No
8. Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations? ☐ Yes ☑ No
9. Is this a regulated Radioactive Waste as defined by Federal and/or State regulations? ☐ Yes ☑ No
10. Is this a solid waste that is not a hazardous waste in accordance with 40 CFR 261.4(b)? If yes, please provide the corresponding regulatory citation. ☐ Yes ☑ No

Republic Services Waste Handling Questions

1. Does this waste generate heat or react when contacted with water/moisture? ☐ Yes ☑ No
2. Does the waste contain sulfur or sulfur by-products? ☐ Yes ☑ No
3. Is this waste generated at a State or Federal Superfund cleanup site subject to regulation under CERCLA? ☐ Yes ☑ No

4a. Is this waste from a TSD facility, TSD-like facility or consolidator (i.e. multiple wastes/multiple generators)? ☐ Yes ☑ No

4b. If yes to the above question, please provide clarification.

Special Waste Profile

REPUBLIC SERVICES

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

Edward Phillips	Sr. Mgr. Environmental Ops.	BNSF Railway
Authorized Representative Name (Printed)	Title (Printed)	Company Name
	10/04/2019	
Representative Signature		Date

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-249139-1
Laboratory SDG: BNSF 3770 Washington Blvd., Los Angeles, CA
Client Project/Site: BNSF Street Sweeper Hobart Yd Sweep Pile

For:
Environmental Resources Management Inc
70 South Lake Ave
Suite 650
Pasadena, California 91101

Attn: Ina Joo

Authorized for release by:
9/18/2019 4:58:28 PM

Danielle Roberts, Senior Project Manager
(949)260-3249
danielle.roberts@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Detection Summary 6
Client Sample Results 7
Surrogate Summary 8
Method Summary 9
Lab Chronicle 10
QC Sample Results 11
QC Association Summary 17
Definitions/Glossary 19
Certification Summary 20
Chain of Custody 21
Receipt Checklists 22

Sample Summary

Client: Environmental Resources Management Inc
Job ID: 440-249139-1
Project/Site: BNSF Street Sweeper Hobart Yd Sweep Pile
SDG: BNSF 3770 Washington Blvd., Los Angeles, CA

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-249139-1	BNSF_Sweeper Waste_Hobart	Solid	08/29/19 10:00	08/30/19 16:00	

Job ID: 440-249139-1

Laboratory: Eurofins TestAmerica, Irvine

Narrative

Job Narrative
440-249139-1

Comments
No additional comments.

Receipt
The sample was received on 8/30/2019 4:00 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.1º C.

GC/MS VOA
Method(s) 8260B: The continuing calibration verification (CCV) associated with batch 440-566667 recovered above the upper control limit for Ethylbenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: BNSF_Sweeper Waste_Hobart (440-249139-1) and (CCVIS 440-566667/2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8015B: The 8015-DRO method blank for preparation batch 440-566645 and analytical batch 440-566764 contained C23-C40 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Antimony for preparation batch 440-566762 and analytical batch 440-566981 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 6010B: The continuing calibration blank (CCB) for 440-567065 contained Antimony above the method detection limit (MDL). This target analyte concentration was less than the reporting limit (RL).(CCB 440-567065/50)

Method(s) 7471A: Spike compounds were inadvertently omitted during the extraction process for the matrix spike/matrix spike duplicate (MS/MSD); therefore, matrix spike recoveries are unavailable for preparation batch 440-566924 and 440-566924 and analytical batch 440-567207. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) 3546: Due to the matrix, the following sample could not be concentrated to the final method required volume: BNSF_Sweeper Waste_Hobart (440-249139-1). The reporting limits (RLs) are elevated proportionately.440-566645 3546 8015B

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Job ID: 440-249139-2

Laboratory: Eurofins TestAmerica, Irvine

Narrative

Job Narrative
440-249139-2

Job ID: 440-249139-2 (Continued)

Laboratory: Eurofins TestAmerica, Irvine (Continued)

Comments
No additional comments.

Receipt
The sample was received on 8/30/2019 4:00 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.1º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Environmental Resources Management Inc
Job ID: 440-249139-1
Project/Site: BNSF Street Sweeper Hobart Yd Sweep Pile
SDG: BNSF 3770 Washington Blvd., Los Angeles, CA

Client Sample ID: BNSF_Sweeper Waste_Hobart
Lab Sample ID: 440-249139-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	230		10	5.0	mg/Kg	1		8015B	Total/NA
C23-C40 - DL	3100	B	100	50	mg/Kg	10		8015B	Total/NA
Arsenic	4.1		3.0	1.5	mg/Kg	5		6010B	Total/NA
Barium	210		1.5	0.76	mg/Kg	5		6010B	Total/NA
Beryllium	0.25	J	0.51	0.25	mg/Kg	5		6010B	Total/NA
Cadmium	0.38	J	0.51	0.25	mg/Kg	5		6010B	Total/NA
Chromium	54		1.0	0.51	mg/Kg	5		6010B	Total/NA
Cobalt	6.6		1.0	0.51	mg/Kg	5		6010B	Total/NA
Copper	170		2.0	1.1	mg/Kg	5		6010B	Total/NA
Lead	28		2.0	1.0	mg/Kg	5		6010B	Total/NA
Molybdenum	12		2.0	1.0	mg/Kg	5		6010B	Total/NA
Nickel	38		2.0	1.0	mg/Kg	5		6010B	Total/NA
Thallium	7.4	J	10	5.1	mg/Kg	5		6010B	Total/NA
Vanadium	41		1.0	0.51	mg/Kg	5		6010B	Total/NA
Zinc	1000		5.1	2.5	mg/Kg	5		6010B	Total/NA
Chromium	0.35	J	0.40	0.18	mg/L	20		6020	STLC Citrate
Mercury	0.041		0.020	0.012	mg/Kg	1		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BNSF_Sweeper Waste_Hobart

Lab Sample ID: 440-249139-1

Date Collected: 08/29/19 10:00

Matrix: Solid

Date Received: 08/30/19 16:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0	1.0	ug/Kg			09/03/19 17:29	1
Ethylbenzene	ND		2.0	1.0	ug/Kg			09/03/19 17:29	1
m,p-Xylene	ND		4.0	2.0	ug/Kg			09/03/19 17:29	1
o-Xylene	ND		2.0	1.0	ug/Kg			09/03/19 17:29	1
Toluene	ND		2.0	1.0	ug/Kg			09/03/19 17:29	1
Xylenes, Total	ND		4.0	2.0	ug/Kg			09/03/19 17:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*79 - 123*		*09/03/19 17:29*	*1*
4-Bromofluorobenzene (Surr)	*101*		*79 - 120*		*09/03/19 17:29*	*1*
Dibromofluoromethane (Surr)	*115*		*60 - 120*		*09/03/19 17:29*	*1*

Method: 8015B - Diesel Range Organics(DRO)/Oil Range Organics (ORO)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	**230**		10	5.0	mg/Kg		09/03/19 05:47	09/03/19 23:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*84*		*40 - 140*	*09/03/19 05:47*	*09/03/19 23:46*	*1*

Method: 8015B - Diesel Range Organics(DRO)/Oil Range Organics (ORO) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C23-C40	**3100**	**B**	100	50	mg/Kg		09/03/19 05:47	09/04/19 23:13	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10	5.1	mg/Kg		09/03/19 14:22	09/04/19 14:40	5
Arsenic	**4.1**		3.0	1.5	mg/Kg		09/03/19 14:22	09/04/19 14:40	5
Barium	**210**		1.5	0.76	mg/Kg		09/03/19 14:22	09/04/19 14:40	5
Beryllium	**0.25**	**J**	0.51	0.25	mg/Kg		09/03/19 14:22	09/04/19 14:40	5
Cadmium	**0.38**	**J**	0.51	0.25	mg/Kg		09/03/19 14:22	09/04/19 14:40	5
Chromium	**54**		1.0	0.51	mg/Kg		09/03/19 14:22	09/04/19 14:40	5
Cobalt	**6.6**		1.0	0.51	mg/Kg		09/03/19 14:22	09/04/19 14:40	5
Copper	**170**		2.0	1.1	mg/Kg		09/03/19 14:22	09/04/19 14:40	5
Lead	**28**		2.0	1.0	mg/Kg		09/03/19 14:22	09/04/19 14:40	5
Molybdenum	**12**		2.0	1.0	mg/Kg		09/03/19 14:22	09/04/19 14:40	5
Nickel	**38**		2.0	1.0	mg/Kg		09/03/19 14:22	09/04/19 14:40	5
Selenium	ND		3.0	1.7	mg/Kg		09/03/19 14:22	09/04/19 14:40	5
Silver	ND		1.5	0.90	mg/Kg		09/03/19 14:22	09/04/19 14:40	5
Thallium	**7.4**	**J**	10	5.1	mg/Kg		09/03/19 14:22	09/04/19 14:40	5
Vanadium	**41**		1.0	0.51	mg/Kg		09/03/19 14:22	09/04/19 14:40	5
Zinc	**1000**		5.1	2.5	mg/Kg		09/03/19 14:22	09/04/19 14:40	5

Method: 6020 - Metals (ICP/MS) - STLC Citrate

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.35**	**J**	0.40	0.18	mg/L			09/16/19 11:58	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.041**		0.020	0.012	mg/Kg		09/07/19 13:12	09/09/19 15:27	1

Surrogate Summary

Client: Environmental Resources Management Inc
Job ID: 440-249139-1
Project/Site: BNSF Street Sweeper Hobart Yd Sweep Pile
SDG: BNSF 3770 Washington Blvd., Los Angeles, CA

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TOL (79-123)	BFB (79-120)	DBFM (60-120)
440-249139-1	BNSF_Sweeper Waste_Hobart	101	101	115
440-249201-A-1 MS	Matrix Spike	101	94	106
440-249201-A-1 MSD	Matrix Spike Duplicate	100	100	108
LCS 440-566667/5	Lab Control Sample	98	93	104
MB 440-566667/4	Method Blank	99	97	108

Surrogate Legend

TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8015B - Diesel Range Organics(DRO)/Oil Range Organics (ORO)

Matrix: Solid
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OTCN1 (40-140)
440-249100-H-13-G MS	Matrix Spike	94
440-249100-H-13-H MSD	Matrix Spike Duplicate	96
440-249139-1	BNSF_Sweeper Waste_Hobart	84
LCS 440-566645/2-A	Lab Control Sample	93
MB 440-566645/1-A	Method Blank	95

Surrogate Legend

OTCN = n-Octacosane

Method Summary

Client: Environmental Resources Management Inc
Job ID: 440-249139-1
Project/Site: BNSF Street Sweeper Hobart Yd Sweep Pile
SDG: BNSF 3770 Washington Blvd., Los Angeles, CA

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8015B	Diesel Range Organics(DRO)/Oil Range Organics (ORO)	SW846	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
6020	Metals (ICP/MS)	SW846	TAL IRV
7471A	Mercury (CVAA)	SW846	TAL IRV
3050B	Preparation, Metals	SW846	TAL IRV
3546	Microwave Extraction	SW846	TAL IRV
5030B	Purge and Trap	SW846	TAL IRV
7471A	Preparation, Mercury	SW846	TAL IRV
CA WET Citrate	California - Waste Extraction Test with Citrate Leach	CA-WET	TAL IRV

Protocol References:

CA-WET = California Waste Extraction Test, from Title 22

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Environmental Resources Management Inc
Job ID: 440-249139-1
Project/Site: BNSF Street Sweeper Hobart Yd Sweep Pile
SDG: BNSF 3770 Washington Blvd., Los Angeles, CA

Client Sample ID: BNSF_Sweeper Waste_Hobart
Lab Sample ID: 440-249139-1

Date Collected: 08/29/19 10:00
Matrix: Solid
Date Received: 08/30/19 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	4.96 g	10 mL	566667	09/03/19 17:29	AYL	TAL IRV
Total/NA	Prep	3546			15.01 g	2 mL	566645	09/03/19 05:47	L1A	TAL IRV
Total/NA	Analysis	8015B		1			566764	09/03/19 23:46	LMB	TAL IRV
Total/NA	Prep	3546	DL		15.01 g	2 mL	566645	09/03/19 05:47	L1A	TAL IRV
Total/NA	Analysis	8015B	DL	10			566968	09/04/19 23:13	A1W	TAL IRV
Total/NA	Prep	3050B			1.97 g	50 mL	566762	09/03/19 14:22	DT	TAL IRV
Total/NA	Analysis	6010B		5			566981	09/04/19 14:40	TQN	TAL IRV
STLC Citrate	Leach	CA WET Citrate			50.03 g	500 mL	568743	09/14/19 08:00	CDH	TAL IRV
STLC Citrate	Analysis	6020		20			568955	09/16/19 11:58	B1H	TAL IRV
Total/NA	Prep	7471A			0.49 g	50 mL	567519	09/07/19 13:12	DB	TAL IRV
Total/NA	Analysis	7471A		1			567863	09/09/19 15:27	EMS	TAL IRV

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-566667/4
Matrix: Solid
Analysis Batch: 566667

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0	1.0	ug/Kg			09/03/19 08:30	1
Ethylbenzene	ND		2.0	1.0	ug/Kg			09/03/19 08:30	1
m,p-Xylene	ND		4.0	2.0	ug/Kg			09/03/19 08:30	1
o-Xylene	ND		2.0	1.0	ug/Kg			09/03/19 08:30	1
Toluene	ND		2.0	1.0	ug/Kg			09/03/19 08:30	1
Xylenes, Total	ND		4.0	2.0	ug/Kg			09/03/19 08:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*79 - 123*		*09/03/19 08:30*	*1*
4-Bromofluorobenzene (Surr)	*97*		*79 - 120*		*09/03/19 08:30*	*1*
Dibromofluoromethane (Surr)	*108*		*60 - 120*		*09/03/19 08:30*	*1*

Lab Sample ID: LCS 440-566667/5
Matrix: Solid
Analysis Batch: 566667

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	18.3		ug/Kg		92	65 - 120
Ethylbenzene	20.0	22.5		ug/Kg		112	70 - 125
m,p-Xylene	20.0	21.5		ug/Kg		108	70 - 125
o-Xylene	20.0	22.4		ug/Kg		112	70 - 125
Toluene	20.0	20.2		ug/Kg		101	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*98*		*79 - 123*
4-Bromofluorobenzene (Surr)	*93*		*79 - 120*
Dibromofluoromethane (Surr)	*104*		*60 - 120*

Lab Sample ID: 440-249201-A-1 MS
Matrix: Solid
Analysis Batch: 566667

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		19.6	16.2		ug/Kg		83	65 - 130
Ethylbenzene	ND		19.6	18.6		ug/Kg		95	70 - 135
m,p-Xylene	ND		19.6	18.1		ug/Kg		93	70 - 130
o-Xylene	ND		19.6	19.0		ug/Kg		97	65 - 130
Toluene	ND		19.6	17.8		ug/Kg		91	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*101*		*79 - 123*
4-Bromofluorobenzene (Surr)	*94*		*79 - 120*
Dibromofluoromethane (Surr)	*106*		*60 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-249201-A-1 MSD
Matrix: Solid
Analysis Batch: 566667

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		19.6	16.1		ug/Kg		82	65 - 130	1	20
Ethylbenzene	ND		19.6	17.5		ug/Kg		89	70 - 135	6	25
m,p-Xylene	ND		19.6	17.8		ug/Kg		91	70 - 130	2	25
o-Xylene	ND		19.6	18.2		ug/Kg		93	65 - 130	4	25
Toluene	ND		19.6	16.9		ug/Kg		86	70 - 130	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*79 - 123*
4-Bromofluorobenzene (Surr)	*100*		*79 - 120*
Dibromofluoromethane (Surr)	*108*		*60 - 120*

Method: 8015B - Diesel Range Organics(DRO)/Oil Range Organics (ORO)

Lab Sample ID: MB 440-566645/1-A
Matrix: Solid
Analysis Batch: 566764

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 566645

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	2.5	mg/Kg		09/03/19 05:47	09/03/19 14:49	1
C23-C40	3.70	J	5.0	2.5	mg/Kg		09/03/19 05:47	09/03/19 14:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*95*		*40 - 140*	*09/03/19 05:47*	*09/03/19 14:49*	*1*

Lab Sample ID: LCS 440-566645/2-A
Matrix: Solid
Analysis Batch: 566764

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 566645

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28			66.7	59.9		mg/Kg		90	45 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*93*		*40 - 140*

Lab Sample ID: 440-249100-H-13-G MS
Matrix: Solid
Analysis Batch: 566764

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 566645

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28	3.3	J	66.5	59.1		mg/Kg		84	40 - 120		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
n-Octacosane	*94*		*40 - 140*

Method: 8015B - Diesel Range Organics(DRO)/Oil Range Organics (ORO) (Continued)

Lab Sample ID: 440-249100-H-13-H MSD
Matrix: Solid
Analysis Batch: 566764

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 566645

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C10-C28	3.3	J	66.6	60.2		mg/Kg		86	40 - 120	2	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
n-Octacosane	*96*		*40 - 140*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-566762/1-A ^5
Matrix: Solid
Analysis Batch: 566981

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 566762

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.8	4.9	mg/Kg		09/03/19 14:22	09/04/19 14:13	5
Arsenic	ND		2.9	1.5	mg/Kg		09/03/19 14:22	09/04/19 14:13	5
Barium	ND		1.5	0.74	mg/Kg		09/03/19 14:22	09/04/19 14:13	5
Beryllium	ND		0.49	0.25	mg/Kg		09/03/19 14:22	09/04/19 14:13	5
Cadmium	ND		0.49	0.25	mg/Kg		09/03/19 14:22	09/04/19 14:13	5
Chromium	ND		0.98	0.49	mg/Kg		09/03/19 14:22	09/04/19 14:13	5
Cobalt	ND		0.98	0.49	mg/Kg		09/03/19 14:22	09/04/19 14:13	5
Copper	ND		2.0	1.1	mg/Kg		09/03/19 14:22	09/04/19 14:13	5
Lead	ND		2.0	0.98	mg/Kg		09/03/19 14:22	09/04/19 14:13	5
Molybdenum	ND		2.0	0.98	mg/Kg		09/03/19 14:22	09/04/19 14:13	5
Nickel	ND		2.0	0.98	mg/Kg		09/03/19 14:22	09/04/19 14:13	5
Selenium	ND		2.9	1.7	mg/Kg		09/03/19 14:22	09/04/19 14:13	5
Silver	ND		1.5	0.87	mg/Kg		09/03/19 14:22	09/04/19 14:13	5
Thallium	ND		9.8	4.9	mg/Kg		09/03/19 14:22	09/04/19 14:13	5
Vanadium	ND		0.98	0.49	mg/Kg		09/03/19 14:22	09/04/19 14:13	5
Zinc	ND		4.9	2.5	mg/Kg		09/03/19 14:22	09/04/19 14:13	5

Lab Sample ID: LCS 440-566762/2-A ^5
Matrix: Solid
Analysis Batch: 566981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 566762

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.3	51.5		mg/Kg		102	80 - 120
Arsenic	50.3	47.3		mg/Kg		94	80 - 120
Barium	50.3	47.9		mg/Kg		95	80 - 120
Beryllium	50.3	47.5		mg/Kg		94	80 - 120
Cadmium	50.3	48.1		mg/Kg		96	80 - 120
Chromium	50.3	49.3		mg/Kg		98	80 - 120
Cobalt	50.3	48.8		mg/Kg		97	80 - 120
Copper	50.3	49.7		mg/Kg		99	80 - 120
Lead	50.3	48.7		mg/Kg		97	80 - 120
Molybdenum	50.3	49.6		mg/Kg		99	80 - 120
Nickel	50.3	49.3		mg/Kg		98	80 - 120
Selenium	50.3	44.5		mg/Kg		89	80 - 120
Silver	25.1	24.3		mg/Kg		97	80 - 120
Thallium	50.3	45.8		mg/Kg		91	80 - 120
Vanadium	50.3	48.5		mg/Kg		97	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-566762/2-A ^5
Matrix: Solid
Analysis Batch: 566981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 566762

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	50.3	47.6		mg/Kg		95	80 - 120

Lab Sample ID: 440-249201-A-1-C MS ^5
Matrix: Solid
Analysis Batch: 566981

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 566762

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND	F1	51.0	29.3	F1	mg/Kg		57	75 - 125
Arsenic	5.1		51.0	54.2		mg/Kg		96	75 - 125
Barium	350		51.0	430	4	mg/Kg		161	75 - 125
Beryllium	0.64		51.0	49.3		mg/Kg		95	75 - 125
Cadmium	ND		51.0	45.2		mg/Kg		89	75 - 125
Chromium	17		51.0	68.1		mg/Kg		101	75 - 125
Cobalt	4.8		51.0	49.9		mg/Kg		88	75 - 125
Copper	26		51.0	78.0		mg/Kg		101	75 - 125
Lead	14		51.0	59.6		mg/Kg		90	75 - 125
Molybdenum	1.1	J	51.0	48.2		mg/Kg		92	75 - 125
Nickel	13		51.0	59.4		mg/Kg		91	75 - 125
Selenium	ND		51.0	46.1		mg/Kg		90	75 - 125
Silver	ND		25.5	24.4		mg/Kg		96	75 - 125
Thallium	ND		51.0	45.0		mg/Kg		88	75 - 125
Vanadium	26		51.0	82.2		mg/Kg		111	75 - 125
Zinc	380		51.0	439	4	mg/Kg		112	75 - 125

Lab Sample ID: 440-249201-A-1-D MSD ^5
Matrix: Solid
Analysis Batch: 566981

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 566762

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND	F1	50.0	28.2	F1	mg/Kg		56	75 - 125	4	20
Arsenic	5.1		50.0	51.6		mg/Kg		93	75 - 125	5	20
Barium	350		50.0	421	4	mg/Kg		148	75 - 125	2	20
Beryllium	0.64		50.0	47.7		mg/Kg		94	75 - 125	3	20
Cadmium	ND		50.0	43.8		mg/Kg		88	75 - 125	3	20
Chromium	17		50.0	66.7		mg/Kg		100	75 - 125	2	20
Cobalt	4.8		50.0	48.6		mg/Kg		87	75 - 125	3	20
Copper	26		50.0	76.0		mg/Kg		100	75 - 125	3	20
Lead	14		50.0	58.2		mg/Kg		89	75 - 125	2	20
Molybdenum	1.1	J	50.0	46.2		mg/Kg		90	75 - 125	4	20
Nickel	13		50.0	57.4		mg/Kg		89	75 - 125	3	20
Selenium	ND		50.0	43.3		mg/Kg		87	75 - 125	6	20
Silver	ND		25.0	23.6		mg/Kg		94	75 - 125	3	20
Thallium	ND		50.0	44.0		mg/Kg		88	75 - 125	2	20
Vanadium	26		50.0	80.5		mg/Kg		110	75 - 125	2	20
Zinc	380		50.0	443	4	mg/Kg		124	75 - 125	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 440-568743/1-A ^20
Matrix: Solid
Analysis Batch: 568955

Client Sample ID: Method Blank
Prep Type: STLC Citrate

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.40	0.18	mg/L			09/16/19 11:44	20

Lab Sample ID: LCS 440-568743/2-A ^20
Matrix: Solid
Analysis Batch: 568955

Client Sample ID: Lab Control Sample
Prep Type: STLC Citrate

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium			1.60	1.53		mg/L		96	80 - 120		

Lab Sample ID: 440-249138-A-1-C MS ^20
Matrix: Solid
Analysis Batch: 568955

Client Sample ID: Matrix Spike
Prep Type: STLC Citrate

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium	0.22	J	1.60	1.76		mg/L		96	75 - 125		

Lab Sample ID: 440-249138-A-1-C MSD ^20
Matrix: Solid
Analysis Batch: 568955

Client Sample ID: Matrix Spike Duplicate
Prep Type: STLC Citrate

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	0.22	J	1.60	1.72		mg/L		93	75 - 125	3	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 440-567519/1-A
Matrix: Solid
Analysis Batch: 567863

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 567519

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.012	mg/Kg		09/07/19 13:12	09/09/19 17:24	1

Lab Sample ID: LCS 440-567519/2-A
Matrix: Solid
Analysis Batch: 567863

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 567519

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.400	0.354		mg/Kg		88	80 - 120		

Lab Sample ID: 440-249069-A-3-G MS
Matrix: Solid
Analysis Batch: 567863

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 567519

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.027		0.400	0.348		mg/Kg		80	75 - 125		

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: 440-249069-A-3-H MSD
Matrix: Solid
Analysis Batch: 567863

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 567519

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.027		0.400	0.347		mg/Kg		80	75 - 125	0	20

GC/MS VOA

Analysis Batch: 566667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249139-1	BNSF_Sweeper Waste_Hobart	Total/NA	Solid	8260B	
MB 440-566667/4	Method Blank	Total/NA	Solid	8260B	
LCS 440-566667/5	Lab Control Sample	Total/NA	Solid	8260B	
440-249201-A-1 MS	Matrix Spike	Total/NA	Solid	8260B	
440-249201-A-1 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	

GC Semi VOA

Prep Batch: 566645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249139-1	BNSF_Sweeper Waste_Hobart	Total/NA	Solid	3546	
440-249139-1 - DL	BNSF_Sweeper Waste_Hobart	Total/NA	Solid	3546	
MB 440-566645/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-566645/2-A	Lab Control Sample	Total/NA	Solid	3546	
440-249100-H-13-G MS	Matrix Spike	Total/NA	Solid	3546	
440-249100-H-13-H MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 566764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249139-1	BNSF_Sweeper Waste_Hobart	Total/NA	Solid	8015B	566645
MB 440-566645/1-A	Method Blank	Total/NA	Solid	8015B	566645
LCS 440-566645/2-A	Lab Control Sample	Total/NA	Solid	8015B	566645
440-249100-H-13-G MS	Matrix Spike	Total/NA	Solid	8015B	566645
440-249100-H-13-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	566645

Analysis Batch: 566968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249139-1 - DL	BNSF_Sweeper Waste_Hobart	Total/NA	Solid	8015B	566645

Metals

Prep Batch: 566762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249139-1	BNSF_Sweeper Waste_Hobart	Total/NA	Solid	3050B	
MB 440-566762/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 440-566762/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
440-249201-A-1-C MS ^5	Matrix Spike	Total/NA	Solid	3050B	
440-249201-A-1-D MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	3050B	

Analysis Batch: 566981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249139-1	BNSF_Sweeper Waste_Hobart	Total/NA	Solid	6010B	566762
MB 440-566762/1-A ^5	Method Blank	Total/NA	Solid	6010B	566762
LCS 440-566762/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	566762
440-249201-A-1-C MS ^5	Matrix Spike	Total/NA	Solid	6010B	566762
440-249201-A-1-D MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	6010B	566762

Prep Batch: 567519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249139-1	BNSF_Sweeper Waste_Hobart	Total/NA	Solid	7471A	
MB 440-567519/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 440-567519/2-A	Lab Control Sample	Total/NA	Solid	7471A	

Metals (Continued)

Prep Batch: 567519 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249069-A-3-G MS	Matrix Spike	Total/NA	Solid	7471A	
440-249069-A-3-H MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

Analysis Batch: 567863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249139-1	BNSF_Sweeper Waste_Hobart	Total/NA	Solid	7471A	567519
MB 440-567519/1-A	Method Blank	Total/NA	Solid	7471A	567519
LCS 440-567519/2-A	Lab Control Sample	Total/NA	Solid	7471A	567519
440-249069-A-3-G MS	Matrix Spike	Total/NA	Solid	7471A	567519
440-249069-A-3-H MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	567519

Leach Batch: 568743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249139-1	BNSF_Sweeper Waste_Hobart	STLC Citrate	Solid	CA WET Citrate	
MB 440-568743/1-A ^20	Method Blank	STLC Citrate	Solid	CA WET Citrate	
LCS 440-568743/2-A ^20	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
440-249138-A-1-C MS ^20	Matrix Spike	STLC Citrate	Solid	CA WET Citrate	
440-249138-A-1-C MSD ^20	Matrix Spike Duplicate	STLC Citrate	Solid	CA WET Citrate	

Analysis Batch: 568955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249139-1	BNSF_Sweeper Waste_Hobart	STLC Citrate	Solid	6020	568743
MB 440-568743/1-A ^20	Method Blank	STLC Citrate	Solid	6020	568743
LCS 440-568743/2-A ^20	Lab Control Sample	STLC Citrate	Solid	6020	568743
440-249138-A-1-C MS ^20	Matrix Spike	STLC Citrate	Solid	6020	568743
440-249138-A-1-C MSD ^20	Matrix Spike Duplicate	STLC Citrate	Solid	6020	568743

Definitions/Glossary

Client: Environmental Resources Management Inc
Job ID: 440-249139-1
Project/Site: BNSF Street Sweeper Hobart Yd Sweep Pile
SDG: BNSF 3770 Washington Blvd., Los Angeles, CA

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Environmental Resources Management Inc
Job ID: 440-249139-1
Project/Site: BNSF Street Sweeper Hobart Yd Sweep Pile
SDG: BNSF 3770 Washington Blvd., Los Angeles, CA

Laboratory: Eurofins TestAmerica, Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-20
Alaska	State Program	CA01531	06-30-20
Arizona	State Program	AZ0671	10-14-19 *
California	LA Cty Sanitation Districts	10256	06-30-20
California	State	2706	06-30-20
California	State Program	CA ELAP 2706	06-30-20
Guam	State Program	Cert. No. 19-005R	01-23-20
Hawaii	State Program	N/A	01-29-20
Kansas	NELAP	E-10420	07-31-20
Kansas	NELAP	E-10420	07-31-20
Nevada	State Program	CA015312019-5	07-31-20
New Mexico	State Program	N/A	01-29-20
Oregon	NELAP	4028	01-29-20
US Fish & Wildlife	Federal	058448	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P330-18-00214	07-09-21
USDA	US Federal Programs	P330-18-00214	07-09-21
Washington	State Program	C900	09-03-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler	Lab PM	Carrier Tracking No(s)	COC No
	Tim Christensen	Roberts, Danielle C		440-167063-30571.1
Client Contact: Ina Joo	Phone: (760) 617-2428	E-Mail: danielle roberts@testamericainc com		Page: Page 1 of 1
Company: Environmental Resources Management Inc				Job #

Address: 70 South Lake Ave., Suite 650	Due Date Requested:	
City: Pasadena	TAT Requested (days): 3	
State, Zip: CA, 91101		
Phone: 310-617-1544	PO #: 21871	
Email: ina.joo@erm com	WO #:	
Project Name: BNSF Street Sweeper Hobart yard sweeper pile	Project #: 44022916	
Site: BNSF Railway Co 3770 E Washington Blvd Los Angeles, CA 90023	SSOW#:	

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010/7471	Sieve using #100	8015 drooro	8260 BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BNSF_Sweeper Waste_Hobart	8/29/19	10:00 am	G	S			X	X	X	X		STLC if needed



8/30/19 LD

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested. I, II, III, IV, Other (specify)	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Tim Christensen	8-29-2019 / 11.00 am	ERM	Chell. Rivera	8/30/19 1154	TA-IRV
2	Chell. Rivera	8/29/19 1600	TA-IRV	Olga Cinelas	8/30/19 1600	TAIRV
3						

Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks
☐ Yes ☐ No		0.9/2.1 #188

Ver. 01/16/2019

Login Sample Receipt Checklist

Client: Environmental Resources Management Inc

Job Number: 440-249139-2
SDG Number: BNSF 3770 Washington Blvd., Los Angeles, CA

Login Number: 249139
List Number: 1
Creator: Soderblom, Tim

List Source: Eurofins TestAmerica, Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231915374	10/7/2020	

I. Decision Request: ☑ Initial ☐ Recertification ☐ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: Green Day Produce Inc.

Generator Site Address: 2376 E 48th Street

City	County	State	Zip
Vernon		CA	

Name of Waste: Indian Taro Stem

Estimated Annual Volume: 900 Pounds

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

This material must be buried immediately upon receipt at the landfill.

Special Waste Analyst Signature: _____ **Name (Printed):** Suzanne Glass

Date: 10/10/2019

III. Facility Decision: ☐ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: _ **Name (Printed):** CHRIS COYLE, GM

Date: 10/10/2019

REPUBLIC SERVICES

Disposal Facility: 5123 Sunshine Canyon Landfill CA ☐ Waste Profile # 5123 19 15374

Sales Rep #

I. Generator Information

Generator Name: Green Day Produce, Inc.

Generator Site Address: 2376 E. 48th Street

City: Vernon County: State: California ☐ Zip: 90058

State ID/Reg No: 20140346 State Approval/Waste Code: NAICS #:

Generator Mailing Address ☐ (if different)

City: County: State: --Select State-- Zip:

Generator Contact Name: William Chy Email: william@greendayinc.com

Phone Number: 6265600216 Ext: Fax Number: 3235874888

II. Billing Information

Bill To: Green Day Produce, Inc. Contact Name: William Chy

Billing Address: 2376 E. 48th Street Email: william@greendayinc.com

City: Vernon State: California ☐ Zip: 90058 Phone: 6265600216

III. Waste Stream Information

Name of Waste: Indian Taro Stem

Process Generating Waste: The product was purchased from Medley, Florida for resale. LA county inspector found snails. An entomology lab result shows a B rating with a high risk pest exclusion.

Type of Waste: Industrial Process Waste ☐ Physical State: Solid ☐ Method of Shipment: Bagged

Estimated Volume: 900 Volume Type: Pounds

Frequency: One-time Event (single projec ☐ Disposal Consideration: Landfill ☐

IV. Representative Sample Certification

☑ No Sample Taken

☐ Sample Taken Type of Sample: --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ Yes ☐ No

Sample Date	Sample ID Numbers or SDS

Remember to attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

...cial Waste Profile

REPUBLIC SERVICES

V. Physical Characteristics of Waste

Characteristic Components (must equal 100%.)	% By Weight (out of 100% - ranges acceptable)
1 Stem	100%
2.	
3	
4.	
5	

Color:	Odor (describe):	Does Waste Contain Free Liquids?	% Solids:	pH:	Flash Point:
light green	None WC 10/9/19	☐ Yes ☑ No	100	7	not applicable °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

RCRA Regulatory Questions

1	Does this waste or generating process contain regulated concentrations of the following Pesticides and/ or Herbicides Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4 D, or 2,4,5-TP Silvex as defined in, 40 CFR 261.33?	☐ Yes ☑ No
2	Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261 23(a)(5)]?	☐ Yes ☑ No
3	Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	☐ Yes ☑ No
4	Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261 31, 261 32, 261 33, including RCRA F Listed Solvents?	☐ Yes ☑ No
5	Has this waste been delisted under 40 CFR 260 20 and 260 22? If yes, attach the final decision to delist the waste as published in the Federal Register.	☐ Yes ☑ No
6	Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations? If Yes, identify the applicable waste code and specify if the waste is hazardous as defined by Federal, State or both?	☐ Yes ☑ No
7	Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31?	☐ Yes ☑ No
8	Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	☐ Yes ☑ No
9	Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	☐ Yes ☑ No
10	Is this a solid waste that is not a hazardous waste in accordance with 40 CFR 261 4(c)? If yes, please provide the corresponding regulatory citation	☐ Yes ☑ No

Republic Services Waste Handling Questions

1	Does this waste generate heat or react when contacted with water/moisture?	☐ Yes ☑ No
2	Does the waste contain sulfur or sulfur by-products?	☐ Yes ☑ No
3	Is this waste generated at a State or Federal Superfund cleanup site subject to regulation under CERCLA?	☐ Yes ☑ No
4a	Is this waste from a TSD facility, TSD like facility or consolidator (i.e. multiple wastes/multiple generators)?	☐ Yes ☑ No
4b	If yes to the above question, please provide clarification	

Special Waste Profile

REPUBLIC SERVICES

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

William Chy	C.O.O.	Green Day Produce, Inc
Authorized Representative Name (Printed)	Title (Printed)	Company Name
Representative Signature		10/07/19
		Date

SPECIAL WASTE SERVICE AGREEMENT
NON-HAZARDOUS WASTES

REPUBLIC SERVICES

Special Waste Profile Number: 5123 19 15374

Generator Billing Information		Republic Waste Location (Company)
Name:	GREEN DAY PRODUCE, INC (ACCT 321 CASH)	SUNSHINE CANYON LANDFILL (5123)
Address:	2376 E 48TH ST	14747 SAN FERNANDO RD
		SYLMAR, CA 91342
City:	VERNON	818.362.2141
State:	CA Zip: 90058	
Phone:	626.560.0216 Fax:	
Contact:	WILLIAM CHY	

Project: FOOD PRODUCTS—TARO **County and State of Origin:** LOS ANGELES, CA

Additional Information: SITE: SAME AS BILLING

1. **Special Waste Service**. Subject to the terms and conditions contained herein, the Company and the Generator agree to be legally bound hereby, and the Company agrees to accept at its facility identified above ("Facility"), Acceptable Waste (as defined in Section 6) delivered by Generator.

[redacted]

Generator shall also be liable for all taxes, fees, or other charges imposed by federal, state, local or provincial laws and regulations.

Cannot Exceed Daily Volume of 900 POUNDS Without Prior Approval of Company.

(B) **Incorporation by Reference**. In addition to Special Waste Profile(s), the following documents are incorporated by reference into this Agreement as if fully set forth herein.

1)N/A

2)N/A

3. **Term of Agreement**. This Agreement is effective for 12 months, commencing 10/16/2019 and shall automatically be renewed for a similar term thereafter unless either party shall give written notice (via certified mail) of termination to the other party at least thirty (30) days before the expiration of the then-current term.

THE COMPANY AND THE GENERATOR, IN CONSIDERATION OF THE MUTUAL OBLIGATIONS CONTAINED HEREIN, AGREE THAT THIS IS A LEGALLY BINDING AGREEMENT WHICH IS SUBJECT TO THE TERMS AND CONDITIONS SET FORTH ON THIS PAGE AND ON THE REVERSE SIDE OF THIS DOCUMENT. IN ADDITION, THE GENERATOR IS CERTIFYING THE ATTACHED TERMS AND CONDITIONS HAVE BEEN REVIEWED AND INITIALLED AT THE BOTTOM OF THE PAGE.

GENERATOR

SIGNATURE (AUTHORIZED REPRESENTATIVE)

William Chy C.O.O

NAME AND TITLE (PLEASE PRINT)

10/17/19

DATE

REPUBLIC SERVICES/COMPAN Edward Antolin

SIGNATURE (AUTHORIZED REPRESENTATIVE)

EDWARD ANTOLIN, MESE

NAME AND TITLE (PLEASE PRINT)

10/18/19

DATE

Terms and Conditions of Special Waste Service Agreement

The Agreement. This agreement of the parties ("Agreement") for the disposal of Acceptable Waste shall consist of this Agreement, riders to the Agreement (if any), any Special Waste Profiles (including any approved changes and re certifications) and any Application, permit and approval that may be applicable to the disposal of such Acceptable Waste ("Acceptable Waste Documentation").

Waste Accepted at Facility. Generator represents, warrants and covenants that the waste delivered to Company at its Facility hereunder will be Acceptable Waste and will not contain any unacceptable quantity of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances, as defined by applicable federal, state, local or provincial laws or regulations. Any waste which does not meet these requirements shall hereinafter be referred to as "Unacceptable Waste." The Generator shall in all matters relating to the collection, transportation and disposal of the Acceptable Waste hereunder, comply with all applicable federal, state and local laws, regulations, rules and orders regarding the same (collectively, "Applicable Laws").

Acceptable Waste. Only waste that satisfies each of the following criteria shall be accepted for disposal at the Facility ("Acceptable Waste"): (a) the waste conforms to the description set forth in the Acceptable Waste Documentation; (b) the waste does not contain any Unacceptable Waste; (c) the waste is accurately reflected on any Special Waste Profile(s) as directed by the Company pursuant to Section 7; (d) the waste is acceptable for disposal at the Facility under all Applicable Laws; and (e) the transportation to and disposal of the waste at the Facility is otherwise in accordance with this Agreement. The parties may incorporate additional Acceptable Waste as part of this Agreement if prior to delivery of such Waste to Company, Generator has provided an Application for such Acceptable Waste and Company has approved disposal of such Acceptable Waste within the limitations and conditions contained in Company's written notice of approval of Special Waste Disposal. Title to and liability for any and all Acceptable Waste handled or disposed of by Company shall at all times remain with Generator and Broker (if a Broker is involved).

Rights of Refusal/Rejection. The Generator shall inspect all waste at the place(s) of collection and shall remove any and all Unacceptable Waste. Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility including if the Company believes (a) Generator has breached (or is breaching) its representations, warranties, covenants or agreements in this Agreement or any Acceptable Waste Documentation, or any Applicable Laws, or (b) that the waste contains Unacceptable Waste. The Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility if the Company has reason to believe, in its sole discretion, that the waste: (1) emits excessive odors, (2) negatively impacts operations at the Facility. Company shall have the right to inspect all vehicles and containers of waste haulers, including the Generator's vehicles, in order to determine whether the waste is Acceptable Waste pursuant to this Agreement and all Applicable Laws. The Company's exercise, or failure to exercise, its rights hereunder shall not operate to relieve the Generator of its responsibilities or liability under this Agreement.

Limited License to Enter. This Agreement provides Generator with a license to enter the Facility for the limited purpose of, and only to the extent necessary for, off-loading Acceptable Waste at the Facility in the manner directed by Company. Except in an emergency, Generator's personnel shall not leave the immediate vicinity of their vehicle. After off loading the Acceptable Waste Generator's personnel shall promptly leave the Facility. Under no circumstances shall Generator or its personnel engage in any scavenging of waste or other materials at the Facility. The Company reserves the right to make and enforce reasonable rules and regulations concerning the operation of the Facility, the conduct of the drivers and others on the Facility premises, quantities and sources of waste, and any other matters necessary or desirable for the safe, legal and efficient operation of the Facility including, but not limited to, speed limits on haul roads imposed by the Company, and the wearing of hard hats and other personal protection equipment by all individuals allowed on the Facility premises. Generator agrees to conform to such rules and regulations as they may be established and amended from time to time. Company may refuse to accept waste from and shall deny an entrance license to, any of Generator's personnel whom Company believes is under the influence of alcohol or other chemical substances. Generator shall be solely responsible for its employees and subcontractors performing their obligations in a safe manner when at the facility of Company.

Charges and Payment. Payment shall be made by Generator within thirty (30) days after receipt of invoice from Company. If any amount is overdue, the Company may terminate this Agreement. Generator agrees to pay a finance charge equal to the maximum interest rate permitted by law. Generator shall be liable for all taxes, fees, or other charges imposed upon the disposal of the Acceptable Waste by federal, state, local or provincial laws and regulations. Company, from time to time, may modify its rates upon thirty (30) days written notice to Generator. For the purposes of this section, written notice may be provided via email, certified mail, or overnight courier.

Termination. Company shall have the right to immediately terminate and/or suspend this Agreement upon the occurrence of any of the following events of default: (a) Generator's failure to timely pay any amounts due under this Agreement to Company; (b) Generator's breach of any of its obligations, representations, warrants or covenants under this Agreement or any Acceptable Waste Documentation, or (c) the filing of a voluntary or involuntary petition for reorganization or bankruptcy against Generator. Generator shall be liable for any losses, claims, expenses and damages incurred by Company as a result of suspension or termination hereunder. Generator's obligations, representations, warranties and covenants regarding the Acceptable Waste delivered and all indemnities contained in this Agreement shall survive expiration and termination of this Agreement. Additionally, Company shall have the right to terminate this Agreement for convenience at any time on 30 days' notice to Generator.

Driver's Knowledge and Authority. Generator represents, warrants and covenants that its drivers who deliver Acceptable Waste to Company's Facility have been advised by Generator of the Company's prohibition on deliveries of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances or any other Unacceptable Waste to the Facility of Company's restrictions on deliveries of Special Waste to the Facility, of the definitions of "Hazardous Waste" and "Hazardous Substances" as provided by applicable federal, state and local law, rules and regulations and "Special Waste" as provided herein, and of the terms of this license to enter Company's Facility.

Indemnification. Generator shall indemnify, defend and hold harmless the Company and its subsidiaries, affiliates and parent corporations, as applicable and their respective officers, directors, lenders, employees, subcontractors and agents from and against any and all claims, suits, losses, liabilities, assessments, damages, fines, costs and expenses, including reasonable attorneys' fees arising under federal, state or local laws, regulations or ordinances, or relating to the (a) the transportation to and/or disposal of any Unacceptable Waste at the Facility, whether or not Generator or Company was negligent in failing to identify the Unacceptable Waste, (b) the reloading and/or removal of Unacceptable Waste at the Facility; (c) any penalties, fines or remediation activities incurred by or imposed as the result of the transportation and/or disposal of Unacceptable Waste, (d) any increased inspection, testing, study and analysis costs made necessary due to reasonable concerns of Company as to the content of the waste transported and/or disposed of at the Facility following discovery of potentially Unacceptable Waste, and (e) the Company's inability to use the Facility due to the presence of Unacceptable Waste including without limitation any consequential damages. Company may also, in its sole discretion, require Generator to promptly remove the Unacceptable Waste at Generator's sole expense. This indemnification and other obligations stated in this paragraph shall survive the termination of this Agreement.

Insurance. Generator shall maintain in full force and effect throughout the term of this Agreement the following types of insurance in at least the amounts specified below:

Coverages	Minimum Amounts of Insurance
Worker's Compensation	Statutory
Employer's Liability	$1,000,000
General Liability	$1,000,000 combined single limit
Automobile Liability (if Generator hauling)	$1,000,000 combined single limit

All insurance will be by insurers authorized to do business in the state in which the Facility is located. Generator shall deliver the Certificates of Insurance evidencing the foregoing policies to Company before Generator delivers any waste to the Facility pursuant to this Agreement. In addition, the (i) Commercial General Liability (including the Umbrella/Excess policy) policy must include Contractual Liability coverage specifically covering Generator's indemnification of Company, and (ii) The Commercial General Liability, Automobile Liability and the Umbrella/Excess Liability policies must be written on an "occurrence" form. Said policies shall not thereafter be canceled, be permitted to expire or laps, or be changed without 30 days advance written notice has been given to Company. With the exception of workers' compensation, Company shall be shown as additional insureds under all of the insurance policies required by this Section 13. The policies required by this Section 13 shall be primary and non contributory with respect to Company, and the insurance providers shall agree to waive their rights of subrogation against Company.

14 Failure to Perform. Except for Generator's obligation to pay amounts due to Company, neither party hereto shall be liable for its failure to perform hereunder due to circumstances not its fault and beyond its reasonable control, including, but not limited to: strikes or other labor disputes; riots; protests; civil disturbances or sabotage; changes in law; fires; floods; compliance with government requests; explosions; accidents; weather; lack of required natural resources; or acts of God affecting either party hereto. In the event of any of the circumstances provided for in the preceding sentence, including, but not limited to, whether any federal, state or local court or governmental authority takes any action which would (i) close or restrict operations at the Facility, (ii) limit the quantity or prohibit the disposal of Acceptable Waste at the Facility, or (iii) limit the ability of or prohibit Generator from delivering Acceptable Waste to the Facility, the Company shall have the right, at its option, to reduce, suspend or terminate Generator's access to the Facility immediately, without prior notice and without any additional liabilities between the parties, other than Generator's payment obligation hereunder. Neither Party is required hereunder to settle any labor dispute against its own best judgment.

15 Assignment. Generator may not assign, transfer or otherwise vest in any other Company, entity or person, in whole or in part, any of its rights or obligations under the Agreement without the prior written consent of the Company; provided, however, that the Company may without any such prior written consent, assign its rights and/or obligations under the Agreement to a subsidiary or affiliate corporation.

16 Right of Disposal. This Agreement does not grant any rights to dispose of waste other than in accordance herewith.

17 Continuing Compliance. The Generator has a continuing obligation to inform the Company of any new information or information not previously provided to the Company by Generator which may affect the acceptability of the waste by the Company. Further, the Generator shall comply with all Company requests for evidence of Generator's continuing compliance with the terms of the Agreement including but not limited to the following: (i) providing new updated Special Waste profiles on the waste(s) offered for disposal or, (ii) providing appropriate certification that the waste being offered for disposal is accurately reflected by the appropriate Special Waste Profile or, (iii) re sample the waste at Generator's expense if reasonable cause exists as to its acceptability under the terms of this Agreement or, (iv) allow the Company to re sample the waste at Generator's expense if reasonable cause exists as to its acceptability under the terms of this Agreement or any Acceptable Waste Documentation.

18 Miscellaneous

(A) This Agreement shall be governed by the laws of the State in which the Facility is located.

(B) No waiver of a breach of any of the obligations contained in the Agreement shall be construed to be a waiver of any prior or succeeding breach of the same obligation or of any other obligation of this Agreement.

(C) Unless otherwise provided for herein, no modification, release, discharge or waiver of any provision of obligation hereof shall be of any force, or effect, unless in writing signed by all parties to this Agreement.

(D) Generator shall treat as confidential and not disclose to others during or subsequent to the terms of this Agreement, except as is necessary to perform this Agreement, or to comply with any applicable law or regulation any information (including any technical information, experience or data) regarding the Company's plans, programs, plants, processes, products, costs, equipment or operations which may come within the knowledge of the Generator or its employees in the performance of this Agreement, without in each instance securing the prior written consent of the other Company.

(E) If any term, phrase, obligation or provision of this Agreement shall be held to be invalid, illegal or unenforceable in any respect, this Agreement shall remain in effect and be construed without regard to such term, phrase, obligation or provision.

(F) This Agreement constitutes the entire understanding between the parties, replacing and amending any prior agreements between the parties, and shall be binding upon all parties hereto, their successors, heirs, representatives and assigns. Any provision, term or condition in any acknowledgement, purchase order or other response by Generator which is in addition to or different from the provisions of this Agreement shall be deemed objected to by the Company and shall be of no effect.

(G) Generator represents, warrants and covenants that it is and, during the term of this Agreement will remain, in compliance with and will perform its obligations pursuant to all applicable laws and regulations and shall indemnify, defend and hold harmless the Company from any breach thereof.

(H) It is the understanding and agreement of the parties that the Company is an independent contractor, and is not an agent, nor an authorized representative of the Generator.

(I) Company may provide any of the Services covered by this Agreement through any of its affiliates or subcontractors, provided that Company shall remain responsible for the performance of all such services and obligations in accordance with this Agreement.

20 Notices. Unless otherwise provided herein, all notices herein provided for shall be considered as having been given upon being placed in the mail, certified postage prepaid addressed to the Company or Generator at the address herein set forth in this Agreement or to such other address as may be given to the other party in writing.

21 Liquidated Damages. If Generator terminates this Agreement before its expiration other than as a result of a breach by Company, Generator shall pay Company an amount equal to the most recent month's monthly charges multiplied by the lesser of (a) six months or (b) the number of months remaining in the term. Generator acknowledges that, in the event of such a termination, actual damages to Company would be uncertain and difficult to ascertain; such amount is the best, reasonable and objective estimate of the actual damages to Company; such amount does not constitute a penalty, and such amount is reasonable under the circumstances. Any amount payable under this paragraph shall be in addition to amounts already owing under this Agreement.

WC 10/17/19

GENERATOR: WC REPUBLIC SERVICES/COMPANY: Edward Antolin

REPUBLIC SERVICES, INC.

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231915909	10/7/2020	

I. Decision Request: ☑ Initial ☐ Recertification ☐ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: VOPAK TERMINAL LOS ANGELES INC

Generator Site Address: 401 CANAL ST

City: WILMINGTON	County:	State: CA	Zip:

Name of Waste: WEATHERED WOOD

Estimated Annual Volume: 50 Tons

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

Disposal of TWW must be in accordance with the California Health and Safety Code (HSC) sections 24143.1.5, 25150.7 and 25150.8.

Special Waste Analyst Signature: Holly M. Wilson **Name (Printed):** Holly Wilson

Date: 10/18/2019

III. Facility Decision: ☑ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: **Name (Printed):** Chris Cayle

Date: 10/18/2019

Express Waste Profile

REPUBLIC SERVICES

Disposal Facility: 5123 Sunshine Canyon Landfill CA

Waste Profile # 5123 19 15909

Sales Rep #

I. Generator Information

Generator Name: Vopak Terminal Los Angeles Inc.

Generator Site Address: 401 Canal Street

City: Wilmington County: LA State: California Zip: 90744

State ID/Reg No: cal000222390 State Approval/Waste Code: 614 NAICS #: 493190

Generator Mailing Address ☐ (if different)

City: County: State: --Select State-- Zip:

Generator Contact Name: Email:

Phone Number: Ext: Fax Number:

II. Billing Information

Bill To: Republic Services Contact Name:

Billing Address: 14905 SW. San Pedro St. Email:

City: Gardena State: California Zip: 90247 Phone:

III. Waste Stream Information

Name of Waste: ☑ Weathered Wood ☐ RCRA Empty Containers ☐ Treated Medical Waste ☐ Animal Carcass (non-infectious)
☐ Friable Asbestos ☐ Nonfriable Asbestos ☐ Tires ☐ Meth Contaminated Debris

Has a sample of this waste been taken? ☐ Yes ☑ No

Process Generating Waste: Demolition/Dismantling uncontaminated, weathered wood waste with presevatives

Method of Shipment: Bulk Complete if "other"

Frequency: One-time Event (single project)

Estimated Annual Volume: 50 Volume Type: Tons

Color: Brown Odor: None

Express Waste Profile

REPUBLIC SERVICES

IV. Certificatio

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue. I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original."

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process

Stephen J. Comley
Authorized Representative Name (Printed)

SHEQ Manager
Title (Printed)

Vopak
Company Name

Stephen J Comley
Authorized Representative Signature

10/7/2019
Date

REPUBLIC SERVICES, INC.

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231916563	10/30/2020	

I. Decision Request: ☑ Initial ☐ Recertification ☐ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: ELITE FLOWER

Generator Site Address: 3435 E VERNON AVE

City: VERNON **County:** **State:** CA **Zip:**

Name of Waste: FLOWERS

Estimated Annual Volume: 8 Pallets

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

Special Waste Analyst Signature: Joseph M. Sorokach **Name (Printed):** Joseph Sorokach

Date: 10/31/2019

III. Facility Decision: ☑ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: **Name (Printed):** Edwards Coyle

Date: 10/31/2019

Special Waste Profile

REPUBLIC SERVICES

Disposal Facility: 5123 Sunshine Canyon Landfill CA

Waste Profile #: 5123 19 16563

Sales Rep #:

I. Generator Information

Generator Name: Elite Flower

Generator Site Address: 3435 E Vernon Ave

City: Vernon County: State: California Zip: 90058

State ID/Reg No: State Approval/Waste Code: NAICS #:

Generator Mailing Address ☐ (if different)

City: County: State: --Select State-- Zip:

Generator Contact Name: Ella Guadarrama Email: eguadarrama@eliteflower.com

Phone Number: 786-635-9757 Ext: Fax Number:

II. Billing Information

Bill To: Elite Flower Contact Name: Ella Guadarrama

Billing Address: 3200 NW 67th Ave #290 Email: eguadarrama@eliteflower.com

City: Miami State: Florida Zip: 33122 Phone: 786-635-9757

III. Waste Stream Information

Name of Waste: Flowers

Process Generating Waste: Rejection of product by agriculture

Type of Waste: Pollution Control Waste Physical State: Solid Method of Shipment: Other

Estimated Volume: 8 Volume Type: Pallets

Frequency: One-time Event (single project) Disposal Consideration: Landfill

IV. Representative Sample Certification

☑ **No Sample Taken**

☐ **Sample Taken** **Type of Sample** --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ **Yes** ☐ **No**

Sample Date:

Sample ID Numbers or SDS:

Remember to attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

Special Waste Profile

REPUBLIC SERVICES

V. Physical Characteristics of Waste

Characteristic Components (must equal 100%:)	% By Weight (out of 100% - ranges acceptable):
1. Flowers	100
2.	
3.	
4.	
5.	

Color:	Odor (describe):	Does Waste Contain Free Liquids?	% Solids:	pH:	Flash Point:
Varies	Floral	☐ Yes ☑ No	100	NA	NA °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

RCRA Regulatory Questions

1. Does this waste or generating process contain regulated concentrations of the following Pesticides and/ or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	☐ Yes ☑ No
2. Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261.23(a)(5)]?	☐ Yes ☑ No
3. Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	☐ Yes ☑ No
4. Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	☐ Yes ☑ No
5. Has this waste been delisted under 40 CFR 260.20 and 260.22? If yes, attach the final decision to delist the waste as published in the Federal Register.	☐ Yes ☑ No
6. Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations? If Yes, identify the applicable waste code and specify if the waste is hazardous as defined by Federal, State or both?	☐ Yes ☑ No
7. Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31?	☐ Yes ☑ No
8. Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	☐ Yes ☑ No
9. Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	☐ Yes ☑ No
10. Is this a solid waste that is not a hazardous waste in accordance with 40 CFR 261.4(b)? If yes, please provide the corresponding regulatory citation.	☐ Yes ☑ No

Republic Services Waste Handling Questions

1. Does this waste generate heat or react when contacted with water/moisture?	☐ Yes ☑ No
2. Does the waste contain sulfur or sulfur by-products?	☐ Yes ☑ No
3. Is this waste generated at a State or Federal Superfund cleanup site subject to regulation under CERCLA?	☐ Yes ☑ No
4a. Is this waste from a TSD facility, TSD-like facility or consolidator (i.e. multiple wastes/multiple generators)?	☐ Yes ☑ No

4b. If yes to the above question, please provide clarification.

Special Waste Profile

REPUBLIC SERVICES

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

Authorized Representative Name (Printed)	Title (Printed)	Company Name
Ella Guadarrama	General Manager	Elite Flower
Representative Signature		Date
		10/30/2019

SPECIAL WASTE SERVICE AGREEMENT
NON-HAZARDOUS WASTES

REPUBLIC SERVICES

Special Waste Profile Number: 5123 19 16563

Generator Billing Information		Republic Waste Location (Company)
Name:	ELITE FLOWER (ACCT 321 CASH)	SUNSHINE CANYON LANDFILL (5123)
Address:	3435 E VERNON AVE	14747 SAN FERNANDO RD
		SYLMAR, CA 91342
City:	VERNON	818.362.2141
State:	CA Zip: 90058	
Phone:	786.635.9757 Fax:	
Contact:	ELLA GUADARRAMA	

Project: FLOWERS **County and State of Origin:** LOS ANGELES, CA

Additional Information: SITE: SAME AS BILLING

1. **Special Waste Service**. Subject to the terms and conditions contained herein, the Company and the Generator agree to be legally bound hereby, and the Company agrees to accept at its facility identified above ("Facility"), Acceptable Waste (as defined in Section 6) delivered by Generator.

[redacted]

Generator shall also be liable for all taxes, fees, or other charges imposed by federal, state, local or provincial laws and regulations.

Cannot Exceed Daily Volume of 8 PALLETS Without Prior Approval of Company.

(B) **Incorporation by Reference**. In addition to Special Waste Profile(s), the following documents are incorporated by reference into this Agreement as if fully set forth herein.

1)N/A

2)N/A

3. **Term of Agreement**. This Agreement is effective for 12 months, commencing 10/31/2019 and shall automatically be renewed for a similar term thereafter unless either party shall give written notice (via certified mail) of termination to the other party at least thirty (30) days before the expiration of the then-current term.

THE COMPANY AND THE GENERATOR, IN CONSIDERATION OF THE MUTUAL OBLIGATIONS CONTAINED HEREIN, AGREE THAT THIS IS A LEGALLY BINDING AGREEMENT WHICH IS SUBJECT TO THE TERMS AND CONDITIONS SET FORTH ON THIS PAGE AND ON THE REVERSE SIDE OF THIS DOCUMENT. IN ADDITION, THE GENERATOR IS CERTIFYING THE ATTACHED TERMS AND CONDITIONS HAVE BEEN REVIEWED AND INITIALLED AT THE BOTTOM OF THE PAGE.

GENERATOR	REPUBLIC SERVICES/COMPANY
SIGNATURE (AUTHORIZED REPRESENTATIVE)	Edward Antolin
Ella Guadarrama General Manager	EDWARD ANTOLIN MESE
NAME AND TITLE (PLEASE PRINT)	NAME AND TITLE (PLEASE PRINT)
10/31/2019	10/31/19
DATE	DATE

Terms and Conditions of Special Waste Service Agreement

The Agreement. This agreement of the parties ("Agreement") for the disposal of Acceptable Waste shall consist of this Agreement, riders to the Agreement (if any), any Special Waste Profiles (including any approved changes and re-certifications) and any Application, permit and approval that may be applicable to the disposal of such Acceptable Waste ("Acceptable Waste Documentation").

Waste Accepted at Facility. Generator represents, warrants and covenants that the waste delivered to Company at its Facility hereunder will be Acceptable Waste and will not contain any unacceptable quantity of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances, as defined by applicable federal, state, local or provincial laws or regulations. Any waste which does not meet these requirements shall hereinafter be referred to as "Unacceptable Waste". The Generator shall in all matters relating to the collection, transportation and disposal of the Acceptable Waste hereunder, comply with all applicable federal, state and local laws, regulations, rules and orders regarding the same (collectively, "Applicable Laws").

Acceptable Waste. Only waste that satisfies each of the following criteria shall be accepted for disposal at the Facility ("Acceptable Waste"): (a) the waste conforms to the description set forth in the Acceptable Waste Documentation; (b) the waste does not contain any Unacceptable Waste; (c) the waste is accurately reflected on any Special Waste Profile(s) as directed by the Company pursuant to Section 7; (d) the waste is acceptable for disposal at the Facility under all Applicable Laws; and (e) the transportation to and disposal of the waste at the Facility is otherwise in accordance with this Agreement. The parties may incorporate additional Acceptable Waste as part of this Agreement if prior to delivery of such Waste to Company, Generator has provided an Application for such Acceptable Waste and Company has approved disposal of such Acceptable Waste within the limitations and conditions contained in Company's written notice of approval of Special Waste Disposal. Title to and liability for any and all Acceptable Waste handled or disposed of by Company shall at all times remain with Generator and Broker (if a Broker is involved).

Rights of Refusal/Rejection. The Generator shall inspect all waste at the place(s) of collection and shall remove any and all Unacceptable Waste. Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility including if the Company believes (a) Generator has breached (or is breaching) its representations, warranties, covenants or agreements in this Agreement or any Acceptable Waste Documentation, or any Applicable Laws; or (b) that the waste contains Unacceptable Waste. The Company has the right to refuse, or to reject after acceptance, any load(s) of waste(s) delivered to its Facility if the Company has reason to believe, in its sole discretion, that the waste: (1) emits excessive odors; (2) negatively impacts operations at the Facility. Company shall have the right to inspect all vehicles and containers of waste haulers, including the Generator's vehicles, in order to determine whether the waste is Acceptable Waste pursuant to this Agreement and all Applicable Laws. The Company's exercise, or failure to exercise, its rights hereunder shall not operate to relieve the Generator of its responsibilities or liability under this Agreement.

Limited License to Enter. This Agreement provides Generator with a license to enter the Facility for the limited purpose of, and only to the extent necessary for, off-loading Acceptable Waste at the Facility in the manner directed by Company. Except in an emergency, Generator's personnel shall not leave the immediate vicinity of their vehicle. After off-loading the Acceptable Waste, Generator's personnel shall promptly leave the Facility. Under no circumstances shall Generator or its personnel engage in any scavenging of waste or other materials at the Facility. The Company reserves the right to make and enforce reasonable rules and regulations concerning the operation of the Facility, the conduct of the drivers and others on the Facility premises, quantities and sources of waste, and any other matters necessary or desirable for the safe, legal and efficient operation of the Facility including, but not limited to, speed limits on haul roads imposed by the Company, and the wearing of hard hats and other personal protection equipment by all individuals allowed on the Facility premises. Generator agrees to conform to such rules and regulations as they may be established and amended from time to time. Company may refuse to accept waste from and shall deny an entrance license to, any of Generator's personnel whom Company believes is under the influence of alcohol or other chemical substances. Generator shall be solely responsible for its employees and subcontractors performing their obligations in a safe manner when at the facility of Company.

Charges and Payment. Payment shall be made by Generator within thirty (30) days after receipt of invoice from Company. If any amount is overdue, the Company may terminate this Agreement. Generator agrees to pay a finance charge equal to the maximum interest rate permitted by law. Generator shall be liable for all taxes, fees, or other charges imposed upon the disposal of the Acceptable Waste by federal, state, local or provincial laws and regulations. Company, from time to time, may modify its rates upon thirty (30) days written notice to Generator. For the purposes of this section, written notice may be provided via email, certified mail, or overnight courier.

Termination. Company shall have the right to immediately terminate and/or suspend this Agreement upon the occurrence of any of the following events of default: (a) Generator's failure to timely pay any amounts due under this Agreement to Company; (b) Generator's breach of any of its obligations, representations, warrants or covenants under this Agreement or any Acceptable Waste Documentation; or (c) the filing of a voluntary or involuntary petition for reorganization or bankruptcy against Generator. Generator shall be liable for any losses, claims, expenses and damages incurred by Company as a result of suspension or termination hereunder. Generator's obligations, representations, warranties and covenants regarding the Acceptable Waste delivered and all indemnities contained in this Agreement shall survive expiration and termination of this Agreement. Additionally, Company shall have the right to terminate this Agreement for convenience at any time on 30 days' notice to Generator.

Driver's Knowledge and Authority. Generator represents, warrants and covenants that its drivers who deliver Acceptable Waste to Company's Facility have been advised by Generator of the Company's prohibition on deliveries of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances or any other Unacceptable Waste to the Facility of Company's restrictions on deliveries of Special Waste to the Facility, of the definitions of "Hazardous Waste and Hazardous Substances" as provided by applicable federal, state and local law, rules and regulations and "Special Waste" as provided herein, and of the terms of this license to enter Company's Facility.

Indemnification. Generator shall indemnify, defend and hold harmless the Company and its subsidiaries, affiliates and parent corporations, as applicable and their respective officers, directors, lenders, employees, subcontractors and agents from and against any and all claims, suits, losses, liabilities, assessments, damages, fines, costs and expenses, including reasonable attorneys fees arising under federal, state or local laws, regulations or ordinances, or relating to the (a) the transportation to and/or disposal of any Unacceptable Waste at the Facility, whether or not Generator or Company was negligent in failing to identify the Unacceptable Waste; (b) the reloading and/or removal of Unacceptable Waste at the Facility; (c) any penalties, fines or remediation activities incurred by or imposed as the result of the transportation and/or disposal of Unacceptable Waste; (d) any increased inspection, testing, study and analysis costs made necessary due to reasonable concerns of Company as to the content of the waste transported and/or disposed of at the Facility following discovery of potentially Unacceptable Waste; and (e) the Company's inability to use the Facility due to the presence of Unacceptable Waste including without limitation any consequential damages. Company may also, in its sole discretion, require Generator to promptly remove the Unacceptable Waste at Generator's sole expense. This indemnification and other obligations stated in this paragraph shall survive the termination of this Agreement.

Insurance. Generator shall maintain in full force and effect throughout the term of this Agreement the following types of insurance in at least the amounts specified below:

Coverages	Minimum Amounts of Insurance
Worker's Compensation	Statutory
Employer's Liability	$1,000,000
General Liability	$1,000,000 combined single limit
Automobile Liability (if Generator hauling)	$1,000,000 combined single limit

All insurance will be by insurers authorized to do business in the state in which the Facility is located. Generator shall deliver the Certificates of Insurance evidencing the foregoing policies to Company before Generator delivers any waste to the Facility pursuant to this Agreement. In addition, the (i) Commercial General Liability (including the Umbrella/Excess policy) policy must include Contractual Liability cover specifically covering Generator's indemnification of Company, and (ii) The Commercial General Liability, Automo Liability and the Umbrella/Excess Liability policies must be written on an "occurrence form". Said polices shall thereafter be canceled, be permitted to expire or laps, or be changed without 30 days advance written notice been given to Company. With the exception of workers' compensation, Company shall be shown as additic insureds under all of the insurance policies required by this Section 13. The policies required by this Section shall be primary and non-contributory with respect to Company, and the insurance providers shall agree to wa their rights of subrogation against Company.

14. Failure to Perform. Except for Generator's obligation to pay amounts due to Company, neither party hereto shall liable for its failure to perform hereunder due to circumstances not its fault and beyond its reasonable cont including, but not limited to, strikes or other labor disputes, riots, protests, civil disturbances or sabotage, change law, fires, floods, compliance with government requests, explosions, accidents, weather, lack of required nat resources, or acts of God affecting either party hereto. In the event of any of the circumstances provided for in preceding sentence, including, but not limited to, whether any federal, state or local court or governmental authc takes any action which would (i) close or restrict operations at the Facility, (ii) limit the quantity or prohibit disposal of Acceptable Waste at the Facility, or (iii) limit the ability of or prohibit Generator from delive Acceptable Waste to the Facility, the Company shall have the right, at its option, to reduce, suspend or termin Generator's access to the Facility immediately, without prior notice and without any additional liabilities between parties, other than Generator's payment obligation hereunder. Neither Party is required hereunder to settle labor dispute against its own best judgment.

15. Assignment. Generator may not assign, transfer or otherwise vest in any other Company, entity or person, in wh or in part, any of its rights or obligations under the Agreement without the prior written consent of the Compa provided, however, that the Company may without any such prior written consent, assign its rights and/or obligati under the Agreement to a subsidiary or affiliate corporation.

16. Right of Disposal. This Agreement does not grant any rights to dispose of waste other than in accordance herewi

17. Continuing Compliance. The Generator has a continuing obligation to inform the Company of any new informati or information not previously provided to the Company by Generator which may affect the acceptability of the wa by the Company. Further, the Generator shall comply with all Company requests for evidence of Generat continuing compliance with the terms of the Agreement including but not limited to the following: (i) providing r updated Special Waste profiles on the waste(s) offered for disposal or, (ii) providing appropriate certification that waste being offered for disposal is accurately reflected by the appropriate Special Waste Profile or, (iii) re-sam the waste at Generator's expense if reasonable cause exists as to its acceptability under the terms of Agreement or, (iv) allow the Company to re-sample the waste at Generator's expense if reasonable cause exists to its acceptability under the terms of this Agreement or any Acceptable Waste Documentation.

18. Miscellaneous.

(A) This Agreement shall be governed by the laws of the State in which the Facility is located.

(B) No waiver of a breach of any of the obligations contained in the Agreement shall be construed to be a waive any prior or succeeding breach of the same obligation or of any other obligation of this Agreement.

(C) Unless otherwise provided for herein, no modification, release, discharge or waiver of any provision obligation hereof shall be of any force, or effect, unless in writing signed by all parties to this Agreement.

(D) Generator shall treat as confidential and not disclose to others during or subsequent to the terms of Agreement, except as is necessary to perform this Agreement, or to comply with any applicable law regulation any information (including any technical information, experience or date) regarding the Compar plans, programs, plants, processes, products, costs, equipment or operations which may come within knowledge of the Generator or its employees in the performance of this Agreement, without in each insta securing the prior written consent of the other Company.

(E) If any term, phrase, obligation or provision of this Agreement shall be held to be invalid, illegal unenforceable in any respect, this Agreement shall remain in effect and be construed without regard to s term, phrase, obligation or provision.

(F) This Agreement constitutes the entire understanding between the parties, replacing and amending any p agreements between the parties, and shall be binding upon all parties hereto, their successors, he representatives and assigns. Any provision, term or condition in any acknowledgement, purchase orde other response by Generator which is in addition to or different from the provisions of this Agreement shall deemed objected to by the Company and shall be of no effect.

(G) Generator represents, warrants and covenants that it is and, during the term of this Agreement will remain compliance with and will perform its obligations pursuant to all applicable laws and regulations and s indemnify, defend and hold harmless the Company from any breach thereof.

(H) It is the understanding and agreement of the parties that the Company is an independent contractor, and is an agent, nor an authorized representative of the Generator.

(I) Company may provide any of the Services covered by this Agreement through any of its affiliates subcontractors, provided that Company shall remain responsible for the performance of all such services obligations in accordance with this Agreement.

20. Notices. Unless otherwise provided herein, all notices herein provided for shall be considered as having been gi upon being placed in the mail, certified postage prepaid addressed to the Company or Generator at the addr herein set forth in this Agreement or to such other address as may be given to the other party in writing.

21. Liquidated Damages. If Generator terminates this Agreement before its expiration other than as a result of a bre by Company, Generator shall pay Company an amount equal to the most recent month's monthly charges multip by the lesser of (a) six months or (b) the number of months remaining in the term. Generator acknowledges tha the event of such a termination, actual damages to Company would be uncertain and difficult to ascertain, s amount is the best, reasonable and objective estimate of the actual damages to Company, such amount does constitute a penalty, and such amount is reasonable under the circumstances. Any amount payable under paragraph shall be in addition to amounts already owing under this Agreement.

ENERATOR: _____ REPUBLIC SERVICES/COMPANY: Edward Antolin December 2018

Republic Services

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231916833	1/30/2020	
I. Decision Request:	☐ Initial ☐ Recertification ☑ Change		
Disposal Facility: 5123 - Sunshine Canyon Landfill			
Generator Name: T FRESH COMPANY DBA YES PRODUCE			
Generator Site Address: 150 N WILLOW AVE			
City: CITY OF INDUSTRY	**County:**	**State:** CA	**Zip:**
Name of Waste: HAWAIIAN TARO STEM			
Estimated Annual Volume: 2,450 Pounds			

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

FOOD WASTE: This waste must be buried immediately upon receipt at the landfill.

Per the Special Waste Profile Change form dated 03 JANUARY 2020, the generator is adding TARO STEMS as a Characteristic Component of the profiled waste; also, the generator has increased the ESTIMATED VOLUME for disposal by 2,000 POUNDS.

TOTAL ESTIMATED VOLUME approved for disposal is 2,450 POUNDS.

Special Waste Analyst Signature: Joseph M. Sorokach **Name (Printed):** Joseph Sorokach

Date: 1/3/2020

III. Facility Decision: ☑ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: **Name (Printed):** Chris Coyle

Date: 1/3/2020

Special Waste Profile - Change

REPUBLIC SERVICES

I. Generator Information

This form may be used to request changes to an existing Special Waste Profile

Generator Name: T Fresh Company dba Yes Produce

Name of Waste: Hawaiian Taro Stem Waste Profile #: 51231916833

II. Purpose of Change

Description of change requested and reason for change
(provide detailed explanation of why the change is requested following the appropriate checked circle below).

Volume Increase and another load of contaminated material.

☑ Volume Increase By: 2000 Pounds

Is the analysis originally submitted with the Profile representative of the volume increase? ☐ Yes ☑ No ***If no, complete Section III below***

☐ Extend Expiration Date:

☐ Change or Add Landfill:

☐ Add Additional Laboratory Reports: ***Complete Representative Sample Certification; Section III below***

☐ Add MSDS:

☐ Generator Name Change:

☑ Other: Request taro stems to be added.

III. Representative Sample Certification

☑ **No Sample Taken**

☐ **Sample Taken** **Type of Sample** --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ **Yes** ☐ **No**

Sample Date:

Sample ID Numbers:

Special Waste Profile - Change

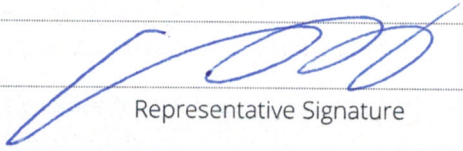
REPUBLIC SERVICES

IV. Certification

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I hereby certify that the waste and the process generating the waste are unchanged and are accurately represented in the original profile.

Sho Chung	Accounting	T Fresh Company
Authorized Representative Name (Printed)	Title (Printed)	Company Name
		1/3/2020
Representative Signature		Date

REPUBLIC SERVICES, INC.

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	51231916833	1/30/2020	

I. Decision Request: ☑ Initial ☐ Recertification ☐ Change

Disposal Facility: 5123 - Sunshine Canyon Landfill

Generator Name: T FRESH COMPANY DBA YES PRODUCE

Generator Site Address: 150 N WILLOW AVE

City:	County:	State:	Zip:
CITY OF INDUSTRY		CA	

Name of Waste: HAWAIIAN GALANGA

Estimated Annual Volume: 450 Pounds

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Deep Well ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

FOOD WASTE: This waste must be buried immediately upon receipt at the landfill.

Special Waste Analyst Signature: Joseph M. Sorokach **Name (Printed):** Joseph Sorokach

Date: 11/5/2019

III. Facility Decision: ☑ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: **Name (Printed):**

Date: 11/5/2019

Special Waste Profile

REPUBLIC SERVICES

Disposal Facility: 5123 Sunshine Canyon Landfill CA

Waste Profile #: 5123 19 16833

Sales Rep #:

I. Generator Information

Generator Name: T Fresh Company dba Yes Produce

Generator Site Address: 150 N. Willow Ave.

City: City of Industry County: Los Angeles State: California Zip: 91746

State ID/Reg No: 272144308 State Approval/Waste Code: NAICS #:

Generator Mailing Address ☐ (if different)

City: County: State: --Select State-- Zip:

Generator Contact Name: Sho Chung Email: tfresh@yesproduce.com

Phone Number: 6269682088 Ext: Fax Number: 6269688896

II. Billing Information

Bill To: Ditto Contact Name:

Billing Address: Email:

City: State: --Select State-- Zip: Phone:

III. Waste Stream Information

Name of Waste: Hawaiian Galanga

Process Generating Waste: 15 cartons of Hawaiian Galanga infested with pests.

Type of Waste: Industrial Process Waste Physical State: Solid Method of Shipment: Bulk

Estimated Volume: 450 Volume Type: Pounds

Frequency: One-time Event (single project) Disposal Consideration: Landfill

IV. Representative Sample Certification

☑ **No Sample Taken**

☐ **Sample Taken** **Type of Sample** --Select Sample Type--

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☐ **Yes** ☐ **No**

Sample Date:

Sample ID Numbers or SDS:

Remember to attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

Special Waste Profile

REPUBLIC SERVICES

V. Physical Characteristics of Waste

Characteristic Components (must equal 100%:)	% By Weight (out of 100% - ranges acceptable):
1. Galanga	95%
2. Carton box	5%
3.	
4.	
5.	

Color:	Odor (describe):	Does Waste Contain Free Liquids?	% Solids:	pH:	Flash Point:
Brown	None	☑ Yes ☐ No	100%	N/A	N/A °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

RCRA Regulatory Questions

1. Does this waste or generating process contain regulated concentrations of the following Pesticides and/ or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	☐ Yes ☑ No
2. Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261.23(a)(5)]?	☐ Yes ☑ No
3. Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	☐ Yes ☑ No
4. Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	☐ Yes ☑ No
5. Has this waste been delisted under 40 CFR 260.20 and 260.22? If yes, attach the final decision to delist the waste as published in the Federal Register.	☐ Yes ☑ No
6. Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations? If Yes, identify the applicable waste code and specify if the waste is hazardous as defined by Federal, State or both?	☐ Yes ☑ No
7. Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31?	☐ Yes ☑ No
8. Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	☐ Yes ☑ No
9. Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	☐ Yes ☑ No
10. Is this a solid waste that is not a hazardous waste in accordance with 40 CFR 261.4(b)? If yes, please provide the corresponding regulatory citation.	☐ Yes ☑ No

Republic Services Waste Handling Questions

1. Does this waste generate heat or react when contacted with water/moisture?	☐ Yes ☑ No
2. Does the waste contain sulfur or sulfur by-products?	☐ Yes ☑ No
3. Is this waste generated at a State or Federal Superfund cleanup site subject to regulation under CERCLA?	☐ Yes ☑ No
4a. Is this waste from a TSD facility, TSD-like facility or consolidator (i.e. multiple wastes/multiple generators)?	☐ Yes ☑ No

4b. If yes to the above question, please provide clarification.

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

Sho Chung	Accounting	T Fresh Company
Authorized Representative Name (Printed)	Title (Printed)	Company Name
	10/31/2019	
Representative Signature	Date	

SPECIAL WASTE SERVICE AGREEMENT
NON-HAZARDOUS WASTES

REPUBLIC SERVICES

Special Waste Profile Number: 5123 19 16833

Generator Billing Information

Name: T FRESH CO DBA YES PRODUCE (ACCT 321 CASH)
Address: 1500 N WILLOW AVE
City: CITY OF INDUSTRY
State: CA Zip: 91746
Phone: 626.968.2088 Fax:
Contact: SHO CHUNG

Republic Waste Location (Company)

SUNSHINE CANYON LANDFILL (5123)
14747 SAN FERNANDO RD
SYLMAR, CA 91342
818.362.2141

Project: FOOD PRODUCTS—HAWAIIAN GALANGA **County and State of Origin:** LOS ANGELES, CA

Additional Information: SITE: SAME AS BILLING

1. **Special Waste Service**. Subject to the terms and conditions contained herein, the Company and the Generator agree to be legally bound hereby, and the Company agrees to accept at its facility identified above ("Facility"), Acceptable Waste (as defined in Section 6) delivered by Generator.

[redacted]

PROFILE EXPIRES 01/30/2020 | MATERIAL CODE XD-FOOD WASTE | EAV 450 POUNDS

Generator shall also be liable for all taxes, fees, or other charges imposed by federal, state, local or provincial laws and regulations.

Cannot Exceed Daily Volume of 450 POUNDS Without Prior Approval of Company.

(B) Incorporation by Reference. In addition to Special Waste Profile(s), the following documents are incorporated by reference into this Agreement as if fully set forth herein.

1)N/A
2)N/A

3. **Term of Agreement**. This Agreement is effective for 3 months, commencing 11/06/2019 and shall automatically be renewed for a similar term thereafter unless either party shall give written notice (via certified mail) of termination to the other party at least thirty (30) days before the expiration of the then-current term.

THE COMPANY AND THE GENERATOR, IN CONSIDERATION OF THE MUTUAL OBLIGATIONS CONTAINED HEREIN, AGREE THAT THIS IS A LEGALLY BINDING AGREEMENT WHICH IS SUBJECT TO THE TERMS AND CONDITIONS SET FORTH ON THIS PAGE AND ON THE REVERSE SIDE OF THIS DOCUMENT. IN ADDITION, THE GENERATOR IS CERTIFYING THE ATTACHED TERMS AND CONDITIONS HAVE BEEN REVIEWED AND INITIALLED AT THE BOTTOM OF THE PAGE.

GENERATOR

SIGNATURE (AUTHORIZED REPRESENTATIVE)
Sho Chung / Accounting
NAME AND TITLE (PLEASE PRINT)
11/06/2019
DATE

REPUBLIC SERVICES/COMPANY

Edward Antolin
SIGNATURE (AUTHORIZED REPRESENTATIVE)
EDWARD ANTOLIN, MESE
NAME AND TITLE (PLEASE PRINT)
11/6/19
DATE