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GEOSCIENCE & ENGINEERING CONSULTING

October 18, 2017

RECEIVED

By Alameda County Environmental Health 5:23 pm, Nov 15, 2017

Mr. Mark Detterman
Alameda County Health Care Services
Local Oversight Program
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: Data Package for the Sump, Soil-Gas and Soil Bores related to a Former Residential Underground Heating Oil Tank located at 811 Paramount Road, Oakland, CA. (Alameda County Fuel Leak Case No. RO0003143 and CA GeoTracker Global ID T10000006106)

Dear Mr. Detterman:

Stellar Environmental Solutions, Inc. (Stellar Environmental), on behalf of the property owners, presents Alameda County Health Care Services (ACHCS) with the attached updated analytical summary tables, figures, boring logs and analytical laboratory reports of the findings of the recent soil bore, sump water, and soil-gas sampling requested by ACHCS.

The boring and sampling investigation was conducted on October 4; the soil-gas well SG5.5 sampling was conducted on October 10, 2017 and the underground utility survey was conducted on October 12, 2017 in accordance with our September 26, 2017 Workplan with inclusion of the scope of work discussed in the meeting at ACHCS's office on September 18, 2017. ACHCS's provided a conditional approval of the workplan in their letter dated September 28, 2017. A site meeting is planned for October 19, 2017 to review the data and identify the next steps toward closure.

The investigation was advanced to evaluate residual site soil contaminant source of indoor air vapor intrusion related to the former 350-gallon residential underground heating fuel storage tank (UST) that was removed on December 16, 2013. The objective of the current fieldwork focused on delineating the vertical and lateral extent of the elevated (hotspot) zone of total petroleum hydrocarbons (TPH) detected in soil at bore location SB7 that contained 4,700 - 20,000 mg/kg TPH-diesel; 860 - 2,000 mg/kg TPH-gasoline; and 38 mg/kg naphthalene that was concentrated between 8-14 feet below ground surface (bgs) and reported in the August 3, 2017 data package. This document report includes the results of investigative drilling and sampling of four

additional borings (SB8, SB9, SB10 and SB11) surrounding bore SB7, grab-water sampling of the site perimeter drain sump and sampling of soil-gas well SG5.5.

SOIL BORING, SAMPLING AND ANALYTICAL RESULTS

Soil boring and sampling was conducted on October 4, 2017 utilizing a Geoprobe direct push drill rig by Cascade Drilling under the oversight of Stellar Environmental. Soil borings were logged and soil was classified by visual methods in accordance with the Unified Soil Classification System (USCS). Soil encountered during this investigation ranged from clay to silty clayey fine sand and gravel with a predominance of silty clay to clayey fine sand.

A photoionization detector (PID) was used to assist in soil screening and sample selection; however, the PID response was limited and ranged from 0.0 – 1.3 parts per million by volume, no odors were detected and only a slight green color, potentially fuel related discoloration, was observed in bore SB8 from 4-8 feet bgs and in bore SB9 from 7-8 feet bgs.

Soil was collected from in each of these four bores from the depths of 7-7.5, 8.5-9, 11.5-12, 15.5-16 and 18 -18.5 feet bgs. Soil collected from the 18 foot depth was held for potential analysis if analytical results of the 16 foot deep sample showed contaminants in excess of regulatory screening criteria, however contamination at 16 feet was not detected above the ESLs and therefore the 18 foot depth soil sample was not analyzed.

Analytical results of soil collected between 7.5 and 16 feet bgs showed trace concentration of TPH as diesel ranging from non-detected to 3.0 mg/kg; trace TPH gasoline ranging from 0.17 to 0.34 mg/kg. None of the samples showed detections of hydrocarbon VOCs. Based on the new and previously collected soil data the residual elevated hydrocarbon soil contamination appears limited to approximately 10 cubic yards of contaminated soil containing residual TPH in excess of regulatory ESLs that extends approximately 2 to 4 feet around bore SB7 at a depth of about 7 to 16 feet bgs.

The location of soil bores with analytical results and the estimated extent of contaminated soil around bore SB7 is shown on Figure 6 in Attachment A. Current and historical soil boring logs are contained in Attachment C. The soil analytical results are summarized in Table 1 in Attachment B and the certified analytical results are contained in Attachment D.

SUMP WATER SAMPLING AND ANALYTICAL RESULTS

The site automatic sump pump was turned off and the site irrigation system was operated for 24 hours prior to the day of the planned sump water sample collection to allow water to infiltrate into the site French drain system and accumulate in the sump. A sample of the sump water was

collected on October 4, 2017 and analyzed to determine if surface water infiltrating through contaminated site soils was carrying contaminants into the perimeter drain system, potentially distributing contaminants that could contribute to vapor intrusion into the adjacent residence.

Analytical results of the sump water detected trace concentrations of TPH gasoline and toluene that are below applicable ESLs. The source of TPH in the sump likely originates from residual soil contaminants located a few feet away that are carried by meteoric water into the drainage system. The drainage system and its relationship to the sump is shown on Figure 6 in Attachment A. The low detection of TPH suggests that contaminants in the drain system is not a significant source for vapor intrusion into the site residence, however one sampling event may be inconclusive to rule out this pathway.

The analytical results are summarized in Table 2 in Attachment B. The certified analytical results are contained in Attachment D. The plan and design of the drain system is included in Attachment E.

SOIL-GAS WELL SG5.5 SAMPLING AND ANALYTICAL RESULTS

Soil-gas sampling of soil-gas well SG5.5 was conducted on October 10, 2017. Soil-gas sampling was not conducted during or within five days of a significant rain event (1/2-inch or greater) at the site, as specified in Department of Toxic Substance Control (DTSC) guidelines and six days after the site irrigation had remained off.

Soil-gas was analyzed by Method TO-15/TPH-gasoline-range and by EPA Method TO-17 for TPH-diesel and naphthalene. As specified by the method, a TO-17 duplicate sorbent tube sample. The contaminants of concern; TPH-gasoline, TPH-diesel, naphthalene and benzene showed a 1-2-fold magnitude drop in detected concentrations since the previous sampling event and the first time all compounds were below their respective ESLs.

The location of soil-gas well with analytical results is shown on Figure 5 in Attachment A. The analytical results are summarized in Table 3 in Attachment B and the certified analytical results are contained in Attachment D.

GEOPHYSICAL SURVEY AND RESULTS

A geophysical survey to identify utilities was conducted on October 12, 2017 by Subtronics, Inc., under the oversight of Stellar Environmental. A description of the instruments employed in the survey is presented below. The survey was focused on investigating the subsurface utilities that could potentially act as preferential pathway for migration of contaminants. The residential water and natural gas service the residence from Paramount Road on the north. The site electrical and

communication utilities service the site via above-ground (power pole) connections from Paramount Road. The sanitary sewer service exits the residence to the south. There was not enough access space in the crawl to survey the ground surface within the crawl space, however the utilities can be observed above ground within the crawl space and go underground outside of the building. The perimeter drainage system feeds into the outside sump located at the southeast corner of the residence. Water is pumped from the sump through a shallow (8 inch deep) pipe that runs along the east side of the house to where it discharges in the gutter on Paramount Road and if overwhelmed it will overflow into the sanitary sewer.

The site utilities and perimeter drainage system are shown on attached Figure 6. A map showing sanitary sewer and storm drain system provided by the City of Oakland Public works is included in Attachment E.

Geophysical Equipment Utilized

The specialized equipment used at the site includes a TW-6 M-Scope, Schondstedt GA-72-CD, RD-8000 and the GSSI system 4000 ground penetrating radar (GPR) with 400 MHz antenna.

TW-6 M-Scope

The Fisher TW-6 M-Scope is a split box inductive locator and metal detector mounted on a four-foot rod. The split box locator can detect metal lines “inductively”. The M-Scope is also used to detect buried metallic objects such as manhole covers, underground storage tanks, etc. The limits of detection for a TW-6 M-SCOPE are approximately five feet in depth.

Schondstedt GA-72-CD

The Schondstedt is a hand held magnetic gradiometer which detects the magnetic field caused by ferromagnetic objects. The Schondstedt produces an audible signal when it detects a variation in the magnetic field strength between the two sensors 14 in apart. In an area of little magnetic debris it can detect metallic objects up to 10 feet deep.

RD-8000

The RD-8000 is a radio-detection pipe and cable locating device that detects frequencies emitted by active electrical lines and telecommunication cables.

GSSI SIR-4000

A ground penetrating radar system graphically records subsurface structures. Both geological and man-made structures are recorded by the introduction of a pulse of electromagnetic energy into the ground. Reflected pulses received by the antenna are then processed for measurable contrast in electrical properties. The result is a visual pseudo-cross-sectional profile. Primary applications of the GPR are detecting UFST's, foundations, buried drums, previously excavated areas and detecting metallic and non-metallic utilities. The GPR depth penetration is severely limited by clay-rich soil. Radar waves can penetrate deeper in sandy and gravelly soils.

SENSITIVE RECEPTORS SURVEY AUGMENTATION

ACHCS previously requested that a well and sensitive receptor survey be conducted to identify potential receptors that could be impacted by site-sourced contaminant migration. Stellar Environmental completed a sensitive receptor survey as reported in the investigation report, dated July 20, 2015. However, pre the email from Mr. Detterman dated September 22, 2017 additional data on offsite wells and surface water bodies was requested to augment the original survey. These are discussed below. The Environmental Database well search map including location of surface water bodies is included in Attachment E.

Offsite Well Survey

Additional research was done to supplement the above findings reported in the July 20, 2015 report that included inquiries with the City of Oakland Public works and the East Bay Municipal Utilities District; however these agencies had no additional well records. The survey discussed in the July 20, 2015 report was conducted to identify all water wells within ¼ mile of the subject property. Water wells include groundwater monitoring wells and water supply wells (irrigation, domestic, industrial, and municipal) and heat exchange wells. Surrounding area well information was requested from the California Department of Water Resources (DWR), the California agency ultimately responsible for permitting water wells and retaining "Water Well Driller's Reports" showed 413 well records. The Alameda County Public Works database which essentially duplicates DWR's database showed 163 wells within a 1-mile radius. Stellar Environmental commissioned an Environmental Database Research Inc. (EDR) search of municipal and domestic wells within a 1- mile radius. Only 1 Federal supply well was listed but is not be threatened as it was located about 5,000 feet away in an upgradient and at higher elevation.

Downgradient Surface Water

The nearest surface water bodies are Sausal Creek located approximately 5,000 feet east of the site; Central Reservoir located 5,000 southeast and Lake Merritt Lake located about 5,000 feet west of the site. These water bodies ultimately drain to San Francisco Bay, located approximately 3.75 miles to the west of the site.

This document has been prepared for the exclusive use by the Property Owners (responsible party), the regulatory agencies, and their authorized assigns and/or representatives. No reliance on this report shall be made by anyone other than those for whom it was prepared.

If you have any questions regarding this document, please contact us at (510) 644-3123.

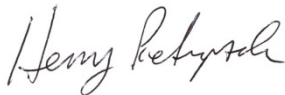
Sincerely,



Mr. Mark A. Jacobson
Property Owner-Responsible Party



Ms. Ilona Frieden
Property Owner-Responsible Party

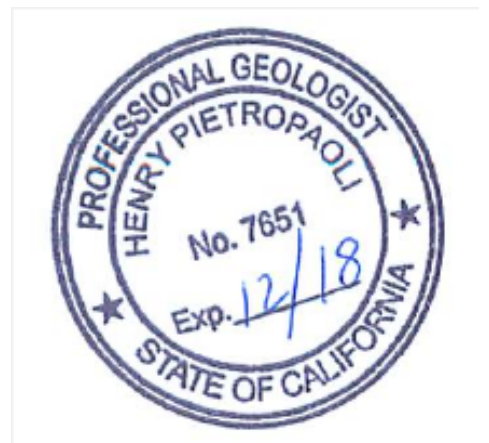


Mr. Henry Pietropaoli, P.G.
Principal Geologist and Project Manager



Mr. Richard S. Makdisi, P.G.
Principal Geochemist and President

- Attachments:
- A) Figures 1-6
 - B) Analytical Summary Tables 1- 5
 - C) Boring Logs
 - D) Laboratory reports
 - E) Historical Information



cc: Mr. Amitai Schwartz, Esq—counsel to RPs.
Alameda County Health Care and California Geotracker fileserver

ATTACHMENT A

Figures



SITE LOCATION MAP

811 Paramount Avenue
Oakland, CA

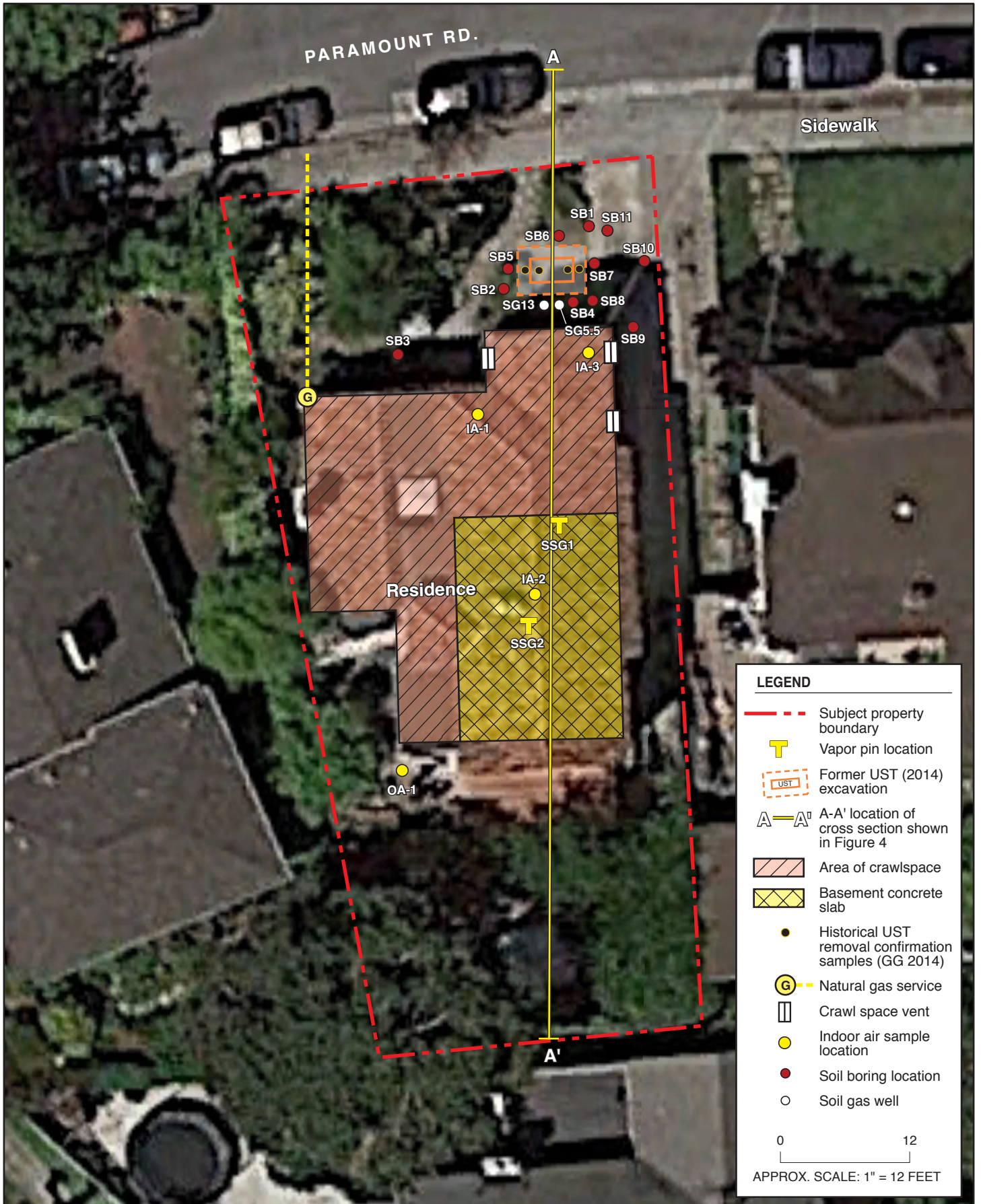
By: MJC

October 2017

Figure 1



2015-16-01



LEGEND

- - - Subject property boundary
- T Vapor pin location
- UST Former UST (2014) excavation
- A—A' A-A' location of cross section shown in Figure 4
- Area of crawlspace
- Basement concrete slab
- Historical UST removal confirmation samples (GG 2014)
- G Natural gas service
- Crawl space vent
- Indoor air sample location
- Soil boring location
- Soil gas well

0 12

APPROX. SCALE: 1" = 12 FEET



SITE PLAN SHOWING LOCATIONS OF FORMER UST, HISTORICAL AND CURRENT INVESTIGATION SAMPLING

**811 Paramount Road
Oakland, CA**

By: MJC

OCTOBER 2017

Figure 2



2015-116-25



2015-16-26



DISTRIBUTION OF ANALYTICAL RESULTS OF CONTAMINANTS OF CONCERN IN SOIL

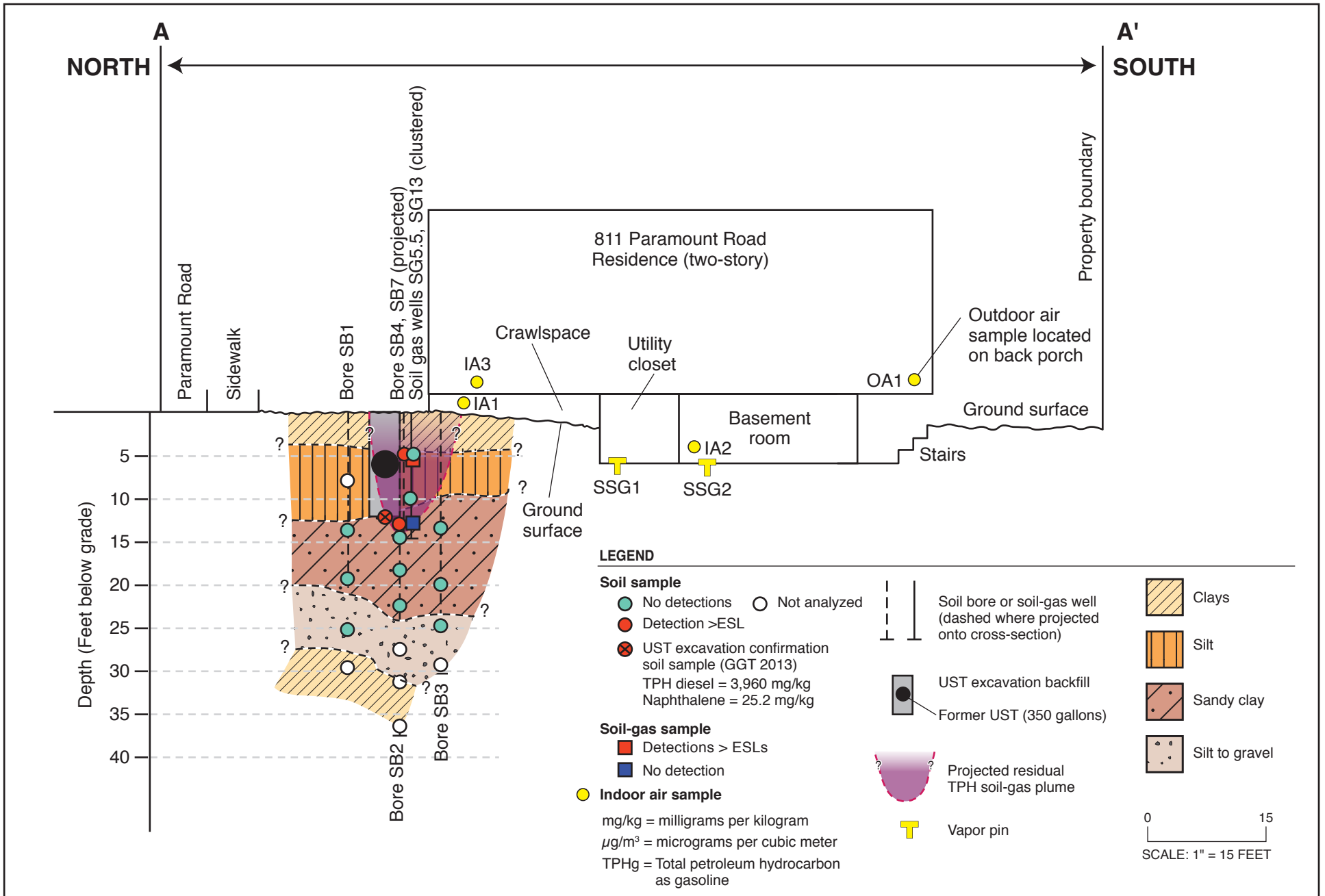
811 Paramount Road
Oakland, CA

By: MJC

OCTOBER 2017

Figure 3



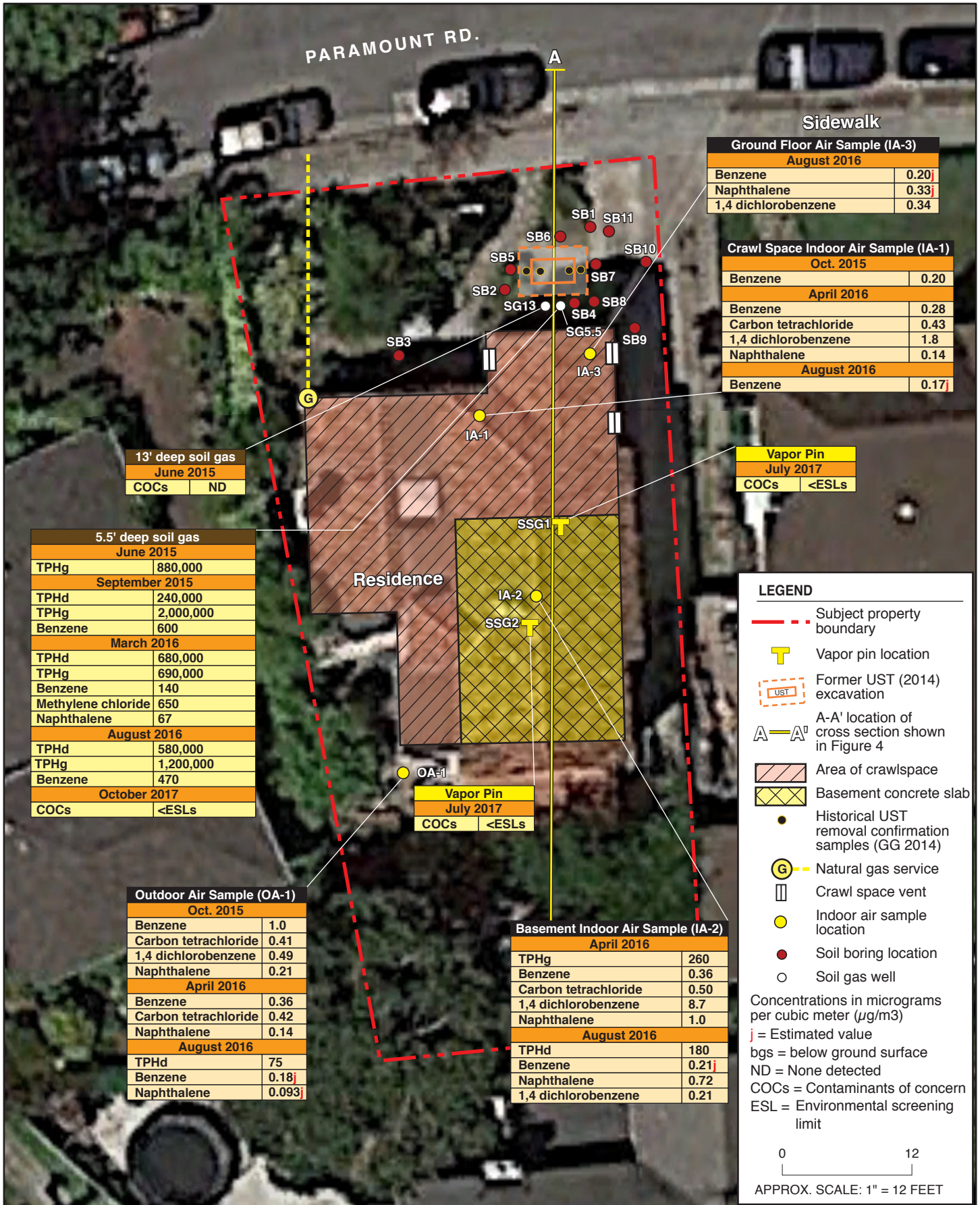


CROSS-SECTION A-A'
811 Paramount Road, Oakland, CA

Figure 4

by: MJC

OCTOBER 2017



SITE PLAN SHOWING ANALYTICAL RESULTS OF COMPOUNDS IN SOIL-GAS, SUB-SLAB GAS, INDOOR AND OUTDOOR AIR ABOVE ESL

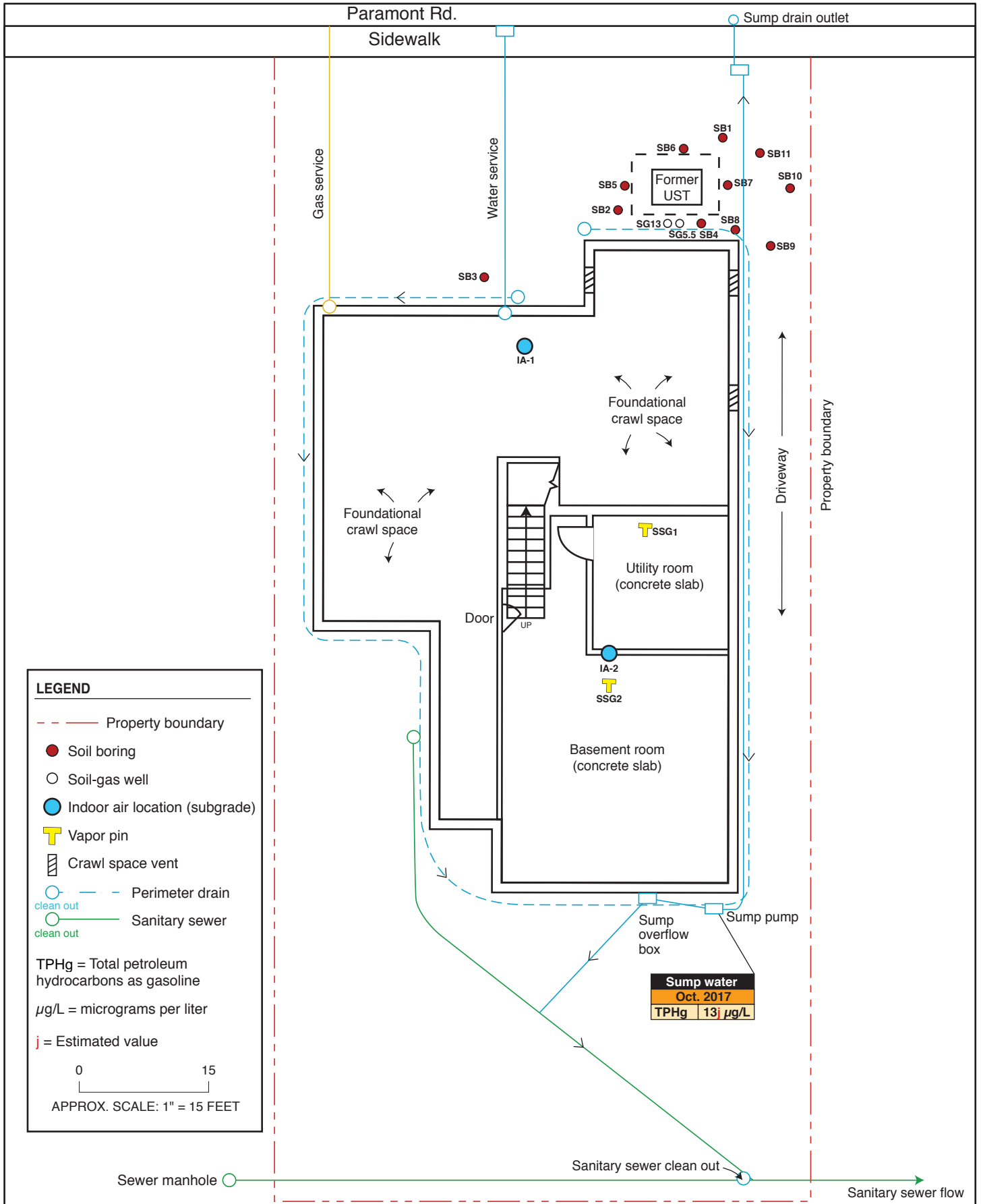
811 Paramount Road
 Oakland, CA

By: MJC

OCTOBER 2017

Figure 5





PLAN VIEW OF BUILDING SUBGRADE AND LOCATION OF UTILITIES

**811 Paramount Road
 Oakland, CA**

By: MJC

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Figure 6



2015-16-32

ATTACHMENT B

Analytical Summary Tables

Table 1
Summary of Current and Historical Detected Hydrocarbons and VOCs in Soil Bores
811 Paramount Road, Oakland, California

Sample ID	Depth (feet bgs)	TPHmo	TPHd	TPHg	Naphthalene	Benzene	Toluene	Ethylbenzene	Xylenes	Other VOCs
June 2, 2015 Soil Samples (mg/kg)										
SG5-5-5	5	<1.2	<6.0	NA	<0.0060	ND	ND	ND	ND	ND
SG13-9.5	10	<1.2	<5.8	NA	<0.0058	ND	ND	ND	ND	ND
SB1-13	13	<1.2	<6.0	NA	<0.0060	ND	ND	ND	ND	ND
SB1-18	18	<1.2	<6.0	NA	<0.0060	ND	ND	ND	ND	ND
SB1-25	25	<1.2	<6.0	NA	<0.0060	ND	ND	ND	ND	ND
SB2-13	13	<1.2	<5.7	NA	<0.0057	ND	ND	ND	ND	ND
SB2-18	18	<1.2	<5.8	NA	<0.0058	ND	ND	ND	ND	ND
SB2-22	22	<1.2	<5.6	NA	<0.0056	ND	ND	ND	ND	ND
SB3-13	13	<1.2	<6.0	NA	<0.0060	ND	ND	ND	ND	ND
SB3-20	20	<1.2	<5.8	NA	<0.0058	ND	ND	ND	ND	ND
SB3-24	24	<1.2	<5.9	NA	<0.0059	ND	ND	ND	ND	ND
March 31, 2016 Soil Samples (mg/kg)										
SB4-3.5	3	<5.9	17	<1.2	<0.00071	<0.0019	<0.0026	<0.0024	<0.0029	ND
SB4-5.5	5	81	360	36	<0.00073	<0.0020	<0.0027	<0.0024	<0.0031	b,f,g,h
March 7, 2017 Soil Samples (mg/kg)										
SB5-3-3.5	3.5	ND	1.6	ND	ND	ND	ND	ND	ND	ND
SB5-4.5-5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB5-8.5-9	9	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB5-12.5-13	13	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB6-3-3.5	3.5	ND	4.7	ND	ND	ND	ND	ND	ND	ND
SB6-4.5-5	5	ND	1.7	ND	ND	ND	ND	ND	ND	ND
SB6-8.5-9	9	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB6-12.5-13	13	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB7-3-3.5	3.5	180	44	<1.3	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	ND
SB7-4.5-5	5	79	21	<1.2	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND
SB7-8.5-9	9	120	4,700	860	1.1	<0.310	<0.310	<0.310	<0.310	ND
SB7-12.5-13	13	<1,200	20,000	2,000	38	<0.0060	<0.0060	<0.0060	<0.0060	a,b,c,d,e
SB7-13.5-14	14	480	7,400	1,000	0.14	<0.027	<0.027	<0.027	<0.027	a,b,c,d
October 4, 2017 Soil Samples (mg/kg)										
SB8-7.5	7.5	<6.0	1.1 j	0.31 j	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	ND
SB8-9	9	<6.0	0.46 j	0.33 j	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	ND
SB8-12	12	<6.0	0.57 j	0.34 j	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	ND
SB8-16	16	<6.2	0.40 j	0.31 j	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	ND
SB9-7.5	7.5	<5.9	0.73 j	0.30 j	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	ND
SB9-9	9	<5.8	0.64 j	0.22 j	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	ND
SB9-12	12	<6.1	0.40 j	0.24 j	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	ND
SB9-16	16	<5.9	0.58 j	0.20 j	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	ND
SB10-7.5	7.5	<5.8	0.53 j	0.24 j	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	ND
SB10-9	9	<6.0	3.0	0.24 j	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	ND
SB10-12	12	<6.0	0.92 j	0.16 j	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	ND
SB10-16	16	<6.1	0.38 j	0.19 j	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	ND
SB11-7.5	7.5	<5.7	0.58 j	0.19 j	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	ND
SB11-9	9	<6.2	2.3	0.17 j	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	ND
SB11-12	12	<6.2	<1.2	0.19 j	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	ND
SB11-16	16	<6.1	1.1 j	0.18 j	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	ND
ESL		5,100	230	100	0.033	0.044	2.9	1.4	2.3	NLP

Notes:

- TPHmo= total petroleum hydrocarbons as motor oil; TPHd = total petroleum hydrocarbons as diesel; TPHg = total petroleum hydrocarbons as gasoline
ESL = Environmental Screening Levels for residential sites where groundwater is considered a potential drinking water resource (Water Board, 2016, Final).
Analytical results in bold type exceed the ESLs; NLP = no ESL published
Analytical results shown as "<" and italicized indicate a non-detection (ND) or less than the laboratory reporting limit or method detection limit.
All concentrations are expressed in milligrams per kilogram (mg/kg); bgs = below ground surface
Sample concentrations reported on a dry weight basis. Moisture content in the soils ranged from 5 to 21%.
Other compounds detected but having no published ESLs include:
a) 1,2,4 trimethyl benzene; b) sec-butyl benzene; c) para-isopropyl toluene; d)n-butyl benzene; e) propylbenzene
f) 1,1,2,2-Tetrachlorethane; g) 4-Isopropyl toluene; h) 1,2,3-Trichlorobenzene

Table 2
Analytical Results of Detected Compounds in Sump Water
811 Paramount Road, Oakland, California
October 4, 2017

Analyte	Sample ID	ESL
	Sump	
TPH-gasoline	13 j	100
TPH-diesel	<49	100
TPH- motor oil	<290	50,000
Benzene	<0.5	1
Toluene	0.1 j	40
Ethylbenzene	<0.5	13
Xylenes	<0.5	20
Naphthalene	<0.2	0.17
Bromodichloromethane	0.5 j	80
Chloroform	6.2	2.3
Acetone	6.9 j	1,500

Notes:

ESL= Environmental Screening Level for residential sites where groundwater is considered a potential drinking water resource (Water Board, 2016).

All concentrations reported in micrograms per liter

Analytical results shown as < and italicized indicate a non-detection (ND) or less than the laboratory detection limit.

j = indicates compound was detected below quantification limit and is an estimated value.

Table 3
Current and Historical Analytical Results of Soil-Gas Well SG-5.5
811 Paramount Road, Oakland, California

Analyte	Sample Collection Date					ESL
	6/4/2015	09/23/15	03/31/16	08/25/16	10/10/17	
Method TO-17 Analysis (µg/m³)						
TPH-diesel	NA	240,000	460,000	410,000	48,000	68,000
Naphthalene	<2.7	<3.0	<17.0	<5.0	<2.2	41
TPH-diesel (duplicate)	NA	230,000	680,000	580,000	47,000	68,000
Naphthalene (duplicate)	NA	<3.0	<17.0	<5.0	<2.2	41
Helium leak check (%)	NA	<0.050	0.13	<0.050	<0.050	NR
Gases (%)						
Oxygen	3.0	NA	1.2	4.0	3.6	NR
Methane	0.21	NA	0.19	0.28	<0.18	NR
Carbon dioxide	NA	NA	NA	NA	12	NR
Method TO-15 Analysis (µg/m³)						
TPH-gasoline	880,000	2,000,000	690,000	1,200,000	82,000	300,000
Acetone	NA	<1,300	4,300	<210	<3.1	15,000,000
Benzene	<250	600	140	470	15	48
2-butanone (MEK)	NA	1,800 j	<3,800	<260	<1.7	2,600,000
Cumene (isopropylbenzene)	NA	ND	ND	280	NA	NLP
Cyclohexane	NA	24,000	5,400	8,500	790	NLP
Dichlorodifluoromethane	NA	<44	1,100	<110	<8.4	NLP
trans-1,3-dichloropropene	NA	<1.4	180	<98	<2.4	NLP
Ethanol	NA	<580	13,000	<160	NA	NLP
Ethyl acetate	NA	<29	96	ND	<6.1	NLP
Ethylbenzene	<250	340	<110	250	85	560
4-Ethyltoluene	NA	130 j	<120	140	14 j	NLP
Heptane	NA	11,000	2,100	7,600	930	NLP
Hexane	NA	4,600	1,200	2,200	790	NLP
4-methyl-2-pentanone	NA	170 j	<100	<89	<8.7	NLP
Methylene chloride	NA	110	650	<300	<5.9	510
Naphthalene	<250	<43	67	<190	<4.8	41
Styrene	NA	<25	150	<92	<7.2	470,000
Tetrachloroethene	NA	<55	ND	<150	<2.9	240
Toluene	<250	94	7,500	<82	5.5 j	160,000
Trichloroethene	NA	<47	<1.4	<24	0.89 j	240
1,1,2-Trichloroethane	NA	<12	<0.70	<31	<2.3	88
1,2,4-Trimethylbenzene	NA	130	130	130	22 j	NLP
1,3,5-Trimethylbenzene	NA	150 j	<120	120	20 j	NLP
Xylenes	<250	410 j	390	94	83	52,000
Helium leak check (%)	NA	<0.050	<0.050	<0.11	<0.50	NR

Notes:

ESL= Environmental Screening Level for shallow soil-gas at residential sites (Water Board 2016).

NLP= no level published; Results in **bold-face** type exceed regulatory ESLs.

Analytical results shown as "<" and italicized indicate a non-detection (ND) or less than the laboratory reporting limit.

All results are reported in micrograms per cubic meter (µg/m³) unless noted otherwise

j = indicates compound was detected below quantification limit and is a statistical estimated value.

Table 4
Analytical Results of Detected Compounds in Sub-Slab Soil-Gas
July 6, 2017
811 Paramount Road, Oakland, California

Analyte	Sample Identifier			ESL
	SSG1	SSG1d*	SSG2	
Method TO17				
TPH-diesel	340	300	1300	68,000
Naphthalene	<0.52	<0.52	0.52	41
<i>Helium leak check (%)</i>	<0.10	<0.099	<0.10	NR
Method TO15-GRO				
TPH-gasoline	540	NA	420	300,000
Acetone	27	NA	43	15,000,000
2-butanone (MEK)	2.9	NA	<8.7	2,600,000
Carbon disulfide	<2.7	NA	3.5	NLP
Chloroform	<4.3	NA	5	NLP
Naphthalene	<18	NA	<19	41
Tetrahydrofuran	42	NA	<2.6	NLP
Toluene	22	NA	8.5	160,000
Trichlorofluoromethane	<4.9	NA	32	NLP
Trichlorethylene	<4.7	NA	21	240
1,2,4-Trimethylbenzene	9.3	NA	<6.6	NLP
Xylenes	7	NA	5.6	52,000
<i>Helium (leak check)</i>	<0.18	NA	<0.18	NR
Fixed Gases (%)				
Carbon Dioxide	0.92	NA	1.7	NR
Oxygen	16	NA	15	NR
Methane	<0.18	NA	<0.18	NR
<i>Helium (leak check)</i>	<0.18	NA	<0.18	NR

Notes:

ESL= Environmental Screening Level for shallow soil-gas at residential sites (Water Board 2016).

Results in **bold-face** type exceed regulatory ESLs; NLP= no level published

NA = not analyzed

NR = not relevant

Analytical results shown as "<" and italicized indicate a non-detection (ND) or less than the laboratory detection limit.

All results are reported in micrograms per cubic meter (µg/m³) unless indicated otherwise

Table 5
Historical Analytical Results of Detected Compounds in Indoor and Outdoor Air
811 Paramount Road, Oakland, California

Analyte	Indoor Air (Crawl Space) (IA-1)	Outdoor Air (OA-1)	Indoor Air (Crawl Space) (IA-1)	Indoor Air (Basement Room) (IA-2)	Outdoor Air (OA-1)	Indoor Air (Crawl Space) (IA-1)	Indoor Air (Basement Room) (IA-2)	Indoor Air (Living Room) (IA-3)	Outdoor Air (OA-1)	ESL
	30-Oct-15		1-Apr-16			26-Aug-16				
	<i>Method TO-17 Analysis</i>									
TPH-diesel	<31	NA	NA	NA	NA	NA	180	NA	75	140
Naphthalene *	0.51 j	NA	NA	NA	NA	NA	0.6	NA	<0.085	0.083
<i>Method TO-15 Analysis</i>										
TPH-gasoline	<36	<36	<36	260	<36	<71	<65	<54	<57	100
Acetone	<6.0	6.2	<6.0	62	<6.0	14	48	25	6.8	31,000
Acrolein	ND	ND	<0.58	5.3	<0.58	NA	NA	NA	NA	NLP
2-propanol	ND	ND	ND	ND	ND	2.3	7.7	1.6	<2.0	NLP
Acrylonitrile	<0.22	0.36	<0.22	<0.22	<0.22	NA	NA	NA	NA	NLP
Benzene	0.2	1	0.28	0.36	0.36	0.17j	0.21j	0.20j	0.18j	0.097
Bromodichloromethane	ND	ND	0.0074	0.022	<0.0070	<0.14	<0.16	<0.14	<0.17	0.076
2-Butanone (MEK)	ND	ND	<7.5	7.5	<7.5	2.4j	4.7	2	0.65j	5,200
Carbon Tetrachloride	0.062	0.41	0.43	0.5	0.42	0.49	0.62	0.53	0.48	0.067
Chloroform	0.034	0.17	0.18	0.35	0.11	0.22	0.22	0.54	0.096j	0.12
Chloromethane	<0.21	0.52	0.49	1.1	0.79	1.1	0.85	1	1	19
Cyclohexane	ND	ND	<1.8	2.8	<1.8	0.12j	2.1	0.22j	<0.57	NLP
1,3-Dichlorobenzene	ND	ND	1.8	8.7	0.063	<0.14	<0.14	<0.042	<0.13	NLP
1,4-Dichlorobenzene	<0.030	0.49	1.8	8.7	<0.030	0.048j	0.21	0.34	<0.20	0.26
Dichlorodifluoromethane	<0.50	2.4	2.2	2.2	2.2	2.6	2.4	2.7	2.6	NLP
Methylene chloride	ND	ND	ND	ND	ND	0.55j	0.49j	0.52j	0.52j	1
1,2-Dichloroethane	<0.0041	0.037	0.048	0.067	0.05	0.0141j	0.044j	0.047j	0.047j	0.11
1,2-Dichloropropane	<0.0047	0.017	0.022	0.039	0.024	<0.18	<0.16	<0.13	<0.17	0.28
1,4-Dioxane	0.021	<0.018	0.041	<0.018	<0.018	<0.19	<0.17	<0.14	<0.18	0.36
Ethanol	ND	ND	ND	ND	ND	1.8	19	320	2.6	NLP
Ethylbenzene	<0.44	0.82	<0.44	<0.44	<0.44	0.079j	0.23	0.15	0.066 j	1.1
4-Ethyltoluene	ND	ND	ND	ND	ND	<0.17	<0.17	0.34j	<0.17	NLP
Heptane	ND	ND	ND	ND	ND	<0.16	1.2	0.20j	0.57j	NLP
Hexane	ND	ND	ND	ND	ND	0.14j	1	0.13j	<0.58	NLP
2-Hexanone	ND	ND	<0.42	0.67	<0.42	<0.18	<0.34	<0.28	<0.61	NLP
4-Methyl-2-Pentanone	ND	ND	<0.42	0.7	<0.42	<0.13	0.48j	0.018j	<0.68	NLP
Naphthalene	<0.050	0.21	0.14	1	0.14	0.074j	0.72	0.33j	0.093j	0.083
Styrene	ND	ND	<0.43	1.9	<0.43	<0.075	0.88	0.26j	<0.70	940
1,1,1,2-Tetrachlorethane	ND	ND	<0.0070	0.0091	0.0077	<0.0078	<0.0071	<0.0059	<0.0073	0.048
Tetrachloroethene	ND	ND	0.075	0.074	<0.069	0.061j	0.054j	0.037j	0.049j	0.48
Tetrahydrofuran	ND	ND	<0.60	12	<0.60	<0.44	0.49j	<0.33	<2.4	NLP
Toluene	0.56	3.9	0.92	3	0.65	0.44	2.8	13	0.58	310
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.016j	0.014j	0.026j	0.016j	1,000
Trichloroethene	ND	ND	ND	ND	ND	0.028j	0.066j	0.028j	0.021j	0.48
Trichloroflouromethane	<0.57	1.3	1.1	1.2	1.2	1.4	9	2.1	1.5	NLP
1,2,4-Trimethylbenzene	<0.50	1	<0.50	<0.50	<0.50	<0.17	0.44j	<0.20	<0.81	2.1
Xylenes	<1.3	3.6	<1.3	1.5	<1.3	0.3j	0.88	0.57	0.262j	100

Notes:

ESL= Environmental Screening Level for residential Indoor-Air (Water Board 2016, Tier 1). Results in **bold** type exceed regulatory ESLs;

NLP= no level published ; NA = not analyzed

* = TO17 analysis reported to method dection limit, however method could not meet ESL for naphthalene.for method TO17naphthalene analysis (Table 1).

j = indicates compound was detected below quantification limit and is an estimated value; All results are reported in micrograms per cubic meter (µg/m³)

Table 6
Historical Analytical Results of Soil-Gas Well SG13
811 Paramount Road, Oakland, California

Sample I.D. depth (feet bgs)	Contaminants ($\mu\text{g}/\text{m}^3$)							Gases (%)			Leak Check (%)
	TVHg	Benzene	Ethyl- benzene	Toluene	Xylenes	MTBE	Naphthalen e	O ₂	CO ₂	Methane	Helium
June 4, 2015											
SG13	<720	<1.6	<2.2	<1.9	<6.6	<1.8	<5.3	3.4	21	<0.0002	<0.050
SG13d	<720	<1.6	<2.2	<1.9	<6.6	<1.8	<5.3	3.4	20	<0.0002	0.068
SG13s	NA	NA	NA	NA	NA	NA	<2.7	NA	NA	NA	<0.052*
SG13sd	NA	NA	NA	NA	NA	NA	<2.7	NA	NA	NA	<0.050*
Equipment Blank	<720	<1.6	<2.2	<1.9	<6.6	<1.8	<5.3	NA	NA	NA	NA
Trip Blank	NA	NA	NA	NA	NA	NA	<2.7	NA	NA	NA	NA
ESL	300,000	42	490	160,000	52,000	4,700	36	NR	NR	NR	NR

Notes:

Soil-gas sample number in ID refers to sample diffuser depth. 1-liter. 's' indicates sorbent tube TO17 analysis; d = indicates duplicate sample

* = helium leak check during TO17 sorbent tube collection analyzed from in-line Summa

ESL = Environmental drinking water (Water Board 2013)

Analytical results in **bold-face** type exceed ESL

Analytical results shown as < and *italicized* indicate a non-detection or less than the laboratory detection limit.

NA = not analyzed; NR = not relevant

TVHg = total petroleum hydrocarbons as gasoline

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter

ATTACHMENT C

Boring Logs


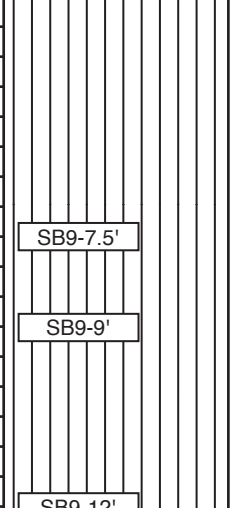
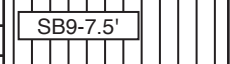

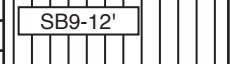

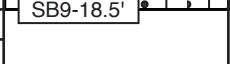
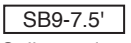
BORING NUMBER SB8 Page 1 of 1

PROJECT Residential UST SI OWNER Mark Jacobson
 LOCATION 811 Paramount Rd., Oakland, CA PROJECT NUMBER 2015-16
 TOTAL DEPTH 18.5 ft. bgs BOREHOLE DIA. 2.25" inch rod; 1.25" core
 SURFACE ELEV. ~211 feet amsl WATER FIRST ENCOUNTERED not encountered
 DRILLING COMPANY Cascade DRILLING METHOD Geoprobe 2.25" x 4' core
 DRILLER Arturo GEOLOGIST H. Pietropaoli DATE DRILLED 10/4/17

DEPTH (feet)	GRAPHIC LOG	PID INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS
0			6" organic top soil	
2		0	CL, brown gray clay, moist, med. plastic	
4		0.5	CL, light brown, moist, sl. discolored blue green bands from 4-8', med. plastic	
6		0.8		
8	SB8-7.5'			
10	SB8-9'	1.3	ML, light brown clayey silt, friable to loose, damp	60% R: 8-12'
12	SB8-12'	0.1	as above	
14		0		
16	SB8-16'		as above	
18	SB8-18.5'	0	SM, light brown fine sand, loose, damp	Notes: PID = Photoionization Detector. Values are in parts per million per volume air (ppmv)
20			Total depth = 18.5' bgs	Continuous core sampling — 100% core recovery (R) unless specified otherwise SB8-7.5' Soil sample submitted for analysis

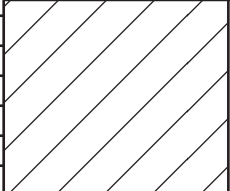
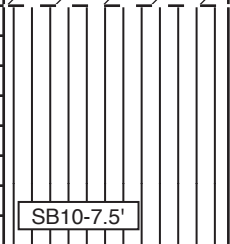
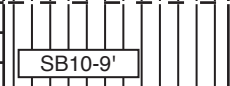
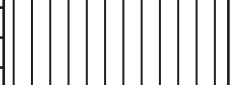
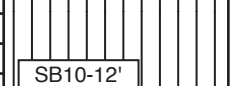
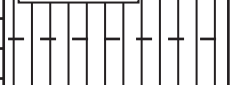
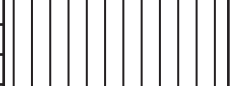
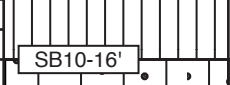
BORING NUMBER SB9 Page 1 of 1

PROJECT Residential UST SI OWNER Mark Jacobson
 LOCATION 811 Paramount Rd., Oakland, CA PROJECT NUMBER 2015-16
 TOTAL DEPTH 18.5 ft. bgs BOREHOLE DIA. 2.25" inch rod; 1.25" core
 SURFACE ELEV. ~211 feet amsl WATER FIRST ENCOUNTERED not encountered
 DRILLING COMPANY Cascade DRILLING METHOD Geoprobe 2.25" x 4' core
 DRILLER Arturo GEOLOGIST H. Pietropaoli DATE DRILLED 10/4/17

DEPTH (feet)	GRAPHIC LOG	PID INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS
0			6" concrete with 3" underlying base rock	
2		0	CL, medium brown silty clay, moist, med. plastic	
4		0	ML, light yellow clayey silty to fine sand, crumbly, damp	80% R: 4-8'
8		0	slight green discoloration from 7-8'	
10		0		
12		0	ML, as above	75% R: 12-16'
16		0		
18		0	SM, light brown med. sand, loose, damp, becomes coarse grained downward	Notes: PID = Photoionization Detector. Values are in parts per million per volume air (ppmv) Continuous core sampling — 100% core recovery (R) unless specified otherwise
20			Total depth = 18.5' bgs	 Soil sample submitted for analysis

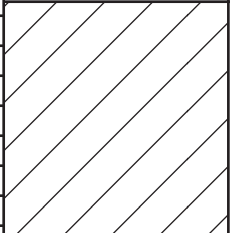
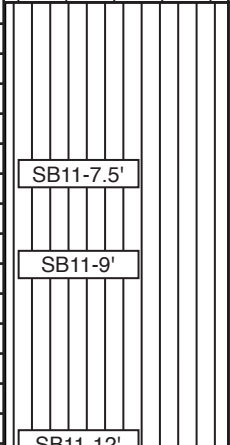
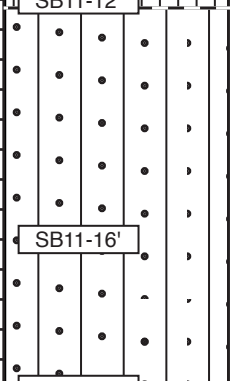
BORING NUMBER SB10 Page 1 of 1

PROJECT Residential UST SI OWNER Mark Jacobson
 LOCATION 811 Paramount Rd., Oakland, CA PROJECT NUMBER 2015-16
 TOTAL DEPTH 18.5 ft. bgs BOREHOLE DIA. 2.25" inch rod; 1.25" core
 SURFACE ELEV. ~211 feet amsl WATER FIRST ENCOUNTERED not encountered
 DRILLING COMPANY Cascade DRILLING METHOD Geoprobe 2.25" x 4' core
 DRILLER Arturo GEOLOGIST H. Pietropaoli DATE DRILLED 10/4/17

DEPTH (feet)	GRAPHIC LOG	PID INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS
0			6" concrete with 3" underlying base rock	
2		0	CL, light brown silty clay, sl. plastic, damp	60% R: 0-4'
4		0	ML, light brown clayey silt, firm, damp	
8		0	SM, light brown fine grained sand, loose, damp	
10		0		
12		0.1		50% R: 12-16'
14		0.3	ML, light brown clayey silt, firm, damp	
16		0	SM, light brown medium grain sand with 2% angular gravel (<0.25"), damp	
18		0		
20			Total depth = 18.5' bgs	Notes: PID = Photoionization Detector. Values are in parts per million per volume air (ppmv) Continuous core sampling — 100% core recovery (R) unless specified otherwise SB10-7.5' Soil sample submitted for analysis

BORING NUMBER SB11 Page 1 of 1

PROJECT Residential UST SI OWNER Mark Jacobson
 LOCATION 811 Paramount Rd., Oakland, CA PROJECT NUMBER 2015-16
 TOTAL DEPTH 18.5 ft. bgs BOREHOLE DIA. 2.25" inch rod; 1.25" core
 SURFACE ELEV. ~211 feet amsl WATER FIRST ENCOUNTERED not encountered
 DRILLING COMPANY Cascade DRILLING METHOD Geoprobe 2.25" x 4' core
 DRILLER Arturo GEOLOGIST H. Pietropaoli DATE DRILLED 10/4/17

DEPTH (feet)	GRAPHIC LOG	PID INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS
0			6" concrete with 2-3" underlying base rock	
2		0	CL, medium brown silty clay, broken up, moist	
4		0		
6		0	ML, light brown clayey silt to fine sand, med. dense, damp	
8	SB11-7.5'	0		
9	SB11-9'	0		
10		0		75% R: 16-18.5'
12	SB11-12'	0		
14		0	SM, light brown fine grain sand, stiff, damp	
16	SB11-16'	0		
18	SB11-18.5'	0	as above	Notes: PID = Photoionization Detector. Values are in parts per million per volume air (ppmv) Continuous core sampling — 100% core recovery (R) unless specified otherwise
18.5			Total depth = 18.5' bgs	SB11-7.5' Soil sample submitted for analysis
20				

ATTACHMENT D

**Certified Laboratory Analytical Results
and Chain-of-Custody Record**



ENTHALPY

ANALYTICAL



Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 293182 ANALYTICAL REPORT

Stellar Environmental Solutions
2198 6th Street
Berkeley, CA 94710

Project : 2015-16
Location : Residential Heating UST Investigation
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
SUMP	293182-001
SB8-7.5	293182-002
SB8-9	293182-003
SB8-12	293182-004
SB8-16	293182-005
SB8-18.5	293182-006
SB9-7.5	293182-007
SB9-9	293182-008
SB9-12	293182-009
SB9-16	293182-010
SB9-18.5	293182-011
SB10-7.5	293182-012
SB10-9	293182-013
SB10-12	293182-014
SB10-16	293182-015
SB10-18.5	293182-016
SB11-7.5	293182-017
SB11-9	293182-018
SB11-12	293182-019
SB11-16	293182-020
SB11-18.5	293182-021
DRUM COMP	293182-022

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 NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____

Patrick McCarthy
Project Manager
patrick.mccarthy@enthalpy.com
(510) 204-2236

Date: 10/12/2017

CASE NARRATIVE

Laboratory number: 293182
Client: Stellar Environmental Solutions
Project: 2015-16
Location: Residential Heating UST Investigation
Request Date: 10/04/17
Samples Received: 10/04/17

This data package contains sample and QC results for seventeen soil samples and one water sample, requested for the above referenced project on 10/04/17. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B) Water:

Low recoveries were observed for gasoline C7-C12 in the MS/MSD for batch 252350; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. Gasoline C7-C12 was detected between the MDL and the RL in the method blank for batch 252350; this analyte was not detected in the sample at or above the RL. No other analytical problems were encountered.

TPH-Purgeables and/or BTXE by GC (EPA 8015B) Soil:

Gasoline C7-C12 was detected between the MDL and the RL in the method blank for batch 252439; this analyte was not detected in samples at or above the RL. No other analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B) Water:

No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B) Soil:

Matrix spikes QC903811, QC903812 (batch 252392) were not reported because the parent sample required a dilution that would have diluted out the spikes. DRUM COMP (lab # 293182-022) was diluted due to the dark and viscous nature of the sample extract. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B) Water:

N-butylbenzene, naphthalene, and 1,2,4-trichlorobenzene were detected between the MDL and the RL in the method blank for batch 252524; these analytes were not detected in the sample at or above the RL. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B) Soil:

No analytical problems were encountered.

Moisture (ASTM D2216-98/CLP):

No analytical problems were encountered.

203182

Chain of Custody Record

Lab job no. _____
 Date 10/4/17
 Page 1 of 2

Laboratory Curtis and Tompkins, Ltd
 Address 2323 Fifth Street
Berkeley, California 94710
510-486-0900

Method of Shipment Lab Courier delivered

Project Owner Mark Jacobson
 Site Address 811 Paramount Road
Oakland, CA

Shipment No. _____
 Airbill No. _____
 Cooler No. _____
 Project Manager Richard Makdisi
 Telephone No. (510) 644-3123

Project Name Residential Heating UST Investigation
 Project Number 2015-16

Fax No. (510) 644-3859
 Samplers: (Signature) [Signature]

Field Sample Number	Location/Depth	Date	Time	Sample Type	Type/Size of Container	Preservation		No	Analysis Required			Remarks		
						Cooler	Chemical		Filtered	No. of Containers				
Sump	Sump	10/1/17	0805	H ₂ O	2-500ml 3-40ml, HCL	yes	HCL		No	5	X	X		
SB8-7.5	7-7.5		1000	Soil	acetate skew		NO			1	X	X	X	
SB8-9	8.5-9		1010							1	X	X	X	
SB8-12	11.5-12		1015							1	X	X	X	
SB8-16	15.5-16		1020							1	X	X	X	
SB8-18.5	18-18.5		1022							1	X	X	X	HOLD
SB9-7.5	7-7.5		1030							1	X	X	X	
SB9-9	8.5-9		1035							1	X	X	X	
SB9-12	11.5-12		1040							1	X	X	X	
SB9-16	15.5-16		1045							1	X	X	X	
SB9-18.5	18-18.5		1050							1				HOLD
SB10-7.5	7-7.5		1058							1	X	X	X	

Relinquished by: [Signature]
 Signature _____
 Printed H. Pietropoli
 Company Stellar Environmental

Date 10/4/17
 Received by: [Signature]
 Signature _____
 Printed MSP
 Company [Signature]

Date _____
 Relinquished by: _____
 Signature _____
 Printed _____
 Company _____

Date _____
 Received by: _____
 Signature _____
 Printed _____
 Company _____

Turnaround Time: Standard
 Comments: samples on Ice
RLs/mdls must meet residential ESLs
Report on dry density basis

Relinquished by: _____
 Signature _____
 Printed _____
 Company _____

Date _____
 Received by: _____
 Signature _____
 Printed _____
 Company _____

2000-00-101

293182

Chain of Custody Record

Lab job no. _____
 Date 10/4/17
 Page 2 of 2

Laboratory Curtis and Tompkins, Ltd
 Address 2323 Fifth Street
Berkeley, California 94710
510-486-0900

Method of Shipment Lab Courier delivered

Shipment No. _____

Airbill No. _____

Cooler No. _____

Project Owner Mark Jacobson
 Site Address 811 Paramount Road
Oakland, CA

Project Manager Richard Makdisi

Telephone No. (510) 644-3123

Project Name Residential Heating UST Investigation

Fax No. (510) 644-3859

Project Number 2015-16

Samplers: (Signature) [Signature]

Filtered	No. of Containers	Analysis Required										Remarks		
		TPH	g+d	MO	VOCs	by	8260	moisture						
			X	X	X									
			X	X	X									
			X	X	X									
														HOLD
			X	X	X									
			X	X	X									
			X	X	X									
			X	X	X									HOLD
			X	X										

Field Sample Number	Location/Depth	Date	Time	Sample Type	Type/Size of Container	Preservation		No				
						Cooler	Chemical					
SB10-9	8.5-9	10/4/17	1100	Soil	Acetate sleeve	yes	NO		X	X	X	
SB10-12	11.5-12		1105						X	X	X	
SB10-16	15.5-16		1110						X	X	X	
SB10-18.5	18-18.5		1115									
SB11-7.5	7-7.5		1120						X	X	X	
SB11-9	8.5-9		1125						X	X	X	
SB11-12	11.5-12		1130						X	X	X	
SB11-16	15.5-16		1135						X	X	X	
SB11-18.5	18-18.5		1140									
Drum Comp	drum		1215		16 oz jar				X	X		

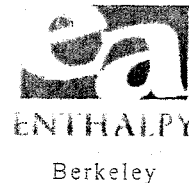
Relinquished by: <u>[Signature]</u> Signature _____ Printed <u>Pietropoli</u> Company <u>Stellar Environmental</u>	Date <u>10/4/17</u> Time <u>1420</u>	Received by: <u>[Signature]</u> Signature _____ Printed <u>NOM</u> Company <u>Enviro</u>	Date <u>10/4/17</u> Time <u>1420</u>	Relinquished by: _____ Signature _____ Printed _____ Company _____	Date _____ Time _____	Received by: _____ Signature _____ Printed _____ Company _____	Date _____ Time _____
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Turnaround Time: <u>Standard</u>	Relinquished by: _____ Signature _____ Printed _____ Company _____	Date _____ Time _____	Received by: _____ Signature _____ Printed _____ Company _____	Date _____ Time _____
Comments: <u>samples on ice</u> <u>RLs/md/s must meet residential ESLs</u> <u>Report by day wt basis</u>				

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2000-00-00-10

COOLER RECEIPT CHECKLIST



Login # 293182 Date Received 10/04/17 Number of coolers 1
 Client Stellus Environmental Services Project 2015-16

Date Opened 10/04/17 By (print) DS (sign) [Signature]
 Date Logged in ↓ By (print) ↓ (sign) ↓
 Date Labelled ↓ By (print) ↓ (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? (pH strip lot# _____) 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 _____

Detections Summary for 293182

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

Client : Stellar Environmental Solutions
 Project : 2015-16
 Location : Residential Heating UST Investigation

Client Sample ID : SUMP Laboratory Sample ID : 293182-001

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	13	J	50	11	ug/L	As Recd	1.000	EPA 8015B	EPA 5030B
Acetone	6.9	J	10	3.3	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Chloroform	6.2		0.5	0.1	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Bromodichloromethane	0.5	J	0.5	0.1	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Toluene	0.1	J	0.5	0.1	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : SB8-7.5 Laboratory Sample ID : 293182-002

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	0.31	J	1.2	0.064	mg/Kg	Dry	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	1.1	J	1.2	0.37	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Moisture, Percent	17		1		%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : SB8-9 Laboratory Sample ID : 293182-003

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	0.33	J	1.2	0.064	mg/Kg	Dry	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	0.46	J	1.2	0.37	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Moisture, Percent	17		1		%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : SB8-12 Laboratory Sample ID : 293182-004

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	0.34	J	1.3	0.069	mg/Kg	Dry	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	0.57	J	1.2	0.37	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Moisture, Percent	17		1		%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : SB8-16 Laboratory Sample ID : 293182-005

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	0.31	J	1.3	0.067	mg/Kg	Dry	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	0.40	J,Y	1.2	0.38	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Moisture, Percent	19		1		%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : SB9-7.5

Laboratory Sample ID :

293182-007

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	0.30	J	1.3	0.068	mg/Kg	Dry	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	0.73	J	1.2	0.36	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Moisture, Percent	15		1		%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : SB9-9

Laboratory Sample ID :

293182-008

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	0.22	J	1.1	0.058	mg/Kg	Dry	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	0.64	J	1.2	0.35	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Moisture, Percent	13		1		%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : SB9-12

Laboratory Sample ID :

293182-009

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	0.24	J	1.2	0.066	mg/Kg	Dry	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	0.40	J	1.2	0.37	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Moisture, Percent	17		1		%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : SB9-16

Laboratory Sample ID :

293182-010

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	0.20	J	1.1	0.058	mg/Kg	Dry	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	0.58	J	1.2	0.36	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Moisture, Percent	14		1		%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : SB10-7.5

Laboratory Sample ID :

293182-012

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	0.24	J	1.2	0.062	mg/Kg	Dry	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	0.53	J	1.2	0.36	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Moisture, Percent	15		1		%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : SB10-9

Laboratory Sample ID :

293182-013

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	0.24	J	1.1	0.059	mg/Kg	Dry	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	3.0		1.2	0.37	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Moisture, Percent	16		1		%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : SB10-12

Laboratory Sample ID :

293182-014

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	0.16	J	1.3	0.069	mg/Kg	Dry	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	0.92	J,Y	1.2	0.37	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Moisture, Percent	17		1		%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : SB10-16

Laboratory Sample ID :

293182-015

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	0.19	J	1.2	0.062	mg/Kg	Dry	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	0.38	J,Y	1.2	0.37	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Moisture, Percent	17		1		%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : SB11-7.5

Laboratory Sample ID :

293182-017

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	0.19	J	1.2	0.064	mg/Kg	Dry	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	0.58	J,Y	1.1	0.35	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Moisture, Percent	12		1		%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : SB11-9

Laboratory Sample ID :

293182-018

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	0.17	J	1.3	0.069	mg/Kg	Dry	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	2.3	Y	1.2	0.38	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Moisture, Percent	18		1		%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : SB11-12

Laboratory Sample ID :

293182-019

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	0.19	J	1.2	0.066	mg/Kg	Dry	1.000	EPA 8015B	EPA 5030B
Moisture, Percent	19		1		%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : SB11-16

Laboratory Sample ID :

293182-020

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	0.19	J	1.2	0.061	mg/Kg	Dry	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	1.1	J	1.2	0.37	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550C
Moisture, Percent	18		1		%	As Recd	1.000	ASTM D2216-98/CLP	METHOD

Client Sample ID : DRUM COMP

Laboratory Sample ID :

293182-022

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	0.13	J	1.0	0.053	mg/Kg	As Recd	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	200	Y	3.0	0.91	mg/Kg	As Recd	3.000	EPA 8015B	EPA 3550C
Motor Oil C24-C36	110		15	4.5	mg/Kg	As Recd	3.000	EPA 8015B	EPA 3550C

J = Estimated value

Y = Sample exhibits chromatographic pattern which does not resemble standard

Total Volatile Hydrocarbons			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8015B
Field ID:	SUMP	Batch#:	252350
Matrix:	Water	Sampled:	10/04/17
Units:	ug/L	Received:	10/04/17
Diln Fac:	1.000		

Type: SAMPLE Analyzed: 10/05/17
 Lab ID: 293182-001

Analyte	Result	RL	MDL
Gasoline C7-C12	13 J	50	11

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	96	80-121

Type: BLANK Analyzed: 10/04/17
 Lab ID: QC903637

Analyte	Result	RL	MDL
Gasoline C7-C12	14 J	50	11

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	95	80-121

J= Estimated value
 RL= Reporting Limit
 MDL= Method Detection Limit
 Page 1 of 1

Batch QC Report

Total Volatile Hydrocarbons		
Lab #:	293182	Location: Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep: EPA 5030B
Project#:	2015-16	Analysis: EPA 8015B
Type:	LCS	Diln Fac: 1.000
Lab ID:	QC903634	Batch#: 252350
Matrix:	Water	Analyzed: 10/04/17
Units:	ug/L	

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	947.5	95	80-122

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	95	80-121

Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	252350
MSS Lab ID:	293115-001	Sampled:	10/02/17
Matrix:	Water	Received:	10/03/17
Units:	ug/L	Analyzed:	10/05/17
Diln Fac:	1.000		

Type: MS Lab ID: QC903635

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	31.14	2,000	1,408	69 *	78-120

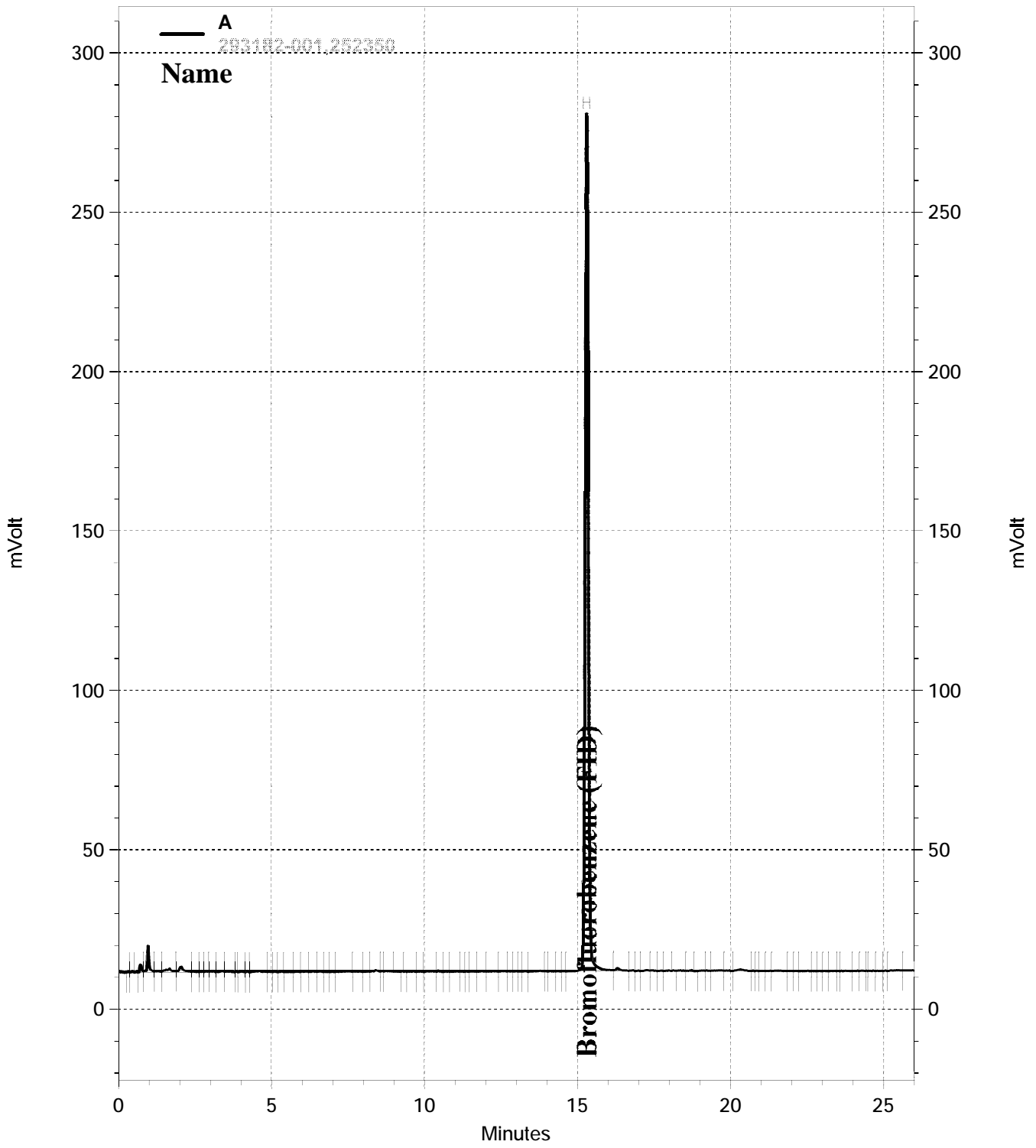
Surrogate	%REC	Limits
Bromofluorobenzene (FID)	98	80-121

Type: MSD Lab ID: QC903636

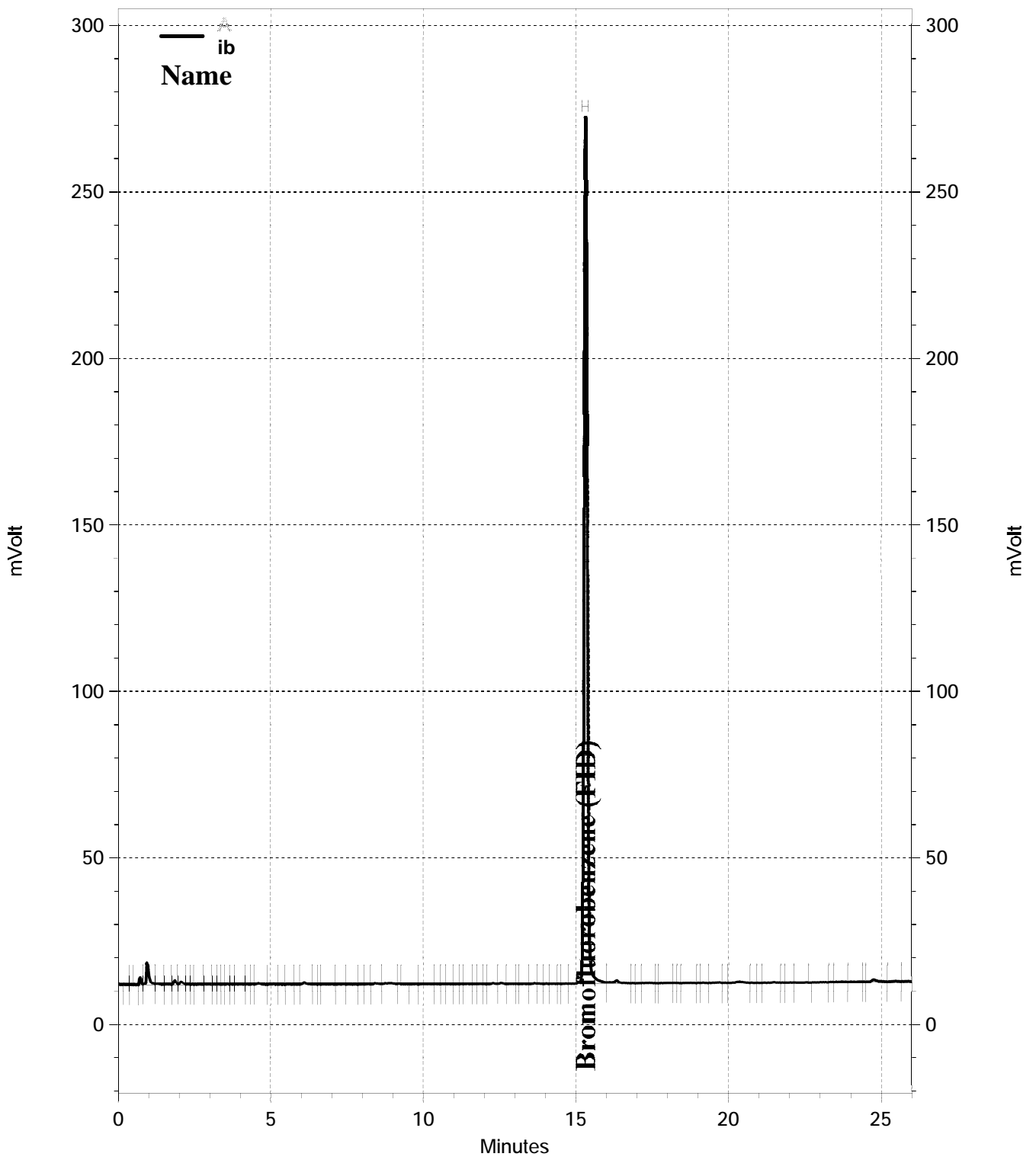
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,422	70 *	78-120	1	20

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	97	80-121

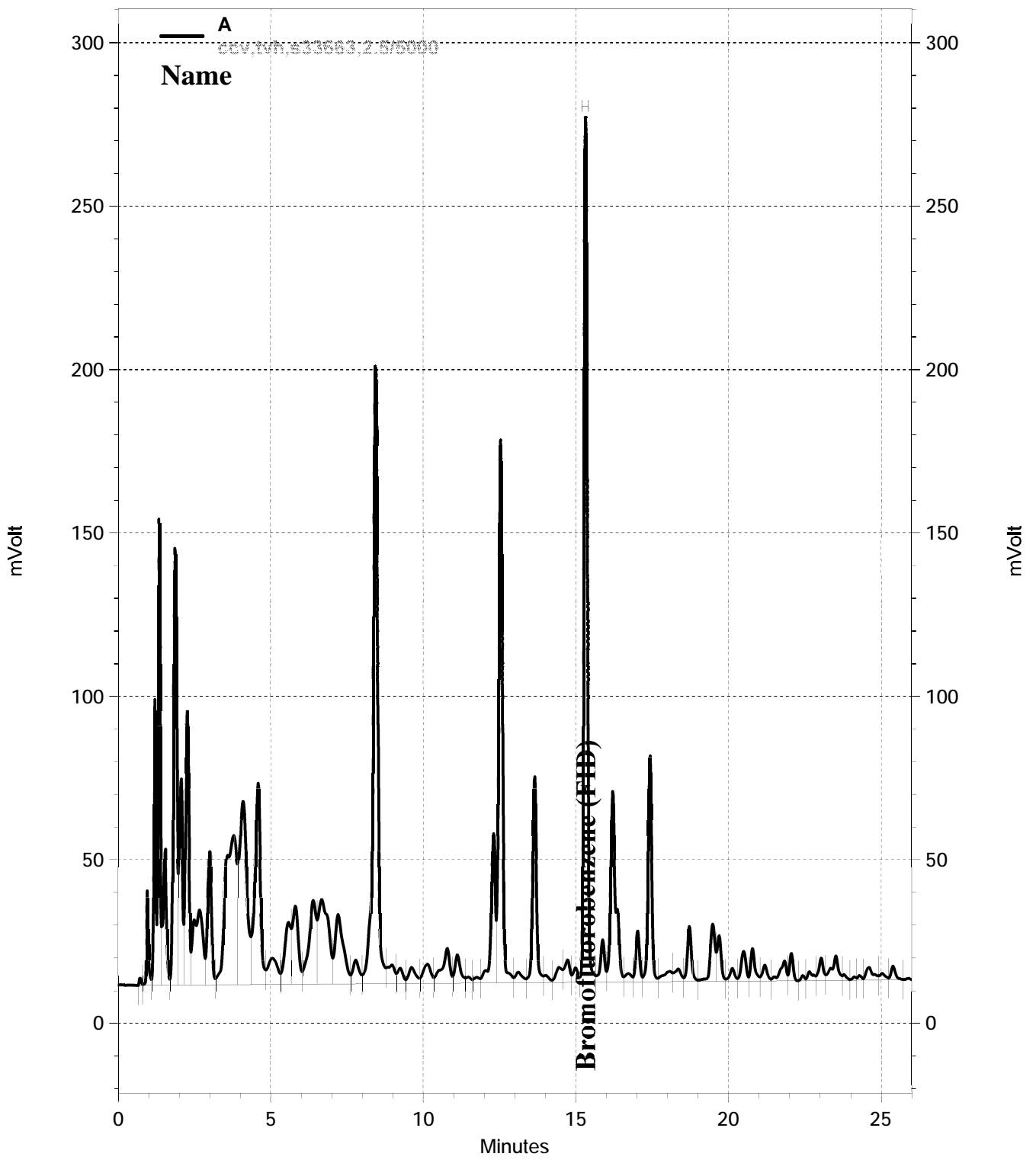
*= Value outside of QC limits; see narrative
 RPD= Relative Percent Difference



— \\Lims\gdrive\ezchrom\Projects\GC07\Data\277-026, A



— \\Lims\gdrive\ezchrom\Projects\GC07\Data\277-004, A



— \\Lims\gdrive\ezchrom\Projects\GC07\Data\277-002, A

Total Volatile Hydrocarbons

Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/04/17
Units:	mg/Kg	Received:	10/04/17
Diln Fac:	1.000	Analyzed:	10/07/17
Batch#:	252439		

Field ID: SB9-7.5 Basis: dry
 Type: SAMPLE Moisture: 15%
 Lab ID: 293182-007

Analyte	Result	RL	MDL
Gasoline C7-C12	0.30 J	1.3	0.068

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	96	65-136

Field ID: SB9-9 Basis: dry
 Type: SAMPLE Moisture: 13%
 Lab ID: 293182-008

Analyte	Result	RL	MDL
Gasoline C7-C12	0.22 J	1.1	0.058

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	96	65-136

Field ID: SB9-12 Basis: dry
 Type: SAMPLE Moisture: 17%
 Lab ID: 293182-009

Analyte	Result	RL	MDL
Gasoline C7-C12	0.24 J	1.2	0.066

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	95	65-136

Field ID: SB9-16 Basis: dry
 Type: SAMPLE Moisture: 14%
 Lab ID: 293182-010

Analyte	Result	RL	MDL
Gasoline C7-C12	0.20 J	1.1	0.058

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	94	65-136

J= Estimated value
 RL= Reporting Limit
 MDL= Method Detection Limit

Total Volatile Hydrocarbons			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/04/17
Units:	mg/Kg	Received:	10/04/17
Diln Fac:	1.000	Analyzed:	10/07/17
Batch#:	252439		

Field ID: SB10-7.5 Basis: dry
 Type: SAMPLE Moisture: 15%
 Lab ID: 293182-012

Analyte	Result	RL	MDL
Gasoline C7-C12	0.24 J	1.2	0.062

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	95	65-136

Field ID: SB10-9 Basis: dry
 Type: SAMPLE Moisture: 16%
 Lab ID: 293182-013

Analyte	Result	RL	MDL
Gasoline C7-C12	0.24 J	1.1	0.059

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	94	65-136

Field ID: SB10-12 Basis: dry
 Type: SAMPLE Moisture: 17%
 Lab ID: 293182-014

Analyte	Result	RL	MDL
Gasoline C7-C12	0.16 J	1.3	0.069

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	93	65-136

Field ID: SB10-16 Basis: dry
 Type: SAMPLE Moisture: 17%
 Lab ID: 293182-015

Analyte	Result	RL	MDL
Gasoline C7-C12	0.19 J	1.2	0.062

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	94	65-136

J= Estimated value
 RL= Reporting Limit
 MDL= Method Detection Limit

Total Volatile Hydrocarbons			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/04/17
Units:	mg/Kg	Received:	10/04/17
Diln Fac:	1.000	Analyzed:	10/07/17
Batch#:	252439		

Field ID: SB11-7.5 Basis: dry
 Type: SAMPLE Moisture: 12%
 Lab ID: 293182-017

Analyte	Result	RL	MDL
Gasoline C7-C12	0.19 J	1.2	0.064

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	95	65-136

Field ID: SB11-9 Basis: dry
 Type: SAMPLE Moisture: 18%
 Lab ID: 293182-018

Analyte	Result	RL	MDL
Gasoline C7-C12	0.17 J	1.3	0.069

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	94	65-136

Field ID: SB11-12 Basis: dry
 Type: SAMPLE Moisture: 19%
 Lab ID: 293182-019

Analyte	Result	RL	MDL
Gasoline C7-C12	0.19 J	1.2	0.066

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	95	65-136

Field ID: SB11-16 Basis: dry
 Type: SAMPLE Moisture: 18%
 Lab ID: 293182-020

Analyte	Result	RL	MDL
Gasoline C7-C12	0.19 J	1.2	0.061

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	97	65-136

J= Estimated value
 RL= Reporting Limit
 MDL= Method Detection Limit

Total Volatile Hydrocarbons			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/04/17
Units:	mg/Kg	Received:	10/04/17
Diln Fac:	1.000	Analyzed:	10/07/17
Batch#:	252439		

Field ID: DRUM COMP Lab ID: 293182-022
 Type: SAMPLE Basis: as received

Analyte	Result	RL	MDL
Gasoline C7-C12	0.13 J	1.0	0.053

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	95	65-136

Type: BLANK Lab ID: QC904003

Analyte	Result	RL	MDL
Gasoline C7-C12	0.32 J	1.0	0.053

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	96	65-136

J= Estimated value
 RL= Reporting Limit
 MDL= Method Detection Limit

Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC904000	Batch#:	252439
Matrix:	Soil	Analyzed:	10/07/17
Units:	mg/Kg		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	3.000	2.859	95	80-121

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	99	65-136

Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8015B
Field ID:	SB8-7.5	Diln Fac:	1.000
MSS Lab ID:	293182-002	Batch#:	252439
Matrix:	Soil	Sampled:	10/04/17
Units:	mg/Kg	Received:	10/04/17
Basis:	dry	Analyzed:	10/07/17

Type: MS Moisture: 17%
 Lab ID: QC904001

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.3100	12.05	10.30	83	52-120

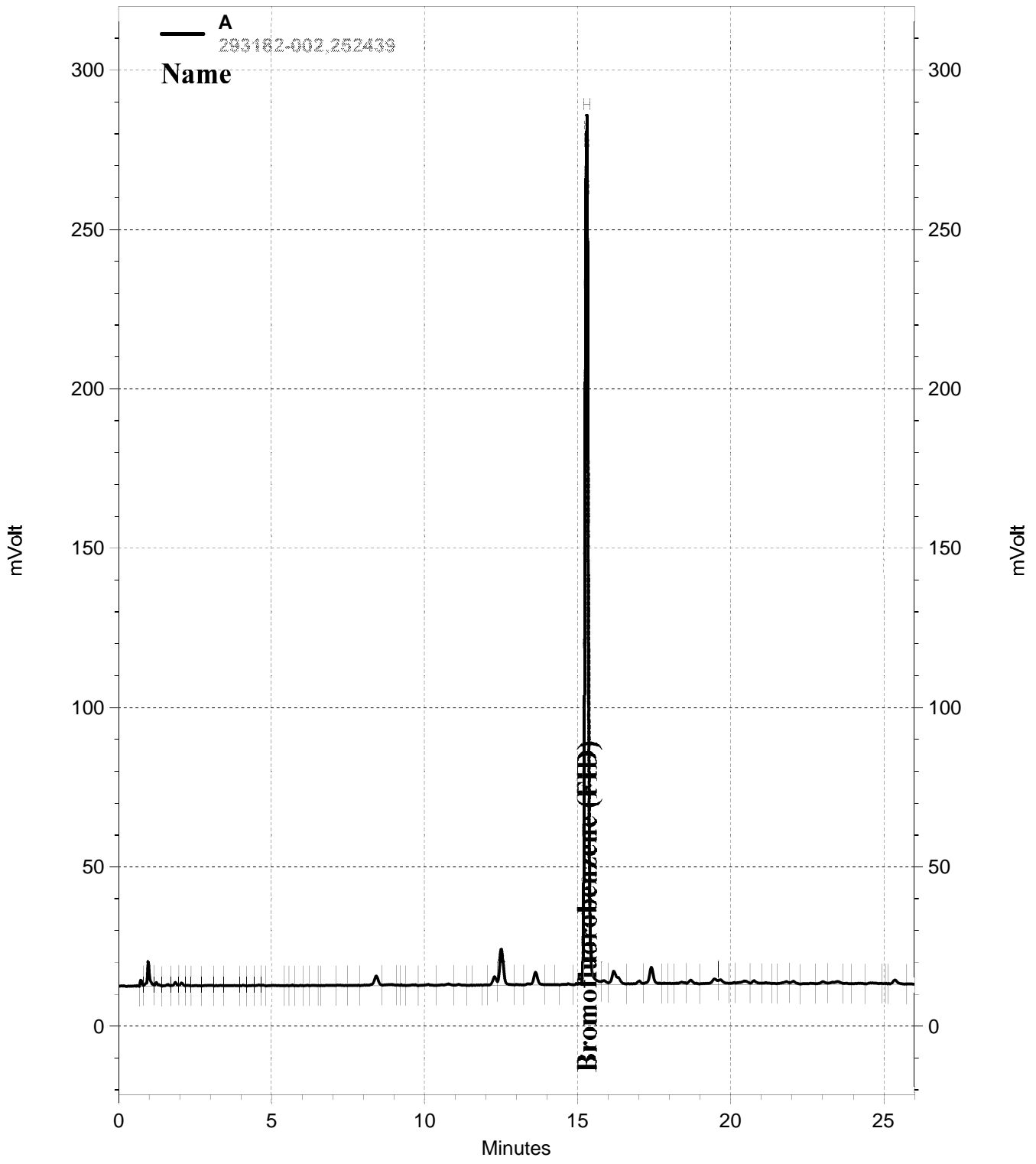
Surrogate	%REC	Limits
Bromofluorobenzene (FID)	98	65-136

Type: MSD Moisture: 17%
 Lab ID: QC904002

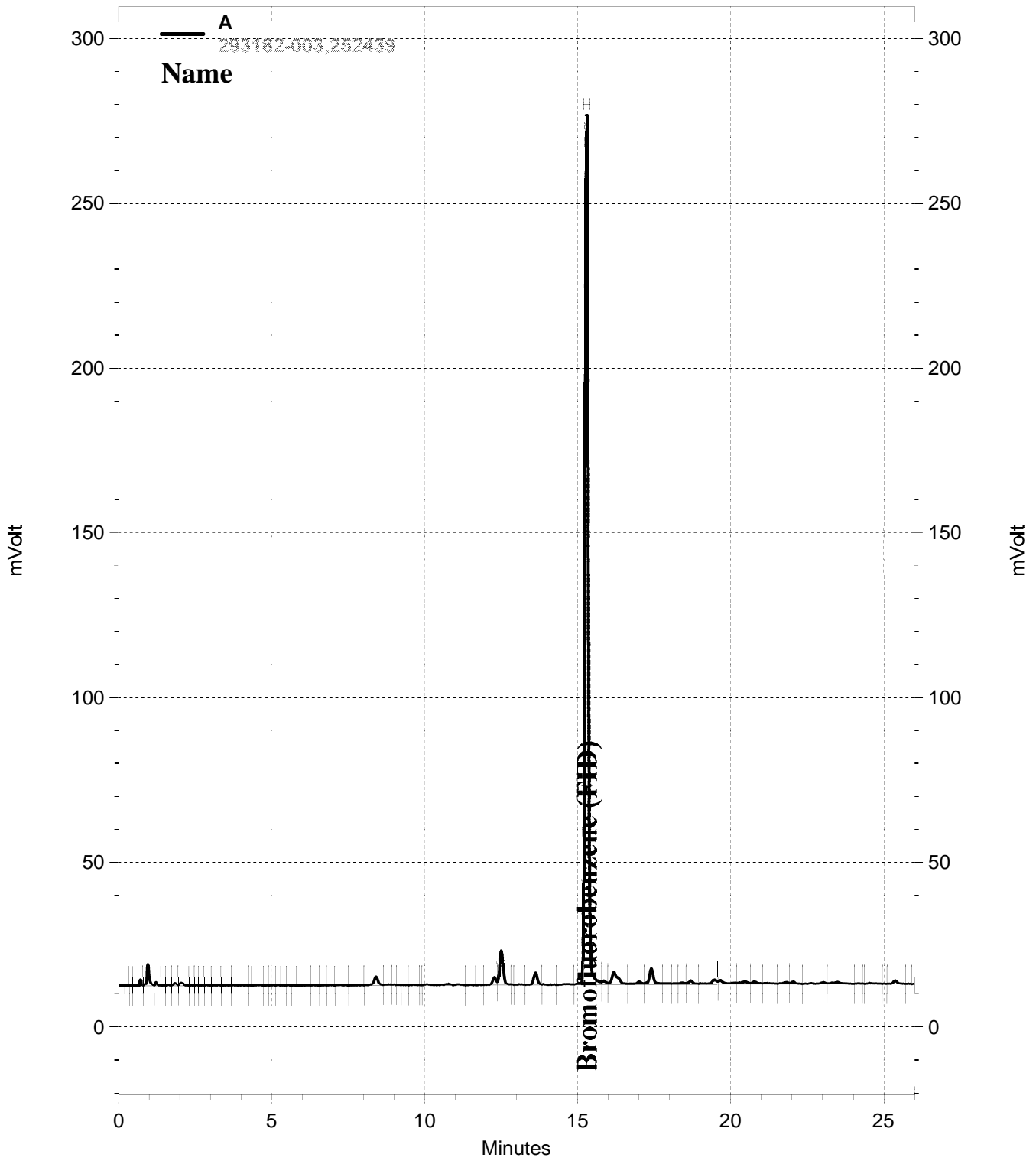
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	11.81	9.960	82	52-120	1	25

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	98	65-136

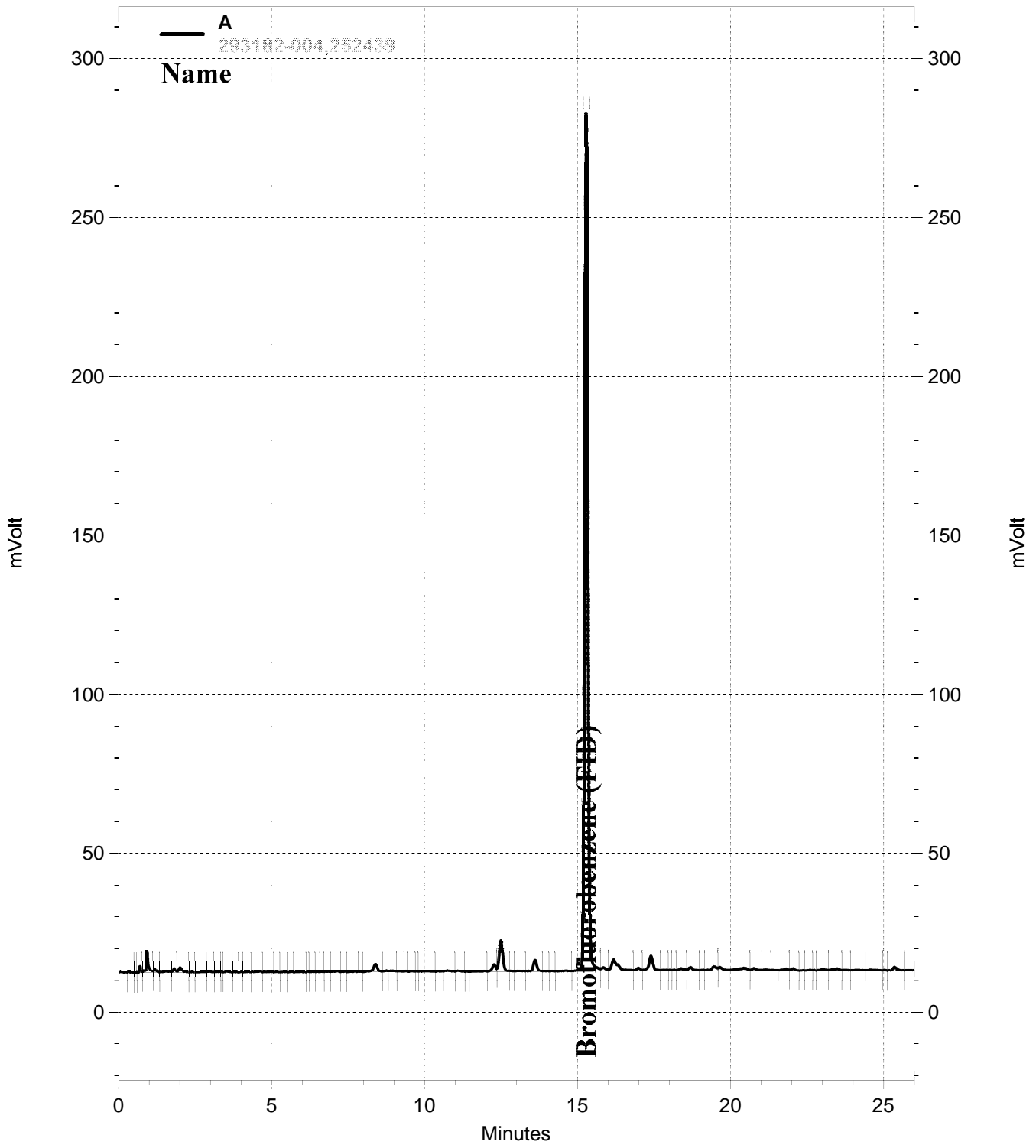
RPD= Relative Percent Difference



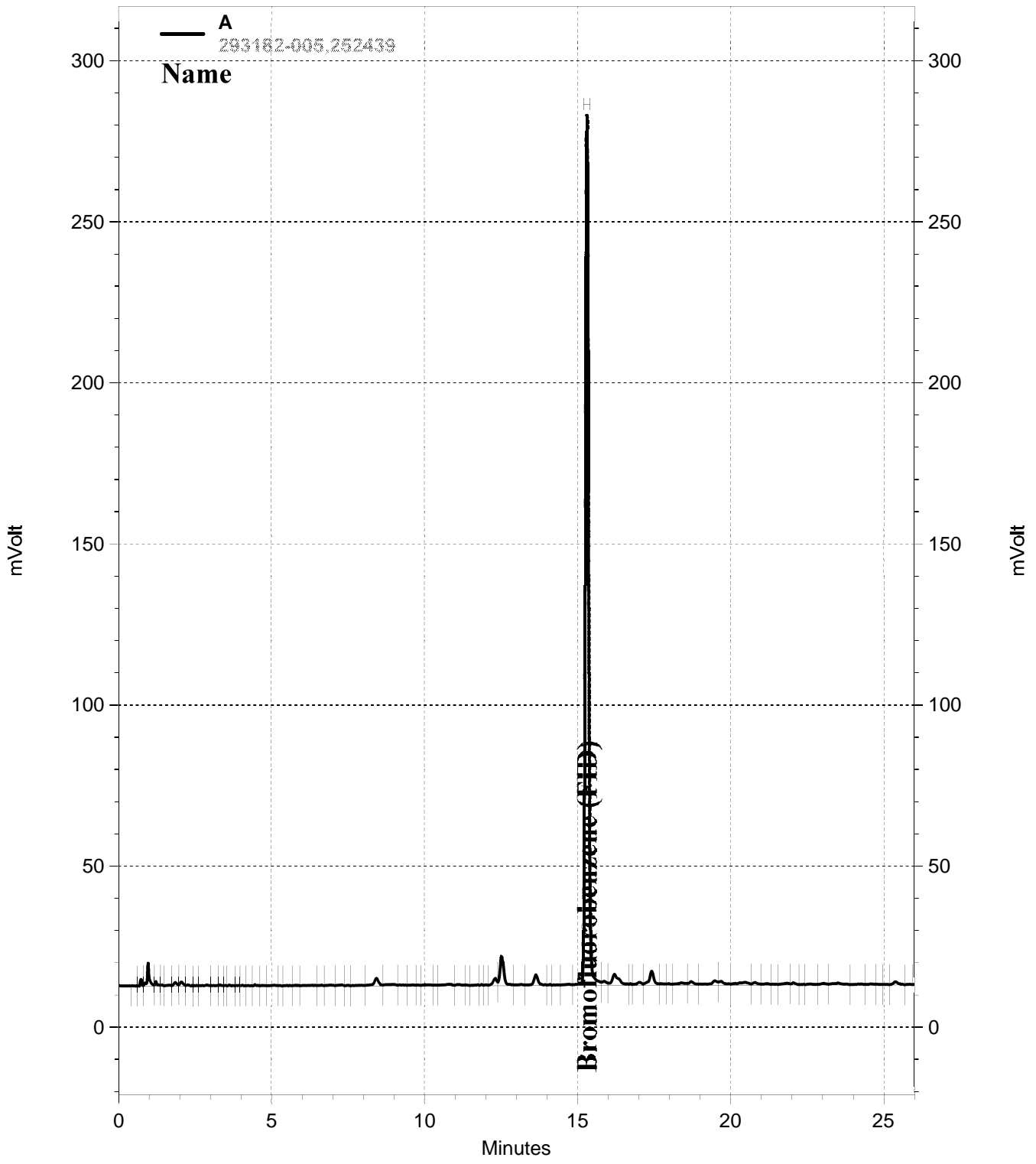
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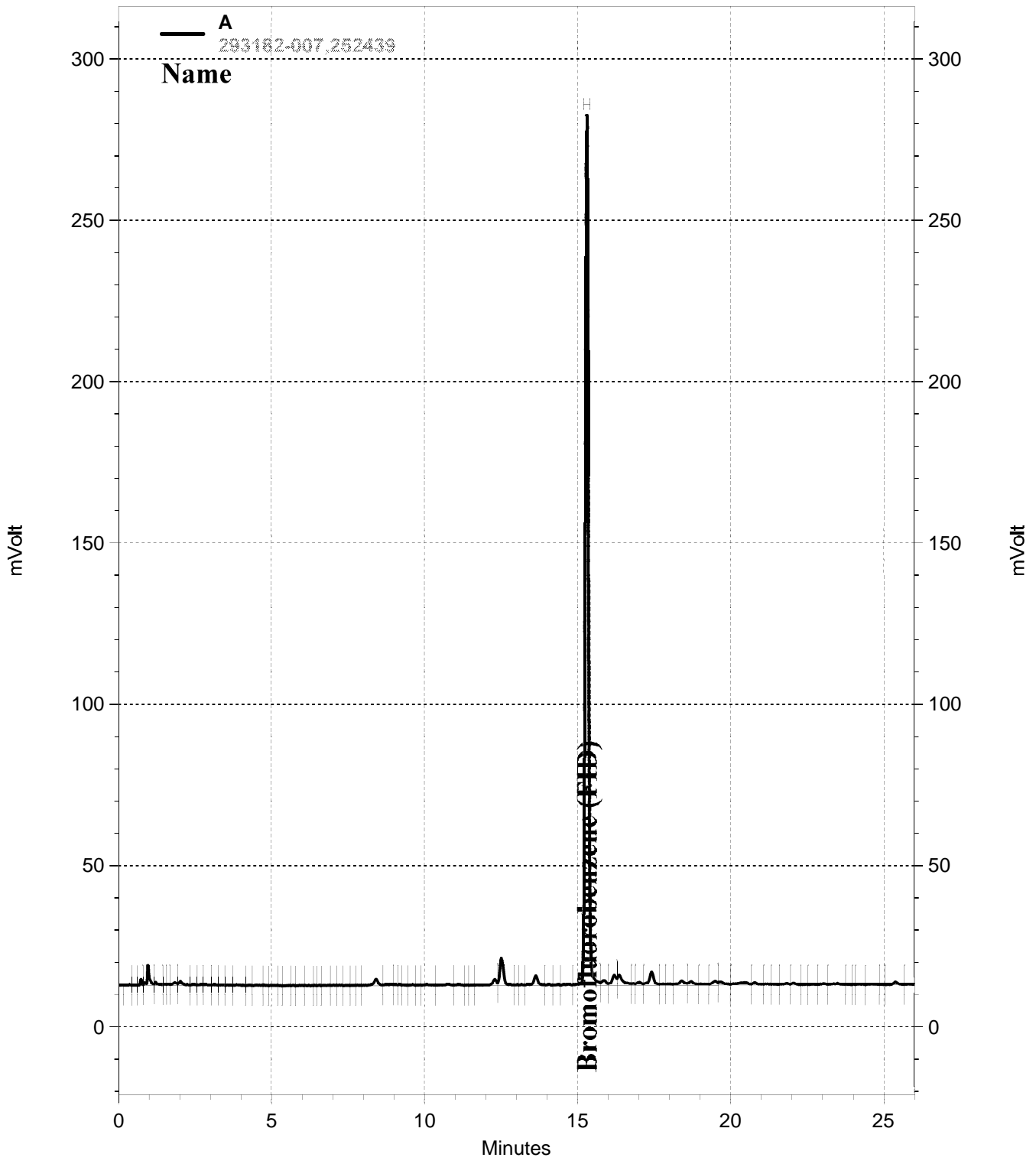
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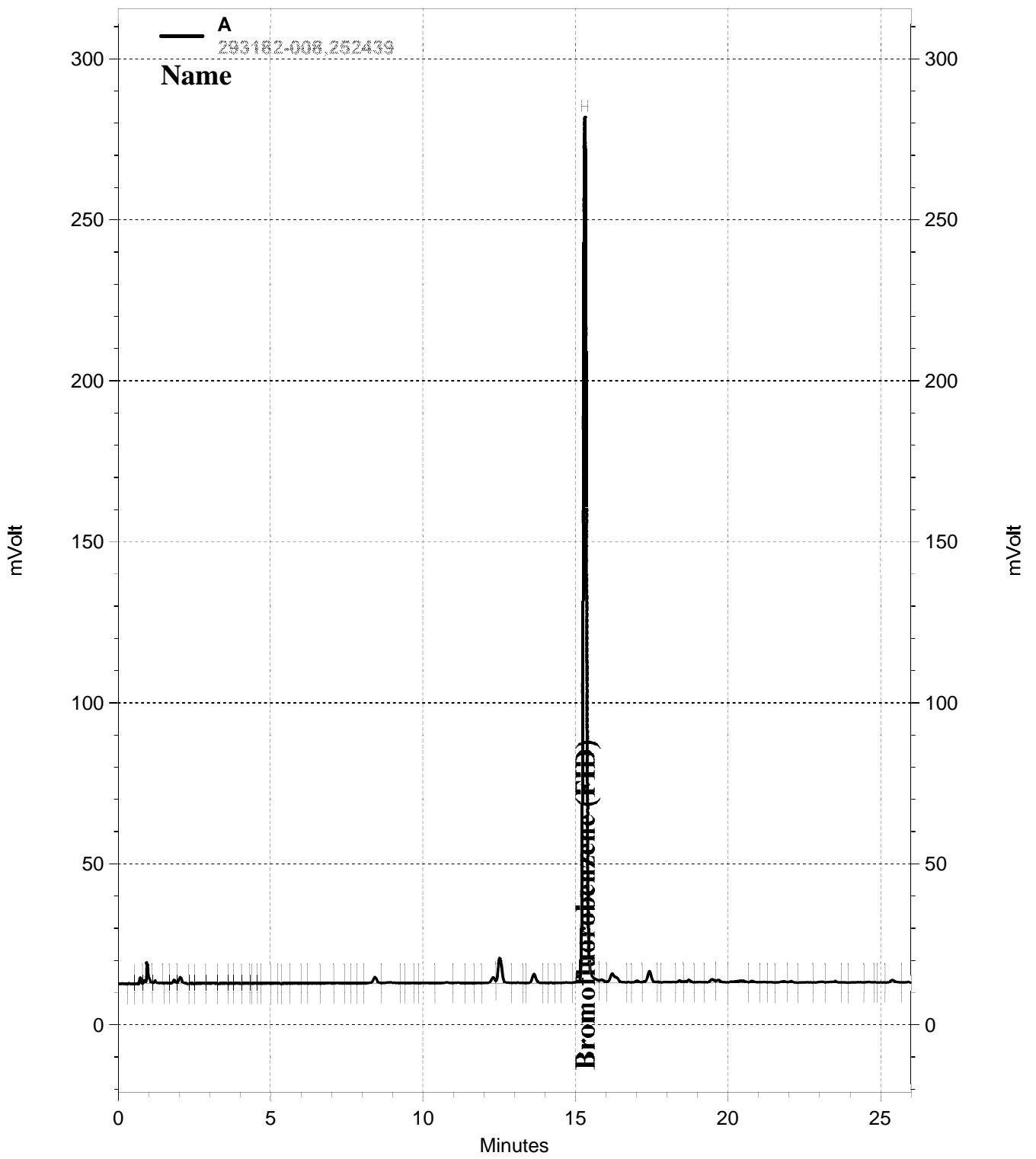
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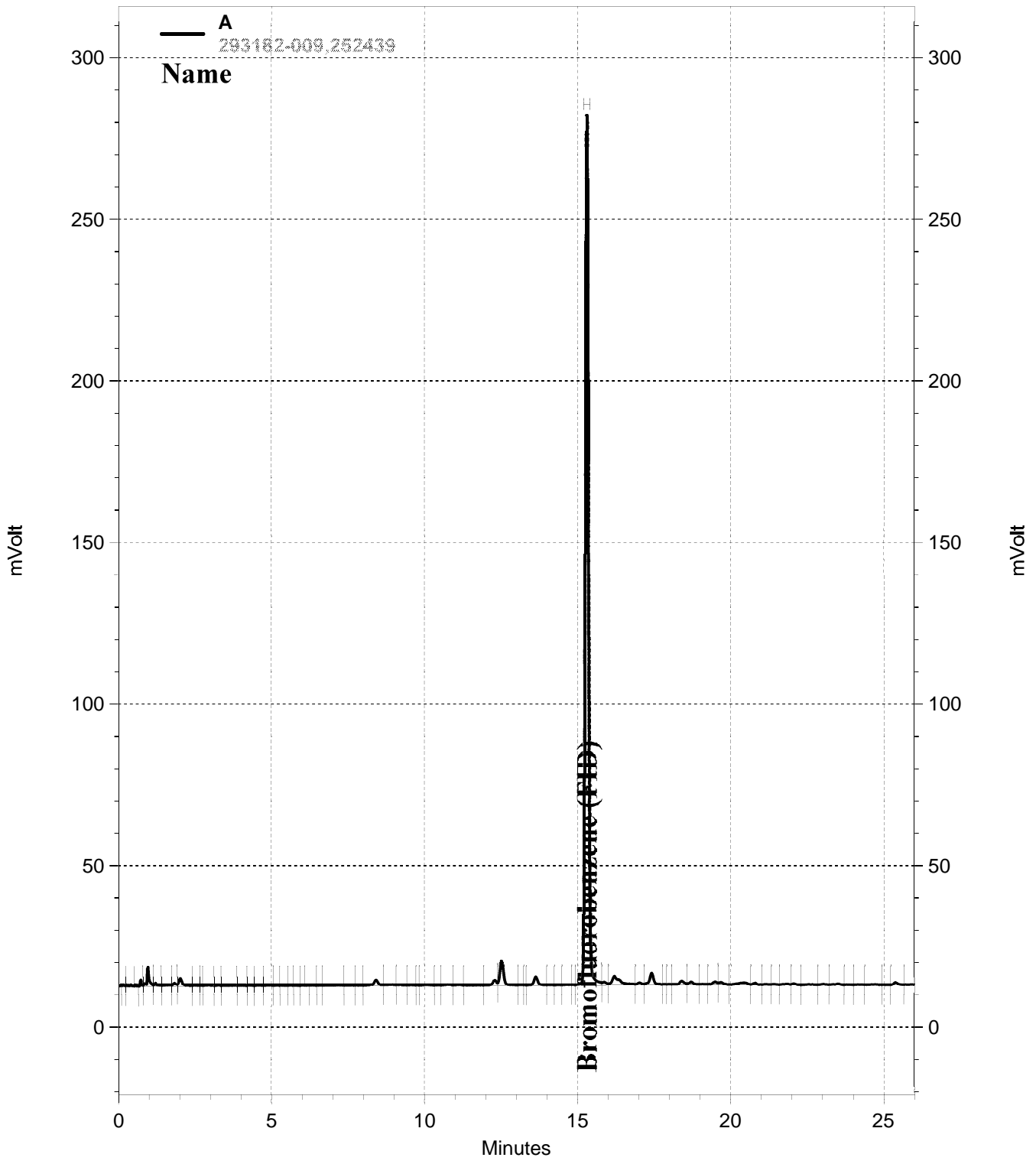
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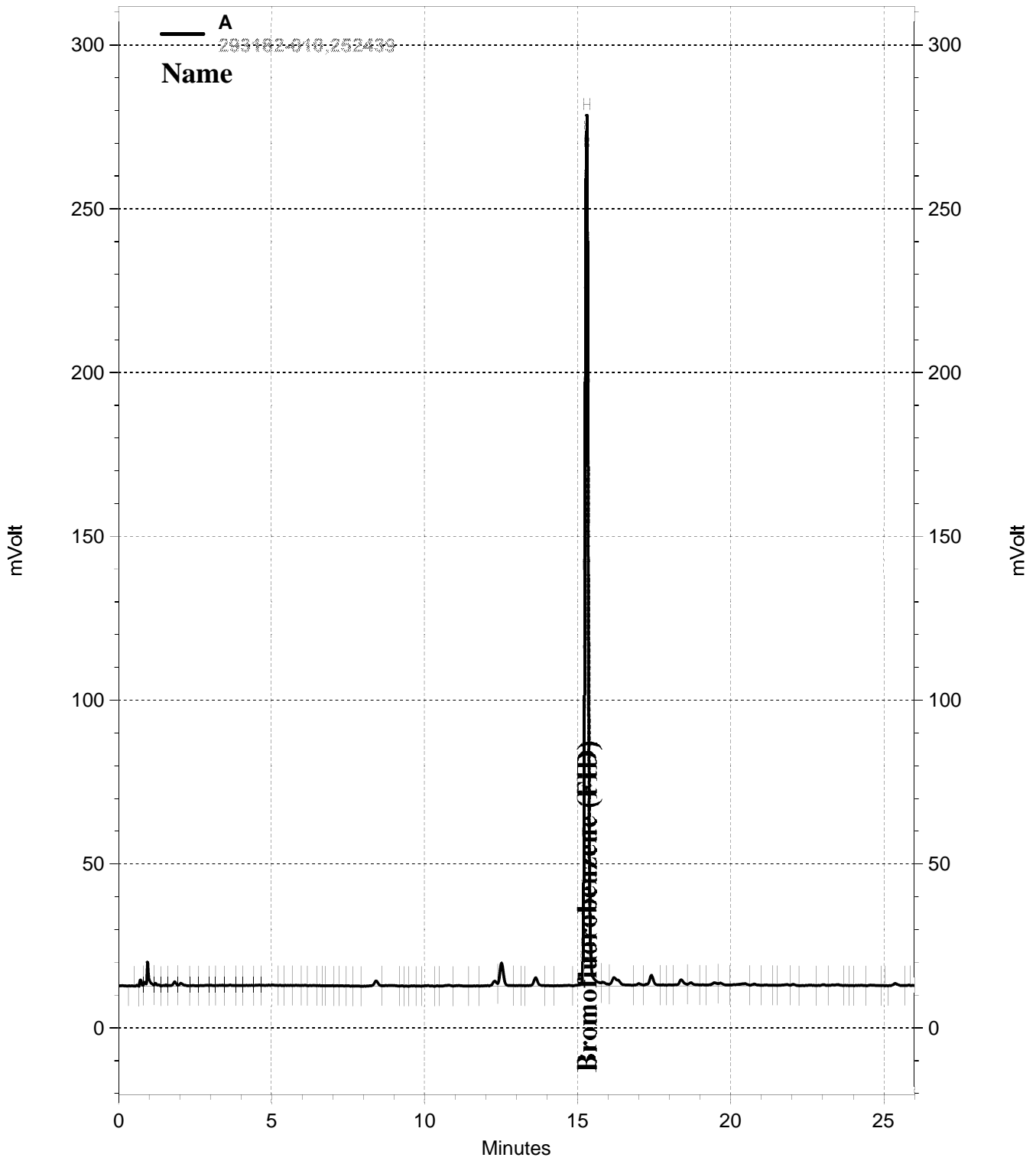
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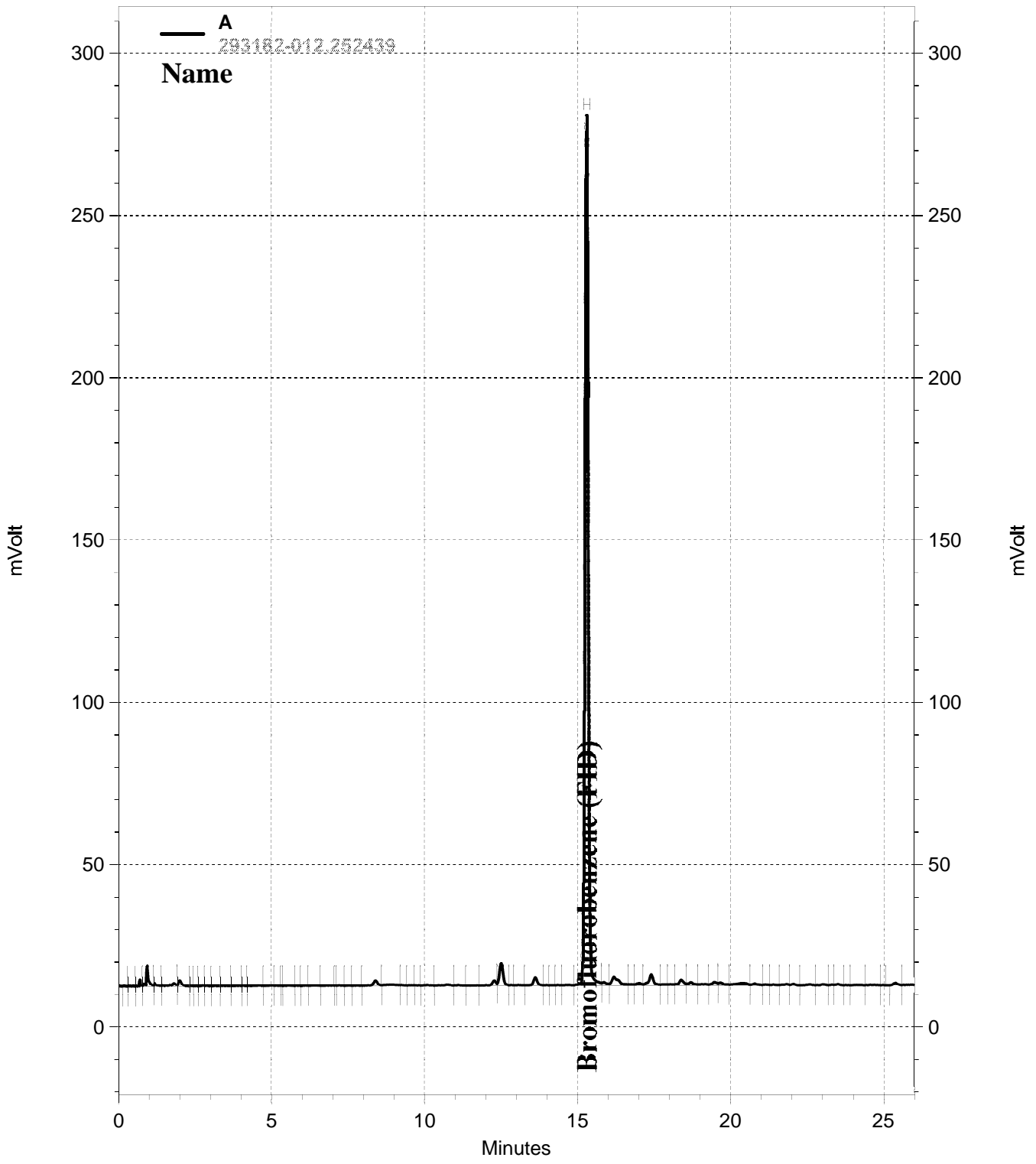
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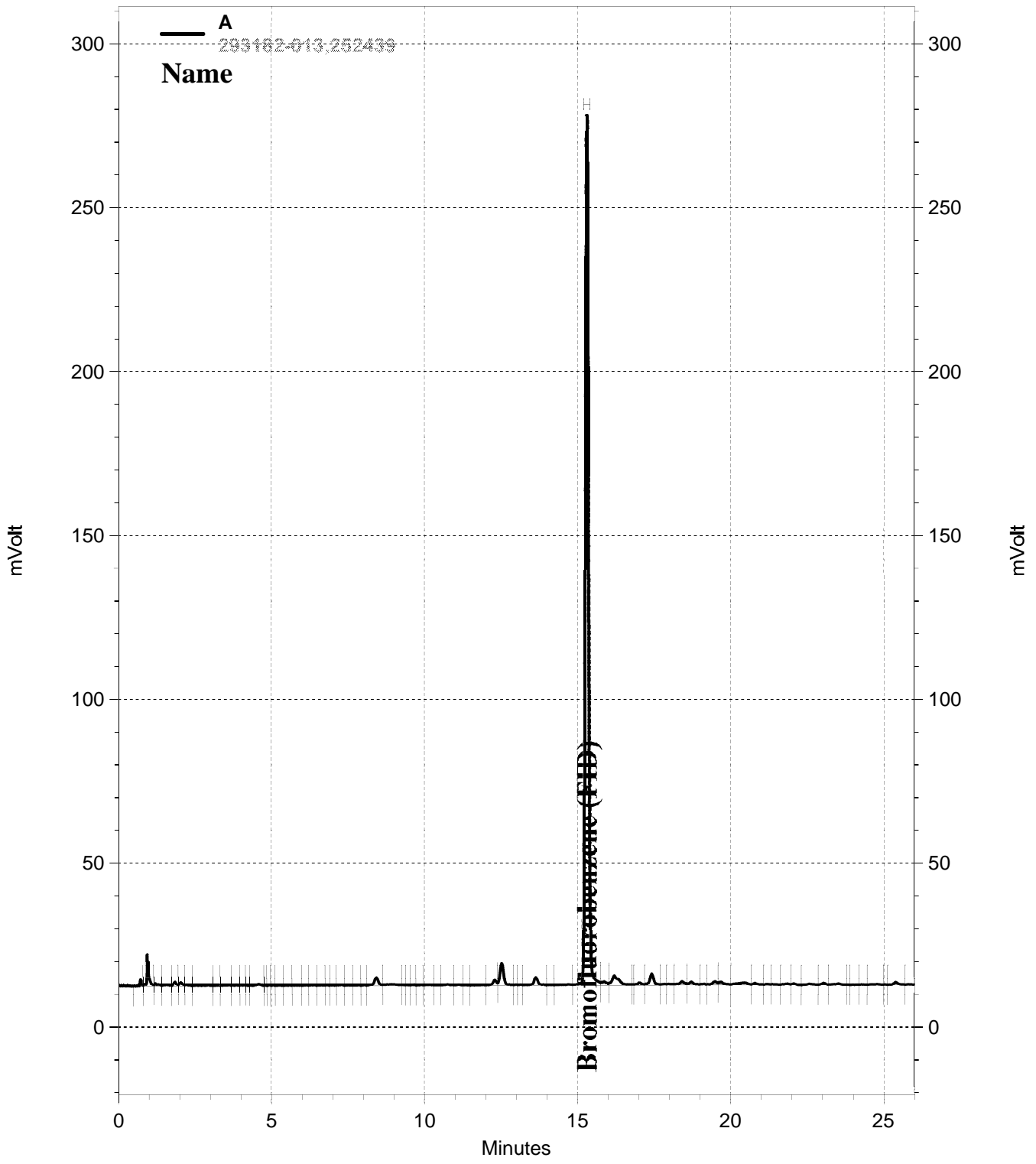
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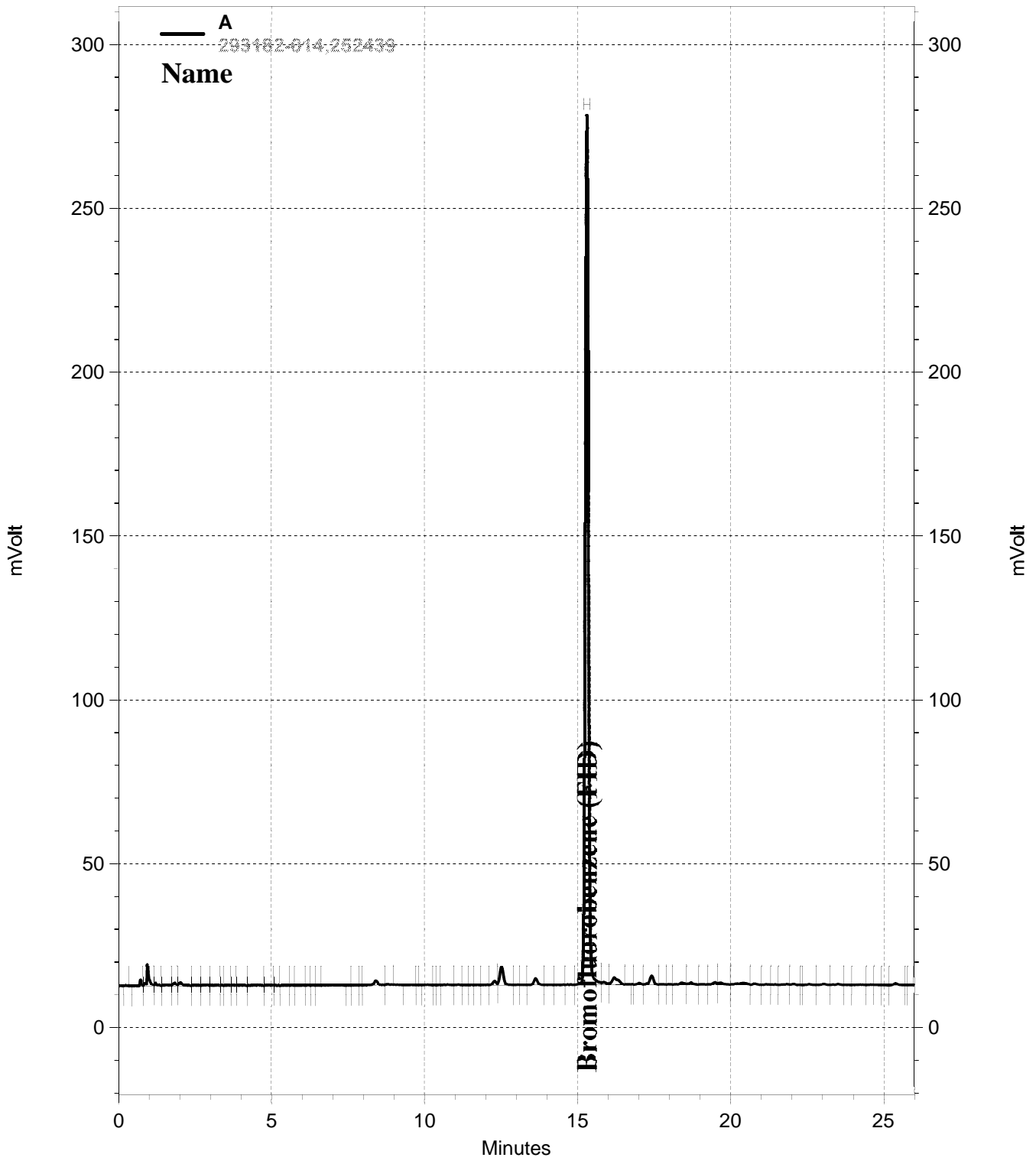
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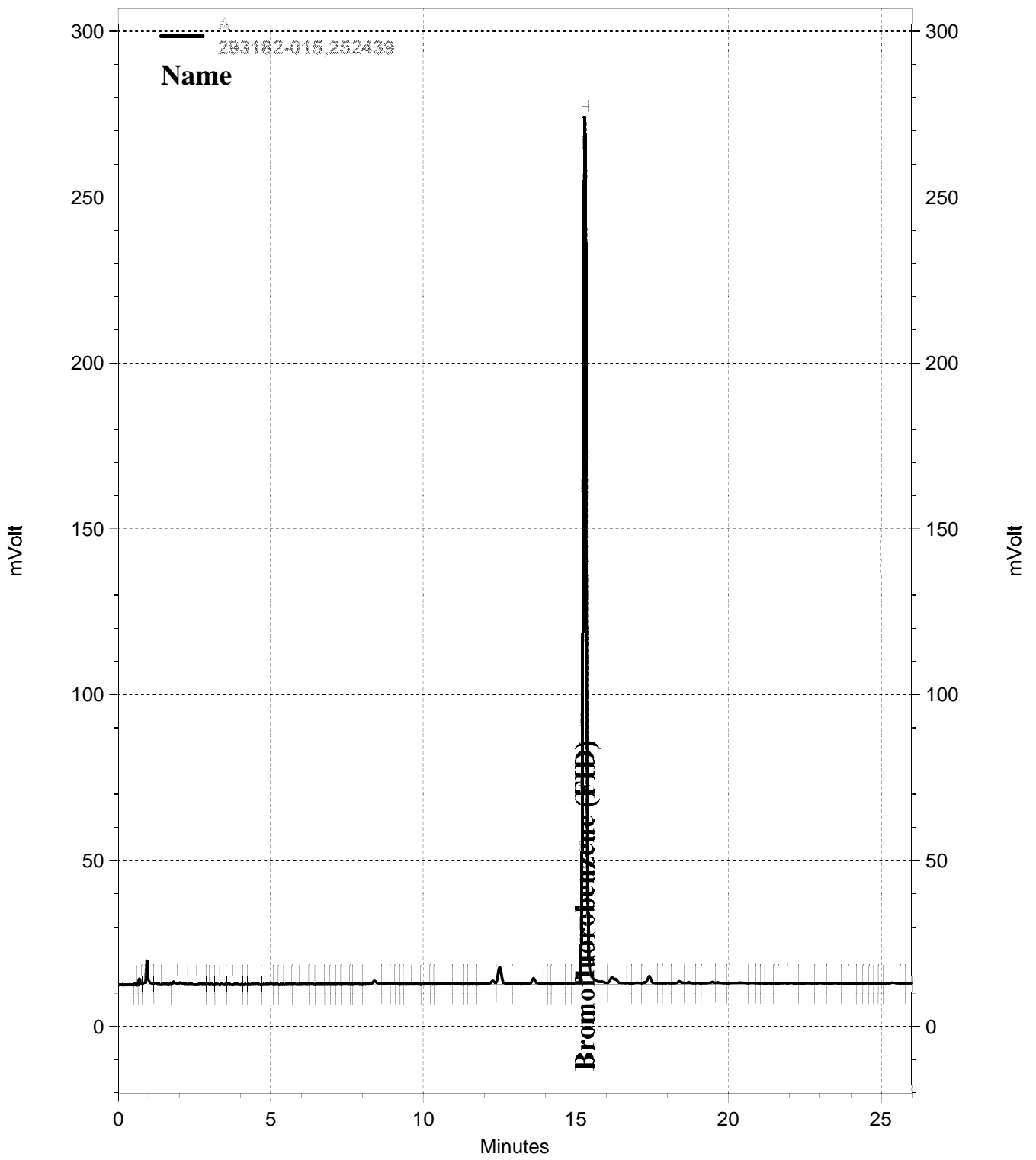
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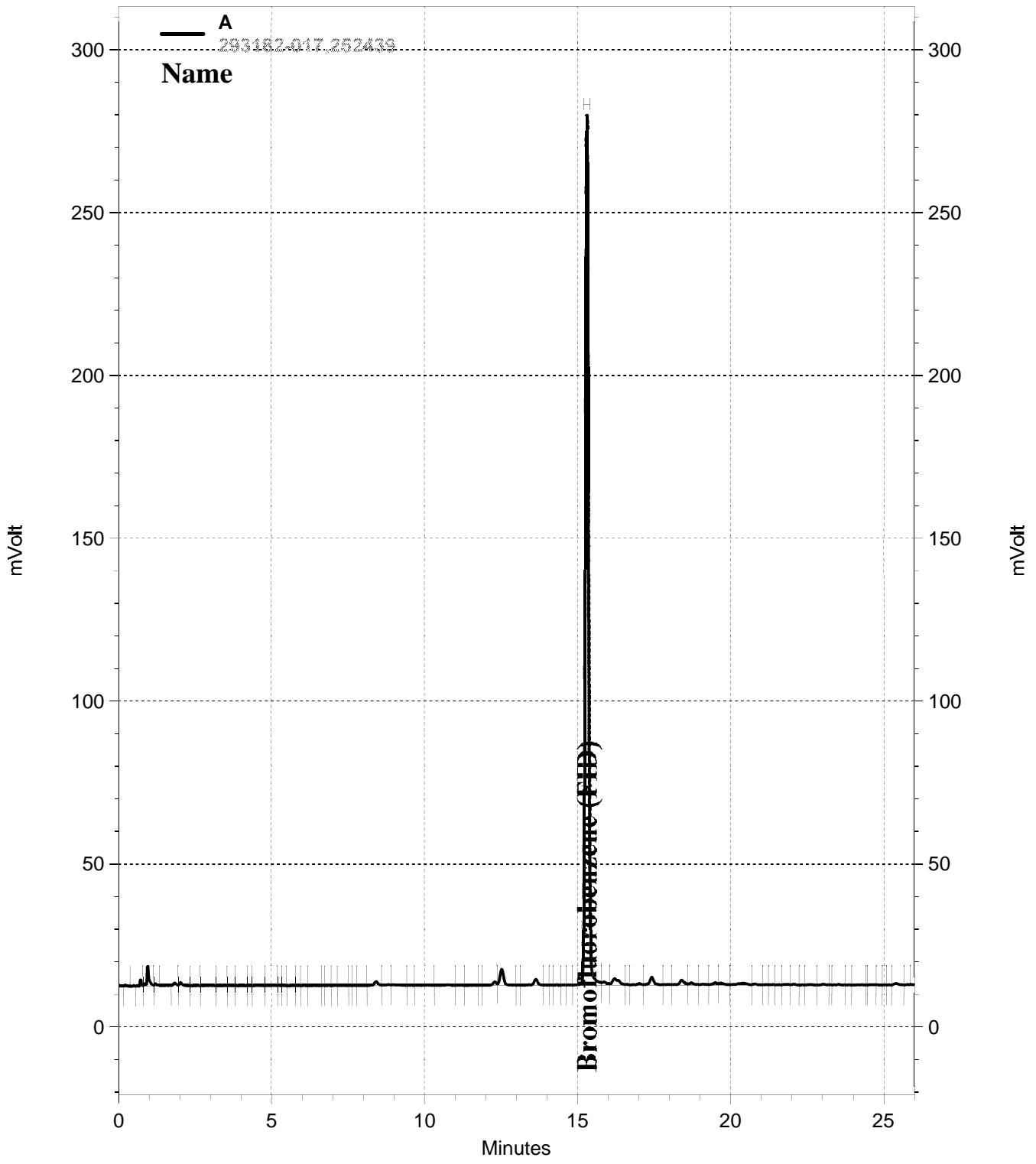
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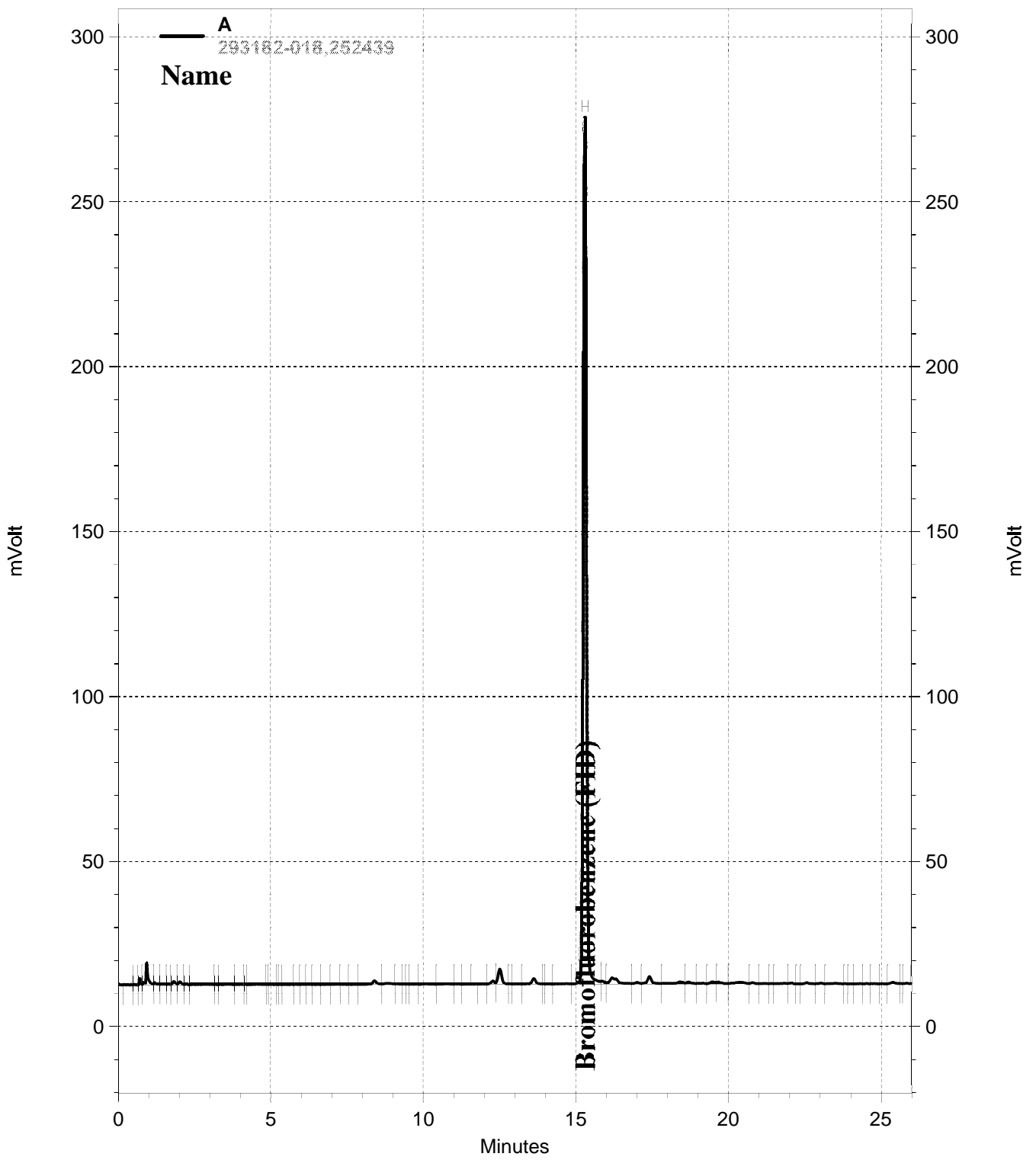
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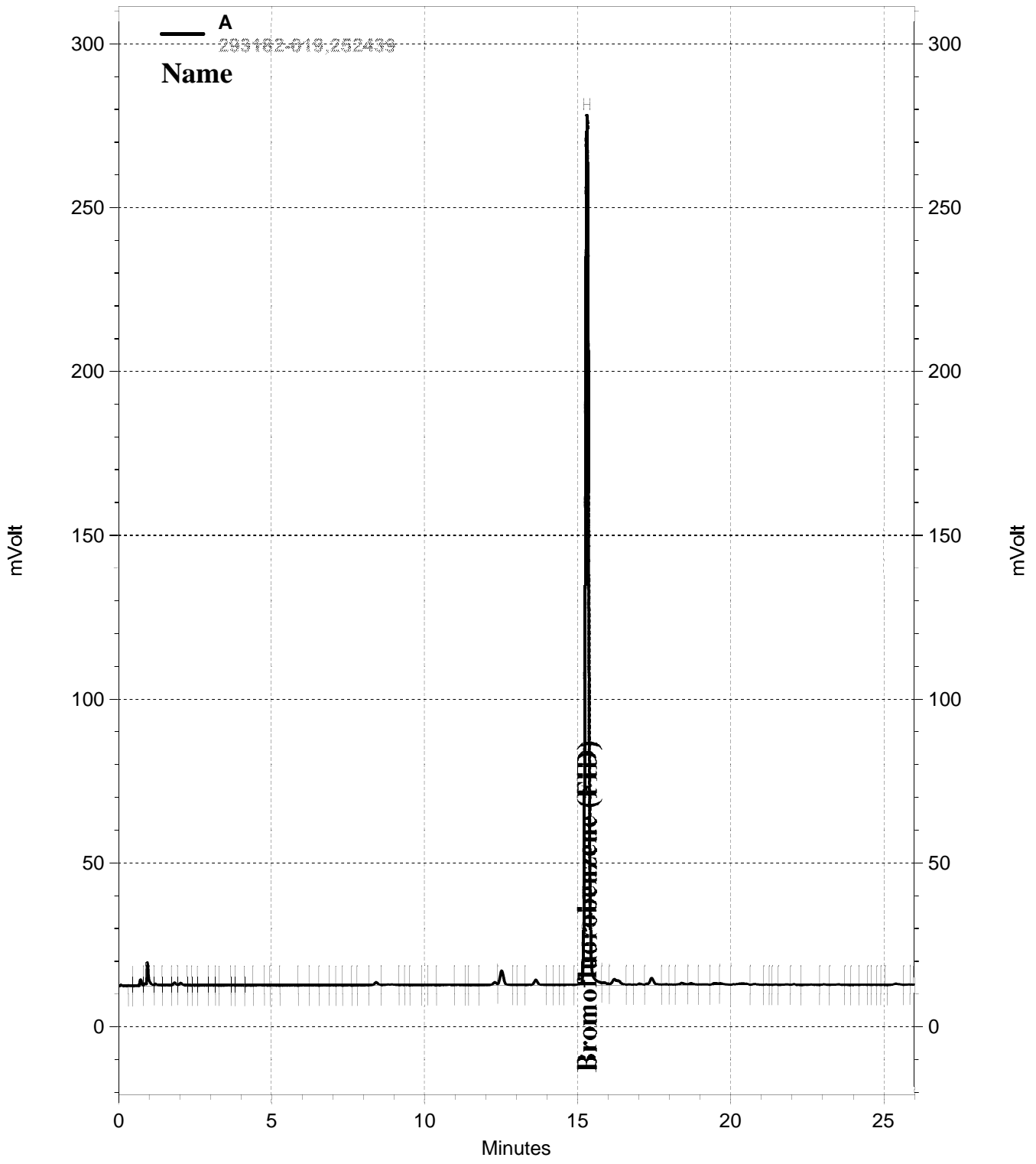
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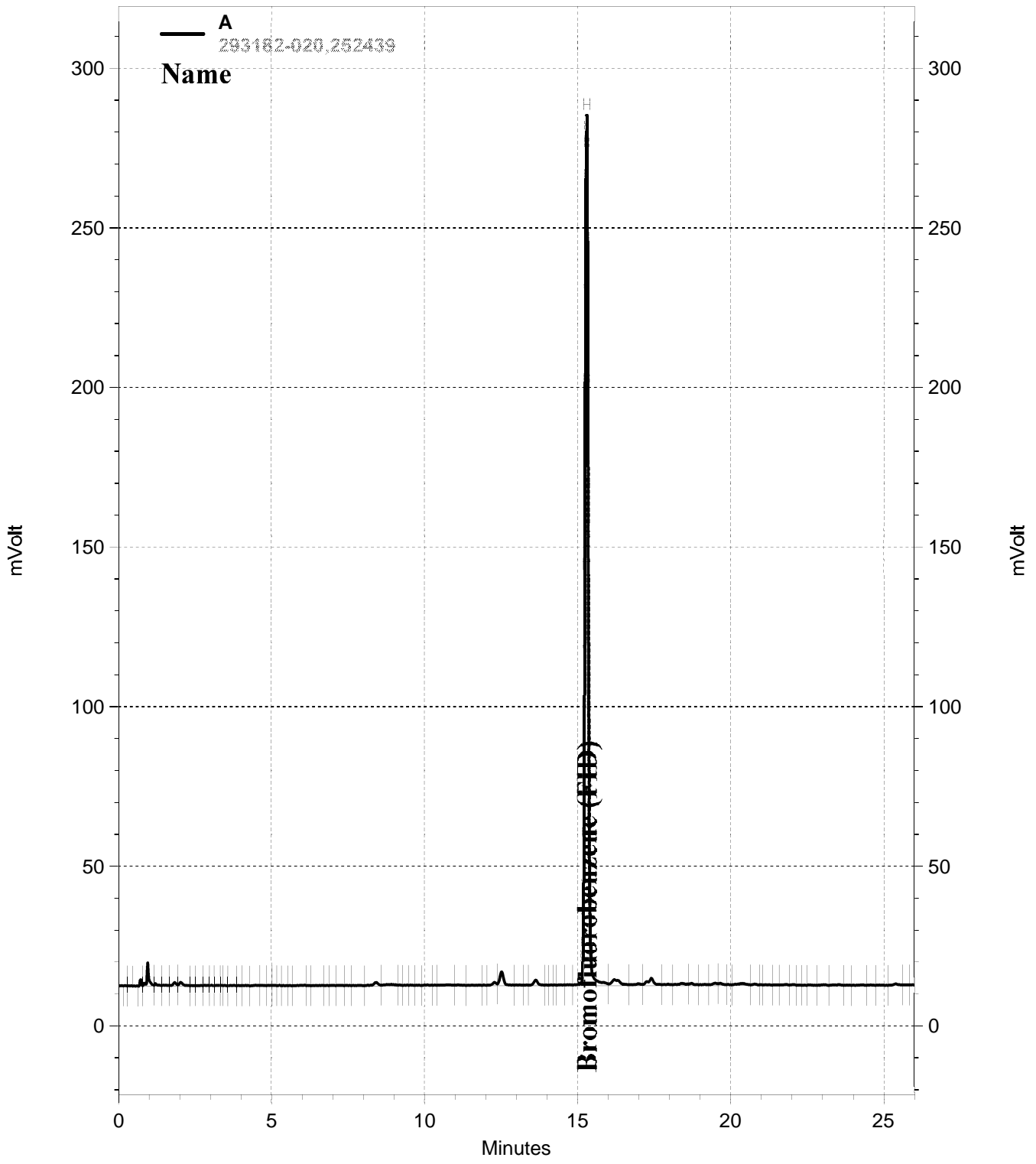
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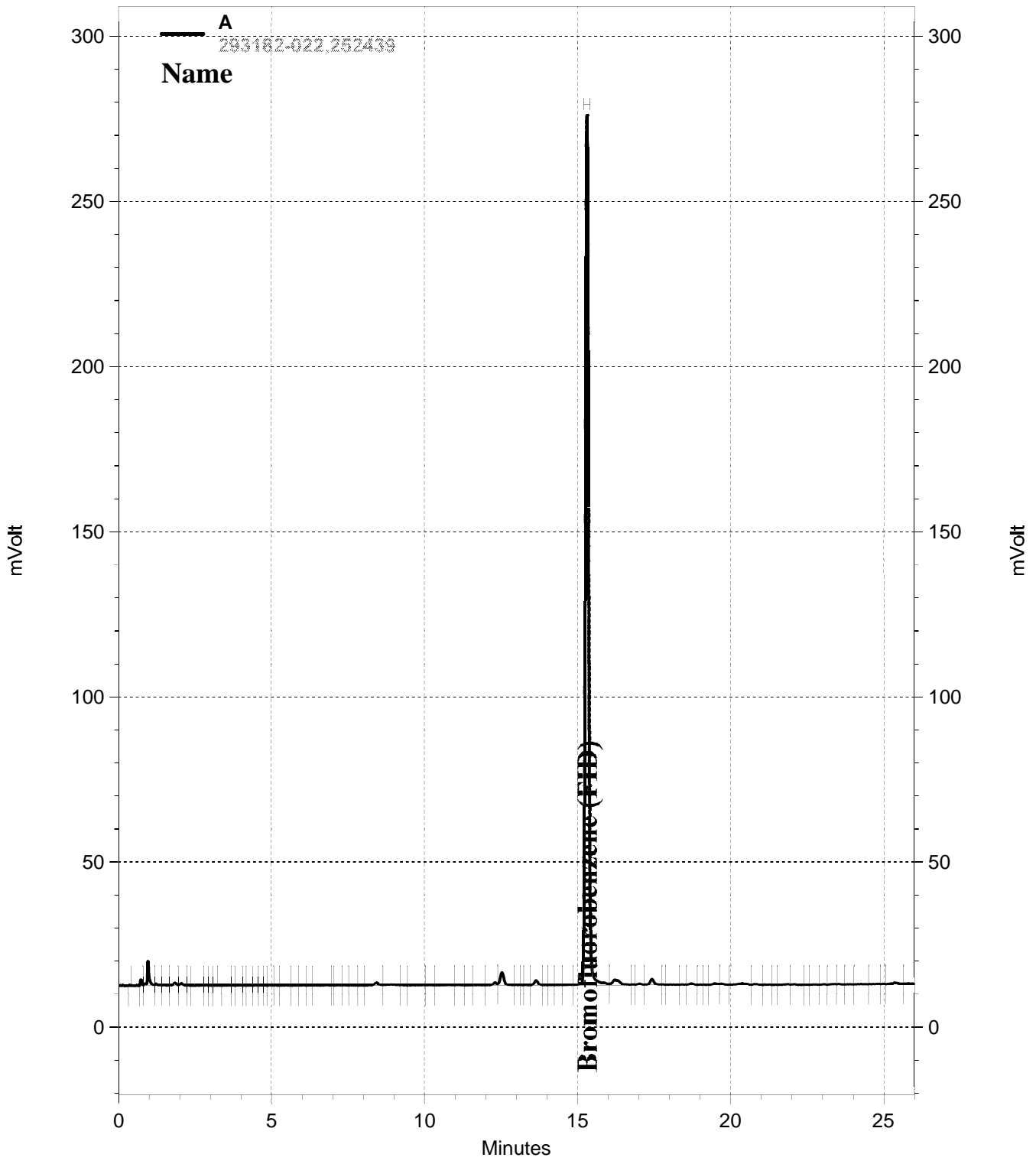
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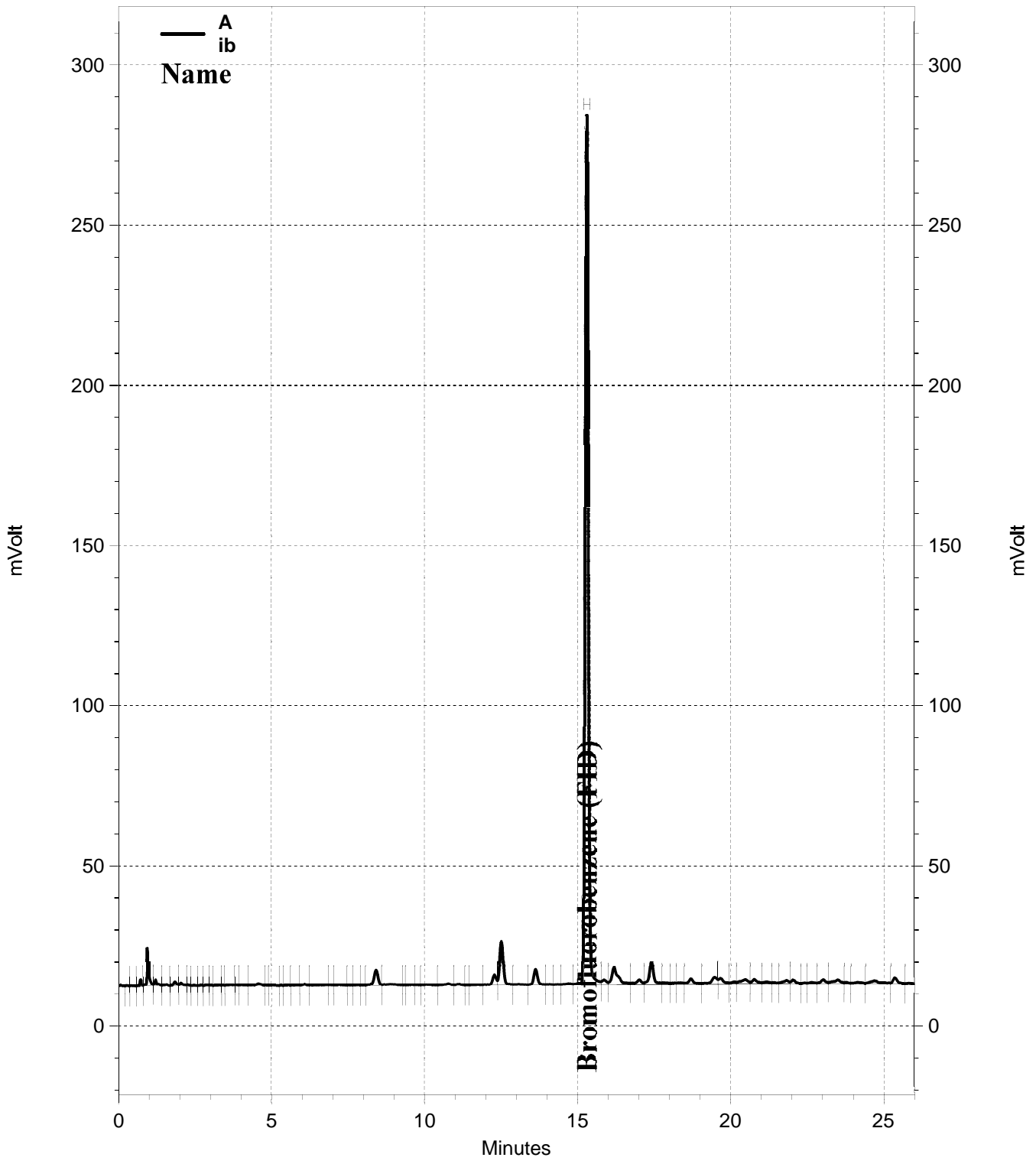
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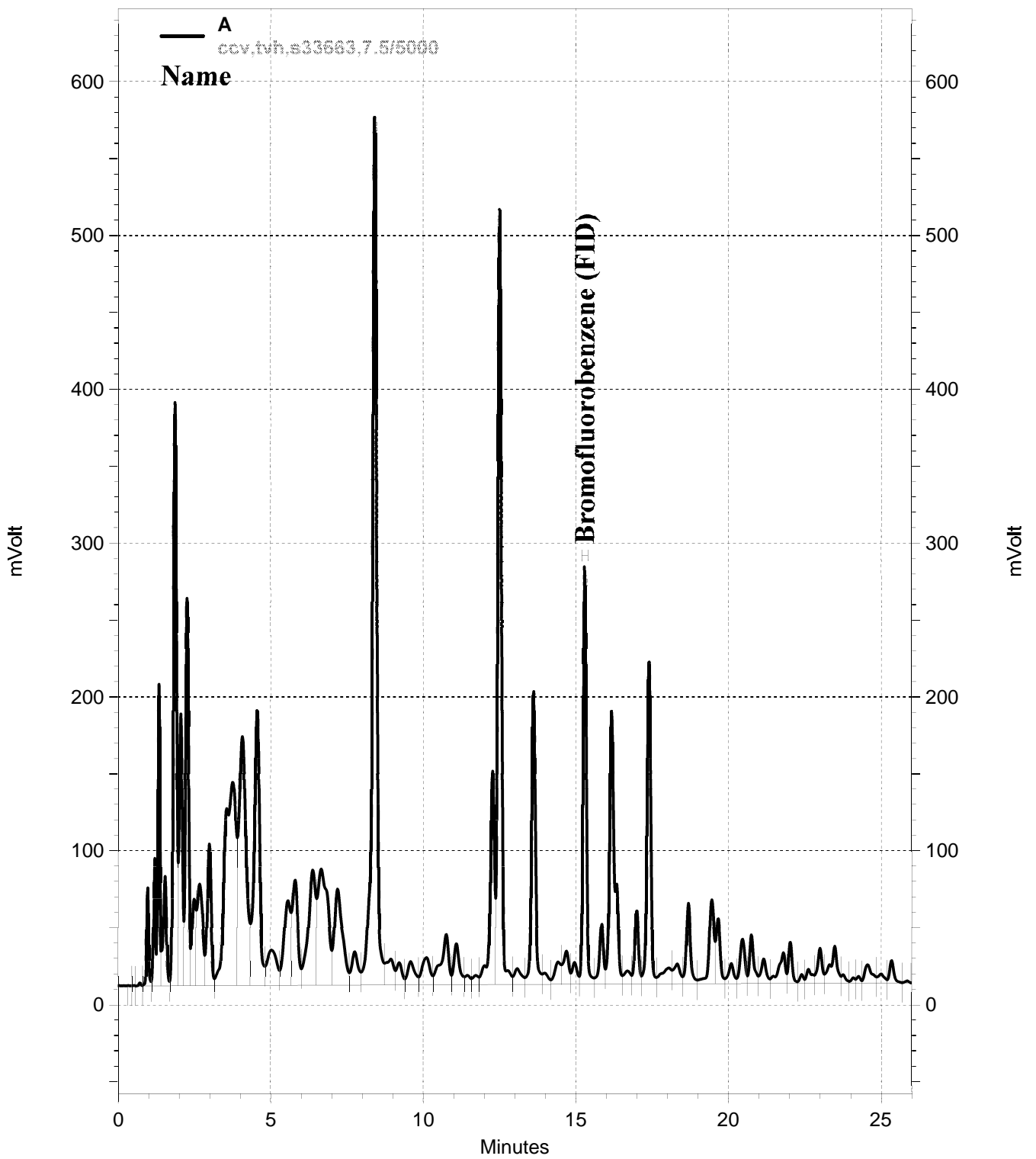
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Total Extractable Hydrocarbons			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2015-16	Analysis:	EPA 8015B
Field ID:	SUMP	Batch#:	252348
Matrix:	Water	Sampled:	10/04/17
Units:	ug/L	Received:	10/04/17
Diln Fac:	1.000		

Type: SAMPLE Prepared: 10/05/17
 Lab ID: 293182-001 Analyzed: 10/06/17

Analyte	Result	RL	MDL
Diesel C10-C24	ND	49	16
Motor Oil C24-C36	ND	290	94

Surrogate	%REC	Limits
o-Terphenyl	93	51-134

Type: BLANK Prepared: 10/04/17
 Lab ID: QC903627 Analyzed: 10/05/17

Analyte	Result	RL	MDL
Diesel C10-C24	ND	50	16
Motor Oil C24-C36	ND	300	96

Surrogate	%REC	Limits
o-Terphenyl	99	51-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2015-16	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	252348
Units:	ug/L	Prepared:	10/04/17
Diln Fac:	1.000	Analyzed:	10/05/17

Type: BS Lab ID: QC903628

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,157	86	50-123

Surrogate	%REC	Limits
o-Terphenyl	104	51-134

Type: BSD Lab ID: QC903629

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,107	84	50-123	2	34

Surrogate	%REC	Limits
o-Terphenyl	99	51-134

RPD= Relative Percent Difference

Total Extractable Hydrocarbons			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 3550C
Project#:	2015-16	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/04/17
Units:	mg/Kg	Received:	10/04/17

Field ID:	SB8-7.5	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	252416
Lab ID:	293182-002	Prepared:	10/06/17
Basis:	dry	Analyzed:	10/10/17
Moisture:	17%		

Analyte	Result	RL	MDL
Diesel C10-C24	1.1 J	1.2	0.37
Motor Oil C24-C36	ND	6.0	1.8

Surrogate	%REC	Limits
o-Terphenyl	90	55-133

Field ID:	SB8-9	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	252416
Lab ID:	293182-003	Prepared:	10/06/17
Basis:	dry	Analyzed:	10/10/17
Moisture:	17%		

Analyte	Result	RL	MDL
Diesel C10-C24	0.46 J	1.2	0.37
Motor Oil C24-C36	ND	6.0	1.8

Surrogate	%REC	Limits
o-Terphenyl	91	55-133

Field ID:	SB8-12	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	252416
Lab ID:	293182-004	Prepared:	10/06/17
Basis:	dry	Analyzed:	10/10/17
Moisture:	17%		

Analyte	Result	RL	MDL
Diesel C10-C24	0.57 J	1.2	0.37
Motor Oil C24-C36	ND	6.0	1.8

Surrogate	%REC	Limits
o-Terphenyl	88	55-133

J= Estimated value
 Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Total Extractable Hydrocarbons			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 3550C
Project#:	2015-16	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/04/17
Units:	mg/Kg	Received:	10/04/17

Field ID:	SB8-16	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	252416
Lab ID:	293182-005	Prepared:	10/06/17
Basis:	dry	Analyzed:	10/10/17
Moisture:	19%		

Analyte	Result	RL	MDL
Diesel C10-C24	0.40 J Y	1.2	0.38
Motor Oil C24-C36	ND	6.2	1.9

Surrogate	%REC	Limits
o-Terphenyl	94	55-133

Field ID:	SB9-7.5	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	252416
Lab ID:	293182-007	Prepared:	10/06/17
Basis:	dry	Analyzed:	10/10/17
Moisture:	15%		

Analyte	Result	RL	MDL
Diesel C10-C24	0.73 J	1.2	0.36
Motor Oil C24-C36	ND	5.9	1.8

Surrogate	%REC	Limits
o-Terphenyl	95	55-133

Field ID:	SB9-9	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	252416
Lab ID:	293182-008	Prepared:	10/06/17
Basis:	dry	Analyzed:	10/10/17
Moisture:	13%		

Analyte	Result	RL	MDL
Diesel C10-C24	0.64 J	1.2	0.35
Motor Oil C24-C36	ND	5.8	1.8

Surrogate	%REC	Limits
o-Terphenyl	86	55-133

J= Estimated value
 Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Total Extractable Hydrocarbons			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 3550C
Project#:	2015-16	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/04/17
Units:	mg/Kg	Received:	10/04/17

Field ID:	SB9-12	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	252416
Lab ID:	293182-009	Prepared:	10/06/17
Basis:	dry	Analyzed:	10/10/17
Moisture:	17%		

Analyte	Result	RL	MDL
Diesel C10-C24	0.40 J	1.2	0.37
Motor Oil C24-C36	ND	6.1	1.8

Surrogate	%REC	Limits
o-Terphenyl	89	55-133

Field ID:	SB9-16	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	252416
Lab ID:	293182-010	Prepared:	10/06/17
Basis:	dry	Analyzed:	10/10/17
Moisture:	14%		

Analyte	Result	RL	MDL
Diesel C10-C24	0.58 J	1.2	0.36
Motor Oil C24-C36	ND	5.9	1.8

Surrogate	%REC	Limits
o-Terphenyl	96	55-133

Field ID:	SB10-7.5	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	252416
Lab ID:	293182-012	Prepared:	10/06/17
Basis:	dry	Analyzed:	10/10/17
Moisture:	15%		

Analyte	Result	RL	MDL
Diesel C10-C24	0.53 J	1.2	0.36
Motor Oil C24-C36	ND	5.8	1.8

Surrogate	%REC	Limits
o-Terphenyl	84	55-133

J= Estimated value
 Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Total Extractable Hydrocarbons			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 3550C
Project#:	2015-16	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/04/17
Units:	mg/Kg	Received:	10/04/17

Field ID: SB10-9 Diln Fac: 1.000
 Type: SAMPLE Batch#: 252416
 Lab ID: 293182-013 Prepared: 10/06/17
 Basis: dry Analyzed: 10/10/17
 Moisture: 16%

Analyte	Result	RL	MDL
Diesel C10-C24	3.0	1.2	0.37
Motor Oil C24-C36	ND	6.0	1.8

Surrogate	%REC	Limits
o-Terphenyl	96	55-133

Field ID: SB10-12 Diln Fac: 1.000
 Type: SAMPLE Batch#: 252416
 Lab ID: 293182-014 Prepared: 10/06/17
 Basis: dry Analyzed: 10/10/17
 Moisture: 17%

Analyte	Result	RL	MDL
Diesel C10-C24	0.92 J Y	1.2	0.37
Motor Oil C24-C36	ND	6.0	1.8

Surrogate	%REC	Limits
o-Terphenyl	86	55-133

Field ID: SB10-16 Diln Fac: 1.000
 Type: SAMPLE Batch#: 252416
 Lab ID: 293182-015 Prepared: 10/06/17
 Basis: dry Analyzed: 10/10/17
 Moisture: 17%

Analyte	Result	RL	MDL
Diesel C10-C24	0.38 J Y	1.2	0.37
Motor Oil C24-C36	ND	6.1	1.8

Surrogate	%REC	Limits
o-Terphenyl	99	55-133

J= Estimated value
 Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Total Extractable Hydrocarbons			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 3550C
Project#:	2015-16	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/04/17
Units:	mg/Kg	Received:	10/04/17

Field ID:	SB11-7.5	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	252416
Lab ID:	293182-017	Prepared:	10/06/17
Basis:	dry	Analyzed:	10/10/17
Moisture:	12%		

Analyte	Result	RL	MDL
Diesel C10-C24	0.58 J Y	1.1	0.35
Motor Oil C24-C36	ND	5.7	1.7

Surrogate	%REC	Limits
o-Terphenyl	95	55-133

Field ID:	SB11-9	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	252416
Lab ID:	293182-018	Prepared:	10/06/17
Basis:	dry	Analyzed:	10/10/17
Moisture:	18%		

Analyte	Result	RL	MDL
Diesel C10-C24	2.3 Y	1.2	0.38
Motor Oil C24-C36	ND	6.2	1.9

Surrogate	%REC	Limits
o-Terphenyl	91	55-133

Field ID:	SB11-12	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	252416
Lab ID:	293182-019	Prepared:	10/06/17
Basis:	dry	Analyzed:	10/10/17
Moisture:	19%		

Analyte	Result	RL	MDL
Diesel C10-C24	ND	1.2	0.38
Motor Oil C24-C36	ND	6.2	1.9

Surrogate	%REC	Limits
o-Terphenyl	97	55-133

J= Estimated value
 Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Total Extractable Hydrocarbons			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 3550C
Project#:	2015-16	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	10/04/17
Units:	mg/Kg	Received:	10/04/17

Field ID: SB11-16 Diln Fac: 1.000
 Type: SAMPLE Batch#: 252416
 Lab ID: 293182-020 Prepared: 10/06/17
 Basis: dry Analyzed: 10/10/17
 Moisture: 18%

Analyte	Result	RL	MDL
Diesel C10-C24	1.1 J	1.2	0.37
Motor Oil C24-C36	ND	6.1	1.9

Surrogate	%REC	Limits
o-Terphenyl	95	55-133

Field ID: DRUM COMP Diln Fac: 3.000
 Type: SAMPLE Batch#: 252392
 Lab ID: 293182-022 Prepared: 10/05/17
 Basis: as received Analyzed: 10/06/17

Analyte	Result	RL	MDL
Diesel C10-C24	200 Y	3.0	0.91
Motor Oil C24-C36	110	15	4.5

Surrogate	%REC	Limits
o-Terphenyl	125	55-133

Type: BLANK Batch#: 252392
 Lab ID: QC903809 Prepared: 10/05/17
 Diln Fac: 1.000 Analyzed: 10/06/17

Analyte	Result	RL	MDL
Diesel C10-C24	ND	1.0	0.31
Motor Oil C24-C36	ND	5.0	1.5

Surrogate	%REC	Limits
o-Terphenyl	105	55-133

Type: BLANK Batch#: 252416
 Lab ID: QC903916 Prepared: 10/06/17
 Diln Fac: 1.000 Analyzed: 10/10/17

Analyte	Result	RL	MDL
Diesel C10-C24	ND	1.0	0.31
Motor Oil C24-C36	ND	5.0	1.5

Surrogate	%REC	Limits
o-Terphenyl	113	55-133

J= Estimated value
 Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Batch QC Report

Total Extractable Hydrocarbons		
Lab #:	293182	Location: Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep: EPA 3550C
Project#:	2015-16	Analysis: EPA 8015B
Type:	LCS	Diln Fac: 1.000
Lab ID:	QC903810	Batch#: 252392
Matrix:	Soil	Prepared: 10/05/17
Units:	mg/Kg	Analyzed: 10/06/17

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.00	51.05	102	51-137

Surrogate	%REC	Limits
o-Terphenyl	108	55-133

Batch QC Report

Total Extractable Hydrocarbons				
Lab #:	293182	Location:	Residential Heating UST Investigation	
Client:	Stellar Environmental Solutions	Prep:	EPA 3550C	
Project#:	2015-16	Analysis:	EPA 8015B	
Type:	LCS	Diln Fac:	1.000	
Lab ID:	QC903917	Batch#:	252416	
Matrix:	Soil	Prepared:	10/06/17	
Units:	mg/Kg	Analyzed:	10/10/17	

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.13	44.29	88	51-137

Surrogate	%REC	Limits
o-Terphenyl	100	55-133

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 3550C
Project#:	2015-16	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	252416
MSS Lab ID:	293214-001	Sampled:	10/03/17
Matrix:	Soil	Received:	10/05/17
Units:	mg/Kg	Prepared:	10/06/17
Basis:	as received	Analyzed:	10/10/17
Diln Fac:	2.000		

Type: MS Lab ID: QC903918

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	49.29	50.20	77.62	56	36-143

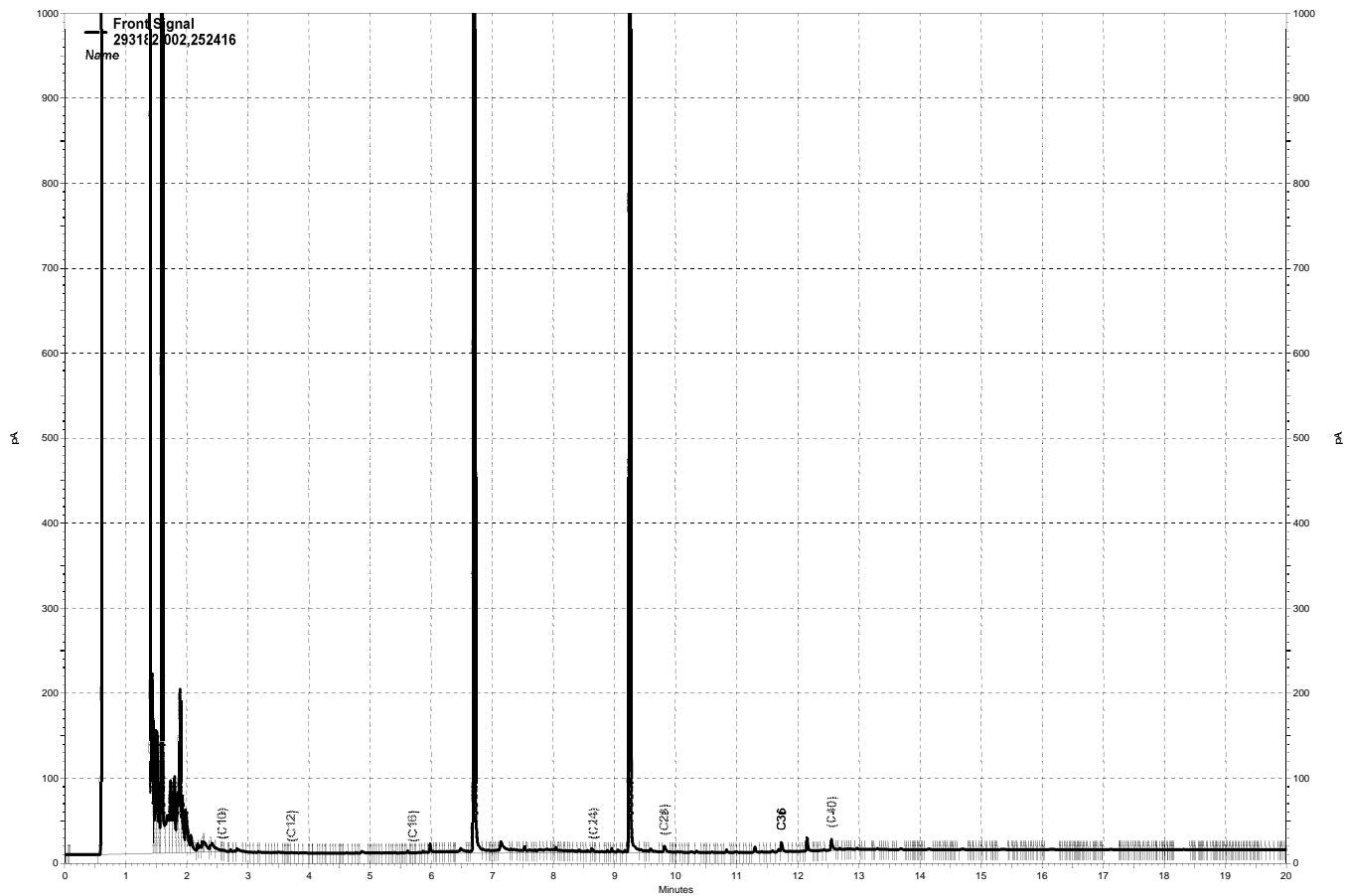
Surrogate	%REC	Limits
o-Terphenyl	98	55-133

Type: MSD Lab ID: QC903919

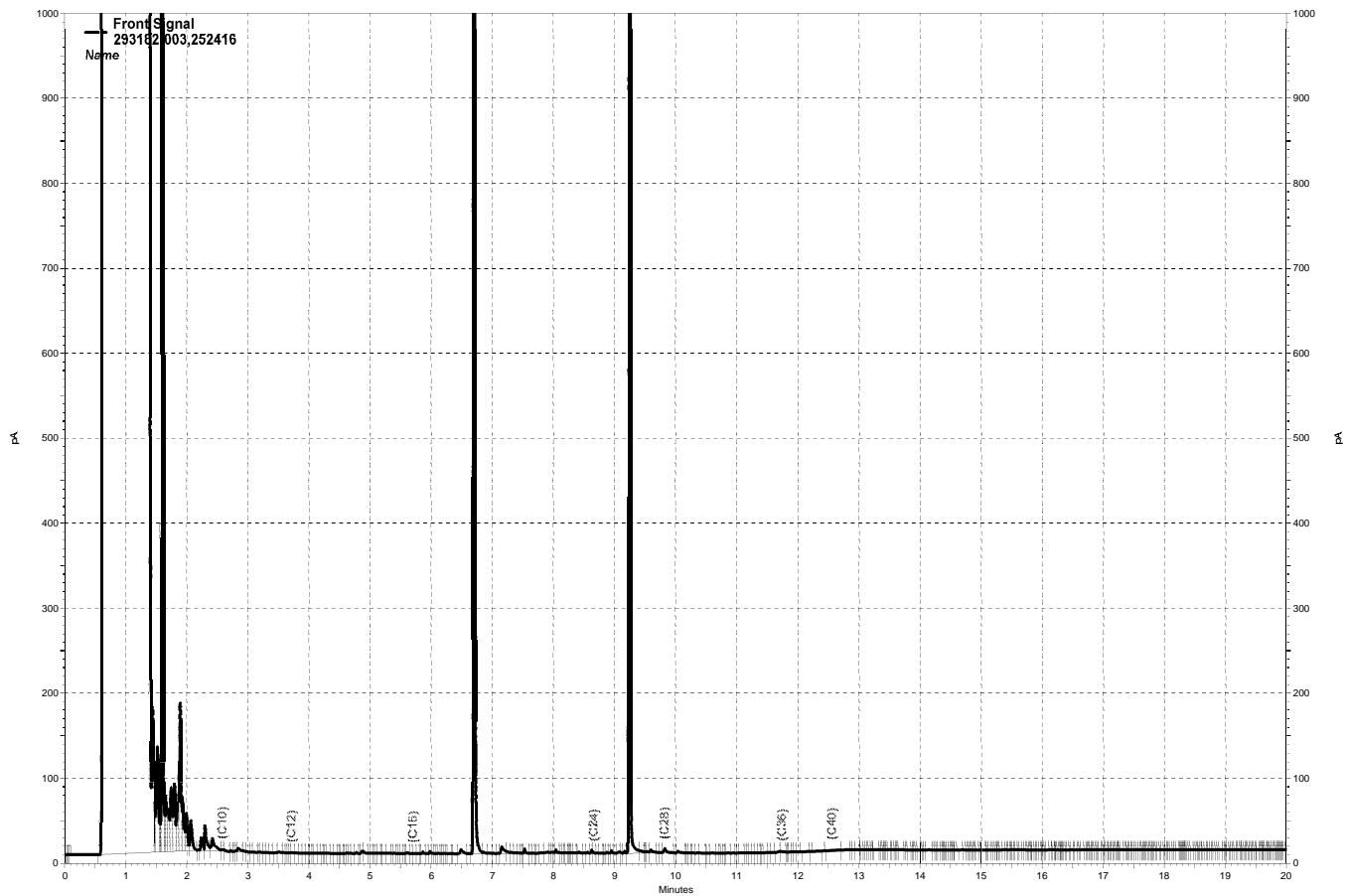
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	50.30	67.35	36	36-143	14	55

Surrogate	%REC	Limits
o-Terphenyl	94	55-133

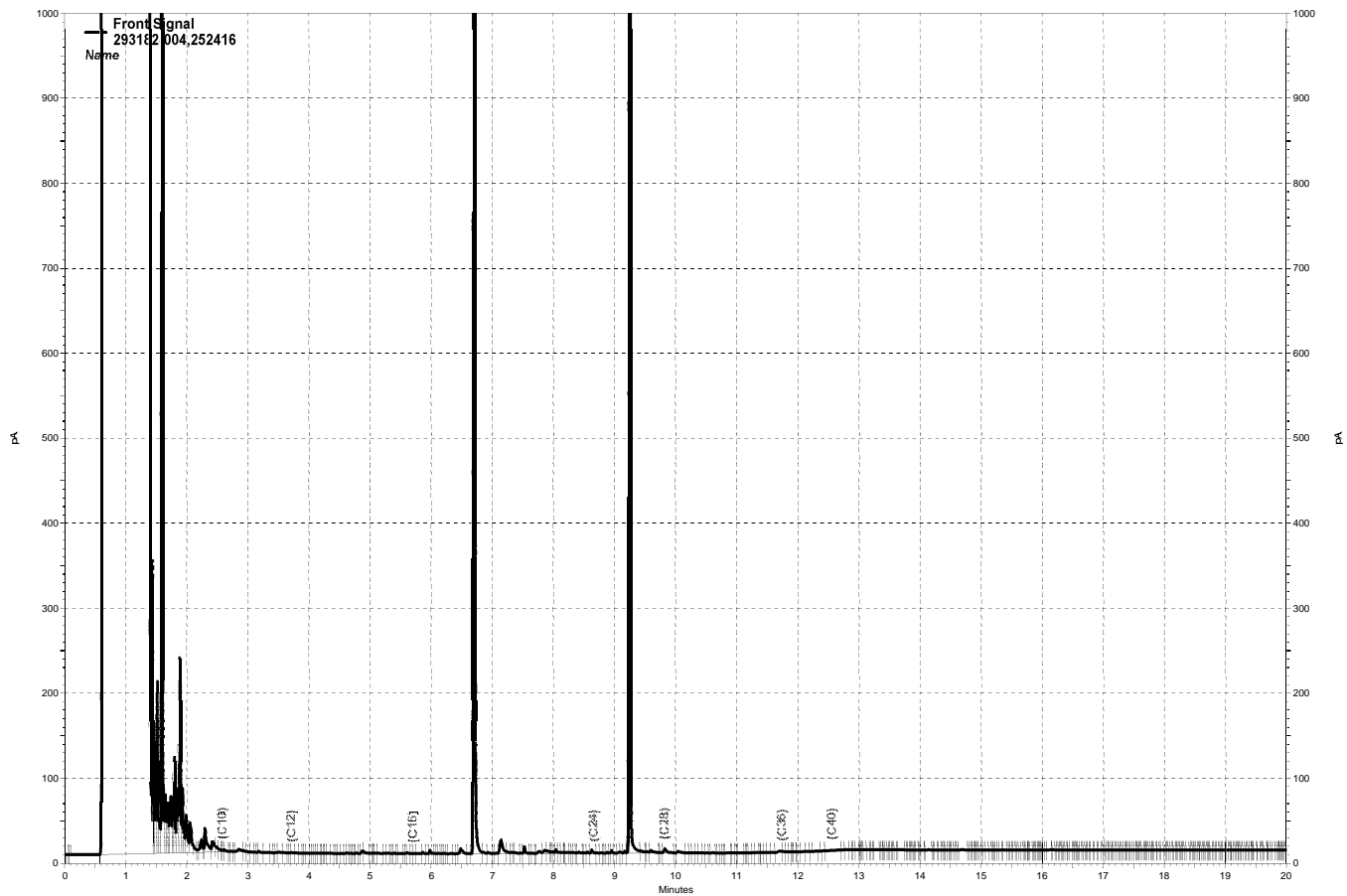
RPD= Relative Percent Difference



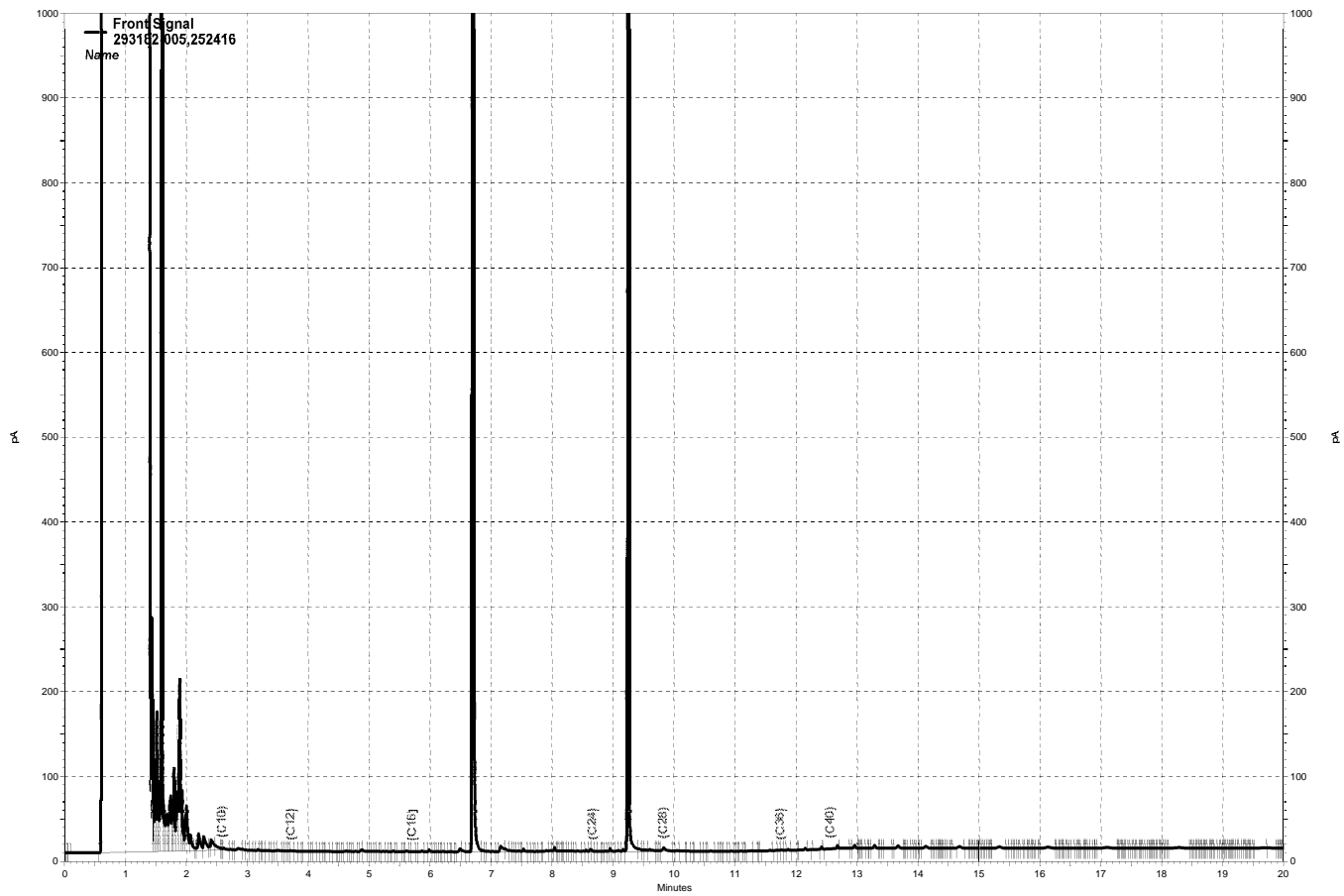
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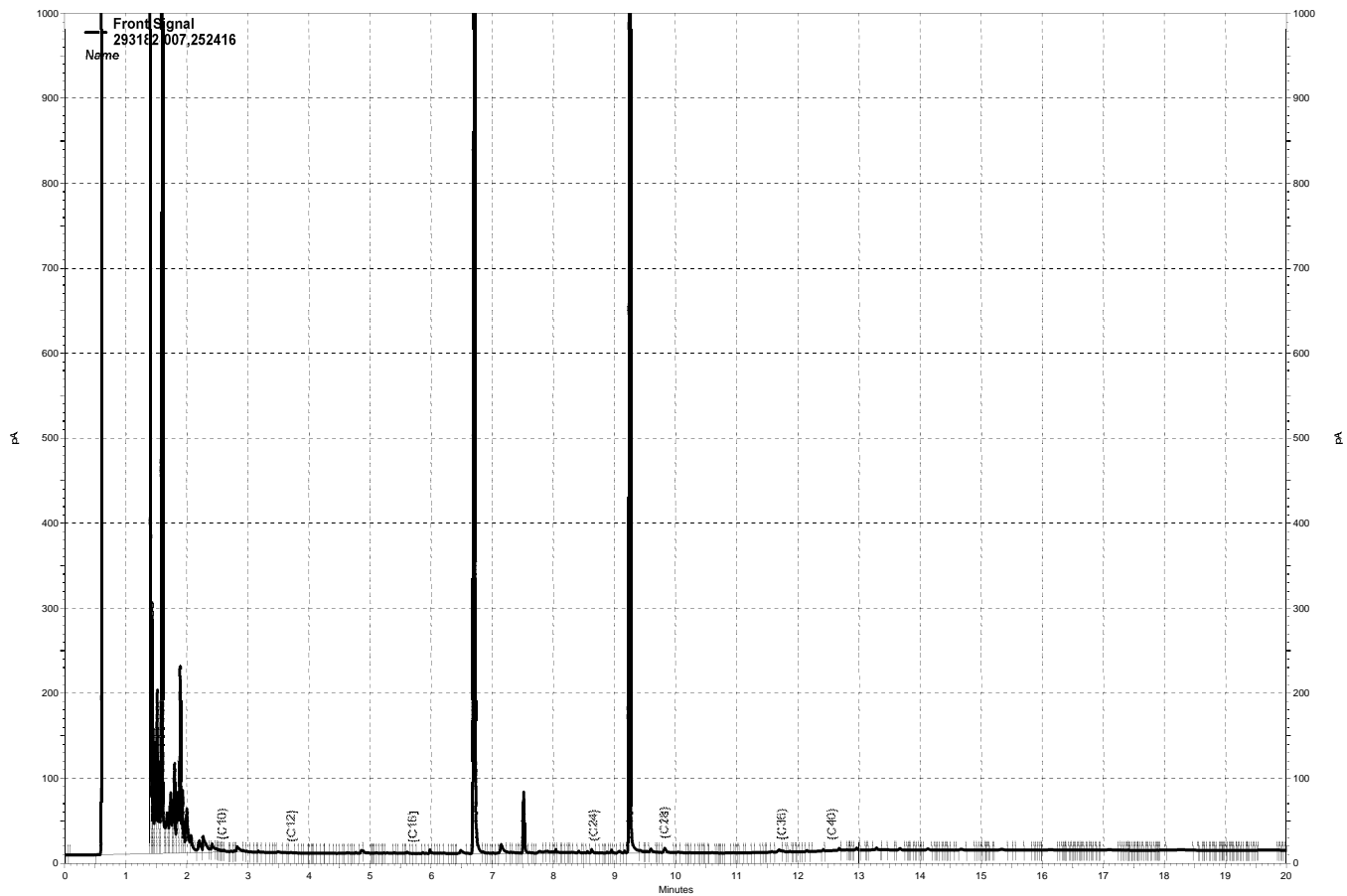
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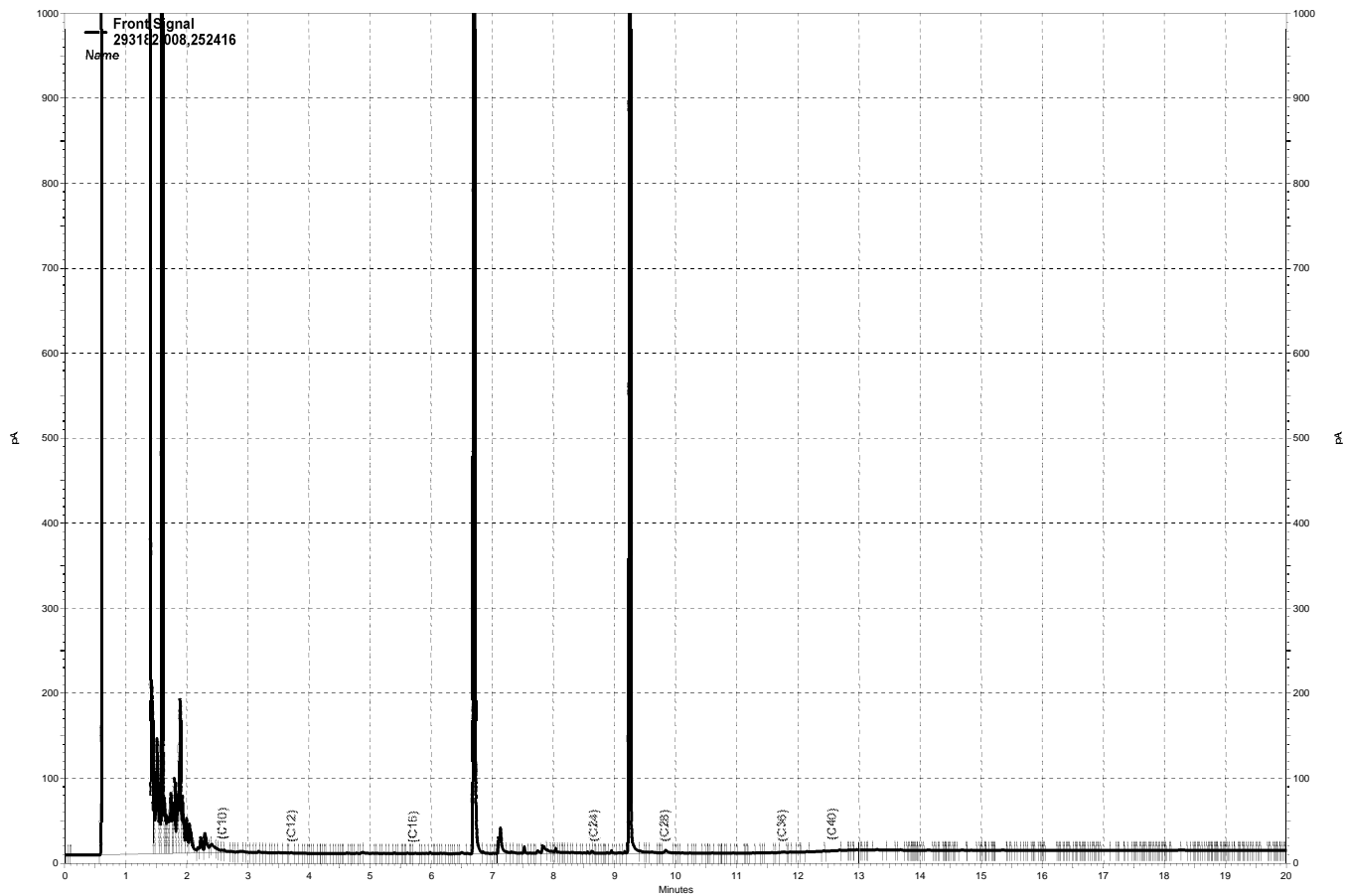
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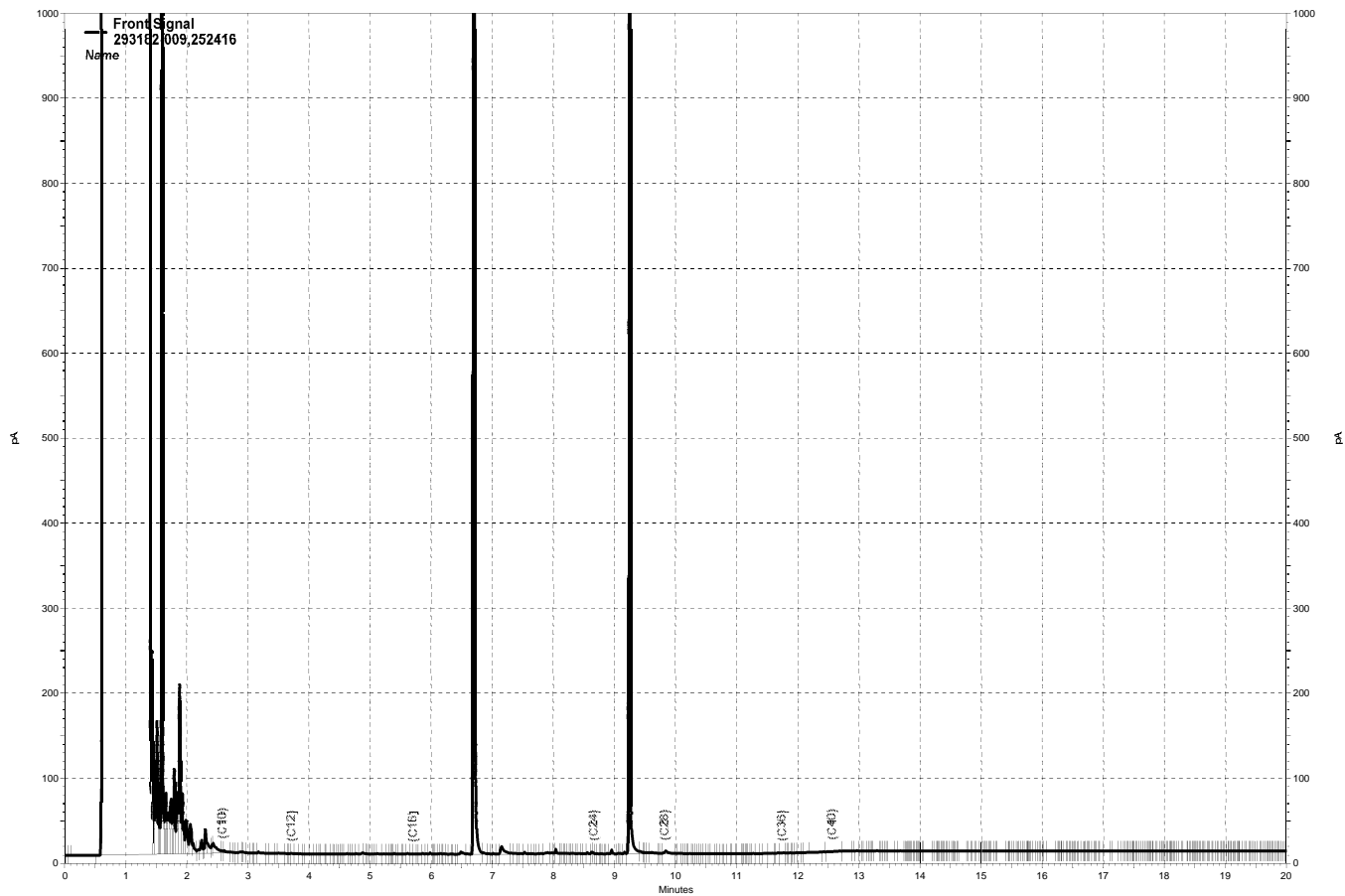
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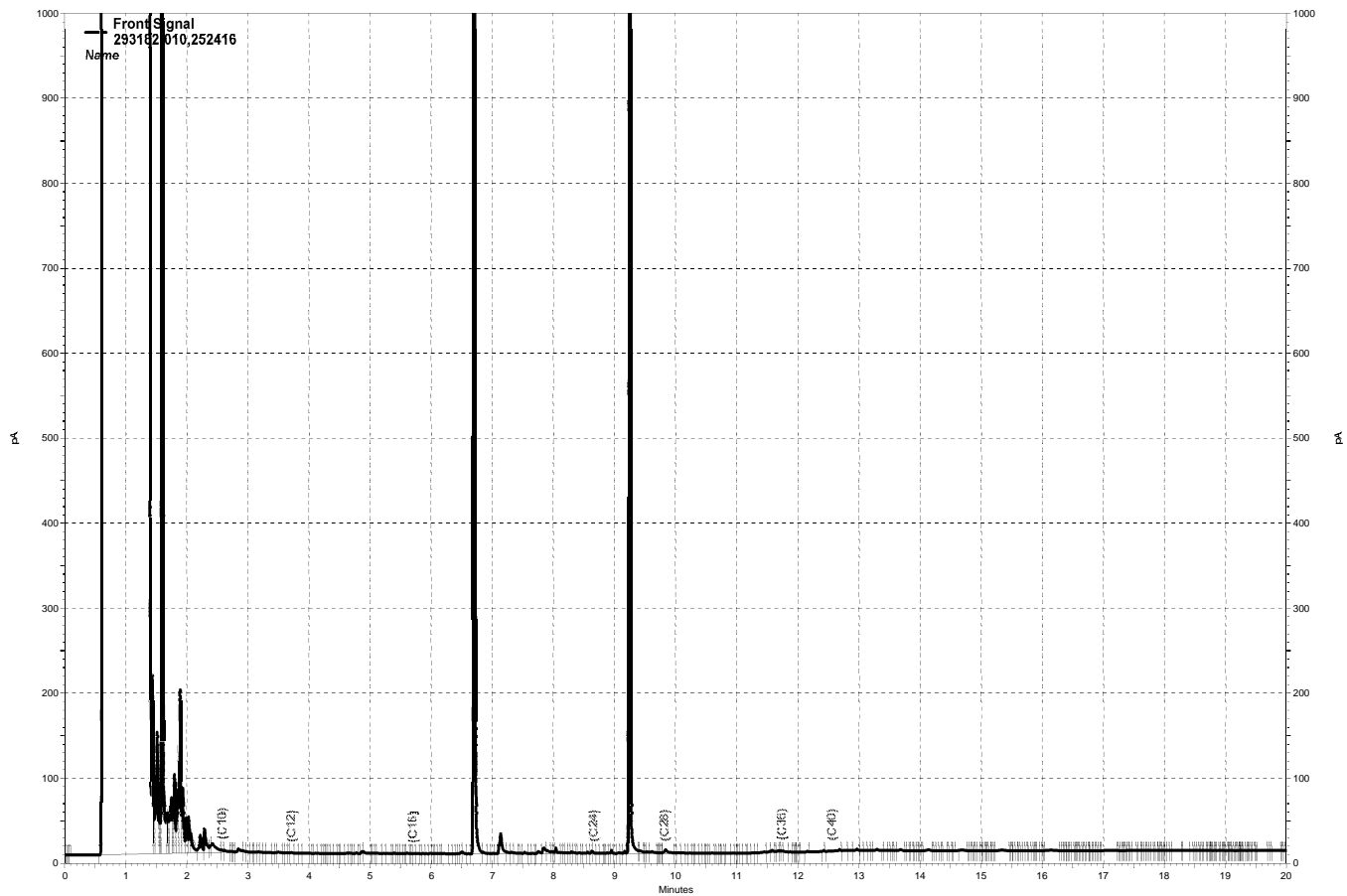
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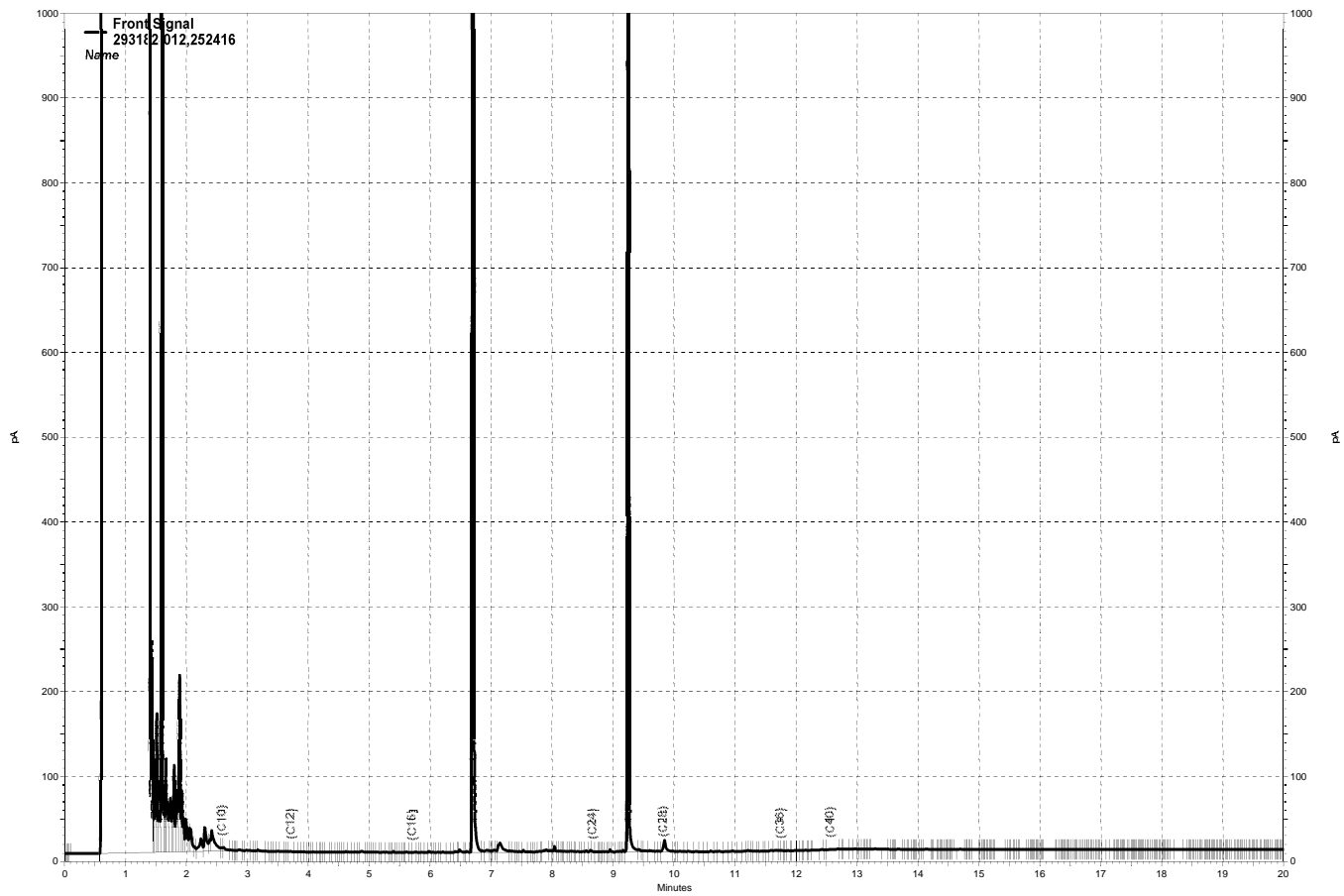
— \\kraken\gdrive\ezchrom\Projects\GC27\Data\2017\283a021.dat, Front Signal



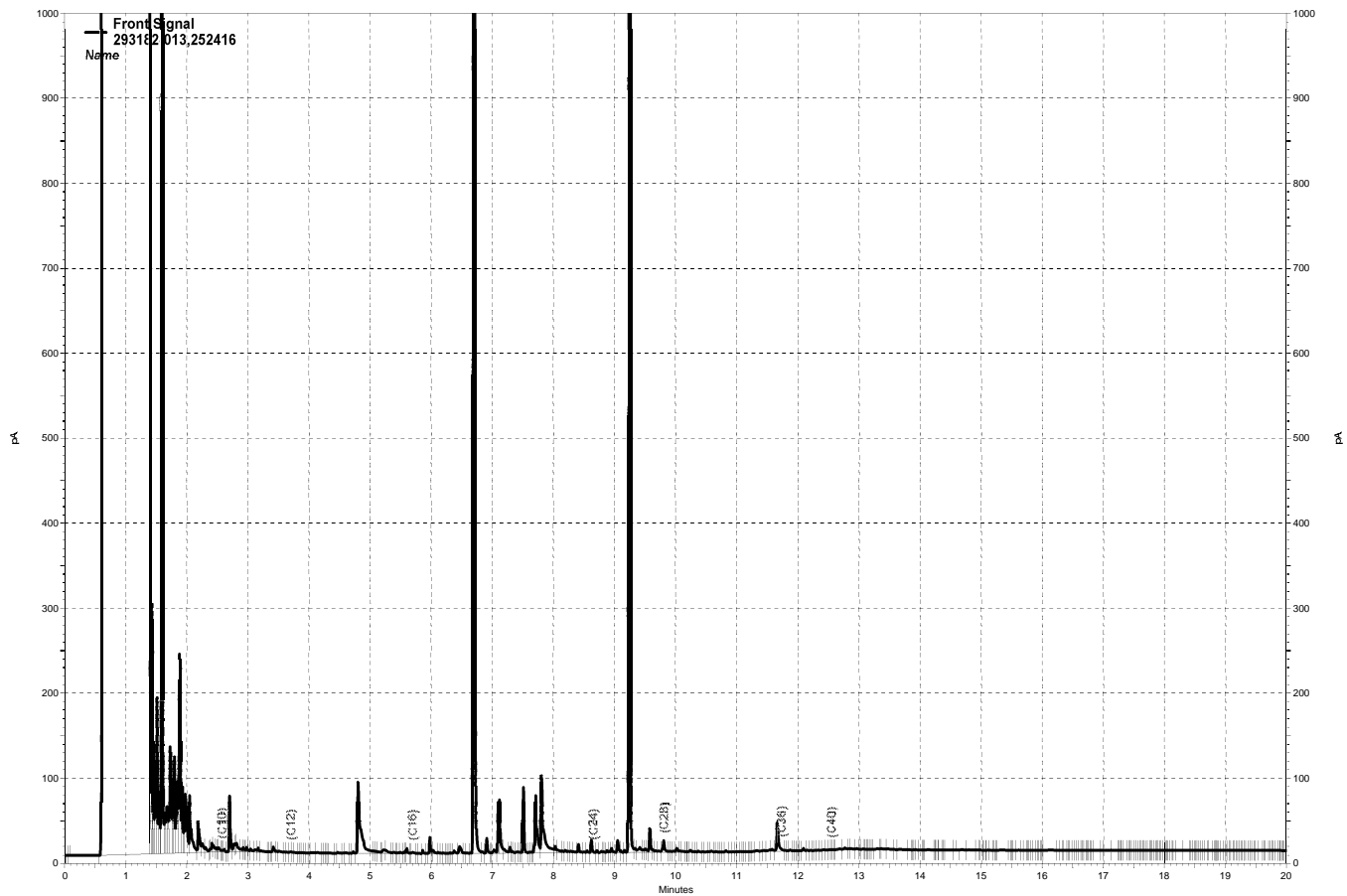
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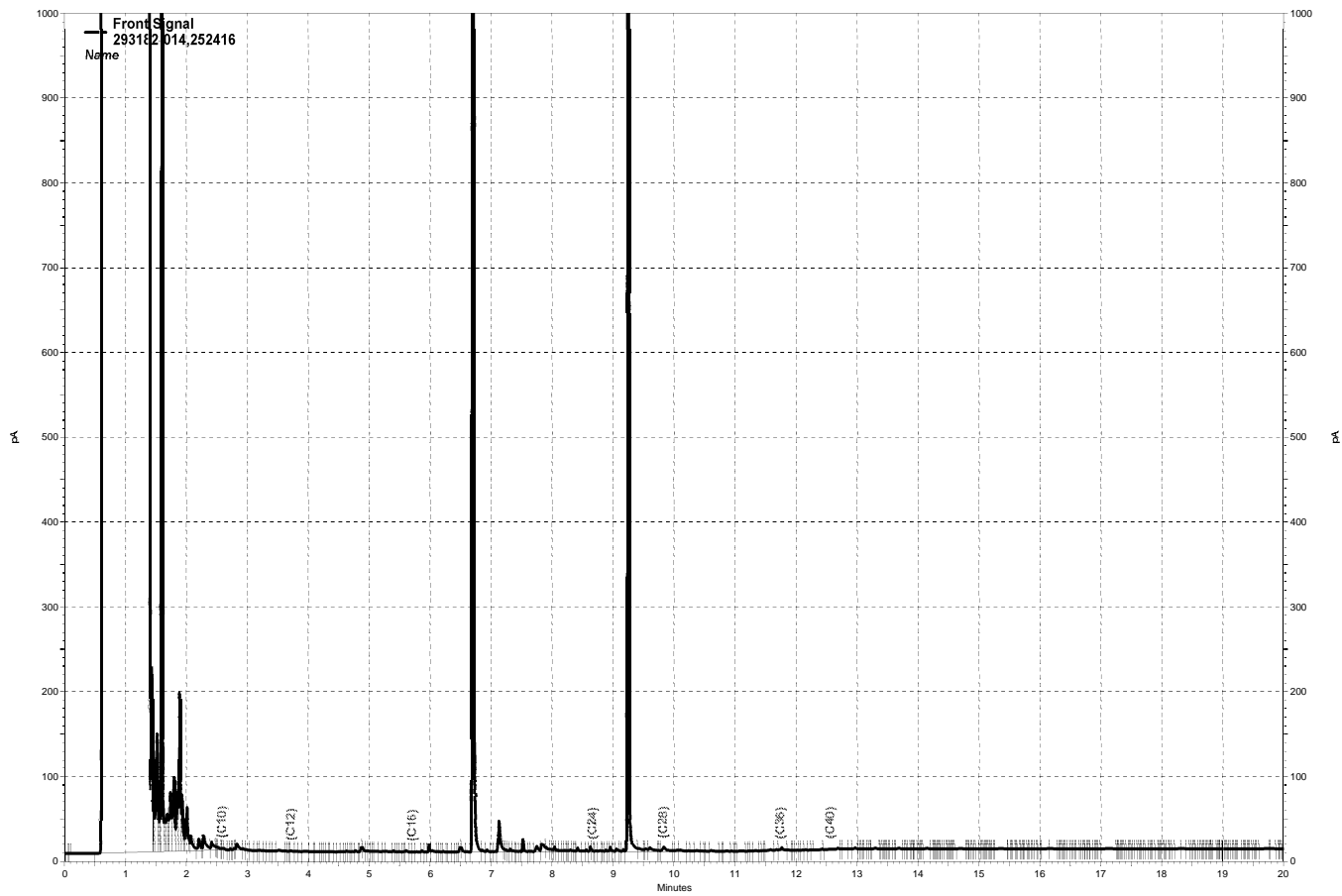
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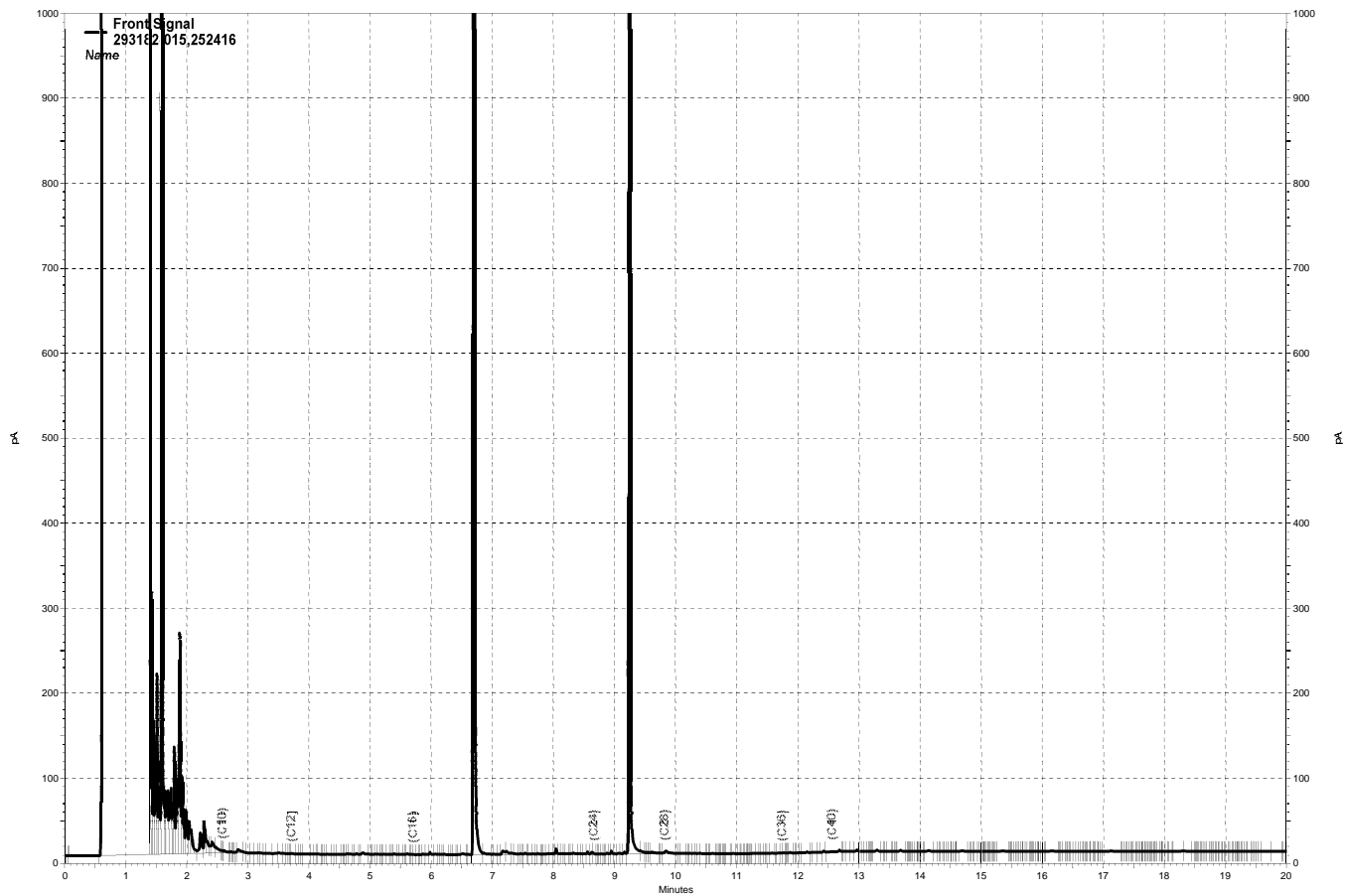
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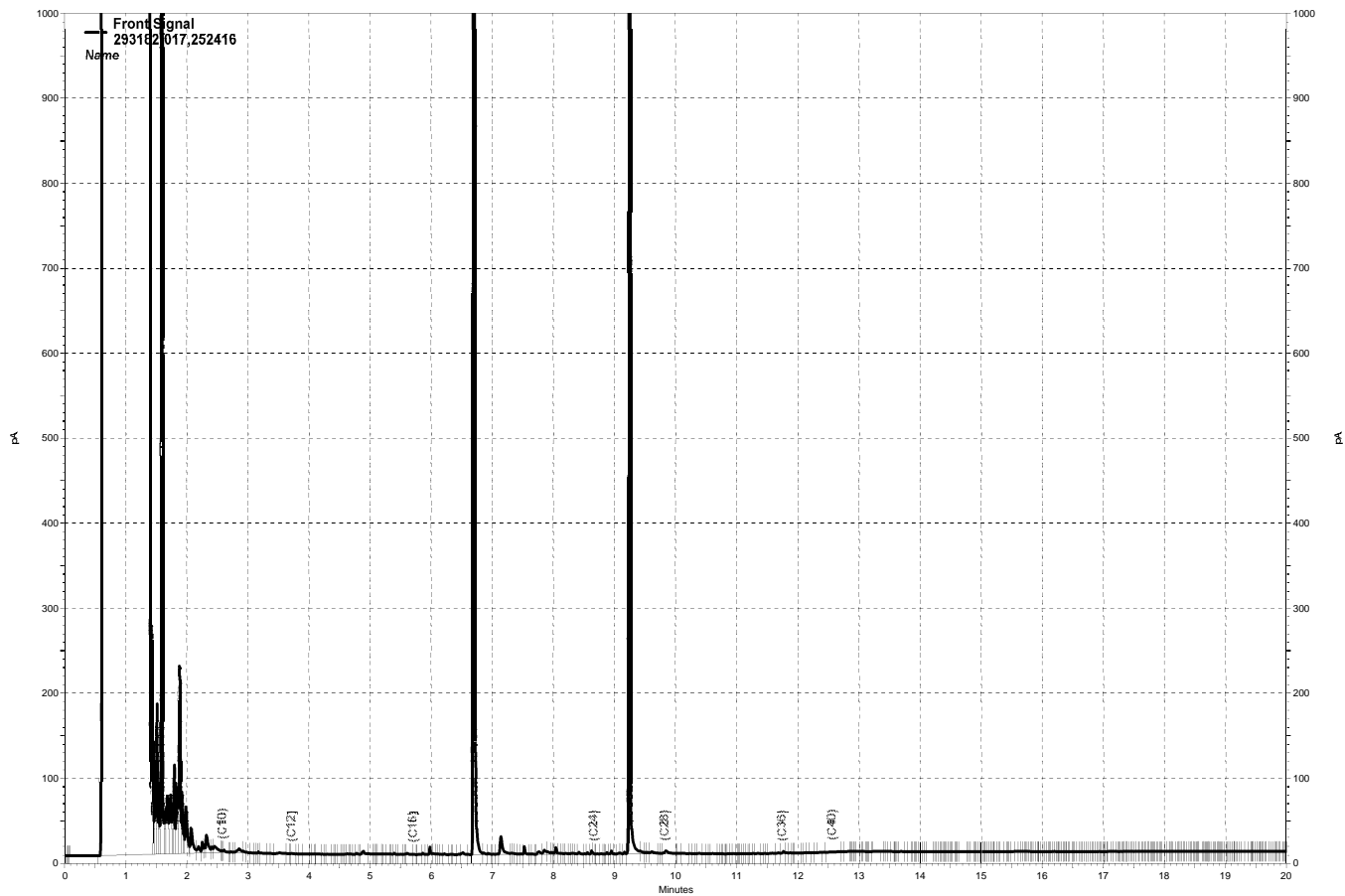
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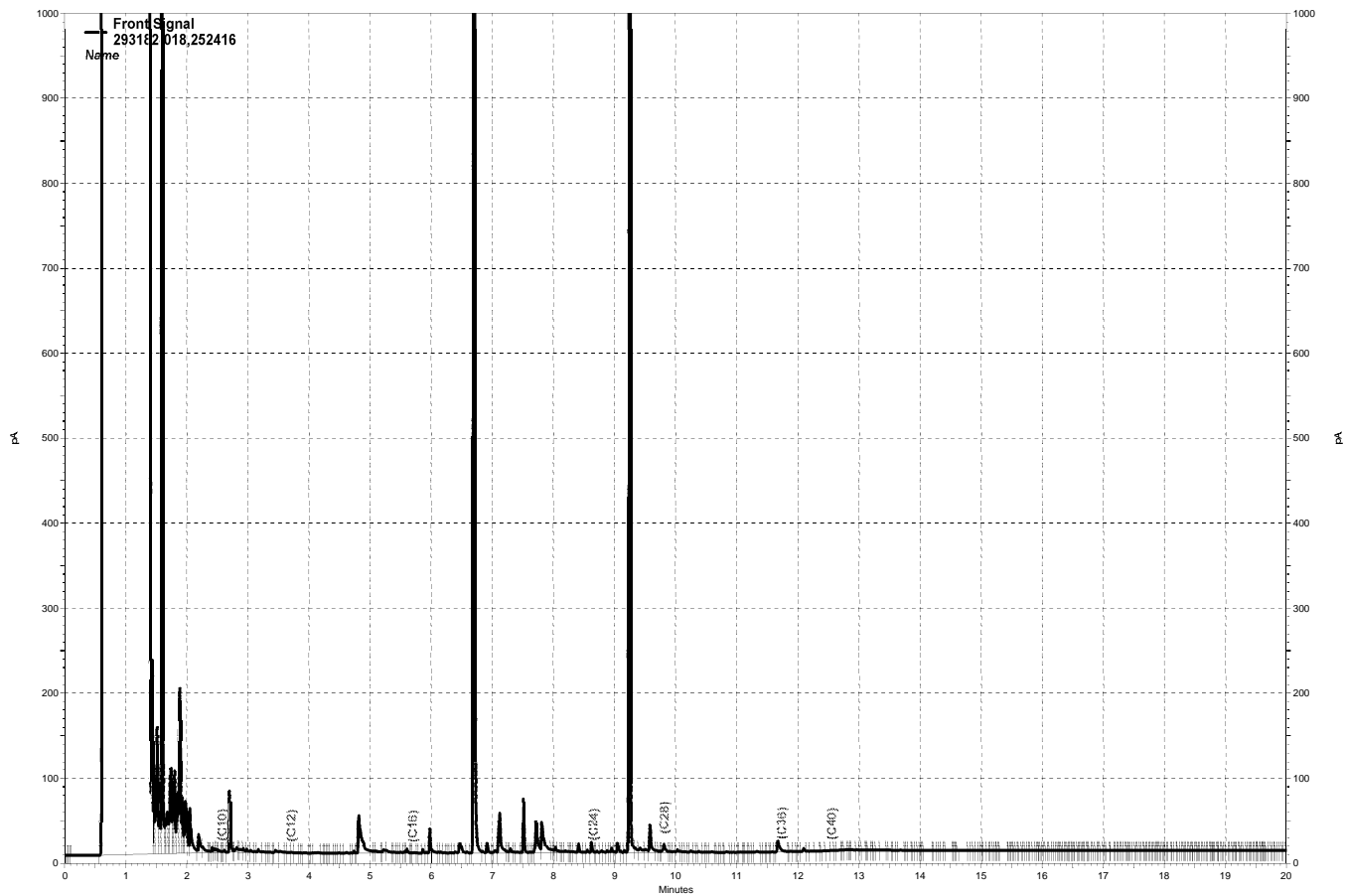
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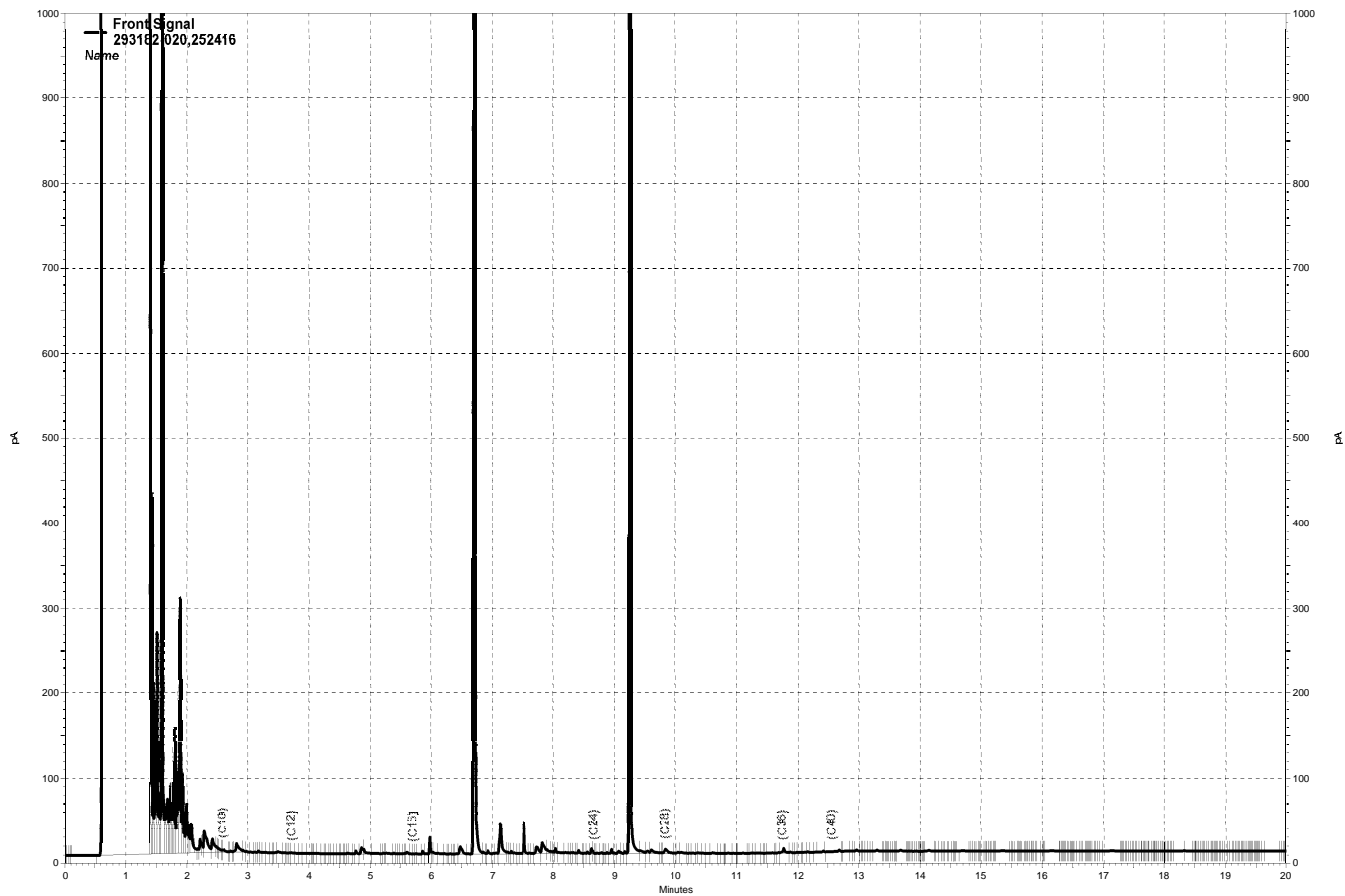
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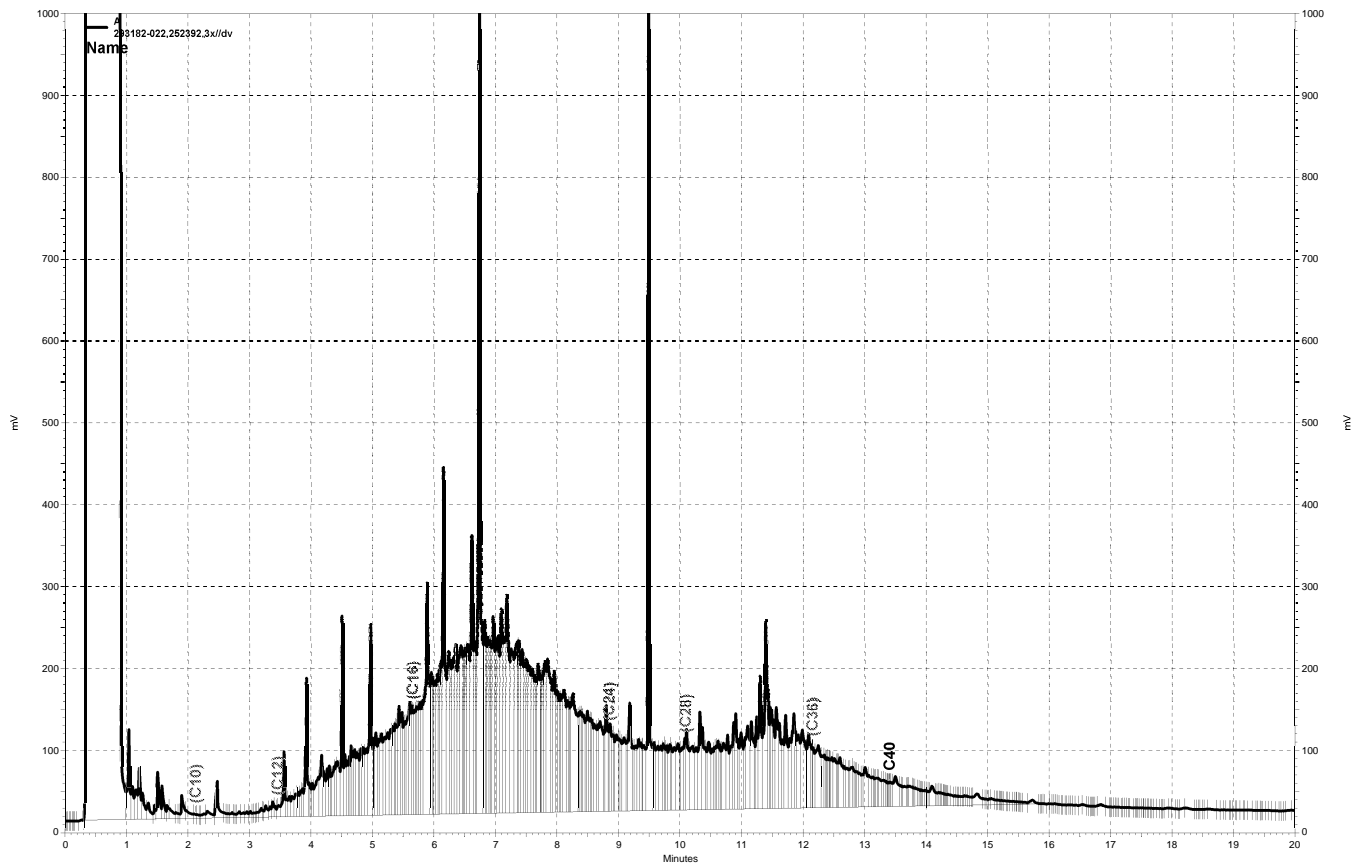
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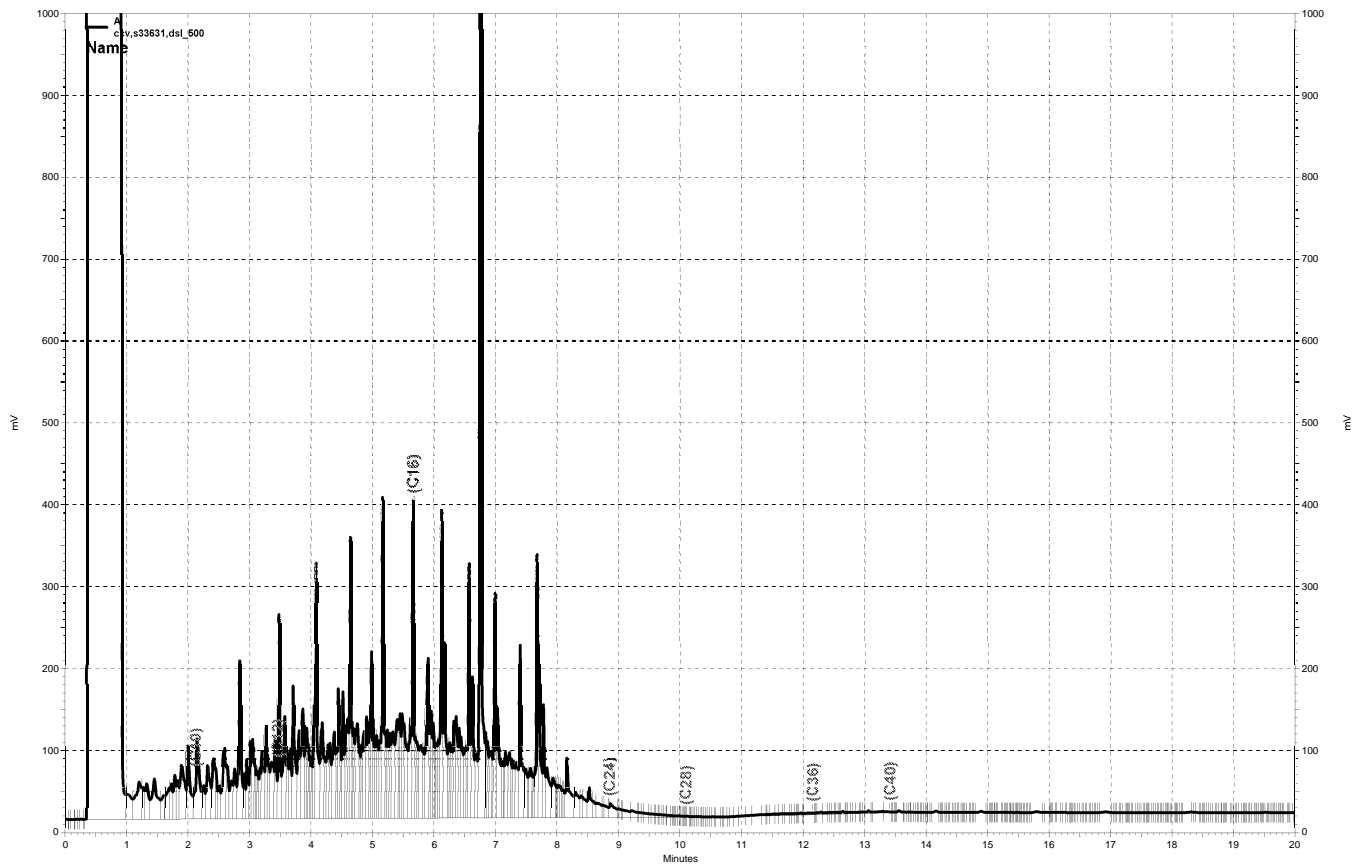
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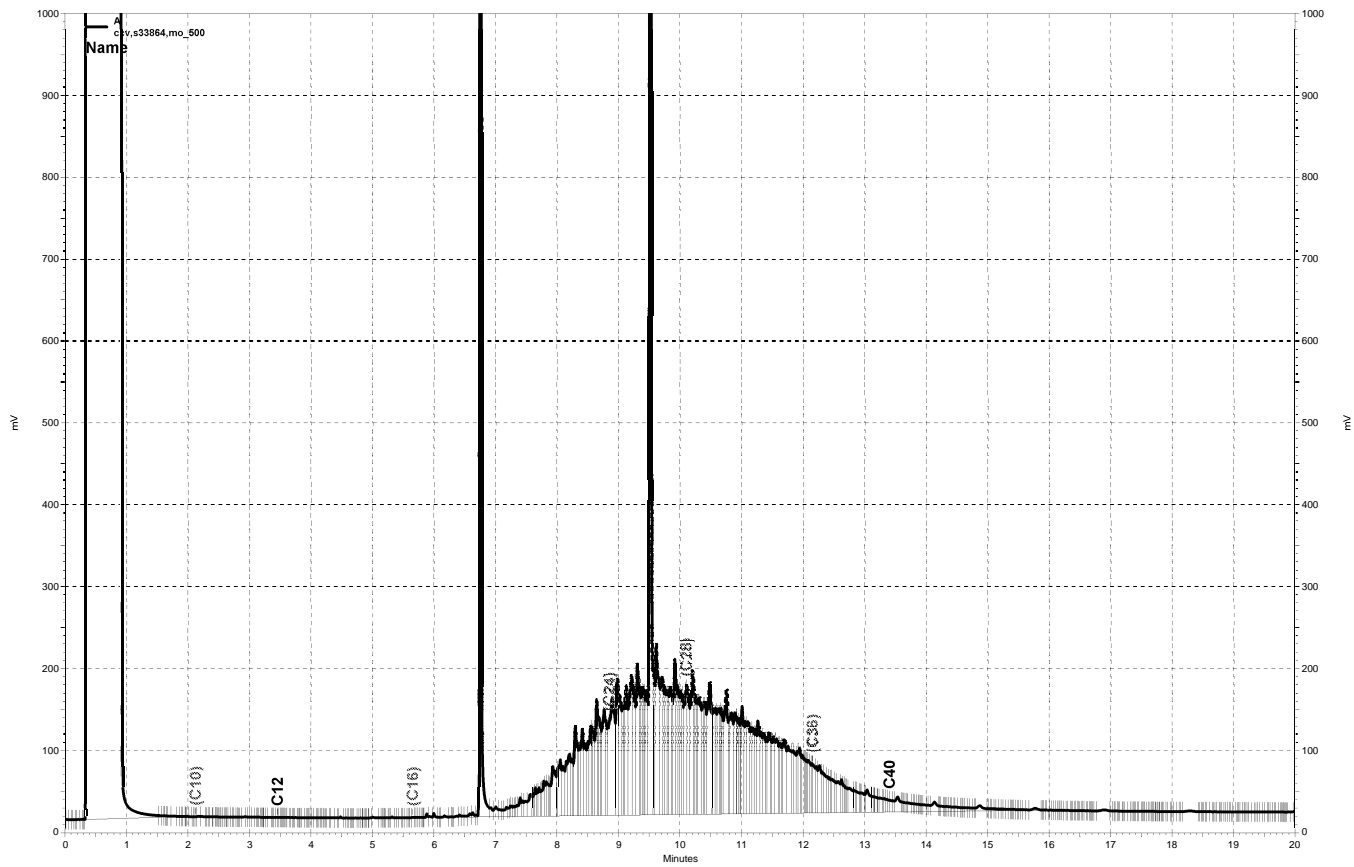
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\\kraken\gdrive\ezchrom\Projects\GC17a\Data\2017\279a007, A



\\kraken\gdrive\ezchrom\Projects\GC17a\Data\2017\279a003, A



\\kraken\gdrive\ezchrom\Projects\GC17a\Data\2017\279a004, A

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SUMP	Batch#: 252524
Lab ID: 293182-001	Sampled: 10/04/17
Matrix: Water	Received: 10/04/17
Units: ug/L	Analyzed: 10/11/17
Diln Fac: 1.000	

Analyte	Result	RL	MDL
Freon 12	ND	1.0	0.2
Chloromethane	ND	1.0	0.2
Vinyl Chloride	ND	0.5	0.2
Bromomethane	ND	1.0	0.2
Chloroethane	ND	1.0	0.2
Trichlorofluoromethane	ND	1.0	0.1
Acetone	6.9 J	10	3.3
Freon 113	ND	2.0	0.2
1,1-Dichloroethene	ND	0.5	0.1
Methylene Chloride	ND	10	0.1
Carbon Disulfide	ND	0.5	0.1
MTBE	ND	0.5	0.1
trans-1,2-Dichloroethene	ND	0.5	0.1
Vinyl Acetate	ND	10	0.3
1,1-Dichloroethane	ND	0.5	0.1
2-Butanone	ND	10	1.0
cis-1,2-Dichloroethene	ND	0.5	0.1
2,2-Dichloropropane	ND	0.5	0.1
Chloroform	6.2	0.5	0.1
Bromochloromethane	ND	0.5	0.1
1,1,1-Trichloroethane	ND	0.5	0.1
1,1-Dichloropropene	ND	0.5	0.1
Carbon Tetrachloride	ND	0.5	0.1
1,2-Dichloroethane	ND	0.5	0.1
Benzene	ND	0.5	0.1
Trichloroethene	ND	0.5	0.1
1,2-Dichloropropane	ND	0.5	0.1
Bromodichloromethane	0.5 J	0.5	0.1
Dibromomethane	ND	0.5	0.1
4-Methyl-2-Pentanone	ND	10	0.1
cis-1,3-Dichloropropene	ND	0.5	0.1
Toluene	0.1 J	0.5	0.1
trans-1,3-Dichloropropene	ND	0.5	0.1
1,1,2-Trichloroethane	ND	0.5	0.1
2-Hexanone	ND	10	0.2
1,3-Dichloropropane	ND	0.5	0.1
Tetrachloroethene	ND	0.5	0.1
Dibromochloromethane	ND	0.5	0.1
1,2-Dibromoethane	ND	0.5	0.1
Chlorobenzene	ND	0.5	0.1
1,1,1,2-Tetrachloroethane	ND	0.5	0.1
Ethylbenzene	ND	0.5	0.1
m,p-Xylenes	ND	0.5	0.1
o-Xylene	ND	0.5	0.1
Styrene	ND	0.5	0.1
Bromoform	ND	1.0	0.1
Isopropylbenzene	ND	0.5	0.1
1,1,2,2-Tetrachloroethane	ND	0.5	0.1
1,2,3-Trichloropropane	ND	0.5	0.1
Propylbenzene	ND	0.5	0.1
Bromobenzene	ND	0.5	0.1
1,3,5-Trimethylbenzene	ND	0.5	0.1

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

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SUMP	Batch#: 252524
Lab ID: 293182-001	Sampled: 10/04/17
Matrix: Water	Received: 10/04/17
Units: ug/L	Analyzed: 10/11/17
Diln Fac: 1.000	

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	0.5	0.1
4-Chlorotoluene	ND	0.5	0.1
tert-Butylbenzene	ND	0.5	0.1
1,2,4-Trimethylbenzene	ND	0.5	0.1
sec-Butylbenzene	ND	0.5	0.1
para-Isopropyl Toluene	ND	0.5	0.1
1,3-Dichlorobenzene	ND	0.5	0.1
1,4-Dichlorobenzene	ND	0.5	0.1
n-Butylbenzene	ND	0.5	0.1
1,2-Dichlorobenzene	ND	0.5	0.1
1,2-Dibromo-3-Chloropropane	ND	2.0	0.3
1,2,4-Trichlorobenzene	ND	0.5	0.1
Hexachlorobutadiene	ND	2.0	0.3
Naphthalene	ND	2.0	0.3
1,2,3-Trichlorobenzene	ND	0.5	0.1

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-120
1,2-Dichloroethane-d4	109	72-135
Toluene-d8	98	80-120
Bromofluorobenzene	105	80-120

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

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	252524
Units:	ug/L	Analyzed:	10/10/17
Diln Fac:	1.000		

Type: BS Lab ID: QC904335

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	15.00	14.25	95	72-126
Benzene	15.00	14.98	100	80-124
Trichloroethene	15.00	15.24	102	78-120
Toluene	15.00	15.53	104	80-120
Chlorobenzene	15.00	14.65	98	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-120
1,2-Dichloroethane-d4	109	72-135
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-120

Type: BSD Lab ID: QC904336

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	15.00	14.13	94	72-126	1	20
Benzene	15.00	15.44	103	80-124	3	20
Trichloroethene	15.00	15.34	102	78-120	1	20
Toluene	15.00	16.05	107	80-120	3	20
Chlorobenzene	15.00	14.69	98	80-120	0	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	111	72-135
Toluene-d8	103	80-120
Bromofluorobenzene	97	80-120

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC904448	Batch#:	252524
Matrix:	Water	Analyzed:	10/10/17
Units:	ug/L		

Analyte	Result	RL	MDL
Freon 12	ND	1.0	0.2
Chloromethane	ND	1.0	0.2
Vinyl Chloride	ND	0.5	0.2
Bromomethane	ND	1.0	0.2
Chloroethane	ND	1.0	0.2
Trichlorofluoromethane	ND	1.0	0.1
Acetone	ND	10	3.3
Freon 113	ND	2.0	0.2
1,1-Dichloroethene	ND	0.5	0.1
Methylene Chloride	ND	10	0.1
Carbon Disulfide	ND	0.5	0.1
MTBE	ND	0.5	0.1
trans-1,2-Dichloroethene	ND	0.5	0.1
Vinyl Acetate	ND	10	0.3
1,1-Dichloroethane	ND	0.5	0.1
2-Butanone	ND	10	1.0
cis-1,2-Dichloroethene	ND	0.5	0.1
2,2-Dichloropropane	ND	0.5	0.1
Chloroform	ND	0.5	0.1
Bromochloromethane	ND	0.5	0.1
1,1,1-Trichloroethane	ND	0.5	0.1
1,1-Dichloropropene	ND	0.5	0.1
Carbon Tetrachloride	ND	0.5	0.1
1,2-Dichloroethane	ND	0.5	0.1
Benzene	ND	0.5	0.1
Trichloroethene	ND	0.5	0.1
1,2-Dichloropropane	ND	0.5	0.1
Bromodichloromethane	ND	0.5	0.1
Dibromomethane	ND	0.5	0.1
4-Methyl-2-Pentanone	ND	10	0.1
cis-1,3-Dichloropropene	ND	0.5	0.1
Toluene	ND	0.5	0.1
trans-1,3-Dichloropropene	ND	0.5	0.1
1,1,2-Trichloroethane	ND	0.5	0.1
2-Hexanone	ND	10	0.2
1,3-Dichloropropane	ND	0.5	0.1
Tetrachloroethene	ND	0.5	0.1
Dibromochloromethane	ND	0.5	0.1
1,2-Dibromoethane	ND	0.5	0.1
Chlorobenzene	ND	0.5	0.1
1,1,1,2-Tetrachloroethane	ND	0.5	0.1
Ethylbenzene	ND	0.5	0.1
m,p-Xylenes	ND	0.5	0.1
o-Xylene	ND	0.5	0.1
Styrene	ND	0.5	0.1
Bromoform	ND	1.0	0.1
Isopropylbenzene	ND	0.5	0.1
1,1,2,2-Tetrachloroethane	ND	0.5	0.1
1,2,3-Trichloropropane	ND	0.5	0.1
Propylbenzene	ND	0.5	0.1
Bromobenzene	ND	0.5	0.1
1,3,5-Trimethylbenzene	ND	0.5	0.1

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

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC904448	Batch#:	252524
Matrix:	Water	Analyzed:	10/10/17
Units:	ug/L		

Analyte	Result	RL	MDL
2-Chlorotoluene	ND	0.5	0.1
4-Chlorotoluene	ND	0.5	0.1
tert-Butylbenzene	ND	0.5	0.1
1,2,4-Trimethylbenzene	ND	0.5	0.1
sec-Butylbenzene	ND	0.5	0.1
para-Isopropyl Toluene	ND	0.5	0.1
1,3-Dichlorobenzene	ND	0.5	0.1
1,4-Dichlorobenzene	ND	0.5	0.1
n-Butylbenzene	0.1 J	0.5	0.1
1,2-Dichlorobenzene	ND	0.5	0.1
1,2-Dibromo-3-Chloropropane	ND	2.0	0.3
1,2,4-Trichlorobenzene	0.1 J	0.5	0.1
Hexachlorobutadiene	ND	2.0	0.3
Naphthalene	0.9 J	2.0	0.3
1,2,3-Trichlorobenzene	ND	0.5	0.1

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-120
1,2-Dichloroethane-d4	111	72-135
Toluene-d8	97	80-120
Bromofluorobenzene	102	80-120

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

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB8-7.5	Diln Fac: 0.9416
Lab ID: 293182-002	Batch#: 252305
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/04/17

Moisture: 17%

Analyte	Result	RL	MDL
Freon 12	ND	11	0.8
Chloromethane	ND	11	0.9
Vinyl Chloride	ND	11	0.8
Bromomethane	ND	11	1.4
Chloroethane	ND	11	0.3
Trichlorofluoromethane	ND	5.7	0.7
Acetone	ND	23	3.3
Freon 113	ND	5.7	0.7
1,1-Dichloroethene	ND	5.7	0.7
Methylene Chloride	ND	23	1.3
Carbon Disulfide	ND	5.7	1.1
MTBE	ND	5.7	0.4
trans-1,2-Dichloroethene	ND	5.7	0.7
Vinyl Acetate	ND	57	0.6
1,1-Dichloroethane	ND	5.7	0.3
2-Butanone	ND	11	1.5
cis-1,2-Dichloroethene	ND	5.7	0.3
2,2-Dichloropropane	ND	5.7	0.8
Chloroform	ND	5.7	0.3
Bromochloromethane	ND	5.7	0.3
1,1,1-Trichloroethane	ND	5.7	0.7
1,1-Dichloropropene	ND	5.7	0.7
Carbon Tetrachloride	ND	5.7	0.8
1,2-Dichloroethane	ND	5.7	0.3
Benzene	ND	5.7	0.6
Trichloroethene	ND	5.7	0.7
1,2-Dichloropropane	ND	5.7	0.3
Bromodichloromethane	ND	5.7	0.3
Dibromomethane	ND	5.7	0.4
4-Methyl-2-Pentanone	ND	11	0.8
cis-1,3-Dichloropropene	ND	5.7	0.3
Toluene	ND	5.7	0.6
trans-1,3-Dichloropropene	ND	5.7	0.3
1,1,2-Trichloroethane	ND	5.7	0.4
2-Hexanone	ND	11	1.2
1,3-Dichloropropane	ND	5.7	0.2
Tetrachloroethene	ND	5.7	0.7
Dibromochloromethane	ND	5.7	0.3
1,2-Dibromoethane	ND	5.7	0.3
Chlorobenzene	ND	5.7	0.4
1,1,1,2-Tetrachloroethane	ND	5.7	0.6
Ethylbenzene	ND	5.7	0.6
m,p-Xylenes	ND	5.7	0.8
o-Xylene	ND	5.7	0.6
Styrene	ND	5.7	0.3
Bromoform	ND	5.7	0.3
Isopropylbenzene	ND	5.7	0.5
1,1,2,2-Tetrachloroethane	ND	5.7	0.3
1,2,3-Trichloropropane	ND	5.7	0.6
Propylbenzene	ND	5.7	0.6
Bromobenzene	ND	5.7	0.6

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB8-7.5	Diln Fac: 0.9416
Lab ID: 293182-002	Batch#: 252305
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/04/17

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.7	0.5
2-Chlorotoluene	ND	5.7	0.8
4-Chlorotoluene	ND	5.7	0.6
tert-Butylbenzene	ND	5.7	0.6
1,2,4-Trimethylbenzene	ND	5.7	0.7
sec-Butylbenzene	ND	5.7	0.5
para-Isopropyl Toluene	ND	5.7	0.5
1,3-Dichlorobenzene	ND	5.7	0.7
1,4-Dichlorobenzene	ND	5.7	0.6
n-Butylbenzene	ND	5.7	0.7
1,2-Dichlorobenzene	ND	5.7	0.4
1,2-Dibromo-3-Chloropropane	ND	5.7	1.1
1,2,4-Trichlorobenzene	ND	5.7	0.5
Hexachlorobutadiene	ND	5.7	0.6
Naphthalene	ND	5.7	1.1
1,2,3-Trichlorobenzene	ND	5.7	0.6

Surrogate	%REC	Limits
Dibromofluoromethane	111	76-132
1,2-Dichloroethane-d4	111	74-149
Toluene-d8	99	80-120
Bromofluorobenzene	107	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB8-9	Diln Fac: 0.9506
Lab ID: 293182-003	Batch#: 252305
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/04/17

Moisture: 17%

Analyte	Result	RL	MDL
Freon 12	ND	11	0.9
Chloromethane	ND	11	0.9
Vinyl Chloride	ND	11	0.8
Bromomethane	ND	11	1.5
Chloroethane	ND	11	0.3
Trichlorofluoromethane	ND	5.7	0.7
Acetone	ND	23	3.3
Freon 113	ND	5.7	0.8
1,1-Dichloroethene	ND	5.7	0.7
Methylene Chloride	ND	23	1.3
Carbon Disulfide	ND	5.7	1.1
MTBE	ND	5.7	0.4
trans-1,2-Dichloroethene	ND	5.7	0.7
Vinyl Acetate	ND	57	0.6
1,1-Dichloroethane	ND	5.7	0.3
2-Butanone	ND	11	1.5
cis-1,2-Dichloroethene	ND	5.7	0.3
2,2-Dichloropropane	ND	5.7	0.8
Chloroform	ND	5.7	0.3
Bromochloromethane	ND	5.7	0.3
1,1,1-Trichloroethane	ND	5.7	0.7
1,1-Dichloropropene	ND	5.7	0.7
Carbon Tetrachloride	ND	5.7	0.8
1,2-Dichloroethane	ND	5.7	0.3
Benzene	ND	5.7	0.6
Trichloroethene	ND	5.7	0.7
1,2-Dichloropropane	ND	5.7	0.3
Bromodichloromethane	ND	5.7	0.3
Dibromomethane	ND	5.7	0.4
4-Methyl-2-Pentanone	ND	11	0.8
cis-1,3-Dichloropropene	ND	5.7	0.3
Toluene	ND	5.7	0.6
trans-1,3-Dichloropropene	ND	5.7	0.3
1,1,2-Trichloroethane	ND	5.7	0.4
2-Hexanone	ND	11	1.3
1,3-Dichloropropane	ND	5.7	0.2
Tetrachloroethene	ND	5.7	0.7
Dibromochloromethane	ND	5.7	0.3
1,2-Dibromoethane	ND	5.7	0.3
Chlorobenzene	ND	5.7	0.4
1,1,1,2-Tetrachloroethane	ND	5.7	0.6
Ethylbenzene	ND	5.7	0.6
m,p-Xylenes	ND	5.7	0.8
o-Xylene	ND	5.7	0.6
Styrene	ND	5.7	0.3
Bromoform	ND	5.7	0.3
Isopropylbenzene	ND	5.7	0.5
1,1,2,2-Tetrachloroethane	ND	5.7	0.3
1,2,3-Trichloropropane	ND	5.7	0.6
Propylbenzene	ND	5.7	0.6
Bromobenzene	ND	5.7	0.6

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8260B
Field ID:	SB8-9	Diln Fac:	0.9506
Lab ID:	293182-003	Batch#:	252305
Matrix:	Soil	Sampled:	10/04/17
Units:	ug/Kg	Received:	10/04/17
Basis:	dry	Analyzed:	10/04/17

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.7	0.5
2-Chlorotoluene	ND	5.7	0.8
4-Chlorotoluene	ND	5.7	0.6
tert-Butylbenzene	ND	5.7	0.6
1,2,4-Trimethylbenzene	ND	5.7	0.7
sec-Butylbenzene	ND	5.7	0.5
para-Isopropyl Toluene	ND	5.7	0.5
1,3-Dichlorobenzene	ND	5.7	0.8
1,4-Dichlorobenzene	ND	5.7	0.6
n-Butylbenzene	ND	5.7	0.7
1,2-Dichlorobenzene	ND	5.7	0.4
1,2-Dibromo-3-Chloropropane	ND	5.7	1.1
1,2,4-Trichlorobenzene	ND	5.7	0.5
Hexachlorobutadiene	ND	5.7	0.6
Naphthalene	ND	5.7	1.1
1,2,3-Trichlorobenzene	ND	5.7	0.6

Surrogate	%REC	Limits
Dibromofluoromethane	114	76-132
1,2-Dichloroethane-d4	117	74-149
Toluene-d8	101	80-120
Bromofluorobenzene	109	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB8-12	Diln Fac: 0.9311
Lab ID: 293182-004	Batch#: 252305
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/04/17

Moisture: 17%

Analyte	Result	RL	MDL
Freon 12	ND	11	0.8
Chloromethane	ND	11	0.8
Vinyl Chloride	ND	11	0.8
Bromomethane	ND	11	1.4
Chloroethane	ND	11	0.3
Trichlorofluoromethane	ND	5.6	0.7
Acetone	ND	22	3.3
Freon 113	ND	5.6	0.7
1,1-Dichloroethene	ND	5.6	0.7
Methylene Chloride	ND	22	1.3
Carbon Disulfide	ND	5.6	1.1
MTBE	ND	5.6	0.4
trans-1,2-Dichloroethene	ND	5.6	0.7
Vinyl Acetate	ND	56	0.6
1,1-Dichloroethane	ND	5.6	0.3
2-Butanone	ND	11	1.5
cis-1,2-Dichloroethene	ND	5.6	0.3
2,2-Dichloropropane	ND	5.6	0.8
Chloroform	ND	5.6	0.3
Bromochloromethane	ND	5.6	0.3
1,1,1-Trichloroethane	ND	5.6	0.7
1,1-Dichloropropene	ND	5.6	0.7
Carbon Tetrachloride	ND	5.6	0.8
1,2-Dichloroethane	ND	5.6	0.3
Benzene	ND	5.6	0.6
Trichloroethene	ND	5.6	0.7
1,2-Dichloropropane	ND	5.6	0.3
Bromodichloromethane	ND	5.6	0.3
Dibromomethane	ND	5.6	0.4
4-Methyl-2-Pentanone	ND	11	0.8
cis-1,3-Dichloropropene	ND	5.6	0.3
Toluene	ND	5.6	0.6
trans-1,3-Dichloropropene	ND	5.6	0.3
1,1,2-Trichloroethane	ND	5.6	0.4
2-Hexanone	ND	11	1.2
1,3-Dichloropropane	ND	5.6	0.2
Tetrachloroethene	ND	5.6	0.7
Dibromochloromethane	ND	5.6	0.3
1,2-Dibromoethane	ND	5.6	0.3
Chlorobenzene	ND	5.6	0.4
1,1,1,2-Tetrachloroethane	ND	5.6	0.6
Ethylbenzene	ND	5.6	0.6
m,p-Xylenes	ND	5.6	0.8
o-Xylene	ND	5.6	0.6
Styrene	ND	5.6	0.3
Bromoform	ND	5.6	0.3
Isopropylbenzene	ND	5.6	0.5
1,1,2,2-Tetrachloroethane	ND	5.6	0.3
1,2,3-Trichloropropane	ND	5.6	0.6
Propylbenzene	ND	5.6	0.6
Bromobenzene	ND	5.6	0.6

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB8-12	Diln Fac: 0.9311
Lab ID: 293182-004	Batch#: 252305
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/04/17

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.6	0.5
2-Chlorotoluene	ND	5.6	0.8
4-Chlorotoluene	ND	5.6	0.6
tert-Butylbenzene	ND	5.6	0.5
1,2,4-Trimethylbenzene	ND	5.6	0.7
sec-Butylbenzene	ND	5.6	0.5
para-Isopropyl Toluene	ND	5.6	0.5
1,3-Dichlorobenzene	ND	5.6	0.7
1,4-Dichlorobenzene	ND	5.6	0.6
n-Butylbenzene	ND	5.6	0.7
1,2-Dichlorobenzene	ND	5.6	0.4
1,2-Dibromo-3-Chloropropane	ND	5.6	1.1
1,2,4-Trichlorobenzene	ND	5.6	0.5
Hexachlorobutadiene	ND	5.6	0.6
Naphthalene	ND	5.6	1.1
1,2,3-Trichlorobenzene	ND	5.6	0.6

Surrogate	%REC	Limits
Dibromofluoromethane	116	76-132
1,2-Dichloroethane-d4	117	74-149
Toluene-d8	102	80-120
Bromofluorobenzene	110	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB8-16	Diln Fac: 0.9542
Lab ID: 293182-005	Batch#: 252305
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/04/17

Moisture: 19%

Analyte	Result	RL	MDL
Freon 12	ND	12	0.9
Chloromethane	ND	12	0.9
Vinyl Chloride	ND	12	0.8
Bromomethane	ND	12	1.5
Chloroethane	ND	12	0.3
Trichlorofluoromethane	ND	5.9	0.8
Acetone	ND	24	3.4
Freon 113	ND	5.9	0.8
1,1-Dichloroethene	ND	5.9	0.7
Methylene Chloride	ND	24	1.4
Carbon Disulfide	ND	5.9	1.1
MTBE	ND	5.9	0.4
trans-1,2-Dichloroethene	ND	5.9	0.7
Vinyl Acetate	ND	59	0.6
1,1-Dichloroethane	ND	5.9	0.3
2-Butanone	ND	12	1.6
cis-1,2-Dichloroethene	ND	5.9	0.4
2,2-Dichloropropane	ND	5.9	0.8
Chloroform	ND	5.9	0.3
Bromochloromethane	ND	5.9	0.3
1,1,1-Trichloroethane	ND	5.9	0.7
1,1-Dichloropropene	ND	5.9	0.7
Carbon Tetrachloride	ND	5.9	0.8
1,2-Dichloroethane	ND	5.9	0.3
Benzene	ND	5.9	0.6
Trichloroethene	ND	5.9	0.7
1,2-Dichloropropane	ND	5.9	0.3
Bromodichloromethane	ND	5.9	0.3
Dibromomethane	ND	5.9	0.4
4-Methyl-2-Pentanone	ND	12	0.9
cis-1,3-Dichloropropene	ND	5.9	0.3
Toluene	ND	5.9	0.7
trans-1,3-Dichloropropene	ND	5.9	0.3
1,1,2-Trichloroethane	ND	5.9	0.4
2-Hexanone	ND	12	1.3
1,3-Dichloropropane	ND	5.9	0.3
Tetrachloroethene	ND	5.9	0.7
Dibromochloromethane	ND	5.9	0.3
1,2-Dibromoethane	ND	5.9	0.3
Chlorobenzene	ND	5.9	0.4
1,1,1,2-Tetrachloroethane	ND	5.9	0.6
Ethylbenzene	ND	5.9	0.6
m,p-Xylenes	ND	5.9	0.8
o-Xylene	ND	5.9	0.6
Styrene	ND	5.9	0.3
Bromoform	ND	5.9	0.3
Isopropylbenzene	ND	5.9	0.5
1,1,2,2-Tetrachloroethane	ND	5.9	0.3
1,2,3-Trichloropropane	ND	5.9	0.6
Propylbenzene	ND	5.9	0.6
Bromobenzene	ND	5.9	0.6

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB8-16	Diln Fac: 0.9542
Lab ID: 293182-005	Batch#: 252305
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/04/17

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.9	0.6
2-Chlorotoluene	ND	5.9	0.8
4-Chlorotoluene	ND	5.9	0.6
tert-Butylbenzene	ND	5.9	0.6
1,2,4-Trimethylbenzene	ND	5.9	0.7
sec-Butylbenzene	ND	5.9	0.5
para-Isopropyl Toluene	ND	5.9	0.6
1,3-Dichlorobenzene	ND	5.9	0.8
1,4-Dichlorobenzene	ND	5.9	0.6
n-Butylbenzene	ND	5.9	0.7
1,2-Dichlorobenzene	ND	5.9	0.4
1,2-Dibromo-3-Chloropropane	ND	5.9	1.2
1,2,4-Trichlorobenzene	ND	5.9	0.5
Hexachlorobutadiene	ND	5.9	0.6
Naphthalene	ND	5.9	1.2
1,2,3-Trichlorobenzene	ND	5.9	0.6

Surrogate	%REC	Limits
Dibromofluoromethane	116	76-132
1,2-Dichloroethane-d4	116	74-149
Toluene-d8	101	80-120
Bromofluorobenzene	110	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB9-7.5	Diln Fac: 0.9881
Lab ID: 293182-007	Batch#: 252305
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/04/17

Moisture: 15%

Analyte	Result	RL	MDL
Freon 12	ND	12	0.9
Chloromethane	ND	12	0.9
Vinyl Chloride	ND	12	0.8
Bromomethane	ND	12	1.5
Chloroethane	ND	12	0.3
Trichlorofluoromethane	ND	5.8	0.8
Acetone	ND	23	3.4
Freon 113	ND	5.8	0.8
1,1-Dichloroethene	ND	5.8	0.7
Methylene Chloride	ND	23	1.4
Carbon Disulfide	ND	5.8	1.1
MTBE	ND	5.8	0.4
trans-1,2-Dichloroethene	ND	5.8	0.7
Vinyl Acetate	ND	58	0.6
1,1-Dichloroethane	ND	5.8	0.3
2-Butanone	ND	12	1.5
cis-1,2-Dichloroethene	ND	5.8	0.4
2,2-Dichloropropane	ND	5.8	0.8
Chloroform	ND	5.8	0.3
Bromochloromethane	ND	5.8	0.3
1,1,1-Trichloroethane	ND	5.8	0.7
1,1-Dichloropropene	ND	5.8	0.7
Carbon Tetrachloride	ND	5.8	0.8
1,2-Dichloroethane	ND	5.8	0.3
Benzene	ND	5.8	0.6
Trichloroethene	ND	5.8	0.7
1,2-Dichloropropane	ND	5.8	0.3
Bromodichloromethane	ND	5.8	0.3
Dibromomethane	ND	5.8	0.4
4-Methyl-2-Pentanone	ND	12	0.8
cis-1,3-Dichloropropene	ND	5.8	0.3
Toluene	ND	5.8	0.7
trans-1,3-Dichloropropene	ND	5.8	0.3
1,1,2-Trichloroethane	ND	5.8	0.4
2-Hexanone	ND	12	1.3
1,3-Dichloropropane	ND	5.8	0.2
Tetrachloroethene	ND	5.8	0.7
Dibromochloromethane	ND	5.8	0.3
1,2-Dibromoethane	ND	5.8	0.3
Chlorobenzene	ND	5.8	0.4
1,1,1,2-Tetrachloroethane	ND	5.8	0.6
Ethylbenzene	ND	5.8	0.6
m,p-Xylenes	ND	5.8	0.8
o-Xylene	ND	5.8	0.6
Styrene	ND	5.8	0.3
Bromoform	ND	5.8	0.3
Isopropylbenzene	ND	5.8	0.5
1,1,2,2-Tetrachloroethane	ND	5.8	0.3
1,2,3-Trichloropropane	ND	5.8	0.6
Propylbenzene	ND	5.8	0.6
Bromobenzene	ND	5.8	0.6

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB9-7.5	Diln Fac: 0.9881
Lab ID: 293182-007	Batch#: 252305
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/04/17

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.8	0.6
2-Chlorotoluene	ND	5.8	0.8
4-Chlorotoluene	ND	5.8	0.6
tert-Butylbenzene	ND	5.8	0.6
1,2,4-Trimethylbenzene	ND	5.8	0.7
sec-Butylbenzene	ND	5.8	0.5
para-Isopropyl Toluene	ND	5.8	0.5
1,3-Dichlorobenzene	ND	5.8	0.8
1,4-Dichlorobenzene	ND	5.8	0.6
n-Butylbenzene	ND	5.8	0.7
1,2-Dichlorobenzene	ND	5.8	0.4
1,2-Dibromo-3-Chloropropane	ND	5.8	1.2
1,2,4-Trichlorobenzene	ND	5.8	0.5
Hexachlorobutadiene	ND	5.8	0.6
Naphthalene	ND	5.8	1.2
1,2,3-Trichlorobenzene	ND	5.8	0.6

Surrogate	%REC	Limits
Dibromofluoromethane	119	76-132
1,2-Dichloroethane-d4	120	74-149
Toluene-d8	100	80-120
Bromofluorobenzene	110	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB9-9	Diln Fac: 0.9542
Lab ID: 293182-008	Batch#: 252305
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/04/17

Moisture: 13%

Analyte	Result	RL	MDL
Freon 12	ND	11	0.8
Chloromethane	ND	11	0.8
Vinyl Chloride	ND	11	0.8
Bromomethane	ND	11	1.4
Chloroethane	ND	11	0.3
Trichlorofluoromethane	ND	5.5	0.7
Acetone	ND	22	3.2
Freon 113	ND	5.5	0.7
1,1-Dichloroethene	ND	5.5	0.6
Methylene Chloride	ND	22	1.3
Carbon Disulfide	ND	5.5	1.1
MTBE	ND	5.5	0.3
trans-1,2-Dichloroethene	ND	5.5	0.7
Vinyl Acetate	ND	55	0.5
1,1-Dichloroethane	ND	5.5	0.3
2-Butanone	ND	11	1.4
cis-1,2-Dichloroethene	ND	5.5	0.3
2,2-Dichloropropane	ND	5.5	0.7
Chloroform	ND	5.5	0.3
Bromochloromethane	ND	5.5	0.3
1,1,1-Trichloroethane	ND	5.5	0.7
1,1-Dichloropropene	ND	5.5	0.7
Carbon Tetrachloride	ND	5.5	0.8
1,2-Dichloroethane	ND	5.5	0.3
Benzene	ND	5.5	0.6
Trichloroethene	ND	5.5	0.7
1,2-Dichloropropane	ND	5.5	0.2
Bromodichloromethane	ND	5.5	0.3
Dibromomethane	ND	5.5	0.4
4-Methyl-2-Pentanone	ND	11	0.8
cis-1,3-Dichloropropene	ND	5.5	0.3
Toluene	ND	5.5	0.6
trans-1,3-Dichloropropene	ND	5.5	0.3
1,1,2-Trichloroethane	ND	5.5	0.4
2-Hexanone	ND	11	1.2
1,3-Dichloropropane	ND	5.5	0.2
Tetrachloroethene	ND	5.5	0.7
Dibromochloromethane	ND	5.5	0.3
1,2-Dibromoethane	ND	5.5	0.3
Chlorobenzene	ND	5.5	0.4
1,1,1,2-Tetrachloroethane	ND	5.5	0.6
Ethylbenzene	ND	5.5	0.6
m,p-Xylenes	ND	5.5	0.8
o-Xylene	ND	5.5	0.6
Styrene	ND	5.5	0.3
Bromoform	ND	5.5	0.3
Isopropylbenzene	ND	5.5	0.5
1,1,2,2-Tetrachloroethane	ND	5.5	0.3
1,2,3-Trichloropropane	ND	5.5	0.6
Propylbenzene	ND	5.5	0.5
Bromobenzene	ND	5.5	0.6

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8260B
Field ID:	SB9-9	Diln Fac:	0.9542
Lab ID:	293182-008	Batch#:	252305
Matrix:	Soil	Sampled:	10/04/17
Units:	ug/Kg	Received:	10/04/17
Basis:	dry	Analyzed:	10/04/17

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.5	0.5
2-Chlorotoluene	ND	5.5	0.8
4-Chlorotoluene	ND	5.5	0.6
tert-Butylbenzene	ND	5.5	0.5
1,2,4-Trimethylbenzene	ND	5.5	0.6
sec-Butylbenzene	ND	5.5	0.5
para-Isopropyl Toluene	ND	5.5	0.5
1,3-Dichlorobenzene	ND	5.5	0.7
1,4-Dichlorobenzene	ND	5.5	0.6
n-Butylbenzene	ND	5.5	0.7
1,2-Dichlorobenzene	ND	5.5	0.4
1,2-Dibromo-3-Chloropropane	ND	5.5	1.1
1,2,4-Trichlorobenzene	ND	5.5	0.5
Hexachlorobutadiene	ND	5.5	0.6
Naphthalene	ND	5.5	1.1
1,2,3-Trichlorobenzene	ND	5.5	0.6

Surrogate	%REC	Limits
Dibromofluoromethane	120	76-132
1,2-Dichloroethane-d4	117	74-149
Toluene-d8	101	80-120
Bromofluorobenzene	110	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB9-12	Diln Fac: 0.9597
Lab ID: 293182-009	Batch#: 252305
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Moisture: 17%

Analyte	Result	RL	MDL
Freon 12	ND	12	0.9
Chloromethane	ND	12	0.9
Vinyl Chloride	ND	12	0.8
Bromomethane	ND	12	1.5
Chloroethane	ND	12	0.3
Trichlorofluoromethane	ND	5.8	0.8
Acetone	ND	23	3.4
Freon 113	ND	5.8	0.8
1,1-Dichloroethene	ND	5.8	0.7
Methylene Chloride	ND	23	1.4
Carbon Disulfide	ND	5.8	1.1
MTBE	ND	5.8	0.4
trans-1,2-Dichloroethene	ND	5.8	0.7
Vinyl Acetate	ND	58	0.6
1,1-Dichloroethane	ND	5.8	0.3
2-Butanone	ND	12	1.5
cis-1,2-Dichloroethene	ND	5.8	0.4
2,2-Dichloropropane	ND	5.8	0.8
Chloroform	ND	5.8	0.3
Bromochloromethane	ND	5.8	0.3
1,1,1-Trichloroethane	ND	5.8	0.7
1,1-Dichloropropene	ND	5.8	0.7
Carbon Tetrachloride	ND	5.8	0.8
1,2-Dichloroethane	ND	5.8	0.3
Benzene	ND	5.8	0.6
Trichloroethene	ND	5.8	0.7
1,2-Dichloropropane	ND	5.8	0.3
Bromodichloromethane	ND	5.8	0.3
Dibromomethane	ND	5.8	0.4
4-Methyl-2-Pentanone	ND	12	0.8
cis-1,3-Dichloropropene	ND	5.8	0.3
Toluene	ND	5.8	0.6
trans-1,3-Dichloropropene	ND	5.8	0.3
1,1,2-Trichloroethane	ND	5.8	0.4
2-Hexanone	ND	12	1.3
1,3-Dichloropropane	ND	5.8	0.2
Tetrachloroethene	ND	5.8	0.7
Dibromochloromethane	ND	5.8	0.3
1,2-Dibromoethane	ND	5.8	0.3
Chlorobenzene	ND	5.8	0.4
1,1,1,2-Tetrachloroethane	ND	5.8	0.6
Ethylbenzene	ND	5.8	0.6
m,p-Xylenes	ND	5.8	0.8
o-Xylene	ND	5.8	0.6
Styrene	ND	5.8	0.3
Bromoform	ND	5.8	0.3
Isopropylbenzene	ND	5.8	0.5
1,1,2,2-Tetrachloroethane	ND	5.8	0.3
1,2,3-Trichloropropane	ND	5.8	0.6
Propylbenzene	ND	5.8	0.6
Bromobenzene	ND	5.8	0.6

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB9-12	Diln Fac: 0.9597
Lab ID: 293182-009	Batch#: 252305
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.8	0.6
2-Chlorotoluene	ND	5.8	0.8
4-Chlorotoluene	ND	5.8	0.6
tert-Butylbenzene	ND	5.8	0.6
1,2,4-Trimethylbenzene	ND	5.8	0.7
sec-Butylbenzene	ND	5.8	0.5
para-Isopropyl Toluene	ND	5.8	0.5
1,3-Dichlorobenzene	ND	5.8	0.8
1,4-Dichlorobenzene	ND	5.8	0.6
n-Butylbenzene	ND	5.8	0.7
1,2-Dichlorobenzene	ND	5.8	0.4
1,2-Dibromo-3-Chloropropane	ND	5.8	1.2
1,2,4-Trichlorobenzene	ND	5.8	0.5
Hexachlorobutadiene	ND	5.8	0.6
Naphthalene	ND	5.8	1.2
1,2,3-Trichlorobenzene	ND	5.8	0.6

Surrogate	%REC	Limits
Dibromofluoromethane	119	76-132
1,2-Dichloroethane-d4	119	74-149
Toluene-d8	101	80-120
Bromofluorobenzene	112	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB9-16	Diln Fac: 0.9311
Lab ID: 293182-010	Batch#: 252305
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Moisture: 14%

Analyte	Result	RL	MDL
Freon 12	ND	11	0.8
Chloromethane	ND	11	0.8
Vinyl Chloride	ND	11	0.8
Bromomethane	ND	11	1.4
Chloroethane	ND	11	0.3
Trichlorofluoromethane	ND	5.4	0.7
Acetone	ND	22	3.2
Freon 113	ND	5.4	0.7
1,1-Dichloroethene	ND	5.4	0.6
Methylene Chloride	ND	22	1.3
Carbon Disulfide	ND	5.4	1.0
MTBE	ND	5.4	0.3
trans-1,2-Dichloroethene	ND	5.4	0.6
Vinyl Acetate	ND	54	0.5
1,1-Dichloroethane	ND	5.4	0.3
2-Butanone	ND	11	1.4
cis-1,2-Dichloroethene	ND	5.4	0.3
2,2-Dichloropropane	ND	5.4	0.7
Chloroform	ND	5.4	0.3
Bromochloromethane	ND	5.4	0.3
1,1,1-Trichloroethane	ND	5.4	0.7
1,1-Dichloropropene	ND	5.4	0.7
Carbon Tetrachloride	ND	5.4	0.8
1,2-Dichloroethane	ND	5.4	0.3
Benzene	ND	5.4	0.6
Trichloroethene	ND	5.4	0.7
1,2-Dichloropropane	ND	5.4	0.2
Bromodichloromethane	ND	5.4	0.3
Dibromomethane	ND	5.4	0.4
4-Methyl-2-Pentanone	ND	11	0.8
cis-1,3-Dichloropropene	ND	5.4	0.3
Toluene	ND	5.4	0.6
trans-1,3-Dichloropropene	ND	5.4	0.3
1,1,2-Trichloroethane	ND	5.4	0.4
2-Hexanone	ND	11	1.2
1,3-Dichloropropane	ND	5.4	0.2
Tetrachloroethene	ND	5.4	0.7
Dibromochloromethane	ND	5.4	0.3
1,2-Dibromoethane	ND	5.4	0.3
Chlorobenzene	ND	5.4	0.4
1,1,1,2-Tetrachloroethane	ND	5.4	0.5
Ethylbenzene	ND	5.4	0.5
m,p-Xylenes	ND	5.4	0.7
o-Xylene	ND	5.4	0.6
Styrene	ND	5.4	0.2
Bromoform	ND	5.4	0.3
Isopropylbenzene	ND	5.4	0.5
1,1,2,2-Tetrachloroethane	ND	5.4	0.3
1,2,3-Trichloropropane	ND	5.4	0.6
Propylbenzene	ND	5.4	0.5
Bromobenzene	ND	5.4	0.5

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8260B
Field ID:	SB9-16	Diln Fac:	0.9311
Lab ID:	293182-010	Batch#:	252305
Matrix:	Soil	Sampled:	10/04/17
Units:	ug/Kg	Received:	10/04/17
Basis:	dry	Analyzed:	10/05/17

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.4	0.5
2-Chlorotoluene	ND	5.4	0.8
4-Chlorotoluene	ND	5.4	0.6
tert-Butylbenzene	ND	5.4	0.5
1,2,4-Trimethylbenzene	ND	5.4	0.6
sec-Butylbenzene	ND	5.4	0.5
para-Isopropyl Toluene	ND	5.4	0.5
1,3-Dichlorobenzene	ND	5.4	0.7
1,4-Dichlorobenzene	ND	5.4	0.6
n-Butylbenzene	ND	5.4	0.7
1,2-Dichlorobenzene	ND	5.4	0.4
1,2-Dibromo-3-Chloropropane	ND	5.4	1.1
1,2,4-Trichlorobenzene	ND	5.4	0.5
Hexachlorobutadiene	ND	5.4	0.6
Naphthalene	ND	5.4	1.1
1,2,3-Trichlorobenzene	ND	5.4	0.6

Surrogate	%REC	Limits
Dibromofluoromethane	121	76-132
1,2-Dichloroethane-d4	120	74-149
Toluene-d8	100	80-120
Bromofluorobenzene	111	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB10-7.5	Diln Fac: 0.9009
Lab ID: 293182-012	Batch#: 252305
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Moisture: 15%

Analyte	Result	RL	MDL
Freon 12	ND	11	0.8
Chloromethane	ND	11	0.8
Vinyl Chloride	ND	11	0.7
Bromomethane	ND	11	1.3
Chloroethane	ND	11	0.3
Trichlorofluoromethane	ND	5.3	0.7
Acetone	ND	21	3.1
Freon 113	ND	5.3	0.7
1,1-Dichloroethene	ND	5.3	0.6
Methylene Chloride	ND	21	1.2
Carbon Disulfide	ND	5.3	1.0
MTBE	ND	5.3	0.3
trans-1,2-Dichloroethene	ND	5.3	0.6
Vinyl Acetate	ND	53	0.5
1,1-Dichloroethane	ND	5.3	0.3
2-Butanone	ND	11	1.4
cis-1,2-Dichloroethene	ND	5.3	0.3
2,2-Dichloropropane	ND	5.3	0.7
Chloroform	ND	5.3	0.3
Bromochloromethane	ND	5.3	0.3
1,1,1-Trichloroethane	ND	5.3	0.6
1,1-Dichloropropene	ND	5.3	0.7
Carbon Tetrachloride	ND	5.3	0.8
1,2-Dichloroethane	ND	5.3	0.3
Benzene	ND	5.3	0.6
Trichloroethene	ND	5.3	0.7
1,2-Dichloropropane	ND	5.3	0.2
Bromodichloromethane	ND	5.3	0.3
Dibromomethane	ND	5.3	0.4
4-Methyl-2-Pentanone	ND	11	0.8
cis-1,3-Dichloropropene	ND	5.3	0.3
Toluene	ND	5.3	0.6
trans-1,3-Dichloropropene	ND	5.3	0.3
1,1,2-Trichloroethane	ND	5.3	0.4
2-Hexanone	ND	11	1.2
1,3-Dichloropropane	ND	5.3	0.2
Tetrachloroethene	ND	5.3	0.7
Dibromochloromethane	ND	5.3	0.3
1,2-Dibromoethane	ND	5.3	0.3
Chlorobenzene	ND	5.3	0.4
1,1,1,2-Tetrachloroethane	ND	5.3	0.5
Ethylbenzene	ND	5.3	0.5
m,p-Xylenes	ND	5.3	0.7
o-Xylene	ND	5.3	0.6
Styrene	ND	5.3	0.2
Bromoform	ND	5.3	0.3
Isopropylbenzene	ND	5.3	0.5
1,1,2,2-Tetrachloroethane	ND	5.3	0.3
1,2,3-Trichloropropane	ND	5.3	0.5
Propylbenzene	ND	5.3	0.5
Bromobenzene	ND	5.3	0.5

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB10-7.5	Diln Fac: 0.9009
Lab ID: 293182-012	Batch#: 252305
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.3	0.5
2-Chlorotoluene	ND	5.3	0.8
4-Chlorotoluene	ND	5.3	0.6
tert-Butylbenzene	ND	5.3	0.5
1,2,4-Trimethylbenzene	ND	5.3	0.6
sec-Butylbenzene	ND	5.3	0.5
para-Isopropyl Toluene	ND	5.3	0.5
1,3-Dichlorobenzene	ND	5.3	0.7
1,4-Dichlorobenzene	ND	5.3	0.6
n-Butylbenzene	ND	5.3	0.7
1,2-Dichlorobenzene	ND	5.3	0.4
1,2-Dibromo-3-Chloropropane	ND	5.3	1.1
1,2,4-Trichlorobenzene	ND	5.3	0.5
Hexachlorobutadiene	ND	5.3	0.6
Naphthalene	ND	5.3	1.1
1,2,3-Trichlorobenzene	ND	5.3	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	121	76-132
1,2-Dichloroethane-d4	121	74-149
Toluene-d8	101	80-120
Bromofluorobenzene	112	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB10-9	Diln Fac: 0.9960
Lab ID: 293182-013	Batch#: 252373
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Moisture: 16%

Analyte	Result	RL	MDL
Freon 12	ND	12	0.9
Chloromethane	ND	12	0.9
Vinyl Chloride	ND	12	0.8
Bromomethane	ND	12	1.5
Chloroethane	ND	12	0.3
Trichlorofluoromethane	ND	5.9	0.8
Acetone	ND	24	3.5
Freon 113	ND	5.9	0.8
1,1-Dichloroethene	ND	5.9	0.7
Methylene Chloride	ND	24	1.4
Carbon Disulfide	ND	5.9	1.1
MTBE	ND	5.9	0.4
trans-1,2-Dichloroethene	ND	5.9	0.7
Vinyl Acetate	ND	59	0.6
1,1-Dichloroethane	ND	5.9	0.3
2-Butanone	ND	12	1.6
cis-1,2-Dichloroethene	ND	5.9	0.4
2,2-Dichloropropane	ND	5.9	0.8
Chloroform	ND	5.9	0.3
Bromochloromethane	ND	5.9	0.3
1,1,1-Trichloroethane	ND	5.9	0.7
1,1-Dichloropropene	ND	5.9	0.7
Carbon Tetrachloride	ND	5.9	0.8
1,2-Dichloroethane	ND	5.9	0.3
Benzene	ND	5.9	0.6
Trichloroethene	ND	5.9	0.7
1,2-Dichloropropane	ND	5.9	0.3
Bromodichloromethane	ND	5.9	0.3
Dibromomethane	ND	5.9	0.4
4-Methyl-2-Pentanone	ND	12	0.9
cis-1,3-Dichloropropene	ND	5.9	0.3
Toluene	ND	5.9	0.7
trans-1,3-Dichloropropene	ND	5.9	0.3
1,1,2-Trichloroethane	ND	5.9	0.4
2-Hexanone	ND	12	1.3
1,3-Dichloropropane	ND	5.9	0.3
Tetrachloroethene	ND	5.9	0.7
Dibromochloromethane	ND	5.9	0.3
1,2-Dibromoethane	ND	5.9	0.3
Chlorobenzene	ND	5.9	0.4
1,1,1,2-Tetrachloroethane	ND	5.9	0.6
Ethylbenzene	ND	5.9	0.6
m,p-Xylenes	ND	5.9	0.8
o-Xylene	ND	5.9	0.6
Styrene	ND	5.9	0.3
Bromoform	ND	5.9	0.3
Isopropylbenzene	ND	5.9	0.5
1,1,2,2-Tetrachloroethane	ND	5.9	0.3
1,2,3-Trichloropropane	ND	5.9	0.6
Propylbenzene	ND	5.9	0.6
Bromobenzene	ND	5.9	0.6

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB10-9	Diln Fac: 0.9960
Lab ID: 293182-013	Batch#: 252373
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.9	0.6
2-Chlorotoluene	ND	5.9	0.9
4-Chlorotoluene	ND	5.9	0.6
tert-Butylbenzene	ND	5.9	0.6
1,2,4-Trimethylbenzene	ND	5.9	0.7
sec-Butylbenzene	ND	5.9	0.5
para-Isopropyl Toluene	ND	5.9	0.6
1,3-Dichlorobenzene	ND	5.9	0.8
1,4-Dichlorobenzene	ND	5.9	0.6
n-Butylbenzene	ND	5.9	0.7
1,2-Dichlorobenzene	ND	5.9	0.5
1,2-Dibromo-3-Chloropropane	ND	5.9	1.2
1,2,4-Trichlorobenzene	ND	5.9	0.5
Hexachlorobutadiene	ND	5.9	0.6
Naphthalene	ND	5.9	1.2
1,2,3-Trichlorobenzene	ND	5.9	0.6

Surrogate	%REC	Limits
Dibromofluoromethane	113	76-132
1,2-Dichloroethane-d4	115	74-149
Toluene-d8	98	80-120
Bromofluorobenzene	110	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB10-12	Diln Fac: 0.9785
Lab ID: 293182-014	Batch#: 252373
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Moisture: 17%

Analyte	Result	RL	MDL
Freon 12	ND	12	0.9
Chloromethane	ND	12	0.9
Vinyl Chloride	ND	12	0.8
Bromomethane	ND	12	1.5
Chloroethane	ND	12	0.3
Trichlorofluoromethane	ND	5.9	0.8
Acetone	ND	24	3.4
Freon 113	ND	5.9	0.8
1,1-Dichloroethene	ND	5.9	0.7
Methylene Chloride	ND	24	1.4
Carbon Disulfide	ND	5.9	1.1
MTBE	ND	5.9	0.4
trans-1,2-Dichloroethene	ND	5.9	0.7
Vinyl Acetate	ND	59	0.6
1,1-Dichloroethane	ND	5.9	0.3
2-Butanone	ND	12	1.6
cis-1,2-Dichloroethene	ND	5.9	0.4
2,2-Dichloropropane	ND	5.9	0.8
Chloroform	ND	5.9	0.3
Bromochloromethane	ND	5.9	0.3
1,1,1-Trichloroethane	ND	5.9	0.7
1,1-Dichloropropene	ND	5.9	0.7
Carbon Tetrachloride	ND	5.9	0.8
1,2-Dichloroethane	ND	5.9	0.3
Benzene	ND	5.9	0.6
Trichloroethene	ND	5.9	0.7
1,2-Dichloropropane	ND	5.9	0.3
Bromodichloromethane	ND	5.9	0.3
Dibromomethane	ND	5.9	0.4
4-Methyl-2-Pentanone	ND	12	0.9
cis-1,3-Dichloropropene	ND	5.9	0.3
Toluene	ND	5.9	0.7
trans-1,3-Dichloropropene	ND	5.9	0.3
1,1,2-Trichloroethane	ND	5.9	0.4
2-Hexanone	ND	12	1.3
1,3-Dichloropropane	ND	5.9	0.3
Tetrachloroethene	ND	5.9	0.7
Dibromochloromethane	ND	5.9	0.3
1,2-Dibromoethane	ND	5.9	0.3
Chlorobenzene	ND	5.9	0.4
1,1,1,2-Tetrachloroethane	ND	5.9	0.6
Ethylbenzene	ND	5.9	0.6
m,p-Xylenes	ND	5.9	0.8
o-Xylene	ND	5.9	0.6
Styrene	ND	5.9	0.3
Bromoform	ND	5.9	0.3
Isopropylbenzene	ND	5.9	0.5
1,1,2,2-Tetrachloroethane	ND	5.9	0.3
1,2,3-Trichloropropane	ND	5.9	0.6
Propylbenzene	ND	5.9	0.6
Bromobenzene	ND	5.9	0.6

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB10-12	Diln Fac: 0.9785
Lab ID: 293182-014	Batch#: 252373
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.9	0.6
2-Chlorotoluene	ND	5.9	0.8
4-Chlorotoluene	ND	5.9	0.6
tert-Butylbenzene	ND	5.9	0.6
1,2,4-Trimethylbenzene	ND	5.9	0.7
sec-Butylbenzene	ND	5.9	0.5
para-Isopropyl Toluene	ND	5.9	0.6
1,3-Dichlorobenzene	ND	5.9	0.8
1,4-Dichlorobenzene	ND	5.9	0.6
n-Butylbenzene	ND	5.9	0.7
1,2-Dichlorobenzene	ND	5.9	0.4
1,2-Dibromo-3-Chloropropane	ND	5.9	1.2
1,2,4-Trichlorobenzene	ND	5.9	0.5
Hexachlorobutadiene	ND	5.9	0.6
Naphthalene	ND	5.9	1.2
1,2,3-Trichlorobenzene	ND	5.9	0.6

Surrogate	%REC	Limits
Dibromofluoromethane	114	76-132
1,2-Dichloroethane-d4	114	74-149
Toluene-d8	98	80-120
Bromofluorobenzene	112	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB10-16	Diln Fac: 0.9488
Lab ID: 293182-015	Batch#: 252373
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Moisture: 17%

Analyte	Result	RL	MDL
Freon 12	ND	11	0.9
Chloromethane	ND	11	0.9
Vinyl Chloride	ND	11	0.8
Bromomethane	ND	11	1.5
Chloroethane	ND	11	0.3
Trichlorofluoromethane	ND	5.7	0.7
Acetone	ND	23	3.3
Freon 113	ND	5.7	0.8
1,1-Dichloroethene	ND	5.7	0.7
Methylene Chloride	ND	23	1.3
Carbon Disulfide	ND	5.7	1.1
MTBE	ND	5.7	0.4
trans-1,2-Dichloroethene	ND	5.7	0.7
Vinyl Acetate	ND	57	0.6
1,1-Dichloroethane	ND	5.7	0.3
2-Butanone	ND	11	1.5
cis-1,2-Dichloroethene	ND	5.7	0.3
2,2-Dichloropropane	ND	5.7	0.8
Chloroform	ND	5.7	0.3
Bromochloromethane	ND	5.7	0.3
1,1,1-Trichloroethane	ND	5.7	0.7
1,1-Dichloropropene	ND	5.7	0.7
Carbon Tetrachloride	ND	5.7	0.8
1,2-Dichloroethane	ND	5.7	0.3
Benzene	ND	5.7	0.6
Trichloroethene	ND	5.7	0.7
1,2-Dichloropropane	ND	5.7	0.3
Bromodichloromethane	ND	5.7	0.3
Dibromomethane	ND	5.7	0.4
4-Methyl-2-Pentanone	ND	11	0.8
cis-1,3-Dichloropropene	ND	5.7	0.3
Toluene	ND	5.7	0.6
trans-1,3-Dichloropropene	ND	5.7	0.3
1,1,2-Trichloroethane	ND	5.7	0.4
2-Hexanone	ND	11	1.2
1,3-Dichloropropane	ND	5.7	0.2
Tetrachloroethene	ND	5.7	0.7
Dibromochloromethane	ND	5.7	0.3
1,2-Dibromoethane	ND	5.7	0.3
Chlorobenzene	ND	5.7	0.4
1,1,1,2-Tetrachloroethane	ND	5.7	0.6
Ethylbenzene	ND	5.7	0.6
m,p-Xylenes	ND	5.7	0.8
o-Xylene	ND	5.7	0.6
Styrene	ND	5.7	0.3
Bromoform	ND	5.7	0.3
Isopropylbenzene	ND	5.7	0.5
1,1,2,2-Tetrachloroethane	ND	5.7	0.3
1,2,3-Trichloropropane	ND	5.7	0.6
Propylbenzene	ND	5.7	0.6
Bromobenzene	ND	5.7	0.6

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB10-16	Diln Fac: 0.9488
Lab ID: 293182-015	Batch#: 252373
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.7	0.5
2-Chlorotoluene	ND	5.7	0.8
4-Chlorotoluene	ND	5.7	0.6
tert-Butylbenzene	ND	5.7	0.6
1,2,4-Trimethylbenzene	ND	5.7	0.7
sec-Butylbenzene	ND	5.7	0.5
para-Isopropyl Toluene	ND	5.7	0.5
1,3-Dichlorobenzene	ND	5.7	0.8
1,4-Dichlorobenzene	ND	5.7	0.6
n-Butylbenzene	ND	5.7	0.7
1,2-Dichlorobenzene	ND	5.7	0.4
1,2-Dibromo-3-Chloropropane	ND	5.7	1.1
1,2,4-Trichlorobenzene	ND	5.7	0.5
Hexachlorobutadiene	ND	5.7	0.6
Naphthalene	ND	5.7	1.1
1,2,3-Trichlorobenzene	ND	5.7	0.6

Surrogate	%REC	Limits
Dibromofluoromethane	113	76-132
1,2-Dichloroethane-d4	115	74-149
Toluene-d8	99	80-120
Bromofluorobenzene	110	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB11-7.5	Diln Fac: 0.9042
Lab ID: 293182-017	Batch#: 252373
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Moisture: 12%

Analyte	Result	RL	MDL
Freon 12	ND	10	0.8
Chloromethane	ND	10	0.8
Vinyl Chloride	ND	10	0.7
Bromomethane	ND	10	1.3
Chloroethane	ND	10	0.3
Trichlorofluoromethane	ND	5.1	0.7
Acetone	ND	21	3.0
Freon 113	ND	5.1	0.7
1,1-Dichloroethene	ND	5.1	0.6
Methylene Chloride	ND	21	1.2
Carbon Disulfide	ND	5.1	1.0
MTBE	ND	5.1	0.3
trans-1,2-Dichloroethene	ND	5.1	0.6
Vinyl Acetate	ND	51	0.5
1,1-Dichloroethane	ND	5.1	0.3
2-Butanone	ND	10	1.4
cis-1,2-Dichloroethene	ND	5.1	0.3
2,2-Dichloropropane	ND	5.1	0.7
Chloroform	ND	5.1	0.3
Bromochloromethane	ND	5.1	0.3
1,1,1-Trichloroethane	ND	5.1	0.6
1,1-Dichloropropene	ND	5.1	0.6
Carbon Tetrachloride	ND	5.1	0.7
1,2-Dichloroethane	ND	5.1	0.3
Benzene	ND	5.1	0.5
Trichloroethene	ND	5.1	0.6
1,2-Dichloropropane	ND	5.1	0.2
Bromodichloromethane	ND	5.1	0.3
Dibromomethane	ND	5.1	0.4
4-Methyl-2-Pentanone	ND	10	0.7
cis-1,3-Dichloropropene	ND	5.1	0.3
Toluene	ND	5.1	0.6
trans-1,3-Dichloropropene	ND	5.1	0.3
1,1,2-Trichloroethane	ND	5.1	0.4
2-Hexanone	ND	10	1.1
1,3-Dichloropropane	ND	5.1	0.2
Tetrachloroethene	ND	5.1	0.6
Dibromochloromethane	ND	5.1	0.3
1,2-Dibromoethane	ND	5.1	0.3
Chlorobenzene	ND	5.1	0.4
1,1,1,2-Tetrachloroethane	ND	5.1	0.5
Ethylbenzene	ND	5.1	0.5
m,p-Xylenes	ND	5.1	0.7
o-Xylene	ND	5.1	0.6
Styrene	ND	5.1	0.2
Bromoform	ND	5.1	0.3
Isopropylbenzene	ND	5.1	0.5
1,1,2,2-Tetrachloroethane	ND	5.1	0.2
1,2,3-Trichloropropane	ND	5.1	0.5
Propylbenzene	ND	5.1	0.5
Bromobenzene	ND	5.1	0.5

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8260B
Field ID:	SB11-7.5	Diln Fac:	0.9042
Lab ID:	293182-017	Batch#:	252373
Matrix:	Soil	Sampled:	10/04/17
Units:	ug/Kg	Received:	10/04/17
Basis:	dry	Analyzed:	10/05/17

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.1	0.5
2-Chlorotoluene	ND	5.1	0.7
4-Chlorotoluene	ND	5.1	0.5
tert-Butylbenzene	ND	5.1	0.5
1,2,4-Trimethylbenzene	ND	5.1	0.6
sec-Butylbenzene	ND	5.1	0.5
para-Isopropyl Toluene	ND	5.1	0.5
1,3-Dichlorobenzene	ND	5.1	0.7
1,4-Dichlorobenzene	ND	5.1	0.6
n-Butylbenzene	ND	5.1	0.6
1,2-Dichlorobenzene	ND	5.1	0.4
1,2-Dibromo-3-Chloropropane	ND	5.1	1.0
1,2,4-Trichlorobenzene	ND	5.1	0.5
Hexachlorobutadiene	ND	5.1	0.6
Naphthalene	ND	5.1	1.0
1,2,3-Trichlorobenzene	ND	5.1	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	116	76-132
1,2-Dichloroethane-d4	114	74-149
Toluene-d8	98	80-120
Bromofluorobenzene	109	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB11-9	Diln Fac: 0.9398
Lab ID: 293182-018	Batch#: 252373
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Moisture: 18%

Analyte	Result	RL	MDL
Freon 12	ND	11	0.9
Chloromethane	ND	11	0.9
Vinyl Chloride	ND	11	0.8
Bromomethane	ND	11	1.5
Chloroethane	ND	11	0.3
Trichlorofluoromethane	ND	5.7	0.7
Acetone	ND	23	3.3
Freon 113	ND	5.7	0.8
1,1-Dichloroethene	ND	5.7	0.7
Methylene Chloride	ND	23	1.3
Carbon Disulfide	ND	5.7	1.1
MTBE	ND	5.7	0.4
trans-1,2-Dichloroethene	ND	5.7	0.7
Vinyl Acetate	ND	57	0.6
1,1-Dichloroethane	ND	5.7	0.3
2-Butanone	ND	11	1.5
cis-1,2-Dichloroethene	ND	5.7	0.3
2,2-Dichloropropane	ND	5.7	0.8
Chloroform	ND	5.7	0.3
Bromochloromethane	ND	5.7	0.3
1,1,1-Trichloroethane	ND	5.7	0.7
1,1-Dichloropropene	ND	5.7	0.7
Carbon Tetrachloride	ND	5.7	0.8
1,2-Dichloroethane	ND	5.7	0.3
Benzene	ND	5.7	0.6
Trichloroethene	ND	5.7	0.7
1,2-Dichloropropane	ND	5.7	0.3
Bromodichloromethane	ND	5.7	0.3
Dibromomethane	ND	5.7	0.4
4-Methyl-2-Pentanone	ND	11	0.8
cis-1,3-Dichloropropene	ND	5.7	0.3
Toluene	ND	5.7	0.6
trans-1,3-Dichloropropene	ND	5.7	0.3
1,1,2-Trichloroethane	ND	5.7	0.4
2-Hexanone	ND	11	1.3
1,3-Dichloropropane	ND	5.7	0.2
Tetrachloroethene	ND	5.7	0.7
Dibromochloromethane	ND	5.7	0.3
1,2-Dibromoethane	ND	5.7	0.3
Chlorobenzene	ND	5.7	0.4
1,1,1,2-Tetrachloroethane	ND	5.7	0.6
Ethylbenzene	ND	5.7	0.6
m,p-Xylenes	ND	5.7	0.8
o-Xylene	ND	5.7	0.6
Styrene	ND	5.7	0.3
Bromoform	ND	5.7	0.3
Isopropylbenzene	ND	5.7	0.5
1,1,2,2-Tetrachloroethane	ND	5.7	0.3
1,2,3-Trichloropropane	ND	5.7	0.6
Propylbenzene	ND	5.7	0.6
Bromobenzene	ND	5.7	0.6

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB11-9	Diln Fac: 0.9398
Lab ID: 293182-018	Batch#: 252373
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.7	0.5
2-Chlorotoluene	ND	5.7	0.8
4-Chlorotoluene	ND	5.7	0.6
tert-Butylbenzene	ND	5.7	0.6
1,2,4-Trimethylbenzene	ND	5.7	0.7
sec-Butylbenzene	ND	5.7	0.5
para-Isopropyl Toluene	ND	5.7	0.5
1,3-Dichlorobenzene	ND	5.7	0.8
1,4-Dichlorobenzene	ND	5.7	0.6
n-Butylbenzene	ND	5.7	0.7
1,2-Dichlorobenzene	ND	5.7	0.4
1,2-Dibromo-3-Chloropropane	ND	5.7	1.1
1,2,4-Trichlorobenzene	ND	5.7	0.5
Hexachlorobutadiene	ND	5.7	0.6
Naphthalene	ND	5.7	1.1
1,2,3-Trichlorobenzene	ND	5.7	0.6

Surrogate	%REC	Limits
Dibromofluoromethane	116	76-132
1,2-Dichloroethane-d4	118	74-149
Toluene-d8	100	80-120
Bromofluorobenzene	108	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB11-12	Diln Fac: 0.9766
Lab ID: 293182-019	Batch#: 252373
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Moisture: 19%

Analyte	Result	RL	MDL
Freon 12	ND	12	0.9
Chloromethane	ND	12	0.9
Vinyl Chloride	ND	12	0.8
Bromomethane	ND	12	1.5
Chloroethane	ND	12	0.3
Trichlorofluoromethane	ND	6.0	0.8
Acetone	ND	24	3.5
Freon 113	ND	6.0	0.8
1,1-Dichloroethene	ND	6.0	0.7
Methylene Chloride	ND	24	1.4
Carbon Disulfide	ND	6.0	1.2
MTBE	ND	6.0	0.4
trans-1,2-Dichloroethene	ND	6.0	0.7
Vinyl Acetate	ND	60	0.6
1,1-Dichloroethane	ND	6.0	0.3
2-Butanone	ND	12	1.6
cis-1,2-Dichloroethene	ND	6.0	0.4
2,2-Dichloropropane	ND	6.0	0.8
Chloroform	ND	6.0	0.3
Bromochloromethane	ND	6.0	0.3
1,1,1-Trichloroethane	ND	6.0	0.7
1,1-Dichloropropene	ND	6.0	0.7
Carbon Tetrachloride	ND	6.0	0.9
1,2-Dichloroethane	ND	6.0	0.3
Benzene	ND	6.0	0.6
Trichloroethene	ND	6.0	0.8
1,2-Dichloropropane	ND	6.0	0.3
Bromodichloromethane	ND	6.0	0.3
Dibromomethane	ND	6.0	0.4
4-Methyl-2-Pentanone	ND	12	0.9
cis-1,3-Dichloropropene	ND	6.0	0.3
Toluene	ND	6.0	0.7
trans-1,3-Dichloropropene	ND	6.0	0.3
1,1,2-Trichloroethane	ND	6.0	0.4
2-Hexanone	ND	12	1.3
1,3-Dichloropropane	ND	6.0	0.3
Tetrachloroethene	ND	6.0	0.8
Dibromochloromethane	ND	6.0	0.4
1,2-Dibromoethane	ND	6.0	0.3
Chlorobenzene	ND	6.0	0.4
1,1,1,2-Tetrachloroethane	ND	6.0	0.6
Ethylbenzene	ND	6.0	0.6
m,p-Xylenes	ND	6.0	0.8
o-Xylene	ND	6.0	0.7
Styrene	ND	6.0	0.3
Bromoform	ND	6.0	0.3
Isopropylbenzene	ND	6.0	0.5
1,1,2,2-Tetrachloroethane	ND	6.0	0.3
1,2,3-Trichloropropane	ND	6.0	0.6
Propylbenzene	ND	6.0	0.6
Bromobenzene	ND	6.0	0.6

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB11-12	Diln Fac: 0.9766
Lab ID: 293182-019	Batch#: 252373
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	6.0	0.6
2-Chlorotoluene	ND	6.0	0.9
4-Chlorotoluene	ND	6.0	0.6
tert-Butylbenzene	ND	6.0	0.6
1,2,4-Trimethylbenzene	ND	6.0	0.7
sec-Butylbenzene	ND	6.0	0.5
para-Isopropyl Toluene	ND	6.0	0.6
1,3-Dichlorobenzene	ND	6.0	0.8
1,4-Dichlorobenzene	ND	6.0	0.7
n-Butylbenzene	ND	6.0	0.7
1,2-Dichlorobenzene	ND	6.0	0.5
1,2-Dibromo-3-Chloropropane	ND	6.0	1.2
1,2,4-Trichlorobenzene	ND	6.0	0.6
Hexachlorobutadiene	ND	6.0	0.7
Naphthalene	ND	6.0	1.2
1,2,3-Trichlorobenzene	ND	6.0	0.6

Surrogate	%REC	Limits
Dibromofluoromethane	117	76-132
1,2-Dichloroethane-d4	119	74-149
Toluene-d8	99	80-120
Bromofluorobenzene	109	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB11-16	Diln Fac: 0.9158
Lab ID: 293182-020	Batch#: 252373
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Moisture: 18%

Analyte	Result	RL	MDL
Freon 12	ND	11	0.8
Chloromethane	ND	11	0.8
Vinyl Chloride	ND	11	0.8
Bromomethane	ND	11	1.4
Chloroethane	ND	11	0.3
Trichlorofluoromethane	ND	5.6	0.7
Acetone	ND	22	3.3
Freon 113	ND	5.6	0.7
1,1-Dichloroethene	ND	5.6	0.7
Methylene Chloride	ND	22	1.3
Carbon Disulfide	ND	5.6	1.1
MTBE	ND	5.6	0.4
trans-1,2-Dichloroethene	ND	5.6	0.7
Vinyl Acetate	ND	56	0.6
1,1-Dichloroethane	ND	5.6	0.3
2-Butanone	ND	11	1.5
cis-1,2-Dichloroethene	ND	5.6	0.3
2,2-Dichloropropane	ND	5.6	0.8
Chloroform	ND	5.6	0.3
Bromochloromethane	ND	5.6	0.3
1,1,1-Trichloroethane	ND	5.6	0.7
1,1-Dichloropropene	ND	5.6	0.7
Carbon Tetrachloride	ND	5.6	0.8
1,2-Dichloroethane	ND	5.6	0.3
Benzene	ND	5.6	0.6
Trichloroethene	ND	5.6	0.7
1,2-Dichloropropane	ND	5.6	0.3
Bromodichloromethane	ND	5.6	0.3
Dibromomethane	ND	5.6	0.4
4-Methyl-2-Pentanone	ND	11	0.8
cis-1,3-Dichloropropene	ND	5.6	0.3
Toluene	ND	5.6	0.6
trans-1,3-Dichloropropene	ND	5.6	0.3
1,1,2-Trichloroethane	ND	5.6	0.4
2-Hexanone	ND	11	1.2
1,3-Dichloropropane	ND	5.6	0.2
Tetrachloroethene	ND	5.6	0.7
Dibromochloromethane	ND	5.6	0.3
1,2-Dibromoethane	ND	5.6	0.3
Chlorobenzene	ND	5.6	0.4
1,1,1,2-Tetrachloroethane	ND	5.6	0.6
Ethylbenzene	ND	5.6	0.6
m,p-Xylenes	ND	5.6	0.8
o-Xylene	ND	5.6	0.6
Styrene	ND	5.6	0.3
Bromoform	ND	5.6	0.3
Isopropylbenzene	ND	5.6	0.5
1,1,2,2-Tetrachloroethane	ND	5.6	0.3
1,2,3-Trichloropropane	ND	5.6	0.6
Propylbenzene	ND	5.6	0.6
Bromobenzene	ND	5.6	0.6

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: SB11-16	Diln Fac: 0.9158
Lab ID: 293182-020	Batch#: 252373
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: dry	Analyzed: 10/05/17

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.6	0.5
2-Chlorotoluene	ND	5.6	0.8
4-Chlorotoluene	ND	5.6	0.6
tert-Butylbenzene	ND	5.6	0.5
1,2,4-Trimethylbenzene	ND	5.6	0.7
sec-Butylbenzene	ND	5.6	0.5
para-Isopropyl Toluene	ND	5.6	0.5
1,3-Dichlorobenzene	ND	5.6	0.7
1,4-Dichlorobenzene	ND	5.6	0.6
n-Butylbenzene	ND	5.6	0.7
1,2-Dichlorobenzene	ND	5.6	0.4
1,2-Dibromo-3-Chloropropane	ND	5.6	1.1
1,2,4-Trichlorobenzene	ND	5.6	0.5
Hexachlorobutadiene	ND	5.6	0.6
Naphthalene	ND	5.6	1.1
1,2,3-Trichlorobenzene	ND	5.6	0.6

Surrogate	%REC	Limits
Dibromofluoromethane	119	76-132
1,2-Dichloroethane-d4	120	74-149
Toluene-d8	99	80-120
Bromofluorobenzene	109	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: DRUM COMP	Diln Fac: 0.9294
Lab ID: 293182-022	Batch#: 252373
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: as received	Analyzed: 10/05/17

Analyte	Result	RL	MDL
Freon 12	ND	9.3	0.7
Chloromethane	ND	9.3	0.7
Vinyl Chloride	ND	9.3	0.7
Bromomethane	ND	9.3	1.2
Chloroethane	ND	9.3	0.3
Trichlorofluoromethane	ND	4.6	0.6
Acetone	ND	19	2.7
Freon 113	ND	4.6	0.6
1,1-Dichloroethene	ND	4.6	0.5
Methylene Chloride	ND	19	1.1
Carbon Disulfide	ND	4.6	0.9
MTBE	ND	4.6	0.3
trans-1,2-Dichloroethene	ND	4.6	0.6
Vinyl Acetate	ND	46	0.5
1,1-Dichloroethane	ND	4.6	0.2
2-Butanone	ND	9.3	1.2
cis-1,2-Dichloroethene	ND	4.6	0.3
2,2-Dichloropropane	ND	4.6	0.6
Chloroform	ND	4.6	0.2
Bromochloromethane	ND	4.6	0.2
1,1,1-Trichloroethane	ND	4.6	0.6
1,1-Dichloropropene	ND	4.6	0.6
Carbon Tetrachloride	ND	4.6	0.7
1,2-Dichloroethane	ND	4.6	0.2
Benzene	ND	4.6	0.5
Trichloroethene	ND	4.6	0.6
1,2-Dichloropropane	ND	4.6	0.2
Bromodichloromethane	ND	4.6	0.3
Dibromomethane	ND	4.6	0.3
4-Methyl-2-Pentanone	ND	9.3	0.7
cis-1,3-Dichloropropene	ND	4.6	0.2
Toluene	ND	4.6	0.5
trans-1,3-Dichloropropene	ND	4.6	0.2
1,1,2-Trichloroethane	ND	4.6	0.3
2-Hexanone	ND	9.3	1.0
1,3-Dichloropropane	ND	4.6	0.2
Tetrachloroethene	ND	4.6	0.6
Dibromochloromethane	ND	4.6	0.3
1,2-Dibromoethane	ND	4.6	0.2
Chlorobenzene	ND	4.6	0.3
1,1,1,2-Tetrachloroethane	ND	4.6	0.5
Ethylbenzene	ND	4.6	0.5
m,p-Xylenes	ND	4.6	0.6
o-Xylene	ND	4.6	0.5
Styrene	ND	4.6	0.2
Bromoform	ND	4.6	0.3
Isopropylbenzene	ND	4.6	0.4
1,1,2,2-Tetrachloroethane	ND	4.6	0.2
1,2,3-Trichloropropane	ND	4.6	0.5
Propylbenzene	ND	4.6	0.5
Bromobenzene	ND	4.6	0.5
1,3,5-Trimethylbenzene	ND	4.6	0.4
2-Chlorotoluene	ND	4.6	0.7

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Purgeable Organics by GC/MS

Lab #: 293182	Location: Residential Heating UST Investigation
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2015-16	Analysis: EPA 8260B
Field ID: DRUM COMP	Diln Fac: 0.9294
Lab ID: 293182-022	Batch#: 252373
Matrix: Soil	Sampled: 10/04/17
Units: ug/Kg	Received: 10/04/17
Basis: as received	Analyzed: 10/05/17

Analyte	Result	RL	MDL
4-Chlorotoluene	ND	4.6	0.5
tert-Butylbenzene	ND	4.6	0.5
1,2,4-Trimethylbenzene	ND	4.6	0.5
sec-Butylbenzene	ND	4.6	0.4
para-Isopropyl Toluene	ND	4.6	0.4
1,3-Dichlorobenzene	ND	4.6	0.6
1,4-Dichlorobenzene	ND	4.6	0.5
n-Butylbenzene	ND	4.6	0.6
1,2-Dichlorobenzene	ND	4.6	0.4
1,2-Dibromo-3-Chloropropane	ND	4.6	0.9
1,2,4-Trichlorobenzene	ND	4.6	0.4
Hexachlorobutadiene	ND	4.6	0.5
Naphthalene	ND	4.6	0.9
1,2,3-Trichlorobenzene	ND	4.6	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	119	76-132
1,2-Dichloroethane-d4	121	74-149
Toluene-d8	101	80-120
Bromofluorobenzene	109	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8260B
Matrix:	Soil	Batch#:	252305
Units:	ug/Kg	Analyzed:	10/04/17
Diln Fac:	1.000		

Type: BS Lab ID: QC903443

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	23.72	95	68-132
Benzene	25.00	24.22	97	75-123
Trichloroethene	25.00	23.19	93	75-120
Toluene	25.00	22.96	92	76-120
Chlorobenzene	25.00	23.50	94	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	106	76-132
1,2-Dichloroethane-d4	104	74-149
Toluene-d8	99	80-120
Bromofluorobenzene	101	78-134

Type: BSD Lab ID: QC903444

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	22.36	89	68-132	6	28
Benzene	25.00	22.72	91	75-123	6	25
Trichloroethene	25.00	21.68	87	75-120	7	23
Toluene	25.00	21.60	86	76-120	6	24
Chlorobenzene	25.00	22.27	89	80-120	5	21

Surrogate	%REC	Limits
Dibromofluoromethane	106	76-132
1,2-Dichloroethane-d4	104	74-149
Toluene-d8	100	80-120
Bromofluorobenzene	102	78-134

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC903445	Batch#:	252305
Matrix:	Soil	Analyzed:	10/04/17
Units:	ug/Kg		

Analyte	Result	RL	MDL
Freon 12	ND	10	0.7
Chloromethane	ND	10	0.8
Vinyl Chloride	ND	10	0.7
Bromomethane	ND	10	1.3
Chloroethane	ND	10	0.3
Trichlorofluoromethane	ND	5.0	0.7
Acetone	ND	20	2.9
Freon 113	ND	5.0	0.7
1,1-Dichloroethene	ND	5.0	0.6
Methylene Chloride	ND	20	1.2
Carbon Disulfide	ND	5.0	1.0
MTBE	ND	5.0	0.3
trans-1,2-Dichloroethene	ND	5.0	0.6
Vinyl Acetate	ND	50	0.5
1,1-Dichloroethane	ND	5.0	0.2
2-Butanone	ND	10	1.3
cis-1,2-Dichloroethene	ND	5.0	0.3
2,2-Dichloropropane	ND	5.0	0.7
Chloroform	ND	5.0	0.2
Bromochloromethane	ND	5.0	0.3
1,1,1-Trichloroethane	ND	5.0	0.6
1,1-Dichloropropene	ND	5.0	0.6
Carbon Tetrachloride	ND	5.0	0.7
1,2-Dichloroethane	ND	5.0	0.2
Benzene	ND	5.0	0.5
Trichloroethene	ND	5.0	0.6
1,2-Dichloropropane	ND	5.0	0.2
Bromodichloromethane	ND	5.0	0.3
Dibromomethane	ND	5.0	0.4
4-Methyl-2-Pentanone	ND	10	0.7
cis-1,3-Dichloropropene	ND	5.0	0.3
Toluene	ND	5.0	0.6
trans-1,3-Dichloropropene	ND	5.0	0.3
1,1,2-Trichloroethane	ND	5.0	0.4
2-Hexanone	ND	10	1.1
1,3-Dichloropropane	ND	5.0	0.2
Tetrachloroethene	ND	5.0	0.6
Dibromochloromethane	ND	5.0	0.3
1,2-Dibromoethane	ND	5.0	0.3
Chlorobenzene	ND	5.0	0.4
1,1,1,2-Tetrachloroethane	ND	5.0	0.5
Ethylbenzene	ND	5.0	0.5
m,p-Xylenes	ND	5.0	0.7
o-Xylene	ND	5.0	0.5
Styrene	ND	5.0	0.2
Bromoform	ND	5.0	0.3
Isopropylbenzene	ND	5.0	0.5
1,1,2,2-Tetrachloroethane	ND	5.0	0.2
1,2,3-Trichloropropane	ND	5.0	0.5
Propylbenzene	ND	5.0	0.5
Bromobenzene	ND	5.0	0.5
1,3,5-Trimethylbenzene	ND	5.0	0.5
2-Chlorotoluene	ND	5.0	0.7

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC903445	Batch#:	252305
Matrix:	Soil	Analyzed:	10/04/17
Units:	ug/Kg		

Analyte	Result	RL	MDL
4-Chlorotoluene	ND	5.0	0.5
tert-Butylbenzene	ND	5.0	0.5
1,2,4-Trimethylbenzene	ND	5.0	0.6
sec-Butylbenzene	ND	5.0	0.4
para-Isopropyl Toluene	ND	5.0	0.5
1,3-Dichlorobenzene	ND	5.0	0.7
1,4-Dichlorobenzene	ND	5.0	0.5
n-Butylbenzene	ND	5.0	0.6
1,2-Dichlorobenzene	ND	5.0	0.4
1,2-Dibromo-3-Chloropropane	ND	5.0	1.0
1,2,4-Trichlorobenzene	ND	5.0	0.5
Hexachlorobutadiene	ND	5.0	0.5
Naphthalene	ND	5.0	1.0
1,2,3-Trichlorobenzene	ND	5.0	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	107	76-132
1,2-Dichloroethane-d4	108	74-149
Toluene-d8	102	80-120
Bromofluorobenzene	114	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Batch QC Report

Purgeable Organics by GC/MS					
Lab #:	293182	Location:	Residential Heating UST Investigation		
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B		
Project#:	2015-16	Analysis:	EPA 8260B		
Field ID:	ZZZZZZZZZZ	Batch#:	252305		
MSS Lab ID:	293162-001	Sampled:	10/04/17		
Matrix:	Soil	Received:	10/04/17		
Units:	ug/Kg	Analyzed:	10/05/17		
Basis:	as received				

Type: MS Diln Fac: 0.9276
 Lab ID: QC903659

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.5787	46.38	47.34	102	64-131
Benzene	<0.5164	46.38	42.03	91	66-122
Trichloroethene	<0.6240	46.38	41.58	90	57-133
Toluene	<0.5550	46.38	36.95	80	61-120
Chlorobenzene	<0.3482	46.38	35.86	77	56-120

Surrogate	%REC	Limits
Dibromofluoromethane	118	76-132
1,2-Dichloroethane-d4	121	74-149
Toluene-d8	97	80-120
Bromofluorobenzene	100	78-134

Type: MSD Diln Fac: 0.9823
 Lab ID: QC903660

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	49.12	47.41	97	64-131	6	32
Benzene	49.12	43.10	88	66-122	3	32
Trichloroethene	49.12	43.69	89	57-133	1	34
Toluene	49.12	39.98	81	61-120	2	32
Chlorobenzene	49.12	39.84	81	56-120	5	33

Surrogate	%REC	Limits
Dibromofluoromethane	108	76-132
1,2-Dichloroethane-d4	107	74-149
Toluene-d8	97	80-120
Bromofluorobenzene	100	78-134

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS					
Lab #:	293182	Location:	Residential Heating UST Investigation		
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B		
Project#:	2015-16	Analysis:	EPA 8260B		
Matrix:	Soil	Batch#:	252373		
Units:	ug/Kg	Analyzed:	10/05/17		
Diln Fac:	1.000				

Type: BS Lab ID: QC903734

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	24.50	98	68-132
Benzene	25.00	24.64	99	75-123
Trichloroethene	25.00	23.69	95	75-120
Toluene	25.00	23.41	94	76-120
Chlorobenzene	25.00	24.41	98	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	108	76-132
1,2-Dichloroethane-d4	105	74-149
Toluene-d8	98	80-120
Bromofluorobenzene	100	78-134

Type: BSD Lab ID: QC903735

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	21.89	88	68-132	11	28
Benzene	25.00	22.28	89	75-123	10	25
Trichloroethene	25.00	21.38	86	75-120	10	23
Toluene	25.00	21.09	84	76-120	10	24
Chlorobenzene	25.00	22.07	88	80-120	10	21

Surrogate	%REC	Limits
Dibromofluoromethane	106	76-132
1,2-Dichloroethane-d4	106	74-149
Toluene-d8	98	80-120
Bromofluorobenzene	100	78-134

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC903736	Batch#:	252373
Matrix:	Soil	Analyzed:	10/05/17
Units:	ug/Kg		

Analyte	Result	RL	MDL
Freon 12	ND	10	0.7
Chloromethane	ND	10	0.8
Vinyl Chloride	ND	10	0.7
Bromomethane	ND	10	1.3
Chloroethane	ND	10	0.3
Trichlorofluoromethane	ND	5.0	0.7
Acetone	ND	20	2.9
Freon 113	ND	5.0	0.7
1,1-Dichloroethene	ND	5.0	0.6
Methylene Chloride	ND	20	1.2
Carbon Disulfide	ND	5.0	1.0
MTBE	ND	5.0	0.3
trans-1,2-Dichloroethene	ND	5.0	0.6
Vinyl Acetate	ND	50	0.5
1,1-Dichloroethane	ND	5.0	0.2
2-Butanone	ND	10	1.3
cis-1,2-Dichloroethene	ND	5.0	0.3
2,2-Dichloropropane	ND	5.0	0.7
Chloroform	ND	5.0	0.2
Bromochloromethane	ND	5.0	0.3
1,1,1-Trichloroethane	ND	5.0	0.6
1,1-Dichloropropene	ND	5.0	0.6
Carbon Tetrachloride	ND	5.0	0.7
1,2-Dichloroethane	ND	5.0	0.2
Benzene	ND	5.0	0.5
Trichloroethene	ND	5.0	0.6
1,2-Dichloropropane	ND	5.0	0.2
Bromodichloromethane	ND	5.0	0.3
Dibromomethane	ND	5.0	0.4
4-Methyl-2-Pentanone	ND	10	0.7
cis-1,3-Dichloropropene	ND	5.0	0.3
Toluene	ND	5.0	0.6
trans-1,3-Dichloropropene	ND	5.0	0.3
1,1,2-Trichloroethane	ND	5.0	0.4
2-Hexanone	ND	10	1.1
1,3-Dichloropropane	ND	5.0	0.2
Tetrachloroethene	ND	5.0	0.6
Dibromochloromethane	ND	5.0	0.3
1,2-Dibromoethane	ND	5.0	0.3
Chlorobenzene	ND	5.0	0.4
1,1,1,2-Tetrachloroethane	ND	5.0	0.5
Ethylbenzene	ND	5.0	0.5
m,p-Xylenes	ND	5.0	0.7
o-Xylene	ND	5.0	0.5
Styrene	ND	5.0	0.2
Bromoform	ND	5.0	0.3
Isopropylbenzene	ND	5.0	0.5
1,1,2,2-Tetrachloroethane	ND	5.0	0.2
1,2,3-Trichloropropane	ND	5.0	0.5
Propylbenzene	ND	5.0	0.5
Bromobenzene	ND	5.0	0.5
1,3,5-Trimethylbenzene	ND	5.0	0.5
2-Chlorotoluene	ND	5.0	0.7

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2015-16	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC903736	Batch#:	252373
Matrix:	Soil	Analyzed:	10/05/17
Units:	ug/Kg		

Analyte	Result	RL	MDL
4-Chlorotoluene	ND	5.0	0.5
tert-Butylbenzene	ND	5.0	0.5
1,2,4-Trimethylbenzene	ND	5.0	0.6
sec-Butylbenzene	ND	5.0	0.4
para-Isopropyl Toluene	ND	5.0	0.5
1,3-Dichlorobenzene	ND	5.0	0.7
1,4-Dichlorobenzene	ND	5.0	0.5
n-Butylbenzene	ND	5.0	0.6
1,2-Dichlorobenzene	ND	5.0	0.4
1,2-Dibromo-3-Chloropropane	ND	5.0	1.0
1,2,4-Trichlorobenzene	ND	5.0	0.5
Hexachlorobutadiene	ND	5.0	0.5
Naphthalene	ND	5.0	1.0
1,2,3-Trichlorobenzene	ND	5.0	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	110	76-132
1,2-Dichloroethane-d4	111	74-149
Toluene-d8	100	80-120
Bromofluorobenzene	112	78-134

ND= Not Detected at or above MDL
 RL= Reporting Limit
 MDL= Method Detection Limit

Batch QC Report

Purgeable Organics by GC/MS					
Lab #:	293182	Location:	Residential Heating UST Investigation		
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B		
Project#:	2015-16	Analysis:	EPA 8260B		
Field ID:	SB11-9	Batch#:	252373		
MSS Lab ID:	293182-018	Sampled:	10/04/17		
Matrix:	Soil	Received:	10/04/17		
Units:	ug/Kg	Analyzed:	10/05/17		
Basis:	dry				

Type:	MS	Moisture:	18%
Lab ID:	QC903862	Diln Fac:	0.9862

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.6712	60.13	59.64	99	64-131
Benzene	<0.5989	60.13	54.45	91	66-122
Trichloroethene	<0.7238	60.13	54.54	91	57-133
Toluene	<0.6437	60.13	48.53	81	61-120
Chlorobenzene	<0.4039	60.13	49.36	82	56-120

Surrogate	%REC	Limits
Dibromofluoromethane	115	76-132
1,2-Dichloroethane-d4	121	74-149
Toluene-d8	96	80-120
Bromofluorobenzene	99	78-134

Type:	MSD	Moisture:	18%
Lab ID:	QC903863	Diln Fac:	0.9690

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	59.08	51.00	86	64-131	14	32
Benzene	59.08	46.46	79	66-122	14	32
Trichloroethene	59.08	46.47	79	57-133	14	34
Toluene	59.08	42.53	72	61-120	11	32
Chlorobenzene	59.08	43.58	74	56-120	11	33

Surrogate	%REC	Limits
Dibromofluoromethane	109	76-132
1,2-Dichloroethane-d4	109	74-149
Toluene-d8	96	80-120
Bromofluorobenzene	100	78-134

RPD= Relative Percent Difference

Moisture			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	METHOD
Project#:	2015-16	Analysis:	ASTM D2216-98/CLP
Analyte:	Moisture, Percent	Batch#:	252410
Matrix:	Soil	Sampled:	10/04/17
Units:	%	Received:	10/04/17
Diln Fac:	1.000	Analyzed:	10/06/17

Field ID	Lab ID	Result	RL
SB8-7.5	293182-002	17	1
SB8-9	293182-003	17	1
SB8-12	293182-004	17	1
SB8-16	293182-005	19	1
SB9-7.5	293182-007	15	1
SB9-9	293182-008	13	1
SB9-12	293182-009	17	1
SB9-16	293182-010	14	1
SB10-7.5	293182-012	15	1
SB10-9	293182-013	16	1
SB10-12	293182-014	17	1
SB10-16	293182-015	17	1
SB11-7.5	293182-017	12	1
SB11-9	293182-018	18	1
SB11-12	293182-019	19	1
SB11-16	293182-020	18	1

RL= Reporting Limit

Batch QC Report

Moisture			
Lab #:	293182	Location:	Residential Heating UST Investigation
Client:	Stellar Environmental Solutions	Prep:	METHOD
Project#:	2015-16	Analysis:	ASTM D2216-98/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	SB11-16	Diln Fac:	1.000
Type:	SDUP	Batch#:	252410
MSS Lab ID:	293182-020	Sampled:	10/04/17
Lab ID:	QC903900	Received:	10/04/17
Matrix:	Soil	Analyzed:	10/06/17

MSS Result	Result	RL	RPD	Lim
17.62	17.71	1.000	1	26

RL= Reporting Limit

RPD= Relative Percent Difference



ENTHALPY

ANALYTICAL



Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 293329
ANALYTICAL REPORT

Stellar Environmental Solutions
2198 6th Street
Berkeley, CA 94710

Project : 2015-16
Location : Paramount
Level : II

Sample ID
SG5.5

Lab ID
293329-001

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 NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____

Patrick McCarthy
Project Manager
patrick.mccarthy@enthalpy.com
(510) 204-2236

Date: 10/17/2017

CA ELAP# 2896, NELAP# 4044-001

CASE NARRATIVE

Laboratory number: 293329
Client: Stellar Environmental Solutions
Project: 2015-16
Location: Paramount
Request Date: 10/10/17
Samples Received: 10/10/17

This data package contains sample and QC results for one air sample, requested for the above referenced project on 10/10/17. The sample was received cold and intact.

Volatile Organics in Air by MS (EPA TO-15):

No analytical problems were encountered.

Volatile Organics in Air GC (ASTM D1946-90 and EPA TO-3):

No analytical problems were encountered.

Enthalpy Analytical LLC

2323 Fifth Street
 Berkeley, CA 94710
 (510) 486-0900 Phone
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**AIR TESTING - CHAIN OF CUSTODY
 & PURCHASE ORDER**

Page 1 of 1
 Chain of Custody # : _____

Project No: 2015-16
 Project Name: PARAMOUNT
 EDD Format: _____ Rpt Level: II III IV
 Turnaround Time: RUSH Standard

C&T LOGIN # 293329
 Sampler: H. Pichayak
 Report To: Pietroplasi
 Company: Stellar Environmental
 Telephone: 510 644 3123
 Email: m file

TESTING REQUESTED			
T015 / 620 X	X He leak check		

Lab No.	Sample ID.	Sampling Information				
		Date Collected	Time Collected	Canister ID (Bar Code #)	Flow Controller ID	Sample Volume (Gauge Reading)
1	SG-5.5	10/10/17	1145	341	297	287-1

Notes: RL/MOLs must meet Residential Soil gas ESLs	RELINQUISHED BY: <u>H. Pichayak</u>	RECEIVED BY: <u>[Signature]</u>
	DATE/TIME: <u>10/10/17</u>	DATE/TIME: <u>10/10/17 13:35</u>
	DATE/TIME	DATE/TIME

COOLER RECEIPT CHECKLIST



Login # 293329 Date Received 10/10/17 Number of coolers 0
 Client SES Project Paramount

Date Opened 10/10 By (print) DTW (sign) [Signature]
 Date Logged in ↓ By (print) ↓ (sign) ↓
 Date Labelled ↓ By (print) ↓ (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? (pH strip lot# _____) 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 _____

Detections Summary for 293329

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

Client : Stellar Environmental Solutions
 Project : 2015-16
 Location : Paramount

Client Sample ID : SG5.5

Laboratory Sample ID :

293329-001

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
n-Hexane	220		11	1.7	ppbv	As Recd	21.12	EPA TO-15	METHOD
cis-1,2-Dichloroethene	0.38	J	11	0.32	ppbv	As Recd	21.12	EPA TO-15	METHOD
Cyclohexane	790		11	1.7	ppbv	As Recd	21.12	EPA TO-15	METHOD
Benzene	15		11	0.46	ppbv	As Recd	21.12	EPA TO-15	METHOD
n-Heptane	930		11	1.7	ppbv	As Recd	21.12	EPA TO-15	METHOD
Trichloroethene	0.89	J	11	0.31	ppbv	As Recd	21.12	EPA TO-15	METHOD
Toluene	1.5	J	11	0.42	ppbv	As Recd	21.12	EPA TO-15	METHOD
Ethylbenzene	20		11	0.30	ppbv	As Recd	21.12	EPA TO-15	METHOD
m,p-Xylenes	13		11	0.42	ppbv	As Recd	21.12	EPA TO-15	METHOD
o-Xylene	5.7	J	11	0.26	ppbv	As Recd	21.12	EPA TO-15	METHOD
4-Ethyltoluene	2.9	J	11	1.7	ppbv	As Recd	21.12	EPA TO-15	METHOD
1,3,5-Trimethylbenzene	4.1	J	11	1.7	ppbv	As Recd	21.12	EPA TO-15	METHOD
1,2,4-Trimethylbenzene	4.5	J	11	1.7	ppbv	As Recd	21.12	EPA TO-15	METHOD
Carbon Dioxide	120,000		1,800		ppmv	As Recd	1.760	ASTM D1946-90	METHOD
Oxygen	36,000		1,800		ppmv	As Recd	1.760	ASTM D1946-90	METHOD
Gasoline Range Organics C6-C12	20,000		88	13	ppbv	As Recd	1.760	EPA TO-3	METHOD

J = Estimated value

Volatile Organics in Air

Lab #: 293329	Location: Paramount
Client: Stellar Environmental Solutions	Prep: METHOD
Project#: 2015-16	Analysis: EPA TO-15
Field ID: SG5.5	Diln Fac: 21.12
Lab ID: 293329-001	Batch#: 252669
Matrix: Air	Sampled: 10/10/17
Units (V): ppbv	Received: 10/10/17
Units (M): ug/m3	Analyzed: 10/13/17

Analyte	Result (V)	RL	MDL	Result (M)	RL	MDL
Freon 12	ND	11	1.7	ND	52	8.4
Freon 114	ND	11	1.7	ND	74	12
Chloromethane	ND	11	3.2	ND	22	6.6
Vinyl Chloride	ND	11	0.33	ND	27	0.86
Bromomethane	ND	11	1.7	ND	41	6.6
Chloroethane	ND	11	2.1	ND	28	5.6
Trichlorofluoromethane	ND	11	1.7	ND	59	9.5
Acrolein	ND	42	4.5	ND	97	10
1,1-Dichloroethene	ND	11	0.42	ND	42	1.7
Freon 113	ND	11	1.7	ND	81	13
Acetone	ND	42	3.1	ND	100	7.4
Carbon Disulfide	ND	11	1.7	ND	33	5.3
Isopropanol	ND	42	2.1	ND	100	5.2
Methylene Chloride	ND	11	1.7	ND	37	5.9
trans-1,2-Dichloroethene	ND	11	0.61	ND	42	2.4
MTBE	ND	11	1.7	ND	38	6.1
n-Hexane	220	11	1.7	770	37	6.0
1,1-Dichloroethane	ND	11	0.42	ND	43	1.7
Vinyl Acetate	ND	11	1.7	ND	37	5.9
cis-1,2-Dichloroethene	0.38 J	11	0.32	1.5 J	42	1.3
2-Butanone	ND	11	1.7	ND	31	5.0
Ethyl Acetate	ND	11	1.7	ND	38	6.1
Tetrahydrofuran	ND	11	1.7	ND	31	5.0
Chloroform	ND	11	0.26	ND	52	1.3
1,1,1-Trichloroethane	ND	11	1.7	ND	58	9.2
Cyclohexane	790	11	1.7	2,700	36	5.8
Carbon Tetrachloride	ND	11	0.27	ND	66	1.7
Benzene	15	11	0.46	47	34	1.5
1,2-Dichloroethane	ND	11	0.35	ND	43	1.4
n-Heptane	930	11	1.7	3,800	43	6.9
Trichloroethene	0.89 J	11	0.31	4.8 J	57	1.6
1,2-Dichloropropane	ND	11	0.81	ND	49	3.7
Bromodichloromethane	ND	11	0.31	ND	71	2.1

J= Estimated value

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Result M= Result in mass units

Result V= Result in volume units

Volatile Organics in Air

Lab #: 293329	Location: Paramount
Client: Stellar Environmental Solutions	Prep: METHOD
Project#: 2015-16	Analysis: EPA TO-15
Field ID: SG5.5	Diln Fac: 21.12
Lab ID: 293329-001	Batch#: 252669
Matrix: Air	Sampled: 10/10/17
Units (V): ppbv	Received: 10/10/17
Units (M): ug/m3	Analyzed: 10/13/17

Analyte	Result (V)	RL	MDL	Result (M)	RL	MDL
cis-1,3-Dichloropropene	ND	11	0.48	ND	48	2.2
4-Methyl-2-Pentanone	ND	11	2.1	ND	43	8.7
Toluene	1.5 J	11	0.42	5.5 J	40	1.6
trans-1,3-Dichloropropene	ND	11	0.52	ND	48	2.4
1,1,2-Trichloroethane	ND	11	0.42	ND	58	2.3
Tetrachloroethene	ND	11	0.42	ND	72	2.9
2-Hexanone	ND	11	2.1	ND	43	8.7
Dibromochloromethane	ND	11	1.7	ND	90	14
1,2-Dibromoethane	ND	11	0.21	ND	81	1.6
Chlorobenzene	ND	11	1.7	ND	49	7.8
Ethylbenzene	20	11	0.30	85	46	1.3
m,p-Xylenes	13	11	0.42	58	46	1.8
o-Xylene	5.7 J	11	0.26	25 J	46	1.1
Styrene	ND	11	1.7	ND	45	7.2
Bromoform	ND	11	0.24	ND	110	2.5
1,1,2,2-Tetrachloroethane	ND	11	0.43	ND	72	2.9
4-Ethyltoluene	2.9 J	11	1.7	14 J	52	8.3
1,3,5-Trimethylbenzene	4.1 J	11	1.7	20 J	52	8.3
1,2,4-Trimethylbenzene	4.5 J	11	1.7	22 J	52	8.3
1,3-Dichlorobenzene	ND	11	0.26	ND	63	1.5
1,4-Dichlorobenzene	ND	11	0.29	ND	63	1.7
Benzyl chloride	ND	11	1.7	ND	55	8.7
1,2-Dichlorobenzene	ND	11	0.49	ND	63	2.9
1,2,4-Trichlorobenzene	ND	11	1.8	ND	78	13
Hexachlorobutadiene	ND	11	1.7	ND	110	18
Naphthalene	ND	42	0.92	ND	220	4.8

Surrogate	%REC	Limits
Bromofluorobenzene	80	70-130

J= Estimated value

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Result M= Result in mass units

Result V= Result in volume units

Batch QC Report

Volatile Organics in Air			
Lab #:	293329	Location:	Paramount
Client:	Stellar Environmental Solutions	Prep:	METHOD
Project#:	2015-16	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	252669
Units (V):	ppbv	Analyzed:	10/13/17
Diln Fac:	1.000		

Type: BS Lab ID: QC904918

Analyte	Spiked	Result (V)	%REC	Limits
Freon 12	5.000	4.256	85	70-130
Freon 114	5.000	4.485	90	70-130
Chloromethane	5.000	4.675	94	70-130
Vinyl Chloride	5.000	4.710	94	70-130
Bromomethane	5.000	4.606	92	70-130
Chloroethane	5.000	4.012	80	70-130
Trichlorofluoromethane	5.000	4.643	93	70-130
Acrolein	5.000	4.174	83	70-130
1,1-Dichloroethene	5.000	5.475	110	70-130
Freon 113	5.000	5.028	101	70-130
Acetone	5.000	4.587	92	70-130
Carbon Disulfide	5.000	5.113	102	70-130
Isopropanol	5.000	3.905	78	70-130
Methylene Chloride	5.000	5.064	101	70-130
trans-1,2-Dichloroethene	5.000	5.709	114	70-130
MTBE	5.000	4.890	98	70-130
n-Hexane	5.000	4.587	92	70-130
1,1-Dichloroethane	5.000	4.989	100	70-130
Vinyl Acetate	5.000	4.673	93	70-130
cis-1,2-Dichloroethene	5.000	5.478	110	70-130
2-Butanone	5.000	5.285	106	70-130
Ethyl Acetate	5.000	5.388	108	70-130
Tetrahydrofuran	5.000	5.068	101	70-130
Chloroform	5.000	5.192	104	70-130
1,1,1-Trichloroethane	5.000	5.332	107	70-130
Cyclohexane	5.000	5.489	110	70-130
Carbon Tetrachloride	5.000	4.899	98	70-130
Benzene	5.000	5.289	106	70-130
1,2-Dichloroethane	5.000	5.632	113	70-130
n-Heptane	5.000	5.684	114	70-130
Trichloroethene	5.000	5.518	110	70-130
1,2-Dichloropropane	5.000	5.860	117	70-130
Bromodichloromethane	5.000	5.411	108	70-130
cis-1,3-Dichloropropene	5.000	5.849	117	70-130

RPD= Relative Percent Difference

Result V= Result in volume units

Batch QC Report

Volatile Organics in Air			
Lab #:	293329	Location:	Paramount
Client:	Stellar Environmental Solutions	Prep:	METHOD
Project#:	2015-16	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	252669
Units (V):	ppbv	Analyzed:	10/13/17
Diln Fac:	1.000		

Analyte	Spiked	Result (V)	%REC	Limits
4-Methyl-2-Pentanone	5.000	5.758	115	70-130
Toluene	5.000	5.487	110	70-130
trans-1,3-Dichloropropene	5.000	5.535	111	70-130
1,1,2-Trichloroethane	5.000	5.512	110	70-130
Tetrachloroethene	5.000	5.572	111	70-130
2-Hexanone	5.000	6.110	122	70-130
Dibromochloromethane	5.000	5.213	104	70-130
1,2-Dibromoethane	5.000	5.620	112	70-130
Chlorobenzene	5.000	5.410	108	70-130
Ethylbenzene	5.000	5.439	109	70-130
m,p-Xylenes	10.00	10.33	103	70-130
o-Xylene	5.000	5.213	104	70-130
Styrene	5.000	5.592	112	70-130
Bromoform	5.000	4.591	92	70-130
1,1,2,2-Tetrachloroethane	5.000	5.154	103	70-130
4-Ethyltoluene	5.000	5.284	106	70-130
1,3,5-Trimethylbenzene	5.000	5.188	104	70-130
1,2,4-Trimethylbenzene	5.000	4.934	99	70-130
1,3-Dichlorobenzene	5.000	5.621	112	70-130
1,4-Dichlorobenzene	5.000	5.477	110	70-130
Benzyl chloride	5.000	5.455	109	70-130
1,2-Dichlorobenzene	5.000	5.501	110	70-130
1,2,4-Trichlorobenzene	5.000	5.935	119	70-130
Hexachlorobutadiene	5.000	6.201	124	70-130
Naphthalene	5.000	5.690	114	70-130

Surrogate	%REC	Limits
Bromofluorobenzene	107	70-130

RPD= Relative Percent Difference

Result V= Result in volume units

Batch QC Report

Volatile Organics in Air			
Lab #:	293329	Location:	Paramount
Client:	Stellar Environmental Solutions	Prep:	METHOD
Project#:	2015-16	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	252669
Units (V):	ppbv	Analyzed:	10/13/17
Diln Fac:	1.000		

Type: BSD Lab ID: QC904919

Analyte	Spiked	Result (V)	%REC	Limits	RPD	Lim
Freon 12	5.000	4.252	85	70-130	0	25
Freon 114	5.000	4.524	90	70-130	1	25
Chloromethane	5.000	4.519	90	70-130	3	25
Vinyl Chloride	5.000	4.780	96	70-130	1	25
Bromomethane	5.000	4.690	94	70-130	2	25
Chloroethane	5.000	3.898	78	70-130	3	25
Trichlorofluoromethane	5.000	4.622	92	70-130	0	25
Acrolein	5.000	4.458	89	70-130	7	25
1,1-Dichloroethene	5.000	5.526	111	70-130	1	25
Freon 113	5.000	4.955	99	70-130	1	25
Acetone	5.000	4.864	97	70-130	6	25
Carbon Disulfide	5.000	5.285	106	70-130	3	25
Isopropanol	5.000	4.168	83	70-130	7	25
Methylene Chloride	5.000	5.168	103	70-130	2	25
trans-1,2-Dichloroethene	5.000	5.736	115	70-130	0	25
MTBE	5.000	5.052	101	70-130	3	25
n-Hexane	5.000	4.712	94	70-130	3	25
1,1-Dichloroethane	5.000	4.991	100	70-130	0	25
Vinyl Acetate	5.000	4.919	98	70-130	5	25
cis-1,2-Dichloroethene	5.000	5.509	110	70-130	1	25
2-Butanone	5.000	5.563	111	70-130	5	25
Ethyl Acetate	5.000	5.598	112	70-130	4	25
Tetrahydrofuran	5.000	5.252	105	70-130	4	25
Chloroform	5.000	5.141	103	70-130	1	25
1,1,1-Trichloroethane	5.000	5.293	106	70-130	1	25
Cyclohexane	5.000	5.335	107	70-130	3	25
Carbon Tetrachloride	5.000	4.781	96	70-130	2	25
Benzene	5.000	5.448	109	70-130	3	25
1,2-Dichloroethane	5.000	5.612	112	70-130	0	25
n-Heptane	5.000	5.740	115	70-130	1	25
Trichloroethene	5.000	5.546	111	70-130	1	25
1,2-Dichloropropane	5.000	5.789	116	70-130	1	25
Bromodichloromethane	5.000	5.438	109	70-130	0	25
cis-1,3-Dichloropropene	5.000	5.895	118	70-130	1	25

RPD= Relative Percent Difference

Result V= Result in volume units

Batch QC Report

Volatile Organics in Air			
Lab #:	293329	Location:	Paramount
Client:	Stellar Environmental Solutions	Prep:	METHOD
Project#:	2015-16	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	252669
Units (V):	ppbv	Analyzed:	10/13/17
Diln Fac:	1.000		

Analyte	Spiked	Result (V)	%REC	Limits	RPD	Lim
4-Methyl-2-Pentanone	5.000	5.891	118	70-130	2	25
Toluene	5.000	5.619	112	70-130	2	25
trans-1,3-Dichloropropene	5.000	5.483	110	70-130	1	25
1,1,2-Trichloroethane	5.000	5.601	112	70-130	2	25
Tetrachloroethene	5.000	5.413	108	70-130	3	25
2-Hexanone	5.000	6.252	125	70-130	2	25
Dibromochloromethane	5.000	5.161	103	70-130	1	25
1,2-Dibromoethane	5.000	5.561	111	70-130	1	25
Chlorobenzene	5.000	5.420	108	70-130	0	25
Ethylbenzene	5.000	5.403	108	70-130	1	25
m,p-Xylenes	10.00	10.23	102	70-130	1	25
o-Xylene	5.000	5.136	103	70-130	1	25
Styrene	5.000	5.389	108	70-130	4	25
Bromoform	5.000	4.616	92	70-130	1	25
1,1,2,2-Tetrachloroethane	5.000	5.110	102	70-130	1	25
4-Ethyltoluene	5.000	5.132	103	70-130	3	25
1,3,5-Trimethylbenzene	5.000	5.123	102	70-130	1	25
1,2,4-Trimethylbenzene	5.000	4.992	100	70-130	1	25
1,3-Dichlorobenzene	5.000	5.601	112	70-130	0	25
1,4-Dichlorobenzene	5.000	5.476	110	70-130	0	25
Benzyl chloride	5.000	5.264	105	70-130	4	25
1,2-Dichlorobenzene	5.000	5.384	108	70-130	2	25
1,2,4-Trichlorobenzene	5.000	5.957	119	70-130	0	25
Hexachlorobutadiene	5.000	6.283	126	70-130	1	25
Naphthalene	5.000	5.740	115	70-130	1	25

Surrogate	%REC	Limits
Bromofluorobenzene	103	70-130

RPD= Relative Percent Difference
 Result V= Result in volume units

Batch QC Report

Volatile Organics in Air			
Lab #:	293329	Location:	Paramount
Client:	Stellar Environmental Solutions	Prep:	METHOD
Project#:	2015-16	Analysis:	EPA TO-15
Type:	BLANK	Units (M):	ug/m3
Lab ID:	QC904920	Diln Fac:	1.000
Matrix:	Air	Batch#:	252669
Units (V):	ppbv	Analyzed:	10/13/17

Analyte	Result (V)	RL	MDL	Result (M)	RL	MDL
Freon 12	ND	0.50	0.080	ND	2.5	0.40
Freon 114	ND	0.50	0.080	ND	3.5	0.56
Chloromethane	ND	0.50	0.15	ND	1.0	0.31
Vinyl Chloride	ND	0.50	0.016	ND	1.3	0.040
Bromomethane	ND	0.50	0.080	ND	1.9	0.31
Chloroethane	ND	0.50	0.10	ND	1.3	0.26
Trichlorofluoromethane	ND	0.50	0.080	ND	2.8	0.45
Acrolein	ND	2.0	0.21	ND	4.6	0.48
1,1-Dichloroethene	ND	0.50	0.020	ND	2.0	0.079
Freon 113	ND	0.50	0.080	ND	3.8	0.61
Acetone	ND	2.0	0.15	ND	4.8	0.35
Carbon Disulfide	ND	0.50	0.080	ND	1.6	0.25
Isopropanol	ND	2.0	0.10	ND	4.9	0.25
Methylene Chloride	ND	0.50	0.080	ND	1.7	0.28
trans-1,2-Dichloroethene	ND	0.50	0.029	ND	2.0	0.11
MTBE	ND	0.50	0.080	ND	1.8	0.29
n-Hexane	ND	0.50	0.080	ND	1.8	0.28
1,1-Dichloroethane	ND	0.50	0.020	ND	2.0	0.080
Vinyl Acetate	ND	0.50	0.080	ND	1.8	0.28
cis-1,2-Dichloroethene	ND	0.50	0.015	ND	2.0	0.060
2-Butanone	ND	0.50	0.080	ND	1.5	0.24
Ethyl Acetate	ND	0.50	0.080	ND	1.8	0.29
Tetrahydrofuran	ND	0.50	0.080	ND	1.5	0.24
Chloroform	ND	0.50	0.012	ND	2.4	0.060
1,1,1-Trichloroethane	ND	0.50	0.080	ND	2.7	0.44
Cyclohexane	ND	0.50	0.080	ND	1.7	0.28
Carbon Tetrachloride	ND	0.50	0.013	ND	3.1	0.080
Benzene	ND	0.50	0.022	ND	1.6	0.069
1,2-Dichloroethane	ND	0.50	0.017	ND	2.0	0.067
n-Heptane	ND	0.50	0.080	ND	2.0	0.33
Trichloroethene	ND	0.50	0.015	ND	2.7	0.078
1,2-Dichloropropane	ND	0.50	0.038	ND	2.3	0.18
Bromodichloromethane	ND	0.50	0.015	ND	3.4	0.098
cis-1,3-Dichloropropene	ND	0.50	0.023	ND	2.3	0.10

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Result M= Result in mass units

Result V= Result in volume units

Batch QC Report

Volatile Organics in Air			
Lab #:	293329	Location:	Paramount
Client:	Stellar Environmental Solutions	Prep:	METHOD
Project#:	2015-16	Analysis:	EPA TO-15
Type:	BLANK	Units (M):	ug/m3
Lab ID:	QC904920	Diln Fac:	1.000
Matrix:	Air	Batch#:	252669
Units (V):	ppbv	Analyzed:	10/13/17

Analyte	Result (V)	RL	MDL	Result (M)	RL	MDL
4-Methyl-2-Pentanone	ND	0.50	0.10	ND	2.0	0.41
Toluene	ND	0.50	0.020	ND	1.9	0.075
trans-1,3-Dichloropropene	ND	0.50	0.025	ND	2.3	0.11
1,1,2-Trichloroethane	ND	0.50	0.020	ND	2.7	0.11
Tetrachloroethene	ND	0.50	0.020	ND	3.4	0.14
2-Hexanone	ND	0.50	0.10	ND	2.0	0.41
Dibromochloromethane	ND	0.50	0.080	ND	4.3	0.68
1,2-Dibromoethane	ND	0.50	0.010	ND	3.8	0.078
Chlorobenzene	ND	0.50	0.080	ND	2.3	0.37
Ethylbenzene	ND	0.50	0.014	ND	2.2	0.062
m,p-Xylenes	ND	0.50	0.020	ND	2.2	0.087
o-Xylene	ND	0.50	0.012	ND	2.2	0.053
Styrene	ND	0.50	0.080	ND	2.1	0.34
Bromoform	ND	0.50	0.011	ND	5.2	0.12
1,1,2,2-Tetrachloroethane	ND	0.50	0.020	ND	3.4	0.14
4-Ethyltoluene	ND	0.50	0.080	ND	2.5	0.39
1,3,5-Trimethylbenzene	ND	0.50	0.080	ND	2.5	0.39
1,2,4-Trimethylbenzene	ND	0.50	0.080	ND	2.5	0.39
1,3-Dichlorobenzene	ND	0.50	0.012	ND	3.0	0.073
1,4-Dichlorobenzene	ND	0.50	0.014	ND	3.0	0.082
Benzyl chloride	ND	0.50	0.080	ND	2.6	0.41
1,2-Dichlorobenzene	ND	0.50	0.023	ND	3.0	0.14
1,2,4-Trichlorobenzene	ND	0.50	0.085	ND	3.7	0.63
Hexachlorobutadiene	ND	0.50	0.080	ND	5.3	0.85
Naphthalene	ND	2.0	0.044	ND	10	0.23

Surrogate	%REC	Limits
Bromofluorobenzene	103	70-130

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Result M= Result in mass units

Result V= Result in volume units

Fixed Gas Analysis			
Lab #:	293329	Location:	Paramount
Client:	Stellar Environmental Solutions	Prep:	METHOD
Project#:	2015-16	Analysis:	ASTM D1946-90
Field ID:	SG5.5	Batch#:	252728
Matrix:	Air	Sampled:	10/10/17
Units:	ppmv	Received:	10/10/17
Units (Mol %):	MOL %	Analyzed:	10/16/17

Type: SAMPLE Diln Fac: 1.760
 Lab ID: 293329-001

Analyte	Result	RL	Result (Mol %)	RL
Carbon Dioxide	120,000	1,800	12	0.18
Oxygen	36,000	1,800	3.6	0.18
Methane	ND	1,800	ND	0.18

Type: BLANK Diln Fac: 1.000
 Lab ID: QC905123

Analyte	Result	RL	Result (Mol %)	RL
Carbon Dioxide	ND	1,000	ND	0.10
Oxygen	ND	1,000	ND	0.10
Methane	ND	1,000	ND	0.10

ND= Not Detected
 RL= Reporting Limit
 Result Mol %= Result in Mole Percent

Aromatic / Petroleum Hydrocarbons in Air

Lab #:	293329	Location:	Paramount
Client:	Stellar Environmental Solutions	Prep:	METHOD
Project#:	2015-16	Analysis:	EPA TO-3
Analyte:	Gasoline Range Organics C6-C12	Batch#:	252586
Field ID:	SG5.5	Sampled:	10/10/17
Matrix:	Air	Received:	10/10/17
Units (V):	ppbv	Analyzed:	10/11/17
Units (M):	ug/m3		

Type	Lab ID	Result (V)	RL	MDL	Result (M)	RL	MDL	Diln Fac
SAMPLE	293329-001	20,000	88	13	82,000	360	54	1.760
BLANK	QC904588	ND	50	7.4	ND	200	30	1.000

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Result M= Result in mass units

Result V= Result in volume units

Enthalpy Analytical - Berkeley Analytical Report

Lab #:	293329	Location:	Paramount
Client:	Stellar Environmental Solutions	Prep:	METHOD
Project#:	2015-16	Analysis:	ASTM D1946-90
Analyte:	Helium	Batch#:	252579
Field ID:	SG5.5	Sampled:	10/10/17
Matrix:	Air	Received:	10/10/17
Units:	ppmv	Analyzed:	10/11/17
Units (Mol %):	MOL %		

Type	Lab ID	Result	RL	Result (Mol %)	RL	Diln Fac
SAMPLE	293329-001	ND	1,800	ND	0.18	1.760
BLANK	QC904564	ND	1,000	ND	0.10	1.000

ND= Not Detected

RL= Reporting Limit

Result Mol %= Result in Mole Percent

Batch QC Report

Enthalpy Analytical - Berkeley Analytical Report

Lab #:	293329	Location:	Paramount
Client:	Stellar Environmental Solutions	Prep:	METHOD
Project#:	2015-16	Analysis:	ASTM D1946-90
Analyte:	Helium	Diln Fac:	1.000
Matrix:	Air	Batch#:	252579
Units:	ppmv	Analyzed:	10/11/17

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC904562	100,000	76,860	77	70-130		
BSD	QC904563	100,000	77,150	77	70-130	0	20

RPD= Relative Percent Difference

Batch QC Report

Aromatic / Petroleum Hydrocarbons in Air			
Lab #:	293329	Location:	Paramount
Client:	Stellar Environmental Solutions	Prep:	METHOD
Project#:	2015-16	Analysis:	EPA TO-3
Analyte:	Gasoline Range Organics C6-C12	Diln Fac:	1.000
Matrix:	Air	Batch#:	252586
Units (V):	ppbv	Analyzed:	10/11/17

Type	Lab ID	Spiked	Result (V)	%REC	Limits	RPD	Lim
BS	QC904586	210.0	168.4	80	70-130		
BSD	QC904587	210.0	168.9	80	70-130	0	25

RPD= Relative Percent Difference

Result V= Result in volume units

Batch QC Report

Fixed Gas Analysis			
Lab #:	293329	Location:	Paramount
Client:	Stellar Environmental Solutions	Prep:	METHOD
Project#:	2015-16	Analysis:	ASTM D1946-90
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC905121	Batch#:	252728
Matrix:	Air	Analyzed:	10/16/17
Units:	ppmv		

Analyte	Spiked	Result	%REC	Limits
Carbon Dioxide	2,000	1,826	91	70-130
Oxygen	2,000	1,746	87	70-130
Methane	2,000	1,854	93	70-130

Batch QC Report

Fixed Gas Analysis			
Lab #:	293329	Location:	Paramount
Client:	Stellar Environmental Solutions	Prep:	METHOD
Project#:	2015-16	Analysis:	ASTM D1946-90
Field ID:	SG5.5	Units (Mol %):	MOL %
Type:	SDUP	Diln Fac:	1.760
MSS Lab ID:	293329-001	Batch#:	252728
Lab ID:	QC905122	Sampled:	10/10/17
Matrix:	Air	Received:	10/10/17
Units:	ppmv	Analyzed:	10/16/17

Analyte	MSS Result	Result	RL	Result (Mol %)	RL	RPD	Lim
Carbon Dioxide	123,000	122,900	1,760	12.29	0.1760	0	30
Oxygen	35,960	35,930	1,760	3.593	0.1760	0	30
Methane	<1,760	ND	1,760	ND	0.1760	NC	30

NC= Not Calculated

ND= Not Detected

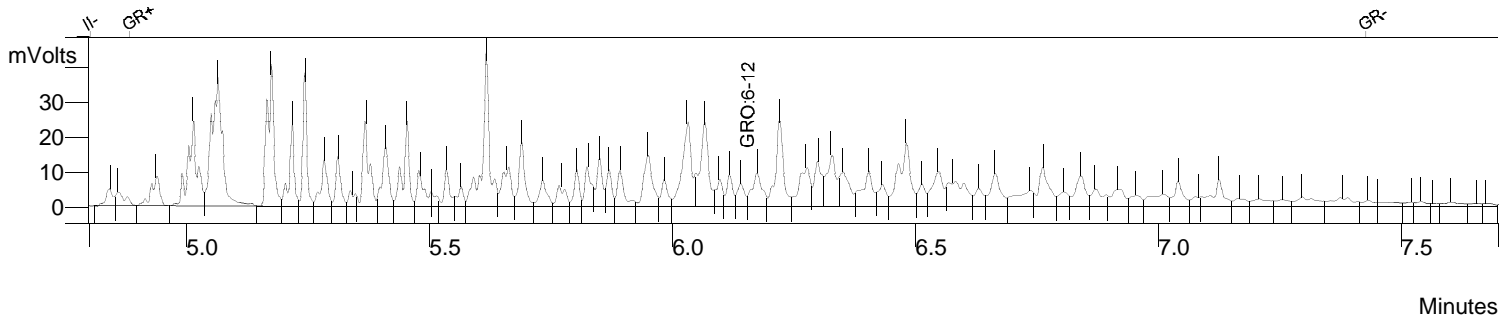
RL= Reporting Limit

RPD= Relative Percent Difference

Result Mol %= Result in Mole Percent

GRO by TO-3

Sample ID: 293329-001,252586
 Data File: c:\varianws\data\101117\284_011.run
 Sample List: c:\varianws\101117.smp
 Method: c:\varianws\methods\to3_063017.mth
 Acquisition Date: 10/11/2017 20:16:19
 Calculation Date: 10/11/2017 20:26:14
 Instrument ID: GC32 Operator: TO-15
 Injection Notes: 1.76x,c00341
 Multiplier: 1.000 Divisor: 1.000



Channel: Front = FID RESULTS

#	RT (min)	Peak Name	Area	Result (ppbv)
1	6.155	GRO:6-12	868081	11439.656
Totals			868081	11439.656

Integration Parameters

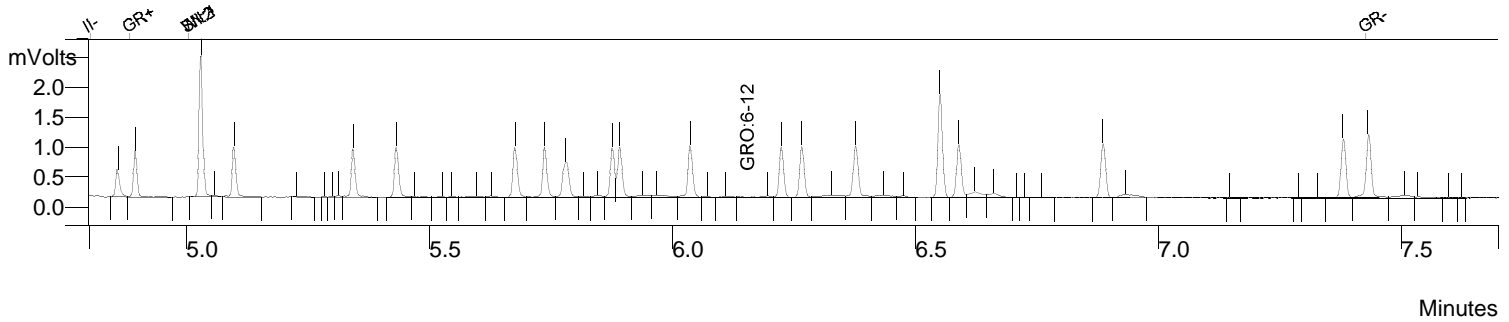
Initial Tangent %: 0
 Initial Peak Width (sec): 4
 Initial Peak Reject Value: 50.000
 Initial S/N Ratio: 5

Data Handling Time Events

Time (min)	Event
0.012	II on
4.802	II off
4.883	GR on
7.426	GR off
7.968	SN 1
7.968	WI 2.0 sec

GRO by TO-3

Sample ID: ccv/bs,qc904586
 Data File: c:\varianws\data\101117\284_008.run
 Sample List: c:\varianws\101117.smp
 Method: c:\varianws\methods\to3_063017.mth
 Acquisition Date: 10/11/2017 19:34:46
 Calculation Date: 10/11/2017 19:44:41
 Instrument ID: GC32 Operator: TO-15
 Injection Notes: 252586,s34575,1x
 Multiplier: 1.000 Divisor: 1.000



Channel: Front = FID RESULTS

#	RT (min)	Peak Name	Area	Result (ppbv)
1	6.155	GRO:6-12	12780	168.410
		Totals	12780	168.410

Integration Parameters

Initial Tangent %: 0
 Initial Peak Width (sec): 4
 Initial Peak Reject Value: 50.000
 Initial S/N Ratio: 5

Data Handling Time Events

Time (min)	Event
0.012	II on
4.802	II off
4.883	GR on
5.005	WI 2.0 sec
5.005	SN 1
7.426	GR off



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1710462

Report Created for: Stellar Environmental Solutions
2198 Sixth St. #201
Berkeley, CA 94710

Project Contact: Henry Pietropaoli
Project P.O.:
Project Name: 2015-16; Paramount

Project Received: 10/11/2017

Analytical Report reviewed & approved for release on 10/17/2017 by:

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Stellar Environmental Solutions
Project: 2015-16; Paramount
WorkOrder: 1710462

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Glossary of Terms & Qualifier Definitions

Client: Stellar Environmental Solutions
Project: 2015-16; Paramount
WorkOrder: 1710462

Analytical Qualifiers

S Surrogate spike recovery outside accepted recovery limits
a10 Reporting limit changed due to variable volume of air that pumped through each filter / sorbent tube.
e4 Gasoline range compounds are significant.



Analytical Report

Client: Stellar Environmental Solutions
Date Received: 10/11/17 16:20
Date Prepared: 10/13/17
Project: 2015-16; Paramount

WorkOrder: 1710462
Extraction Method: ASTM D 1946-90
Analytical Method: ASTM D 1946-90
Unit: %

Helium

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SG-5.5s	1710462-001A	SoilGas	10/10/2017 11:12	GC26 1013170907.D	147120

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.95	27.84	HK

Analytes	Result	RL	DF	Date Analyzed
Helium	ND	0.050	1	10/13/2017 10:33

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SG-5.5sd	1710462-002A	SoilGas	10/10/2017 11:17	GC26 1013170909.D	147120

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.76	27.48	HK

Analytes	Result	RL	DF	Date Analyzed
Helium	ND	0.050	1	10/13/2017 10:46

 Angela Rydelius, Lab Manager



Analytical Report

Client: Stellar Environmental Solutions
Date Received: 10/11/17 16:20
Date Prepared: 10/16/17
Project: 2015-16; Paramount

WorkOrder: 1710462
Extraction Method: TO17
Analytical Method: TO17
Unit: µg/m³

TPH-Diesel by TO17

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SG-5.5s	1710462-001A	SoilGas	10/10/2017 11:12	GC37 F1016170204.D	147171

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	48,000	1100	1	10/16/2017 17:46

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
1,2-DCA-d4	113	70-130	10/16/2017 17:46
toluene-d8	118	70-130	10/16/2017 17:46
4-BFB	128	70-130	10/16/2017 17:46

Analyst(s): KBO

Analytical Comments: e4

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SG-5.5sd	1710462-002A	SoilGas	10/10/2017 11:17	GC37 F1016170205.D	147171

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	47,000	1100	1	10/16/2017 18:30

<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	<u>Date Analyzed</u>
1,2-DCA-d4	122		70-130	10/16/2017 18:30
toluene-d8	117		70-130	10/16/2017 18:30
4-BFB	132	S	70-130	10/16/2017 18:30

Analyst(s): KBO

Analytical Comments: e4

Angela Rydelius, Lab Manager



Analytical Report

Client: Stellar Environmental Solutions
Date Received: 10/11/17 16:20
Date Prepared: 10/16/17
Project: 2015-16; Paramount

WorkOrder: 1710462
Extraction Method: TO17
Analytical Method: TO17
Unit: µg/m³

Volatile Organic Compounds by TO17

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SG-5.5s	1710462-001A	SoilGas	10/10/2017 11:12	GC37 F1016171204.D	147171

Analytes	Result	RL	DF	Date Analyzed
Naphthalene	ND	2.2	1	10/16/2017 17:46

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
1,2-DCA-d4	90		70-130	10/16/2017 17:46
toluene-d8	109		70-130	10/16/2017 17:46
4-BFB	140	S	70-130	10/16/2017 17:46

Analyst(s): KBO

Analytical Comments: a10

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SG-5.5sd	1710462-002A	SoilGas	10/10/2017 11:17	GC37 F1016171205.D	147171

Analytes	Result	RL	DF	Date Analyzed
Naphthalene	ND	2.2	1	10/16/2017 18:30

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
1,2-DCA-d4	98		70-130	10/16/2017 18:30
toluene-d8	108		70-130	10/16/2017 18:30
4-BFB	131	S	70-130	10/16/2017 18:30

Analyst(s): KBO

Analytical Comments: a10

 Angela Rydelius, Lab Manager



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 10/13/17
Date Analyzed: 10/13/17
Instrument: GC26
Matrix: Soilgas
Project: 2015-16; Paramount

WorkOrder: 1710462
BatchID: 147120
Extraction Method: ASTM D 1946-90
Analytical Method: ASTM D 1946-90
Unit: %
Sample ID: MB/LCS-147120

QC Summary Report for ASTM D1946-90

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Helium	ND	0.0787	0.025	0.10	-	79	60-140

QA/QC Officer



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 10/16/17
Date Analyzed: 10/16/17
Instrument: GC37
Matrix: Sorbent Tube
Project: 2015-16; Paramount

WorkOrder: 1710462
BatchID: 147171
Extraction Method: TO17
Analytical Method: TO17
Unit: µg/m³
Sample ID: MB/LCS-147171

QC Summary Report for TPH-Diesel by TO17

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	11,600	1000	10000	-	116	60-140
Surrogate Recovery							
1,2-DCA-d4	115.4	105		100	115	105	60-140
toluene-d8	102.8	102		100	103	102	60-140
4-BFB	95.15	97.8		100	95	98	60-140

QA/QC Officer



Quality Control Report

Client: Stellar Environmental Solutions
Date Prepared: 10/16/17
Date Analyzed: 10/16/17
Instrument: GC37
Matrix: Sorbent Tube
Project: 2015-16; Paramount

WorkOrder: 1710462
BatchID: 147171
Extraction Method: TO17
Analytical Method: TO17
Unit: µg/m³
Sample ID: MB/LCS-147171

QC Summary Report for VOCs by TO17

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Naphthalene	ND	49.6	2.0	50	-	99	60-140
Surrogate Recovery							
1,2-DCA-d4	92.54	108		100	93	108	70-130
toluene-d8	94.7	93.0		100	95	93	70-130
4-BFB	89.1	92.5		100	89	92	70-130

QA/QC Officer



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1710462

ClientCode: SESB

- WaterTrax
 WriteOn
 EDF
 Excel
 EQuIS
 Email
 HardCopy
 ThirdParty
 J-flag
 Detection Summary
 Dry-Weight

Report to:

Henry Pietropaoli
Stellar Environmental Solutions
2198 Sixth St. #201
Berkeley, CA 94710
510-644-3123 FAX: 510-644-3859

Email: hpietropaoli@stellar-environmental.com; r
cc/3rd Party:
PO:
ProjectNo: 2015-16; Paramount

Bill to:

Accounts Payable
Stellar Enviornmental Solutions
2198 Sixth St. #201
Berkeley, CA 94710
lwheeler@stellar-environmental.com

Requested TAT: 5 days;

Date Received: 10/11/2017

Date Logged: 10/11/2017

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1710462-001	SG-5.5s	SoilGas	10/10/2017 11:12	<input type="checkbox"/>	A	A	A										
1710462-002	SG-5.5sd	SoilGas	10/10/2017 11:17	<input type="checkbox"/>	A	A	A										

Test Legend:

1	HELIUM_LC_SOILGAS(%)	2	TO17DIESEL_ST(UG/M3)	3	TO17VOC_ST(UGM3)	4	
5		6		7		8	
9		10		11		12	

Prepared by: Jena Alfaro

The following SampIDs: 001A, 002A contain testgroup TO17+Helium_SG(UG/M3).

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: STELLAR ENVIRONMENTAL SOLUTIONS

Project: 2015-16; Paramount

Work Order: 1710462

Client Contact: Henry Pietropaoli

QC Level: LEVEL 2

Contact's Email: hpietropaoli@stellar-environmental.com;
rmakdisi@stellar-environmental.com;sbittman@stellar-

Comments:


Date Logged: 10/11/2017

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1710462-001A	SG-5.5s	SoilGas	TO17 with Helium as a Leak Check	2	1L Summa & Sorbent Tube	<input type="checkbox"/>	10/10/2017 11:12	5 days		<input type="checkbox"/>	
1710462-002A	SG-5.5sd	SoilGas	TO17 with Helium as a Leak Check	2	1L Summa & Sorbent Tube	<input type="checkbox"/>	10/10/2017 11:17	5 days		<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

 McCAMPBELL ANALYTICAL, INC. 1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701 Telephone: (877) 252-9262 / Fax: (925) 252-9269 www.mccampbell.com main@mccampbell.com						CHAIN OF CUSTODY RECORD									
						Turn Around Time: 1 Day Rush		2 Day Rush		3 Day Rush		STD		Quote #	
J-Flag / MDL		ESL		Cleanup Approved				Bottle Order #							
Delivery Format: PDF		GeoTracker EDF		EDD		Write On (DW)		EQuIS							
Report To: <u>H. Pieferski</u>			Bill To:			Analysis Requested					Helium Shroud SN#				
Company: <u>Stellar Environmental Solutions</u>						VOCs TO-15 (µg/m ³) - See Notes 8010 by TO-15 (µg/m ³) TPH(g) (µg/m ³) LEED: (inc. 4PCH, Formaldehyde, CO, Total VOCs) Fixed Gas (CO, Methane, Ethane, Ethylene, Acetylene, Propane, CO) % Fixed Gas: (O ₂ , N ₂) % APH: Aliphatic and/or Aromatic (circle one) µg/m ³ Helium Leak Check % Leak Check (IPA, Norflorane, 1,1-difluoroethane) µg/m ³ <u>T017 TPH draw/ Helium leak draw</u>					Leak Check Default is <u>IPA</u>				
Email: <u>on file</u>											Notes: Please specify units if different than default: VOCs is reported in µg/m ³ , fixed is reported in %.				
Alt Email:			Tele: <u>510 644 3123</u>								<u>He Shroud maintained @ 20-25% He</u>				
Project Name: <u>PARAMOUNT</u>			Project#: <u>2015-16</u>								Matrix				
Project Location: <u>811 Paramount Rd PO #</u>											Canister Pressure / Vacuum				
Sampler Signature: <u>H. Pieferski</u>						Initial		Final							
SAMPLE ID Location / Field Point		Sampling Start	End	Canister SN#	Sample Kit / Manifold #										
		Date	Time	Time											
<u>SG-5.5s</u>		<u>10/10/17</u>	<u>1100</u>	<u>1112</u>	<u>A01566</u>	<u>1306</u>									
<u>SG-5.5s</u>			<u>1100</u>	<u>1112</u>	<u>2548</u>			<u>X</u>		<u>-28 -0.5</u>					
<u>SG-5.5sd</u>			<u>1105</u>	<u>1117</u>	<u>A01543</u>			<u>X</u>		<u>-28 -0.5</u>					
<u>SG-5.5sd</u>			<u>1105</u>	<u>1117</u>	<u>2576</u>			<u>X</u>		<u>-28 -0.5</u>					

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time	Comments / Instructions
<u>H. Pieferski</u>	<u>10/11/17</u>	<u>1245</u>	<u>Basil</u>	<u>10/11/17</u>	<u>1245</u>	PLS/MDL must meet residential ESLs parallel port w/ 150 m/min manifold ÷ 2
<u>Basil</u>	<u>10/11/17</u>	<u>1620</u>		<u>10/11/17</u>	<u>1620</u>	

GeoTracker # T1000000 6106



Sample Receipt Checklist

Client Name: **Stellar Environmental Solutions**
 Project Name: **2015-16; Paramount**

Date and Time Received: **10/11/2017 16:20**
 Date Logged: **10/11/2017**
 Received by: **Jena Alfaro**
 Logged by: **Jena Alfaro**

WorkOrder No: **1710462** Matrix: SoilGas
 Carrier: Basit Sheikh (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
COC agrees with Quote?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Sample/Temp Blank temperature		Temp:	NA <input checked="" type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Samples Received on Ice?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

UCMR Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Comments:

ATTACHMENT E

Site Utility Plans, Residential Drain Design and Area Well Information

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

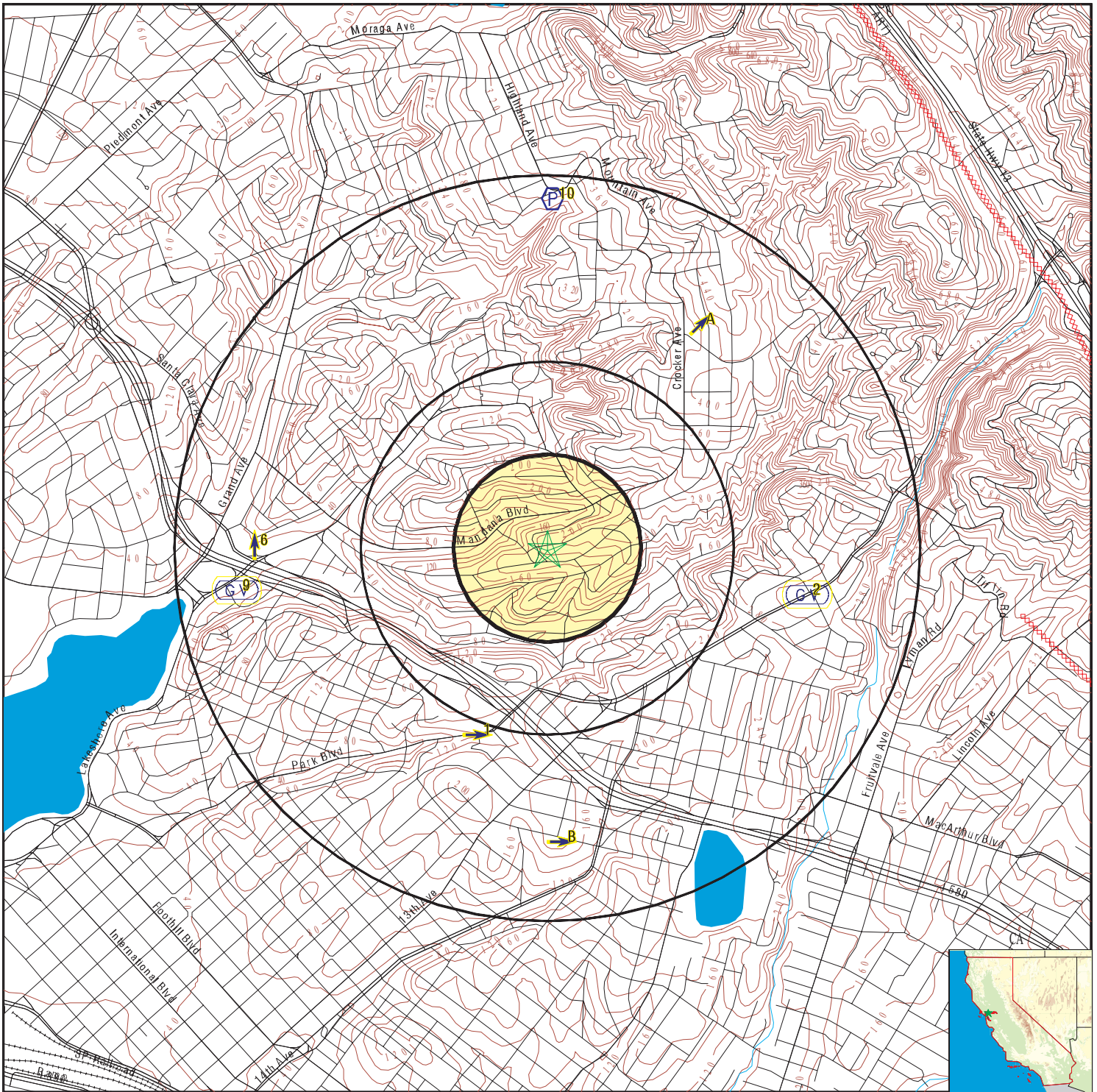
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
10	CA3900820	1/2 - 1 Mile North

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

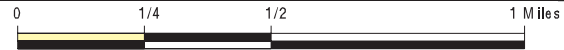
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 4287153.2s



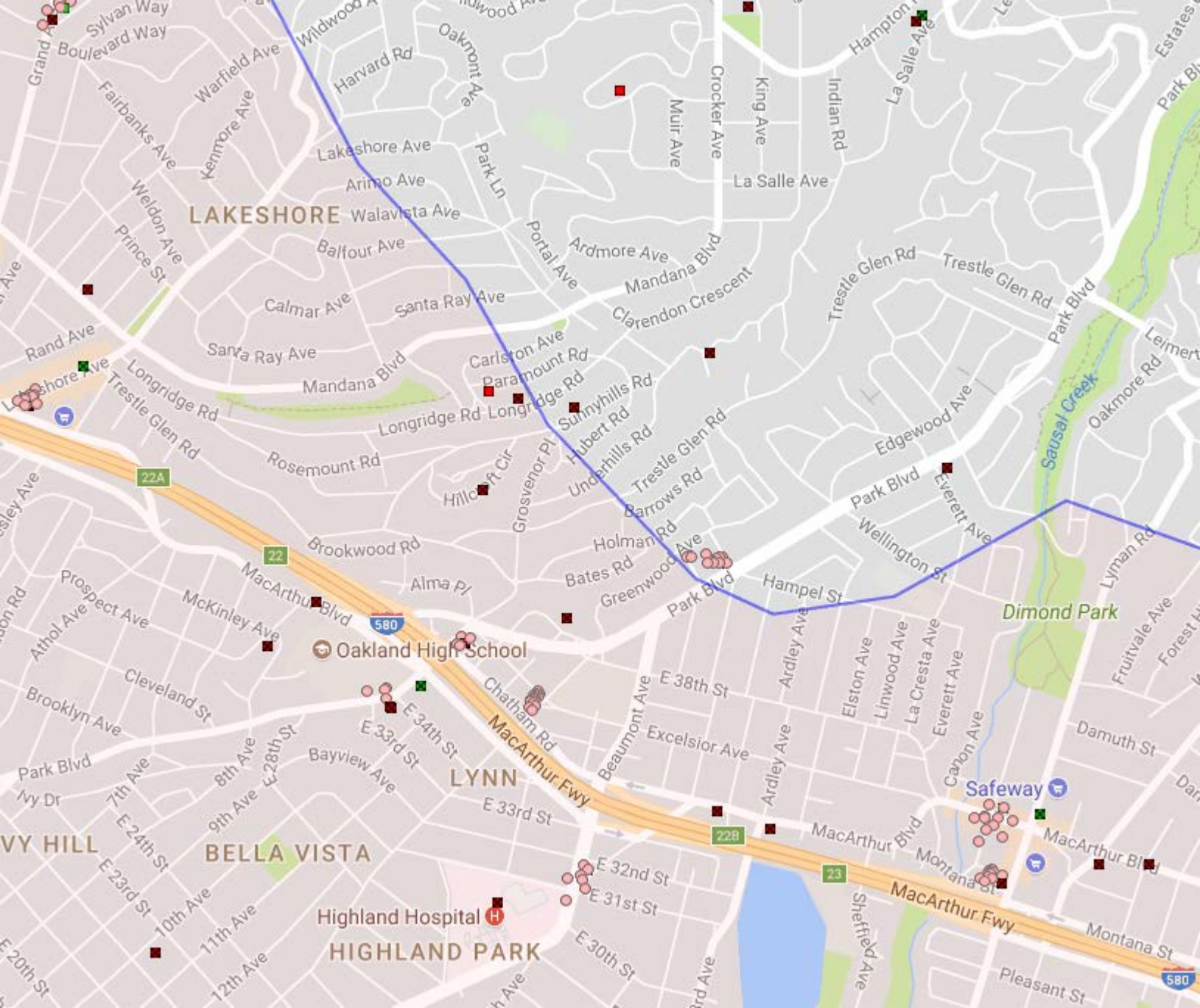
- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells



SITE NAME: Residential Property
 ADDRESS: 811 Paramount Road
 Oakland CA 94610
 LAT/LONG: 37.8105 / -122.2319

CLIENT: Stellar Enviro Solutions
 CONTACT: HENRY PIETROPAOLI
 INQUIRY #: 4287153.2s
 DATE: May 06, 2015 8:18 pm



LAKESHORE

LYNN

BELLA VISTA

HIGHLAND PARK

Oakland High School

Dimond Park

Safeway

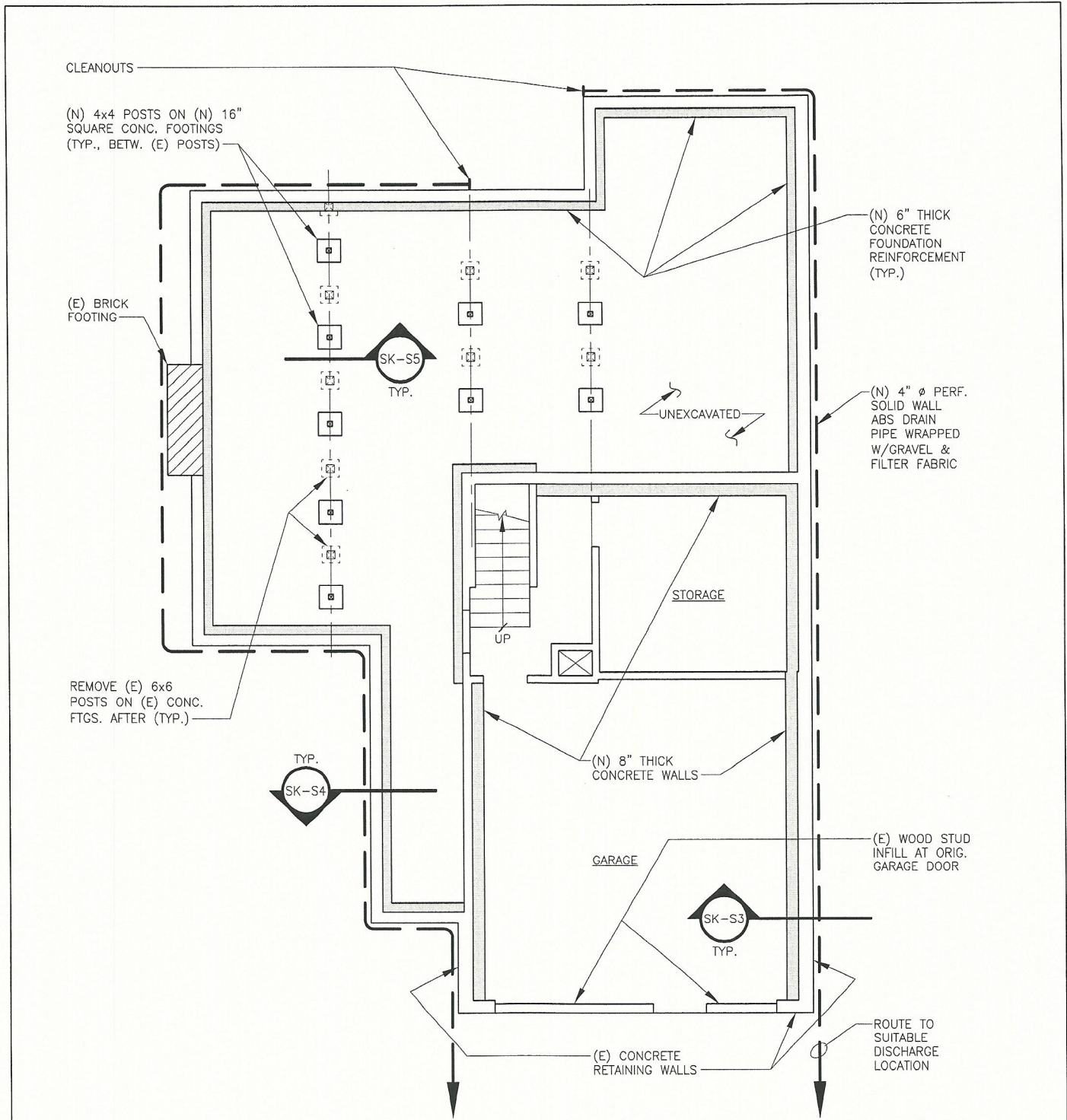
MacArthur Blvd
E 33rd St
E 34th St
E 33rd St
E 32nd St
E 31st St
E 30th St

Sylvan Way
Boulevard Way
Fairbanks Ave
Weldon Ave
Prince St

Brooklyn Ave
Park Blvd
7th Ave
E 24th St
E 23rd St
10th Ave
11th Ave
12th Ave

Hampton
La Salle Ave
Indian Rd
Trestle Glen Rd
Park Blvd

MacArthur Blvd
Montana St
Pleasant St
MacArthur Fwy
580



GARAGE LEVEL AND FOUNDATION PLAN

1/8" = 1'-0"

JEFFREY WEBER & ASSOCIATES
Structural Engineers

1939 Harrison Street, Suite 215
Oakland, CA 94612
510-251-9578 Fax 510-251-9580

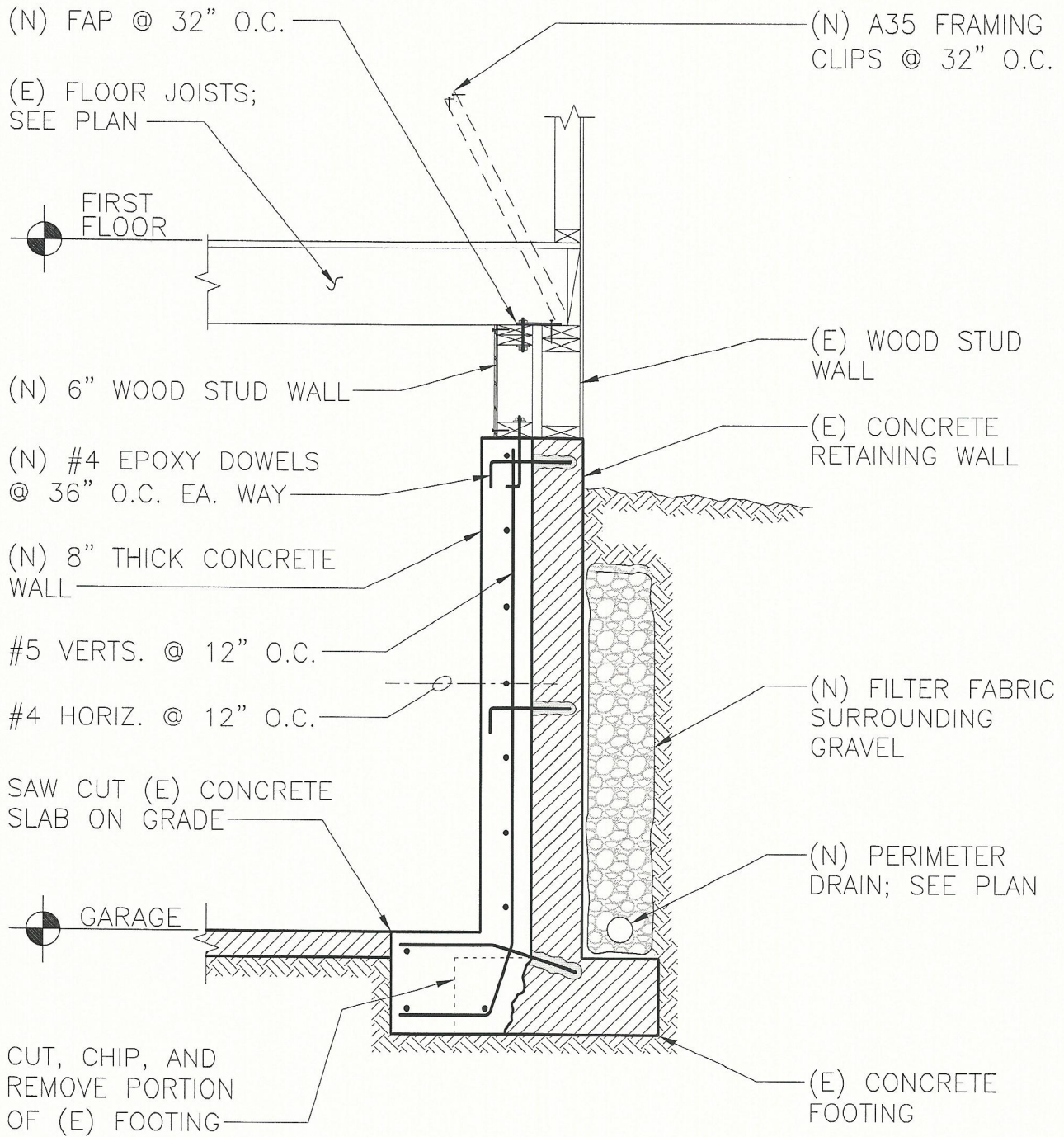
PRELIMINARY STRUCTURAL DESIGN

811 PARAMOUNT ROAD
OAKLAND, CA 94610

JWA PROJECT #1316

04/24/13

SK-S1



SECTION AT PERIMETER RETAINING WALL

1/2" = 1'-0"

JEFFREY WEBER & ASSOCIATES
Structural Engineers

1939 Harrison Street, Suite 215
Oakland, CA 94612
510-251-9578 Fax 510-251-9580

PRELIMINARY STRUCTURAL DESIGN

811 PARAMOUNT ROAD
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JWA PROJECT #1316

04/24/13

SK-S3