Via E- Mail

January 14, 2016

Steven Plunkett
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502-6577

Re: Closure Report
Former Underground Storage Tanks
3820 Penniman Avenue
Oakland, California

Dear Mr. Plunkett:

Iris Environmental is presenting this *Closure Report* (Report) regarding the removal of two underground storage tanks (USTs) that were discovered within the sidewalk in the front of 3820 Penniman Avenue, Oakland, California (the Site) (Figure 1). The following presents a summary of field activities and observations related to the removal of the former USTs on November 6, 2015. Removal and disposal activities were completed in accordance with guidelines established by the California State Water Resources Control Board (SWRCB) and Alameda County Department of Environmental Health (ACEH).

BACKGROUND

The Site is a commercial warehouse facility located in a primarily residential area. The Site formerly operated as a wholesale herb distributor for approximately 26 years until early 2015. The majority of the Site is comprised of an approximate 7,000 square foot vacant warehouse with a small loading yard located on the southeast side. A 2015 Phase I Environmental Site Assessment (ESA) dated July 9, 2015, prepared by Basics Environmental (Basics), documents that the Site formerly operated as an automobile and truck repair garage including a gasoline and oil station that stored and handled hazardous materials. Based on the Phase I ESA and a visual property inspection performed by Golden Gate Tank Removal, Inc. (GGTR), a licensed hazardous waste removal contractor located in San Francisco, California, in July 2015, two potential USTs were identified below and within the sidewalk to the southwest of the warehouse (Figure 2).

UST REMOVAL AND WASTE DISPOSAL ACTIVITIES

The following describes the removal and subsequent disposal activities for the (now former) USTs. GGTR procured permits to remove the USTs from ACEH (#SR0028794) and the City of Oakland, which are presented in Attachment 1. Associated disposal records for the tanks, liquids, and soil are presented in Attachment 2. A copy of the *Underground Storage Tank Site - Unauthorized Release/Contamination Report* is included as Attachment 3. Photographs are included as Attachment 4.

On November 3, 2015, Iris Environmental personnel visited the Site to meet with representatives of GGTR to evaluate the tanks and the appropriate measures necessary to remove or decommission the USTs. The tanks were found to be situated with their long axes perpendicular to the street/sidewalk (Figure 2).

On November 4 and 5, 2015, Iris Environmental observed GGTR excavate the overburden material above the USTs and shore the excavation sidewalls in preparation for safely removing the USTs. The overburden soil covering the USTs was removed and placed in a covered stockpile adjacent to the tank excavation. Overburden soils were observed to be free of petroleum hydrocarbon-type staining or odor. Associated vertical piping was found to be attached at the top of the tanks, however the extent of piping was limited to connections at the tops of the tanks to former fill-ports (and/or vents) at sidewalk level. There were no horizontal piping runs, nor pipes running outside the limits of the soil excavation. The short sections of tank-related piping were removed for recycling along with the steel UST shells.

On November 6, 2015, Iris Environmental observed GGTR remove the tanks. As part of the removal operations, GGTR contracted NRC Environmental Services Inc. (NRC), a licensed hazardous materials contractor located in Alameda, California, to pump the residual liquids within the tanks into a vacuum-truck for subsequent removal and disposal. Disposal records are included as Attachment 2. Once the tanks were emptied and rinsed, Oakland Fire Department (OFD) personnel verified the measured amount of combustible gas in the tanks. The lower explosive limit (LEL) level was measured at 0% in both USTs. Consequently, dry ice was not needed to inert the tanks, as approved by personnel from OFD.

In preparation for removal of the tanks, the surrounding soils were hand-excavated and stockpiled on plastic sheeting adjacent to the tanks. Generally, soils above the tanks were identified as clean fill, and were stockpiled separately from soils displaying visual or odor evidence of impact. Upon approval from the ACEH, GGTR used a backhoe to remove the tanks from the ground and placed them on plastic sheeting adjacent to the single excavation pit. Both tanks measured approximately 3.5 feet in diameter, 8 feet long, and were comprised of single-wall steel with a volume capacity of approximately 750 gallons. Neither UST showed visual evidence of holes, pitting, or significant deterioration. Moderate soil staining and petroleum odor were noted during UST removal activities. In a proactive effort to remove the visibly stained soil and minor residual liquids in the tank pit from tank rinsing activities, GGTR dug down to 11 feet below ground surface (ft bgs), which brought the excavation down to 3 feet below the former bottom of the tanks. Soils at 11 ft bgs were not visibly stained or odorous, and with the approval of the ACEH, soil

samples were collected from that depth. Additional information regarding sample collection is presented in the following section.

Prior to the transportation of the tanks off-Site for recycling, GGTR steam-cleaned the interior of the tanks three times with approximate 180-degree water using a pressure of 3,000-pounds per square inch (psi) and a non-toxic liquid detergent to remove residual hydrocarbons. During the cleaning process, rinsate was pumped into the collection tank of the NRC vacuum truck. Approximately 1,500 gallons of non-RCRA hazardous waste liquid were subsequently transported under Uniform Hazardous Waste Manifest No. 014378660 to the Riverbank Oil Transfer facility in Riverbank, California. A copy of the hazardous waste liquid manifest is included in Attachment 2.

The USTs were transported as scrap metal to Circosta Iron & Metal, Inc. in San Francisco, California. Copies of the Certificate of Disposal and Circosta Scrap Metal Recycling Receipt are provided in Attachment 2.

Two composite stockpile soil samples were collected for chemical analysis and potential landfill profiling purposes. The results of the analyses are discussed in the following section. On November 17, 2015, approximately 15 tons of petroleum-impacted soils were transported to the Keller Canyon Landfill facility in Pittsburg, California under Non-Hazardous Waste Profile Number 42121519333. Copies of the waste manifests and bill of lading tickets are included in Attachment 2.

SAMPLE COLLECTION AND ANALYTICAL RESULTS

The following describes the soil sample collection and analytical results. A summary of analytical results is presented in Tables 1 and 2. Copies of the certified analytical laboratory reports and chain-of-custody records are presented in Attachment 5.

After consultation and at the instruction of the ACEH inspector, Iris Environmental collected two discrete soil samples (UST-SB-11.0 and UST-NB-11.0) from the bottom of the excavation (see Figure 3 for approximate locations) and two 4-point composites soil samples (SP-IMP-151106 and SP-FILL-151106) from the soil stockpiles (one composite from the clean overburden stockpile [“FILL”] and one from the underlying petroleum-impacted stockpile [“IMP”]). Soil samples were retained in pre-cleaned sampling jars. The soil samples were labeled, packed on ice, and transported under chain-of-custody protocol to Curtis & Tompkins, Ltd (C&T), an analytical laboratory, for chemical analysis.

At the request of ACEH, Iris Environmental collected the soil samples and instructed the laboratory to analyze the samples for the parameters as follows:

- UST-SB-11.0 and UST-NB-11.0 were bottom-of-excavation samples analyzed for Total Petroleum Hydrocarbons (TPH; extractable hydrocarbons were run both with, and without, silica-gel cleanup), Volatile Organic Compounds (VOCs; collected with USEPA Method 5035 to minimize volatile loss), Semi-volatile Organic Compounds (SVOCs), Polychlorinated Biphenyls (PCBs), and LUFT 5 Metals: and

- SP-IMP-151106 and SP-FILL-151106 were four-point composite stockpile samples analyzed for TPH, VOCs, SVOCs, PCBs, and California Assessment Manual (CAM) 17 Metals.

Soil Samples UST-SB-11.0 and UST-NB-11.0

The soil analytical data for excavation soil samples UST-SB-11.0 and UST-NB-11.0 are presented in Table 1. The data were compared to Residential and Commercial Tier 1 Environmental Screening Levels (ESLs) promulgated by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) (Cal/EPA 2013). TPH and LUFT 5 Metals were the only compounds detected above laboratory reporting limits. TPH-g was detected above Residential Tier 1 ESLs in UST-NB-11.0 at 200 milligrams per kilogram (mg/kg), though the lab noted that detection "exhibits [a] chromatographic pattern which does not resemble standard". Nickel was detected above Residential and Commercial Tier 1 ESLs in UST-NB-11.0 at 170 mg/kg, which slightly exceeded the ESL of 150 mg/kg (based on ecotoxicity criteria).

Soil Stockpile Samples SP-IMP-151106 and SP-FILL-151106

The soil analytical data for the stockpile soil samples are presented in Table 2. Detected concentrations did not exceed federal or State of California hazardous waste criteria, with the exception of total chromium concentrations, which are above 10×STLC of 50 mg/kg in both stockpile samples (87 and 82 mg/kg). Both samples were re-analyzed with the California Waste Extraction Test (WET), the results of which were below the STLC of 5.0 milligrams per liter (mg/L). Accordingly, soils in both stockpiles are characterized as non-hazardous.

The soil stockpile analytical data representing the petroleum-impacted soil at depth beneath the clean overburden was forwarded to GGTR, and potential disposal facilities for review and acceptance. The petroleum impacted stockpile soil representing SP-IMP-151106 was transported to Keller Canyon Landfill facility in Pittsburg, California. The soil representing the clean overburden soil stockpile was reused to backfill the excavation, along with approximately 21 tons of clean import ¾" drain rock provided from Hanson Aggregates. Documentation of the clean import fill is provided in Attachment 6.

DISCUSSION AND RECOMMENDATIONS

With the exception of two compounds in one sample (UST-NB-11.0) discussed below, the analytical data from the discrete soil samples beneath the USTs were below both Residential and Commercial Tier 1 ESLs. Iris Environmental recommends that the Site receive regulatory closure with No Further Action based on the following:

- Both USTs were visually inspected upon removal and appeared to be in excellent condition with no obvious signs of holes, pitting or corrosion noted. Soils with evidence of petroleum hydrocarbon-type impact were observed near the fill pipe junctions on top of the tanks, and soils immediately adjacent immediately beneath both USTs showed comparable evidence of impact. The petroleum-impacted soils were removed to the extent practical to a depth of 11 feet bgs where visual/odor and evidence of over-lying impact was lacking. Significant soil

discoloration/contamination was not noted or observed in the native soils along the sidewalls of the excavation. Based on this information, no additional action is warranted.

- TPH-gasoline was detected in one bottom sample (UST-NB-11.0) at a concentration (200 mg/kg) above the Tier 1 ESL for residential land use (100 mg/kg) where groundwater is a current or potential source of drinking water (Table 1). This conservative Tier 1 ESL is based on nuisance (e.g. ceiling odor) criteria; whereas the human health direct contact residential use ESL threshold of 770 mg/kg was not exceeded. The other sample (UST-SB-11.0) was below the conservative Tier 1 ESL. Both samples are below the commercial/industrial thresholds. The Site is zoned Commercial/Industrial, the impacts appear limited in extent, and restricted to an area beneath the sidewalk. Based on this information, no additional action is warranted.

- Nickel was detected in one bottom sample (UST-NB-11.0) at a concentration (170 mg/kg) above the Tier 1 ESL for residential land use (150 mg/kg) where groundwater is a current or potential source of drinking water (Table 1). The other sample (UST-SB-11.0) was below this threshold. However, the Tier 1 ESL for nickel for both residential and commercial use is based on Urban Area Ecotoxicity criteria and as such does not apply because the Site is not located near applicable receptors. The human-health residential use ESL of 1,500 mg/kg was not exceeded. Based on this information, no additional action is warranted.

CLOSING

Please feel free to contact us at (510) 834-4747 with questions.

Sincerely,

IRIS ENVIRONMENTAL

Nicholas T. Loizeaux, P.G.
Principal

Craig Pelletier, P.G.
Principal

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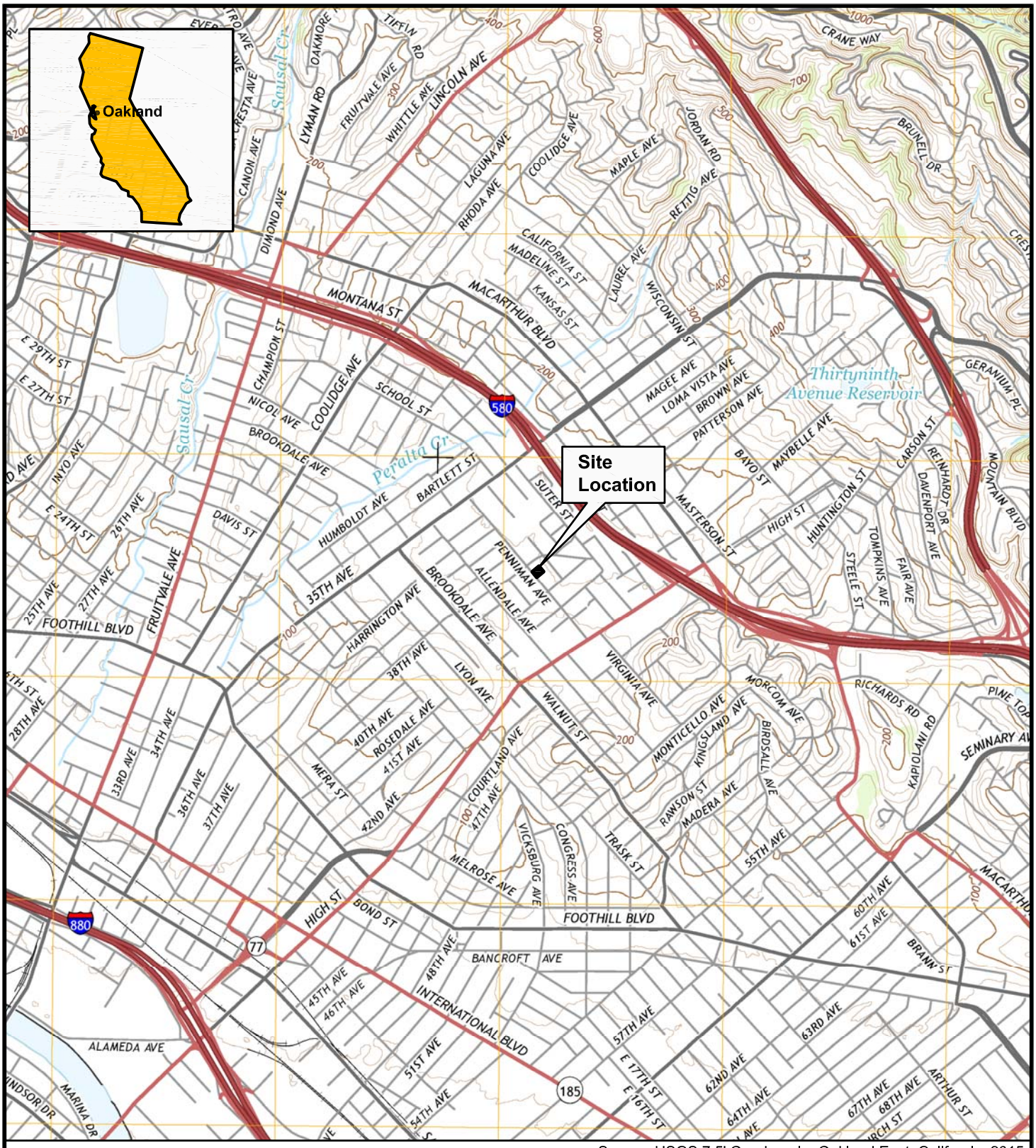
Attachment 2: Copies of Waste Disposal Records
Attachment 3: Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report Form
Attachment 4: Photo Documentation
Attachment 5: Laboratory Analytical Reports and Chain of Custody Information
Attachment 6: Clean Import Fill Documentation

cc: Mr. Wilson Lau, nuherbs Co., wilson@nuherbs.com

Figures



Source: USGS 7.5' Quadrangle, Oakland East, California, 2015

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Site Location Map
3820 Penniman Avenue
Oakland, California

Figure
1

Drafter: EC | Date: 11/25/15 | Contract Number: 15-1311A

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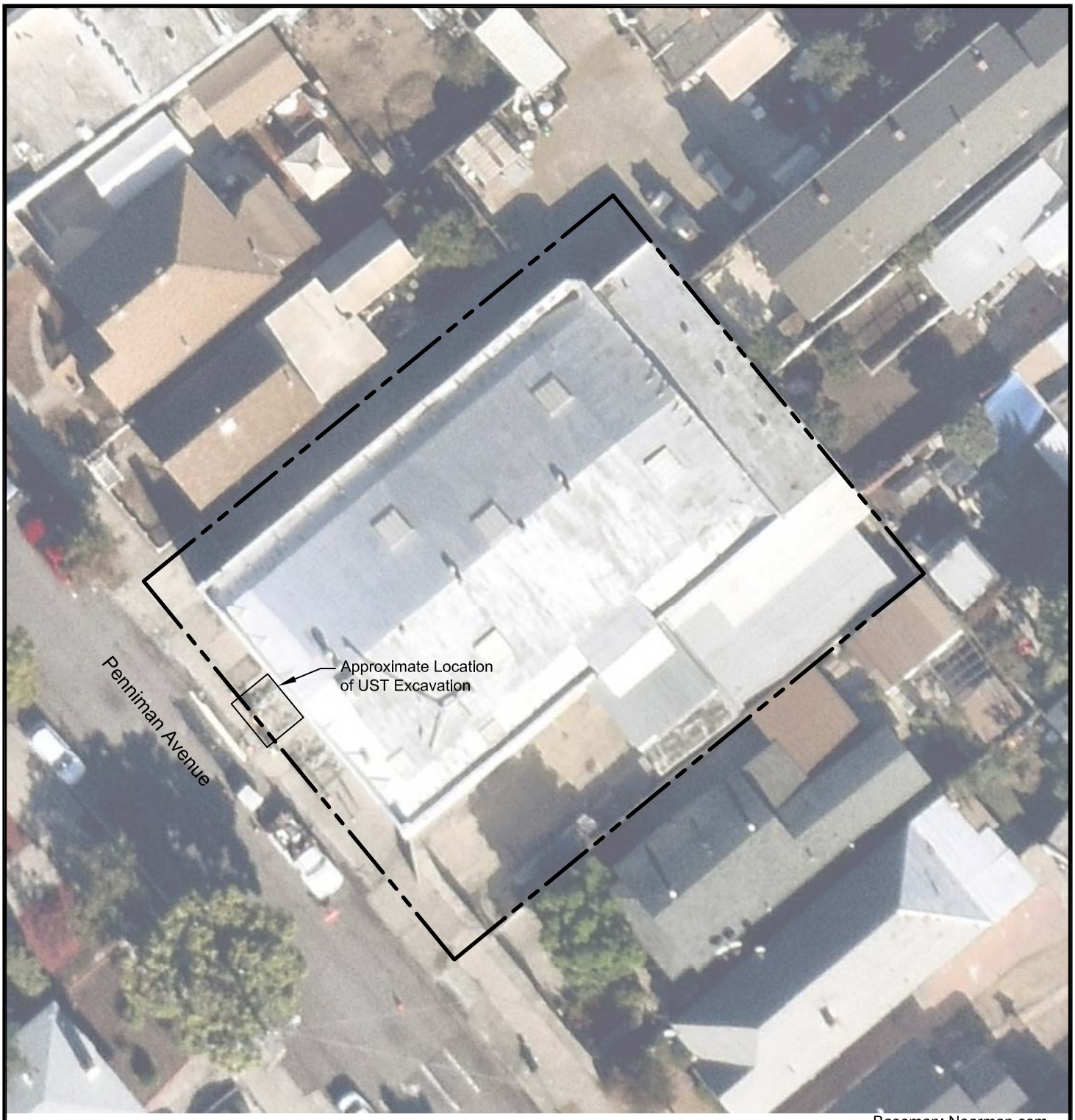

Basemap: Nearmap.com

LEGEND:

Approximate property boundary

N

0 15 30 60

SCALE IN FEET

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Site Layout
3820 Penniman Avenue
Oakland, California

Figure
2

Drafter: EC | Date: 11/25/15 | Contract Number: 15-1311A

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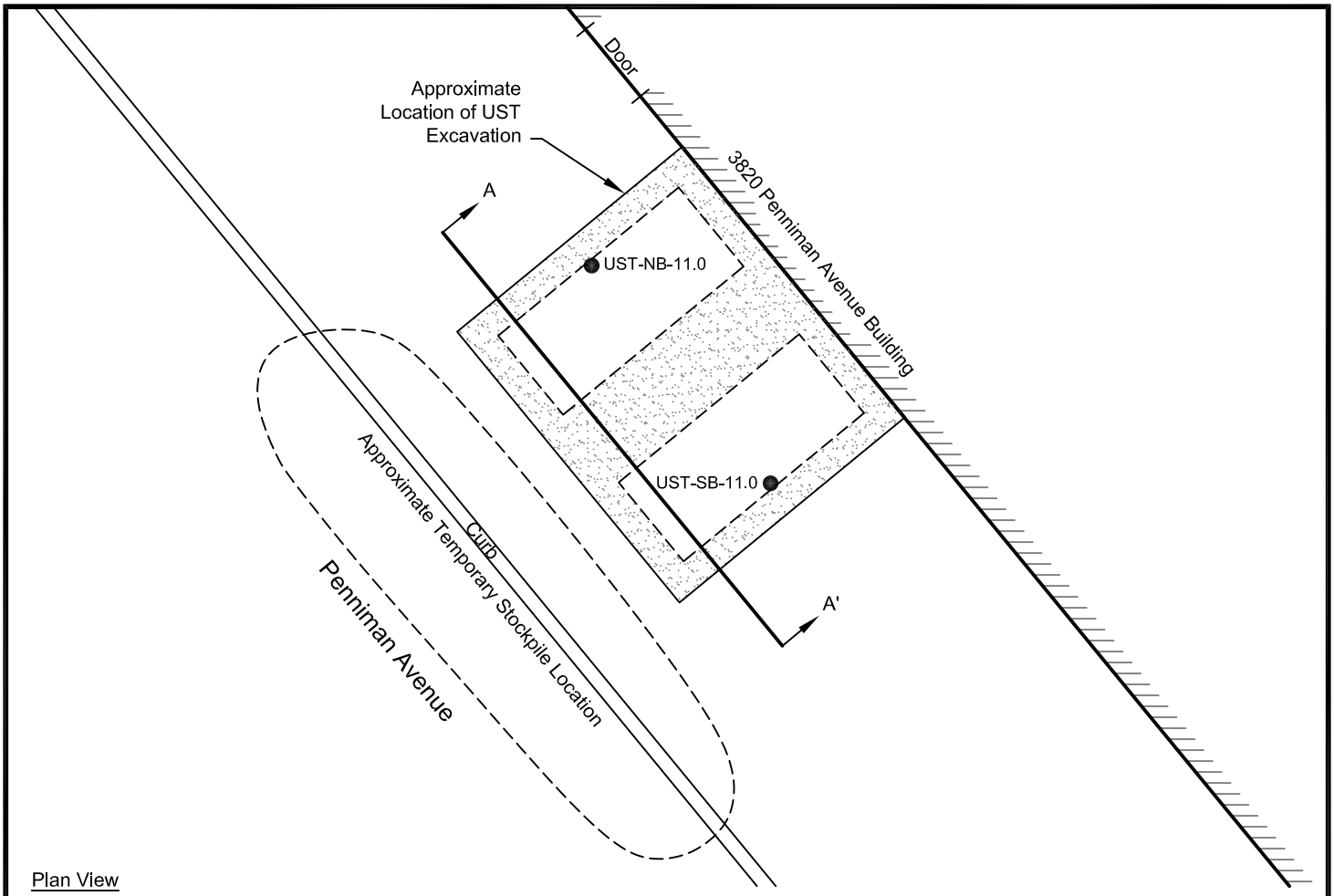
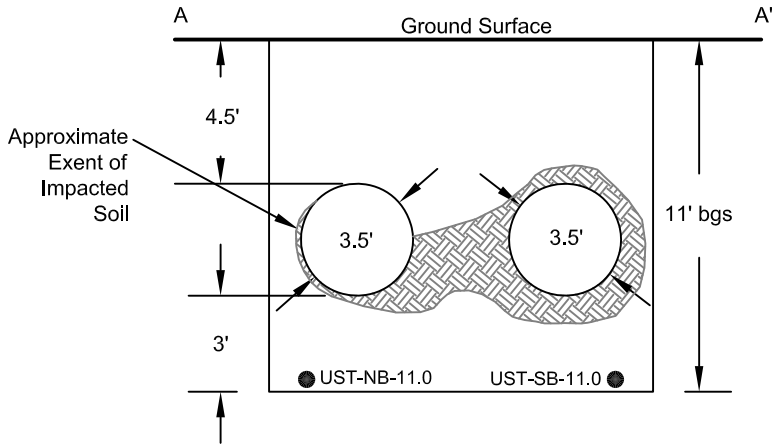


Plan View

Cross Section View



LEGEND:

● Sample location

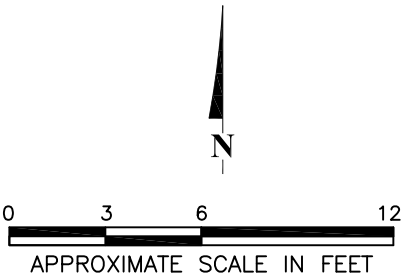


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Diagram of UST Excavation and Sampling
3820 Penniman Avenue
Oakland, California

Figure
3

Drafter: EC | Date: 12/07/15 | Contract Number: 15-1311A

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Tables

Table 1. UST Soil Sample Analytical Results

Analyte	Tier 1 ESLs		Soil Sampling Results	
	Residential (mg/kg)	Commercial (mg/kg)	UST-SB-11.0 (mg/kg)	UST-NB-11.0 (mg/kg)
Total Petroleum Hydrocarbons (TPH) by USEPA Method 8015B				
TPH-g	100	500	93 Y	200 Y
TPH-d	100	108	8.6 Y	41 Y
TPH-mo	100	500	8.6	24
Volatile Organic Compounds (VOCs) by USEPA Method 8260B				
Acetone	0.50	0.50	<0.95	<1.2
Benzene	0.044	0.044	<0.24	<0.29
Bromobenzene	None	None	<0.24	<0.29
Bromodichloromethane	0.48	1.5	<0.24	<0.29
Bromoform	1.7	1.7	<0.24	<0.29
Bromomethane (methyl bromide)	0.28	0.28	<0.48	<0.58
2-Butanone (methyl ethyl ketone)	4.5	4.5	<0.48	<0.58
n-Butylbenzene	None	None	0.35	0.65
sec-Butylbenzene	None	None	<0.24	<0.29
tert-Butylbenzene	None	None	<0.24	<0.29
Carbon disulfide	None	None	<0.24	<0.29
Carbon tetrachloride	0.11	0.11	<0.24	<0.29
Chlorobenzene	1.5	1.5	<0.24	<0.29
Chlorobromomethane (bromochloromethane)	None	None	<0.24	<0.29
Chlorodibromomethane (dibromochloromethane)	6.6	6.6	<0.24	<0.29
Chloroethane (ethyl chloride)	1.1	1.1	<0.48	<0.58
Chloroform	1.1	2.4	<0.24	<0.29
Chloromethane (methyl chloride)	20	20	<0.48	<0.58
2-Chlorotoluene	None	None	<0.24	<0.29
4-Chlorotoluene	None	None	<0.24	<0.29
Cumene (isopropylbenzene)	None	None	<0.24	<0.29
Cymene (p-isopropyltoluene)	None	None	<0.24	<0.29
1,2-Dibromo-3-chloropropane	0.0045	0.0045	<0.24	<0.29
1,2-Dibromoethane (ethylene dibromide)	0.00033	0.00033	<0.24	<0.29
Dibromomethane (methylene bromide)	None	None	<0.24	<0.29
1,2-Dichlorobenzene	1.1	1.1	<0.24	<0.29
1,3-Dichlorobenzene	7.4	7.4	<0.24	<0.29
1,4-Dichlorobenzene	0.59	0.59	<0.24	<0.29

Table 1. UST Soil Sample Analytical Results

Analyte	Tier 1 ESLs		Soil Sampling Results	
	Residential (mg/kg)	Commercial (mg/kg)	UST-SB-11.0 (mg/kg)	UST-NB-11.0 (mg/kg)
Dichlorodifluoromethane (Freon 12)	None	None	<0.48	<0.58
1,1-Dichloroethane (1,1-DCA)	0.20	0.20	<0.24	<0.29
1,2-Dichloroethane (1,2-DCA)	0.0045	0.0045	<0.24	<0.29
1,1-Dichloroethene (1,1-DCE)	1.0	1.0	<0.24	<0.29
cis-1,2-Dichloroethene (cis-1,2-DCE)	0.19	0.19	<0.24	<0.29
trans-1,2-Dichloroethene (trans-1,2-DCE)	0.67	0.67	<0.24	<0.29
Dichloromethane (methylene chloride)	0.077	0.077	<0.95	<1.2
1,2-Dichloropropane	0.12	0.12	<0.24	<0.29
1,3-Dichloropropane	None	None	<0.24	<0.29
2,2-Dichloropropane	None	None	<0.24	<0.29
1,1-Dichloropropene	None	None	<0.24	<0.29
cis-1,3-Dichloropropene	None	None	<0.24	<0.29
trans-1,3-Dichloropropene	None	None	<0.24	<0.29
Ethylbenzene	3.3	3.3	0.32	<0.29
Hexachlorobutadiene	4.3	4.3	<0.24	<0.29
2-Hexanone (methyl butyl ketone)	None	None	<0.48	<0.58
Methyl tert-butyl ether (MTBE)	0.023	0.023	<0.24	<0.29
4-Methyl-2-pentanone (methyl isobutyl ketone)	2.8	2.8	<0.48	<0.58
Naphthalene	1.2	1.2	0.31	0.94
n-Propylbenzene	None	None	0.57	1.1
Styrene	1.5	1.5	<0.24	<0.29
1,1,1,2-Tetrachloroethane	0.0091	0.0091	<0.24	<0.29
1,1,2,2-Tetrachloroethane	0.018	0.018	<0.24	<0.29
Tetrachloroethene (PCE)	0.55	0.70	<0.24	<0.29
Toluene	2.9	2.9	0.25	0.31
1,2,3-Trichlorobenzene	None	None	<0.24	<0.29
1,2,4-Trichlorobenzene	1.5	1.5	<0.24	<0.29
1,1,1-Trichloroethane (1,1,1-TCA)	7.8	7.8	<0.24	<0.29
1,1,2-Trichloroethane (1,1,2-TCA)	0.070	0.070	<0.24	<0.29
Trichloroethene (TCE)	0.46	0.46	<0.24	<0.29
Trichlorofluoromethane (Freon 11)	None	None	<0.24	<0.29
1,2,3-Trichloropropane	None	None	<0.24	<0.29
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	None	None	<0.24	<0.29

Table 1. UST Soil Sample Analytical Results

Analyte	Tier 1 ESLs		Soil Sampling Results	
	Residential (mg/kg)	Commercial (mg/kg)	UST-SB-11.0 (mg/kg)	UST-NB-11.0 (mg/kg)
1,2,4-Trimethylbenzene	None	None	<0.24	0.45
1,3,5-Trimethylbenzene	None	None	0.46	<0.29
Vinyl acetate	None	None	<2.4	<2.9
Vinyl chloride	0.032	0.085	<0.48	<0.58
m-, p-Xylene	2.3	2.3	<0.24	<0.29
o-Xylene	2.3	2.3	<0.24	<0.29
Semi-volatile Organic Compounds (SVOCs) by USEPA Method 8260C				
Acenaphthene	16	16	<0.079	<0.081
Acenaphthylene	13	13	<0.079	<0.081
Anthracene	2.8	2.8	<0.079	<0.081
Azobenzene	None	None	<0.39	<0.41
Benz(a)anthracene	0.38	1.3	<0.079	<0.081
Benzo(a)pyrene	0.038	0.13	<0.079	<0.081
Benzo(b)fluoranthene	0.38	1.3	<0.079	<0.081
Benzo(g,h,i)perylene	27	27	<0.079	<0.081
Benzo(k)fluoranthene	0.38	1.3	<0.079	<0.081
Benzoic acid	None	None	<2.0	<2.0
Benzyl alcohol	None	None	<0.39	<0.41
Bis(2-chloro-1-methylethyl) ether	0.13	0.13	<0.39	<0.41
Bis(2-chloroethoxy)methane	None	None	<0.39	<0.41
Bis(2-chloroethyl)ether	0.000070	0.000070	<0.39	<0.41
Bis(2-ethylhexyl)phthalate	162	575	<0.39	<0.41
4-Bromophenyl phenyl ether	None	None	<0.39	<0.41
Butyl benzyl phthlate	None	None	<0.39	<0.41
p-Chloroaniline	0.053	0.053	<0.39	<0.41
4-Chloro-3-methylphenol	None	None	<0.39	<0.41
Beta-Chloronaphthalene	None	None	<0.39	<0.41
2-Chlorophenol	0.012	0.012	<0.39	<0.41
4-Chlorophenyl phenyl ether	None	None	<0.39	<0.41
Chrysene	3.8	13	<0.079	<0.081
Dibenz(a,h)anthracene	0.11	0.38	<0.079	<0.081
Dibenzofuran	None	None	<0.39	<0.41
Dibutyl phthalate	None	None	<0.39	<0.41

Table 1. UST Soil Sample Analytical Results

Analyte	Tier 1 ESLs		Soil Sampling Results	
	Residential (mg/kg)	Commercial (mg/kg)	UST-SB-11.0 (mg/kg)	UST-NB-11.0 (mg/kg)
1,2-Dichlorobenzene	1.1	1.1	<0.24	<0.29
1,3-Dichlorobenzene	7.4	7.4	<0.24	<0.29
1,4-Dichlorobenzene	0.59	0.59	<0.24	<0.29
3,3-Dichlorobenzidine	0.015	0.015	<0.79	<0.81
2,4-Dichlorophenol	0.30	0.30	<0.39	<0.41
Diethyl phthalate	0.035	0.035	<0.39	<0.41
Dimethyl phthalate	0.035	0.035	<0.39	<0.41
2,4-Dimethylphenol	0.67	0.67	<0.39	<0.41
4,6-Dinitro-2-methylphenol	None	None	<0.79	<0.81
2,4-Dinitrophenol	0.042	0.042	<0.79	<0.81
2,4-Dinitrotoluene	0.00074	0.00074	<0.39	<0.41
2,6-Dinitrotoluene	None	None	<0.39	<0.41
Di-n-octyl phthalate	None	None	<0.39	<0.41
Fluoranthene	40	40	<0.079	<0.081
Fluorene	8.9	8.9	<0.079	<0.081
Hexachlorobenzene	0.31	1.2	<0.39	<0.41
Hexachlorobutadiene	4.3	4.3	<0.24	<0.29
Hexachlorocyclopentadiene	None	None	<0.79	<0.81
Hexachloroethane	5.8	5.8	<0.39	<0.41
Indeno(1,2,3-c,d)pyrene	0.38	1.3	<0.079	<0.081
Isophorone	None	None	<0.39	<0.41
2-Methylnaphthalene	0.25	0.25	<0.079	0.23
2-Methylphenol (o-cresol)	None	None	<0.39	<0.41
3- & 4-Methylphenol	None	None	<0.39	<0.41
Naphthalene	1.2	1.2	0.31	0.94
2-Nitroaniline	None	None	<0.79	<0.81
3-Nitroaniline	None	None	<0.79	<0.81
4-Nitroaniline	None	None	<0.79	<0.81
Nitrobenzene	None	None	<0.39	<0.41
2-Nitrophenol	None	None	<0.79	<0.81
4-Nitrophenol	None	None	<0.79	<0.81
N-Nitrosodimethylamine	None	None	<0.39	<0.41
N-Nitroso-di-n-propylamine	None	None	<0.39	<0.41

Table 1. UST Soil Sample Analytical Results

Analyte	Tier 1 ESLs		Soil Sampling Results	
	Residential (mg/kg)	Commercial (mg/kg)	UST-SB-11.0 (mg/kg)	UST-NB-11.0 (mg/kg)
N-Nitrosodimethylamine	None	None	<0.39	<0.41
Pentachlorophenol	3.0	5.0	<0.79	<0.81
Phenanthrene	11	11	<0.079	<0.081
Phenol	0.076	0.076	<0.39	<0.41
Pyrene	85	85	<0.079	<0.081
1,2,4-Trichlorobenzene	1.5	1.5	<0.24	<0.29
2,4,5-Trichlorophenol	0.18	0.18	<0.39	<0.41
2,4,6-Trichlorophenol	0.52	0.52	<0.39	<0.41
Polychlorinated Biphenyls (PCBs) by USEPA Method 8082				
Aroclor-1016	0.22	0.74	<0.014	<0.014
Aroclor-1221	0.22	0.74	<0.028	<0.029
Aroclor-1232	0.22	0.74	<0.014	<0.014
Aroclor-1242	0.22	0.74	<0.014	<0.014
Aroclor-1248	0.22	0.74	<0.014	<0.014
Aroclor-1254	0.22	0.74	<0.014	<0.014
Aroclor-1260	0.22	0.74	<0.014	<0.014
LUFT 5 Metals by USEPA Method 6010B/7471A				
Cadmium	12	12	<0.29	0.29
Chromium, total	1,000	2,500	55	69
Lead	80	320	7.5	19
Nickel	150	150	130	170
Zinc	600	600	140	360

Notes:

(1) Soil sampling results are reported on dry-weight basis for comparison to San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for residential and commercial land use where groundwater is a current or potential source of drinking water (ESLs Tables A-1 and A-2).

(2) Analytical results reported by Curtis & Tompkins Laboratories in Berkeley, California.

Definitions:

mg/kg = milligrams per kilogram

<1.7 = Not detected at or above the laboratory reporting limit of 1.7 mg/kg

50 = Detection exceeds Residential ESLs

50 = Detection exceeds Commercial ESLs

Y = Sample exhibits chromatographic pattern which does not resemble standard

Table 2. Comparison of Soil Sampling Results to Hazardous Waste Screening Criteria

Analyte	Hazardous Waste Screening Criteria			Soil Sampling Results			
	TTLC (mg/kg)	10×STLC (mg/kg)	20×TCLP (mg/kg)	SP-IMP-151106 (mg/kg)	SP-IMP-151106 WET (mg/L)	SP-FILL-151106 (mg/kg)	SP-FILL-151106 WET (mg/L)
Total Petroleum Hydrocarbons (TPH) by USEPA Method 8015B							
TPH-g	None	None	None	<1.3	–	<1.1	–
TPH-d	None	None	None	16 Y	–	3.5 Y	–
TPH-mo	None	None	None	54	–	15	–
Volatile Organic Compounds (VOCs) by USEPA Method 8260B							
Acetone	None	None	None	<0.024	–	<0.022	–
Benzene	None	None	10	<0.0059	–	<0.0054	–
Bromobenzene	None	None	None	<0.0059	–	<0.0054	–
Bromodichloromethane	None	None	None	<0.0059	–	<0.0054	–
Bromoform	None	None	None	<0.0059	–	<0.0054	–
Bromomethane (methyl bromide)	None	None	None	<0.012	–	<0.011	–
2-Butanone (methyl ethyl ketone)	None	None	4,000	<0.012	–	<0.011	–
n-Butylbenzene	None	None	None	<0.0059	–	<0.0054	–
sec-Butylbenzene	None	None	None	<0.0059	–	<0.0054	–
tert-Butylbenzene	None	None	None	<0.0059	–	<0.0054	–
Carbon disulfide	None	None	None	<0.0059	–	<0.0054	–
Carbon tetrachloride	None	None	10	<0.0059	–	<0.0054	–
Chlorobenzene	None	None	2,000	<0.0059	–	<0.0054	–
Chlorobromomethane (bromochloromethane)	None	None	None	<0.0059	–	<0.0054	–
Chlorodibromomethane (dibromochloromethane)	None	None	None	<0.0059	–	<0.0054	–
Chloroethane (ethyl chloride)	None	None	None	<0.012	–	<0.011	–
Chloroform	None	None	120	<0.0059	–	<0.0054	–
Chloromethane (methyl chloride)	None	None	None	<0.012	–	<0.011	–
2-Chlorotoluene	None	None	None	<0.0059	–	<0.0054	–
4-Chlorotoluene	None	None	None	<0.0059	–	<0.0054	–
Cumene (isopropylbenzene)	None	None	None	<0.0059	–	<0.0054	–
Cymene (p-isopropyltoluene)	None	None	None	<0.0059	–	<0.0054	–
1,2-Dibromo-3-chloropropane	10 (*)	None	None	<0.0059	–	<0.0054	–
1,2-Dibromoethane (ethylene dibromide)	None	None	None	<0.0059	–	<0.0054	–
Dibromomethane (methylene bromide)	None	None	None	<0.0059	–	<0.0054	–
1,2-Dichlorobenzene	None	None	None	<0.0059	–	<0.0054	–
1,3-Dichlorobenzene	None	None	None	<0.0059	–	<0.0054	–
1,4-Dichlorobenzene	None	None	150	<0.0059	–	<0.0054	–

Table 2. Comparison of Soil Sampling Results to Hazardous Waste Screening Criteria

Analyte	Hazardous Waste Screening Criteria			Soil Sampling Results			
	TTLC (mg/kg)	10×STLC (mg/kg)	20×TCLP (mg/kg)	SP-IMP-151106 (mg/kg)	SP-IMP-151106 WET (mg/L)	SP-FILL-151106 (mg/kg)	SP-FILL-151106 WET (mg/L)
Dichlorodifluoromethane (Freon 12)	None	None	None	<0.012	–	<0.011	–
1,1-Dichloroethane (1,1-DCA)	None	None	None	<0.0059	–	<0.0054	–
1,2-Dichloroethane (1,2-DCA)	None	None	10	<0.0059	–	<0.0054	–
1,1-Dichloroethene (1,1-DCE)	None	None	14	<0.0059	–	<0.0054	–
cis-1,2-Dichloroethene (cis-1,2-DCE)	None	None	None	<0.0059	–	<0.0054	–
trans-1,2-Dichloroethene (trans-1,2-DCE)	None	None	None	<0.0059	–	<0.0054	–
Dichloromethane (methylene chloride)	None	None	None	<0.024	–	<0.022	–
1,2-Dichloropropane	None	None	None	<0.0059	–	<0.0054	–
1,3-Dichloropropane	None	None	None	<0.0059	–	<0.0054	–
2,2-Dichloropropane	None	None	None	<0.0059	–	<0.0054	–
1,1-Dichloropropene	None	None	None	<0.0059	–	<0.0054	–
cis-1,3-Dichloropropene	None	None	None	<0.0059	–	<0.0054	–
trans-1,3-Dichloropropene	None	None	None	<0.0059	–	<0.0054	–
Ethylbenzene	None	None	None	<0.0059	–	<0.0054	–
Hexachlorobutadiene	None	None	10	<0.0059	–	<0.0054	–
2-Hexanone (methyl butyl ketone)	None	None	None	<0.012	–	<0.011	–
Methyl tert-butyl ether (MTBE)	None	None	None	<0.0059	–	<0.0054	–
4-Methyl-2-pentanone (methyl isobutyl ketone)	None	None	None	<0.012	–	<0.011	–
Naphthalene	None	None	None	0.012	–	<0.0054	–
n-Propylbenzene	None	None	None	<0.0059	–	<0.0054	–
Styrene	None	None	None	<0.0059	–	<0.0054	–
1,1,1,2-Tetrachloroethane	None	None	None	<0.0059	–	<0.0054	–
1,1,2,2-Tetrachloroethane	None	None	None	<0.0059	–	<0.0054	–
Tetrachloroethene (PCE)	None	None	14	<0.0059	–	<0.0054	–
Toluene	None	None	None	<0.0059	–	<0.0054	–
1,2,3-Trichlorobenzene	None	None	None	<0.0059	–	<0.0054	–
1,2,4-Trichlorobenzene	None	None	None	<0.0059	–	<0.0054	–
1,1,1-Trichloroethane (1,1,1-TCA)	None	None	None	<0.0059	–	<0.0054	–
1,1,2-Trichloroethane (1,1,2-TCA)	None	None	None	<0.0059	–	<0.0054	–
Trichloroethene (TCE)	2,040	2,040	10	<0.0059	–	<0.0054	–
Trichlorofluoromethane (Freon 11)	None	None	None	<0.0059	–	<0.0054	–
1,2,3-Trichloropropane	None	None	None	<0.0059	–	<0.0054	–
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	None	None	None	<0.0059	–	<0.0054	–

Table 2. Comparison of Soil Sampling Results to Hazardous Waste Screening Criteria

Analyte	Hazardous Waste Screening Criteria			Soil Sampling Results			
	TTLC (mg/kg)	10×STLC (mg/kg)	20×TCLP (mg/kg)	SP-IMP-151106 (mg/kg)	SP-IMP-151106 WET (mg/L)	SP-FILL-151106 (mg/kg)	SP-FILL-151106 WET (mg/L)
1,2,4-Trimethylbenzene	None	None	None	<0.0059	–	<0.0054	–
1,3,5-Trimethylbenzene	None	None	None	<0.0059	–	<0.0054	–
Vinyl acetate	None	None	None	<0.059	–	<0.054	–
Vinyl chloride	10 (*)	None	4	<0.012	–	<0.011	–
m-, p-Xylene	None	None	None	<0.0059	–	<0.0054	–
o-Xylene	None	None	None	<0.0059	–	<0.0054	–
Semi-volatile Organic Compounds (SVOCs) by USEPA Method 8260C							
Acenaphthene	None	None	None	<0.084	–	<0.076	–
Acenaphthylene	None	None	None	<0.084	–	<0.076	–
Anthracene	None	None	None	<0.084	–	<0.076	–
Azobenzene	None	None	None	<0.42	–	<0.38	–
Benz(a)anthracene	None	None	None	<0.084	–	<0.076	–
Benzo(a)pyrene	None	None	None	<0.084	–	<0.076	–
Benzo(b)fluoranthene	None	None	None	<0.084	–	<0.076	–
Benzo(g,h,i)perylene	None	None	None	<0.084	–	<0.076	–
Benzo(k)fluoranthene	None	None	None	<0.084	–	<0.076	–
Benzoic acid	None	None	None	<2.1	–	<1.9	–
Benzyl alcohol	None	None	None	<0.42	–	<0.38	–
Bis(2-chloro-1-methylethyl) ether	None	None	None	<0.42	–	<0.38	–
Bis(2-chloroethoxy)methane	None	None	None	<0.42	–	<0.38	–
Bis(2-chloroethyl)ether	None	None	None	<0.42	–	<0.38	–
Bis(2-ethylhexyl)phthalate	None	None	None	0.013 J	–	<0.38	–
4-Bromophenyl phenyl ether	None	None	None	<0.42	–	<0.38	–
Butyl benzyl phthlate	None	None	None	<0.42	–	<0.38	–
p-Chloroaniline	None	None	None	<0.42	–	<0.38	–
4-Chloro-3-methylphenol	None	None	None	<0.42	–	<0.38	–
Beta-Chloronaphthalene	None	None	None	<0.42	–	<0.38	–
2-Chlorophenol	None	None	None	<0.42	–	<0.38	–
4-Chlorophenyl phenyl ether	None	None	None	<0.42	–	<0.38	–
Chrysene	None	None	None	<0.084	–	<0.076	–
Dibenz(a,h)anthracene	None	None	None	<0.084	–	<0.076	–
Dibenzofuran	None	None	None	<0.42	–	<0.38	–
Dibutyl phthalate	None	None	None	<0.42	–	<0.38	–

Table 2. Comparison of Soil Sampling Results to Hazardous Waste Screening Criteria

Analyte	Hazardous Waste Screening Criteria			Soil Sampling Results			
	TTLC (mg/kg)	10×STLC (mg/kg)	20×TCLP (mg/kg)	SP-IMP-151106 (mg/kg)	SP-IMP-151106 WET (mg/L)	SP-FILL-151106 (mg/kg)	SP-FILL-151106 WET (mg/L)
1,2-Dichlorobenzene	None	None	None	<0.0059	–	<0.0054	–
1,3-Dichlorobenzene	None	None	None	<0.0059	–	<0.0054	–
1,4-Dichlorobenzene	None	None	150	<0.0059	–	<0.0054	–
3,3-Dichlorobenzidine	10 (*)	None	None	<0.84	–	<0.76	–
2,4-Dichlorophenol	None	None	None	<0.42	–	<0.38	–
Diethyl phthalate	None	None	None	<0.42	–	<0.38	–
Dimethyl phthalate	None	None	None	<0.42	–	<0.38	–
2,4-Dimethylphenol	None	None	None	<0.42	–	<0.38	–
4,6-Dinitro-2-methylphenol	None	None	None	<0.84	–	<0.76	–
2,4-Dinitrophenol	None	None	None	<0.84	–	<0.76	–
2,4-Dinitrotoluene	None	None	2.6	<0.42	–	<0.38	–
2,6-Dinitrotoluene	None	None	None	<0.42	–	<0.38	–
Di-n-octyl phthalate	None	None	None	<0.42	–	<0.38	–
Fluoranthene	None	None	None	<0.084	–	<0.076	–
Fluorene	None	None	None	<0.084	–	<0.076	–
Hexachlorobenzene	None	None	2.6	<0.42	–	<0.38	–
Hexachlorobutadiene	None	None	10	<0.0059	–	<0.0054	–
Hexachlorocyclopentadiene	None	None	None	<0.84	–	<0.76	–
Hexachloroethane	None	None	60	<0.42	–	<0.38	–
Indeno(1,2,3-c,d)pyrene	None	None	None	<0.084	–	<0.076	–
Isophorone	None	None	None	<0.42	–	<0.38	–
2-Methylnaphthalene	None	None	None	0.066 J	–	<0.076	–
2-Methylphenol (o-cresol)	None	None	4,000	<0.42	–	<0.38	–
4-Methylphenol (p-cresol)	None	None	4,000	<0.42	–	<0.38	–
Naphthalene	None	None	None	0.012	–	<0.0054	–
2-Nitroaniline	None	None	None	<0.84	–	<0.76	–
3-Nitroaniline	None	None	None	<0.84	–	<0.76	–
4-Nitroaniline	None	None	None	<0.84	–	<0.76	–
Nitrobenzene	None	None	40	<0.42	–	<0.38	–
2-Nitrophenol	None	None	None	<0.84	–	<0.76	–
4-Nitrophenol	None	None	None	<0.84	–	<0.76	–
N-Nitrosodimethylamine	10 (*)	None	None	<0.42	–	<0.38	–
N-Nitroso-di-n-propylamine	None	None	None	<0.42	–	<0.38	–

Table 2. Comparison of Soil Sampling Results to Hazardous Waste Screening Criteria

Analyte	Hazardous Waste Screening Criteria			Soil Sampling Results			
	TTLC (mg/kg)	10×STLC (mg/kg)	20×TCLP (mg/kg)	SP-IMP-151106 (mg/kg)	SP-IMP-151106 WET (mg/L)	SP-FILL-151106 (mg/kg)	SP-FILL-151106 WET (mg/L)
N-Nitrosodiphenylamine	None	None	None	<0.42	–	<0.38	–
Pentachlorophenol	17	17	2,000	<0.84	–	<0.76	–
Phenanthrene	None	None	None	<0.084	–	<0.076	–
Phenol	None	None	None	<0.42	–	<0.38	–
Pyrene	None	None	None	<0.084	–	<0.076	–
1,2,4-Trichlorobenzene	None	None	None	<0.0059	–	<0.0054	–
2,4,5-Trichlorophenol	None	None	8,000	<0.42	–	<0.38	–
2,4,6-Trichlorophenol	None	None	40	<0.42	–	<0.38	–
Polychlorinated Biphenyls (PCBs) by USEPA Method 8082							
Aroclor-1016	50	50	None	<0.015	–	<0.013	–
Aroclor-1221	50	50	None	<0.030	–	<0.027	–
Aroclor-1232	50	50	None	<0.015	–	<0.013	–
Aroclor-1242	50	50	None	<0.015	–	<0.013	–
Aroclor-1248	50	50	None	<0.015	–	<0.013	–
Aroclor-1254	50	50	None	<0.015	–	<0.013	–
Aroclor-1260	50	50	None	<0.015	–	<0.013	–
CAM17 Metals by USEPA Method 6010B/7471A							
Antimony	500	150	None	0.38	–	0.36	–
Arsenic	500	50	100	7.7	–	8.0	–
Barium	10,000	1,000	2,000	220	–	200	–
Beryllium	75	7.5	None	0.61	–	0.66	–
Cadmium	100	10	20	1.5	–	0.35	–
Chromium, total	2,500	50	100	87	<0.25	82	<0.25
Cobalt	8,000	800	None	19	–	19	–
Copper	2,500	250	None	48	–	37	–
Lead	1,000	50	100	42	–	23	–
Mercury	20	2	4	0.23	–	0.12	–
Molybdenum	3,500	3,500	None	0.72	–	1.1	–
Nickel	2,000	200	None	110	–	94	–
Selenium	100	10	20	0.32	–	0.30	–
Silver	500	50	100	<0.29	–	<0.26	–
Thallium	700	70	None	<0.29	–	<0.26	–
Vanadium	2,400	240	None	65	–	63	–

Table 2. Comparison of Soil Sampling Results to Hazardous Waste Screening Criteria

Analyte	Hazardous Waste Screening Criteria			Soil Sampling Results			
	TTLC (mg/kg)	10×STLC (mg/kg)	20×TCLP (mg/kg)	SP-IMP-151106 (mg/kg)	SP-IMP-151106 WET (mg/L)	SP-FILL-151106 (mg/kg)	SP-FILL-151106 WET (mg/L)
Zinc	5,000	2,500	None	220	–	180	–

Notes:

(1) Soil sampling results are compared to hazardous waste screening criteria consisting of the Total Threshold Limit Concentration (TTLC), 10 times the Soluble Threshold Limit Concentration (10×STLC), and 20 times the Toxicity Characteristic Leaching Procedure limit (20×TCLP).

(2) California Waste Extraction Test (WET) was performed and analyzed for total chromium.

(3) Analytical results reported by Curtis & Tompkins Laboratories in Berkeley, California.

Definitions:

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

<1.7 = Not detected at or above the laboratory reporting limit of 1.7 mg/kg

– = Sample not analyzed for particular analyte.

Y = Sample exhibits chromatographic pattern which does not resemble standard

50 = Detection exceeds 10×STLC

Attachment 1:
Copies of ACEH and Oakland Closure Permits

JOB SITE

Permits for which no major inspection has been approved within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.

CHECK REVERSE

CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA ▪ 2ND FLOOR ▪ OAKLAND, CA 94612

Planning and Building Department
www.oaklandnet.com

PH: 510-238-3891
FAX: 510-238-2263
TDD: 510-238-3254

Permit No: X1502478 OPW - Excavation **Filed Date:** 10/28/2015

Job Site: 3820 PENNIMAN AVE **Schedule Inspection by calling:** [redacted]

Parcel No: 032 203112600

District:

For SL; X; and CGS permits see **SPECIAL NOTE** below

Project Description: Excavate to remove existing underground storage tank in sidewalk area.
If working within 25' feet of a monument you must comply with State Law 8771, contact the Inspector prior to starting excavation: minimum $5,800.00 fine for non-compliance.
Comply with all terms of City of Oakland Public Works Standards, Street Excavation Rules, Revised March 2015 and City Council Ordinance No. 13300 C.M.S. Five day prior notice required for work lasting five days or less in business/commercial districts; 72 hour notice in residential districts. Ten day prior notice required for work lasting six days or more in all districts.
FIRE MARSHAL review required. 3rd FLOOR.
Call PWA INSPECTION prior to start: 510-238-3651. 4th FLOOR.

Related Permits: X1501035

	Name	Applicant	Address	Phone	License #
Owner:	LAU KUEN C & KWAN SAR P		3701 LAKESHORE AVE OAKLAND, CA		
Contractor:	GOLDEN GATE TANK REMOVAL INC	X	1455 YOSEMITE AVENUE SAN FRANCISCO	(415) 512-1555	616521

PERMIT DETAILS: Building/Public Infrastructure/Excavation/NA

General Information

Excavation Type: Private Party
Special Paving Detail Required:
Tree Removal Involved:
Date Street Last Resurfaced:
Holiday Restriction (Nov 1 - Jan 1):
Worker's Compensation Company Name:
Limited Operation Area (7AM-9AM) And (4PM-6PM):
Worker's Compensation Policy #:

Key Dates

Approximate Start Date:
Approximate End Date:

TOTAL FEES TO BE PAID AT FILING: $434.91

Application Fee	$70.00	Excavation - Private Party Type	$309.00	Records Management Fee	$36.01
Technology Enhancement Fee	$19.90				

Plans Checked By _____ Date _____ Permit Issued By _____ Date 10/28

Finalized By _____ Date _____

SPECIAL NOTE

- For SL; X; and CGS permits Call PWA INSPECTION prior to start: 510-238-3651 or visit 4th FLOOR.
- SL and X permits valid 90 days; CGS permits valid 30 days

Oakland Fire Department, Fire Prevention Bureau
250 Frank H. Ogawa Plaza, Ste. 3341
Oakland, CA 94612-2032

(510) 238-3851
TTY (510) 238-6884

Inspection Work Order

Business Name:	Golden Gate Tank Removal Inc.	Reason:	Tanks
Address:	3820 PENNIMAN AVE	Scheduled:	2015-10-29 2:00PM
Job (Insp Ref#):	2015-39505	Assigned To:	Skillern,Sheryl

Comments: Underground Tank Removal application for review & 1 insp. Gina Wee w/Golden Gate Tank Remo Inc., 415-512-1555. PAID $668.00.

Invoice #	2015-38172	Applicant:	
Invoice Amount	668.00	Applicant Ph#:	
		Contractor:	
		Contractor Ph#:	

Contact Name	Gina Wee
Field Contact #	415-512-1555
Plan Drop Off Company	Golden Gate Tank Rer

REVIEWED AND APPROVED
OAKLAND FIRE DEPARTMENT
BY:
TITLE: HAZ MAT INSP
DATE: 11/3/15
ALL INSPECTIONS REQUIRE
48 HOURS NOTICE

CITY OF OAKLAND
FIRE PREVENTION BUREAU
250 Frank Ogawa Plaza, Ste. 3341
OAKLAND, CALIFORNIA 94612-2032
(510) 238-3851

APPLICATION for PERMIT to INSTALL, REMOVE or REPAIR TANKS

In the CITY OF OAKLAND

Request Submittal Date: 10/28/15

PLEASE CIRCLE APPROPRIATE ACTIONS: Application is hereby made for permit to:

(a) Remove (b) Install (c) Repair (d) Modify (e) Abandon/Close in Place A

(a) Gasoline (b) Fuel oil (c) Diesel (d) Water Tank tank(s) and excavate, commencing:

(a) four feet inside the curb line*; (b) inside the property line; (c) aboveground; (d) underground tank(s)
*inside curb line, please attach copy of sidewalk/excavation permit from PLANNING AND BUILDING

on the sidewalk side of _____ St./Ave. _____ feet _____ of Penniman Ave. St./Ave.

Site Address: 3820 Penniman Ave, Oakland, 94619 Present storage Gasoline & Water Tanks

Owner: Kuen C. Lau & Sar P. Kwan Address 3701 Lakeshore Ave Phone 510-543-3300

Oakland CA 94610

Applicant: Golden Gate Tank Removal, Inc. Address 1480 Carroll Ave. Phone (415) 512-1555

San Francisco CA 94124

Sidewalk surface to be disturbed ____X____ Number of Tanks 2 (two) Capacity 750 & 1000 Gallons ea.

Remarks _____

Signature _____

PLEASE ATTACH/SUBMIT: *(All applicants must have a City Business License Permit)*

- (2) Copies of Closure Plans for underground tank removal(s)
- (2) Sets of plans and (1) copy of specifications for above ground tank removal
- (2) Sets of plans and (2) sets of application packets for underground tank installation/modifications
- (2) Sets of plans for aboveground tank installation and specifications
- copy or prepare to show Planning and Building approval for aboveground tank removal and tank repair

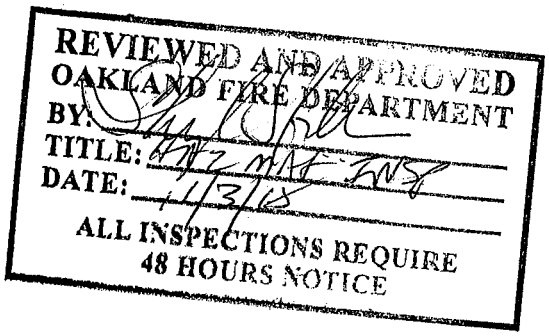
NOTE: FOR TANK INSTALLATION PLEASE SUBMIT THIS APPLICATION FORM ALONG WITH A APPLICATION FOR PERMIT TO OPERATE, MAINTAIN OR STORE

FOR OFFICE USE ONLY

Permit No. _____ Amt. Recv'd _____ Date Issued: _____
Copies to: Electrical Inspection Ck# _____ Cash _____
Receipt# _____ Recv'd by: _____

rev:05/98

REVIEWED AND APPROVED
OAKLAND FIRE DEPARTMENT
BY: [signature]
TITLE: HAZ MAT INSP
DATE: 11/3/15
ALL INSPECTIONS REQUIRE 48 HOURS NOTICE



ONSITE CLEANING OR CUTTING OF UNDERGROUND TANKS

Various circumstances at underground tank removals may make on-site cutting of tanks necessary or advantageous. Due to the inherent safety, health and environmental hazards, Golden Gate Tank Removal, Inc. has imposed the following conditions on cutting of any tanks that have held hazardous material of waste.

1. The local fire department shall be advised in advance of planned on-site cutting, or of any change from approved plans to include on-site cutting. The cutting of any tank that previously held flammable and/or combustible liquids shall be approved in advance by the local Fire Department inspector.

2. Tanks shall be completely emptied and the contents handled in accordance with all pertinent regulations.

3. To minimize release of the hazardous waste, any tank to be cut in place shall be cleaned to render it non-hazardous. The final Rinsate or interior wipe sample shall not exceed 100 PPM of product verified by laboratory analysis: or the tank shall be evinced as cleaned to bare metal. Rinsate shall be handled in accordance with all pertinent regulations.

4. Any tank that held flammable or combustible liquid shall be inerted prior to cutting. A minimum of 3 pounds of dry ice per 100 gallons of capacity shall be used for a flammable liquid tank. The atmosphere in the tank shall be maintained below 5% of Lower Explosive Limit (LEL) throughout cutting.

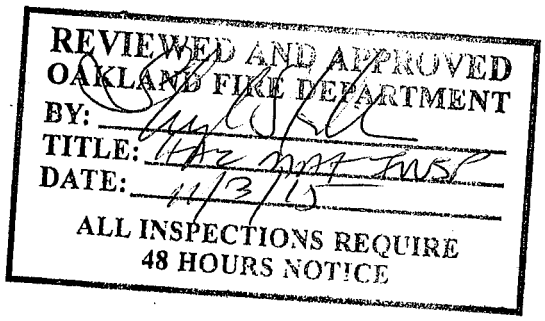
5. Cutting implements shall be approved for use prior to the cutting of any tank. Tanks that are properly inerted may be cut with gas torches only with approval from the local Fire Department. Edged tools may be used in the tank if it is properly inerted. Edged tools shall be lubricated with cutting oil or water spray.

6. At least one charged 20BC Fire extinguisher shall be kept on-site, immediately accessible to the workers performing the cutting.

7. Occupational Health and Safety provisions of Title 8, California Code of Regulations, shall be observed, including but not limited to site safety plans, confined space entry, respirators and other personal protection equipment and sanitation.

8. All other pertinent regulations, including but not limited to those of the local departments of Public Health, Fire and Public Works, the Bay Area Air Quality Management District and the Bay Regional Water Quality Control Board, shall be observed.

1480 Carroll Avenue - San Francisco, CA 94124- Tel.: 415.512.1555 Fax: 415.512.0964
General Engineering Contractors License No. 616521



SCOPE OF WORK

14. Empty and clean the underground tanks using a high pressure hot water pressure washer and have a licensed hazardous waste hauler dispose of the fuel and the rinse water at a State Certified Treatment Facility for recycling.

15. To reduce the possibility of a fire, as needed, we will reduce the oxygen content of each tank by displacing the combustible vapors prior to removal of the tank. This will be completed by inserting a minimum of 3 pounds of solid carbon dioxide (dry ice) for every 100 gallons of tank volume as required by the Oakland Fire Prevention Bureau.

16. We will remove exposed vent lines, fill pipes, and cut and plug product lines.

17. Remove two – one 750 gallon or less and one 1000 gallon or less underground fuel tanks from the excavations and place on the street for inspection by the Alameda County Department of Environmental Health and Oakland Fire Prevention Bureau. .

18. Upon the approval of the Alameda County Department of Environmental Health and Oakland Fire Prevention Bureau, we will load the tanks on a licensed hazardous waste truck, have the tanks transported to a state certified treatment facility for final cleaning, then transport to a metal recycler or obtain a clean rinse sample from the tanks and certify them as non-hazardous. The tanks would then be transported to a metal recycler.

19. At the direction of the Alameda County Department of Environmental Health and ~~Oakland Fire Prevention Bureau~~ SSS, others (Iris Environmental) will take samples from each tank. Two sample extractions two feet below the bottom of the each former tank and one sample from the tank stockpile as required by the Alameda County Department of Public Health observing correct sampling protocol.

20. Others (Iris Environmental) will provide for state certified laboratory analysis of required samples with a Chain of Custody record.

21. As required by Alameda County Department of Environmental Health ~~and Oakland Fire Prevention Bureau~~ SSS, the sample analysis will be for Total (Extractable) Petroleum Hydrocarbons (TPH), Benzene, Toluene, Ethyl Benzene & Xylene (BTEX), Methyl Tertiary Butyl Ether (MTBE), Naphthalene, PCBs and metals or other required analysis.

22. Upon approval of the Alameda County Department of Environmental Health we will backfill the excavations with the stockpiled soil that was stored on-site and with import fill sand and/or base rock and compact.

23. Prepare the sidewalk area for resurfacing by saw cutting the edges of the surrounding surface.

24. The sidewalk area will be resurfaced to match surrounding with structural concrete and have a minimum compressive strength (f'c) 2000 psi at 28 days. We will try to match the surrounding concrete color as close as possible.

25. The concrete sidewalk will be a minimum of 3-1/2 inches thick and comply with the applicable regulations in Oakland Department of Public Works.

SCOPE OF WORK

26. The excavation will be covered at night with 1-1/8 inch plywood and a 4-foot high metal fence will be placed around the work area.

REVIEWED AND APPROVED
OAKLAND FIRE DEPARTMENT
BY:
TITLE: HAZ MAT INSP
DATE: 11/3/15
ALL INSPECTIONS REQUIRE
48 HOURS NOTICE

1.0 PURPOSE

This operating procedure establishes minimum procedures for protecting personnel against the hazardous properties during the performance of the removal of an underground storage tank and related activities. All employees and subcontractors of Golden Gate Tank Removal shall follow this plan. This plan is developed to work with the California Occupational Safety and Health Code to quickly prepare and issue a site safety plan for the removal of an underground storage tank and the related activities.

2.0 APPLICABILITY

This procedure is applicable to the removal of underground storage tanks and the related activities. Listed below are some of, but not limited to, the activities and substances that may be encountered during the project.

Activities:

The work to be performed will include: the excavation of potentially contaminated soil in order to expose the underground storage tank, the stock piling of soil, the removal and manifested disposal of the tank, the recovery of soil samples from the excavation and stockpiled soil, and the backfill and resurfacing of the excavation.

Substances:

- Diesel Fuel Oil (Home Heating Oil)
- Lead and Unleaded Gasoline
- Diesel Fuel
- Motor Oil (used and unused)

3.0 RESPONSIBILITY AND AUTHORITY

Personnel responsible for project safety are the business unit's Health and Safety Officer (HSO), the Project Manager (PM), and the Site Safety Officer (SSO).

The HSO is responsible for reviewing and approving the site safety plan and advising both the PM an SSO on health and safety matters. The HSO has the authority to audit compliance with the provisions of the site safety plan, suspend work or modify work practices for safety reasons, and to dismiss from the site any individual whose conduct on-site endangers the health and safety of themselves and/or others.

The PM is responsible for having the site safety plan prepared and distributed to all field personnel and to an authorized representative of each firm contracted to assist with the on-site work.

MINIMUM VERIFICATION ANALYSES FOR UNDERGROUND STORAGE TANK SITES

Alameda County Department of Environmental Health

Certified Unified Program Agency (CUPA) and Local Oversight Program (LOP)

1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700 http://www.acgov.org/aceh/

This document describes required laboratory analyses for soil and groundwater samples collected for underground storage tank (UST) sites. These requirements replace those previously described in the Unidocs guidance document entitled, "Recommended Minimum Verification Analyses for Underground Storage Tank Leaks" (UN-078). Analytes may be added or deleted during site characterization and remediation with approval from ACDEH.

Material Stored	Analytes	Analytical Method	
		Soil	Groundwater
Gasoline Leaded or Unleaded	TPH as gasoline C5-C12	EPA 8260B/C	EPA 8260B/C
	BTEX, MTBE, TBA, naphthalene, EDB, EDC , and ethanol[2]	EPA 8260B/C	EPA 8260B/C
	Lead[3]	EPA 6010	No analysis[4]
Unknown Fuel	Same analytes as for gasoline	As above	As above
	TPH as diesel C12-C22	EPA 8015	EPA 8015
Diesel, Jet Fuel, Kerosene, or Fuel Oil	TPH specific to fuel (e.g. TPH as kerosene)	EPA 8015	EPA 8015
	BTEX, MTBE, and naphthalene	EPA 8260B/C	EPA 8260B/C
Chlorinated Solvents	Volatile Organic Compounds (full scan including BTEX, naphthalene, and chlorinated hydrocarbons)	EPA 8260B/C full scan	EPA 8260B/C full scan
	TPH as Stoddard Solvent C7-C12	EPA 8015	EPA 8015
Waste Oil, Used Oil, Unknown Oil, or Bunker Fuel	TPH as gasoline C5-C12	EPA 8260B/C	EPA 8260B/C
	TPH as diesel C12-C22	EPA 8015	EPA 8015
	TPH as motor oil C23-C32[5]	EPA 8015	No analysis[4]
	Volatile Organic Compounds (full scan including BTEX, MTBE, TBA, naphthalene, and chlorinated hydrocarbons)	EPA 8260B/C full scan	EPA 8260B/C full scan
	Metals: Cd, Cr, Pb, Ni, Zn	EPA 6010	No analysis[4]
	PCBs	EPA 8082A	EPA 8082A
	Semi Volatile Organic Compounds (including PAHs[6], pentachlorophenol, and creosote)	EPA 8270	EPA 8270

Notes:

1. Silica gel cleanup is not to be performed for any of the above analyses.
2. Benzene, Toluene, Ethylbenzene, Xylenes (BTEX), Methyl tertiary Butyl Ether (MTBE), Tert Butyl Alcohol (TBA), lead scavengers Ethylene Dibromide (EDB) and Ethylene Dichloride (EDC), and ethanol. Additional fuel oxygenates Tert amyl ether (TAME), di-isopropyl ether (DIPE), and Ethyl t-butyl ether (ETBE) may be added as optional analytes.
3. Organic lead may be added as an optional analyte at fuel leak sites where lead is an analyte.
4. No groundwater sample for metals or TPH as motor oil is required unless requested by ACEH.
5. For USTs that potentially contained oils that are not petroleum-based, analysis for hexane extractable materials using EPA Method 9071B for soil and EPA Method 1664 for water is required.
6. Polycyclic aromatic hydrocarbon (PAH) analysis must include naphthalene, acenaphthene, acenaphthylene, anthracene, chrysene, fluorine, fluoranthene, phenanthrene, pyrene, benzo(b)fluoranthene, benzo(a)pyrene, benzo(k)fluoranthene, benzo(a)anthracene, indeno(1,2,3-c,d)pyrene, dibenz(a,b)anthracene, and benzo(g,h,i)perylene.

ALAMEDA COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 HARBOR BAY PARKWAY
ALAMEDA, CA 94502-6577
PHONE (510) 567-6700

ACCEPTED
Underground Storage Tank Closure Permit Application
Alameda County Division of Hazardous Materials
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

These closure/removal plans have been received and found to be acceptable and essentially meet the requirements of State and Local Health Laws. Changes to your closure plans indicated by this Department are to assure compliance with State and local laws. The project proposed herein is now released for issuance of any required building permits for construction/destruction.
One copy of the accepted plans must be on the job and available to all contractors and craftsmen involved with the removal.
Any changes or alterations of these plans and specifications must be submitted to this this Department and to the Fire and Building Inspections Department to determine if such changes meet the requirements of State and local laws. Notify this Department at least 72 hours prior to the following required inspections:

- Removal of Tank(s) and Piping
- Sampling
- Final Inspection

Issuance of a) permit to operate, b) permanent site closure, is dependent on compliance with accepted plans and all applicable laws and regulations.

"THERE IS A FINANCIAL PENALTY FOR NOT OBTAINING THESE INSPECTIONS."

Contact Specialist:

10/19/15

Barbara Jakub
barbara.jakub@acgov.org
510-567-6737
Approved 10/19/2015

UNDERGROUND STORAGE TANK CLOSURE PLAN

*** * * Complete closure plan according to instructions * * ***

1. Name of Business 3820 Penniman Ave.

   Business Owner or Contact Person **(PRINT)** _____

2. Site Address 3820 Penniman Avenue

   City, State Oakland, CA Zip 94619 Phone 510-543-3300

3. Mailing Address 3701 Lakeshore Avenue

   City, State Oakland, CA Zip 94610 Phone 510-543-3300

4. Property Owner Kuen C. Lau and Sar P Kwan

   Business Name (if applicable) _____

   Address 3701 Lakeshore Avenue

   City, State Oakland, CA Zip 94610 Phone 510-543-3300

5. Generator name under which tank will be manifested

   Kuen C. Lau and Sar P Kwan

   EPA I.D. No. under which tank(s) will be manifested C A C 0 0 2 8 3 1 8 1 7

OCTOBER 16, 2015

SR0028794

6. Contractor Golden Gate Tank Removal, Inc.

   Address 1480 Carroll Avenue

   City, State San Francisco, CA Zip 94124 Phone 415-512-1555

   License Type A C-8, Haz ID# 616521

7. Consultant (if applicable) Iris Environmental

   Address 1438 Webster, #302

   City, State Oakland Zip 94612 Phone 510-834-4747

8. Main Contact Person for Investigation (if applicable)

   Name Tim Hallen Title Project Manager

   Company Golden Gate Tank Removal, Inc.

   Phone 415-512-1555

9. Number of underground tanks being closed with this plan 2(two)

   Length of piping being removed under this plan up to 15 feet

   Total number underground tanks at this facility (**confirmed with owner or operator) two

10. State Registered Hazardous Waste Transporters/Facilities (See Instructions).

    a) Product/Residual Sludge/Rinsate Transporter

       Name NRC Environmental Services EPA I.D. No. CAR000030114

       Hauler License No. 114013 License Exp. Date

       Address 1605 Ferry Point

       City, State Alameda, CA Zip 94501

    b) Product/Residual Sludge/Rinsate Disposal Site

       Name Riverbank Oil Transfer, LLC EPA I.D. No. CAL000190816

       Address 5300 Claus Road, Bldg 11

       City, State Riverbank, CA Zip 95367

c) Tank and Piping Transporter

Name Golden Gate Tank Removal, Inc. (Dispose & Transport as Non Haz) EPA I.D. No. _____

Hauler License No. _____ License Exp. Date _____

d) Tank and Piping Disposal Site

Name Circosta Scrap Metal EPA I.D. No. CAD983650797

Address 1801 Evans Ave.

City, State San Francisco, CA Zip 94124

11. Sample Collector

Name Craig Pelletier

Company Iris Environmental

Address 1438 Webster, #302

City, State Oakland, CA Zip 94612 Phone 510-834-4747

12. Laboratory

Name _____

Company Curtis & Thompkins Laboratories

Address 2323 5th Street

City, State Berkeley, CA Zip 94710

State Certification No. _____

13. Have tank(s) or piping leaked in the past? Yes [ ] No [ ] Unknown [X]

If yes, describe: _____

14. Describe method(s) to be used for rendering tank(s) inert:

Flush lines and triple rinse with water, if necessary

Removal of product, purge, introduce dry ice to reduce vapors

Remove the tanks

Certify it as clean or non hazardous

Haul tanks as scrap metal

Haul rinsate as haz mat under manifest

Before tank(s) are pumped out and inerted, all associated piping must be flushed back into the tank(s). All accessible piping must then be removed. Inaccessible piping must be permanently plugged using grout.

The Bay Area Air Quality Management District, (415) 771-6000, along with local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of a combustible gas indicator to verity tank inertness. **It is the contractor's responsibility to have a functional combustible gas indicator on-site to verity that the tank(s) is inerted.**

15. Tank History and Sampling Information ***(See Instructions)***

Tank		Material to be sampled (tank contents, soil, groundwater)	Location and Depth of Sample(s)
Capacity (gallons)	Use History include date last used (estimated)		
750 Gallons & 1000 Gallons	Unknown	Soil samples & water if present	1.stockpile 2.north/east end of excavation 3.south/west end of excavation Bottom of tank – max 15 feet

One soil sample must be collected for every 20 linear feet of underground piping that is removed. A groundwater sample must be collected if any groundwater is present in the excavation.

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (estimated) 10-20 yards	Sampling Plan 4 point composite for every 50 cubic yards Or 4 point composite for every 20 cubic yards

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

Will the excavated soil be returned to the excavation immediately after tank removal?

[ ] yes [ ] no [X] unknown

If yes, explain reasoning _____

_____

If unknown at this point in time, please be aware that **excavated soil may not be returned to the excavation without <u>prior</u> approval from this office. This means that the contractor, consultant, or responsible party must communicate with the Specialist IN ADVANCE of backfilling activities.**

16. Chemical methods and associated detection limits to be used for analyzing sample(s):

The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits shall be followed.

See Table 2, Recommended Minimum Verification Analyses for Underground Tank Leaks.

Contaminant Sought	EPA or Other Sample Preparation Method Number	EPA or Other Analysis Method Number	Method Detection Limit
See attached minimum verification analyses			

17. Submit Site Health and Safety Plan (See Instructions)

18. Submit Worker's Compensation Certificate copy

    Name of Insurer State Fund Compensation Insurance

19. Submit Plot Plan ***(See Instructions)***

20. Enclose Deposit (See Instructions)

21. **Report all leaks or contamination to this office within 5 days of discovery.** The written report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report (URL) form.

22. **Submit a closure report to this office within 60 days of the tank removal. The closure report must contain all information listed in item 22 of the instructions.**

23. Submit State (Underground Storage Tank Permit Application) Forms A and B (one-B form for each UST to be removed) (mark box 8 for "tank removed" in the upper right hand corner).

I declare that to the best of my knowledge and belief that the statements and information provided above are correct and true.

I understand that information, in addition to that provided above, may be needed in order to obtain approval from the Environmental Protection Division and that no work is to begin on this project until this plan has been approved.

I understand that any changes in design, materials, or equipment will void this plan if prior approval is not obtained.

I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections.

CONTRACTOR INFORMATION

Name of Business Golden Gate Tank Removal, Inc.

Name of Individual Annette Chen - Project Coordinator

Signature _____ Date 9/30/2015

[X] PROPERTY OWNER OR [ ] MOST RECENT TANK OPERATOR (Check one)

Name of Business Sar P Lau

Name of Individual Kuen C. Lau and Sar P Kwan

Signature _____ Date 9/30/2015

Attachment 2:
Copies of Waste Disposal Records

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAC002831817	1	NRC 510.749.1390	014378660 JJK

GENERATOR

5. Generator's Name and Mailing Address
KUEN C LAU & SAR P. KWAN
3701 LAKESHORE AVE
OAKLAND CA 94610
Attn: WILSON LAU
Generator's Phone: 510 543 3300

Generator's Site Address (if different than mailing address)
KUEN C LAU & SAR P. KWAN
3820 PENNIMAN AVE
OAKLAND CA 94619

6. Transporter 1 Company Name
NRC ENVIRONMENTAL SERVICES INC

U.S. EPA ID Number
CAR000030114

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Riverbank Oil Transfer, LLC
5300 Claus Road, Bldg. 11
Riverbank CA 95367
Facility's Phone: 209 863-8181

U.S. EPA ID Number
CAL000190816

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NON-RCRA HAZARDOUS WASTE, LIQUID (OILY WATER)	001	TT	1500	G	223
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
WEAR PROPER PERSONAL PROTECTIVE EQUIPMENT, JOB/PO# 99576
NRC ENVIRONMENTAL SERVICES: 1605 FERRY POINT, ALAMEDA, CA 94501

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
		11		

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year
		11	6	15

Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name	Signature	Month	Day	Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

3820 PENNIMAN AVE.
OAKLAND

Circosta Iron and Metal Company Inc.

415-282-8568
1801 Evans Avenue
San Francisco CA 94124

RC2707

Tick# 125810 By Sam 8:10:52 AM 11/10/2015

Gross	Tare	Net Lbs	Price	Amount
HMS - HMS #1			(SC=$50.00)	
10,420.00	9,140.00	1,280.00	50.00	32.00
Amt (Before Tax)				32.00
Sales Tax (0.08%)				0.00
Amt (After Tax)				$32.00
		Ticket Total		32.00

* THIRTY-TWO AND XX / 100

Date	Mode	Trn #	Amount
11/10/2015	Cash		32.00

Print Name: ADAN RODRIGUEZ

CUSTOMER COPY

Address: 3660 LYON AVE

City/ST/Zip: OAKLAND/CA/94601

State of issuance:

PAID
BY:
NOV 10 2015

I hereby state that I'm the lawful owner of the material described heron, that I have a right to sell same, that all REDEMPTION material is in fact valid REDEMPTION material and that for payment received in full, hereby acknowledged,

Circosta Iron and Metal Company Inc.

X

You must return this receipt 3 days or later to receive money. THANK YOU!

SITE
KELLER CANYON LANDFILL
Pittsburg, CA 925-458-9800

CUSTOMER
674678
Golden Gate Tank Removal, Inc.
1455 Yosemite Ave
San Francisco, CA 94124
42121519333

SITE	TICKET #	CELL
01	1039475	

WEIGHMASTER: Felipe C.

DATE/TIME IN	DATE/TIME OUT
11-17-2015 11:34 am	11-17-2015 11:58 am

VEHICLE	CONTAINER
RJN975	

REFERENCE: INVOICE

BILL OF LADING:

SCALE IN	GROSS WEIGHT	66,460	NET TONS	14.92	
SCALE OUT	TARE WEIGHT	36,620	NET WEIGHT	29,840	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
20.00	YD	TRACKING QTY				
14.92	TN	SW-BENEFICIAL REUSE OAKLAND				
1.00		ENVIRONMENTAL FEE 1				
1.00		FUEL RECOVERY FEE				

WEIGHMASTER CERTIFICATE - This is to certify that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accurace, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food & Agriculture.

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/12)

SIGNATURE

NET AMOUNT
TENDERED
CHANGE
CHECK#

REPUBLIC SERVICES, INC.

NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

If waste is asbestos waste, complete Sections I, II, III and IV
If waste is NOT asbestos waste, complete Sections I, II and III

I. GENERATOR (Generator completes Ia-r)

a. Generator's US EPA ID Number	b. Manifest Document Number	c. Page 1 of
N/A		3

d. Generator's Name and Location:	e. Generator's Mailing Address:
Kuen C. Lau and Sar P. Kwan 3820 Penniman Avenue Oakland, CA 94619 f. Phone:510-834-4747	Kuen C. Lau and Sar P. Kwan 3701 Lakeshore Avenue Oakland, CA 94610 g. Phone:510-834-4747
If owner of the generating facility differs from the generator, provide: h. Owner's Name:	i. Owner's Phone No.:

j. Waste Profile #	k. Exp. Date	l. Waste Shipping Name and Description	m. Containers No.	m. Containers Type	n. Total Quantity	o. Unit Wt/Vol
42121519333	11/09/2016	Soil	1	T	18	Y

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if this waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR 268 and is no longer a hazardous waste as defined by 40 CFR 261.

p. Generator Authorized Agent Name (Print)	q. Signature	r. Date
Gina Wee GGTR,Inc. on behalf of owner		11/17/2015

II. TRANSPORTER (Generator completes IIa-b and Transporter completes IIc-e)

a. Transporter's Name and Address:
F.A. Poli Trucking
P.O. Box 1624
San Bruno, CA 94066

b. Phone: 650-589-7529

c. Driver Name (Print)	d. Signature	e. Date
NAVINI	R Wanner	11-17-15

III. DESTINATION (Generator complete IIIa-c and Destination Site completes IIId-g)

a. Disposal Facility and Site Address:	c. US EPA Number	d. Discrepancy Indication Space:
Keller Canyon Landfill 901 Bailey Rd Pittsburg, CA 94565 b. Phone: 925-458-9800		

I herby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

e. Name of Authorized Agent (Print)	f. Signature	g. Date
Felipe Compjo		11-17-15

IV. ASBESTOS (Generator completes IVa-f and Operator complete IVg-i)

a. Operator's Name and Address:	c. Responsible Agency Name and Address:
b. Phone:	d. Phone:

e. Special Handling Instructions and Additional Information:

f. ☐ Friable ☐ Non-Friable ☐ Both % Friable % Non-Friable

OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

g. Operator's Name and Title (Print)	h. Signature	i. Date

*Operator refers to the company which owns, leases, operates, controls, or supervises the facility being demolished or renovated, or the demolition or renovation operation or both

SITE
KELLER CANYON LANDFILL
Pittsburg, CA 925-458-9800

CUSTOMER
674678
Golden Gate Tank Removal, Inc.
1455 Yosemite Ave
San Francisco, CA 94124
42121519333

SITE	TICKET #	CELL
01	1039509	

WEIGHMASTER: Felipe C.

DATE/TIME IN	DATE/TIME OUT
11-17-2015 1:00 pm	11-17-2015 1:00 pm

VEHICLE	CONTAINER
L23	

REFERENCE: INVOICE

BILL OF LADING:

SCALE IN GROSS WEIGHT 74,520 NET TONS 20.95
TARE OUT TARE WEIGHT 32,620 NET WEIGHT 41,900 INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
20.00	YD	TRACKING QTY				
20.95	TN	SW-BENEFICIAL REUSE OAKLAND				
1.00		ENVIRONMENTAL FEE 1				
1.00		FUEL RECOVERY FEE				

WEIGHMASTER CERTIFICATE - This is to certify that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accurace, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food& Agriculture.

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

SIGNATURE

NET AMOUNT
TENDERED
CHANGE
CHECK#

RS-F042UPR (07/12)

REPUBLIC SERVICES, INC.

NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

If waste is asbestos waste, complete Sections I, II, III and IV
If waste is NOT asbestos waste, complete Sections I, II and III

I. GENERATOR (Generator completes Ia-r)

a. Generator's US EPA ID Number	b. Manifest Document Number	c. Page 1 of
N/A		

d. Generator's Name and Location:	e. Generator's Mailing Address:
Kuen C. Lau and Sar P. Kwan 3820 Penniman Avenue Oakland, CA 94619 f. Phone:510-834-4747	Kuen C. Lau and Sar P. Kwan 3701 Lakeshore Avenue Oakland, CA 94610 g. Phone:510-834-4747
If owner of the generating facility differs from the generator, provide: h. Owner's Name:	i. Owner's Phone No.:

j. Waste Profile #	k. Exp. Date	l. Waste Shipping Name and Description	m. Containers No.	m. Containers Type	n. Total Quantity	o. Unit Wt/Vol
42121519333	11/09/2016	Soil				

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if this waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR 268 and is no longer a hazardous waste as defined by 40 CFR 261.

p. Generator Authorized Agent Name (Print)	q. Signature	r. Date
Gina Wee GGTR,Inc. on behalf of owner		11/17/2015

II. TRANSPORTER (Generator completes IIa-b and Transporter completes IIc-e)

a. Transporter's Name and Address:
F.A. Poli Trucking L23
P.O. Box 1624
San Bruno, CA 94066

b. Phone: 650-589-7529

c. Driver Name (Print)	d. Signature	e. Date
NONIE C.		11/17/15

III. DESTINATION (Generator complete IIIa-c and Destination Site completes IIId-g)

a. Disposal Facility and Site Address: Keller Canyon Landfill 901 Bailey Rd Pittsburg, CA 94565 b. Phone: 925-458-9800	c. US EPA Number	d. Discrepancy Indication Space:

I herby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

e. Name of Authorized Agent (Print)	f. Signature	g. Date
Felipe Comayo		11-17-15

IV. ASBESTOS (Generator completes IVa-f and Operator complete IVg-i)

a. Operator's Name and Address: b. Phone:	c. Responsible Agency Name and Address: d. Phone:

e. Special Handling Instructions and Additional Information:

f. ☐ Friable ☐ Non-Friable ☐ Both % Friable % Non-Friable

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SITE
KELLER CANYON LANDFILL

Pittsburg, CA 925-458-9800

CUSTOMER
674678
Golden Gate Tank Removal, Inc.
1455 Yosemite Ave
San Francisco, CA 94124
42121519333

SITE	TICKET #	CELL
01	1039596	

WEIGHMASTER: Felipe C.

DATE/TIME IN	DATE/TIME OUT
11-18-2015 8:22 am	11-18-2015 8:22 am

VEHICLE	CONTAINER
L23	

REFERENCE: INVOICE

BILL OF LADING:

SCALE IN	GROSS WEIGHT	66,480	NET TONS	16.93	
TARE OUT	TARE WEIGHT	32,620	NET WEIGHT	33,860	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
20.00	YD	TRACKING QTY				
16.93	TN	SW-BENEFICIAL REUSE OAKLAND				
1.00		ENVIRONMENTAL FEE 1				
1.00		FUEL RECOVERY FEE				

WEIGHMASTER CERTIFICATE - This is to certify that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accurace, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food & Agriculture.

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

SIGNATURE

NET AMOUNT

TENDERED

CHANGE

CHECK#

RS-F042UPR (07/12)

REPUBLIC SERVICES, INC.

NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

If waste is asbestos waste, complete Sections I, II, III and IV
If waste is NOT asbestos waste, complete Sections I, II and III

I. GENERATOR (Generator completes Ia-r)

a. Generator's US EPA ID Number	b. Manifest Document Number	c. Page 1 of
N/A		

d. Generator's Name and Location:	e. Generator's Mailing Address:
Kuen C. Lau and Sar P. Kwan 3820 Penniman Avenue Oakland, CA 94619 f. Phone:510-834-4747	Kuen C. Lau and Sar P. Kwan 3701 Lakeshore Avenue Oakland, CA 94610 g. Phone:510-834-4747
If owner of the generating facility differs from the generator, provide: h. Owner's Name:	i. Owner's Phone No.:

j. Waste Profile #	k. Exp. Date	l. Waste Shipping Name and Description	m. Containers No.	m. Containers Type	n. Total Quantity	o. Unit Wt/Vol
42121519333	11/09/2016	Soil				

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if this waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR 268 and is no longer a hazardous waste as defined by 40 CFR 261.

p. Generator Authorized Agent Name (Print)	q. Signature	r. Date
Gina Wee GGTR,Inc. on behalf of owner		11/18/2015

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a. Transporter's Name and Address:
F.A. Poli Trucking
P.O. Box 1624
San Bruno, CA 94066

L23

b. Phone: 650-589-7529

c. Driver Name (Print)	d. Signature	e. Date
NONIE C		11/18/15

III. DESTINATION (Generator complete IIIa-c and Destination Site completes IIId-g)

a. Disposal Facility and Site Address:	c. US EPA Number	d. Discrepancy Indication Space:
Keller Canyon Landfill 901 Bailey Rd Pittsburg, CA 94565 b. Phone: 925-458-9800		

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

e. Name of Authorized Agent (Print)	f. Signature	g. Date
Ethel Comejo		11-18-15

IV. ASBESTOS (Generator completes IVa-f and Operator complete IVg-i)

a. Operator's Name and Address:	c. Responsible Agency Name and Address:
b. Phone:	d. Phone:

e. Special Handling Instructions and Additional Information:

f. ☐ Friable ☐ Non-Friable ☐ Both % Friable % Non-Friable

OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

g. Operator's Name and Title (Print)	h. Signature	i. Date

*Operator refers to the company which owns, leases, operates, controls, or supervises the facility being demolished or renovated, or the demolition or renovation operation or both

Attachment 3:
Underground Storage Tank Unauthorized Release (Leak)/
Contamination Site Report Form

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK)/ CONTAMINATION SITE REPORT

EMERGENCY ☐ Yes ☒ No

HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? ☐ Yes ☐ No

REPORT DATE: 11/06/15

CASE #:

FOR LOCAL AGENCY USE ONLY
I HEREBY CERTIFY THAT I AM A DESIGNATED GOVERNMENT EMPLOYEE AND THAT I HAVE REPORTED THIS INFORMATION TO LOCAL OFFICIALS PERSUANT TO SECTION 25180.7 OF THE HEALTH AND SAFETY CODE.

SIGNED _____ DATE _____

REPORTED BY

NAME OF INDIVIDUAL FILING REPORT: Gina Wee

PHONE: (415) 512-1555

SIGNATURE: [signature]

REPRESENTING: ☐ LOCAL AGENCY ☐ REGIONAL BOARD ☐ OWNER/OPERATOR ☒ OTHER... contractor

COMPANY OR AGENCY NAME: Golden Gate Tank Removal, Inc.

ADDRESS: 1480 Carroll Avenue (STREET) San Francisco (CITY) CA (STATE) 94124 (ZIP)

RESPONSIBLE PARTY

NAME: Kuen C. Lau & Sar P Kwan ☐ Unknown

PHONE: 510-834-4747 c/o Iris Environmental

ADDRESS: 3701 Lakeshore Avenue (STREET) Oakland (CITY) CA (STATE) 94610 (ZIP)

SITE LOCATION

FACILITY NAME (IF APPLICABLE):

OPERATOR:

PHONE:

ADDRESS: 3820 Penniman Avenue (STREET) Oakland (CITY) Alameda (COUNTY) 94619 (ZIP)

CROSS STREET: 38th Avenue

IMPLEMENTING AGENCIES

LOCAL AGENCY: Alameda County Environmental Health

AGENCY NAME: -Steven Plunkett

PHONE: 510-383-1767

REGIONAL BOARD:

PHONE:

SUBSTANCES INVOLVED

(1) NAME: Gasoline — QUANTITY LOST (GALLONS): _____ ☒ Unknown

(2) _____ ☐ Unknown

DISCOVERY/ABATEMENT

DATE DISCOVERED: 11/06/15

HOW DISCOVERED: ☐ Tank Test ☒ Tank Removal ☐ Nuisance Conditions ☐ Inventory Control ☐ Subsurface Monitoring ☐ Other...

DATE DISCHARGE BEGAN: ☒ Unknown

HAS DISCHARGE BEEN STOPPED? ☒ Yes ☐ No 11/06/15 IF YES, DATE

METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY)
☒ Remove Contents ☒ Close Tank & Removed ☐ Repair Tank ☐ Change Procedure ☐ Replace Tank ☐ Other... ☐ Repair Piping

SOURCE/ CAUSE

SOURCE OF DISCHARGE: ☐ Tank Leak ☐ Piping Leak ☒ Unknown ☐ Other...

CAUSE(S): ☐ Overfill ☐ Corrosion ☐ Rupture/Failure ☐ Unknown ☐ Spill ☐ Other...

CASE TYPE

CHECK ONE ONLY
☐ Undetermined ☒ Soil Only ☐ Groundwater ☐ Drinking Water - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)

CURRENT STATUS

CHECK ONE ONLY
☐ No Action Taken
☒ Leak Being Confirmed
☐ Remediation Plan
☐ Preliminary Site Assessment Workplan Submitted
☐ Preliminary Site Assessment Underway
☐ Case Closed (Cleanup Completed or Unnecessary)
☐ Pollution Characterization
☐ Post Cleanup Monitoring in Progress
☐ Cleanup Underway

REMEDIAL ACTION

CHECK APPROPRIATE ACTION(S)
☐ Cap Site (CD)
☐ Contamination Barrier (CB)
☐ Vacuum Extract (VE)
☒ Excavate & Dispose (ED)
☐ Excavate & Treat (ET)
☐ No Action Required (NA)
☐ Remove Free Product (FP)
☐ Pump & Treat Groundwater (GT)
☐ Treatment at Hookup (HU)
☐ Enhanced Bio Degradation (IT)
☐ Replace Supply (RS)
☐ Vent Soil (VS)
☐ Other...

COMMENTS

Attachment 4:
Photo Documentation

Excavation of overburden.

Shoring of excavation sidewalls.

Removal of tanks from excavation.

Excavation to 11 feet below ground surface.

Backfill of excavation using clean overburden soil and clean import ¾" drain rock.

Attachment 5:
Analytical Laboratory Reports and
Chain of Custody Information


Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 271374
ANALYTICAL REPORT

Iris Environmental	Project : 15-1311A
1438 Webster Street	Location : 3820 Penniman
Oakland, CA 94612	Level : II

Sample ID	Lab ID
UST-SB-11.0	271374-001
UST-NB-11.0	271374-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Tracy Babjar Date: 11/10/2015

Tracy Babjar
Project Manager
tracy.babjar@ctberk.com
(510) 204-2226

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**271374**
Client:	**Iris Environmental**
Project:	**15-1311A**
Location:	**3820 Penniman**
Request Date:	**11/06/15**
Samples Received:	**11/06/15**

This data package contains sample and QC results for two soil samples, requested for the above referenced project on 11/06/15. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
UST-SB-11.0 (lab # 271374-001) and UST-NB-11.0 (lab # 271374-002) were diluted due to high hydrocarbons. No other analytical problems were encountered.

Semivolatile Organics by GC/MS (EPA 8270C):
High recoveries were observed for pyrene and 1,2,4-trichlorobenzene in the MSD for batch 229115; the parent sample was not a project sample, the LCS was within limits, the associated RPDs were within limits, and these analytes were not detected at or above the RL in the associated samples. No other analytical problems were encountered.

PCBs (EPA 8082):
All samples underwent sulfuric acid cleanup using EPA Method 3665A. All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. No analytical problems were encountered.

Metals (EPA 6020):
No analytical problems were encountered.

Moisture (EPA CLP):
No analytical problems were encountered.

271374 (260)

IRIS ENVIRONMENTAL — CHAIN-OF-CUSTODY

1438 Webster Street, Suite 302
Oakland, California 94612
(510) 834-4747 tel
(510) 834-4199 fax

Date: 11/6/15 Page: 1 of 1 Nº 003876

Sampler Name(s): Kalle Jahn Signature(s): Kalle Jahn

Sample ID	Date	Time	Matrix	Pres.	VOCs & fuel oxygenates & lead scavs & ethanol	TPH-g 8015	TPH-d/mo 8015 *	SVOCs 8270	LUFT 5 Metals	PCBs (8082)	Moisture	Number of Containers
1 UST-SB-11.0 *	11/6/15	1235	S		X	X	X	X	X	X	X	6
2 UST-NB-11.0	1	1245	1		X	X	X	X	X	X	X	6

PROJECT INFORMATION

Project Name: 3620 Penniman
Project Number: 15-1311A
Contact Person: K. Jahn, N. Loiseaux
E-mail: kalle@, nik@irisenv.com
Contact Telephone: x27
Report: Routine (Level 2) Level 3 Level 4 EDD
TAT: 10-day 5-day 72-hr 48-hr 24-hr Other:

Special Instructions/Comments:
* both w/ and w/o Silica Gel Cleanup
Report dry weight*

RELINQUISHED BY:	RECEIVED BY:
Printed Name: Kalle Jahn	Printed Name: Nikelle Chaney
Signature: Kalle Jahn	Signature:
Company: Iris	Company: CPT
Time/Date: 1440 11/6/15	Time/Date: 11/06/15 @ 1440
RELINQUISHED BY:	RECEIVED BY:
Printed Name:	Printed Name:
Signature:	Signature:
Company:	Company:
Time/Date:	Time/Date:

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 271374 Date Received 11/6/15 Number of coolers 1
Client IRIS Environmental Project 3820 Penniman

Date Opened 11/6 By (print) CN (sign)
Date Logged in 6 By (print) SL (sign)

1. Did cooler come with a shipping slip (airbill, etc)_____ YES NO
Shipping info_____

2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
How many _____ Name_____ Date_____
2B. Were custody seals intact upon arrival? _____ YES NO N/A
3. Were custody papers dry and intact when received?_____ YES NO
4. Were custody papers filled out properly (ink, signed, etc)? _____ YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form)___ YES NO
6. Indicate the packing in cooler: (if other, describe)_____

☐ Bubble Wrap ☐ Foam blocks ☒ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☒ Wet ☐ Blue/Gel ☐ None Temp(°C)_____

☐ Temperature blank(s) included? ☐ Thermometer ☐ IR Gun

☒ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present?_____ YES NO
If YES, what time were they transferred to freezer? 11/06/15 @ 1510
9. Did all bottles arrive unbroken/unopened?_____ YES NO
10. Are there any missing / extra samples? _____ YES NO
11. Are samples in the appropriate containers for indicated tests? _____ YES NO
12. Are sample labels present, in good condition and complete? _____ YES NO
13. Do the sample labels agree with custody papers? _____ YES NO
14. Was sufficient amount of sample sent for tests requested? _____ YES NO
15. Are the samples appropriately preserved? _____ YES NO N/A
16. Did you check preservatives for all bottles for each sample? _____ YES NO N/A
17. Did you document your preservative check? _____ YES NO N/A
18. Did you change the hold time in LIMS for unpreserved VOAs? _____ YES NO N/A
19. Did you change the hold time in LIMS for preserved terracores? _____ YES NO N/A
20. Are bubbles > 6mm absent in VOA samples? _____ YES NO N/A
21. Was the client contacted concerning this sample delivery? _____ YES NO
If YES, Who was called?_____ By_____ Date:_____

COMMENTS

_____
_____
_____
_____
_____
_____

Rev 11, 10/15

Curtis & Tompkins, Ltd.

Detections Summary for 271374

Results for any subcontracted analyses are not included in this summary.

Client : Iris Environmental
Project : 15-1311A
Location : 3820 Penniman

Client Sample ID : UST-SB-11.0 Laboratory Sample ID : 271374-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	93	Y	12	mg/Kg	Dry	50.00	EPA 8015B	EPA 5035
Diesel C10-C24	8.6	Y	1.2	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Diesel C10-C24	11	Y	1.2	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	8.6		5.8	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	12		5.8	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Toluene	250		240	ug/Kg	Dry	40.46	EPA 8260B	EPA 5035
Ethylbenzene	320		240	ug/Kg	Dry	40.46	EPA 8260B	EPA 5035
Propylbenzene	570		240	ug/Kg	Dry	40.46	EPA 8260B	EPA 5035
1,3,5-Trimethylbenzene	460		240	ug/Kg	Dry	40.46	EPA 8260B	EPA 5035
n-Butylbenzene	350		240	ug/Kg	Dry	40.46	EPA 8260B	EPA 5035
Naphthalene	310		240	ug/Kg	Dry	40.46	EPA 8260B	EPA 5035
Chromium	55		2.7	mg/Kg	Dry	250.0	EPA 6020	EPA 3050B
Lead	7.5		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	130		2.6	mg/Kg	Dry	250.0	EPA 6020	EPA 3050B
Zinc	140		12	mg/Kg	Dry	250.0	EPA 6020	EPA 3050B
Moisture, Percent	15		1	%	As Recd	1.000	EPA CLP	METHOD

Client Sample ID : UST-NB-11.0 Laboratory Sample ID : 271374-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	200	Y	12	mg/Kg	Dry	50.00	EPA 8015B	EPA 5035
Diesel C10-C24	41	Y	1.2	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Diesel C10-C24	39	Y	1.2	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	24		6.0	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	22		6.0	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Toluene	310		290	ug/Kg	Dry	48.07	EPA 8260B	EPA 5035
Propylbenzene	1,100		290	ug/Kg	Dry	48.07	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	450		290	ug/Kg	Dry	48.07	EPA 8260B	EPA 5035
n-Butylbenzene	650		290	ug/Kg	Dry	48.07	EPA 8260B	EPA 5035
Naphthalene	940		290	ug/Kg	Dry	48.07	EPA 8260B	EPA 5035
Naphthalene	150		81	ug/Kg	Dry	1.000	EPA 8270C	EPA 3550B
2-Methylnaphthalene	230		81	ug/Kg	Dry	1.000	EPA 8270C	EPA 3550B
Cadmium	0.29		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	69		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	19		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	170		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	360		12	mg/Kg	Dry	250.0	EPA 6020	EPA 3050B
Moisture, Percent	17		1	%	As Recd	1.000	EPA CLP	METHOD

Y = Sample exhibits chromatographic pattern which does not resemble standard

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5035
Project#:	15-1311A	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	11/06/15
Units:	mg/Kg	Received:	11/06/15
Basis:	dry	Analyzed:	11/08/15
Batch#:	229198		

Field ID: UST-SB-11.0 Moisture: 15%
Type: SAMPLE Diln Fac: 50.00
Lab ID: 271374-001

Analyte	Result	RL
Gasoline C7-C12	93 Y	12

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	116	78-138

Field ID: UST-NB-11.0 Moisture: 17%
Type: SAMPLE Diln Fac: 50.00
Lab ID: 271374-002

Analyte	Result	RL
Gasoline C7-C12	200 Y	12

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	113	78-138

Type: BLANK Diln Fac: 1.000
Lab ID: QC811789

Analyte	Result	RL
Gasoline C7-C12	ND	0.20

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	103	78-138

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5030B
Project#:	15-1311A	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	271358-001	Batch#:	229198
Matrix:	Soil	Sampled:	11/06/15
Units:	mg/Kg	Received:	11/06/15
Basis:	as received	Analyzed:	11/08/15

Type: MS Lab ID: QC811814

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.6368	10.00	6.634	60	50-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	114	78-138

Type: MSD Lab ID: QC811815

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.804	6.791	63	50-120	4	31

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	115	78-138

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

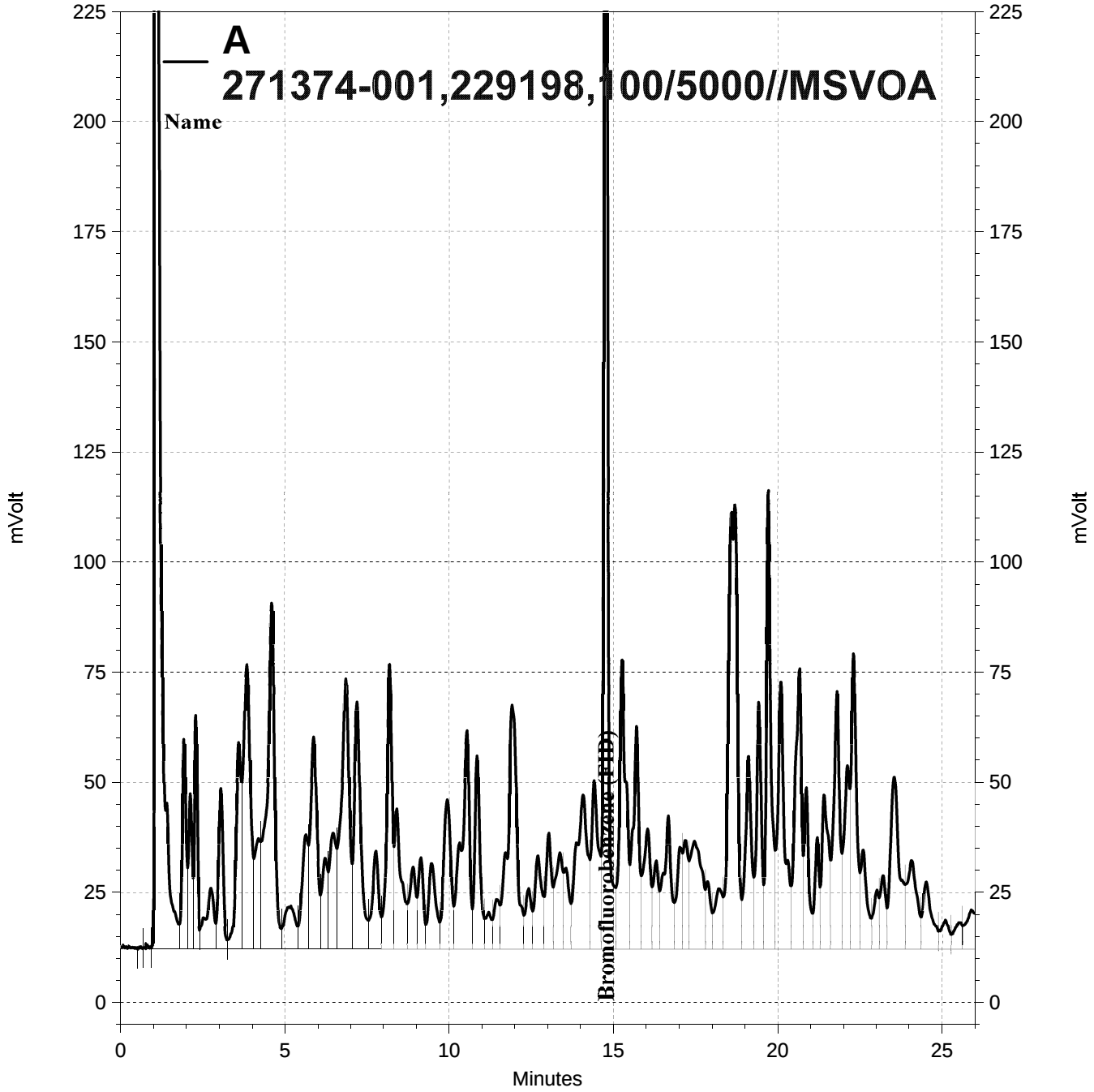
Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5035
Project#:	15-1311A	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC811836	Batch#:	229198
Matrix:	Soil	Analyzed:	11/08/15
Units:	mg/Kg		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.046	105	80-121

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	109	78-138



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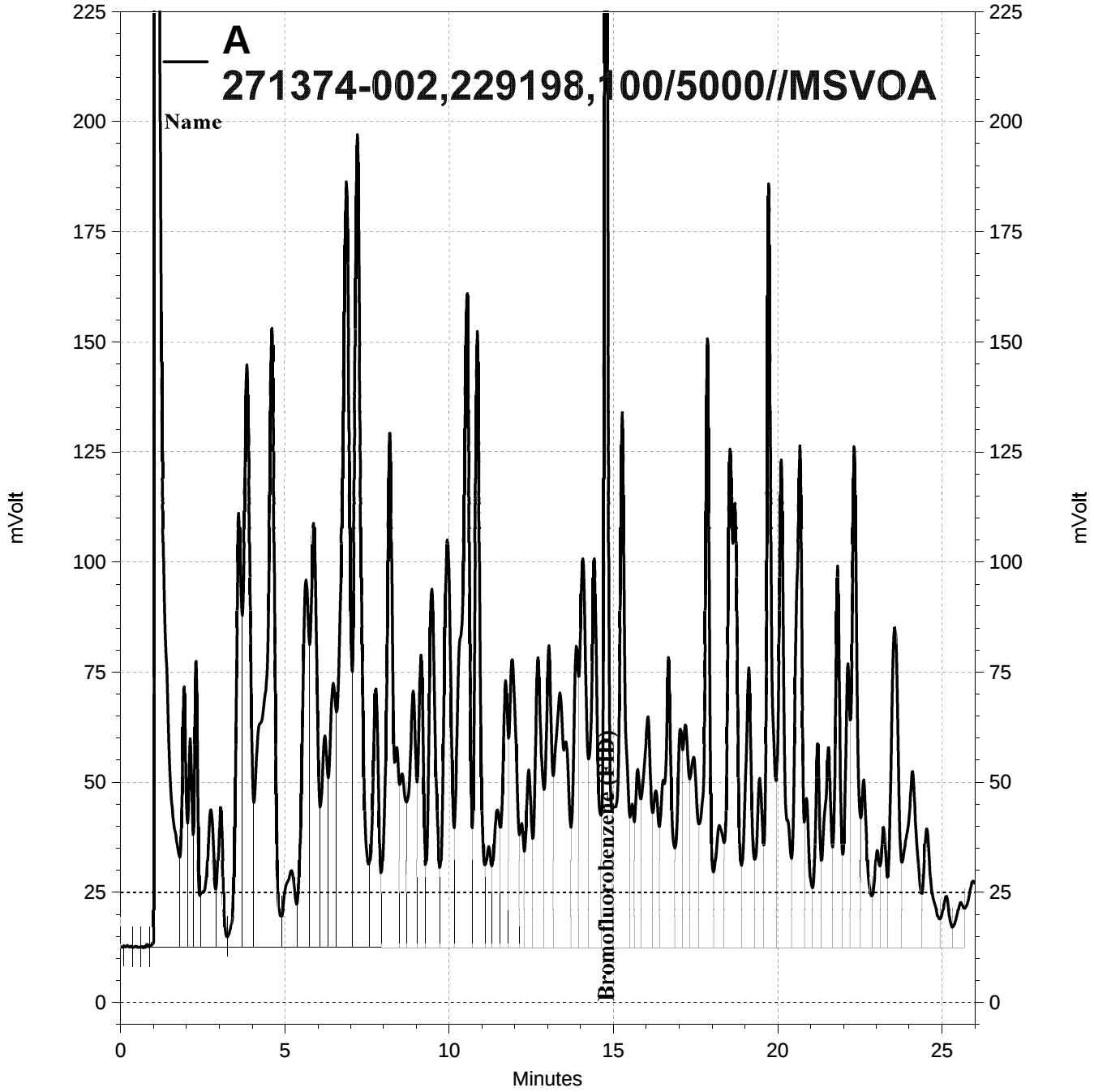

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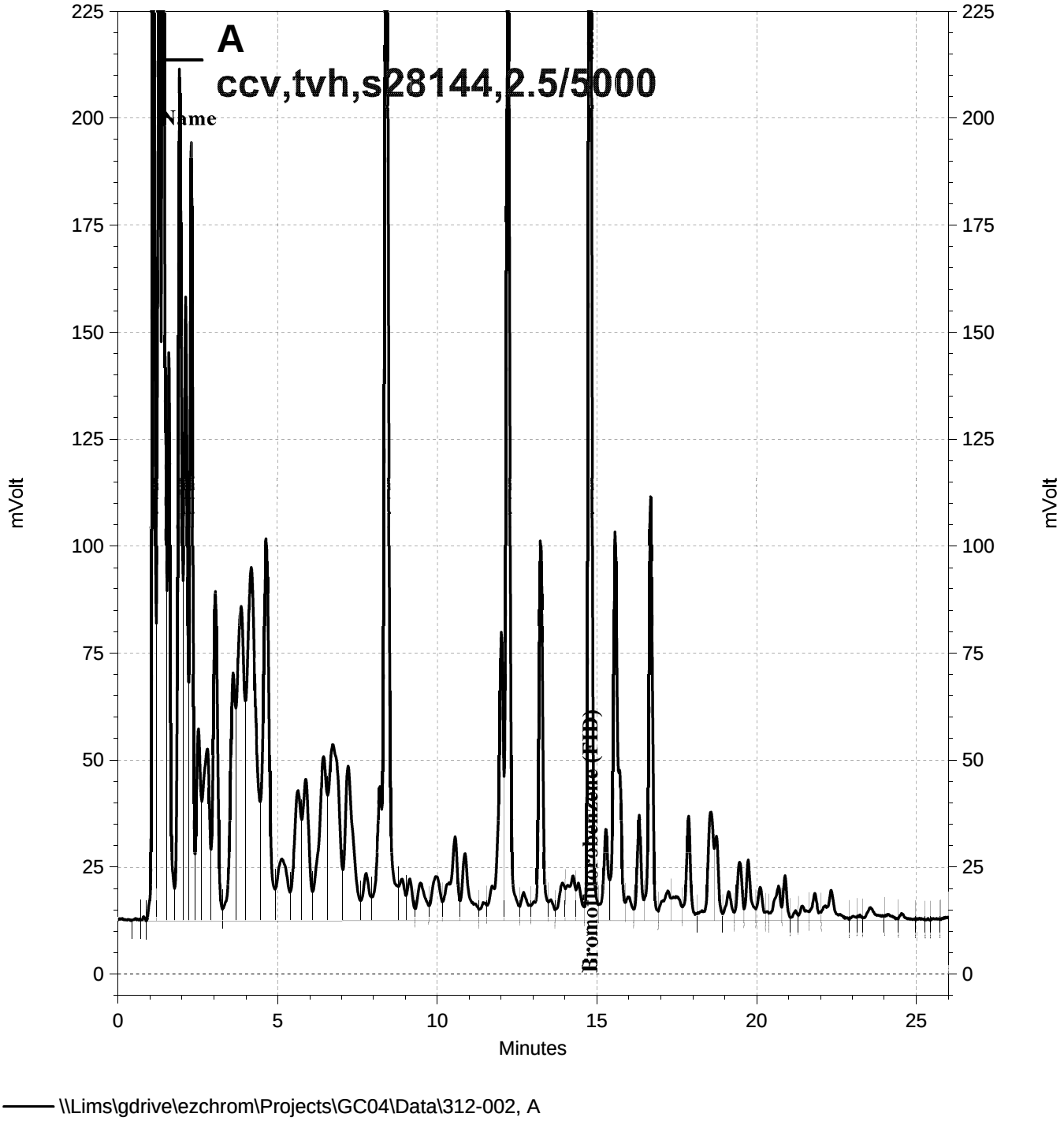
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Bromofluorobenzene (FID)
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125
150
175
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225
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Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	11/06/15
Units:	mg/Kg	Received:	11/06/15
Basis:	dry	Prepared:	11/06/15
Diln Fac:	1.000	Analyzed:	11/07/15
Batch#:	229173		

Field ID:	UST-SB-11.0	Moisture:	15%
Type:	SAMPLE	Cleanup Method:	EPA 3630C
Lab ID:	271374-001		

Analyte	Result	RL
Diesel C10-C24	8.6 Y	1.2
Diesel C10-C24 (SGCU)	11 Y	1.2
Motor Oil C24-C36	8.6	5.8
Motor Oil C24-C36 (SGCU)	12	5.8

Surrogate	%REC	Limits
o-Terphenyl	116	59-140
o-Terphenyl (SGCU)	131	59-140

Field ID:	UST-NB-11.0	Moisture:	17%
Type:	SAMPLE	Cleanup Method:	EPA 3630C
Lab ID:	271374-002		

Analyte	Result	RL
Diesel C10-C24	41 Y	1.2
Diesel C10-C24 (SGCU)	39 Y	1.2
Motor Oil C24-C36	24	6.0
Motor Oil C24-C36 (SGCU)	22	6.0

Surrogate	%REC	Limits
o-Terphenyl	112	59-140
o-Terphenyl (SGCU)	116	59-140

Type:	BLANK	Cleanup Method:	EPA 3630C
Lab ID:	QC811685		

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Diesel C10-C24 (SGCU)	ND	1.0
Motor Oil C24-C36	ND	5.0
Motor Oil C24-C36 (SGCU)	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	103	59-140
o-Terphenyl (SGCU)	102	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
SGCU= Silica gel cleanup

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC811686	Batch#:	229173
Matrix:	Soil	Prepared:	11/06/15
Units:	mg/Kg	Analyzed:	11/07/15

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.91	51.54	103	58-137
Diesel C10-C24 (SGCU)	49.91	54.27	109	58-137

Surrogate	%REC	Limits
o-Terphenyl	117	59-140
o-Terphenyl (SGCU)	126	59-140

SGCU= Silica gel cleanup

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	229173
MSS Lab ID:	271316-001	Sampled:	11/05/15
Matrix:	Soil	Received:	11/05/15
Units:	mg/Kg	Prepared:	11/06/15
Basis:	as received	Analyzed:	11/07/15
Diln Fac:	1.000		

Type: MS Lab ID: QC811687

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	0.5273	50.11	46.11	91	46-154

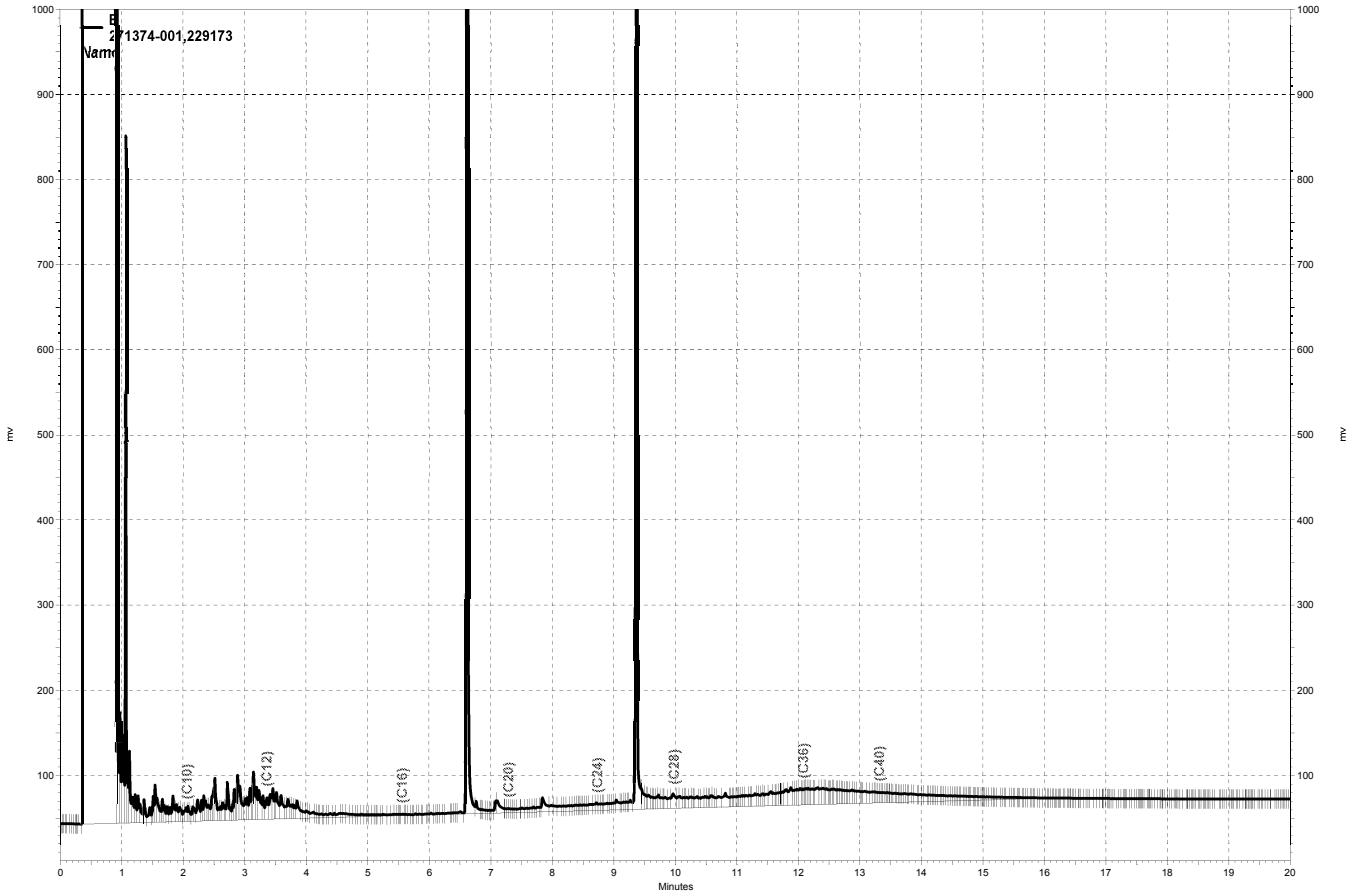
Surrogate	%REC	Limits
o-Terphenyl	111	59-140

Type: MSD Lab ID: QC811688

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.95	43.39	86	46-154	6	50

Surrogate	%REC	Limits
o-Terphenyl	106	59-140

RPD= Relative Percent Difference



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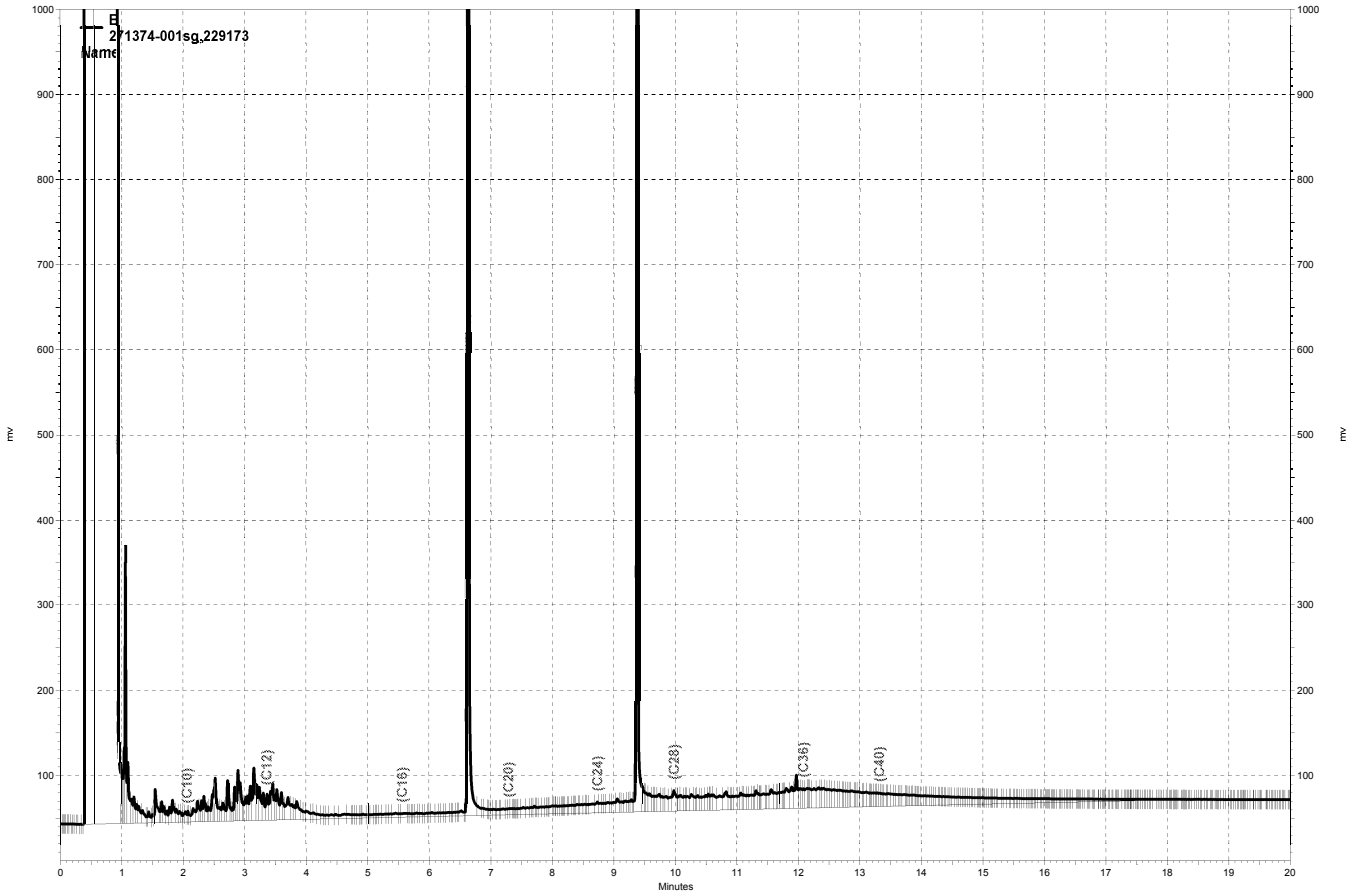

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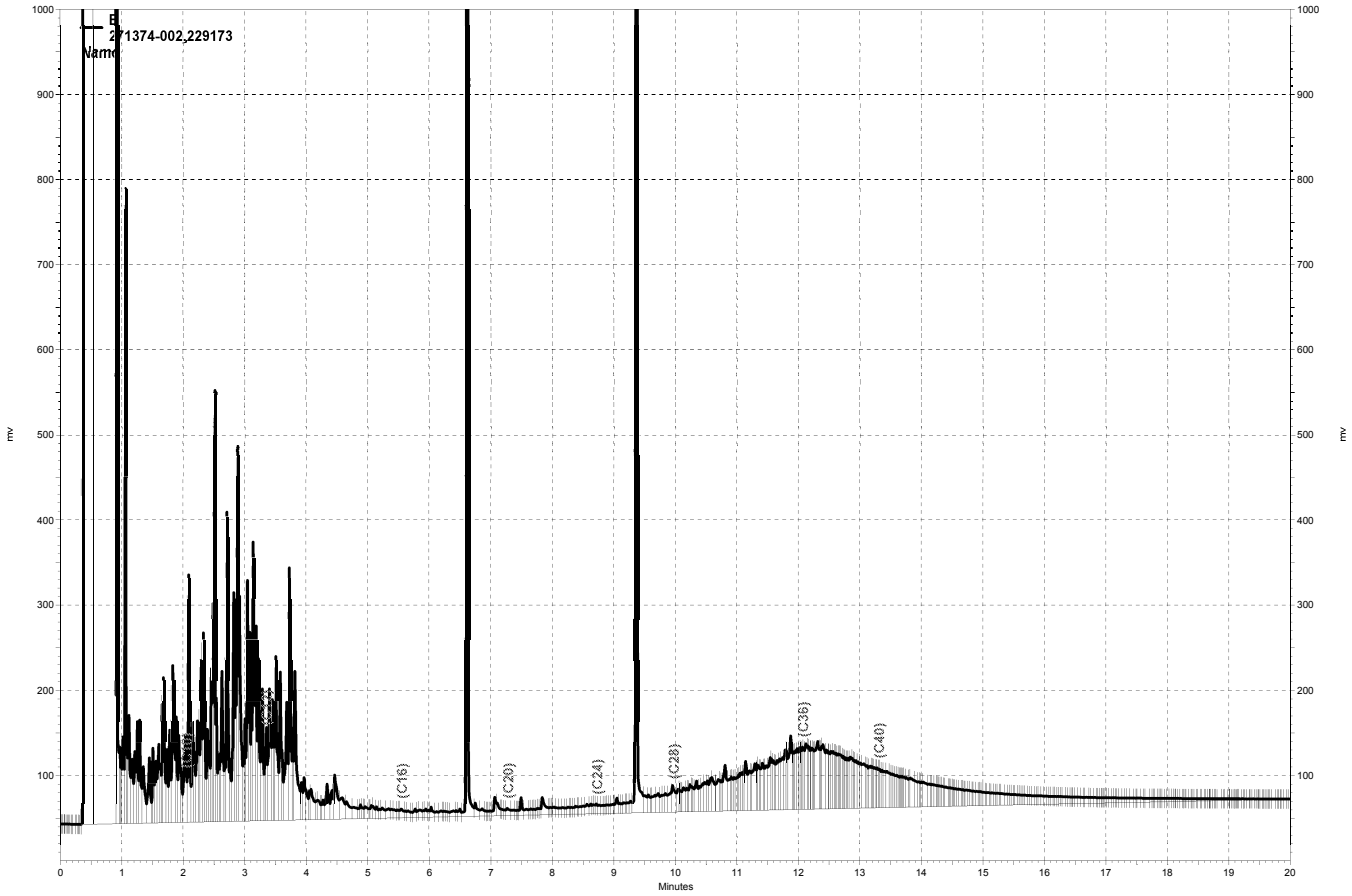

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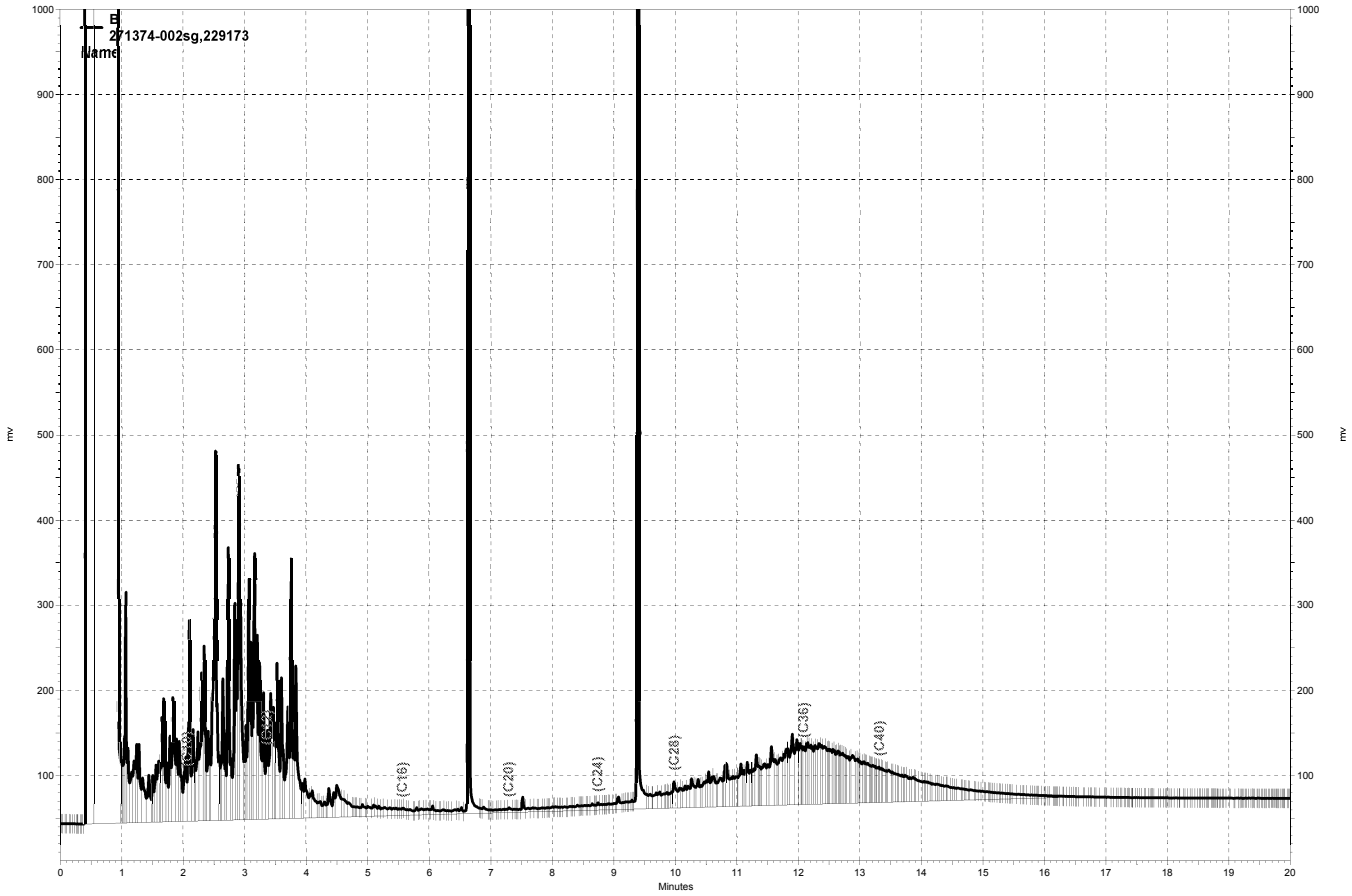

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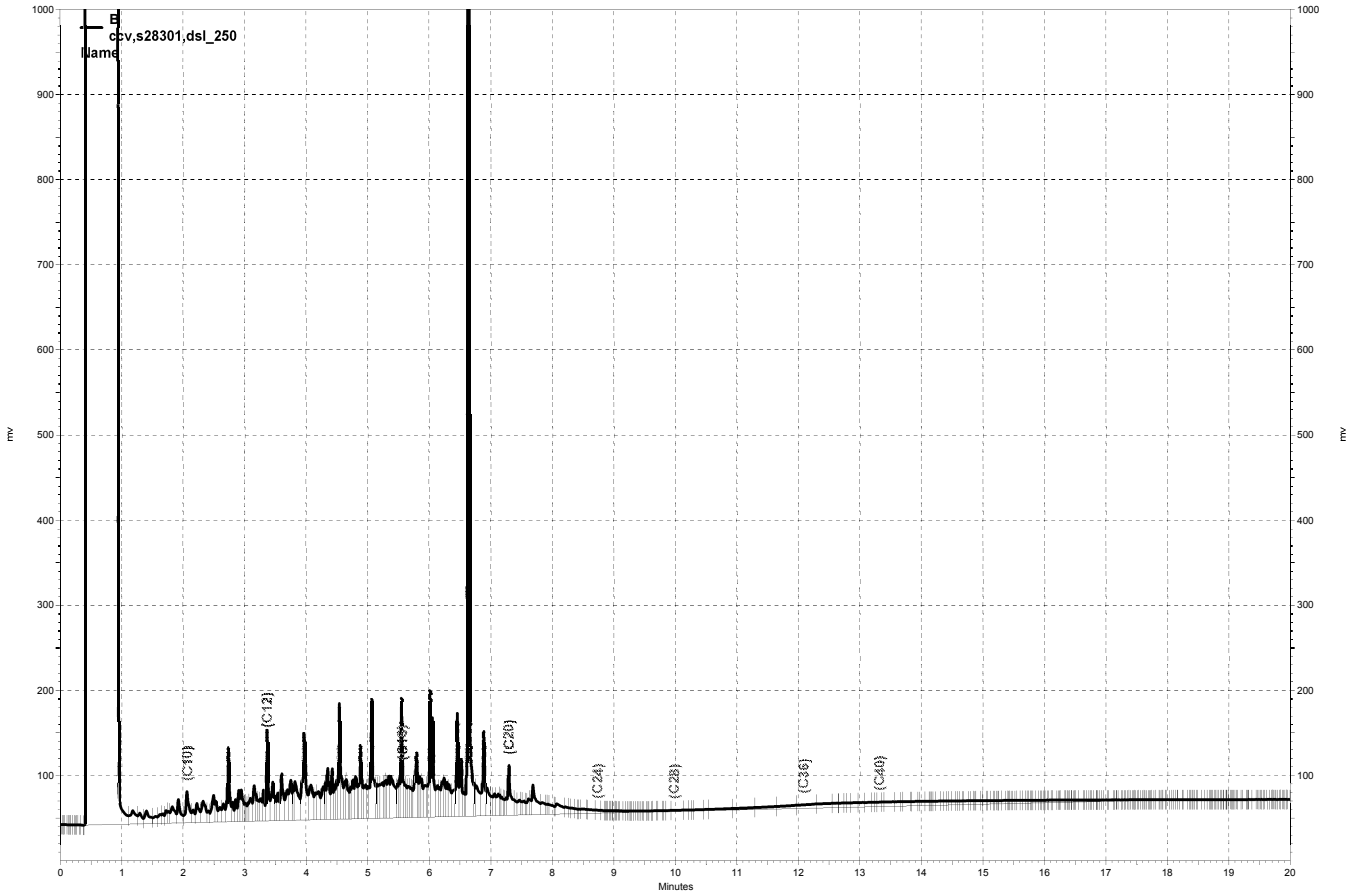

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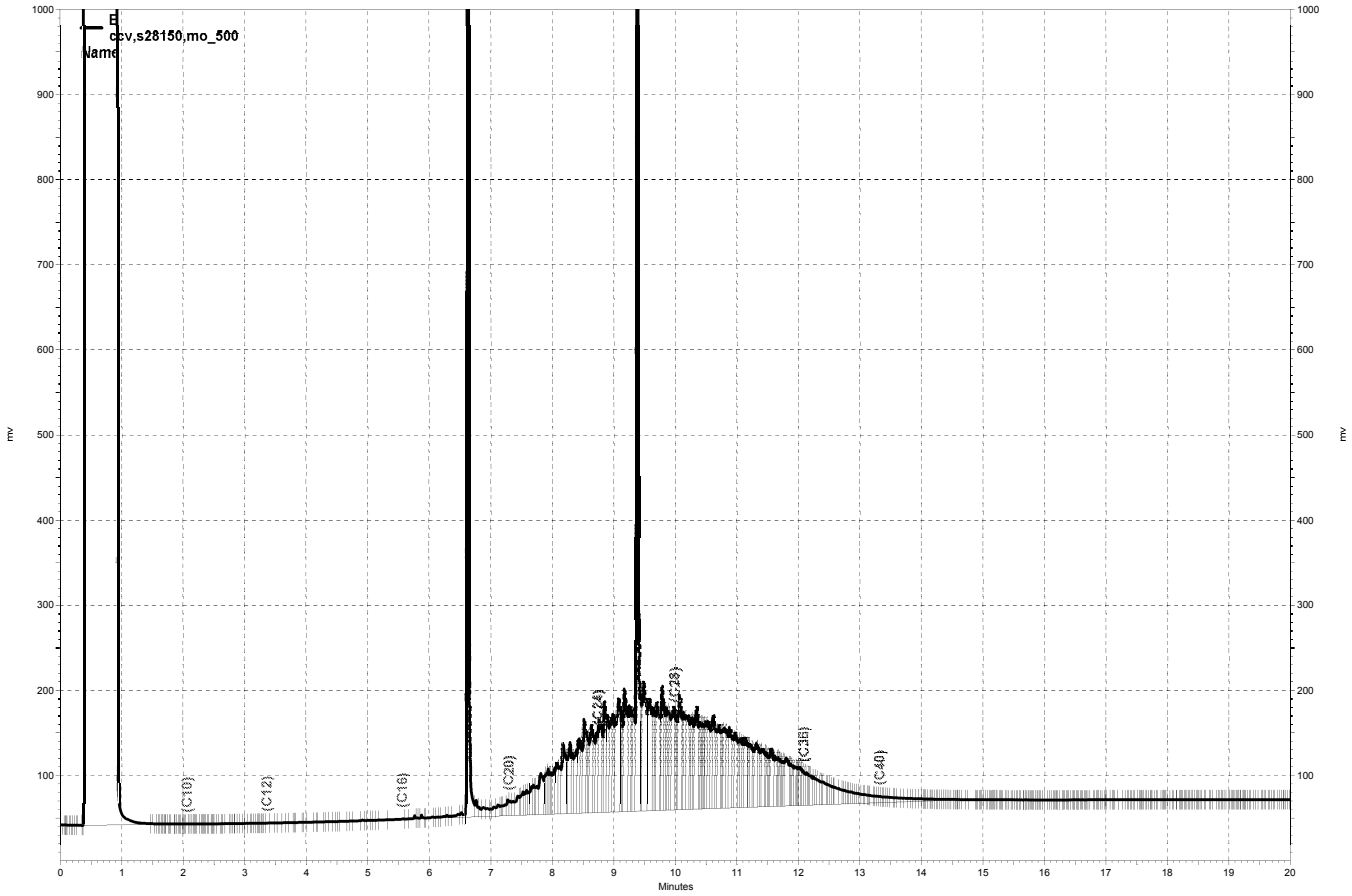

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5035
Project#:	15-1311A	Analysis:	EPA 8260B
Field ID:	UST-SB-11.0	Diln Fac:	40.46
Lab ID:	271374-001	Batch#:	229231
Matrix:	Soil	Sampled:	11/06/15
Units:	ug/Kg	Received:	11/06/15
Basis:	dry	Analyzed:	11/09/15

Moisture: 15%

Analyte	Result	RL
Freon 12	ND	480
tert-Butyl Alcohol (TBA)	ND	4,800
Chloromethane	ND	480
Isopropyl Ether (DIPE)	ND	240
Vinyl Chloride	ND	480
Bromomethane	ND	480
Ethyl tert-Butyl Ether (ETBE)	ND	240
Chloroethane	ND	480
Methyl tert-Amyl Ether (TAME)	ND	240
Trichlorofluoromethane	ND	240
Ethanol	ND	48,000
Acetone	ND	950
Freon 113	ND	240
1,1-Dichloroethene	ND	240
Methylene Chloride	ND	950
Carbon Disulfide	ND	240
MTBE	ND	240
trans-1,2-Dichloroethene	ND	240
Vinyl Acetate	ND	2,400
1,1-Dichloroethane	ND	240
2-Butanone	ND	480
cis-1,2-Dichloroethene	ND	240
2,2-Dichloropropane	ND	240
Chloroform	ND	240
Bromochloromethane	ND	240
1,1,1-Trichloroethane	ND	240
1,1-Dichloropropene	ND	240
Carbon Tetrachloride	ND	240
1,2-Dichloroethane	ND	240
Benzene	ND	240
Trichloroethene	ND	240
1,2-Dichloropropane	ND	240
Bromodichloromethane	ND	240
Dibromomethane	ND	240
4-Methyl-2-Pentanone	ND	480
cis-1,3-Dichloropropene	ND	240
Toluene	250	240
trans-1,3-Dichloropropene	ND	240
1,1,2-Trichloroethane	ND	240
2-Hexanone	ND	480
1,3-Dichloropropane	ND	240
Tetrachloroethene	ND	240
Dibromochloromethane	ND	240
1,2-Dibromoethane	ND	240
Chlorobenzene	ND	240
1,1,1,2-Tetrachloroethane	ND	240
Ethylbenzene	320	240
m,p-Xylenes	ND	240
o-Xylene	ND	240
Styrene	ND	240
Bromoform	ND	240
Isopropylbenzene	ND	240

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5035
Project#:	15-1311A	Analysis:	EPA 8260B
Field ID:	UST-SB-11.0	Diln Fac:	40.46
Lab ID:	271374-001	Batch#:	229231
Matrix:	Soil	Sampled:	11/06/15
Units:	ug/Kg	Received:	11/06/15
Basis:	dry	Analyzed:	11/09/15

Analyte	Result	RL
1,1,2,2-Tetrachloroethane	ND	240
1,2,3-Trichloropropane	ND	240
Propylbenzene	570	240
Bromobenzene	ND	240
1,3,5-Trimethylbenzene	460	240
2-Chlorotoluene	ND	240
4-Chlorotoluene	ND	240
tert-Butylbenzene	ND	240
1,2,4-Trimethylbenzene	ND	240
sec-Butylbenzene	ND	240
para-Isopropyl Toluene	ND	240
1,3-Dichlorobenzene	ND	240
1,4-Dichlorobenzene	ND	240
n-Butylbenzene	350	240
1,2-Dichlorobenzene	ND	240
1,2-Dibromo-3-Chloropropane	ND	240
1,2,4-Trichlorobenzene	ND	240
Hexachlorobutadiene	ND	240
Naphthalene	310	240
1,2,3-Trichlorobenzene	ND	240

Surrogate	%REC	Limits
Dibromofluoromethane	103	78-134
1,2-Dichloroethane-d4	105	80-138
Toluene-d8	103	80-120
Bromofluorobenzene	111	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5035
Project#:	15-1311A	Analysis:	EPA 8260B
Field ID:	UST-NB-11.0	Diln Fac:	48.07
Lab ID:	271374-002	Batch#:	229231
Matrix:	Soil	Sampled:	11/06/15
Units:	ug/Kg	Received:	11/06/15
Basis:	dry	Analyzed:	11/09/15

Moisture: 17%

Analyte	Result	RL
Freon 12	ND	580
tert-Butyl Alcohol (TBA)	ND	5,800
Chloromethane	ND	580
Isopropyl Ether (DIPE)	ND	290
Vinyl Chloride	ND	580
Bromomethane	ND	580
Ethyl tert-Butyl Ether (ETBE)	ND	290
Chloroethane	ND	580
Methyl tert-Amyl Ether (TAME)	ND	290
Trichlorofluoromethane	ND	290
Ethanol	ND	58,000
Acetone	ND	1,200
Freon 113	ND	290
1,1-Dichloroethene	ND	290
Methylene Chloride	ND	1,200
Carbon Disulfide	ND	290
MTBE	ND	290
trans-1,2-Dichloroethene	ND	290
Vinyl Acetate	ND	2,900
1,1-Dichloroethane	ND	290
2-Butanone	ND	580
cis-1,2-Dichloroethene	ND	290
2,2-Dichloropropane	ND	290
Chloroform	ND	290
Bromochloromethane	ND	290
1,1,1-Trichloroethane	ND	290
1,1-Dichloropropene	ND	290
Carbon Tetrachloride	ND	290
1,2-Dichloroethane	ND	290
Benzene	ND	290
Trichloroethene	ND	290
1,2-Dichloropropane	ND	290
Bromodichloromethane	ND	290
Dibromomethane	ND	290
4-Methyl-2-Pentanone	ND	580
cis-1,3-Dichloropropene	ND	290
Toluene	310	290
trans-1,3-Dichloropropene	ND	290
1,1,2-Trichloroethane	ND	290
2-Hexanone	ND	580
1,3-Dichloropropane	ND	290
Tetrachloroethene	ND	290
Dibromochloromethane	ND	290
1,2-Dibromoethane	ND	290
Chlorobenzene	ND	290
1,1,1,2-Tetrachloroethane	ND	290
Ethylbenzene	ND	290
m,p-Xylenes	ND	290
o-Xylene	ND	290
Styrene	ND	290
Bromoform	ND	290
Isopropylbenzene	ND	290

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5035
Project#:	15-1311A	Analysis:	EPA 8260B
Field ID:	UST-NB-11.0	Diln Fac:	48.07
Lab ID:	271374-002	Batch#:	229231
Matrix:	Soil	Sampled:	11/06/15
Units:	ug/Kg	Received:	11/06/15
Basis:	dry	Analyzed:	11/09/15

Analyte	Result	RL
1,1,2,2-Tetrachloroethane	ND	290
1,2,3-Trichloropropane	ND	290
Propylbenzene	1,100	290
Bromobenzene	ND	290
1,3,5-Trimethylbenzene	ND	290
2-Chlorotoluene	ND	290
4-Chlorotoluene	ND	290
tert-Butylbenzene	ND	290
1,2,4-Trimethylbenzene	450	290
sec-Butylbenzene	ND	290
para-Isopropyl Toluene	ND	290
1,3-Dichlorobenzene	ND	290
1,4-Dichlorobenzene	ND	290
n-Butylbenzene	650	290
1,2-Dichlorobenzene	ND	290
1,2-Dibromo-3-Chloropropane	ND	290
1,2,4-Trichlorobenzene	ND	290
Hexachlorobutadiene	ND	290
Naphthalene	940	290
1,2,3-Trichlorobenzene	ND	290

Surrogate	%REC	Limits
Dibromofluoromethane	101	78-134
1,2-Dichloroethane-d4	104	80-138
Toluene-d8	103	80-120
Bromofluorobenzene	113	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5035
Project#:	15-1311A	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC811924	Batch#:	229231
Matrix:	Soil	Analyzed:	11/09/15
Units:	ug/Kg		

Analyte	Result	RL
Freon 12	ND	10
tert-Butyl Alcohol (TBA)	ND	100
Chloromethane	ND	10
Isopropyl Ether (DIPE)	ND	5.0
Vinyl Chloride	ND	10
Bromomethane	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Chloroethane	ND	10
Methyl tert-Amyl Ether (TAME)	ND	5.0
Trichlorofluoromethane	ND	5.0
Ethanol	ND	1,000
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5035
Project#:	15-1311A	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC811924	Batch#:	229231
Matrix:	Soil	Analyzed:	11/09/15
Units:	ug/Kg		

Analyte	Result	RL
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	99	78-134
1,2-Dichloroethane-d4	102	80-138
Toluene-d8	102	80-120
Bromofluorobenzene	105	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5035
Project#:	15-1311A	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC811925	Batch#:	229231
Matrix:	Soil	Analyzed:	11/09/15
Units:	ug/Kg		

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	129.5	104	49-131
Isopropyl Ether (DIPE)	25.00	28.01	112	54-129
Ethyl tert-Butyl Ether (ETBE)	25.00	24.61	98	60-120
Methyl tert-Amyl Ether (TAME)	25.00	22.61	90	70-120
1,1-Dichloroethene	25.00	26.26	105	70-134
Benzene	25.00	27.44	110	80-123
Trichloroethene	25.00	25.41	102	80-128
Toluene	25.00	26.78	107	80-120
Chlorobenzene	25.00	25.71	103	80-123

Surrogate	%REC	Limits
Dibromofluoromethane	102	78-134
1,2-Dichloroethane-d4	102	80-138
Toluene-d8	104	80-120
Bromofluorobenzene	106	78-123

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5030B
Project#:	15-1311A	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	229231
MSS Lab ID:	271381-001	Sampled:	11/06/15
Matrix:	Soil	Received:	11/06/15
Units:	ug/Kg	Analyzed:	11/09/15
Basis:	as received		

Type: MS
Lab ID: QC811926

Diln Fac: 0.9843

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<1.735	246.1	243.1	99	44-120
Isopropyl Ether (DIPE)	<0.1889	49.21	51.80	105	46-120
Ethyl tert-Butyl Ether (ETBE)	<0.1389	49.21	47.83	97	48-120
Methyl tert-Amyl Ether (TAME)	<0.2164	49.21	43.33	88	52-120
1,1-Dichloroethene	<0.4136	49.21	45.52	92	56-133
Benzene	<0.4100	49.21	47.96	97	57-120
Trichloroethene	<0.3939	49.21	43.10	88	49-145
Toluene	<0.2978	49.21	44.88	91	51-120
Chlorobenzene	<0.3715	49.21	39.56	80	47-120

Surrogate	%REC	Limits
Dibromofluoromethane	108	78-134
1,2-Dichloroethane-d4	109	80-138
Toluene-d8	105	80-120
Bromofluorobenzene	110	78-123

Type: MSD
Lab ID: QC811927

Diln Fac: 0.9881

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	247.0	220.0	89	44-120	10	46
Isopropyl Ether (DIPE)	49.41	47.85	97	46-120	8	41
Ethyl tert-Butyl Ether (ETBE)	49.41	40.61	82	48-120	17	40
Methyl tert-Amyl Ether (TAME)	49.41	36.65	74	52-120	17	36
1,1-Dichloroethene	49.41	43.01	87	56-133	6	46
Benzene	49.41	44.73	91	57-120	7	44
Trichloroethene	49.41	39.87	81	49-145	8	46
Toluene	49.41	41.69	84	51-120	8	47
Chlorobenzene	49.41	36.10	73	47-120	10	50

Surrogate	%REC	Limits
Dibromofluoromethane	108	78-134
1,2-Dichloroethane-d4	109	80-138
Toluene-d8	105	80-120
Bromofluorobenzene	112	78-123

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8270C
Field ID:	UST-SB-11.0	Batch#:	229115
Lab ID:	271374-001	Sampled:	11/06/15
Matrix:	Soil	Received:	11/06/15
Units:	ug/Kg	Prepared:	11/06/15
Basis:	dry	Analyzed:	11/07/15
Diln Fac:	1.000		

Moisture: 15%

Analyte	Result	RL
N-Nitrosodimethylamine	ND	390
Phenol	ND	390
bis(2-Chloroethyl)ether	ND	390
2-Chlorophenol	ND	390
1,3-Dichlorobenzene	ND	390
1,4-Dichlorobenzene	ND	390
Benzyl alcohol	ND	390
1,2-Dichlorobenzene	ND	390
2-Methylphenol	ND	390
bis(2-Chloroisopropyl) ether	ND	390
4-Methylphenol	ND	390
N-Nitroso-di-n-propylamine	ND	390
Hexachloroethane	ND	390
Nitrobenzene	ND	390
Isophorone	ND	390
2-Nitrophenol	ND	790
2,4-Dimethylphenol	ND	390
Benzoic acid	ND	2,000
bis(2-Chloroethoxy)methane	ND	390
2,4-Dichlorophenol	ND	390
1,2,4-Trichlorobenzene	ND	390
Naphthalene	ND	79
4-Chloroaniline	ND	390
Hexachlorobutadiene	ND	390
4-Chloro-3-methylphenol	ND	390
2-Methylnaphthalene	ND	79
Hexachlorocyclopentadiene	ND	790
2,4,6-Trichlorophenol	ND	390
2,4,5-Trichlorophenol	ND	390
2-Chloronaphthalene	ND	390
2-Nitroaniline	ND	790
Dimethylphthalate	ND	390
Acenaphthylene	ND	79
2,6-Dinitrotoluene	ND	390
3-Nitroaniline	ND	790
Acenaphthene	ND	79
2,4-Dinitrophenol	ND	790
4-Nitrophenol	ND	790
Dibenzofuran	ND	390
2,4-Dinitrotoluene	ND	390
Diethylphthalate	ND	390
Fluorene	ND	79
4-Chlorophenyl-phenylether	ND	390
4-Nitroaniline	ND	790
4,6-Dinitro-2-methylphenol	ND	790
N-Nitrosodiphenylamine	ND	390
Azobenzene	ND	390
4-Bromophenyl-phenylether	ND	390
Hexachlorobenzene	ND	390
Pentachlorophenol	ND	790
Phenanthrene	ND	79

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8270C
Field ID:	UST-SB-11.0	Batch#:	229115
Lab ID:	271374-001	Sampled:	11/06/15
Matrix:	Soil	Received:	11/06/15
Units:	ug/Kg	Prepared:	11/06/15
Basis:	dry	Analyzed:	11/07/15
Diln Fac:	1.000		

Analyte	Result	RL
Anthracene	ND	79
Di-n-butylphthalate	ND	390
Fluoranthene	ND	79
Pyrene	ND	79
Butylbenzylphthalate	ND	390
3,3'-Dichlorobenzidine	ND	790
Benzo(a)anthracene	ND	79
Chrysene	ND	79
bis(2-Ethylhexyl)phthalate	ND	390
Di-n-octylphthalate	ND	390
Benzo(b)fluoranthene	ND	79
Benzo(k)fluoranthene	ND	79
Benzo(a)pyrene	ND	79
Indeno(1,2,3-cd)pyrene	ND	79
Dibenz(a,h)anthracene	ND	79
Benzo(g,h,i)perylene	ND	79

Surrogate	%REC	Limits
2-Fluorophenol	60	25-120
Phenol-d5	62	36-120
2,4,6-Tribromophenol	45	27-120
Nitrobenzene-d5	52	44-120
2-Fluorobiphenyl	49	47-120
Terphenyl-d14	54	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8270C
Field ID:	UST-NB-11.0	Batch#:	229115
Lab ID:	271374-002	Sampled:	11/06/15
Matrix:	Soil	Received:	11/06/15
Units:	ug/Kg	Prepared:	11/06/15
Basis:	dry	Analyzed:	11/09/15
Diln Fac:	1.000		

Moisture: 17%

Analyte	Result	RL
N-Nitrosodimethylamine	ND	410
Phenol	ND	410
bis(2-Chloroethyl)ether	ND	410
2-Chlorophenol	ND	410
1,3-Dichlorobenzene	ND	410
1,4-Dichlorobenzene	ND	410
Benzyl alcohol	ND	410
1,2-Dichlorobenzene	ND	410
2-Methylphenol	ND	410
bis(2-Chloroisopropyl) ether	ND	410
4-Methylphenol	ND	410
N-Nitroso-di-n-propylamine	ND	410
Hexachloroethane	ND	410
Nitrobenzene	ND	410
Isophorone	ND	410
2-Nitrophenol	ND	810
2,4-Dimethylphenol	ND	410
Benzoic acid	ND	2,000
bis(2-Chloroethoxy)methane	ND	410
2,4-Dichlorophenol	ND	410
1,2,4-Trichlorobenzene	ND	410
Naphthalene	150	81
4-Chloroaniline	ND	410
Hexachlorobutadiene	ND	410
4-Chloro-3-methylphenol	ND	410
2-Methylnaphthalene	230	81
Hexachlorocyclopentadiene	ND	810
2,4,6-Trichlorophenol	ND	410
2,4,5-Trichlorophenol	ND	410
2-Chloronaphthalene	ND	410
2-Nitroaniline	ND	810
Dimethylphthalate	ND	410
Acenaphthylene	ND	81
2,6-Dinitrotoluene	ND	410
3-Nitroaniline	ND	810
Acenaphthene	ND	81
2,4-Dinitrophenol	ND	810
4-Nitrophenol	ND	810
Dibenzofuran	ND	410
2,4-Dinitrotoluene	ND	410
Diethylphthalate	ND	410
Fluorene	ND	81
4-Chlorophenyl-phenylether	ND	410
4-Nitroaniline	ND	810
4,6-Dinitro-2-methylphenol	ND	810
N-Nitrosodiphenylamine	ND	410
Azobenzene	ND	410
4-Bromophenyl-phenylether	ND	410
Hexachlorobenzene	ND	410
Pentachlorophenol	ND	810
Phenanthrene	ND	81

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8270C
Field ID:	UST-NB-11.0	Batch#:	229115
Lab ID:	271374-002	Sampled:	11/06/15
Matrix:	Soil	Received:	11/06/15
Units:	ug/Kg	Prepared:	11/06/15
Basis:	dry	Analyzed:	11/09/15
Diln Fac:	1.000		

Analyte	Result	RL
Anthracene	ND	81
Di-n-butylphthalate	ND	410
Fluoranthene	ND	81
Pyrene	ND	81
Butylbenzylphthalate	ND	410
3,3'-Dichlorobenzidine	ND	810
Benzo(a)anthracene	ND	81
Chrysene	ND	81
bis(2-Ethylhexyl)phthalate	ND	410
Di-n-octylphthalate	ND	410
Benzo(b)fluoranthene	ND	81
Benzo(k)fluoranthene	ND	81
Benzo(a)pyrene	ND	81
Indeno(1,2,3-cd)pyrene	ND	81
Dibenz(a,h)anthracene	ND	81
Benzo(g,h,i)perylene	ND	81

Surrogate	%REC	Limits
2-Fluorophenol	51	25-120
Phenol-d5	56	36-120
2,4,6-Tribromophenol	50	27-120
Nitrobenzene-d5	46	44-120
2-Fluorobiphenyl	47	47-120
Terphenyl-d14	49	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8270C
Type:	BLANK	Dil'n Fac:	1.000
Lab ID:	QC811461	Batch#:	229115
Matrix:	Soil	Prepared:	11/05/15
Units:	ug/Kg	Analyzed:	11/05/15

Analyte	Result	RL
N-Nitrosodimethylamine	ND	330
Phenol	ND	330
bis(2-Chloroethyl)ether	ND	330
2-Chlorophenol	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
Benzyl alcohol	ND	330
1,2-Dichlorobenzene	ND	330
2-Methylphenol	ND	330
bis(2-Chloroisopropyl) ether	ND	330
4-Methylphenol	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
2-Nitrophenol	ND	660
2,4-Dimethylphenol	ND	330
Benzoic acid	ND	1,700
bis(2-Chloroethoxy)methane	ND	330
2,4-Dichlorophenol	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	66
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
4-Chloro-3-methylphenol	ND	330
2-Methylnaphthalene	ND	66
Hexachlorocyclopentadiene	ND	660
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	660
Dimethylphthalate	ND	330
Acenaphthylene	ND	66
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	660
Acenaphthene	ND	66
2,4-Dinitrophenol	ND	660
4-Nitrophenol	ND	660
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
Fluorene	ND	66
4-Chlorophenyl-phenylether	ND	330
4-Nitroaniline	ND	660
4,6-Dinitro-2-methylphenol	ND	660
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	660
Phenanthrene	ND	66
Anthracene	ND	66
Di-n-butylphthalate	ND	330
Fluoranthene	ND	66

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC811461	Batch#:	229115
Matrix:	Soil	Prepared:	11/05/15
Units:	ug/Kg	Analyzed:	11/05/15

Analyte	Result	RL
Pyrene	ND	66
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	660
Benzo(a)anthracene	ND	66
Chrysene	ND	66
bis(2-Ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b)fluoranthene	ND	66
Benzo(k)fluoranthene	ND	66
Benzo(a)pyrene	ND	66
Indeno(1,2,3-cd)pyrene	ND	66
Dibenz(a,h)anthracene	ND	66
Benzo(g,h,i)perylene	ND	66

Surrogate	%REC	Limits
2-Fluorophenol	86	25-120
Phenol-d5	86	36-120
2,4,6-Tribromophenol	77	27-120
Nitrobenzene-d5	72	44-120
2-Fluorobiphenyl	70	47-120
Terphenyl-d14	75	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8270C
Type:	LCS	Diln Fac:	2.000
Lab ID:	QC811462	Batch#:	229115
Matrix:	Soil	Prepared:	11/05/15
Units:	ug/Kg	Analyzed:	11/05/15

Analyte	Spiked	Result	%REC	Limits
Phenol	2,685	2,458	92	42-120
2-Chlorophenol	2,685	2,480	92	45-120
1,4-Dichlorobenzene	2,685	2,384	89	48-120
N-Nitroso-di-n-propylamine	2,685	2,258	84	27-123
1,2,4-Trichlorobenzene	2,685	2,360	88	50-120
4-Chloro-3-methylphenol	2,685	2,534	94	59-120
Acenaphthene	1,007	925.5	92	53-120
4-Nitrophenol	2,685	2,934	109	47-120
2,4-Dinitrotoluene	2,685	2,770	103	55-120
Pentachlorophenol	2,685	2,484	93	32-120
Pyrene	1,007	1,041	103	52-120

Surrogate	%REC	Limits
2-Fluorophenol	86	25-120
Phenol-d5	87	36-120
2,4,6-Tribromophenol	95	27-120
Nitrobenzene-d5	72	44-120
2-Fluorobiphenyl	79	47-120
Terphenyl-d14	81	49-120

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8270C
Field ID:	ZZZZZZZZZZ	Batch#:	229115
MSS Lab ID:	271268-002	Sampled:	11/03/15
Matrix:	Soil	Received:	11/03/15
Units:	ug/Kg	Prepared:	11/05/15
Basis:	dry	Analyzed:	11/06/15
Diln Fac:	8.330		

Type: MS Moisture: 16%
Lab ID: QC811463

Analyte	MSS Result	Spiked	Result	%REC	Limits
Phenol	<98.09	3,198	3,162	99	47-120
2-Chlorophenol	<98.09	3,198	2,965	93	44-120
1,4-Dichlorobenzene	163.6	3,198	3,357	100	49-120
N-Nitroso-di-n-propylamine	<98.09	3,198	2,502	78	42-120
1,2,4-Trichlorobenzene	1,231	3,198	4,829	113	54-120
4-Chloro-3-methylphenol	<81.82	3,198	3,073	96	55-120
Acenaphthene	<98.09	1,199	1,115	93	51-120
4-Nitrophenol	<699.7	3,198	2,749	86	36-120
2,4-Dinitrotoluene	<94.44	3,198	2,757	86	52-120
Pentachlorophenol	<1,256	3,198	2,093	65	14-120
Pyrene	329.6	1,199	1,613	107	46-124

Surrogate	%REC	Limits
2-Fluorophenol	88	25-120
Phenol-d5	91	36-120
2,4,6-Tribromophenol	84	27-120
Nitrobenzene-d5	75	44-120
2-Fluorobiphenyl	76	47-120
Terphenyl-d14	81	49-120

Type: MSD Moisture: 16%
Lab ID: QC811464

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Phenol	3,141	3,388	108	47-120	9	39
2-Chlorophenol	3,141	3,212	102	44-120	10	38
1,4-Dichlorobenzene	3,141	3,496	106	49-120	6	45
N-Nitroso-di-n-propylamine	3,141	2,610	83	42-120	6	40
1,2,4-Trichlorobenzene	3,141	5,253	128 *	54-120	10	38
4-Chloro-3-methylphenol	3,141	3,299	105	55-120	9	41
Acenaphthene	1,178	1,174	100	51-120	7	47
4-Nitrophenol	3,141	2,890	92	36-120	7	41
2,4-Dinitrotoluene	3,141	2,872	91	52-120	6	40
Pentachlorophenol	3,141	2,152	69	14-120	5	53
Pyrene	1,178	1,815	126 *	46-124	13	50

Surrogate	%REC	Limits
2-Fluorophenol	95	25-120
Phenol-d5	98	36-120
2,4,6-Tribromophenol	85	27-120
Nitrobenzene-d5	81	44-120
2-Fluorobiphenyl	82	47-120
Terphenyl-d14	90	49-120

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8082
Matrix:	Soil	Sampled:	11/06/15
Units:	ug/Kg	Received:	11/06/15
Basis:	dry	Prepared:	11/09/15
Diln Fac:	1.000	Analyzed:	11/09/15
Batch#:	229219		

Field ID: UST-SB-11.0 Lab ID: 271374-001
Type: SAMPLE Moisture: 15%

Analyte	Result	RL
Aroclor-1016	ND	14
Aroclor-1221	ND	28
Aroclor-1232	ND	14
Aroclor-1242	ND	14
Aroclor-1248	ND	14
Aroclor-1254	ND	14
Aroclor-1260	ND	14

Surrogate	%REC	Limits
TCMX	125	46-141
Decachlorobiphenyl	110	25-135

Field ID: UST-NB-11.0 Lab ID: 271374-002
Type: SAMPLE Moisture: 17%

Analyte	Result	RL
Aroclor-1016	ND	14
Aroclor-1221	ND	29
Aroclor-1232	ND	14
Aroclor-1242	ND	14
Aroclor-1248	ND	14
Aroclor-1254	ND	14
Aroclor-1260	ND	14

Surrogate	%REC	Limits
TCMX	116	46-141
Decachlorobiphenyl	97	25-135

Type: BLANK Lab ID: QC811885

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	110	46-141
Decachlorobiphenyl	92	25-135

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC811886	Batch#:	229219
Matrix:	Soil	Prepared:	11/09/15
Units:	ug/Kg	Analyzed:	11/09/15

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	166.7	158.3	95	64-140
Aroclor-1260	166.7	167.8	101	65-146

Surrogate	%REC	Limits
TCMX	116	46-141
Decachlorobiphenyl	99	25-135

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8082
Field ID:	UST-SB-11.0	Batch#:	229219
MSS Lab ID:	271374-001	Sampled:	11/06/15
Matrix:	Soil	Received:	11/06/15
Units:	ug/Kg	Prepared:	11/09/15
Basis:	dry	Analyzed:	11/09/15
Diln Fac:	1.000		

Type: MS Moisture: 15%
Lab ID: QC811887

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1016	<3.431	197.7	215.9	109	60-161
Aroclor-1260	<2.243	197.7	279.1	141	42-166

Surrogate	%REC	Limits
TCMX	122	46-141
Decachlorobiphenyl	118	25-135

Type: MSD Moisture: 15%
Lab ID: QC811888

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1016	198.6	193.2	97	60-161	12	43
Aroclor-1260	198.6	233.8	118	42-166	18	51

Surrogate	%REC	Limits
TCMX	117	46-141
Decachlorobiphenyl	105	25-135

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

California LUFT Metals

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3050B
Project#:	15-1311A	Analysis:	EPA 6020
Matrix:	Soil	Sampled:	11/06/15
Units:	mg/Kg	Received:	11/06/15
Basis:	dry	Prepared:	11/07/15
Batch#:	229204	Analyzed:	11/09/15

Field ID: UST-SB-11.0 Lab ID: 271374-001
Type: SAMPLE Moisture: 15%

Analyte	Result	RL	Diln Fac
Cadmium	ND	0.29	25.00
Chromium	55	2.7	250.0
Lead	7.5	0.29	25.00
Nickel	130	2.6	250.0
Zinc	140	12	250.0

Field ID: UST-NB-11.0 Lab ID: 271374-002
Type: SAMPLE Moisture: 17%

Analyte	Result	RL	Diln Fac
Cadmium	0.29	0.29	25.00
Chromium	69	0.29	25.00
Lead	19	0.29	25.00
Nickel	170	0.29	25.00
Zinc	360	12	250.0

Type: BLANK Diln Fac: 25.00
Lab ID: QC811809

Analyte	Result	RL
Cadmium	ND	0.25
Chromium	ND	0.25
Lead	ND	0.25
Nickel	ND	0.25
Zinc	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California LUFT Metals

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3050B
Project#:	15-1311A	Analysis:	EPA 6020
Matrix:	Soil	Batch#:	229204
Units:	mg/Kg	Prepared:	11/07/15
Diln Fac:	25.00	Analyzed:	11/09/15

Type: BS Lab ID: QC811810

Analyte	Spiked	Result	%REC	Limits
Cadmium	50.00	54.66	109	80-120
Chromium	50.00	54.65	109	80-131
Lead	50.00	54.14	108	80-125
Nickel	50.00	54.76	110	77-141
Zinc	50.00	54.31	109	80-133

Type: BSD Lab ID: QC811811

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Cadmium	50.00	49.03	98	80-120	11	20
Chromium	50.00	53.08	106	80-131	3	25
Lead	50.00	49.09	98	80-125	10	20
Nickel	50.00	53.65	107	77-141	2	29
Zinc	50.00	52.90	106	80-133	3	23

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Moisture

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	METHOD
Project#:	15-1311A	Analysis:	EPA CLP
Analyte:	Moisture, Percent	Batch#:	229188
Matrix:	Soil	Sampled:	11/06/15
Units:	%	Received:	11/06/15
Diln Fac:	1.000	Analyzed:	11/07/15

Field ID	Lab ID	Result	RL
UST-SB-11.0	271374-001	15	1
UST-NB-11.0	271374-002	17	1

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture

Lab #:	271374	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	METHOD
Project#:	15-1311A	Analysis:	EPA CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	229188
MSS Lab ID:	271399-001	Sampled:	11/04/15
Lab ID:	QC811753	Received:	11/06/15
Matrix:	Soil	Analyzed:	11/07/15

MSS Result	Result	RL	RPD	Lim
15.00	14.68	1.000	2	26

RL= Reporting Limit
RPD= Relative Percent Difference


Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 271376
ANALYTICAL REPORT

Iris Environmental	Project : 15-1311A
1438 Webster Street	Location : 3820 Penniman
Oakland, CA 94612	Level : II

Sample ID	Lab ID
SP-IMP-151106	271376-001
SP-FILL-151106	271376-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Tracy Babjar Date: 11/10/2015

Tracy Babjar
Project Manager
tracy.babjar@ctberk.com
(510) 204-2226

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**271376**
Client:	**Iris Environmental**
Project:	**15-1311A**
Location:	**3820 Penniman**
Request Date:	**11/10/15**
Samples Received:	**11/06/15**

This data package contains sample and QC results for two four-point soil composites, requested for the above referenced project on 11/10/15. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
Matrix spikes were not performed for this analysis in batch 229152 because of clock limitations; 5030 rushes were added to a 5035 batch. No other analytical problems were encountered.

Semivolatile Organics by GC/MS (EPA 8270C):
High recoveries were observed for pyrene and 1,2,4-trichlorobenzene in the MSD for batch 229115; the parent sample was not a project sample, the LCS was within limits, the associated RPDs were within limits, and these analytes were not detected at or above the RL in the associated samples. No other analytical problems were encountered.

PCBs (EPA 8082):
All samples underwent sulfuric acid cleanup using EPA Method 3665A. All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. No analytical problems were encountered.

Metals (EPA 6020 and EPA 7471A) Soil:
No analytical problems were encountered.

Metals (EPA 6010B) WET Leachate:
No analytical problems were encountered.

Moisture (EPA CLP):
No analytical problems were encountered.

Subject: RE: 15-1311A - C&T Data (271376)
From: Kalle Jahn <kalle@irisenv.com>
Date: 11/9/2015 9:03 PM
To: "'tracy.babjar@ctberk.com'" <tracy.babjar@ctberk.com>
CC: Nick Loizeaux <nick@irisenv.com>, Craig Pelletier <craig@irisenv.com>

Hi Tracy,

Please run WET for chromium on both samples, SP-IMP-151106 (271376-001) and SP-FILL-151106 (271376-002).

Thanks!

Kalle

From: Tracy Babjar [mailto:tracy.babjar@ctberk.com]
Sent: Monday, November 9, 2015 6:33 PM
To: Kalle Jahn
Subject: 15-1311A - C&T Data (271376)

Hi Kalle,

Data qualifiers and additional information necessary for the interpretation of the test results are contained in the PDF file and may not be included in the EDD.

Please find attached the following files:
• Invoice
• PDF Deliverable
• Iris format EDD (271376_iris.zip)

You may also access this data at https://labline.ctberk.com/
Email was also sent to: Craig@irisenv.com, nloizeaux@irisenv.com

C&T sends its e-reports via the Internet as Portable Document Format (PDF) files. Reports in this format, when accompanied by a signed cover page, are considered official reports. **No hardcopy reports will be sent either by fax or U.S. Postal Service unless otherwise requested.** You may distribute your PDF files electronically or as printed hardcopies, as long as they are distributed in their entirety.

271376

IRIS ENVIRONMENTAL

1438 Webster Street, Suite 302
Oakland, California 94612
(510) 834-4747 tel
(510) 834-4199 fax

CHAIN-OF-CUSTODY

Date: 11/6/15 Page: 1 of 1 № 003875

Sampler Name(s): Kalle Jahn Signature(s): Kalle Jahn

Sample ID	Date	Time	Matrix	Pres.	VOCs (8260) & fuel oxygenates & lead scavengers & ethanol	TPH-g (8015)	TPH-d/mo (8015) **	SVOCs (8270)	Title 22 metals	PCBs (8082)	Moisture	TCLP	(extract 'n' hold)	WET	(extract 'n' hold)						Number of Containers
SP-IMP-151106 ☆	11/6/15	1300	S		X	X	X	X	X	X	X	X		X							4
SP-FILL-151106 ★	1	1310	1		X	X	X	X	X	X	X	X		X							4

PROJECT INFORMATION

Project Name: 3820 Penniman
Project Number: 15-1311A
Contact Person: K. Jahn, N. Loizeaux
E-mail: kalle@; Nick@irisenv.com
Contact Telephone: x 27
Report: Routine (Level 2) Level 3 Level 4 (EDD)
TAT: 10-day 5-day 72-hr 48-hr (24-hr) Other:

Special Instructions/Comments:
★ 4 → 1 composite
★★ both w/ and w/o silica gel cleanup
Report wet weight

RELINQUISHED BY:		RECEIVED BY:	
Printed Name	Kalle Jahn	Printed Name	Mikelle Chong
Signature	Kalle Jahn	Signature	[signature]
Company	Iris	Company	CkT
Time/Date	1440 11/6/15	Time/Date	11/06/15 1440

RELINQUISHED BY:		RECEIVED BY:	
Printed Name		Printed Name	
Signature		Signature	
Company		Company	
Time/Date		Time/Date	

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 271376 Date Received 11/6/15 Number of coolers 1
Client IRIS Environmental Project 3820 Penniman

Date Opened 11/6 By (print) CN (sign)
Date Logged in 6 By (print) SC (sign)

1. Did cooler come with a shipping slip (airbill, etc) _____ YES (NO)
   Shipping info _____

2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
   How many _____ Name _____ Date _____
2B. Were custody seals intact upon arrival? _____ YES NO (N/A)
3. Were custody papers dry and intact when received? _____ (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? _____ (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) ___ (YES) NO
6. Indicate the packing in cooler: (if other, describe) _____

☐ Bubble Wrap ☐ Foam blocks ☐ Bags ☒ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☒ Wet ☐ Blue/Gel ☐ None Temp(°C) _____

☐ Temperature blank(s) included? ☐ Thermometer ☐ IR Gun

☒ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? _____ YES (NO)
   If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? _____ (YES) NO
10. Are there any missing / extra samples? _____ YES (NO)
11. Are samples in the appropriate containers for indicated tests? _____ (YES) NO
12. Are sample labels present, in good condition and complete? _____ (YES) NO
13. Do the sample labels agree with custody papers? _____ (YES) NO
14. Was sufficient amount of sample sent for tests requested? _____ (YES) NO
15. Are the samples appropriately preserved? _____ YES NO (N/A)
16. Did you check preservatives for all bottles for each sample? _____ YES NO (N/A)
17. Did you document your preservative check? _____ YES NO (N/A)
18. Did you change the hold time in LIMS for unpreserved VOAs? _____ YES NO (N/A)
19. Did you change the hold time in LIMS for preserved terracores? _____ YES NO (N/A)
20. Are bubbles > 6mm absent in VOA samples? _____ YES NO (N/A)
21. Was the client contacted concerning this sample delivery? _____ YES (NO)
   If YES, Who was called? _____ By _____ Date: _____

COMMENTS

_____

_____

_____

_____

_____

_____

Rev 11, 10/15

Curtis & Tompkins, Ltd.

Detections Summary for 271376

Results for any subcontracted analyses are not included in this summary.

Client : Iris Environmental
Project : 15-1311A
Location : 3820 Penniman

Client Sample ID : SP-IMP-151106 Laboratory Sample ID : 271376-001

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	16	Y	1.3		mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Diesel C10-C24	14	Y	1.3		mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	54		6.3		mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	48		6.3		mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Naphthalene	12		5.9		ug/Kg	Dry	0.9363	EPA 8260B	EPA 5030B
Naphthalene	44	J	84	16	ug/Kg	Dry	1.000	EPA 8270C	EPA 3550B
2-Methylnaphthalene	66	J	84	13	ug/Kg	Dry	1.000	EPA 8270C	EPA 3550B
bis(2-Ethylhexyl)phthalate	13	J	420	11	ug/Kg	Dry	1.000	EPA 8270C	EPA 3550B
Antimony	0.38		0.29		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	7.7		0.29		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	220		0.29		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.61		0.29		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cadmium	1.5		0.29		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	87		0.29		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	19		0.29		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	48		0.29		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	42		0.29		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.23		0.022		mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.72		0.47		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	110		0.29		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Selenium	0.32		0.29		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	65		0.29		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	220		1.2		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Moisture, Percent	21		1		%	As Recd	1.000	EPA CLP	METHOD

Curtis & Tompkins, Ltd.

Client Sample ID : SP-FILL-151106 Laboratory Sample ID : 271376-002

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	3.5	Y	1.1		mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Diesel C10-C24	3.1	Y	1.1		mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	15		5.6		mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	15		5.6		mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Antimony	0.36		0.26		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	8.0		0.26		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	200		0.26		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.66		0.26		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cadmium	0.35		0.26		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	82		0.26		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	19		0.26		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	37		0.26		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	23		0.26		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.12		0.019		mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	1.1		0.43		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	94		0.26		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Selenium	0.30		0.26		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	63		0.26		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	180		1.1		mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Moisture, Percent	11		1		%	As Recd	1.000	EPA CLP	METHOD

J = Estimated value
Y = Sample exhibits chromatographic pattern which does not resemble standard

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5030B
Project#:	15-1311A	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	229141
Units:	mg/Kg	Sampled:	11/06/15
Basis:	dry	Received:	11/06/15
Diln Fac:	1.000	Analyzed:	11/06/15

Field ID: SP-IMP-151106 Lab ID: 271376-001
Type: SAMPLE Moisture: 21%

Analyte	Result	RL
Gasoline C7-C12	ND	1.3

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	109	78-138

Field ID: SP-FILL-151106 Lab ID: 271376-002
Type: SAMPLE Moisture: 11%

Analyte	Result	RL
Gasoline C7-C12	ND	1.1

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	114	78-138

Type: BLANK Lab ID: QC811565

Analyte	Result	RL
Gasoline C7-C12	ND	0.20

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	90	78-138

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5030B
Project#:	15-1311A	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC811564	Batch#:	229141
Matrix:	Soil	Analyzed:	11/06/15
Units:	mg/Kg		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	0.9289	93	80-121

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	103	78-138

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5030B
Project#:	15-1311A	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	271346-003	Batch#:	229141
Matrix:	Soil	Sampled:	11/04/15
Units:	mg/Kg	Received:	11/05/15
Basis:	as received	Analyzed:	11/06/15

Type: MS Lab ID: QC811566

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.1830	9.346	8.208	86	50-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	116	78-138

Type: MSD Lab ID: QC811567

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.901	8.369	83	50-120	4	31

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	111	78-138

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	11/06/15
Units:	mg/Kg	Received:	11/06/15
Basis:	dry	Prepared:	11/06/15
Diln Fac:	1.000	Analyzed:	11/07/15
Batch#:	229173		

Field ID:	SP-IMP-151106	Moisture:	21%
Type:	SAMPLE	Cleanup Method:	EPA 3630C
Lab ID:	271376-001		

Analyte	Result	RL
Diesel C10-C24	16 Y	1.3
Diesel C10-C24 (SGCU)	14 Y	1.3
Motor Oil C24-C36	54	6.3
Motor Oil C24-C36 (SGCU)	48	6.3

Surrogate	%REC	Limits
o-Terphenyl	111	59-140
o-Terphenyl (SGCU)	118	59-140

Field ID:	SP-FILL-151106	Moisture:	11%
Type:	SAMPLE	Cleanup Method:	EPA 3630C
Lab ID:	271376-002		

Analyte	Result	RL
Diesel C10-C24	3.5 Y	1.1
Diesel C10-C24 (SGCU)	3.1 Y	1.1
Motor Oil C24-C36	15	5.6
Motor Oil C24-C36 (SGCU)	15	5.6

Surrogate	%REC	Limits
o-Terphenyl	117	59-140
o-Terphenyl (SGCU)	120	59-140

Type:	BLANK	Cleanup Method:	EPA 3630C
Lab ID:	QC811685		

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Diesel C10-C24 (SGCU)	ND	1.0
Motor Oil C24-C36	ND	5.0
Motor Oil C24-C36 (SGCU)	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	103	59-140
o-Terphenyl (SGCU)	102	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
SGCU= Silica gel cleanup

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC811686	Batch#:	229173
Matrix:	Soil	Prepared:	11/06/15
Units:	mg/Kg	Analyzed:	11/07/15

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.91	51.54	103	58-137
Diesel C10-C24 (SGCU)	49.91	54.27	109	58-137

Surrogate	%REC	Limits
o-Terphenyl	117	59-140
o-Terphenyl (SGCU)	126	59-140

SGCU= Silica gel cleanup

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	229173
MSS Lab ID:	271316-001	Sampled:	11/05/15
Matrix:	Soil	Received:	11/05/15
Units:	mg/Kg	Prepared:	11/06/15
Basis:	as received	Analyzed:	11/07/15
Diln Fac:	1.000		

Type: MS Lab ID: QC811687

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	0.5273	50.11	46.11	91	46-154

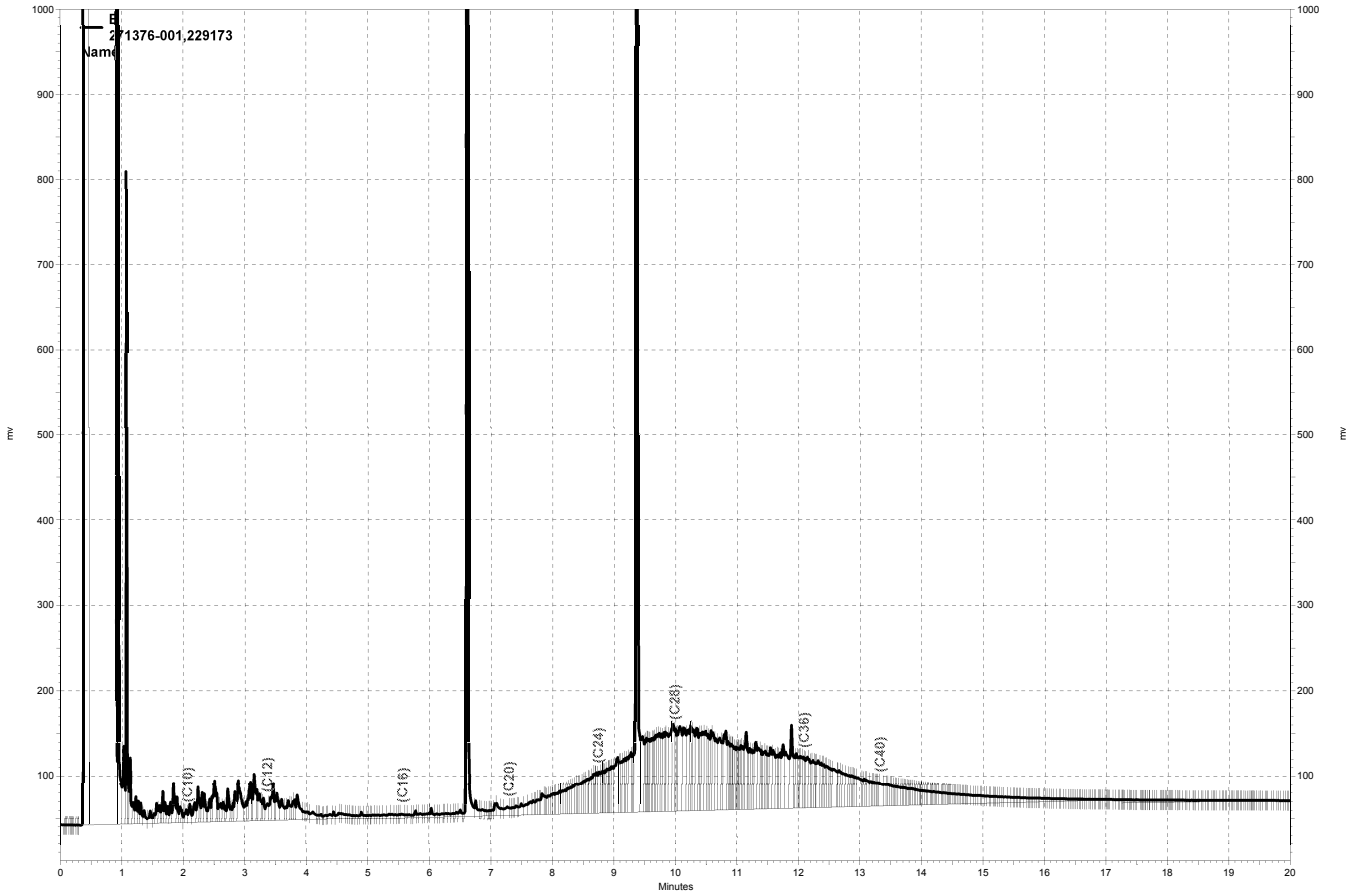
Surrogate	%REC	Limits
o-Terphenyl	111	59-140

Type: MSD Lab ID: QC811688

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.95	43.39	86	46-154	6	50

Surrogate	%REC	Limits
o-Terphenyl	106	59-140

RPD= Relative Percent Difference



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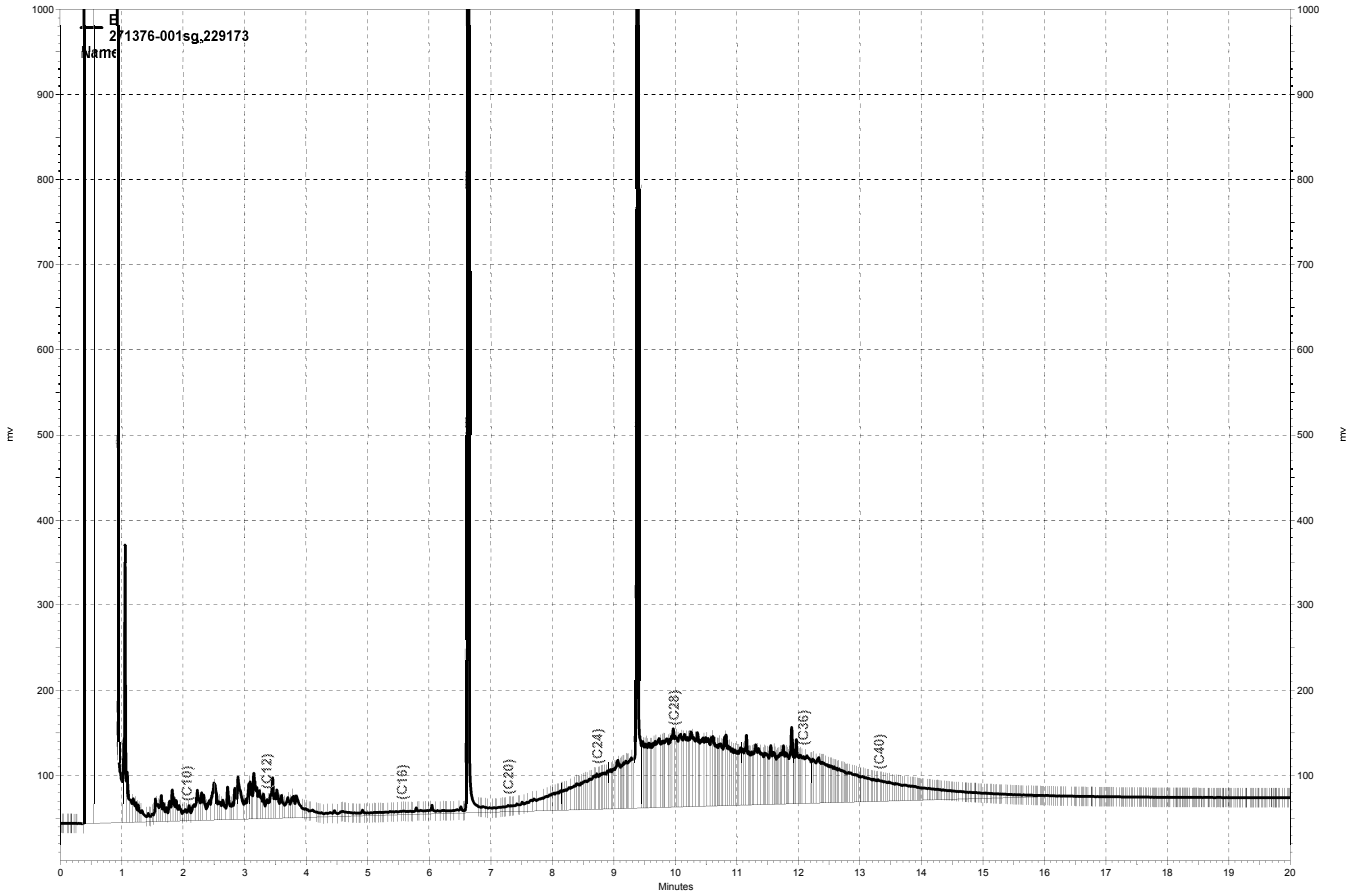

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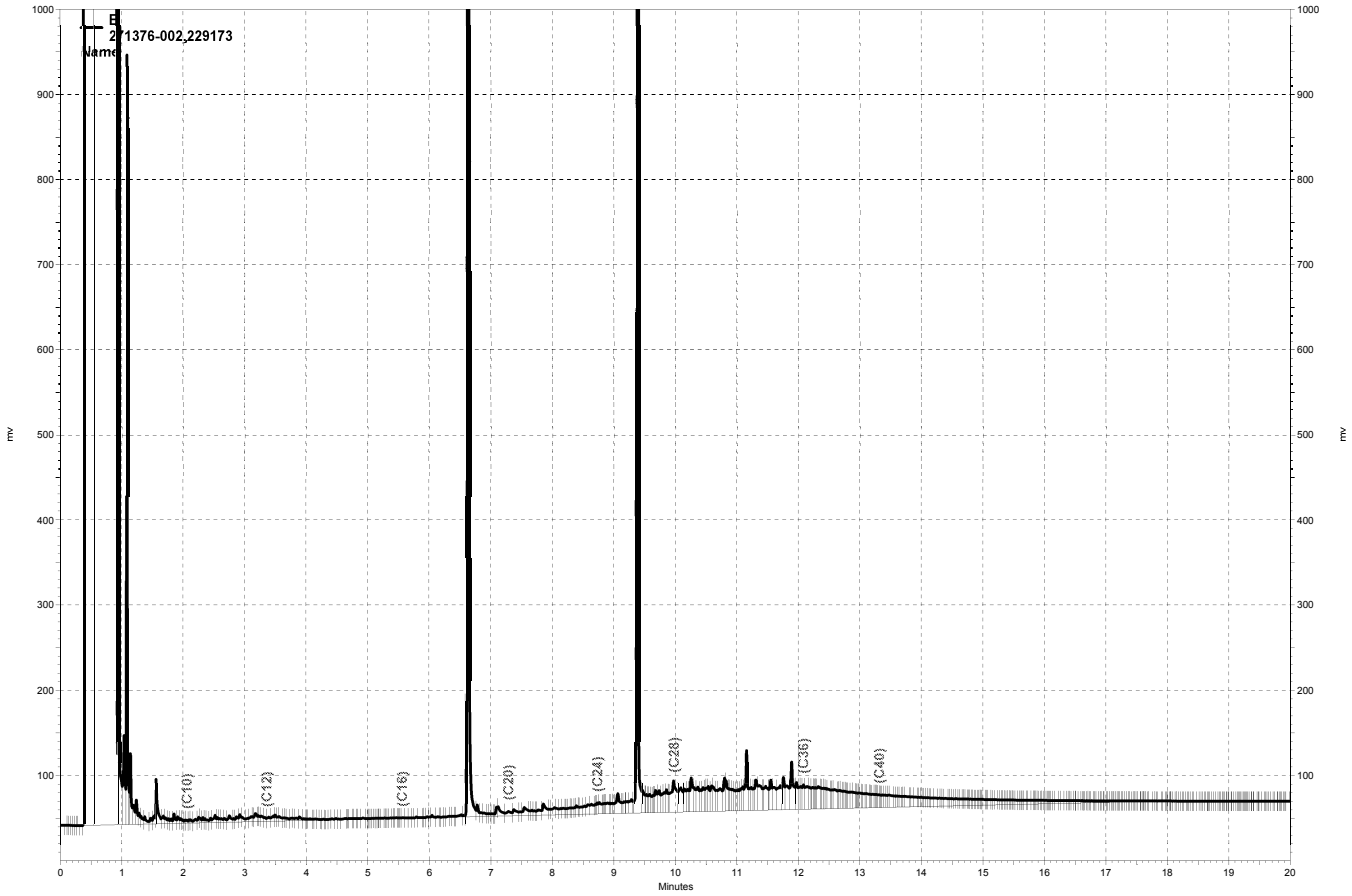

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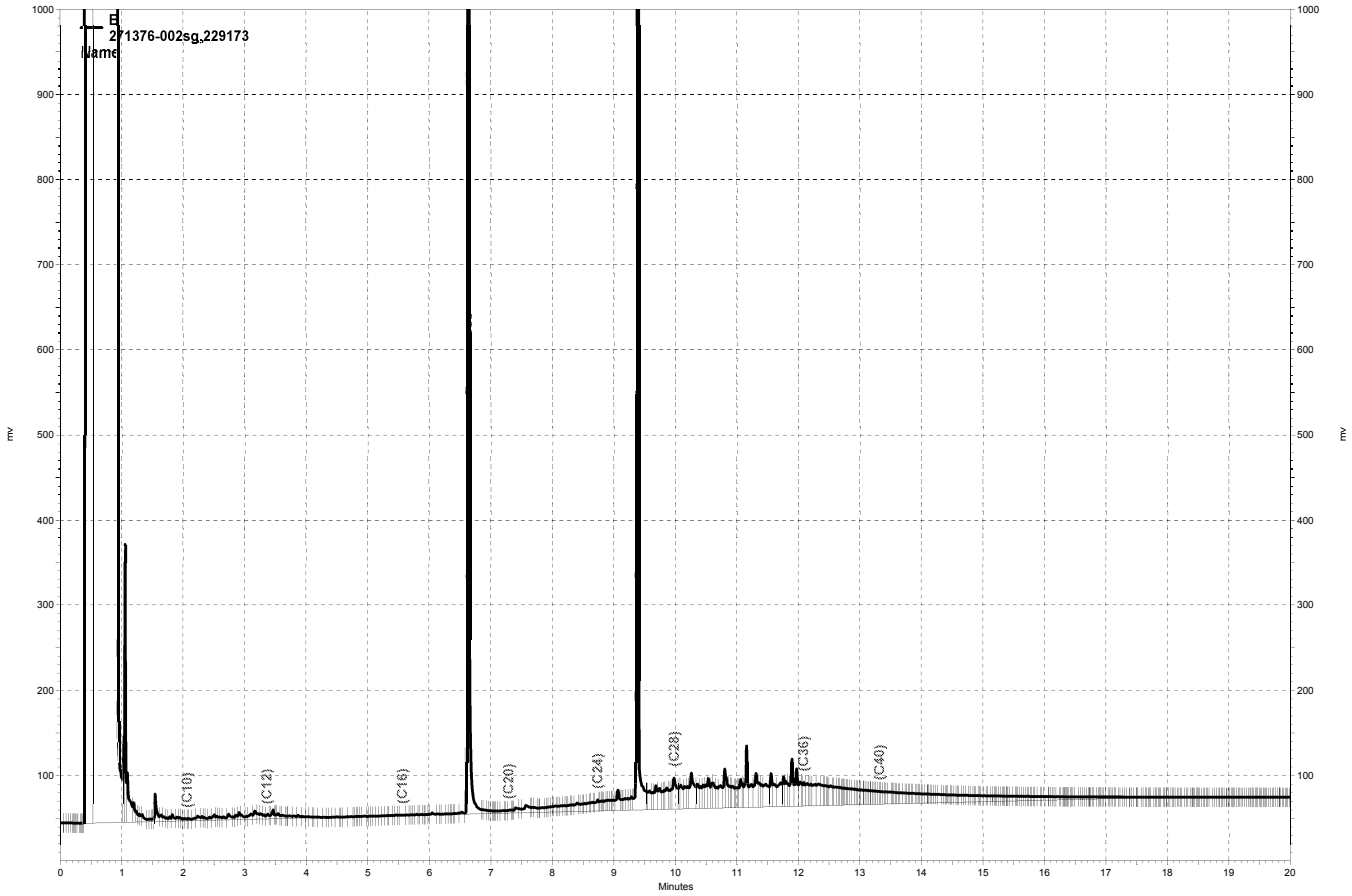

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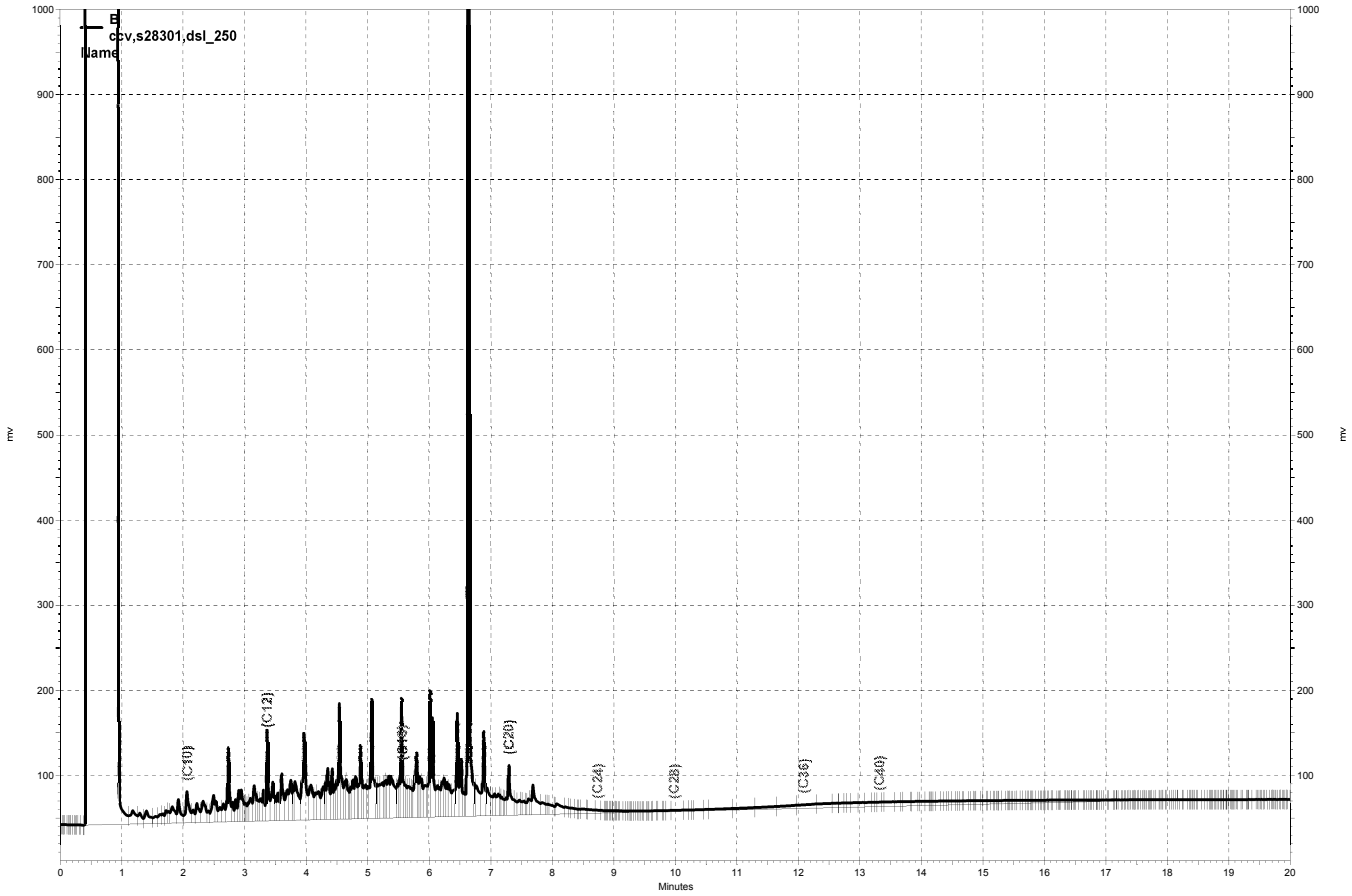

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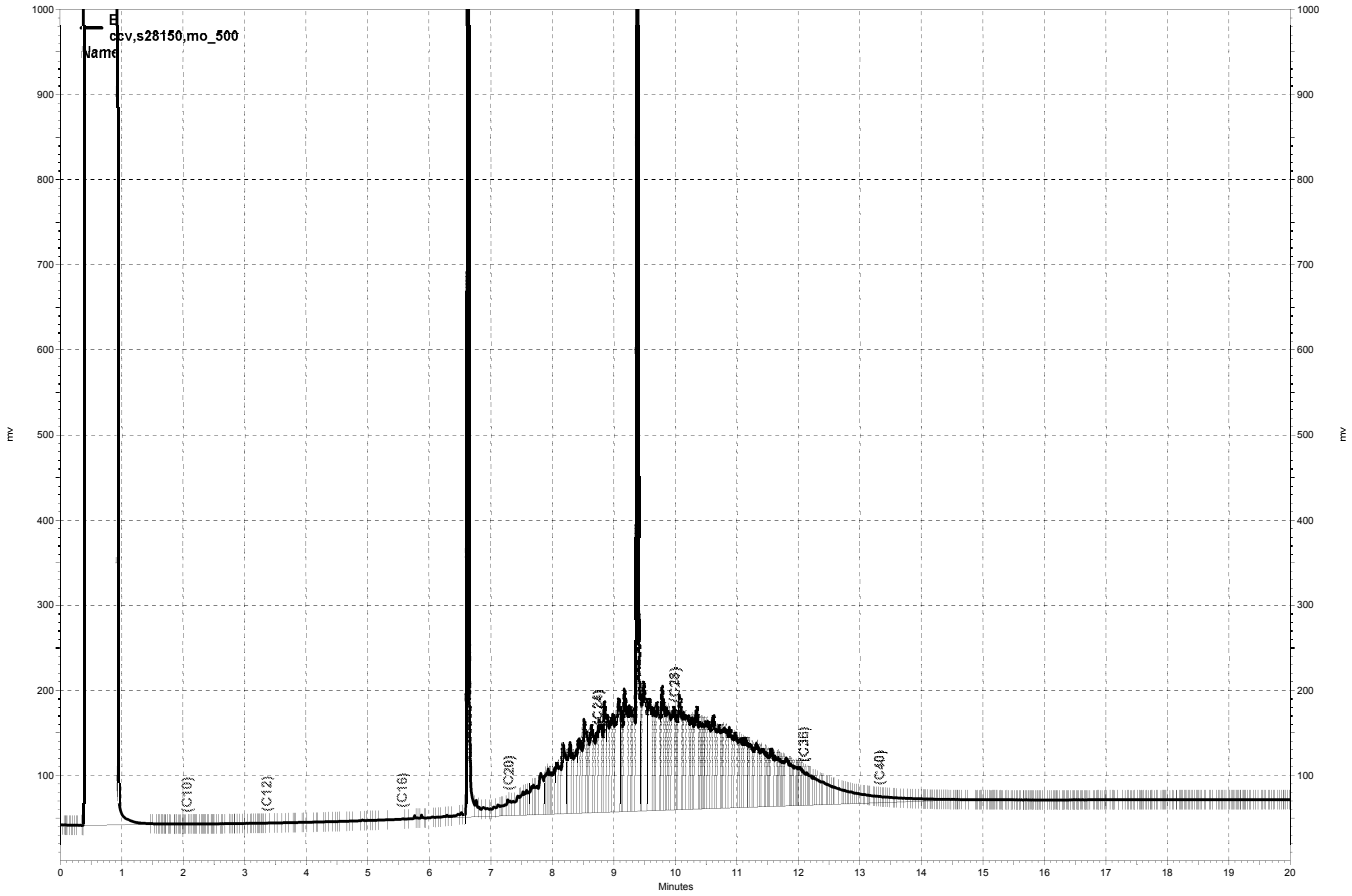

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5030B
Project#:	15-1311A	Analysis:	EPA 8260B
Field ID:	SP-IMP-151106	Dil'n Fac:	0.9363
Lab ID:	271376-001	Batch#:	229152
Matrix:	Soil	Sampled:	11/06/15
Units:	ug/Kg	Received:	11/06/15
Basis:	dry	Analyzed:	11/06/15

Moisture: 21%

Analyte	Result	RL
Freon 12	ND	12
tert-Butyl Alcohol (TBA)	ND	120
Chloromethane	ND	12
Isopropyl Ether (DIPE)	ND	5.9
Vinyl Chloride	ND	12
Bromomethane	ND	12
Ethyl tert-Butyl Ether (ETBE)	ND	5.9
Chloroethane	ND	12
Methyl tert-Amyl Ether (TAME)	ND	5.9
Trichlorofluoromethane	ND	5.9
Ethanol	ND	1,200
Acetone	ND	24
Freon 113	ND	5.9
1,1-Dichloroethene	ND	5.9
Methylene Chloride	ND	24
Carbon Disulfide	ND	5.9
MTBE	ND	5.9
trans-1,2-Dichloroethene	ND	5.9
Vinyl Acetate	ND	59
1,1-Dichloroethane	ND	5.9
2-Butanone	ND	12
cis-1,2-Dichloroethene	ND	5.9
2,2-Dichloropropane	ND	5.9
Chloroform	ND	5.9
Bromochloromethane	ND	5.9
1,1,1-Trichloroethane	ND	5.9
1,1-Dichloropropene	ND	5.9
Carbon Tetrachloride	ND	5.9
1,2-Dichloroethane	ND	5.9
Benzene	ND	5.9
Trichloroethene	ND	5.9
1,2-Dichloropropane	ND	5.9
Bromodichloromethane	ND	5.9
Dibromomethane	ND	5.9
4-Methyl-2-Pentanone	ND	12
cis-1,3-Dichloropropene	ND	5.9
Toluene	ND	5.9
trans-1,3-Dichloropropene	ND	5.9
1,1,2-Trichloroethane	ND	5.9
2-Hexanone	ND	12
1,3-Dichloropropane	ND	5.9
Tetrachloroethene	ND	5.9
Dibromochloromethane	ND	5.9
1,2-Dibromoethane	ND	5.9
Chlorobenzene	ND	5.9
1,1,1,2-Tetrachloroethane	ND	5.9
Ethylbenzene	ND	5.9
m,p-Xylenes	ND	5.9
o-Xylene	ND	5.9
Styrene	ND	5.9
Bromoform	ND	5.9
Isopropylbenzene	ND	5.9

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5030B
Project#:	15-1311A	Analysis:	EPA 8260B
Field ID:	SP-IMP-151106	Dil'n Fac:	0.9363
Lab ID:	271376-001	Batch#:	229152
Matrix:	Soil	Sampled:	11/06/15
Units:	ug/Kg	Received:	11/06/15
Basis:	dry	Analyzed:	11/06/15

Analyte	Result	RL
1,1,2,2-Tetrachloroethane	ND	5.9
1,2,3-Trichloropropane	ND	5.9
Propylbenzene	ND	5.9
Bromobenzene	ND	5.9
1,3,5-Trimethylbenzene	ND	5.9
2-Chlorotoluene	ND	5.9
4-Chlorotoluene	ND	5.9
tert-Butylbenzene	ND	5.9
1,2,4-Trimethylbenzene	ND	5.9
sec-Butylbenzene	ND	5.9
para-Isopropyl Toluene	ND	5.9
1,3-Dichlorobenzene	ND	5.9
1,4-Dichlorobenzene	ND	5.9
n-Butylbenzene	ND	5.9
1,2-Dichlorobenzene	ND	5.9
1,2-Dibromo-3-Chloropropane	ND	5.9
1,2,4-Trichlorobenzene	ND	5.9
Hexachlorobutadiene	ND	5.9
Naphthalene	12	5.9
1,2,3-Trichlorobenzene	ND	5.9

Surrogate	%REC	Limits
Dibromofluoromethane	109	78-134
1,2-Dichloroethane-d4	105	80-138
Toluene-d8	102	80-120
Bromofluorobenzene	106	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5030B
Project#:	15-1311A	Analysis:	EPA 8260B
Field ID:	SP-FILL-151106	Dil'n Fac:	0.9579
Lab ID:	271376-002	Batch#:	229152
Matrix:	Soil	Sampled:	11/06/15
Units:	ug/Kg	Received:	11/06/15
Basis:	dry	Analyzed:	11/06/15

Moisture: 11%

Analyte	Result	RL
Freon 12	ND	11
tert-Butyl Alcohol (TBA)	ND	110
Chloromethane	ND	11
Isopropyl Ether (DIPE)	ND	5.4
Vinyl Chloride	ND	11
Bromomethane	ND	11
Ethyl tert-Butyl Ether (ETBE)	ND	5.4
Chloroethane	ND	11
Methyl tert-Amyl Ether (TAME)	ND	5.4
Trichlorofluoromethane	ND	5.4
Ethanol	ND	1,100
Acetone	ND	22
Freon 113	ND	5.4
1,1-Dichloroethene	ND	5.4
Methylene Chloride	ND	22
Carbon Disulfide	ND	5.4
MTBE	ND	5.4
trans-1,2-Dichloroethene	ND	5.4
Vinyl Acetate	ND	54
1,1-Dichloroethane	ND	5.4
2-Butanone	ND	11
cis-1,2-Dichloroethene	ND	5.4
2,2-Dichloropropane	ND	5.4
Chloroform	ND	5.4
Bromochloromethane	ND	5.4
1,1,1-Trichloroethane	ND	5.4
1,1-Dichloropropene	ND	5.4
Carbon Tetrachloride	ND	5.4
1,2-Dichloroethane	ND	5.4
Benzene	ND	5.4
Trichloroethene	ND	5.4
1,2-Dichloropropane	ND	5.4
Bromodichloromethane	ND	5.4
Dibromomethane	ND	5.4
4-Methyl-2-Pentanone	ND	11
cis-1,3-Dichloropropene	ND	5.4
Toluene	ND	5.4
trans-1,3-Dichloropropene	ND	5.4
1,1,2-Trichloroethane	ND	5.4
2-Hexanone	ND	11
1,3-Dichloropropane	ND	5.4
Tetrachloroethene	ND	5.4
Dibromochloromethane	ND	5.4
1,2-Dibromoethane	ND	5.4
Chlorobenzene	ND	5.4
1,1,1,2-Tetrachloroethane	ND	5.4
Ethylbenzene	ND	5.4
m,p-Xylenes	ND	5.4
o-Xylene	ND	5.4
Styrene	ND	5.4
Bromoform	ND	5.4
Isopropylbenzene	ND	5.4

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5030B
Project#:	15-1311A	Analysis:	EPA 8260B
Field ID:	SP-FILL-151106	Dil'n Fac:	0.9579
Lab ID:	271376-002	Batch#:	229152
Matrix:	Soil	Sampled:	11/06/15
Units:	ug/Kg	Received:	11/06/15
Basis:	dry	Analyzed:	11/06/15

Analyte	Result	RL
1,1,2,2-Tetrachloroethane	ND	5.4
1,2,3-Trichloropropane	ND	5.4
Propylbenzene	ND	5.4
Bromobenzene	ND	5.4
1,3,5-Trimethylbenzene	ND	5.4
2-Chlorotoluene	ND	5.4
4-Chlorotoluene	ND	5.4
tert-Butylbenzene	ND	5.4
1,2,4-Trimethylbenzene	ND	5.4
sec-Butylbenzene	ND	5.4
para-Isopropyl Toluene	ND	5.4
1,3-Dichlorobenzene	ND	5.4
1,4-Dichlorobenzene	ND	5.4
n-Butylbenzene	ND	5.4
1,2-Dichlorobenzene	ND	5.4
1,2-Dibromo-3-Chloropropane	ND	5.4
1,2,4-Trichlorobenzene	ND	5.4
Hexachlorobutadiene	ND	5.4
Naphthalene	ND	5.4
1,2,3-Trichlorobenzene	ND	5.4

Surrogate	%REC	Limits
Dibromofluoromethane	110	78-134
1,2-Dichloroethane-d4	104	80-138
Toluene-d8	103	80-120
Bromofluorobenzene	104	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5030B
Project#:	15-1311A	Analysis:	EPA 8260B
Matrix:	Soil	Batch#:	229152
Units:	ug/Kg	Analyzed:	11/06/15
Diln Fac:	1.000		

Type: BS Lab ID: QC811611

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	90.09	72	49-131
Isopropyl Ether (DIPE)	25.00	24.12	96	54-129
Ethyl tert-Butyl Ether (ETBE)	25.00	21.31	85	60-120
Methyl tert-Amyl Ether (TAME)	25.00	19.58	78	70-120
1,1-Dichloroethene	25.00	19.67	79	70-134
Benzene	25.00	24.23	97	80-123
Trichloroethene	25.00	22.74	91	80-128
Toluene	25.00	24.50	98	80-120
Chlorobenzene	25.00	23.96	96	80-123

Surrogate	%REC	Limits
Dibromofluoromethane	101	78-134
1,2-Dichloroethane-d4	96	80-138
Toluene-d8	104	80-120
Bromofluorobenzene	105	78-123

Type: BSD Lab ID: QC811612

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	82.17	66	49-131	9	40
Isopropyl Ether (DIPE)	25.00	22.84	91	54-129	5	24
Ethyl tert-Butyl Ether (ETBE)	25.00	20.42	82	60-120	4	24
Methyl tert-Amyl Ether (TAME)	25.00	18.91	76	70-120	3	22
1,1-Dichloroethene	25.00	18.99	76	70-134	4	22
Benzene	25.00	23.65	95	80-123	2	21
Trichloroethene	25.00	22.21	89	80-128	2	23
Toluene	25.00	24.06	96	80-120	2	20
Chlorobenzene	25.00	23.63	95	80-123	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	78-134
1,2-Dichloroethane-d4	94	80-138
Toluene-d8	104	80-120
Bromofluorobenzene	104	78-123

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5030B
Project#:	15-1311A	Analysis:	EPA 8260B
Type:	BLANK	Dil'n Fac:	1.000
Lab ID:	QC811613	Batch#:	229152
Matrix:	Soil	Analyzed:	11/06/15
Units:	ug/Kg		

Analyte	Result	RL
Freon 12	ND	10
tert-Butyl Alcohol (TBA)	ND	100
Chloromethane	ND	10
Isopropyl Ether (DIPE)	ND	5.0
Vinyl Chloride	ND	10
Bromomethane	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Chloroethane	ND	10
Methyl tert-Amyl Ether (TAME)	ND	5.0
Trichlorofluoromethane	ND	5.0
Ethanol	ND	1,000
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 5030B
Project#:	15-1311A	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC811613	Batch#:	229152
Matrix:	Soil	Analyzed:	11/06/15
Units:	ug/Kg		

Analyte	Result	RL
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	102	78-134
1,2-Dichloroethane-d4	96	80-138
Toluene-d8	102	80-120
Bromofluorobenzene	103	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8270C
Field ID:	SP-IMP-151106	Batch#:	229115
Lab ID:	271376-001	Sampled:	11/06/15
Matrix:	Soil	Received:	11/06/15
Units:	ug/Kg	Prepared:	11/06/15
Basis:	dry	Analyzed:	11/07/15
Diln Fac:	1.000		

Moisture: 21%

Analyte	Result	RL	MDL
N-Nitrosodimethylamine	ND	420	53
Phenol	ND	420	19
bis(2-Chloroethyl)ether	ND	420	28
2-Chlorophenol	ND	420	18
1,3-Dichlorobenzene	ND	420	53
1,4-Dichlorobenzene	ND	420	53
Benzyl alcohol	ND	420	21
1,2-Dichlorobenzene	ND	420	28
2-Methylphenol	ND	420	18
bis(2-Chloroisopropyl) ether	ND	420	20
4-Methylphenol	ND	420	20
N-Nitroso-di-n-propylamine	ND	420	19
Hexachloroethane	ND	420	53
Nitrobenzene	ND	420	28
Isophorone	ND	420	13
2-Nitrophenol	ND	840	49
2,4-Dimethylphenol	ND	420	23
Benzoic acid	ND	2,100	480
bis(2-Chloroethoxy)methane	ND	420	13
2,4-Dichlorophenol	ND	420	12
1,2,4-Trichlorobenzene	ND	420	28
Naphthalene	44 J	84	16
4-Chloroaniline	ND	420	16
Hexachlorobutadiene	ND	420	28
4-Chloro-3-methylphenol	ND	420	11
2-Methylnaphthalene	66 J	84	13
Hexachlorocyclopentadiene	ND	840	96
2,4,6-Trichlorophenol	ND	420	14
2,4,5-Trichlorophenol	ND	420	12
2-Chloronaphthalene	ND	420	11
2-Nitroaniline	ND	840	43
Dimethylphthalate	ND	420	11
Acenaphthylene	ND	84	11
2,6-Dinitrotoluene	ND	420	42
3-Nitroaniline	ND	840	11
Acenaphthene	ND	84	11
2,4-Dinitrophenol	ND	840	94
4-Nitrophenol	ND	840	11
Dibenzofuran	ND	420	11
2,4-Dinitrotoluene	ND	420	10
Diethylphthalate	ND	420	11
Fluorene	ND	84	11
4-Chlorophenyl-phenylether	ND	420	11
4-Nitroaniline	ND	840	13
4,6-Dinitro-2-methylphenol	ND	840	44
N-Nitrosodiphenylamine	ND	420	11
Azobenzene	ND	420	11
4-Bromophenyl-phenylether	ND	420	11
Hexachlorobenzene	ND	420	11

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8270C
Field ID:	SP-IMP-151106	Batch#:	229115
Lab ID:	271376-001	Sampled:	11/06/15
Matrix:	Soil	Received:	11/06/15
Units:	ug/Kg	Prepared:	11/06/15
Basis:	dry	Analyzed:	11/07/15
Diln Fac:	1.000		

Analyte	Result	RL	MDL
Pentachlorophenol	ND	840	130
Phenanthrene	ND	84	11
Anthracene	ND	84	11
Di-n-butylphthalate	ND	420	12
Fluoranthene	ND	84	12
Pyrene	ND	84	11
Butylbenzylphthalate	ND	420	12
3,3'-Dichlorobenzidine	ND	840	100
Benzo(a)anthracene	ND	84	11
Chrysene	ND	84	11
bis(2-Ethylhexyl)phthalate	13 J	420	11
Di-n-octylphthalate	ND	420	43
Benzo(b)fluoranthene	ND	84	11
Benzo(k)fluoranthene	ND	84	11
Benzo(a)pyrene	ND	84	11
Indeno(1,2,3-cd)pyrene	ND	84	11
Dibenz(a,h)anthracene	ND	84	11
Benzo(g,h,i)perylene	ND	84	11

Surrogate	%REC	Limits
2-Fluorophenol	61	25-120
Phenol-d5	67	36-120
2,4,6-Tribromophenol	58	27-120
Nitrobenzene-d5	55	44-120
2-Fluorobiphenyl	57	47-120
Terphenyl-d14	63	49-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8270C
Field ID:	SP-FILL-151106	Batch#:	229115
Lab ID:	271376-002	Sampled:	11/06/15
Matrix:	Soil	Received:	11/06/15
Units:	ug/Kg	Prepared:	11/06/15
Basis:	dry	Analyzed:	11/07/15
Diln Fac:	1.000		

Moisture: 11%

Analyte	Result	RL	MDL
N-Nitrosodimethylamine	ND	380	48
Phenol	ND	380	17
bis(2-Chloroethyl)ether	ND	380	25
2-Chlorophenol	ND	380	16
1,3-Dichlorobenzene	ND	380	48
1,4-Dichlorobenzene	ND	380	48
Benzyl alcohol	ND	380	19
1,2-Dichlorobenzene	ND	380	25
2-Methylphenol	ND	380	16
bis(2-Chloroisopropyl) ether	ND	380	18
4-Methylphenol	ND	380	18
N-Nitroso-di-n-propylamine	ND	380	17
Hexachloroethane	ND	380	48
Nitrobenzene	ND	380	25
Isophorone	ND	380	12
2-Nitrophenol	ND	760	44
2,4-Dimethylphenol	ND	380	21
Benzoic acid	ND	1,900	430
bis(2-Chloroethoxy)methane	ND	380	12
2,4-Dichlorophenol	ND	380	11
1,2,4-Trichlorobenzene	ND	380	25
Naphthalene	ND	76	15
4-Chloroaniline	ND	380	14
Hexachlorobutadiene	ND	380	25
4-Chloro-3-methylphenol	ND	380	9.9
2-Methylnaphthalene	ND	76	11
Hexachlorocyclopentadiene	ND	760	86
2,4,6-Trichlorophenol	ND	380	13
2,4,5-Trichlorophenol	ND	380	10
2-Chloronaphthalene	ND	380	9.5
2-Nitroaniline	ND	760	38
Dimethylphthalate	ND	380	9.5
Acenaphthylene	ND	76	9.5
2,6-Dinitrotoluene	ND	380	38
3-Nitroaniline	ND	760	9.5
Acenaphthene	ND	76	9.5
2,4-Dinitrophenol	ND	760	85
4-Nitrophenol	ND	760	9.5
Dibenzofuran	ND	380	9.6
2,4-Dinitrotoluene	ND	380	9.5
Diethylphthalate	ND	380	9.5
Fluorene	ND	76	9.5
4-Chlorophenyl-phenylether	ND	380	9.6
4-Nitroaniline	ND	760	12
4,6-Dinitro-2-methylphenol	ND	760	40
N-Nitrosodiphenylamine	ND	380	9.5
Azobenzene	ND	380	9.5
4-Bromophenyl-phenylether	ND	380	9.5
Hexachlorobenzene	ND	380	9.5
Pentachlorophenol	ND	760	120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8270C
Field ID:	SP-FILL-151106	Batch#:	229115
Lab ID:	271376-002	Sampled:	11/06/15
Matrix:	Soil	Received:	11/06/15
Units:	ug/Kg	Prepared:	11/06/15
Basis:	dry	Analyzed:	11/07/15
Diln Fac:	1.000		

Analyte	Result	RL	MDL
Phenanthrene	ND	76	9.5
Anthracene	ND	76	10
Di-n-butylphthalate	ND	380	11
Fluoranthene	ND	76	11
Pyrene	ND	76	9.5
Butylbenzylphthalate	ND	380	11
3,3'-Dichlorobenzidine	ND	760	90
Benzo(a)anthracene	ND	76	9.5
Chrysene	ND	76	9.5
bis(2-Ethylhexyl)phthalate	ND	380	9.7
Di-n-octylphthalate	ND	380	39
Benzo(b)fluoranthene	ND	76	9.5
Benzo(k)fluoranthene	ND	76	9.5
Benzo(a)pyrene	ND	76	9.5
Indeno(1,2,3-cd)pyrene	ND	76	9.5
Dibenz(a,h)anthracene	ND	76	9.5
Benzo(g,h,i)perylene	ND	76	9.5

Surrogate	%REC	Limits
2-Fluorophenol	60	25-120
Phenol-d5	65	36-120
2,4,6-Tribromophenol	44	27-120
Nitrobenzene-d5	53	44-120
2-Fluorobiphenyl	54	47-120
Terphenyl-d14	59	49-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC811461	Batch#:	229115
Matrix:	Soil	Prepared:	11/05/15
Units:	ug/Kg	Analyzed:	11/05/15

Analyte	Result	RL	MDL
N-Nitrosodimethylamine	ND	330	47
Phenol	ND	330	9.9
bis(2-Chloroethyl)ether	ND	330	59
2-Chlorophenol	ND	330	9.9
1,3-Dichlorobenzene	ND	330	56
1,4-Dichlorobenzene	ND	330	9.9
Benzyl alcohol	ND	330	11
1,2-Dichlorobenzene	ND	330	9.9
2-Methylphenol	ND	330	14
bis(2-Chloroisopropyl) ether	ND	330	9.9
4-Methylphenol	ND	330	9.9
N-Nitroso-di-n-propylamine	ND	330	9.9
Hexachloroethane	ND	330	9.9
Nitrobenzene	ND	330	11
Isophorone	ND	330	9.9
2-Nitrophenol	ND	660	9.9
2,4-Dimethylphenol	ND	330	14
Benzoic acid	ND	1,700	430
bis(2-Chloroethoxy)methane	ND	330	9.9
2,4-Dichlorophenol	ND	330	9.9
1,2,4-Trichlorobenzene	ND	330	9.9
Naphthalene	ND	66	9.9
4-Chloroaniline	ND	330	9.3
Hexachlorobutadiene	ND	330	8.8
4-Chloro-3-methylphenol	ND	330	8.3
2-Methylnaphthalene	ND	66	9.9
Hexachlorocyclopentadiene	ND	660	14
2,4,6-Trichlorophenol	ND	330	12
2,4,5-Trichlorophenol	ND	330	8.3
2-Chloronaphthalene	ND	330	8.9
2-Nitroaniline	ND	660	11
Dimethylphthalate	ND	330	9.9
Acenaphthylene	ND	66	8.9
2,6-Dinitrotoluene	ND	330	8.9
3-Nitroaniline	ND	660	9.9
Acenaphthene	ND	66	9.9
2,4-Dinitrophenol	ND	660	64
4-Nitrophenol	ND	660	71
Dibenzofuran	ND	330	10
2,4-Dinitrotoluene	ND	330	9.5
Diethylphthalate	ND	330	11
Fluorene	ND	66	9.8
4-Chlorophenyl-phenylether	ND	330	9.6
4-Nitroaniline	ND	660	9.9
4,6-Dinitro-2-methylphenol	ND	660	76
N-Nitrosodiphenylamine	ND	330	10
Azobenzene	ND	330	8.5
4-Bromophenyl-phenylether	ND	330	10
Hexachlorobenzene	ND	330	11
Pentachlorophenol	ND	660	130
Phenanthrene	ND	66	10
Anthracene	ND	66	11
Di-n-butylphthalate	ND	330	12

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC811461	Batch#:	229115
Matrix:	Soil	Prepared:	11/05/15
Units:	ug/Kg	Analyzed:	11/05/15

Analyte	Result	RL	MDL
Fluoranthene	ND	66	10
Pyrene	ND	66	11
Butylbenzylphthalate	ND	330	10
3,3'-Dichlorobenzidine	ND	660	9.9
Benzo(a)anthracene	ND	66	10
Chrysene	ND	66	11
bis(2-Ethylhexyl)phthalate	ND	330	13
Di-n-octylphthalate	ND	330	9.9
Benzo(b)fluoranthene	ND	66	8.9
Benzo(k)fluoranthene	ND	66	9.4
Benzo(a)pyrene	ND	66	8.7
Indeno(1,2,3-cd)pyrene	ND	66	8.8
Dibenz(a,h)anthracene	ND	66	9.3
Benzo(g,h,i)perylene	ND	66	10

Surrogate	%REC	Limits
2-Fluorophenol	86	25-120
Phenol-d5	86	36-120
2,4,6-Tribromophenol	77	27-120
Nitrobenzene-d5	72	44-120
2-Fluorobiphenyl	70	47-120
Terphenyl-d14	75	49-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8270C
Type:	LCS	Diln Fac:	2.000
Lab ID:	QC811462	Batch#:	229115
Matrix:	Soil	Prepared:	11/05/15
Units:	ug/Kg	Analyzed:	11/05/15

Analyte	Spiked	Result	%REC	Limits
Phenol	2,685	2,458	92	42-120
2-Chlorophenol	2,685	2,480	92	45-120
1,4-Dichlorobenzene	2,685	2,384	89	48-120
N-Nitroso-di-n-propylamine	2,685	2,258	84	27-123
1,2,4-Trichlorobenzene	2,685	2,360	88	50-120
4-Chloro-3-methylphenol	2,685	2,534	94	59-120
Acenaphthene	1,007	925.5	92	53-120
4-Nitrophenol	2,685	2,934	109	47-120
2,4-Dinitrotoluene	2,685	2,770	103	55-120
Pentachlorophenol	2,685	2,484	93	32-120
Pyrene	1,007	1,041	103	52-120

Surrogate	%REC	Limits
2-Fluorophenol	86	25-120
Phenol-d5	87	36-120
2,4,6-Tribromophenol	95	27-120
Nitrobenzene-d5	72	44-120
2-Fluorobiphenyl	79	47-120
Terphenyl-d14	81	49-120

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8270C
Field ID:	ZZZZZZZZZZ	Batch#:	229115
MSS Lab ID:	271268-002	Sampled:	11/03/15
Matrix:	Soil	Received:	11/03/15
Units:	ug/Kg	Prepared:	11/05/15
Basis:	dry	Analyzed:	11/06/15
Diln Fac:	8.330		

Type: MS Moisture: 16%
Lab ID: QC811463

Analyte	MSS Result	Spiked	Result	%REC	Limits
Phenol	<98.09	3,198	3,162	99	47-120
2-Chlorophenol	<98.09	3,198	2,965	93	44-120
1,4-Dichlorobenzene	163.6	3,198	3,357	100	49-120
N-Nitroso-di-n-propylamine	<98.09	3,198	2,502	78	42-120
1,2,4-Trichlorobenzene	1,231	3,198	4,829	113	54-120
4-Chloro-3-methylphenol	<81.82	3,198	3,073	96	55-120
Acenaphthene	<98.09	1,199	1,115	93	51-120
4-Nitrophenol	<699.7	3,198	2,749	86	36-120
2,4-Dinitrotoluene	<94.44	3,198	2,757	86	52-120
Pentachlorophenol	<1,256	3,198	2,093	65	14-120
Pyrene	329.6	1,199	1,613	107	46-124

Surrogate	%REC	Limits
2-Fluorophenol	88	25-120
Phenol-d5	91	36-120
2,4,6-Tribromophenol	84	27-120
Nitrobenzene-d5	75	44-120
2-Fluorobiphenyl	76	47-120
Terphenyl-d14	81	49-120

Type: MSD Moisture: 16%
Lab ID: QC811464

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Phenol	3,141	3,388	108	47-120	9	39
2-Chlorophenol	3,141	3,212	102	44-120	10	38
1,4-Dichlorobenzene	3,141	3,496	106	49-120	6	45
N-Nitroso-di-n-propylamine	3,141	2,610	83	42-120	6	40
1,2,4-Trichlorobenzene	3,141	5,253	128 *	54-120	10	38
4-Chloro-3-methylphenol	3,141	3,299	105	55-120	9	41
Acenaphthene	1,178	1,174	100	51-120	7	47
4-Nitrophenol	3,141	2,890	92	36-120	7	41
2,4-Dinitrotoluene	3,141	2,872	91	52-120	6	40
Pentachlorophenol	3,141	2,152	69	14-120	5	53
Pyrene	1,178	1,815	126 *	46-124	13	50

Surrogate	%REC	Limits
2-Fluorophenol	95	25-120
Phenol-d5	98	36-120
2,4,6-Tribromophenol	85	27-120
Nitrobenzene-d5	81	44-120
2-Fluorobiphenyl	82	47-120
Terphenyl-d14	90	49-120

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8082
Matrix:	Soil	Sampled:	11/06/15
Units:	ug/Kg	Received:	11/06/15
Basis:	dry	Prepared:	11/09/15
Diln Fac:	1.000	Analyzed:	11/09/15
Batch#:	229219		

Field ID: SP-IMP-151106 Lab ID: 271376-001
Type: SAMPLE Moisture: 21%

Analyte	Result	RL
Aroclor-1016	ND	15
Aroclor-1221	ND	30
Aroclor-1232	ND	15
Aroclor-1242	ND	15
Aroclor-1248	ND	15
Aroclor-1254	ND	15
Aroclor-1260	ND	15

Surrogate	%REC	Limits
TCMX	129	46-141
Decachlorobiphenyl	110	25-135

Field ID: SP-FILL-151106 Lab ID: 271376-002
Type: SAMPLE Moisture: 11%

Analyte	Result	RL
Aroclor-1016	ND	13
Aroclor-1221	ND	27
Aroclor-1232	ND	13
Aroclor-1242	ND	13
Aroclor-1248	ND	13
Aroclor-1254	ND	13
Aroclor-1260	ND	13

Surrogate	%REC	Limits
TCMX	123	46-141
Decachlorobiphenyl	100	25-135

Type: BLANK Lab ID: QC811885

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	110	46-141
Decachlorobiphenyl	92	25-135

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC811886	Batch#:	229219
Matrix:	Soil	Prepared:	11/09/15
Units:	ug/Kg	Analyzed:	11/09/15

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	166.7	158.3	95	64-140
Aroclor-1260	166.7	167.8	101	65-146

Surrogate	%REC	Limits
TCMX	116	46-141
Decachlorobiphenyl	99	25-135

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3550B
Project#:	15-1311A	Analysis:	EPA 8082
Field ID:	UST-SB-11.0	Batch#:	229219
MSS Lab ID:	271374-001	Sampled:	11/06/15
Matrix:	Soil	Received:	11/06/15
Units:	ug/Kg	Prepared:	11/09/15
Basis:	dry	Analyzed:	11/09/15
Diln Fac:	1.000		

Type: MS Moisture: 15%
Lab ID: QC811887

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1016	<3.431	197.7	215.9	109	60-161
Aroclor-1260	<2.243	197.7	279.1	141	42-166

Surrogate	%REC	Limits
TCMX	122	46-141
Decachlorobiphenyl	118	25-135

Type: MSD Moisture: 15%
Lab ID: QC811888

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1016	198.6	193.2	97	60-161	12	43
Aroclor-1260	198.6	233.8	118	42-166	18	51

Surrogate	%REC	Limits
TCMX	117	46-141
Decachlorobiphenyl	105	25-135

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	271376	Project#:	15-1311A
Client:	Iris Environmental	Location:	3820 Penniman
Field ID:	SP-IMP-151106	Basis:	dry
Lab ID:	271376-001	Sampled:	11/06/15
Matrix:	Soil	Received:	11/06/15
Units:	mg/Kg	Analyzed:	11/09/15

Moisture: 21%

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Prep	Analysis
Antimony	0.38	0.29	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Arsenic	7.7	0.29	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Barium	220	0.29	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Beryllium	0.61	0.29	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Cadmium	1.5	0.29	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Chromium	87	0.29	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Cobalt	19	0.29	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Copper	48	0.29	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Lead	42	0.29	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Mercury	0.23	0.022	1.000	229220	11/09/15	METHOD	EPA 7471A
Molybdenum	0.72	0.47	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Nickel	110	0.29	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Selenium	0.32	0.29	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Silver	ND	0.29	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Thallium	ND	0.29	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Vanadium	65	0.29	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Zinc	220	1.2	25.00	229204	11/07/15	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	271376	Project#:	15-1311A
Client:	Iris Environmental	Location:	3820 Penniman
Field ID:	SP-FILL-151106	Basis:	dry
Lab ID:	271376-002	Sampled:	11/06/15
Matrix:	Soil	Received:	11/06/15
Units:	mg/Kg	Analyzed:	11/09/15

Moisture: 11%

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Prep	Analysis
Antimony	0.36	0.26	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Arsenic	8.0	0.26	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Barium	200	0.26	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Beryllium	0.66	0.26	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Cadmium	0.35	0.26	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Chromium	82	0.26	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Cobalt	19	0.26	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Copper	37	0.26	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Lead	23	0.26	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Mercury	0.12	0.019	1.000	229220	11/09/15	METHOD	EPA 7471A
Molybdenum	1.1	0.43	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Nickel	94	0.26	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Selenium	0.30	0.26	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Silver	ND	0.26	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Thallium	ND	0.26	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Vanadium	63	0.26	25.00	229204	11/07/15	EPA 3050B	EPA 6020
Zinc	180	1.1	25.00	229204	11/07/15	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3050B
Project#:	15-1311A	Analysis:	EPA 6020
Type:	BLANK	Diln Fac:	25.00
Lab ID:	QC811809	Batch#:	229204
Matrix:	Soil	Prepared:	11/07/15
Units:	mg/Kg	Analyzed:	11/09/15

Analyte	Result	RL
Antimony	ND	0.25
Arsenic	ND	0.25
Barium	ND	0.25
Beryllium	ND	0.25
Cadmium	ND	0.25
Chromium	ND	0.25
Cobalt	ND	0.25
Copper	ND	0.25
Lead	ND	0.25
Molybdenum	ND	0.41
Nickel	ND	0.25
Selenium	ND	0.25
Silver	ND	0.25
Thallium	ND	0.25
Vanadium	ND	0.25
Zinc	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	EPA 3050B
Project#:	15-1311A	Analysis:	EPA 6020
Matrix:	Soil	Batch#:	229204
Units:	mg/Kg	Prepared:	11/07/15
Diln Fac:	25.00	Analyzed:	11/09/15

Type: BS Lab ID: QC811810

Analyte	Spiked	Result	%REC	Limits
Antimony	50.00	50.13	100	80-120
Arsenic	50.00	55.19	110	80-121
Barium	50.00	55.09	110	80-121
Beryllium	50.00	52.10	104	80-120
Cadmium	50.00	54.66	109	80-120
Chromium	50.00	54.65	109	80-131
Cobalt	50.00	53.84	108	80-132
Copper	50.00	53.48	107	80-137
Lead	50.00	54.14	108	80-125
Molybdenum	50.00	53.95	108	80-120
Nickel	50.00	54.76	110	77-141
Selenium	50.00	54.44	109	80-129
Silver	50.00	53.05	106	80-122
Thallium	50.00	53.09	106	80-120
Vanadium	50.00	55.34	111	80-128
Zinc	50.00	54.31	109	80-133

Type: BSD Lab ID: QC811811

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	50.00	45.81	92	80-120	9	20
Arsenic	50.00	52.19	104	80-121	6	21
Barium	50.00	50.15	100	80-121	9	20
Beryllium	50.00	48.04	96	80-120	8	20
Cadmium	50.00	49.03	98	80-120	11	20
Chromium	50.00	53.08	106	80-131	3	25
Cobalt	50.00	52.36	105	80-132	3	24
Copper	50.00	51.83	104	80-137	3	27
Lead	50.00	49.09	98	80-125	10	20
Molybdenum	50.00	49.15	98	80-120	9	20
Nickel	50.00	53.65	107	77-141	2	29
Selenium	50.00	51.40	103	80-129	6	22
Silver	50.00	48.16	96	80-122	10	20
Thallium	50.00	48.14	96	80-120	10	20
Vanadium	50.00	53.71	107	80-128	3	24
Zinc	50.00	52.90	106	80-133	3	23

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	METHOD
Project#:	15-1311A	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	229220
Lab ID:	QC811889	Prepared:	11/09/15
Matrix:	Soil	Analyzed:	11/09/15
Units:	mg/Kg		

Result	RL
ND	0.017

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	METHOD
Project#:	15-1311A	Analysis:	EPA 7471A
Analyte:	Mercury	Batch#:	229220
Matrix:	Soil	Prepared:	11/09/15
Units:	mg/Kg	Analyzed:	11/09/15
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC811890	0.2083	0.2076	100	80-120		
BSD	QC811891	0.2083	0.2231	107	80-120	7	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	METHOD
Project#:	15-1311A	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	229220
MSS Lab ID:	271358-001	Sampled:	11/06/15
Matrix:	Soil	Received:	11/06/15
Units:	mg/Kg	Prepared:	11/09/15
Basis:	as received	Analyzed:	11/09/15

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC811892	0.03337	0.2155	0.2731	111	69-142		
MSD	QC811893		0.2232	0.2762	109	69-142	2	36

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Chromium

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	METHOD
Project#:	15-1311A	Analysis:	EPA 6010B
Analyte:	Chromium	Batch#:	229208
Matrix:	WET Leachate	Sampled:	11/06/15
Units:	mg/L	Received:	11/06/15
Diln Fac:	10.00	Prepared:	11/09/15

Field ID	Type	Lab ID	Result	RL	Analyzed
SP-IMP-151106	SAMPLE	271376-001	ND	0.25	11/10/15
SP-FILL-151106	SAMPLE	271376-002	ND	0.25	11/10/15
	BLANK	QC811831	ND	0.25	11/09/15
	BLANK	QC811980	ND	0.25	11/10/15

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Chromium

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	METHOD
Project#:	15-1311A	Analysis:	EPA 6010B
Analyte:	Chromium	Batch#:	229208
Field ID:	ZZZZZZZZZZ	Sampled:	10/30/15
MSS Lab ID:	271150-001	Received:	10/30/15
Matrix:	WET Leachate	Prepared:	11/09/15
Units:	mg/L		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac	Analyzed
BS	QC811832		0.1000	0.09323	93	80-120			1.000	11/09/15
BSD	QC811833		0.1000	0.09903	99	80-120	6	20	1.000	11/09/15
MS	QC811834	1.272	0.5000	1.792	104	80-120			10.00	11/09/15
MSD	QC811835		0.5000	1.809	107	80-120	1	20	10.00	11/10/15

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Moisture

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	METHOD
Project#:	15-1311A	Analysis:	EPA CLP
Analyte:	Moisture, Percent	Batch#:	229188
Matrix:	Soil	Sampled:	11/06/15
Units:	%	Received:	11/06/15
Diln Fac:	1.000	Analyzed:	11/07/15

Field ID	Lab ID	Result	RL
SP-IMP-151106	271376-001	21	1
SP-FILL-151106	271376-002	11	1

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture

Lab #:	271376	Location:	3820 Penniman
Client:	Iris Environmental	Prep:	METHOD
Project#:	15-1311A	Analysis:	EPA CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	229188
MSS Lab ID:	271399-001	Sampled:	11/04/15
Lab ID:	QC811753	Received:	11/06/15
Matrix:	Soil	Analyzed:	11/07/15

MSS Result	Result	RL	RPD	Lim
15.00	14.68	1.000	2	26

RL= Reporting Limit
RPD= Relative Percent Difference

Attachment 6:
Clean Import Fill Documentation

November 2, 2015

Hanson Aggregates
West Region
12667 Alcosta Blvd. #400
San Ramon, CA 94583
Tel 925-244-6500

CLAYTON ¾" Crushed

The Clayton ¾" crushed aggregate supplied by Hanson Aggregates possesses the typical physical characteristics summarized below. This is a clean virgin aggregate and does not contain any recycled materials. This aggregate is produced at the Clayton, California Plant, SMARA No. 91-07-0003.

Gradation: Percent Passing

Sieve Size	Clayton ¾" Crushed
25.0 mm (1")	100
19.0 mm (3/4")	84
12.5 mm (1/2")	8
9.50 mm (3/8")	3
4.75 mm (#4)	2
Cleaness Value, CTM 227	76

Should you have questions regarding this aggregate material, please do not hesitate to call your Sales Representative.

HANSON AGGREGATES

Franco H. Siño
Quality Control Manager

Hanson Aggregates Mid Pacific Inc., 12667 Alcosta Blvd #400 San Ramon, CA. 84583 / 925-244-6556

Driver Copy

Hanson
HEIDELBERGCEMENT Group

TICKET	7064518	CHECK IN TIME	12:49:07 pm
TICKET TIME	1:02:39 pm	DATE	11/17/2015
TIME LOADED	1:02:39 pm		

WEIGHMASTER STATION

112100
Pine Hollow Rd.
Clayton, CA 94517
925-672-4955

Customer No.	Payment Type	Customer Name	Order No.
1169130	Account	POLI TRUCKING	

Customer Job. No.	Customer P.O.	Map Ref.	Zone

Truck Type	Truck No.	Vehicle or License Plate No.	Trailer or License Plate No.	Trailer or License Plate No.
TRAILER	8679	9D06740 [WH		

Hauler/Carrier No.	Driver's Name	Today's Tonnage	Load No.	Cum. Prod. Qty.
	RJBN TRKNG	21.13	1	21.13

3820 PENNIMAN AVE OAKLAND

7064518

Product	Description	Total	Unit Price	Amount
110508	3/4 Crush Rock Energy Recovery Fee	21.13		

SCALE WEIGHT	GROSS & TARE	WEIGHMASTER CERTIFICATE	
Gross 79,020 LB Tare 36,760 LB/P.T. Net 42,260 LB	Drivers Always On Driver Off ☐ ☒ Scale 1 ☐ Scale 2 ☐ Scale 3 X BARLIE NEWELL Deputy Weighmaster	THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture	Cartage Sales Tax **Total**

No one available to sign, customer waives receipt signature. (First delivery ticket Buyer/Contractor Signature release must be signed.) ☐	Received By Signature	Print Name (Customer)	Driver's Signature	Standing Time
	X	X	X	

Arrive Job		Start Unloading		Finish Unloading		Standing Time		Customer's Initials	This Ticket's Grand Total
								X	

Hanson Aggregates Mid Pacific Inc., 12667 Alcosta BLVD #400 San Ramon, CA. 84583 / 925-244-6556

Broker Copy

Hanson
HEIDELBERGCEMENT Group

TICKET NO.	7064518	CHECK IN TIME	12:49:07 pm
TICKET TIME	1:02:39 pm	DATE	11/17/2015
TIME LOADED	1:02:39 pm		

WEIGHMASTER STATION

112100
Pine Hollow Rd.
Clayton, CA 94517
925-672-4955

Customer No.	Payment Type	Customer Name	Order No.
1169130	Account	POLI TRUCKING	

Customer Job. No.	Customer P.O.	Map Ref.	Zone

Truck Type	Truck No.	Vehicle or License Plate No.	Trailer or License Plate No.	Trailer or License Plate No.
TRAILER	8679	9D06740 [WH		

Hauler/Carrier No.	Driver's Name	Today's Tonnage	Load No.	Cum. Prod. Qty.
	RJBN TRKNG	21.13	1	21.13

3820 PENNIMAN AVE OAKLAND

7064518

Product	Description	Total	Unit Price	Amount
110508	3/4 Crush Rock Energy Recovery Fee	21.13		

SCALE WEIGHT	GROSS & TARE	WEIGHMASTER CERTIFICATE	
Gross 79,020 LB Tare 36,760 LB/P.T. Net 42,260 LB	Drivers Always On Driver Off ☐ ☒ Scale 1 ☐ Scale 2 ☐ Scale 3 X BARLIE NEWELL Deputy Weighmaster	THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture	Cartage Sales Tax **Total**

No one available to sign, customer waives receipt signature. (First delivery ticket Buyer/Contractor Signature release must be signed.) ☐	Received By Signature	Print Name (Customer)	Driver's Signature	Standing Time
	X	X	X	

Arrive Job		Start Unloading		Finish Unloading		Standing Time		Customer's Initials	This Ticket's Grand Total
								X	