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24 October 2016
Project 731641601

Mr. Keith Nowell, PG
Alameda County Health Care Services Agency
Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Subject: Response to 4 November 2015 Letter and Request for No Further Action
Fuel Case No. Ro0000247 and Geotracker ID T0600102220
Robert and Ruth Burrows Trust
260 30th Street
Oakland, California
Alameda County SCP Case No. RO0000247
Langan Project: 731635601

Dear Mr. Nowell:

As a legally authorized representative and on behalf of Burrows Company, I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document titled *Response to 4 November 2015 Letter and Request for No Further Action, Fuel Case No. Ro0000247 and Geotracker ID T0600102220, Robert and Ruth Burrows Trust, 260 30th Street, Oakland, CA*, are true and correct to the best of my knowledge.

Sincerely yours,



Bruce Burrows
Burrows Company

24 October 2016

Keith Nowell, PG, CHG
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

**Re: Response to 4 November 2015 Letter and Request for No Further Action
Fuel Leak Case No. RO0000247 and Geotracker ID T0600102220,
Robert and Ruth Burrows Trust
260 30th Street, Oakland CA 94611**

Mr. Keith Nowell:

On behalf of the Lowe Enterprises Real Estate Group (Lowe) and the Robert and Ruth Burrows Trust, Langan Treadwell Rollo (Langan) has prepared this memorandum summarizing recent groundwater data collected by Langan in connection with the potential purchase and redevelopment of 3000 and 3020 Broadway, 250, 260 and 288 30th Street, and 3007 and 3009 Brook Street in Oakland, California (site, Figures 1 and 2). As part of the land purchase due diligence process, Langan evaluated data collected by others with respect to the open Fuel Leak Case No. RO0000247 (Geotracker Global ID T0600102220), Robert and Ruth Burrows Trust, 260 30th Street, Oakland, California and also collected additional groundwater data.

This memorandum includes a summary of historical environmental investigations performed by others, the recent due diligence groundwater investigation performed by Langan, and results of sensitive receptor survey by P&D Environmental for Mr. Bruce Burrows. Langan also provide responses to technical comments received from Alameda County Environmental Health (ACEH) on 4 November 2015 in correspondence titled "*Request for a Groundwater Investigation Work Plan and Sensitive Receptor Survey, Fuel Leak Case No. RO0000247 and Geotracker ID T0600102220, Robert and Ruth Burrows Trust, 260 30th Street, Oakland CA 94611*".

Previous Environmental Investigations

Langan reviewed the previous environmental reports prepared for the 260 30th Street, the adjacent 3000 Broadway property, and the Hagstrom property located across 30th Street at 265 30th Street. The results of these investigations are summarized below and a summary of available groundwater analytical results for these sites are included on Figure 3.

DECON Environmental Services, Inc., Letter Re: Tank Removal Project, 3000 Broadway, Oakland, California dated 28 December 1992.

In July 1992, DECON Environmental Services, Inc. (DECON) of Hayward, California was contracted to excavate and remove one 1,000-gallon diesel UST from beneath the 30th Street sidewalk located in the vicinity of the 3000 Broadway and 288 30th Street properties in Oakland, California. At the time of the UST removal, the property was occupied by a Nissan dealership. Reportedly, the UST had not been in use for at least a decade, and was presumed to be empty.

Two soil samples labeled 721-823-01 and 721-823-02 were collected from the bottom of the excavation beneath the western and eastern portions of the former UST. The soil samples were analyzed for total petroleum hydrocarbons (TPH) as gas (TPHg), TPH as diesel (TPHd), and benzene, toluene, ethylbenzene, and xylenes (BTEX) and lead. No TPH or BTEX compounds were detected at or above laboratory detection limits. A summary of the samples collected from beneath the UST are presented below and included as Attachment A.

**Summary of TPH and BTEX Results in Soil
Former UST Closure
3000 Broadway, Oakland, CA**

Sample ID	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes
721-823-01	7/21/1992	< 1	< 10	< 0.003	< 0.003	< 0.003	< 0.003
721-823-02	7/21/1992	< 1	< 10	< 0.003	< 0.003	< 0.003	< 0.003

Above results reported in milligrams per kilogram (mg/kg).

During the UST removal activities, a leaky sewer line, located near the northwest side of the excavation sidewall, was discovered. Reportedly, DECON applied for a sewer repair permit and made the necessary repairs. With the permission of the ACEH, DECON backfilled the UST excavation with the previously stockpiled soil material and approximately 15 cubic yards of imported Class II base rock, and repaired the sidewalk. During the sidewalk repair, a fuel fill pipe was discovered, which was connected to a 350-gallon gasoline UST located to the west of the diesel UST, towards Broadway. With permission from both the ACEH and the Oakland Fire Department (OFD), the 350-gallon gasoline UST was also removed from beneath the 30th Street sidewalk.

Two soil samples were collected from beneath the 350-gallon gasoline UST and one sample was collected of the stockpiled soil material from the excavation pit. The analytical results of the bottom samples indicated no detectable concentrations of purgeable hydrocarbons were present above the laboratory's reporting limit of 1 milligram per kilogram (mg/kg). Of the BTEX compounds analyzed, xylenes were detected at a concentration of 0.007 mg/kg in one sample. No other BTEX compounds were detected in either the bottom samples or the stockpiled soil sample. With the permission of both the ACEH and the OFD, the excavation was backfilled with the stockpiled soil and approximately 12 cubic yards of imported Class II base rock. Copies of the analytical results associated with this sampling are included in Attachment A.

In a City of Oakland letter dated 7 February 2000, additional analysis of soil and/or groundwater for methyl tertiary butyl ether (MTBE) was required before no further action could be warranted for the removed USTs. According to DECON, a soil sample was collected from beneath the 30th Street sidewalk on 12 May 2000, and submitted for MTBE analysis. MTBE was not detected at or above the laboratory detection limit of 0.005 mg/kg. The 3000 Broadway site property was granted UST case closure by the City of Oakland's Fire Services Agency, and no further action by OFD and the Hazardous Materials Management Program (HMMP) in a letter dated 7 June 2000. The approximate locations of the former USTs are shown on Figures 2 and 3. A copy of the no further action letter issued by the OFD is included in Attachment B.

Faultline Associates, Inc., Underground Storage Tank Closure Report, 260 30th Street, Oakland, California dated 22 September 1997

Based on the September 1997 Underground Storage Tank Closure Report, prepared Faultline Associates, Inc. (Faultline) for 260 30th Street, one 1,000-gallon waste oil UST, was maintained for an unspecified period of time, before being abandoned-in-place in March 1997. The UST closure was recommended in-place to avoid potentially undermining the adjacent building. The UST was rinsed and inerted with dry ice, before being pressure grouted. The 30th Street sidewalk above the abandoned-in-place UST was finished with a concrete patch. Following the abandonment-in-place of the UST, a subsurface soil investigation was conducted by drilling four soil borings (SB-1 through SB-4) to a maximum depth of 20 feet below the ground surface (bgs), directly adjacent to the abandoned in-place UST (Figure 2). In order to characterize the soil underneath the abandoned-in-place UST, boring SB-3 was drilled at a 30° angle and soil was collected from beneath the former UST. Groundwater samples were not collected.

TPHg, TPHd, TPH as oil and grease (TPHog), and BTEX compounds were detected in the upper 15 feet of soil. However, none of these compounds were detected at a depth of 20 feet in borings SB-1, SB-3 or SB-4 or the bottom depth of 15 feet bgs in boring SB-2. Benzene and MTBE were not detected in any soil samples collected. With the exception of the soil sample collected from boring SB-1 at 15 feet bgs (labeled SB-1-15), only low levels of TPH and BTEX compounds were detected, if at all. Boring SB-1 was located adjacent to and immediately downgradient of the former UST. TPHg, TPHd, and TPHog were detected in sample SB-1-15 at maximum concentrations of 9,600 mg/kg, 4,500 mg/kg, and 18,000 mg/kg, respectively. Toluene, ethylbenzene, and xylene were detected at maximum concentrations of 21 mg/kg, 54 mg/kg, and 89 mg/kg, respectively. The soil sample collected from boring location SB-1, at a depth of 20 feet bgs, did not contain any of the previous contaminants at or above method reporting limits, which suggests the extent of contamination is vertically limited.

Due to the detected concentrations of TPH and BTEX compounds in soil near the former UST the ACEH required an additional subsurface investigation to determine if groundwater had been impacted. This requirement was documented in a letter from ACEH to Mr. Bruce Burrows dated 26 August 1999. A follow up investigation was conducted in 2014.

P&D Environmental, Inc., Soil and Groundwater Investigation Report, 260 30th Street, Oakland, California dated 15 October 2014.

In a letter from ACEH to Mr. Bruce Burrows dated 25 April 2012, the ACEH requested a soil and groundwater investigation be conducted to determine the potential extent of impacts related to the abandoned-in-place UST. P&D Environmental (P&D) was retained to perform the investigation. P&D's investigation was conducted in September 2014 and consisted of drilling four borings (B1 through B4) for the collection of soil and groundwater samples (Figures 2 and 3). The purpose of this subsurface investigation and the resulting October 2014 report was to provide additional data to support administrative case closure through the Water Board's low threat closure policy (LTCP).

The soil analytical results collected from downgradient boring B4 indicated that petroleum hydrocarbons detected in the shallow soil samples analyzed (less than ten feet bgs) did not exceed residential or commercial Water Board environmental screening levels (ESLs) for direct exposure (ESL Table S-1, February 2016). Furthermore, no soil samples collected at depths greater than ten feet bgs had detected petroleum hydrocarbon concentrations in excess of the ESLs associated with leaching to groundwater (ESL Table S-2, February 2016). MTBE, BTEX, naphthalene, and semi-volatile organic compounds (SVOCs) (including polycyclic aromatic hydrocarbons [PAHs]) were not detected in any of the soil samples analyzed, with one exception. Ethylbenzene, xylene, and naphthalene were detected in a single soil sample (B1-15.0) at concentrations below residential and commercial direct exposure ESLs.

Groundwater analytical results from P&D's investigation indicated the following concentrations of TPH and volatile organic compounds (VOCs) were present in groundwater:

- TPHg in samples B1-W and B4-W with concentrations of 2,400 micrograms per liter ($\mu\text{g/L}$) and 450 $\mu\text{g/L}$, respectively. TPHg was not detected above the laboratory's limit of 50 $\mu\text{g/L}$ in groundwater samples collected from borings B2 and B3, both of which are located downgradient of the former UST to the east-southeast.
- TPHd was detected in B1-W, B2-W, and B3-W at concentrations of 600 $\mu\text{g/L}$, 72 $\mu\text{g/L}$, and 450 $\mu\text{g/L}$, respectively. TPHd was not detected in the groundwater sample from boring B4.
- B2-W and B3-W with TPHmo concentrations of 350 $\mu\text{g/L}$ and 1,400 $\mu\text{g/L}$, respectively. TPHmo was not detected in the groundwater samples collected from borings B1 and B4.
- No BTEX compounds or MTBE were detected in groundwater samples collected from borings B2, B3, or B4. The groundwater sample from boring B1 (B1-W) had concentrations of ethylbenzene, xylenes, and naphthalene detected at 60 $\mu\text{g/L}$, 210 $\mu\text{g/L}$, and 9.1 $\mu\text{g/L}$, respectively.

Following investigation, P&D requested closure for the USTs at the site. ACEH reviewed P&D's request for closure, and found the site did not successfully meet the criteria for closure under the LTCP. Technical comments were provided to Mr. Bruce Burrows by ACEH in their correspondence dated 4 November 2015 in which ACEH requested the preparation of an additional work plan and sensitive receptor survey.

P&D Well Survey Report

As requested in ACHCS's 11/4/15 letter, P&D performed a well survey for wells not associated with groundwater contamination investigations in their *Well Survey Report*, dated 22 March 2016. The survey was conducted in a 2,000 foot radius circle from the site. P&D identified six wells other than contamination investigation monitoring wells within the 2,000 foot radius of the site, all of which were north to northwest (upgradient) of the site. P&D's *Well Survey Report* is included as Attachment C.

Based on the east-southeast groundwater flow direction at the site, no wells were identified within the known extent of petroleum hydrocarbon impacts at the site or immediately downgradient of the site. Accordingly, Langan does not expect supply wells to be impacted in the future by the petroleum hydrocarbon impacts associated with the former USTs.

Langan - Phase II Environmental Investigation for Due Diligence

As part of an environmental due diligence investigation related to a potential purchase of the site for Lowe, Langan obtained appropriate drilling permits and advanced two borings (B-11 and B-12) and collected grab groundwater samples to evaluate potential impacts associated with the former UST near the 260 30th Street building. In addition to the grab groundwater borings, Langan also collected soil data as part of the property due diligence process for Lowe. The soil analytical data was collected for waste profiling and cost estimating purposes from borings B-1 through B-10 and was not associated with the evaluation of groundwater conditions or the USTs (Figure 2).

Additionally, the former USTs located outside of 3000 Broadway were not evaluated as part of the Phase II investigation since they were granted regulatory closure by the City of Oakland Fire Department/Hazardous Materials Management Program in correspondence dated 7 June 2000.

Borings B-11 and B-12 were advanced west (upgradient and uphill) and east (downgradient and downhill), respectively, from the abandoned-in-place UST located in the sidewalk outside of 260 30th Street (Figure 3). The borings were placed in these locations to:

1. Evaluate groundwater conditions between boring B1 advanced by P&D Environmental and the abandoned-in-place UST (Figure 3); and
2. Evaluate downgradient TPH concentrations to determine the extent of the potential TPH impacts.

Soil encountered during drilling was logged in accordance with the Unified Soil Classification System (USCS). Boring logs are included in Attachment D.

Groundwater Sampling

Grab groundwater samples were collected from borings B-11 and B-12 on 2 April 2016 and 9 April 2016, respectively. Prior to sampling, the depth to water was measured at approximately 11 feet bgs in boring B-11 (upslope of the former UST) and 7 feet bgs in boring B-12 (downslope of the former UST). Prior to sampling, a new, slotted 1-inch PVC pipe was placed in the borehole to facilitate sample collection. Groundwater samples were collected from the PVC pipe with a decontaminated bailer into appropriately preserved, laboratory-supplied sample containers. Once collected, the samples were labeled, and placed on ice in an insulated container for delivery to McCampbell Analytical of Pittsburg, California under chain-of-custody protocol for the following analyses:

- TPHg, TPHd, and TPHmo by EPA Method 8015; and
- VOCs by EPA method 8260.

Following sample collection, the boreholes were grouted using a tremie to the ground surface under observation of an Alameda County grout inspector. Following receipt of results, the results were tabulated and are presented in Table 1. Groundwater analytical laboratory reports by McCampbell Analytical are included as Attachment E.

Groundwater Analytical Results

The grab groundwater sample collected from boring B-11 (B11-GW), which is upgradient of the abandoned-in-place UST and downgradient of the closed USTs associated with 3000 Broadway, contained TPHg, TPHd, and TPHmo concentrations of 250, 460, and 6,900 µg/L, respectively. The TPHg concentration detected in boring B1 in September 2014 (2,400 µg/L) was significantly reduced in boring B-11 (250 µg/L). TPHd concentrations were comparable between borings B1 and B-11. TPHmo was not detected in boring B1, whereas, TPHmo concentrations in boring B-11 were 6,900 µg/L. Benzene, bromodichloromethane, t-butyl-alcohol, sec-butyl-benzene, chlorobenzene, isopropylbenzene, n-propylbenzene, and xylenes were detected in sample B11-GW at low concentrations ranging from 0.61 to 1.3 µg/L. Acetone and t-butylbenzene were also detected at concentrations of 15 and 12 µg/L, respectively. No other VOCs, including MTBE, were detected in the groundwater sample collected from boring B-11.

No TPHg, TPHd, TPHmo or VOCs (except for a low level toluene detection of 0.5 µg/L) were detected in the groundwater sample (B12-W) collected from the downgradient area, near 30th and Brook Streets. Based on the lack of significant detections at B-12, the downgradient extent of TPH and VOC impacts to groundwater has been defined. Additionally, these results also indicate that the residual TPH is localized and has not migrated significantly away from the former abandoned-in-place UST location.

Technical Comments by ACEH

On behalf of Mr. Bruce Burrows, P&D Environmental requested closure for the abandoned-in-place UST located near 260 30th Street under the LTCP following their *Soil and Groundwater Investigation Report, 260 30th Street, Oakland, California* dated 15 October 2014. The ACEH in its 4 November 2015 correspondence titled "*Request for a Groundwater Investigation Work Plan and Sensitive Receptor Survey, Fuel Leak Case No. RO0000247 and Geotracker ID T0600102220, Robert and Ruth Burrows Trust, 260 30th Street, Oakland CA 94611*" denied closure for the abandoned-in-place UST.

ACEH denied closure for the former USTs, primarily on the basis that the leading edge of the plume had not been defined. Additional comments were also provided by ACEH on the P&D report and are listed below. ACEH also indicated that "*Additional data may be available that ACEH is not aware of, or may not have been submitted, and therefore has not been incorporated into ACEH's review. If any additional data is made available, that data can be incorporated in future LTCP reviews. The evaluation of the site under the LTCP that is presented below is intended to initiate further discussions, submittal of other available documents, or the collection of additional data in order to determine if or when the site can be closed under the LTCP and to document current LTCP data gaps*".

In response to ACEH's request, Langan performed file reviews at the ACEH Certified Unified Program Agency (CUPA) and discovered files related to the USTs, which were removed from the 3000 Broadway property and granted no further action by the OFD and the HMMP in a letter dated 7 June 2000 (Attachment B). On the basis of our additional environmental investigations and due diligence, Langan has prepared the below responses to technical comments on P&D Environmental's *Soil and Groundwater Investigation Report* dated 15 October 2014 and results supporting closure of the abandoned-in-place UST associated with 260 30th Street.

Technical Comment 1 – Petroleum Hydrocarbon Source

Comment: The referenced report states that total petroleum hydrocarbons (TPH) as gasoline (TPHg) in grab groundwater (GGW) samples recovered from soil bores B2 and B3 were non-detect, and continues with stating the groundwater concentrations reported for B2 and B3 are consistent with the release from the underground storage tanks (USTs) formerly located across 30th Street. A review of the case file for the USTs located across 30th Street (Hagstrom Property, ACEH case number RO000438 and Geotracker Global ID T0600102119) indicates the former USTs held gasoline and that gasoline was the predominant contaminate in groundwater. Additionally, TPHd and TPHmo were not reported for the Hagstrom Property, whereas GGW from the bores B2 and B3 reported no TPHg and substantial TPHd and TPHmo concentrations. Therefore, the association of groundwater concentrations reported for B2 and B3 are entirely consistent with a release from the subject site, not from the Hagstrom property.

Response to Comment: Langan concurs with ACEH's analysis that the Hagstrom property is not the source of petroleum hydrocarbons in groundwater at the 260 30th Street site on the basis that:

- The groundwater gradient at the site is likely to the east-southeast, which indicates that the 260 30th Street site is hydraulically upgradient of the Hagstrom property. Langan reviewed groundwater elevation data from the 3093 and 3080 Broadway sites, which are located approximately 600 to 700 feet away from the site to the north-northeast. Both sites exhibit groundwater gradients to the east-southeast.
- Additionally, Langan concurs with ACEHs analysis that the detected analytes of TPHd and TPHmo are consistent with the known primary use of the former waste oil UST.

No further action is proposed with respect to the above comment and the case should be considered for closure.

Technical Comment 2 – Plume Delineation

Comment 2: The referenced report states “the LTCP Groundwater-Specific Criteria for MTBE and benzene for Scenarios 2 and 4 shows that because MTBE and benzene were not detected in any of the groundwater samples, none of the LTCP Groundwater-Specific criteria are exceeded.” Table 2 – Summary of the Borehole Groundwater Sample Analytical Results shows TPHd and TPHmo concentrations increase from 72 micrograms per liter ($\mu\text{g/L}$) and 350 $\mu\text{g/L}$ in soil bore B2 to 450 $\mu\text{g/L}$ and 1,400 $\mu\text{g/L}$, respectively, toward Glen Echo Creek. This trend indicates the plume has not been defined, and the TPHd may potentially impact Glen Echo Creek, which is situated less than 250 feet from sample location B3. Hence, the case does not meet the LTCP Groundwater Media Specific Criteria.

Response to Comment: The downgradient extent of the plume has been delineated through the collection of recent data from boring B-12 advanced by Langan in April 2016. Boring B-12 was advanced approximately 70 feet east-southeast and downgradient of the former UST and approximately 20 feet east-southeast and downgradient of boring B3. Concentrations of TPHg, TPHd, and TPHmo at this location were non-detectable at less than 50 milligrams per liter (mg/L) for TPHg and TPHd and less than 250 mg/L for TPHmo (Table 1 and Figure 3). These results define the downgradient portion of the TPH impacts to groundwater and indicate that the residual TPH is localized and has not migrated significantly away from the former UST location. The upgradient extent of the plume is defined by the former USTs at 3000 Broadway, which were granted regulatory closure by the City of Oakland Fire Department/Hazardous Materials Management Program in correspondence dated 7 June 2000.

Langan also evaluated the distance from the downgradient portion of the plume to Glen Echo Creek using available and current information in our Geographic Information System (GIS). Figure 4 illustrates a GIS output and the estimated distance from boring B-12 to Glen Echo Creek to be 338 feet.

Based on the additional data collected from boring B-12 which defines the downgradient extent of the plume and the approximately 338 feet from B-12 to the nearest surface water body, no further action is recommended with respect to the above comment and the case should be considered for closure.

Data Gap 3 – Free Product

Comment: The referenced report states that no free product has been detected in any site soil or water samples. However, the grab groundwater sample recovered from soil bore B4 was reported to have a strong odor and a sheen was observed on the sample, indicating the potential presence of free product. Presence of product may be confirmed with the installation of a groundwater monitoring well.

Response to Comment: Langan did not observe any free product or sheen on groundwater collected from either the upgradient or downgradient borings B-11 and B-12. Furthermore, photoionization detector readings were 0.0 parts per million during soil sampling at B-11 and B-12 (Attachment D). No indications of free product were reported at B-1, B-2 or B-3 by P&D, and only a sheen was reported at B-3, indicating any potential free product is only a very minor component of very limited extent. Downgradient sampling by Langan at B-12 indicates residual impacts or migration of contamination is limited to less than 90 feet in the downgradient direction.

Additionally, the former use of the UST to store waste oil suggests that the TPHmo detections in borings B2 and B3 are most likely heavy chain hydrocarbons associated with waste oil. Guidance provided by the Water Board for 2016 ESLs indicates high molecular weight hydrocarbons such as TPHmo (and other degradates which are quantified in the TPHmo range) are highly immobile in the subsurface, which is consistent with the observed distribution of TPHmo concentrations from B-11 to B3.

On the basis of observations made by Langan and P&D during groundwater sampling, free product does not appear to be present in site groundwater and therefore, no further action with respect to free product investigation is proposed at the site. Since the waste oil was removed prior to UST in-place abandonment and no significant petroleum hydrocarbons were detected in soil adjacent and beneath the UST, we recommend this case be considered for closure.

Technical Comment 4 – Total Petroleum Hydrocarbons as Gasoline

Comment: The laboratory analysis qualified the TPHd and TPHmo analyses for the grab groundwater sample from soil bore B3, identified as B3-W, with a flag indicating gasoline range compounds are significant. However, the analysis for TPHg reported the concentration below the laboratory reporting limit. It is unclear to ACEH if there is a discrepancy in laboratory reporting. Hence, TPHg should continue to be an analyte in future case investigations.

Response to Comment: TPHg was included in our analysis of groundwater at B-11 and B-12. TPHg was detected at 250 mg/L at B-11 and not detected above 50 mg/L at B12. Based on the recent TPHg results, the extent of TPHg contamination in groundwater has been defined.

Based on the lack of TPHg detected in boring B-12, we do not recommend any additional TPHg sampling and recommend the case be considered for closure.

Technical Comment 5 – Data Gap Investigation Work Plan with a Focused Site Conceptual Model

Comment: Please prepare a Data Gap Investigation Work Plan with a Focused Site Conceptual Model to address the technical comments listed above.

Response to Comment: The recent work conducted by Langan was in response to a due diligence investigation related to a potential property transfer for Lowe. In our opinion, the historical and additional information provided in this report defines the extent of impacts in groundwater related to the former UST located near 260 30th Street in Oakland and no additional investigation is warranted and the case should be considered for closure.

Conclusions and Recommendations

On the basis of the historical information and additional data presented in this memorandum, Langan concludes the following with respect to the abandoned-in-place UST located near 260 30th Street.

1. The source of petroleum has been removed and the abandoned-in-place UST is no longer contributing to contaminant mass in the subsurface.
2. The extent of the plume has been defined based on non-detect TPH in downgradient boring B-12.
3. Given the local groundwater flow direction at the site is to the east-southeast, the plume does not flow beneath occupied structures and therefore, vapor intrusion is not a concern.
4. Glen Echo Creek is estimated to be over 338 feet to the east-southeast of the leading edge of the plume and therefore, is not likely to be impacted.
5. The former USTs located outside of 3000 Broadway and the Hagstrom property have been granted no further action by the Oakland Fire Department and administrative case closure by the ACEH, respectively.

Considering the above, Langan, on behalf of Lowe and Mr. Bruce Burrows, respectfully request closure for the former UST at 260 30th Street, Oakland, Fuel Leak Case No. RO0000247 and GeoTracker ID T0600102220, Robert and Ruth Burrows Trust.

Langan and Lowe are available to meet regarding this letter. Please feel free to contact Joshua Graber of Langan at (510) 874-7086 or via email at jgraber@langan.com, if you would like to discuss any item(s) herein or meet regarding this letter.

Thank you for your consideration.

Sincerely yours,

Langan Engineering and Environmental Services, Inc.



Noel Liner, PG
Project Geologist



Joshua Graber, CHMM
Senior Project Manager

cc: Tom Clyman – Lowe Enterprises Real Estate Group
Bruce Burrows – Burrows Company

Attachments

- Table 1 – Groundwater Analytical Results
- Figure 1 – Site Location Map
- Figure 2 – Site Plan with Boring Locations
- Figure 3 – Site Plan with Boring Locations and TPH Analytical Results in Groundwater
- Figure 4 – Sensitive Receptor – Glen Echo Creek
- Attachment A – 3000 Broadway UST Removal Supporting Documentation
- Attachment B – Underground Storage Tank Closure, 3000 Broadway
- Attachment C – Well Survey Report, 260 30th Street, P&D Environmental, March 2016
- Attachment D – Boring Logs, April 2016
- Attachment E – Analytical Laboratory Reports

TABLE

Table 1
Groundwater Analytical Results
260 30th Street
Oakland, CA

Langan Project: 750635601
 October 2016

Sample ID	Date	TPHg	TPHd	TPHmo	VOCs											All Other VOCs	
					Acetone	Benzene	Bromo-dichloro-methane	t-Butyl alcohol	sec-Butyl benzene	tert-Butyl benzene	Chloro-benzene	Isopropyl-benzene	n-Propyl benzene	Methyl-t-butyl ether (MTBE)	Toluene		Xylenes
					(µg/L)												
B11-GW	4/2/16	250 ¹	460 ²	6,900 ²	15	0.65	0.61	12	0.67	0.96	0.65	1.3	0.93	< 0.50	< 0.5	0.88	ND
B12-GW	4/9/16	< 50	< 50	< 250	< 10	< 0.5	< 0.5	< 2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.50	0.50	< 0.5	ND
ESL (µg/L)		100	100	50,000	1,500	1	80	--	--	--	25	--	--	5.0	40	20	--

Notes:

µg/L - micrograms per Liter

< 50 - Analyte was not detected above the laboratory reporting limit (50 µg/L)

-- - Not Applicable or criteria not established

ESL - Environmental Screening Levels

HEM - Hexane Extractable Material with Silica Gel Clean-Up, by E1664A_SG

ND - Not detected at or above the laboratory reporting limit

TPHg - Total Petroleum Hydrocarbons as Gasoline, EPA Method 8015B

TPHd - Total Petroleum Hydrocarbons as Diesel Range, EPA Method 8015B

TPHmo - Total Petroleum Hydrocarbons as Motor Oil, EPA Method 8015B

VOCs - Volatile Organics Compounds, EPA 8260B

ESLs taken from San Francisco Bay Regional Water Quality Control Board's Environmental Screening Levels - *Tier 1 Groundwater*. 22 February 2016.

1 - analytical comments:

d1 - weakly modified or unmodified gasoline is present,

c1 - surrogate recovery outside of the control limits due to the dilution of the sample,

b1 - aqueous sample that contains greater than ~1 vol. % sediment

2 - analytical comments:

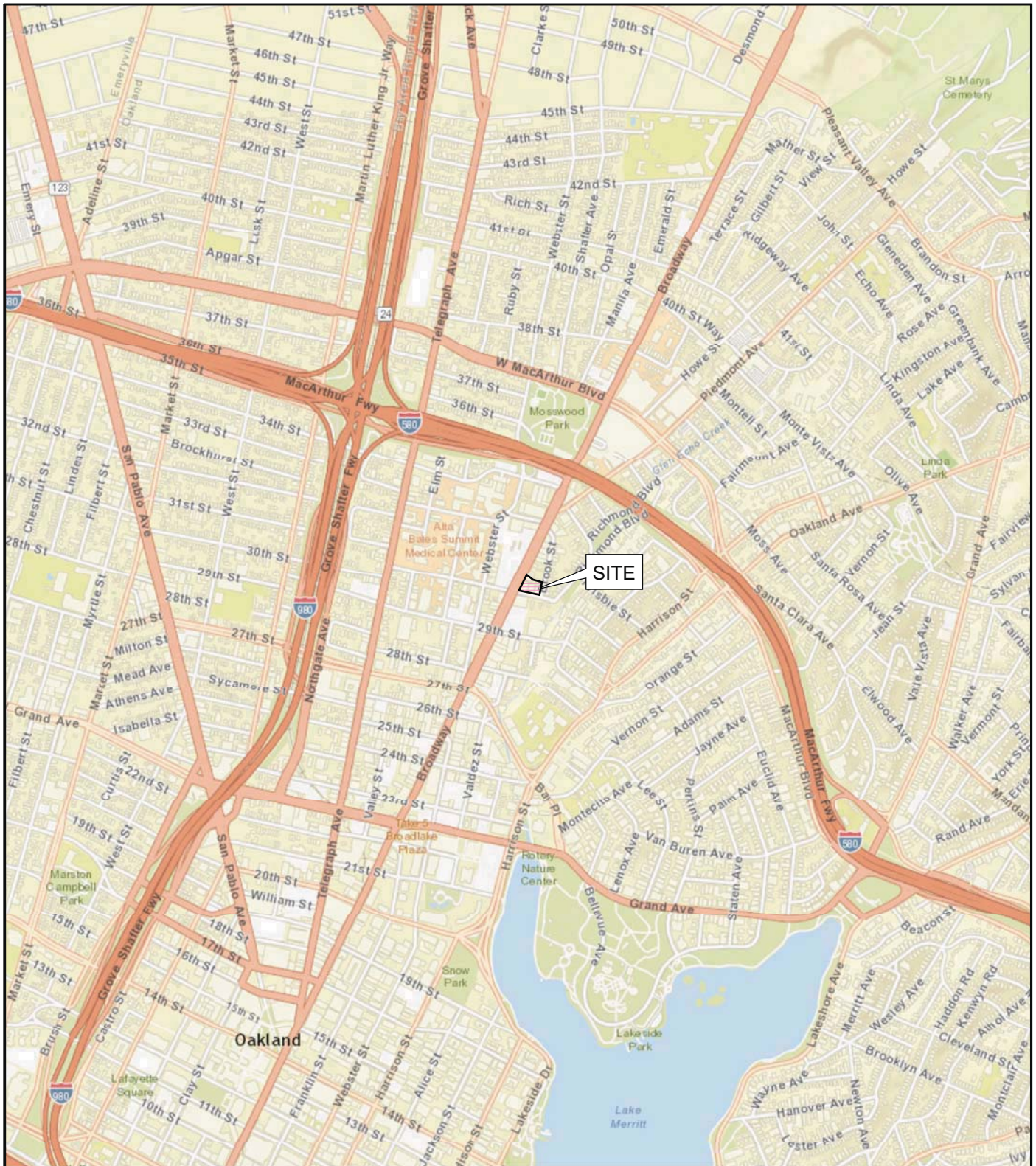
e7 - oil range compounds are significant

e2 - diesel range compounds are significant; no recognizable pattern

e11 - stoddard solvent/mineral spirit (?)

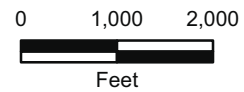
b1 - aqueous sample that contains greater than ~1 vol. % sediment

FIGURES



NOTES:

World street basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online.
 Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, IPC, NRCAN.



**3000 AND 3020 BROADWAY;
 250, 260, AND 288 30TH STREET**
 Oakland, California

SITE LOCATION MAP

LANGAN TREADWELL ROLLO

Date 10/18/16




Project No. 750635601

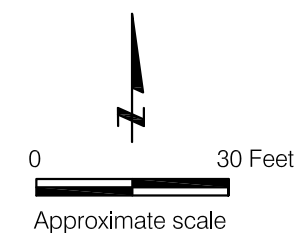
Figure 1

\\langan.com\data\OAK\data6\750635601\Cadd Data - 750635601\2D-DesignFiles\Environmental\750635601-N-SP0112.dwg 10/24/16



EXPLANATION

- B-1** ● Approximate location of 5-foot boring by Langan Treadwell Rollo, April 2016
- B-3** ◎ Approximate location of 20-foot boring by Langan Treadwell Rollo, April 2016
- B-5** ◐ Approximate location of 15-foot boring by Langan Treadwell Rollo, April 2016
- B-7** ◑ Approximate location of 10-foot boring by Langan Treadwell Rollo, April 2016
- B1** ⊕ Approximate location of boring by P&D Environmental, Inc., September 2014
- SB-1** ● Approximate location of boring by Faultline Associates, Inc., March 1997
-  Approximate location of abandoned in-place 1,000- gallon waste oil UST, March 1997
-  Approximate location of former USTs (350-gallon gasoline and 1,000-gallon diesel), removed in July 1992
-  Site Boundary



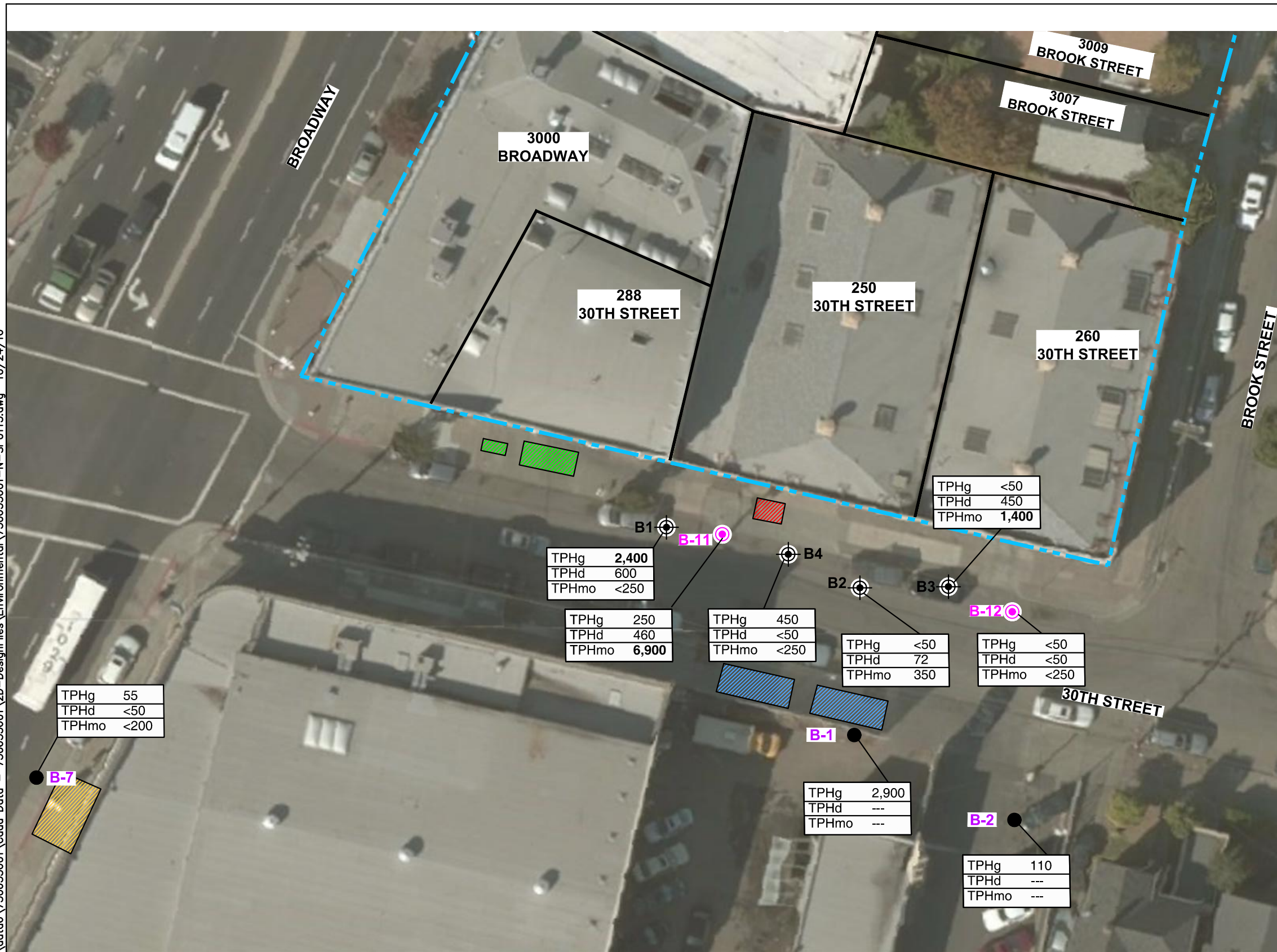
**3000 AND 3020 BROADWAY; AND
250, 260, AND 288 30TH STREET**
Oakland, California

SITE PLAN WITH BORING LOCATIONS

Date 10/18/16 | Project No. 750635601 | Figure 2

LANGAN TREADWELL ROLLO

\\langan.com\data\OAK\data6\750635601\Cadd Data - 750635601\2D-DesignFiles\Environmental\750635601-N-SP0113.dwg 10/24/16



EXPLANATION

- B-11** Approximate location of boring by Langan Treadwell Rollo, April 2016
- B-1** Approximate location of boring by P&D Environmental, Inc., September 2014
- B-1** Approximate location of boring by Trinity, 1999 and 2006
- Approximate location of abandoned in-place 1,000-gallon waste oil UST, March 1997
- Approximate location of former USTs (350-gallon gasoline and 1,000-gallon diesel), removed in July 1992
- Approximate location of former 1,500-gallon heating oil UST, removed in August 1997
- Approximate location of former 8,000-gallon gasoline USTs, removed in December 1995
- Site Boundary

Notes:

- Concentrations in micrograms per liter ($\mu\text{g/L}$)
- Total Petroleum Hydrocarbons as gasoline, diesel and motor oil (TPH-g, -d, -mo).
- San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels, (February 2016)

Compound	Human Health Risk Based Only	Fresh Water Ecotox	Gross Contamination Levels (GW-4)	Odor Nuisance Levels (Table GW-5)	
				Drinking Water	Non-Drinking Water
TPH gasoline	221	443	50,000	100	5,000
TPH diesel	147	640	2,500	100	5,000
TPH motor oil	147 1	-	50,000	100 1	5000 1

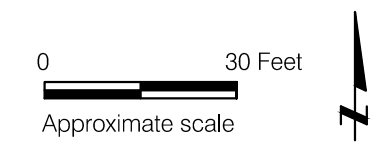
1 - TPH motor oil is not soluble. TPH motor oil detections in water most likely are petroleum degradates or less likely NAPL. If the detections are degradates, add TPH motor oil and TPH diesel results and compare to TPH diesel criterion. See User's Guide Chapter 9 for further information.

**3000 AND 3020 BROADWAY; AND
250, 260, AND 288 30TH STREET**
Oakland, California

**SITE PLAN WITH BORING LOCATIONS AND
TPH ANALYTICAL RESULTS IN GROUNDWATER**

Date 10/18/16	Project No. 750635601	Figure 3
---------------	-----------------------	----------

LANGAN TREADWELL ROLLO



Reference: Aerial by nearmap.

ATTACHMENT A
3000 BROADWAY UST REMOVAL SUPPORTING DOCUMENTATION



December 28, 1992

92 DEC 29 11:02 **FILE**

Mr. Robert Birge
1 Greenwood Common
Berkeley, CA 94708

FILE Oakland Nissan

RE: TANK REMOVAL PROJECT, 3000 BROADWAY, OAKLAND, CA

Dear Mr. Birge:

DECON Environmental Services, Inc. (DECON) contracted with Mr. Robert Birge to excavate and dispose of one (1) 1000 gallon underground diesel tank located under the sidewalk at 3000 Broadway in Oakland. The property is occupied by a Nissan Dealership. The tank was out of use for at least 10 years and was presumed to be empty.

DECON applied for and received all permits that were relevant to the project (enclosed). They are as follows:

- Alameda County Department of Health Services
- City of Oakland Fire Department
- City of Oakland Sewer Repair Permit
- Sidewalk Excavation Permit
- Pedestrian Traffic Obstruction Notification (Traffic Engineering)
- Bay Area Air Quality Management District Notification

Underground Service Alert (USA DIG) was called prior to excavating to mark the underground utilities in the area.

The tank contained approximately two inches of residual liquids. The residue was removed in a vacuum truck licensed to haul hazardous waste and hauled under Hazardous Waste Manifest #92052485 to PRC in Patterson. PRC is a facility licensed to receive petroleum waste liquids.

DECON removed the concrete sidewalk above the tank with a backhoe and loaded it into a dump truck for disposal as non-hazardous waste. The soil above the tank was removed with the backhoe and stockpiled on the sidewalk on and under 6 mil visqueen. The tank was inerted with dry ice at the rate of 30 pounds of dry ice per 1000 gallons of tank capacity to displace oxygen and flammable vapors that may have existed. The Lower Explosive Limit and Oxygen contents were checked with a combustible gas/O₂ meter under the witness of the Oakland Fire Department. With their approval the tank was removed from the excavation and loaded on a flatbed truck licensed to haul hazardous waste. The tank was shipped under Hazardous Waste Manifest #92081154 to Erickson Inc., in Richmond. Erickson is licensed to receive tanks for

3000 Broadway
Oakland 94611
STID 2710

demolition.

Accompanied by a representative of the Alameda County Department of Environmental Health, DECON collected two soil samples from beneath the tank. Two samples were also collected from the soil stockpile. The soil displayed discoloration and odors often associated with petroleum hydrocarbon contamination. The soil samples were analyzed by Sequoia Analytical Laboratory for total petroleum hydrocarbons as diesel (TPH-D), total petroleum hydrocarbons as gasoline (TPH-G) and benzene, toluene, ethyl benzene, and xylenes (BTEX). The analytical report revealed non-detection limits in the soil for all constituents analyzed.

Upon returning to the site approximately two feet of standing water and sewage was found in the excavation. A leaky sewer line located in the excavation to the North was discovered. The sewer line had been leaking over a period of time and was the source of the discoloration and odors present. DECON applied for a sewer repair permit and made the repairs to bring the sewer line up to city code.

Permission was granted from the Alameda County Department of Environmental Health to backfill. The excavation was backfilled with the soil stockpile and 15 cubic yards of imported Class II base rock. The backfill was compacted mechanically in one foot lifts to approximately 95% proctor.

Several blocks of the sidewalk beyond the excavated area were in poor condition and needed to be replaced with new concrete. During demolition of these areas a fuel fill pipe was discovered just below the concrete surface. It was learned that this pipe was connected to a 350 gallon gasoline tank.

DECON received authorization from Robert Birge to remove the second tank before resurfacing. A second permit was required by Alameda County Environmental Health Department and also from the Oakland Fire department. DECON applied for and received both permits.

DECON excavated the soil overburden and exposed the top of the second tank. The tank was inerted with dry ice at the rate of 30 pounds per 1000 gallon capacity. Accompanied by an official from the Oakland Fire Department, DECON checked the LEL and O₂ contents of the tank. The concentrations were within the permissible limits set forth by the Fire department and with their approval DECON loaded the tank onto a flatbed truck licensed to haul hazardous waste. The tank was shipped under hazardous waste manifest #90661455 to Erickson, Inc. in Richmond.

Mr. Robert Birge
December 28, 1992
Page 3

Two soil samples were collected from beneath the tank with the backhoe. The same discoloration and odors were present in the soil beneath the gasoline tank as with diesel tank. One sample was collected from the stockpile. Samples were analyzed for TPH-G, BTEX and total lead. Analytical results revealed no detection limits of hydrocarbons present in the soil. Under BTEX, xylenes reported concentrations of .007 parts per million (ppm). Total lead results were 15.0 ppm, 4.5 ppm, and 8.0 ppm. Permission was granted from the Alameda County Department of Environmental Health to backfill the excavation. The excavation was backfilled with the soil stockpile and 12 cubic yards of imported Class II baserock. The backfill was compacted mechanically in one foot lifts to a density of approximately 95%.

The sidewalk was resurfaced with 4 inches of concrete to match.

Enclosed with this report are copies of the Hazardous Waste Manifests, copies of chain of custodies and analytical reports (3 events) and, copies of permits.

Please call me if you have any questions or concerns regarding this project.

Sincerely,

Tom Reese

Tom Reese
Project Manager

TR:jlp

cc: Brian Oliva, Alameda County Department
of Environmental Health
Gilbert M. Cody, Oakland Fire Prevention Bureau



July 30, 1992

92 AUG - 3 AM 11:38

Mr. Brian Oliva
Alameda County Health Agency
Division of Hazardous Materials
Dept. of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

LARRY

Dear Mr. Oliva:

Enclosed are sample analysis for soil samples taken at 3000 Broadway, Oakland, CA, on July 21, 1992.

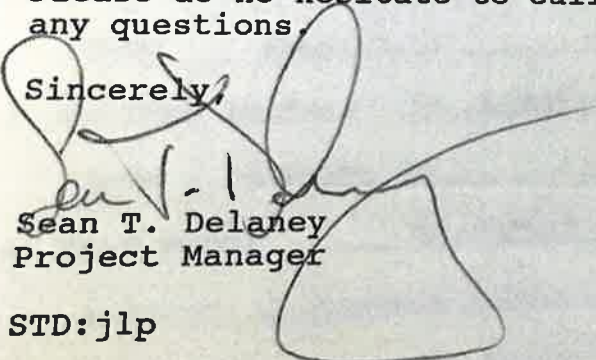
These samples were taken as per requirements set forth in your Underground Tank Closure Plan. Samples were taken under supervision of Mr. Ravi Avuranthem of your office.

Soils at the site displayed discoloration and odors which are common to hydrocarbon contamination. I believe that these soils had been contaminated by non-petroleum hydrocarbons as a result of a leaking sewer pipe on the west side of the excavation.

I would like to gain permission to backfill this excavation in order to restore the sidewalk as soon as possible.

Please do not hesitate to call me at (510) 732-6444 if you have any questions.

Sincerely,

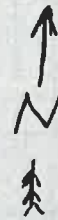

Sean T. Delaney
Project Manager

STD: jlp

Broadway

Sidewalk

30th St



3000 Broadway

Nissan Dealership

120 g UST
gasoline

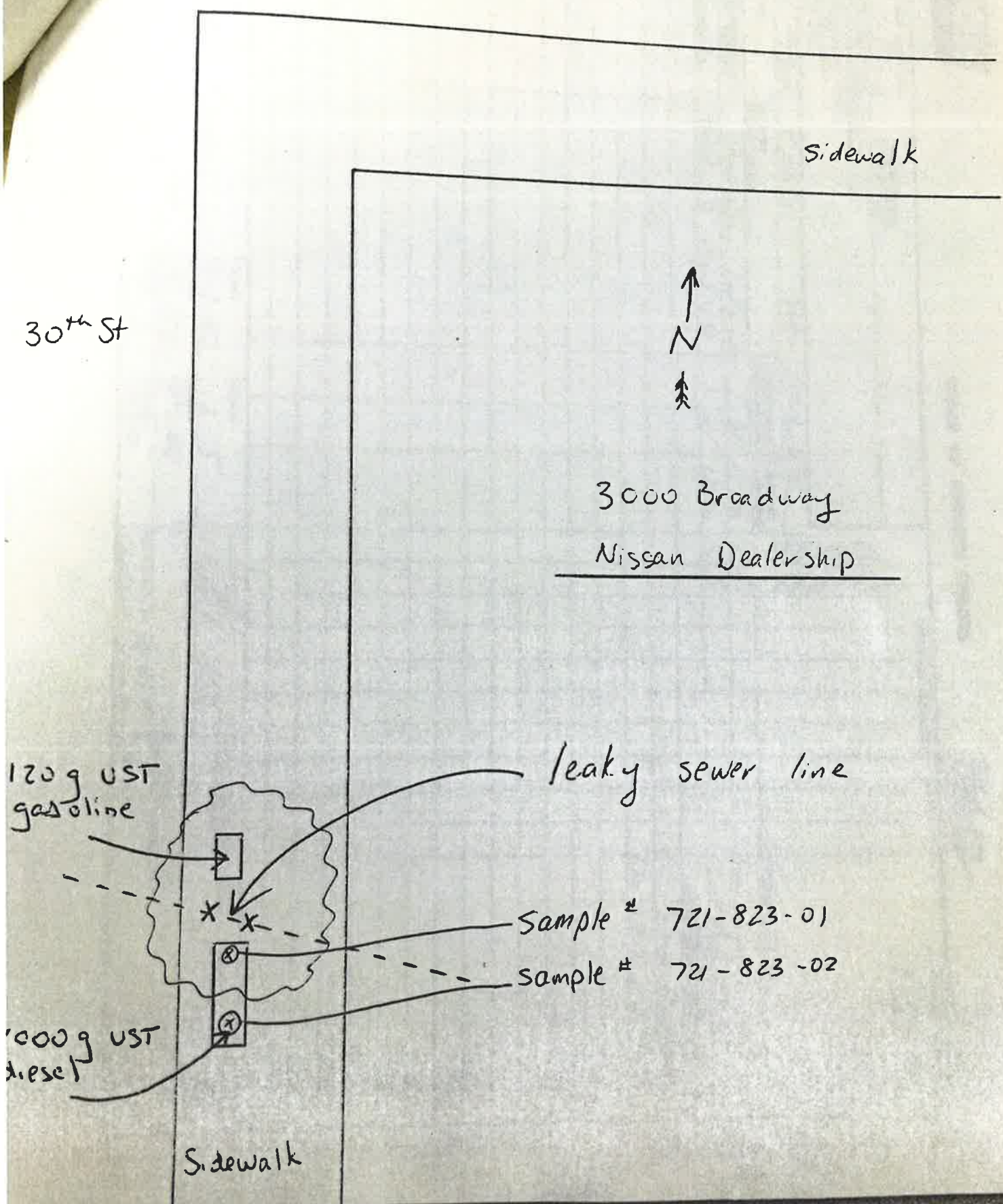
leaky sewer line

sample # 721-823-01

sample # 721-823-02

1000 g UST
diesel

Sidewalk





CHAIN OF CUSTODY REPORT

86287

TURNAROUND TIME:
30 TAT

JOB NUMBER AND NAME:
823 Birge Properties
REPORT AND BILL TO:
DECON Environmental Services, Inc.
26102 Eden Landing Road, Suite 4
Hayward, CA 94545
(510) 732-6444

ANALYSIS REQUESTED

SAMPLER:	DATE:	CONTAINERS NUMBER	TYPE*	SAMPLING TIME/DATE	TPH	TPH G	BTEX	Total Lead	REMARKS
721-823-01		1	Press	1205/92	/	/	/	/	
721-823-02		1	Press	1205/92	/	/	/	/	

Please initial: CSD

Samples stored in ice: JK

Appropriate containers: JK

Samples preserved: JK

VOA's without headspace: NA

Comments: _____

RELINQUISHED BY: <u>[Signature]</u>	DATE: <u>7/22/92</u>	TIME: <u>1:530</u>	RECEIVED BY:	Laboratory Use Only: Were samples: preserved/on ice? in good condition? labeled? <u>ll.</u>	Yes	No
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:		<input checked="" type="checkbox"/>	<input type="checkbox"/>
RELINQUISHED BY:	DATE: <u>7/22/92</u>	TIME: <u>0830</u>	RECEIVED BY LAB BY: <u>[Signature]</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Grab C = Composite W = Wipe

Flaming 7-22-92
7:30 PM



Superior Precision Analytical, Inc.

835 Arnold Drive, Suite 106 • Martinez, California 94553 • (510) 229-0166 / fax (510) 229-0916

C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 86287
CLIENT: Decon Environmental Services
CLIENT JOB NO.: 823

DATE RECEIVED: 07/22/92
DATE REPORTED: 07/29/92
DATE SAMPLED : 07/21/92

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS
by Modified EPA SW-846 Method 8015

LAB #	Sample Identification	Concentration (mg/kg) Diesel Range
1	721-823-01	ND<10
2	721-823-02	ND<10

mg/kg - parts per million (ppm)

Method Detection Limit for Diesel in Soil: 10 mg/kg

QAQC Summary:

Daily Standard run at 200mg/L: RPD Gasoline = NA
RPD Diesel = 9%
MS/MSD Average Recovery = 88% : Duplicate RPD = 5%

Richard Srna, Ph.D.

Nancy A. Nelson for
Laboratory Director



Superior Precision Analytical, Inc.

835 Arnold Drive, Suite 106 • Martinez, California 94553 • (510) 229-0166 / fax (510) 229-0916

C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 86287
CLIENT: Decon Environmental Services
CLIENT JOB NO.: 823

DATE RECEIVED: 07/22/92
DATE REPORTED: 07/29/92
DATE SAMPLED : 07/21/92

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS
by MODIFIED EPA SW-846 METHOD 5030 and 8015

LAB #	Sample Identification	Concentration (mg/kg) Gasoline Range
1	721-823-01	ND<1
2	721-823-02	ND<1

mg/kg - parts per million (ppm)

Method Detection Limit for Gasoline in Soil: 1 mg/kg

QAQC Summary:

Daily Standard run at 2mg/L: RPD Gasoline = <15
MS/MSD Average Recovery = 88% : Duplicate RPD = 12%

Richard Srna, Ph.D.
Nancy A. Nelson for
Laboratory Director

Superior Precision Analytical, Inc.

835 Arnold Drive, Suite 106 • Martinez, California 94553 • (510) 229-0166 / fax (510) 229-0916

C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 86287
CLIENT: Decon Environmental Services
CLIENT JOB NO.: 823

DATE RECEIVED: 07/22/92
DATE REPORTED: 07/29/92
DATE SAMPLED : 07/21/92

ANALYSIS FOR BENZENE, TOLUENE, ETHYL BENZENE & XYLENES
by EPA SW-846 Methods 5030 and 8020

LAB #	Sample Identification	Concentration (ug/kg)			
		Benzene	Toluene	Ethyl Benzene	Xylenes
1	721-823-01	ND<3	ND<3	ND<3	ND<3
2	721-823-02	ND<3	ND<3	ND<3	ND<3

ug/kg - parts per billion (ppb)

Method Detection Limit in Soil: 3 ug/kg

QAQC Summary:

Daily Standard run at 20ug/L: RPD = <15%
MS/MSD Average Recovery = 98% : Duplicate RPD = <5%

Richard Srna, Ph.D.
Nancy A. Nelson for
Laboratory Director

Superior Precision Analytical, Inc.

835 Arnold Drive, Suite 106 • Martinez, California 94553 • (510) 229-0166 / fax (510) 229-0916

C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 86287
CLIENT: Decon Environmental Services
CLIENT JOB NO.: 823

DATE RECEIVED: 07/22/92
DATE REPORTED: 07/29/92
DATE SAMPLED: 07/21/92

ANALYSIS FOR TOTAL LEAD by SW-846 Method 6010

LAB #	Sample Identification	Concentration (mg/kg) Total Lead
1	721-823-01	7
2	721-823-02	6

mg/kg - parts per million (ppm)

Method Detection Limit for Lead in Soil: 5 mg/kg

QAQC Summary: MS/MSD Average Recovery : 88%
Duplicate RPD : 9%

Richard Srna, Ph.D.

Nancy A. Nelson for
Laboratory Manager



CHAIN OF CUSTODY REPORT

COPY

TURNAROUND TIME:
5 day

JOB NUMBER AND NAME:
823 - Birge Prop.

REPORT AND BILL TO:
DECON Environmental Services, Inc.
23490 Connecticut Street
Hayward, CA 94545
(510) 732-6444

ANALYSIS REQUESTED

TPH-695
BTEX
Total Lead

SAMPLER: *M. Petterle* DATE: *10-19-92*

REMARKS

SAMPLE ID/ STATION	SAMPLE DESCRIPTION	CONTAINERS		SAMPLING TIME/DATE	TPH-695	BTEX	Total Lead	REMARKS
		NUMBER	TYPE*					
<i>823-001</i>	<i>Pit Bottom</i>	<i>1</i>	<i>G</i>	<i>2:45/10/92</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>2102811</i>
<i>823-002</i>	<i>Bottom Pit Eastside</i>	<i>1</i>	<i>G</i>	<i>2:50/10/92</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>↓ 12</i>
<i>823-003</i>	<i>compos'd stock Pit</i>	<i>1</i>	<i>C</i>	<i>2:55/10/92</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>↓ 13</i>

RELINQUISHED BY: *M. Petterle*

RELINQUISHED BY: *Barbara Leep*
DECON Environmental Services, Inc

RELINQUISHED BY:

DATE: *10-19-92*

DATE: *10-19-92*

DATE:

TIME: *4:50 PM*

TIME: *10:03 PM*

TIME:

RECEIVED BY: *Barbara Leep*

RECEIVED BY:

RECEIVED IN LAB BY: *[Signature]*

Laboratory Use Only: Were samples:		Yes	No
preserved/on ice?			
in good condition?			
labeled?			

G - Grab C - Composite W - Wipe

10/19/92 1003



SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RECEIVED OCT 27 1992

OAKLAND
NISSAN

DECON Environmental Services 23490 Connecticut Street Hayward, CA 94545 Attention: Tom Reese	Client Project ID: #823/Birge Properties Sample Matrix: Soil Analysis Method: EPA 5030/8015/8020 First Sample #: 210-2811	Sampled: Oct 19, 1992 Received: Oct 19, 1992 Reported: Oct 23, 1992
---	--	---

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D.	Sample I.D.	Sample I.D.
		210-2811 823-001	210-2812 823-002	210-2813 823-003
Purgeable Hydrocarbons	1.0	N.D.	N.D.	N.D.
Benzene	0.0050	N.D.	N.D.	N.D.
Toluene	0.0050	N.D.	N.D.	N.D.
Ethyl Benzene	0.0050	N.D.	N.D.	N.D.
Total Xylenes	0.0050	0.0070	N.D.	N.D.
Chromatogram Pattern:		Non-Gas Mix C4 - C12	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0
Date Analyzed:	10/20/92	10/20/92	10/20/92
Instrument Identification:	GCHP-1	GCHP-1	GCHP-1
Surrogate Recovery, %: (QC Limits = 70-130%)	99	102	99

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Andrea Fulcher
Andrea Fulcher
Project Manager



SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

DECON Environmental Services
23490 Connecticut Street
Hayward, CA 94545
Attention: Tom Reese

Client Project ID: #823/Birge Properties
Sample Descript: Soil
Analysis for: Total Lead
First Sample #: 210-2811

Sampled: Oct 19, 1992
Received: Oct 19, 1992
Extracted: Oct 21, 1992
Analyzed: Oct 23, 1992
Reported: Oct 23, 1992

LABORATORY ANALYSIS FOR: Total Lead

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
210-2811	823-001	0.25	15
210-2812	823-002	0.25	4.5
210-2813	823-003	0.25	8.0

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Andrea J. Fulcher
Andrea Fulcher
Project Manager

2102811.DEC <2>

To Chris:
yedu

CITY OF OAKLAND



FIRE SERVICES AGENCY • 1605 MARTIN LUTHER KING JR. WAY • OAKLAND, CALIFORNIA 94612

Office of Emergency Services

(510) 238-3938
FAX (510) 238-7761
TDD (510) 639-6451

February 7, 2000

Mr. Robert Birge
1 Greenwood Common
Berkeley, CA 94708

RE: **Intent to make a determination that no further work is required at 3000 Broadway Ave.,
Oakland CA 94611**

Mr. Birge:

This letter is to inform you that before the City of Oakland Fire Services Agency/Office of Emergency Services (FSA/OES) can make a determination that no further work is required at the above site, certain requirements pertaining to cleanup and closure of sites must be followed.

In accordance with section 25299.37.1 of Chapter 6.7 of the Health and Safety Code, you must provide to FSA/OES testing results for methyl tertiary-butyl ether (MTBE) of the soil or groundwater, or both, where applicable, of the area where the tanks were removed.

In accordance with section 25297.15 of Chapter 6.7 of the Health and Safety Code, you have been identified as the primary or active responsible party. Please provide to this office, within fifteen calendar days of receipt of this notice, a complete mailing list of all current record owners of fee title to the site. You may use the enclosed list of landowners form (attached letter) to comply with this requirement. If the list of current record owners of fee title to the site changes, you must notify this office of the change within fifteen calendar days from when you are notified of the change.

If you are the sole landowner, please indicate that on landowner list form.

If you have any questions, please contact me at (510) 238-7253.

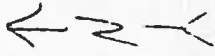
Sincerely,

Hernán E. Gómez
Hazardous Materials Inspector

782-8584

cc: Leroy Griffin, Hazardous Materials Supervisor

3000 Broadway
Oakland



Rollup doors

Sample Location

Sidewalk

30th ST

- 1) Coreal Through
- 2) Hand augered to a depth of 10' BGS
- 3) obtained Soil Sample
- 4) Backfilled auger hole
- 5) replaced core
- 6) Transported Sample to chromalab

DECON	CLIENT: R. Birge
PROJECT NAME: Robert Birge	NUMBER: 823
LOCATION: 3000 Broadway Oakland	DATE: 5/12/00
PREPARED BY: Forrest Gwitt	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-05-0280

Date: May 17, 2000

Decon Env. Services, Inc.
23490 Connecticut Street
Hayward, CA 94545

Attn: Forrest Corutt

Project: 823
3000 Broadway, Oakland

Attached is our report for your samples received on Friday May 12, 2000
This report has been reviewed and approved for release. Reproduction of this report
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after June 11, 2000
unless you have requested otherwise. We appreciate the opportunity to be of service to you.
If you have any questions, please call me at (925) 484-1919. You can also contact me via email.
My email address is: vvancil@chromalab.com

Sincerely,



Vincent Vancil

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone (925) 484-1919 * Facsimile: (925) 484-1086

CHROMALAB, INC.
Environmental Services (SDB)

Submission #: 2000-05-0280

Volatile Hydrocarbons by 8015/8020

Decon Env. Services, Inc.	<input type="checkbox"/> 23490 Connecticut Street Hayward, CA 94545 Phone: (510) 732-6444 Fax: (510) 782-8584
Attn: Forrest Corrutt	Project 3000 Broadway, Oakland
Project #: 823	

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
1-A	Soil	05/12/2000 09:30	1

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-05-0280

To: Decon Env. Services, Inc.
Attn.: Forrest Corruitt

Test Method: 8020
Prep Method: 5030

Volatile Hydrocarbons by 8015/8020

Sample ID:	1-A	Lab Sample ID:	2000-05-0280-001
Project:	823 3000 Broadway, Oakland	Received:	05/12/2000 12:20
Sampled:	05/12/2000 09:30	Extracted:	05/15/2000 19:49
Matrix:	Soil	QC-Batch:	2000/05/15-01.04

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
MTBE	ND	0.0050	mg/Kg	1.00	05/15/2000 19:49	
Surrogate(s) Trifluorotoluene	85.0	53-125	%	1.00	05/15/2000 19:49	

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone (925) 484-1919 * Facsimile (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-05-0280

To: Decon Env. Services, Inc.
 Attn.: Forrest Carrutt

Test Method: 8020
 Prep Method: 5030

Batch QC Report
 Volatile Hydrocarbons by 8015/8020

Method Blank	Soil	QC Batch # 2000/05/15-01.04
MB: 2000/05/15-01.04-001		Date Extracted: 05/15/2000 10:45

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Benzene	ND	0.0050	mg/Kg	05/15/2000 10:45	
Toluene	ND	0.0050	mg/Kg	05/15/2000 10:45	
Ethyl benzene	ND	0.0050	mg/Kg	05/15/2000 10:45	
Xylene(s)	ND	0.0050	mg/Kg	05/15/2000 10:45	
MTBE	ND	0.0050	mg/Kg	05/15/2000 10:45	
Surrogate(s)					
Trifluorotoluene	85.4	53-125	%	05/15/2000 10:45	

1220 Quarry Lane • Pleasanton, CA 94566-4756
 Telephone (925) 484-1919 • Facsimile (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-05-0280

To: Decon Env. Services, Inc.
 Attn: Forrest Corruitt

Test Method: 8020
 Prep Method: 5030

Batch QC Report

Volatile Hydrocarbons by 8015/8020

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2000/05/15-01.04	
LCS:	2000/05/15-01.04-002	Extracted:	05/15/2000 11:13	Analyzed:	05/15/2000 11:13
LCSD:	2000/05/15-01.04-003	Extracted:	05/15/2000 11:40	Analyzed:	05/15/2000 11:40

Compound	Conc. [mg/Kg]		Exp. Conc. [mg/Kg]		Recovery [%]			Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	RPD (%)	Recovery	RPD	LCS	LCSD
Benzene	0.0874	0.0785	0.1000	0.1000	87.4	78.5	10.7	77-123	35		
Toluene	0.0872	0.0804	0.1000	0.1000	87.2	80.4	8.1	78-122	35		
Ethyl benzene	0.0883	0.0803	0.1000	0.1000	88.3	80.3	9.5	70-130	35		
Xylene(s)	0.250	0.228	0.300	0.300	83.3	76.0	9.2	75-125	35		
Surrogate(s)											
Trifluorotoluene	446	406	500	500	89.2	81.2		53-125			

1220 Quarry Lane * Pleasanton, CA 94566-4756
 Telephone (925) 484-1919 * Facsimile (925) 484-1096

ATTACHMENT B
UNDERGROUND STORAGE TANK CLOSURE, 3000 BROADWAY

CITY OF OAKLAND



FIRE SERVICES AGENCY • 1605 MARTIN LUTHER KING JR. WAY • OAKLAND, CALIFORNIA 94612

Office of Emergency Services

(510) 238-3938
FAX (510) 238-7761
TDD (510) 839-6451

June 7, 2000

Mr. Robert Birge
1 Greenwood Common
Berkeley, CA 94708

RE: **Underground Storage Tank Case Closure**
3000 Broadway Ave.
Oakland, CA 94611

Dear Mr. Birge:

This letter confirms the completion of the site investigation and sampling activities by DECON Environmental Services, Inc. at the above location on May 12, 2000.

The City of Oakland Fire Department/Hazardous Materials Management Program (OFD/HMMP) staff has received a copy of the analytical results. Based on the available information and with the provision that the information provided to OFD/HMMP was accurate and representative of site conditions, no further action related to the UST removed at the above site is required at this time by this office.

Please be advised that this letter does not relieve you of any liability under the California Health and safety Code or Water Code for past, present, or future operations at this site. Nor does it relieve you of the responsibility to clean up existing, additional or previously unidentified conditions at the site, which cause or threaten to cause pollution or nuisance or otherwise pose a threat to water quality or public health.

If you have any questions, please contact me at (510) 238-7253.

Sincerely,

Hernán E. Gómez
Hazardous Materials Inspector

cc: Sheldon Crandell, C.B. Richard Ellis

ATTACHMENT C
WELL SURVEY REPORT, 260 30TH STREET, P&D ENVIRONMENTAL,
MARCH 2016

P&D ENVIRONMENTAL, INC.

55 Santa Clara Ave, Suite 240
Oakland, CA 94610
(510) 658-6916

March 22, 2016
Report 0594.R2

Mr. Bruce Burrows
The Burrows Company
6 Southpoint Road
Orinda, CA 94563

SUBJECT: WELL SURVEY REPORT
County File #RO 247
260 30th Street
Oakland, CA

Dear Mr. Burrows:

P&D Environmental, Inc. (P&D) has prepared this report documenting the results of a well survey for a 2,000-foot radius for the subject site. This report is written in response to a request from Mr. Keith Nowell of the Alameda County Department of Environmental Health (ACDEH) in a letter dated November 4, 2015. A U.S. Geological Survey topographic map showing the location of the subject site with a 2,000-foot radius circle around the site is attached with this report as Figure 1. The locations of wells identified in the study area other than groundwater monitoring wells associated with contamination investigations are also shown on Figure 1. Wells identified during this investigation are limited to wells that are not associated with groundwater contamination investigations.

A total of six wells with uses other than contamination investigation monitoring wells or borings were identified within the study area. Based on the known extent of petroleum hydrocarbons in groundwater associated with the subject site, the southerly groundwater flow direction in the vicinity of the subject site, and the locations of wells identified during this evaluation, no wells were identified at locations either within the known extent of petroleum hydrocarbons in groundwater or at downgradient locations that could potentially be impacted in the future by petroleum hydrocarbons in groundwater associated with the subject site.

All work was performed under the direct supervision of California Professional Geologist.

BACKGROUND

The well survey was requested by the ACDEH as part of the investigation of a release from an Underground Storage Tank (UST) at the subject site. Documentation of the site history and investigation of the UST release is presented in greater detail in P&D's Soil and Groundwater Investigation Report dated October 15, 2014 (document 0594.R1).

WELL SURVEY

Well information was obtained from the California Department of Water Resources (DWR) and from the Alameda County Public Works Agency (ACPWA) using well completion report release agreement request forms. Additionally, a search was done on the California State Water Resources Control Board (SWRCB) Geotracker GAMA website. The results are discussed below.

Department of Water Resources

P&D submitted a request to Mr. Jeremy Shaffer of the DWR for available well information within a 2,000-foot radius of the subject site. On November 10, 2015 Mr. Shaffer provided a total of 600 Well Completion Reports (WCRs) or related files (i.e. site maps, boring logs, etc.). Review of these files showed that a total of fifty wells were identified at different locations within a 2,000-foot radius of the subject site.

Of the fifty wells identified within the 2,000-foot radius of the site, all but four were associated with contamination investigations and had total depths of 41-feet or less. The four wells that were identified within the search radius and that were not identified as monitoring wells or soil borings are identified in Table 1 attached with this report. All of the wells in Table 1 that were positively identified by DWR as being located in the study area are shown on Figure 1. The location and distance of the wells identified from the DWR data that are shown on Figure 1 are approximate and were identified by locating the site address provided by DWR or listed on the well log and using the internet service Google Earth.

Alameda County Public Works Agency

P&D also submitted a request to Mr. Steve Miller of the ACPWA for available well information within a 2,000-foot radius of the subject site. On November 17, 2015 Mr. Miller provided tables via e-mail to P&D that transmitted the findings of the ACPWA database search. Mr. Miller stated in his transmittal that the search area is in Township 1S, Range 4W, and included all or part of Section 23 Tracts Q and R; Section 24 Tracts N and P; Section 25 Tracts C, D, E, F, L, and M; Section 26 A, B, G, H, and J. Mr. Miller also stated that there were no results for wells in the search area in the ACPWA database in the underlined Sections identified above.

A total of 171 well records in the study area were included in the spreadsheet provided by ACPWA. Review of the ACPWA information showed that a total of three wells other than wells associated with contamination investigations were identified at different locations within a 2,000-foot radius of the subject site. One of the three wells was also identified in the DWR database (PG&E cathodic protection well).

The three wells identified as being within the search radius and not being associated with contamination investigations are also included in Table 1. All of the wells in Table 1 that

were identified by ACPWA as being located in the study area are also shown on Figure 1. The location and distance of the wells identified from the ACPWA data that are shown on Figure 1 are approximate and were identified by locating the site address provided by DWR or listed on the well log and using the internet service Google Earth.

GEOLOGY AND HYDROGEOLOGY

Based on review of regional geologic maps from U. S. Geological Survey Professional Paper 943, "Flatland Deposits - Their Geology and Engineering Properties and Their Importance to Comprehensive Planning," by E. J. Helley and K. R. Lajoie, 1979, the subject site is underlain by Late Pleistocene alluvium (Qpa). The Late Pleistocene alluvium is described as weakly consolidated slightly weathered poorly sorted irregularly interbedded clay, silt, sand, and gravel.

Based on review of the Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California (U.S. Geological Survey Miscellaneous Field Studies MF-2342, Version 1.0) by R.W Graymer, 2000, the site is predominantly underlain by Holocene alluvial fan and fluvial deposits (Qhaf) that are described as consisting of brown or tan, medium dense to dense, gravely sand or sandy gravel that generally grades upward to sandy or silty clay. To the west, the site is predominantly underlain by Pleistocene alluvial fan and fluvial deposits (Qpaf) that are described as consisting of brown, dense, gravelly and clayey sand or clayey gravel that fines upwards to sandy clay.

Review of the subsurface materials encountered in boreholes B1 through B4 that were drilled by P&D shows that the materials consisted predominantly of silty clay, sandy clay, clay, and clayey silt with coarse-grained materials encountered in feet below the ground surface (bgs) as follows:

- B1 - 17.5 to 18.5 clayey fine sand,
- B2 - 11.5 to 13.5 silty fine sand,
- B3 - 13.0 to 15.0 silty fine sand,
- B4 - 14.5 to 17.0 fine sand.

Based on the materials encountered in the boreholes, the subsurface materials most closely resemble the materials described above by Helley and Lajoie.

Groundwater was first encountered at a depth of 17.5, 12.0, 13.0, and 14.5 feet bgs, respectively in boreholes B1 through B4. The measured depth to water after drilling and prior to groundwater sample collection in boreholes B1 through B4 was 13.1, 10.1, 8.6 and 12.2 feet bgs, respectively.

Glen Echo Creek is located approximately 350 feet southeast of the subject site, and Lake Merritt is located approximately 2,800 feet south of the subject site (see Figure 1). The groundwater flow direction at the site is unknown, however based on the ground surface

topography is assumed to be to the east-southeast towards Glen Echo Creek (see Figure 1).

WELL SEARCHES AT NEARBY SITES

Review of available files on GeoTracker for nearby sites identified a Potential Receptor and Preferential Pathway Survey Report for the Connell Automobile Dealership located at 3093 Broadway dated March 30, 2000 prepared by Cambria Environmental Technology, Inc. (Cambria). Review of the Cambria 2000 report well search results did not reveal any new wells that had not already been identified during the 2,000-foot radius well search for the subject site (260 30th Street).

DISCUSSION AND RECOMMENDATIONS

A total of six wells other than contamination investigation monitoring wells or borings were identified within a 2,000-foot radius of the subject site (see Figure 1 and Table 1). Based on the southerly groundwater flow direction in the vicinity of the subject site and the known extent of petroleum hydrocarbons in groundwater associated with the subject site, none of the wells identified during the well search for the subject site (other than groundwater monitoring wells associated with contamination investigations) were identified at locations either within the known extent of petroleum hydrocarbons in groundwater or at downgradient locations that could potentially be impacted by petroleum hydrocarbons in groundwater associated with the subject site.

DISTRIBUTION

A copy of this report will be uploaded to the County ftp website and to GeoTracker.

LIMITATIONS

This report was prepared solely for the use of The Burrows Company. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between boreholes and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole

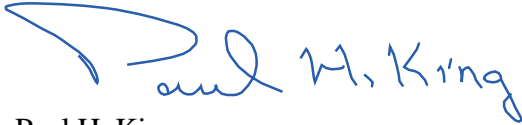
responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgment based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental, Inc.



Paul H. King
Professional Geologist #5901
Expires: 12/31/17



Attachments:

Table 1 - Wells Identified Within 2000 Feet of 260 30th Street

Figure 1 - Site Location Map Detail Showing 2,000-Foot Well Survey Search Radius

PHK/ sjc
0594.R2

TABLES

Table 1
 Wells Identified Within
 2000 Feet of
 260 30th Street
 Oakland, California

	<u>State Well Number</u>	<u>Database</u>	<u>Well ID</u>	<u>Address</u>	<u>City</u>	<u>Owner</u>	<u>City</u>	<u>Drill Date</u>	<u>Total Well Depth (Ft)</u>	<u>Casing Diameter (In.)</u>	<u>Use</u>	<u>Distance From Site (Feet)</u>
1	1S/4W 26C4	DWR	Unk.	2629 Harrison Street	Oakland	Oakland School District	Oakland	Unk.	120	Unk.	Irrigation	1750
2	1S/4W 26B1	DWR and ACPWA	Unk.	29th Street & Telegraph Avenue	Oakland	PG&E	Oakland	4/2-5/1974	120	None	Cathodic Protection	1700
3	*1S/4W 26	DWR	Unk.	3100 Summit Street	Oakland	Providence Hospital	Oakland	Unk.	150	Unk.	Unused	902
4	1S/4W 26G	DWR	#2	30th Street & Webster Street	Oakland	Providence Hospital	Oakland	Unk.	566	Unk.	Unk.	800
5	1S/4W 24N15	ACPWA	LF-1	3505 Broadway	Oakland	Kaiser Health Foundation	Oakland	1-1992	29	8	Destroyed	1600
6	1S/4W 24N16	ACPWA	LF-5	3505 Broadway	Oakland	Kaiser Health Foundation	Oakland	1-1992	28	10	Destroyed	1600
NOTES:												
DWR = Department of Water Resources												
ACPWA = Alameda County Public Works Agency												
Unk. = Unknown												
* = Illegible												

FIGURES

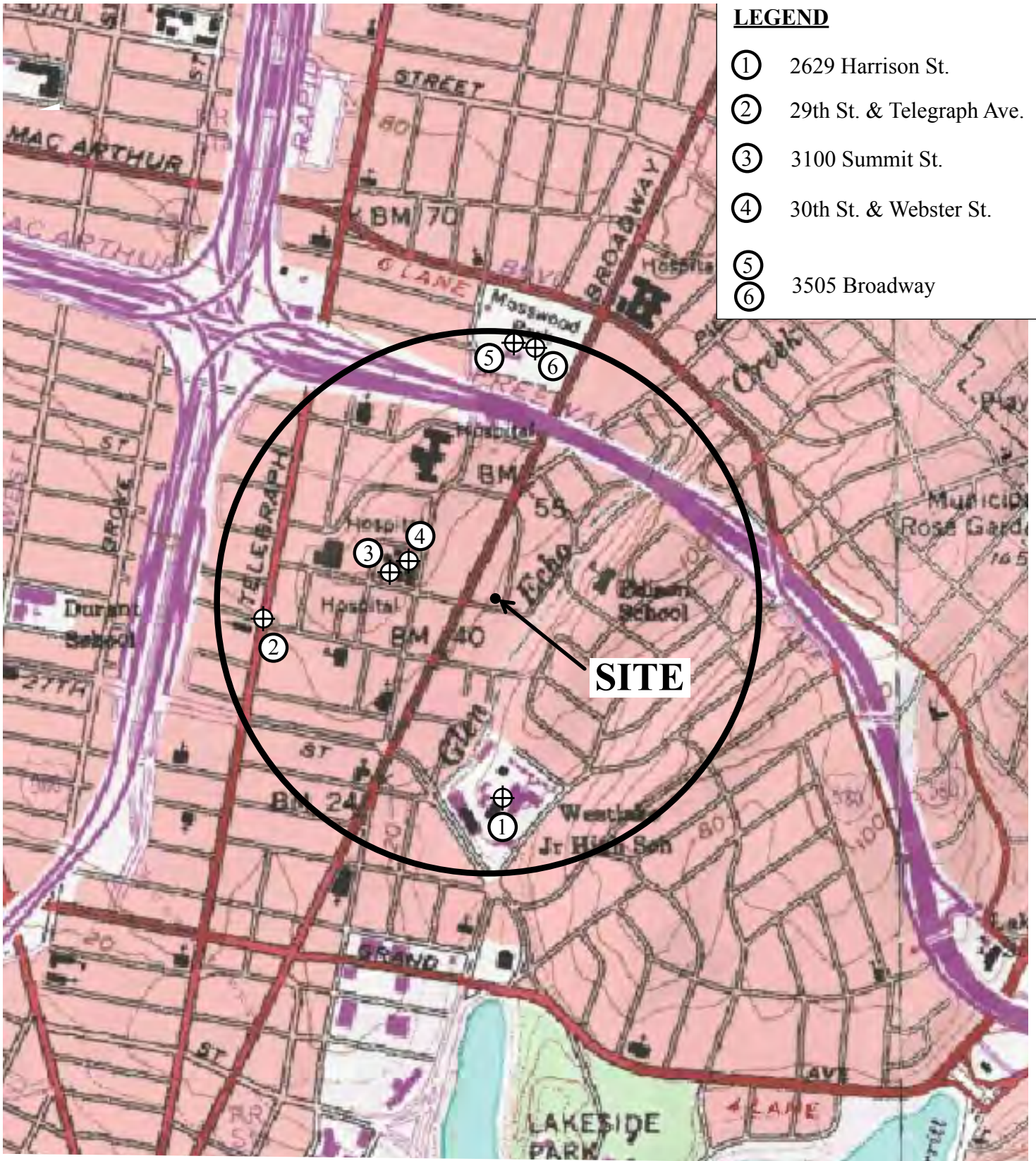


Figure 1
Site Location Map Detail Showing 2,000-Foot Well Survey Search Radius
260 30th Street
Oakland, CA

Base Map From:
US Geological Survey Oakland East,
California, and Oakland West, California
7.5-Minute Quadrangles
Photorevised 1980

P&D Environmental, Inc.
55 Santa Clara Avenue
Oakland, CA 94610

0 500 1000
Approximate Scale in Feet



**ATTACHMENT D
BORING LOGS, APRIL 2016**

PROJECT:

3000 BROADWAY
Oakland, California

Log of Boring B-11

PAGE 1 OF 1

Boring location: See Site Plan, Figure 2

Logged by: N. Tu
Drilled By: Gregg Drilling Co.

Date started: 4/2/16

Date finished: 4/2/16

Drilling method: Direct Push

Hammer weight/drop: NA

Hammer type: NA

Sampler: Direct Push

DEPTH (feet)	SAMPLES				PID (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (inches)			
1						SP	3 inches Asphalt
2							GRAVELLY SAND with SILT (SP) 35 percent gravel, 50 percent sand, 15 percent fines, dark brown, medium dense, dry, subangular up to 1/2-inch, no odor some clay
3							SANDY CLAY (CL) 35 percent sand, 65 percent fines, light brown, medium stiff, dry to moist, slightly plastic to plastic, no odor
4							
5							
6				39"/36	0.0	CL	
7							
8							
9							
10				48"/48"	0.0		
11						CL	SANDY CLAY (CL) 25 percent sand, 75 percent fines, grayish-brown, stiff, wet, plastic, no odor
12							
13							
14				48"/48"	0.0	CL	CLAY (CL) 100 percent fines, brown, stiff, wet, slightly plastic to plastic, no odor.
15							
16							
17						CL	
18				48"/48"	0.0		
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

TEST ENVIRONMENTAL INCHES 750635601 ENV-BROADWAY.GPJ T&R.GDT 4/26/16

Boring terminated at a depth of 20 feet below ground surface.
Boring backfilled with grout.
Groundwater encountered 10.7 feet.

LANGAN TREADWELL ROLLO

Project No.:
750635601

Figure:
A-11

PROJECT:

3000 BROADWAY
Oakland, California

Log of Boring B-12

PAGE 1 OF 1

Boring location: See Site Plan, Figure 2

Logged by: N. Tu
Drilled By: Gregg Drilling Co.

Date started: 4/2/16

Date finished: 4/2/16

Drilling method: Direct Push

Hammer weight/drop: NA

Hammer type: NA

Sampler: Direct Push

DEPTH (feet)	SAMPLES				PID (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (inches)			
1							3 inches Asphalt
2						SC	CLAYEY SAND with GRAVEL (SC) 10 percent gravel, 60 percent sand, 30 percent fines, brown, medium dense, dry, subrounded to subangular up to 1/2-inch, non plastic to slightly plastic, no odor
3						GW	SANDY GRAVEL (GW) 70 percent gravel, 20 percent sand, 10 percent fines, brown, loose, dry, subrounded to subangular up to 1-inch, no odor
4						CL	SANDY CLAY (CL) 20 percent sand, 80 percent fines, brown/ gray, stiff, moist, slightly plastic to plastic, no odor
5						SM	SILTY SAND (SM) 70 percent sand, 30 percent fines, brown, loose, moist, no odor
6				36"/36"	0.0	CL	SANDY CLAY (CL) 20 percent sand, 80 percent fines, brown/ grayish, medium stiff, wet, plastic, no odor
7							
8							
9							
10				48"/48"	0.0		CLAY (CL) 100 percent fines, light brown/ blue-green, stiff, wet, plastic, no odor
11							
12							
13							
14				48"/48"	0.0	CL	
15							
16							
17							
18				38"/48"	0.0		
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

FILL

TEST ENVIRONMENTAL INCHES 750635601 ENV-BROADWAY.GPJ T&R.GDT 4/26/16

Boring terminated at a depth of 20 feet below ground surface.
Boring backfilled with grout.
Groundwater encountered at 7 feet.

LANGAN TREADWELL ROLLO

Project No.: 750635601 Figure: A-12

UNIFIED SOIL CLASSIFICATION SYSTEM

Major Divisions	Symbols	Typical Names
Coarse-Grained Soils <small>(more than half of soil > no. 200 sieve size)</small>	Gravels <small>(More than half of coarse fraction > no. 4 sieve size)</small>	GW Well-graded gravels or gravel-sand mixtures, little or no fines
		GP Poorly-graded gravels or gravel-sand mixtures, little or no fines
		GM Silty gravels, gravel-sand-silt mixtures
		GC Clayey gravels, gravel-sand-clay mixtures
	Sands <small>(More than half of coarse fraction < no. 4 sieve size)</small>	SW Well-graded sands or gravelly sands, little or no fines
		SP Poorly-graded sands or gravelly sands, little or no fines
		SM Silty sands, sand-silt mixtures
Fine -Grained Soils <small>(more than half of soil < no. 200 sieve size)</small>	Silts and Clays <small>LL = < 50</small>	ML Inorganic silts and clayey silts of low plasticity, sandy silts, gravelly silts
		CL Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, lean clays
		OL Organic silts and organic silt-clays of low plasticity
	Silts and Clays <small>LL = > 50</small>	MH Inorganic silts of high plasticity
		CH Inorganic clays of high plasticity, fat clays
		OH Organic silts and clays of high plasticity
Highly Organic Soils	PT Peat and other highly organic soils	

SAMPLE DESIGNATIONS/SYMBOLS

GRAIN SIZE CHART		
Classification	Range of Grain Sizes	
	U.S. Standard Sieve Size	Grain Size in Millimeters
Boulders	Above 12"	Above 305
Cobbles	12" to 3"	305 to 76.2
Gravel coarse fine	3" to No. 4	76.2 to 4.76
	3" to 3/4" 3/4" to No. 4	76.2 to 19.1 19.1 to 4.76
Sand coarse medium fine	No. 4 to No. 200	4.76 to 0.075
	No. 4 to No. 10	4.76 to 2.00
	No. 10 to No. 40	2.00 to 0.420
	No. 40 to No. 200	0.420 to 0.075
Silt and Clay	Below No. 200	Below 0.075

- Sample taken with Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter. Darkened area indicates soil recovered
- Classification sample taken with Standard Penetration Test sampler
- Undisturbed sample taken with thin-walled tube
- Disturbed sample
- Sampling attempted with no recovery
- Core sample
- Analytical laboratory sample
- Sample taken with Direct Push or Drive sampler

Unstabilized groundwater level

Stabilized groundwater level

SAMPLER TYPE

- | | |
|--|---|
| <p>C Core barrel</p> <p>CA California split-barrel sampler with 2.5-inch outside diameter and a 1.93-inch inside diameter</p> <p>D&M Dames & Moore piston sampler using 2.5-inch outside diameter, thin-walled tube</p> <p>O Osterberg piston sampler using 3.0-inch outside diameter, thin-walled Shelby tube</p> | <p>PT Pitcher tube sampler using 3.0-inch outside diameter, thin-walled Shelby tube</p> <p>S&H Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter</p> <p>SPT Standard Penetration Test (SPT) split-barrel sampler with a 2.0-inch outside diameter and a 1.5-inch inside diameter</p> <p>ST Shelby Tube (3.0-inch outside diameter, thin-walled tube) advanced with hydraulic pressure</p> |
|--|---|

3000 BROADWAY
Oakland, California

CLASSIFICATION CHART

LANGAN TREADWELL ROLLO

Date 04/21/16 Project No. 750635601 Figure A-13

**ATTACHMENT E
ANALYTICAL LABORATORY REPORTS**



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1604176

Report Created for: Treadwell & Rollo

501 14th Street, 3rd Floor
Oakland, CA 94612

Project Contact: Josh Graber

Project P.O.:

Project Name: 750635601; 3000 Broadway

Project Received: 04/07/2016

Analytical Report reviewed & approved for release on 04/15/2016 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: Treadwell & Rollo
Project: 750635601; 3000 Broadway
WorkOrder: 1604176

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
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: Treadwell & Rollo
Project: 750635601; 3000 Broadway
WorkOrder: 1604176

Analytical Qualifiers

S Surrogate spike recovery outside accepted recovery limits
b1 aqueous sample that contains greater than ~1 vol. % sediment
c1 surrogate recovery outside of the control limits due to the dilution of the sample.
c2 surrogate recovery outside of the control limits due to matrix interference.
d1 weakly modified or unmodified gasoline is significant
e2 diesel range compounds are significant; no recognizable pattern
e7 oil range compounds are significant
e11 stoddard solvent/mineral spirit (?)

Quality Control Qualifiers

F1 MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validated the prep batch.
F10 MS/MSD outside control limits. Physical or chemical interferences exist due to sample matrix. Sample results may be estimates.



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW2550B

Date Prepared: 4/7/16

Analytical Method: SW8031A/8082

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Organochlorine Pesticides (Basic Target List) + PCBs

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-2.5,5&B4-2.5,5	1604176-002A	Soil	04/01/2016	GC23	119152

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.0010	1	04/09/2016 14:32
a-BHC	ND	0.0010	1	04/09/2016 14:32
b-BHC	ND	0.0010	1	04/09/2016 14:32
d-BHC	ND	0.0010	1	04/09/2016 14:32
g-BHC	ND	0.0010	1	04/09/2016 14:32
Chlordane (Technical)	ND	0.025	1	04/09/2016 14:32
a-Chlordane	ND	0.0010	1	04/09/2016 14:32
g-Chlordane	ND	0.0010	1	04/09/2016 14:32
p,p-DDD	ND	0.0010	1	04/09/2016 14:32
p,p-DDE	ND	0.0010	1	04/09/2016 14:32
p,p-DDT	ND	0.0010	1	04/09/2016 14:32
Dieldrin	ND	0.0010	1	04/09/2016 14:32
Endosulfan I	ND	0.0010	1	04/09/2016 14:32
Endosulfan II	ND	0.0010	1	04/09/2016 14:32
Endosulfan sulfate	ND	0.0010	1	04/09/2016 14:32
Endrin	ND	0.0010	1	04/09/2016 14:32
Endrin aldehyde	ND	0.0010	1	04/09/2016 14:32
Endrin ketone	ND	0.0010	1	04/09/2016 14:32
Heptachlor	ND	0.0010	1	04/09/2016 14:32
Heptachlor epoxide	ND	0.0010	1	04/09/2016 14:32
Hexachlorobenzene	ND	0.010	1	04/09/2016 14:32
Hexachlorocyclopentadiene	ND	0.020	1	04/09/2016 14:32
Methoxychlor	ND	0.0010	1	04/09/2016 14:32
Toxaphene	ND	0.050	1	04/09/2016 14:32
Aroclor1016	ND	0.050	1	04/09/2016 14:32
Aroclor1221	ND	0.050	1	04/09/2016 14:32
Aroclor1232	ND	0.050	1	04/09/2016 14:32
Aroclor1242	ND	0.050	1	04/09/2016 14:32
Aroclor1248	ND	0.050	1	04/09/2016 14:32
Aroclor1254	ND	0.050	1	04/09/2016 14:32
Aroclor1260	ND	0.050	1	04/09/2016 14:32
PCBs, total	ND	0.050	1	04/09/2016 14:32

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	105	70-130	04/09/2016 14:32

Analyst(s): SS

(Cont.)



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW5550B

Date Prepared: 4/7/16

Analytical Method: SW8081A/8082

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Organochlorine Pesticides (Basic Target List) + PCBs

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-7.5,10&B4-7,10.5	1604176-003A	Soil	04/01/2016	GC23	119152

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.0010	1	04/09/2016 13:54
a-BHC	ND	0.0010	1	04/09/2016 13:54
b-BHC	ND	0.0010	1	04/09/2016 13:54
d-BHC	ND	0.0010	1	04/09/2016 13:54
g-BHC	ND	0.0010	1	04/09/2016 13:54
Chlordane (Technical)	ND	0.025	1	04/09/2016 13:54
a-Chlordane	ND	0.0010	1	04/09/2016 13:54
g-Chlordane	ND	0.0010	1	04/09/2016 13:54
p,p-DDD	ND	0.0010	1	04/09/2016 13:54
p,p-DDE	ND	0.0010	1	04/09/2016 13:54
p,p-DDT	ND	0.0010	1	04/09/2016 13:54
Dieldrin	ND	0.0010	1	04/09/2016 13:54
Endosulfan I	ND	0.0010	1	04/09/2016 13:54
Endosulfan II	ND	0.0010	1	04/09/2016 13:54
Endosulfan sulfate	ND	0.0010	1	04/09/2016 13:54
Endrin	ND	0.0010	1	04/09/2016 13:54
Endrin aldehyde	ND	0.0010	1	04/09/2016 13:54
Endrin ketone	ND	0.0010	1	04/09/2016 13:54
Heptachlor	ND	0.0010	1	04/09/2016 13:54
Heptachlor epoxide	ND	0.0010	1	04/09/2016 13:54
Hexachlorobenzene	ND	0.010	1	04/09/2016 13:54
Hexachlorocyclopentadiene	ND	0.020	1	04/09/2016 13:54
Methoxychlor	ND	0.0010	1	04/09/2016 13:54
Toxaphene	ND	0.050	1	04/09/2016 13:54
Aroclor1016	ND	0.050	1	04/09/2016 13:54
Aroclor1221	ND	0.050	1	04/09/2016 13:54
Aroclor1232	ND	0.050	1	04/09/2016 13:54
Aroclor1242	ND	0.050	1	04/09/2016 13:54
Aroclor1248	ND	0.050	1	04/09/2016 13:54
Aroclor1254	ND	0.050	1	04/09/2016 13:54
Aroclor1260	ND	0.050	1	04/09/2016 13:54
PCBs, total	ND	0.050	1	04/09/2016 13:54

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	103	70-130	04/09/2016 13:54

Analyst(s): SS

(Cont.)



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3550B

Date Prepared: 4/7/16

Analytical Method: SW8081A/8082

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Organochlorine Pesticides (Basic Target List) + PCBs

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-2.5,5&B6-2.5,5	1604176-008A	Soil	04/02/2016	GC22	119152

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.0010	1	04/09/2016 03:45
a-BHC	ND	0.0010	1	04/09/2016 03:45
b-BHC	ND	0.0010	1	04/09/2016 03:45
d-BHC	ND	0.0010	1	04/09/2016 03:45
g-BHC	ND	0.0010	1	04/09/2016 03:45
Chlordane (Technical)	ND	0.025	1	04/09/2016 03:45
a-Chlordane	ND	0.0010	1	04/09/2016 03:45
g-Chlordane	ND	0.0010	1	04/09/2016 03:45
p,p-DDD	ND	0.0010	1	04/09/2016 03:45
p,p-DDE	ND	0.0010	1	04/09/2016 03:45
p,p-DDT	ND	0.0010	1	04/09/2016 03:45
Dieldrin	ND	0.0010	1	04/09/2016 03:45
Endosulfan I	ND	0.0010	1	04/09/2016 03:45
Endosulfan II	ND	0.0010	1	04/09/2016 03:45
Endosulfan sulfate	ND	0.0010	1	04/09/2016 03:45
Endrin	ND	0.0010	1	04/09/2016 03:45
Endrin aldehyde	ND	0.0010	1	04/09/2016 03:45
Endrin ketone	ND	0.0010	1	04/09/2016 03:45
Heptachlor	ND	0.0010	1	04/09/2016 03:45
Heptachlor epoxide	ND	0.0010	1	04/09/2016 03:45
Hexachlorobenzene	ND	0.010	1	04/09/2016 03:45
Hexachlorocyclopentadiene	ND	0.020	1	04/09/2016 03:45
Methoxychlor	ND	0.0010	1	04/09/2016 03:45
Toxaphene	ND	0.050	1	04/09/2016 03:45
Aroclor1016	ND	0.050	1	04/09/2016 03:45
Aroclor1221	ND	0.050	1	04/09/2016 03:45
Aroclor1232	ND	0.050	1	04/09/2016 03:45
Aroclor1242	ND	0.050	1	04/09/2016 03:45
Aroclor1248	ND	0.050	1	04/09/2016 03:45
Aroclor1254	ND	0.050	1	04/09/2016 03:45
Aroclor1260	ND	0.050	1	04/09/2016 03:45
PCBs, total	ND	0.050	1	04/09/2016 03:45

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	107	70-130	04/09/2016 03:45

Analyst(s): SS

(Cont.)



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3550B

Date Prepared: 4/7/16

Analytical Method: SW8081A/8082

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Organochlorine Pesticides (Basic Target List) + PCBs

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-7.5,10&B6-7.5,10	1604176-009A	Soil	04/02/2016	GC23	119152

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.0010	1	04/09/2016 10:11
a-BHC	ND	0.0010	1	04/09/2016 10:11
b-BHC	ND	0.0010	1	04/09/2016 10:11
d-BHC	ND	0.0010	1	04/09/2016 10:11
g-BHC	ND	0.0010	1	04/09/2016 10:11
Chlordane (Technical)	ND	0.025	1	04/09/2016 10:11
a-Chlordane	ND	0.0010	1	04/09/2016 10:11
g-Chlordane	ND	0.0010	1	04/09/2016 10:11
p,p-DDD	ND	0.0010	1	04/09/2016 10:11
p,p-DDE	ND	0.0010	1	04/09/2016 10:11
p,p-DDT	ND	0.0010	1	04/09/2016 10:11
Dieldrin	ND	0.0010	1	04/09/2016 10:11
Endosulfan I	ND	0.0010	1	04/09/2016 10:11
Endosulfan II	ND	0.0010	1	04/09/2016 10:11
Endosulfan sulfate	ND	0.0010	1	04/09/2016 10:11
Endrin	ND	0.0010	1	04/09/2016 10:11
Endrin aldehyde	ND	0.0010	1	04/09/2016 10:11
Endrin ketone	ND	0.0010	1	04/09/2016 10:11
Heptachlor	ND	0.0010	1	04/09/2016 10:11
Heptachlor epoxide	ND	0.0010	1	04/09/2016 10:11
Hexachlorobenzene	ND	0.010	1	04/09/2016 10:11
Hexachlorocyclopentadiene	ND	0.020	1	04/09/2016 10:11
Methoxychlor	ND	0.0010	1	04/09/2016 10:11
Toxaphene	ND	0.050	1	04/09/2016 10:11
Aroclor1016	ND	0.050	1	04/09/2016 10:11
Aroclor1221	ND	0.050	1	04/09/2016 10:11
Aroclor1232	ND	0.050	1	04/09/2016 10:11
Aroclor1242	ND	0.050	1	04/09/2016 10:11
Aroclor1248	ND	0.050	1	04/09/2016 10:11
Aroclor1254	ND	0.050	1	04/09/2016 10:11
Aroclor1260	ND	0.050	1	04/09/2016 10:11
PCBs, total	ND	0.050	1	04/09/2016 10:11

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	116	70-130	04/09/2016 10:11

Analyst(s): SS

(Cont.)

NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW5550B

Date Prepared: 4/7/16

Analytical Method: SW8081A/8082

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Organochlorine Pesticides (Basic Target List) + PCBs

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-2&B8-2	1604176-011A	Soil	04/02/2016	GC23	119152

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.0010	1	04/09/2016 09:34
a-BHC	ND	0.0010	1	04/09/2016 09:34
b-BHC	ND	0.0010	1	04/09/2016 09:34
d-BHC	ND	0.0010	1	04/09/2016 09:34
g-BHC	ND	0.0010	1	04/09/2016 09:34
Chlordane (Technical)	ND	0.025	1	04/09/2016 09:34
a-Chlordane	ND	0.0010	1	04/09/2016 09:34
g-Chlordane	ND	0.0010	1	04/09/2016 09:34
p,p-DDD	ND	0.0010	1	04/09/2016 09:34
p,p-DDE	ND	0.0010	1	04/09/2016 09:34
p,p-DDT	ND	0.0010	1	04/09/2016 09:34
Dieldrin	ND	0.0010	1	04/09/2016 09:34
Endosulfan I	ND	0.0010	1	04/09/2016 09:34
Endosulfan II	ND	0.0010	1	04/09/2016 09:34
Endosulfan sulfate	ND	0.0010	1	04/09/2016 09:34
Endrin	ND	0.0010	1	04/09/2016 09:34
Endrin aldehyde	ND	0.0010	1	04/09/2016 09:34
Endrin ketone	ND	0.0010	1	04/09/2016 09:34
Heptachlor	ND	0.0010	1	04/09/2016 09:34
Heptachlor epoxide	ND	0.0010	1	04/09/2016 09:34
Hexachlorobenzene	ND	0.010	1	04/09/2016 09:34
Hexachlorocyclopentadiene	ND	0.020	1	04/09/2016 09:34
Methoxychlor	ND	0.0010	1	04/09/2016 09:34
Toxaphene	ND	0.050	1	04/09/2016 09:34
Aroclor1016	ND	0.050	1	04/09/2016 09:34
Aroclor1221	ND	0.050	1	04/09/2016 09:34
Aroclor1232	ND	0.050	1	04/09/2016 09:34
Aroclor1242	ND	0.050	1	04/09/2016 09:34
Aroclor1248	ND	0.050	1	04/09/2016 09:34
Aroclor1254	ND	0.050	1	04/09/2016 09:34
Aroclor1260	ND	0.050	1	04/09/2016 09:34
PCBs, total	ND	0.050	1	04/09/2016 09:34

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	103	70-130	04/09/2016 09:34

Analyst(s): SS

(Cont.)

NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW3550B
Date Prepared: 4/7/16 **Analytical Method:** SW8081A/8082
Project: 750635601; 3000 Broadway **Unit:** mg/kg

Included for Completeness - Not Related to UST Closure

Organochlorine Pesticides (Basic Target List) + PCBs

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B9-1,3&B10-1,3	1604176-016A	Soil	04/01/2016	GC23	119152

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.0010	1	04/09/2016 13:17
a-BHC	ND	0.0010	1	04/09/2016 13:17
b-BHC	ND	0.0010	1	04/09/2016 13:17
d-BHC	ND	0.0010	1	04/09/2016 13:17
g-BHC	ND	0.0010	1	04/09/2016 13:17
Chlordane (Technical)	ND	0.025	1	04/09/2016 13:17
a-Chlordane	ND	0.0010	1	04/09/2016 13:17
g-Chlordane	ND	0.0010	1	04/09/2016 13:17
p,p-DDD	ND	0.0010	1	04/09/2016 13:17
p,p-DDE	ND	0.0010	1	04/09/2016 13:17
p,p-DDT	ND	0.0010	1	04/09/2016 13:17
Dieldrin	ND	0.0010	1	04/09/2016 13:17
Endosulfan I	ND	0.0010	1	04/09/2016 13:17
Endosulfan II	ND	0.0010	1	04/09/2016 13:17
Endosulfan sulfate	ND	0.0010	1	04/09/2016 13:17
Endrin	ND	0.0010	1	04/09/2016 13:17
Endrin aldehyde	ND	0.0010	1	04/09/2016 13:17
Endrin ketone	ND	0.0010	1	04/09/2016 13:17
Heptachlor	ND	0.0010	1	04/09/2016 13:17
Heptachlor epoxide	ND	0.0010	1	04/09/2016 13:17
Hexachlorobenzene	ND	0.010	1	04/09/2016 13:17
Hexachlorocyclopentadiene	ND	0.020	1	04/09/2016 13:17
Methoxychlor	ND	0.0010	1	04/09/2016 13:17
Toxaphene	ND	0.050	1	04/09/2016 13:17
Aroclor1016	ND	0.050	1	04/09/2016 13:17
Aroclor1221	ND	0.050	1	04/09/2016 13:17
Aroclor1232	ND	0.050	1	04/09/2016 13:17
Aroclor1242	ND	0.050	1	04/09/2016 13:17
Aroclor1248	ND	0.050	1	04/09/2016 13:17
Aroclor1254	ND	0.050	1	04/09/2016 13:17
Aroclor1260	ND	0.050	1	04/09/2016 13:17
PCBs, total	ND	0.050	1	04/09/2016 13:17

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	116	70-130	04/09/2016 13:17

Analyst(s): SS



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9.18

Extraction Method: SW5030B

Date Prepared: 4/7/16

Analytical Method: SW8260B

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-1,3&B2-1,3	1604176-001A	Soil	04/01/2016	GC10	119135

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	04/13/2016 20:27
tert-Amyl methyl ether (TAME)	ND	0.0050	1	04/13/2016 20:27
Benzene	ND	0.0050	1	04/13/2016 20:27
Bromobenzene	ND	0.0050	1	04/13/2016 20:27
Bromochloromethane	ND	0.0050	1	04/13/2016 20:27
Bromodichloromethane	ND	0.0050	1	04/13/2016 20:27
Bromoform	ND	0.0050	1	04/13/2016 20:27
Bromomethane	ND	0.0050	1	04/13/2016 20:27
2-Butanone (MEK)	ND	0.020	1	04/13/2016 20:27
t-Butyl alcohol (TBA)	ND	0.050	1	04/13/2016 20:27
n-Butyl benzene	ND	0.0050	1	04/13/2016 20:27
sec-Butyl benzene	ND	0.0050	1	04/13/2016 20:27
tert-Butyl benzene	ND	0.0050	1	04/13/2016 20:27
Carbon Disulfide	ND	0.0050	1	04/13/2016 20:27
Carbon Tetrachloride	ND	0.0050	1	04/13/2016 20:27
Chlorobenzene	ND	0.0050	1	04/13/2016 20:27
Chloroethane	ND	0.0050	1	04/13/2016 20:27
Chloroform	ND	0.0050	1	04/13/2016 20:27
Chloromethane	ND	0.0050	1	04/13/2016 20:27
2-Chlorotoluene	ND	0.0050	1	04/13/2016 20:27
4-Chlorotoluene	ND	0.0050	1	04/13/2016 20:27
Dibromochloromethane	ND	0.0050	1	04/13/2016 20:27
1,2-Dibromo-3-chloropropane	ND	0.0040	1	04/13/2016 20:27
1,2-Dibromoethane (EDB)	ND	0.0040	1	04/13/2016 20:27
Dibromomethane	ND	0.0050	1	04/13/2016 20:27
1,2-Dichlorobenzene	ND	0.0050	1	04/13/2016 20:27
1,3-Dichlorobenzene	ND	0.0050	1	04/13/2016 20:27
1,4-Dichlorobenzene	ND	0.0050	1	04/13/2016 20:27
Dichlorodifluoromethane	ND	0.0050	1	04/13/2016 20:27
1,1-Dichloroethane	ND	0.0050	1	04/13/2016 20:27
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	04/13/2016 20:27
1,1-Dichloroethene	ND	0.0050	1	04/13/2016 20:27
cis-1,2-Dichloroethene	ND	0.0050	1	04/13/2016 20:27
trans-1,2-Dichloroethene	ND	0.0050	1	04/13/2016 20:27
1,2-Dichloropropane	ND	0.0050	1	04/13/2016 20:27
1,3-Dichloropropane	ND	0.0050	1	04/13/2016 20:27
2,2-Dichloropropane	ND	0.0050	1	04/13/2016 20:27

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Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW5030B

Date Prepared: 4/7/16

Analytical Method: SW8260B

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-1,3&B2-1,3	1604176-001A	Soil	04/01/2016	GC10	119135

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	04/13/2016 20:27
cis-1,3-Dichloropropene	ND	0.0050	1	04/13/2016 20:27
trans-1,3-Dichloropropene	ND	0.0050	1	04/13/2016 20:27
Diisopropyl ether (DIPE)	ND	0.0050	1	04/13/2016 20:27
Ethylbenzene	ND	0.0050	1	04/13/2016 20:27
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	04/13/2016 20:27
Freon 113	ND	0.0050	1	04/13/2016 20:27
Hexachlorobutadiene	ND	0.0050	1	04/13/2016 20:27
Hexachloroethane	ND	0.0050	1	04/13/2016 20:27
2-Hexanone	ND	0.0050	1	04/13/2016 20:27
Isopropylbenzene	ND	0.0050	1	04/13/2016 20:27
4-Isopropyl toluene	ND	0.0050	1	04/13/2016 20:27
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	04/13/2016 20:27
Methylene chloride	ND	0.0050	1	04/13/2016 20:27
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	04/13/2016 20:27
Naphthalene	ND	0.0050	1	04/13/2016 20:27
n-Propyl benzene	ND	0.0050	1	04/13/2016 20:27
Styrene	ND	0.0050	1	04/13/2016 20:27
1,1,1,2-Tetrachloroethane	ND	0.0050	1	04/13/2016 20:27
1,1,2,2-Tetrachloroethane	ND	0.0050	1	04/13/2016 20:27
Tetrachloroethene	ND	0.0050	1	04/13/2016 20:27
Toluene	ND	0.0050	1	04/13/2016 20:27
1,2,3-Trichlorobenzene	ND	0.0050	1	04/13/2016 20:27
1,2,4-Trichlorobenzene	ND	0.0050	1	04/13/2016 20:27
1,1,1-Trichloroethane	ND	0.0050	1	04/13/2016 20:27
1,1,2-Trichloroethane	ND	0.0050	1	04/13/2016 20:27
Trichloroethene	ND	0.0050	1	04/13/2016 20:27
Trichlorofluoromethane	ND	0.0050	1	04/13/2016 20:27
1,2,3-Trichloropropane	ND	0.0050	1	04/13/2016 20:27
1,2,4-Trimethylbenzene	ND	0.0050	1	04/13/2016 20:27
1,3,5-Trimethylbenzene	ND	0.0050	1	04/13/2016 20:27
Vinyl Chloride	ND	0.0050	1	04/13/2016 20:27
Xylenes, Total	ND	0.0050	1	04/13/2016 20:27

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9.18 **Extraction Method:** SW5030B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750635601; 3000 Broadway **Unit:** mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-1,3&B2-1,3	1604176-001A	Soil	04/01/2016	GC10	119135

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	93	70-130		04/13/2016 20:27
Toluene-d8	108	70-130		04/13/2016 20:27
4-BFB	88	70-130		04/13/2016 20:27
Benzene-d6	83	60-140		04/13/2016 20:27
Ethylbenzene-d10	88	60-140		04/13/2016 20:27
1,2-DCB-d4	73	60-140		04/13/2016 20:27

Analyst(s): KF



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 **Extraction Method:** SW3050B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750635601; 3000 Broadway **Unit:** mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-2.5,5&B4-2.5,5	1604176-002A	Soil	04/01/2016	GC10	119135

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	04/13/2016 21:07
tert-Amyl methyl ether (TAME)	ND	0.0050	1	04/13/2016 21:07
Benzene	ND	0.0050	1	04/13/2016 21:07
Bromobenzene	ND	0.0050	1	04/13/2016 21:07
Bromochloromethane	ND	0.0050	1	04/13/2016 21:07
Bromodichloromethane	ND	0.0050	1	04/13/2016 21:07
Bromoform	ND	0.0050	1	04/13/2016 21:07
Bromomethane	ND	0.0050	1	04/13/2016 21:07
2-Butanone (MEK)	ND	0.020	1	04/13/2016 21:07
t-Butyl alcohol (TBA)	ND	0.050	1	04/13/2016 21:07
n-Butyl benzene	ND	0.0050	1	04/13/2016 21:07
sec-Butyl benzene	ND	0.0050	1	04/13/2016 21:07
tert-Butyl benzene	ND	0.0050	1	04/13/2016 21:07
Carbon Disulfide	ND	0.0050	1	04/13/2016 21:07
Carbon Tetrachloride	ND	0.0050	1	04/13/2016 21:07
Chlorobenzene	ND	0.0050	1	04/13/2016 21:07
Chloroethane	ND	0.0050	1	04/13/2016 21:07
Chloroform	ND	0.0050	1	04/13/2016 21:07
Chloromethane	ND	0.0050	1	04/13/2016 21:07
2-Chlorotoluene	ND	0.0050	1	04/13/2016 21:07
4-Chlorotoluene	ND	0.0050	1	04/13/2016 21:07
Dibromochloromethane	ND	0.0050	1	04/13/2016 21:07
1,2-Dibromo-3-chloropropane	ND	0.0040	1	04/13/2016 21:07
1,2-Dibromoethane (EDB)	ND	0.0040	1	04/13/2016 21:07
Dibromomethane	ND	0.0050	1	04/13/2016 21:07
1,2-Dichlorobenzene	ND	0.0050	1	04/13/2016 21:07
1,3-Dichlorobenzene	ND	0.0050	1	04/13/2016 21:07
1,4-Dichlorobenzene	ND	0.0050	1	04/13/2016 21:07
Dichlorodifluoromethane	ND	0.0050	1	04/13/2016 21:07
1,1-Dichloroethane	ND	0.0050	1	04/13/2016 21:07
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	04/13/2016 21:07
1,1-Dichloroethene	ND	0.0050	1	04/13/2016 21:07
cis-1,2-Dichloroethene	ND	0.0050	1	04/13/2016 21:07
trans-1,2-Dichloroethene	ND	0.0050	1	04/13/2016 21:07
1,2-Dichloropropane	ND	0.0050	1	04/13/2016 21:07
1,3-Dichloropropane	ND	0.0050	1	04/13/2016 21:07
2,2-Dichloropropane	ND	0.0050	1	04/13/2016 21:07

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Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW5030B

Date Prepared: 4/7/16

Analytical Method: SW8260B

Project: 750535601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-2.5,5&B4-2.5,5	1604176-002A	Soil	04/01/2016	GC10	119135

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	04/13/2016 21:07
cis-1,3-Dichloropropene	ND	0.0050	1	04/13/2016 21:07
trans-1,3-Dichloropropene	ND	0.0050	1	04/13/2016 21:07
Diisopropyl ether (DIPE)	ND	0.0050	1	04/13/2016 21:07
Ethylbenzene	ND	0.0050	1	04/13/2016 21:07
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	04/13/2016 21:07
Freon 113	ND	0.0050	1	04/13/2016 21:07
Hexachlorobutadiene	ND	0.0050	1	04/13/2016 21:07
Hexachloroethane	ND	0.0050	1	04/13/2016 21:07
2-Hexanone	ND	0.0050	1	04/13/2016 21:07
Isopropylbenzene	ND	0.0050	1	04/13/2016 21:07
4-Isopropyl toluene	ND	0.0050	1	04/13/2016 21:07
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	04/13/2016 21:07
Methylene chloride	ND	0.0050	1	04/13/2016 21:07
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	04/13/2016 21:07
Naphthalene	ND	0.0050	1	04/13/2016 21:07
n-Propyl benzene	ND	0.0050	1	04/13/2016 21:07
Styrene	ND	0.0050	1	04/13/2016 21:07
1,1,1,2-Tetrachloroethane	ND	0.0050	1	04/13/2016 21:07
1,1,2,2-Tetrachloroethane	ND	0.0050	1	04/13/2016 21:07
Tetrachloroethene	ND	0.0050	1	04/13/2016 21:07
Toluene	ND	0.0050	1	04/13/2016 21:07
1,2,3-Trichlorobenzene	ND	0.0050	1	04/13/2016 21:07
1,2,4-Trichlorobenzene	ND	0.0050	1	04/13/2016 21:07
1,1,1-Trichloroethane	ND	0.0050	1	04/13/2016 21:07
1,1,2-Trichloroethane	ND	0.0050	1	04/13/2016 21:07
Trichloroethene	ND	0.0050	1	04/13/2016 21:07
Trichlorofluoromethane	ND	0.0050	1	04/13/2016 21:07
1,2,3-Trichloropropane	ND	0.0050	1	04/13/2016 21:07
1,2,4-Trimethylbenzene	ND	0.0050	1	04/13/2016 21:07
1,3,5-Trimethylbenzene	ND	0.0050	1	04/13/2016 21:07
Vinyl Chloride	ND	0.0050	1	04/13/2016 21:07
Xylenes, Total	ND	0.0050	1	04/13/2016 21:07

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 **9.18** **Extraction Method:** SW5030B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750635601; 3000 Broadway **Unit:** mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-2.5,5&B4-2.5,5	1604176-002A	Soil	04/01/2016	GC10	119135

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	92	70-130		04/13/2016 21:07
Toluene-d8	110	70-130		04/13/2016 21:07
4-BFB	84	70-130		04/13/2016 21:07
Benzene-d6	88	60-140		04/13/2016 21:07
Ethylbenzene-d10	95	60-140		04/13/2016 21:07
1,2-DCB-d4	76	60-140		04/13/2016 21:07

Analyst(s): KF



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9.18

Extraction Method: SW5030B

Date Prepared: 4/7/16

Analytical Method: SW8260B

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-7.5,10&B4-7,10.5	1604176-003A	Soil	04/01/2016	GC10	119135

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	04/13/2016 21:47
tert-Amyl methyl ether (TAME)	ND	0.0050	1	04/13/2016 21:47
Benzene	ND	0.0050	1	04/13/2016 21:47
Bromobenzene	ND	0.0050	1	04/13/2016 21:47
Bromochloromethane	ND	0.0050	1	04/13/2016 21:47
Bromodichloromethane	ND	0.0050	1	04/13/2016 21:47
Bromoform	ND	0.0050	1	04/13/2016 21:47
Bromomethane	ND	0.0050	1	04/13/2016 21:47
2-Butanone (MEK)	ND	0.020	1	04/13/2016 21:47
t-Butyl alcohol (TBA)	ND	0.050	1	04/13/2016 21:47
n-Butyl benzene	ND	0.0050	1	04/13/2016 21:47
sec-Butyl benzene	ND	0.0050	1	04/13/2016 21:47
tert-Butyl benzene	ND	0.0050	1	04/13/2016 21:47
Carbon Disulfide	ND	0.0050	1	04/13/2016 21:47
Carbon Tetrachloride	ND	0.0050	1	04/13/2016 21:47
Chlorobenzene	ND	0.0050	1	04/13/2016 21:47
Chloroethane	ND	0.0050	1	04/13/2016 21:47
Chloroform	ND	0.0050	1	04/13/2016 21:47
Chloromethane	ND	0.0050	1	04/13/2016 21:47
2-Chlorotoluene	ND	0.0050	1	04/13/2016 21:47
4-Chlorotoluene	ND	0.0050	1	04/13/2016 21:47
Dibromochloromethane	ND	0.0050	1	04/13/2016 21:47
1,2-Dibromo-3-chloropropane	ND	0.0040	1	04/13/2016 21:47
1,2-Dibromoethane (EDB)	ND	0.0040	1	04/13/2016 21:47
Dibromomethane	ND	0.0050	1	04/13/2016 21:47
1,2-Dichlorobenzene	ND	0.0050	1	04/13/2016 21:47
1,3-Dichlorobenzene	ND	0.0050	1	04/13/2016 21:47
1,4-Dichlorobenzene	ND	0.0050	1	04/13/2016 21:47
Dichlorodifluoromethane	ND	0.0050	1	04/13/2016 21:47
1,1-Dichloroethane	ND	0.0050	1	04/13/2016 21:47
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	04/13/2016 21:47
1,1-Dichloroethene	ND	0.0050	1	04/13/2016 21:47
cis-1,2-Dichloroethene	ND	0.0050	1	04/13/2016 21:47
trans-1,2-Dichloroethene	ND	0.0050	1	04/13/2016 21:47
1,2-Dichloropropane	ND	0.0050	1	04/13/2016 21:47
1,3-Dichloropropane	ND	0.0050	1	04/13/2016 21:47
2,2-Dichloropropane	ND	0.0050	1	04/13/2016 21:47

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Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW5030B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750535601; 3000 Broadway **Unit:** mg/kg
Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-7.5,10&B4-7,10.5	1604176-003A	Soil	04/01/2016	GC10	119135

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	04/13/2016 21:47
cis-1,3-Dichloropropene	ND	0.0050	1	04/13/2016 21:47
trans-1,3-Dichloropropene	ND	0.0050	1	04/13/2016 21:47
Diisopropyl ether (DIPE)	ND	0.0050	1	04/13/2016 21:47
Ethylbenzene	ND	0.0050	1	04/13/2016 21:47
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	04/13/2016 21:47
Freon 113	ND	0.0050	1	04/13/2016 21:47
Hexachlorobutadiene	ND	0.0050	1	04/13/2016 21:47
Hexachloroethane	ND	0.0050	1	04/13/2016 21:47
2-Hexanone	ND	0.0050	1	04/13/2016 21:47
Isopropylbenzene	ND	0.0050	1	04/13/2016 21:47
4-Isopropyl toluene	ND	0.0050	1	04/13/2016 21:47
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	04/13/2016 21:47
Methylene chloride	ND	0.0050	1	04/13/2016 21:47
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	04/13/2016 21:47
Naphthalene	ND	0.0050	1	04/13/2016 21:47
n-Propyl benzene	ND	0.0050	1	04/13/2016 21:47
Styrene	ND	0.0050	1	04/13/2016 21:47
1,1,1,2-Tetrachloroethane	ND	0.0050	1	04/13/2016 21:47
1,1,2,2-Tetrachloroethane	ND	0.0050	1	04/13/2016 21:47
Tetrachloroethene	ND	0.0050	1	04/13/2016 21:47
Toluene	ND	0.0050	1	04/13/2016 21:47
1,2,3-Trichlorobenzene	ND	0.0050	1	04/13/2016 21:47
1,2,4-Trichlorobenzene	ND	0.0050	1	04/13/2016 21:47
1,1,1-Trichloroethane	ND	0.0050	1	04/13/2016 21:47
1,1,2-Trichloroethane	ND	0.0050	1	04/13/2016 21:47
Trichloroethene	ND	0.0050	1	04/13/2016 21:47
Trichlorofluoromethane	ND	0.0050	1	04/13/2016 21:47
1,2,3-Trichloropropane	ND	0.0050	1	04/13/2016 21:47
1,2,4-Trimethylbenzene	ND	0.0050	1	04/13/2016 21:47
1,3,5-Trimethylbenzene	ND	0.0050	1	04/13/2016 21:47
Vinyl Chloride	ND	0.0050	1	04/13/2016 21:47
Xylenes, Total	ND	0.0050	1	04/13/2016 21:47

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3030B

Date Prepared: 4/7/16

Analytical Method: SW8260B

Project: 750535601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-7.5,10&B4-7,10.5	1604176-003A	Soil	04/01/2016	GC10	119135

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	92	70-130		04/13/2016 21:47
Toluene-d8	111	70-130		04/13/2016 21:47
4-BFB	86	70-130		04/13/2016 21:47
Benzene-d6	67	60-140		04/13/2016 21:47
Ethylbenzene-d10	86	60-140		04/13/2016 21:47
1,2-DCB-d4	80	60-140		04/13/2016 21:47

Analyst(s): KF



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW5030B

Date Prepared: 4/7/16

Analytical Method: SW8260B

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-12.5,15&B4-12.5,15	1604176-006A	Soil	04/01/2016	GC10	119135

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	04/13/2016 22:27
tert-Amyl methyl ether (TAME)	ND	0.0050	1	04/13/2016 22:27
Benzene	ND	0.0050	1	04/13/2016 22:27
Bromobenzene	ND	0.0050	1	04/13/2016 22:27
Bromochloromethane	ND	0.0050	1	04/13/2016 22:27
Bromodichloromethane	ND	0.0050	1	04/13/2016 22:27
Bromoform	ND	0.0050	1	04/13/2016 22:27
Bromomethane	ND	0.0050	1	04/13/2016 22:27
2-Butanone (MEK)	ND	0.020	1	04/13/2016 22:27
t-Butyl alcohol (TBA)	ND	0.050	1	04/13/2016 22:27
n-Butyl benzene	ND	0.0050	1	04/13/2016 22:27
sec-Butyl benzene	ND	0.0050	1	04/13/2016 22:27
tert-Butyl benzene	ND	0.0050	1	04/13/2016 22:27
Carbon Disulfide	ND	0.0050	1	04/13/2016 22:27
Carbon Tetrachloride	ND	0.0050	1	04/13/2016 22:27
Chlorobenzene	ND	0.0050	1	04/13/2016 22:27
Chloroethane	ND	0.0050	1	04/13/2016 22:27
Chloroform	ND	0.0050	1	04/13/2016 22:27
Chloromethane	ND	0.0050	1	04/13/2016 22:27
2-Chlorotoluene	ND	0.0050	1	04/13/2016 22:27
4-Chlorotoluene	ND	0.0050	1	04/13/2016 22:27
Dibromochloromethane	ND	0.0050	1	04/13/2016 22:27
1,2-Dibromo-3-chloropropane	ND	0.0040	1	04/13/2016 22:27
1,2-Dibromoethane (EDB)	ND	0.0040	1	04/13/2016 22:27
Dibromomethane	ND	0.0050	1	04/13/2016 22:27
1,2-Dichlorobenzene	ND	0.0050	1	04/13/2016 22:27
1,3-Dichlorobenzene	ND	0.0050	1	04/13/2016 22:27
1,4-Dichlorobenzene	ND	0.0050	1	04/13/2016 22:27
Dichlorodifluoromethane	ND	0.0050	1	04/13/2016 22:27
1,1-Dichloroethane	ND	0.0050	1	04/13/2016 22:27
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	04/13/2016 22:27
1,1-Dichloroethene	ND	0.0050	1	04/13/2016 22:27
cis-1,2-Dichloroethene	ND	0.0050	1	04/13/2016 22:27
trans-1,2-Dichloroethene	ND	0.0050	1	04/13/2016 22:27
1,2-Dichloropropane	ND	0.0050	1	04/13/2016 22:27
1,3-Dichloropropane	ND	0.0050	1	04/13/2016 22:27
2,2-Dichloropropane	ND	0.0050	1	04/13/2016 22:27

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Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 **Extraction Method:** SW5030B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750535601; 3000 Broadway **Unit:** mg/kg
Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-12.5,15&B4-12.5,15	1604176-006A	Soil	04/01/2016	GC10	119135

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	04/13/2016 22:27
cis-1,3-Dichloropropene	ND	0.0050	1	04/13/2016 22:27
trans-1,3-Dichloropropene	ND	0.0050	1	04/13/2016 22:27
Diisopropyl ether (DIPE)	ND	0.0050	1	04/13/2016 22:27
Ethylbenzene	ND	0.0050	1	04/13/2016 22:27
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	04/13/2016 22:27
Freon 113	ND	0.0050	1	04/13/2016 22:27
Hexachlorobutadiene	ND	0.0050	1	04/13/2016 22:27
Hexachloroethane	ND	0.0050	1	04/13/2016 22:27
2-Hexanone	ND	0.0050	1	04/13/2016 22:27
Isopropylbenzene	ND	0.0050	1	04/13/2016 22:27
4-Isopropyl toluene	ND	0.0050	1	04/13/2016 22:27
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	04/13/2016 22:27
Methylene chloride	ND	0.0050	1	04/13/2016 22:27
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	04/13/2016 22:27
Naphthalene	ND	0.0050	1	04/13/2016 22:27
n-Propyl benzene	ND	0.0050	1	04/13/2016 22:27
Styrene	ND	0.0050	1	04/13/2016 22:27
1,1,1,2-Tetrachloroethane	ND	0.0050	1	04/13/2016 22:27
1,1,2,2-Tetrachloroethane	ND	0.0050	1	04/13/2016 22:27
Tetrachloroethene	ND	0.0050	1	04/13/2016 22:27
Toluene	ND	0.0050	1	04/13/2016 22:27
1,2,3-Trichlorobenzene	ND	0.0050	1	04/13/2016 22:27
1,2,4-Trichlorobenzene	ND	0.0050	1	04/13/2016 22:27
1,1,1-Trichloroethane	ND	0.0050	1	04/13/2016 22:27
1,1,2-Trichloroethane	ND	0.0050	1	04/13/2016 22:27
Trichloroethene	ND	0.0050	1	04/13/2016 22:27
Trichlorofluoromethane	ND	0.0050	1	04/13/2016 22:27
1,2,3-Trichloropropane	ND	0.0050	1	04/13/2016 22:27
1,2,4-Trimethylbenzene	ND	0.0050	1	04/13/2016 22:27
1,3,5-Trimethylbenzene	ND	0.0050	1	04/13/2016 22:27
Vinyl Chloride	ND	0.0050	1	04/13/2016 22:27
Xylenes, Total	ND	0.0050	1	04/13/2016 22:27

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW5030B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750535601; 3000 Broadway **Unit:** mg/kg
Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-12.5,15&B4-12.5,15	1604176-006A	Soil	04/01/2016	GC10	119135

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	92	70-130		04/13/2016 22:27
Toluene-d8	109	70-130		04/13/2016 22:27
4-BFB	83	70-130		04/13/2016 22:27
Benzene-d6	99	60-140		04/13/2016 22:27
Ethylbenzene-d10	105	60-140		04/13/2016 22:27
1,2-DCB-d4	85	60-140		04/13/2016 22:27

Analyst(s): KF



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9.18

Extraction Method: SW5030B

Date Prepared: 4/7/16

Analytical Method: SW8260B

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-2.5,5&B6-2.5,5	1604176-008A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	04/14/2016 13:52
tert-Amyl methyl ether (TAME)	ND	0.0050	1	04/14/2016 13:52
Benzene	ND	0.0050	1	04/14/2016 13:52
Bromobenzene	ND	0.0050	1	04/14/2016 13:52
Bromochloromethane	ND	0.0050	1	04/14/2016 13:52
Bromodichloromethane	ND	0.0050	1	04/14/2016 13:52
Bromoform	ND	0.0050	1	04/14/2016 13:52
Bromomethane	ND	0.0050	1	04/14/2016 13:52
2-Butanone (MEK)	ND	0.020	1	04/14/2016 13:52
t-Butyl alcohol (TBA)	ND	0.050	1	04/14/2016 13:52
n-Butyl benzene	ND	0.0050	1	04/14/2016 13:52
sec-Butyl benzene	ND	0.0050	1	04/14/2016 13:52
tert-Butyl benzene	ND	0.0050	1	04/14/2016 13:52
Carbon Disulfide	ND	0.0050	1	04/14/2016 13:52
Carbon Tetrachloride	ND	0.0050	1	04/14/2016 13:52
Chlorobenzene	ND	0.0050	1	04/14/2016 13:52
Chloroethane	ND	0.0050	1	04/14/2016 13:52
Chloroform	ND	0.0050	1	04/14/2016 13:52
Chloromethane	ND	0.0050	1	04/14/2016 13:52
2-Chlorotoluene	ND	0.0050	1	04/14/2016 13:52
4-Chlorotoluene	ND	0.0050	1	04/14/2016 13:52
Dibromochloromethane	ND	0.0050	1	04/14/2016 13:52
1,2-Dibromo-3-chloropropane	ND	0.0040	1	04/14/2016 13:52
1,2-Dibromoethane (EDB)	ND	0.0040	1	04/14/2016 13:52
Dibromomethane	ND	0.0050	1	04/14/2016 13:52
1,2-Dichlorobenzene	ND	0.0050	1	04/14/2016 13:52
1,3-Dichlorobenzene	ND	0.0050	1	04/14/2016 13:52
1,4-Dichlorobenzene	ND	0.0050	1	04/14/2016 13:52
Dichlorodifluoromethane	ND	0.0050	1	04/14/2016 13:52
1,1-Dichloroethane	ND	0.0050	1	04/14/2016 13:52
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	04/14/2016 13:52
1,1-Dichloroethene	ND	0.0050	1	04/14/2016 13:52
cis-1,2-Dichloroethene	ND	0.0050	1	04/14/2016 13:52
trans-1,2-Dichloroethene	ND	0.0050	1	04/14/2016 13:52
1,2-Dichloropropane	ND	0.0050	1	04/14/2016 13:52
1,3-Dichloropropane	ND	0.0050	1	04/14/2016 13:52
2,2-Dichloropropane	ND	0.0050	1	04/14/2016 13:52

(Cont.)



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW5030B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750635601; 3000 Broadway **Unit:** mg/kg
Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-2.5,5&B6-2.5,5	1604176-008A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	04/14/2016 13:52
cis-1,3-Dichloropropene	ND	0.0050	1	04/14/2016 13:52
trans-1,3-Dichloropropene	ND	0.0050	1	04/14/2016 13:52
Diisopropyl ether (DIPE)	ND	0.0050	1	04/14/2016 13:52
Ethylbenzene	ND	0.0050	1	04/14/2016 13:52
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	04/14/2016 13:52
Freon 113	ND	0.0050	1	04/14/2016 13:52
Hexachlorobutadiene	ND	0.0050	1	04/14/2016 13:52
Hexachloroethane	ND	0.0050	1	04/14/2016 13:52
2-Hexanone	ND	0.0050	1	04/14/2016 13:52
Isopropylbenzene	ND	0.0050	1	04/14/2016 13:52
4-Isopropyl toluene	ND	0.0050	1	04/14/2016 13:52
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	04/14/2016 13:52
Methylene chloride	ND	0.0050	1	04/14/2016 13:52
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	04/14/2016 13:52
Naphthalene	ND	0.0050	1	04/14/2016 13:52
n-Propyl benzene	ND	0.0050	1	04/14/2016 13:52
Styrene	ND	0.0050	1	04/14/2016 13:52
1,1,1,2-Tetrachloroethane	ND	0.0050	1	04/14/2016 13:52
1,1,2,2-Tetrachloroethane	ND	0.0050	1	04/14/2016 13:52
Tetrachloroethene	ND	0.0050	1	04/14/2016 13:52
Toluene	ND	0.0050	1	04/14/2016 13:52
1,2,3-Trichlorobenzene	ND	0.0050	1	04/14/2016 13:52
1,2,4-Trichlorobenzene	ND	0.0050	1	04/14/2016 13:52
1,1,1-Trichloroethane	ND	0.0050	1	04/14/2016 13:52
1,1,2-Trichloroethane	ND	0.0050	1	04/14/2016 13:52
Trichloroethene	ND	0.0050	1	04/14/2016 13:52
Trichlorofluoromethane	ND	0.0050	1	04/14/2016 13:52
1,2,3-Trichloropropane	ND	0.0050	1	04/14/2016 13:52
1,2,4-Trimethylbenzene	ND	0.0050	1	04/14/2016 13:52
1,3,5-Trimethylbenzene	ND	0.0050	1	04/14/2016 13:52
Vinyl Chloride	ND	0.0050	1	04/14/2016 13:52
Xylenes, Total	ND	0.0050	1	04/14/2016 13:52

(Cont.)



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 **Extraction Method:** SW5030B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750635601; 3000 Broadway **Unit:** mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-2.5,5&B6-2.5,5	1604176-008A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	99	70-130		04/14/2016 13:52
Toluene-d8	107	70-130		04/14/2016 13:52
4-BFB	110	70-130		04/14/2016 13:52
Benzene-d6	78	60-140		04/14/2016 13:52
Ethylbenzene-d10	92	60-140		04/14/2016 13:52
1,2-DCB-d4	85	60-140		04/14/2016 13:52

Analyst(s): HK



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9.18

Extraction Method: SW5030B

Date Prepared: 4/7/16

Analytical Method: SW8260B

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-7.5,10&B6-7.5,10	1604176-009A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	04/14/2016 14:33
tert-Amyl methyl ether (TAME)	ND	0.0050	1	04/14/2016 14:33
Benzene	ND	0.0050	1	04/14/2016 14:33
Bromobenzene	ND	0.0050	1	04/14/2016 14:33
Bromochloromethane	ND	0.0050	1	04/14/2016 14:33
Bromodichloromethane	ND	0.0050	1	04/14/2016 14:33
Bromoform	ND	0.0050	1	04/14/2016 14:33
Bromomethane	ND	0.0050	1	04/14/2016 14:33
2-Butanone (MEK)	ND	0.020	1	04/14/2016 14:33
t-Butyl alcohol (TBA)	ND	0.050	1	04/14/2016 14:33
n-Butyl benzene	ND	0.0050	1	04/14/2016 14:33
sec-Butyl benzene	ND	0.0050	1	04/14/2016 14:33
tert-Butyl benzene	ND	0.0050	1	04/14/2016 14:33
Carbon Disulfide	ND	0.0050	1	04/14/2016 14:33
Carbon Tetrachloride	ND	0.0050	1	04/14/2016 14:33
Chlorobenzene	ND	0.0050	1	04/14/2016 14:33
Chloroethane	ND	0.0050	1	04/14/2016 14:33
Chloroform	ND	0.0050	1	04/14/2016 14:33
Chloromethane	ND	0.0050	1	04/14/2016 14:33
2-Chlorotoluene	ND	0.0050	1	04/14/2016 14:33
4-Chlorotoluene	ND	0.0050	1	04/14/2016 14:33
Dibromochloromethane	ND	0.0050	1	04/14/2016 14:33
1,2-Dibromo-3-chloropropane	ND	0.0040	1	04/14/2016 14:33
1,2-Dibromoethane (EDB)	ND	0.0040	1	04/14/2016 14:33
Dibromomethane	ND	0.0050	1	04/14/2016 14:33
1,2-Dichlorobenzene	ND	0.0050	1	04/14/2016 14:33
1,3-Dichlorobenzene	ND	0.0050	1	04/14/2016 14:33
1,4-Dichlorobenzene	ND	0.0050	1	04/14/2016 14:33
Dichlorodifluoromethane	ND	0.0050	1	04/14/2016 14:33
1,1-Dichloroethane	ND	0.0050	1	04/14/2016 14:33
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	04/14/2016 14:33
1,1-Dichloroethene	ND	0.0050	1	04/14/2016 14:33
cis-1,2-Dichloroethene	ND	0.0050	1	04/14/2016 14:33
trans-1,2-Dichloroethene	ND	0.0050	1	04/14/2016 14:33
1,2-Dichloropropane	ND	0.0050	1	04/14/2016 14:33
1,3-Dichloropropane	ND	0.0050	1	04/14/2016 14:33
2,2-Dichloropropane	ND	0.0050	1	04/14/2016 14:33

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Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW5030B

Date Prepared: 4/7/16

Analytical Method: SW8260B

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-7.5,10&B6-7.5,10	1604176-009A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	04/14/2016 14:33
cis-1,3-Dichloropropene	ND	0.0050	1	04/14/2016 14:33
trans-1,3-Dichloropropene	ND	0.0050	1	04/14/2016 14:33
Diisopropyl ether (DIPE)	ND	0.0050	1	04/14/2016 14:33
Ethylbenzene	ND	0.0050	1	04/14/2016 14:33
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	04/14/2016 14:33
Freon 113	ND	0.0050	1	04/14/2016 14:33
Hexachlorobutadiene	ND	0.0050	1	04/14/2016 14:33
Hexachloroethane	ND	0.0050	1	04/14/2016 14:33
2-Hexanone	ND	0.0050	1	04/14/2016 14:33
Isopropylbenzene	ND	0.0050	1	04/14/2016 14:33
4-Isopropyl toluene	ND	0.0050	1	04/14/2016 14:33
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	04/14/2016 14:33
Methylene chloride	ND	0.0050	1	04/14/2016 14:33
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	04/14/2016 14:33
Naphthalene	ND	0.0050	1	04/14/2016 14:33
n-Propyl benzene	ND	0.0050	1	04/14/2016 14:33
Styrene	ND	0.0050	1	04/14/2016 14:33
1,1,1,2-Tetrachloroethane	ND	0.0050	1	04/14/2016 14:33
1,1,2,2-Tetrachloroethane	ND	0.0050	1	04/14/2016 14:33
Tetrachloroethene	ND	0.0050	1	04/14/2016 14:33
Toluene	ND	0.0050	1	04/14/2016 14:33
1,2,3-Trichlorobenzene	ND	0.0050	1	04/14/2016 14:33
1,2,4-Trichlorobenzene	ND	0.0050	1	04/14/2016 14:33
1,1,1-Trichloroethane	ND	0.0050	1	04/14/2016 14:33
1,1,2-Trichloroethane	ND	0.0050	1	04/14/2016 14:33
Trichloroethene	ND	0.0050	1	04/14/2016 14:33
Trichlorofluoromethane	ND	0.0050	1	04/14/2016 14:33
1,2,3-Trichloropropane	ND	0.0050	1	04/14/2016 14:33
1,2,4-Trimethylbenzene	ND	0.0050	1	04/14/2016 14:33
1,3,5-Trimethylbenzene	ND	0.0050	1	04/14/2016 14:33
Vinyl Chloride	ND	0.0050	1	04/14/2016 14:33
Xylenes, Total	ND	0.0050	1	04/14/2016 14:33

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Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW5030B

Date Prepared: 4/7/16

Analytical Method: SW8260B

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-7.5,10&B6-7.5,10	1604176-009A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	
Dibromofluoromethane	97		70-130	04/14/2016 14:33
Toluene-d8	107		70-130	04/14/2016 14:33
4-BFB	101		70-130	04/14/2016 14:33
Benzene-d6	57	S	60-140	04/14/2016 14:33
Ethylbenzene-d10	81		60-140	04/14/2016 14:33
1,2-DCB-d4	85		60-140	04/14/2016 14:33

Analyst(s): AK

Analytical Comments: c2



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW5030B

Date Prepared: 4/7/16

Analytical Method: SW8260B

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-12.5,15&B6-12.5,15	1604176-010A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	04/14/2016 15:13
tert-Amyl methyl ether (TAME)	ND	0.0050	1	04/14/2016 15:13
Benzene	ND	0.0050	1	04/14/2016 15:13
Bromobenzene	ND	0.0050	1	04/14/2016 15:13
Bromochloromethane	ND	0.0050	1	04/14/2016 15:13
Bromodichloromethane	ND	0.0050	1	04/14/2016 15:13
Bromoform	ND	0.0050	1	04/14/2016 15:13
Bromomethane	ND	0.0050	1	04/14/2016 15:13
2-Butanone (MEK)	ND	0.020	1	04/14/2016 15:13
t-Butyl alcohol (TBA)	ND	0.050	1	04/14/2016 15:13
n-Butyl benzene	ND	0.0050	1	04/14/2016 15:13
sec-Butyl benzene	ND	0.0050	1	04/14/2016 15:13
tert-Butyl benzene	ND	0.0050	1	04/14/2016 15:13
Carbon Disulfide	ND	0.0050	1	04/14/2016 15:13
Carbon Tetrachloride	ND	0.0050	1	04/14/2016 15:13
Chlorobenzene	ND	0.0050	1	04/14/2016 15:13
Chloroethane	ND	0.0050	1	04/14/2016 15:13
Chloroform	ND	0.0050	1	04/14/2016 15:13
Chloromethane	ND	0.0050	1	04/14/2016 15:13
2-Chlorotoluene	ND	0.0050	1	04/14/2016 15:13
4-Chlorotoluene	ND	0.0050	1	04/14/2016 15:13
Dibromochloromethane	ND	0.0050	1	04/14/2016 15:13
1,2-Dibromo-3-chloropropane	ND	0.0040	1	04/14/2016 15:13
1,2-Dibromoethane (EDB)	ND	0.0040	1	04/14/2016 15:13
Dibromomethane	ND	0.0050	1	04/14/2016 15:13
1,2-Dichlorobenzene	ND	0.0050	1	04/14/2016 15:13
1,3-Dichlorobenzene	ND	0.0050	1	04/14/2016 15:13
1,4-Dichlorobenzene	ND	0.0050	1	04/14/2016 15:13
Dichlorodifluoromethane	ND	0.0050	1	04/14/2016 15:13
1,1-Dichloroethane	ND	0.0050	1	04/14/2016 15:13
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	04/14/2016 15:13
1,1-Dichloroethene	ND	0.0050	1	04/14/2016 15:13
cis-1,2-Dichloroethene	ND	0.0050	1	04/14/2016 15:13
trans-1,2-Dichloroethene	ND	0.0050	1	04/14/2016 15:13
1,2-Dichloropropane	ND	0.0050	1	04/14/2016 15:13
1,3-Dichloropropane	ND	0.0050	1	04/14/2016 15:13
2,2-Dichloropropane	ND	0.0050	1	04/14/2016 15:13

(Cont.)



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW5030B

Date Prepared: 4/7/16

Analytical Method: SW8260B

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-12.5,15&B6-12.5,15	1604176-010A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	04/14/2016 15:13
cis-1,3-Dichloropropene	ND	0.0050	1	04/14/2016 15:13
trans-1,3-Dichloropropene	ND	0.0050	1	04/14/2016 15:13
Diisopropyl ether (DIPE)	ND	0.0050	1	04/14/2016 15:13
Ethylbenzene	ND	0.0050	1	04/14/2016 15:13
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	04/14/2016 15:13
Freon 113	ND	0.0050	1	04/14/2016 15:13
Hexachlorobutadiene	ND	0.0050	1	04/14/2016 15:13
Hexachloroethane	ND	0.0050	1	04/14/2016 15:13
2-Hexanone	ND	0.0050	1	04/14/2016 15:13
Isopropylbenzene	ND	0.0050	1	04/14/2016 15:13
4-Isopropyl toluene	ND	0.0050	1	04/14/2016 15:13
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	04/14/2016 15:13
Methylene chloride	ND	0.0050	1	04/14/2016 15:13
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	04/14/2016 15:13
Naphthalene	ND	0.0050	1	04/14/2016 15:13
n-Propyl benzene	ND	0.0050	1	04/14/2016 15:13
Styrene	ND	0.0050	1	04/14/2016 15:13
1,1,1,2-Tetrachloroethane	ND	0.0050	1	04/14/2016 15:13
1,1,2,2-Tetrachloroethane	ND	0.0050	1	04/14/2016 15:13
Tetrachloroethene	ND	0.0050	1	04/14/2016 15:13
Toluene	ND	0.0050	1	04/14/2016 15:13
1,2,3-Trichlorobenzene	ND	0.0050	1	04/14/2016 15:13
1,2,4-Trichlorobenzene	ND	0.0050	1	04/14/2016 15:13
1,1,1-Trichloroethane	ND	0.0050	1	04/14/2016 15:13
1,1,2-Trichloroethane	ND	0.0050	1	04/14/2016 15:13
Trichloroethene	ND	0.0050	1	04/14/2016 15:13
Trichlorofluoromethane	ND	0.0050	1	04/14/2016 15:13
1,2,3-Trichloropropane	ND	0.0050	1	04/14/2016 15:13
1,2,4-Trimethylbenzene	ND	0.0050	1	04/14/2016 15:13
1,3,5-Trimethylbenzene	ND	0.0050	1	04/14/2016 15:13
Vinyl Chloride	ND	0.0050	1	04/14/2016 15:13
Xylenes, Total	ND	0.0050	1	04/14/2016 15:13

(Cont.)

NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/15 **Extraction Method:** SW5030B
Date Prepared: 4/7/15 **Analytical Method:** SW8260B
Project: 750635601; 3000 Broadway **Unit:** mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-12.5,15&B6-12.5,15	1604176-010A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	100	70-130		04/14/2016 15:13
Toluene-d8	101	70-130		04/14/2016 15:13
4-BFB	101	70-130		04/14/2016 15:13
Benzene-d6	95	60-140		04/14/2016 15:13
Ethylbenzene-d10	102	60-140		04/14/2016 15:13
1,2-DCB-d4	83	60-140		04/14/2016 15:13

Analyst(s): AK



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW5030B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750635601; 3000 Broadway **Unit:** mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-2&B8-2	1604176-011A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	04/14/2016 15:53
tert-Amyl methyl ether (TAME)	ND	0.0050	1	04/14/2016 15:53
Benzene	ND	0.0050	1	04/14/2016 15:53
Bromobenzene	ND	0.0050	1	04/14/2016 15:53
Bromochloromethane	ND	0.0050	1	04/14/2016 15:53
Bromodichloromethane	ND	0.0050	1	04/14/2016 15:53
Bromoform	ND	0.0050	1	04/14/2016 15:53
Bromomethane	ND	0.0050	1	04/14/2016 15:53
2-Butanone (MEK)	ND	0.020	1	04/14/2016 15:53
t-Butyl alcohol (TBA)	ND	0.050	1	04/14/2016 15:53
n-Butyl benzene	ND	0.0050	1	04/14/2016 15:53
sec-Butyl benzene	ND	0.0050	1	04/14/2016 15:53
tert-Butyl benzene	ND	0.0050	1	04/14/2016 15:53
Carbon Disulfide	ND	0.0050	1	04/14/2016 15:53
Carbon Tetrachloride	ND	0.0050	1	04/14/2016 15:53
Chlorobenzene	ND	0.0050	1	04/14/2016 15:53
Chloroethane	ND	0.0050	1	04/14/2016 15:53
Chloroform	ND	0.0050	1	04/14/2016 15:53
Chloromethane	ND	0.0050	1	04/14/2016 15:53
2-Chlorotoluene	ND	0.0050	1	04/14/2016 15:53
4-Chlorotoluene	ND	0.0050	1	04/14/2016 15:53
Dibromochloromethane	ND	0.0050	1	04/14/2016 15:53
1,2-Dibromo-3-chloropropane	ND	0.0040	1	04/14/2016 15:53
1,2-Dibromoethane (EDB)	ND	0.0040	1	04/14/2016 15:53
Dibromomethane	ND	0.0050	1	04/14/2016 15:53
1,2-Dichlorobenzene	ND	0.0050	1	04/14/2016 15:53
1,3-Dichlorobenzene	ND	0.0050	1	04/14/2016 15:53
1,4-Dichlorobenzene	ND	0.0050	1	04/14/2016 15:53
Dichlorodifluoromethane	ND	0.0050	1	04/14/2016 15:53
1,1-Dichloroethane	ND	0.0050	1	04/14/2016 15:53
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	04/14/2016 15:53
1,1-Dichloroethene	ND	0.0050	1	04/14/2016 15:53
cis-1,2-Dichloroethene	ND	0.0050	1	04/14/2016 15:53
trans-1,2-Dichloroethene	ND	0.0050	1	04/14/2016 15:53
1,2-Dichloropropane	ND	0.0050	1	04/14/2016 15:53
1,3-Dichloropropane	ND	0.0050	1	04/14/2016 15:53
2,2-Dichloropropane	ND	0.0050	1	04/14/2016 15:53

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Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW5030B

Date Prepared: 4/7/16

Analytical Method: SW8260B

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-2&B8-2	1604176-011A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	04/14/2016 15:53
cis-1,3-Dichloropropene	ND	0.0050	1	04/14/2016 15:53
trans-1,3-Dichloropropene	ND	0.0050	1	04/14/2016 15:53
Diisopropyl ether (DIPE)	ND	0.0050	1	04/14/2016 15:53
Ethylbenzene	ND	0.0050	1	04/14/2016 15:53
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	04/14/2016 15:53
Freon 113	ND	0.0050	1	04/14/2016 15:53
Hexachlorobutadiene	ND	0.0050	1	04/14/2016 15:53
Hexachloroethane	ND	0.0050	1	04/14/2016 15:53
2-Hexanone	ND	0.0050	1	04/14/2016 15:53
Isopropylbenzene	ND	0.0050	1	04/14/2016 15:53
4-Isopropyl toluene	ND	0.0050	1	04/14/2016 15:53
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	04/14/2016 15:53
Methylene chloride	ND	0.0050	1	04/14/2016 15:53
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	04/14/2016 15:53
Naphthalene	ND	0.0050	1	04/14/2016 15:53
n-Propyl benzene	ND	0.0050	1	04/14/2016 15:53
Styrene	ND	0.0050	1	04/14/2016 15:53
1,1,1,2-Tetrachloroethane	ND	0.0050	1	04/14/2016 15:53
1,1,2,2-Tetrachloroethane	ND	0.0050	1	04/14/2016 15:53
Tetrachloroethene	ND	0.0050	1	04/14/2016 15:53
Toluene	ND	0.0050	1	04/14/2016 15:53
1,2,3-Trichlorobenzene	ND	0.0050	1	04/14/2016 15:53
1,2,4-Trichlorobenzene	ND	0.0050	1	04/14/2016 15:53
1,1,1-Trichloroethane	ND	0.0050	1	04/14/2016 15:53
1,1,2-Trichloroethane	ND	0.0050	1	04/14/2016 15:53
Trichloroethene	ND	0.0050	1	04/14/2016 15:53
Trichlorofluoromethane	ND	0.0050	1	04/14/2016 15:53
1,2,3-Trichloropropane	ND	0.0050	1	04/14/2016 15:53
1,2,4-Trimethylbenzene	ND	0.0050	1	04/14/2016 15:53
1,3,5-Trimethylbenzene	ND	0.0050	1	04/14/2016 15:53
Vinyl Chloride	ND	0.0050	1	04/14/2016 15:53
Xylenes, Total	ND	0.0050	1	04/14/2016 15:53

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW5030B

Date Prepared: 4/7/16

Analytical Method: SW8260B

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-2&B8-2	1604176-011A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	98	70-130		04/14/2016 15:53
Toluene-d8	101	70-130		04/14/2016 15:53
4-BFB	102	70-130		04/14/2016 15:53
Benzene-d6	77	60-140		04/14/2016 15:53
Ethylbenzene-d10	98	60-140		04/14/2016 15:53
1,2-DCB-d4	82	60-140		04/14/2016 15:53

Analyst(s): AK



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW5030B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750635601; 3000 Broadway **Unit:** mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-4&B8-4	1604176-012A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	04/14/2016 16:33
tert-Amyl methyl ether (TAME)	ND	0.0050	1	04/14/2016 16:33
Benzene	ND	0.0050	1	04/14/2016 16:33
Bromobenzene	ND	0.0050	1	04/14/2016 16:33
Bromochloromethane	ND	0.0050	1	04/14/2016 16:33
Bromodichloromethane	ND	0.0050	1	04/14/2016 16:33
Bromoform	ND	0.0050	1	04/14/2016 16:33
Bromomethane	ND	0.0050	1	04/14/2016 16:33
2-Butanone (MEK)	ND	0.020	1	04/14/2016 16:33
t-Butyl alcohol (TBA)	ND	0.050	1	04/14/2016 16:33
n-Butyl benzene	ND	0.0050	1	04/14/2016 16:33
sec-Butyl benzene	ND	0.0050	1	04/14/2016 16:33
tert-Butyl benzene	ND	0.0050	1	04/14/2016 16:33
Carbon Disulfide	ND	0.0050	1	04/14/2016 16:33
Carbon Tetrachloride	ND	0.0050	1	04/14/2016 16:33
Chlorobenzene	ND	0.0050	1	04/14/2016 16:33
Chloroethane	ND	0.0050	1	04/14/2016 16:33
Chloroform	ND	0.0050	1	04/14/2016 16:33
Chloromethane	ND	0.0050	1	04/14/2016 16:33
2-Chlorotoluene	ND	0.0050	1	04/14/2016 16:33
4-Chlorotoluene	ND	0.0050	1	04/14/2016 16:33
Dibromochloromethane	ND	0.0050	1	04/14/2016 16:33
1,2-Dibromo-3-chloropropane	ND	0.0040	1	04/14/2016 16:33
1,2-Dibromoethane (EDB)	ND	0.0040	1	04/14/2016 16:33
Dibromomethane	ND	0.0050	1	04/14/2016 16:33
1,2-Dichlorobenzene	ND	0.0050	1	04/14/2016 16:33
1,3-Dichlorobenzene	ND	0.0050	1	04/14/2016 16:33
1,4-Dichlorobenzene	ND	0.0050	1	04/14/2016 16:33
Dichlorodifluoromethane	ND	0.0050	1	04/14/2016 16:33
1,1-Dichloroethane	ND	0.0050	1	04/14/2016 16:33
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	04/14/2016 16:33
1,1-Dichloroethene	ND	0.0050	1	04/14/2016 16:33
cis-1,2-Dichloroethene	ND	0.0050	1	04/14/2016 16:33
trans-1,2-Dichloroethene	ND	0.0050	1	04/14/2016 16:33
1,2-Dichloropropane	ND	0.0050	1	04/14/2016 16:33
1,3-Dichloropropane	ND	0.0050	1	04/14/2016 16:33
2,2-Dichloropropane	ND	0.0050	1	04/14/2016 16:33

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Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW5030B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750635601; 3000 Broadway **Unit:** mg/kg
Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-4&B8-4	1604176-012A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	04/14/2016 16:33
cis-1,3-Dichloropropene	ND	0.0050	1	04/14/2016 16:33
trans-1,3-Dichloropropene	ND	0.0050	1	04/14/2016 16:33
Diisopropyl ether (DIPE)	ND	0.0050	1	04/14/2016 16:33
Ethylbenzene	ND	0.0050	1	04/14/2016 16:33
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	04/14/2016 16:33
Freon 113	ND	0.0050	1	04/14/2016 16:33
Hexachlorobutadiene	ND	0.0050	1	04/14/2016 16:33
Hexachloroethane	ND	0.0050	1	04/14/2016 16:33
2-Hexanone	ND	0.0050	1	04/14/2016 16:33
Isopropylbenzene	ND	0.0050	1	04/14/2016 16:33
4-Isopropyl toluene	ND	0.0050	1	04/14/2016 16:33
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	04/14/2016 16:33
Methylene chloride	ND	0.0050	1	04/14/2016 16:33
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	04/14/2016 16:33
Naphthalene	ND	0.0050	1	04/14/2016 16:33
n-Propyl benzene	ND	0.0050	1	04/14/2016 16:33
Styrene	ND	0.0050	1	04/14/2016 16:33
1,1,1,2-Tetrachloroethane	ND	0.0050	1	04/14/2016 16:33
1,1,2,2-Tetrachloroethane	ND	0.0050	1	04/14/2016 16:33
Tetrachloroethene	ND	0.0050	1	04/14/2016 16:33
Toluene	ND	0.0050	1	04/14/2016 16:33
1,2,3-Trichlorobenzene	ND	0.0050	1	04/14/2016 16:33
1,2,4-Trichlorobenzene	ND	0.0050	1	04/14/2016 16:33
1,1,1-Trichloroethane	ND	0.0050	1	04/14/2016 16:33
1,1,2-Trichloroethane	ND	0.0050	1	04/14/2016 16:33
Trichloroethene	ND	0.0050	1	04/14/2016 16:33
Trichlorofluoromethane	ND	0.0050	1	04/14/2016 16:33
1,2,3-Trichloropropane	ND	0.0050	1	04/14/2016 16:33
1,2,4-Trimethylbenzene	ND	0.0050	1	04/14/2016 16:33
1,3,5-Trimethylbenzene	ND	0.0050	1	04/14/2016 16:33
Vinyl Chloride	ND	0.0050	1	04/14/2016 16:33
Xylenes, Total	ND	0.0050	1	04/14/2016 16:33

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW5030B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750635601; 3000 Broadway **Unit:** mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-4&B8-4	1604176-012A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	98	70-130		04/14/2016 16:33
Toluene-d8	102	70-130		04/14/2016 16:33
4-BFB	102	70-130		04/14/2016 16:33
Benzene-d6	95	60-140		04/14/2016 16:33
Ethylbenzene-d10	104	60-140		04/14/2016 16:33
1,2-DCB-d4	87	60-140		04/14/2016 16:33

Analyst(s): AK



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/15 9:18 **Extraction Method:** SW5030B
Date Prepared: 4/7/15 **Analytical Method:** SW8260B
Project: 750635601; 3000 Broadway **Unit:** mg/kg
Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-6&B8-6	1604176-013A	Soil	04/02/2016	GC16	119135
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	04/14/2016 17:13
tert-Amyl methyl ether (TAME)	ND		0.0050	1	04/14/2016 17:13
Benzene	ND		0.0050	1	04/14/2016 17:13
Bromobenzene	ND		0.0050	1	04/14/2016 17:13
Bromochloromethane	ND		0.0050	1	04/14/2016 17:13
Bromodichloromethane	ND		0.0050	1	04/14/2016 17:13
Bromoform	ND		0.0050	1	04/14/2016 17:13
Bromomethane	ND		0.0050	1	04/14/2016 17:13
2-Butanone (MEK)	ND		0.020	1	04/14/2016 17:13
t-Butyl alcohol (TBA)	ND		0.050	1	04/14/2016 17:13
n-Butyl benzene	ND		0.0050	1	04/14/2016 17:13
sec-Butyl benzene	ND		0.0050	1	04/14/2016 17:13
tert-Butyl benzene	ND		0.0050	1	04/14/2016 17:13
Carbon Disulfide	ND		0.0050	1	04/14/2016 17:13
Carbon Tetrachloride	ND		0.0050	1	04/14/2016 17:13
Chlorobenzene	ND		0.0050	1	04/14/2016 17:13
Chloroethane	ND		0.0050	1	04/14/2016 17:13
Chloroform	ND		0.0050	1	04/14/2016 17:13
Chloromethane	ND		0.0050	1	04/14/2016 17:13
2-Chlorotoluene	ND		0.0050	1	04/14/2016 17:13
4-Chlorotoluene	ND		0.0050	1	04/14/2016 17:13
Dibromochloromethane	ND		0.0050	1	04/14/2016 17:13
1,2-Dibromo-3-chloropropane	ND		0.0040	1	04/14/2016 17:13
1,2-Dibromoethane (EDB)	ND		0.0040	1	04/14/2016 17:13
Dibromomethane	ND		0.0050	1	04/14/2016 17:13
1,2-Dichlorobenzene	ND		0.0050	1	04/14/2016 17:13
1,3-Dichlorobenzene	ND		0.0050	1	04/14/2016 17:13
1,4-Dichlorobenzene	ND		0.0050	1	04/14/2016 17:13
Dichlorodifluoromethane	ND		0.0050	1	04/14/2016 17:13
1,1-Dichloroethane	ND		0.0050	1	04/14/2016 17:13
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	04/14/2016 17:13
1,1-Dichloroethene	ND		0.0050	1	04/14/2016 17:13
cis-1,2-Dichloroethene	ND		0.0050	1	04/14/2016 17:13
trans-1,2-Dichloroethene	ND		0.0050	1	04/14/2016 17:13
1,2-Dichloropropane	ND		0.0050	1	04/14/2016 17:13
1,3-Dichloropropane	ND		0.0050	1	04/14/2016 17:13
2,2-Dichloropropane	ND		0.0050	1	04/14/2016 17:13

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Analytical Report

Client: Treadwell & Rollo	WorkOrder: 1604176
Date Received: 4/7/16 9:18	Extraction Method: SW5030B
Date Prepared: 4/7/16	Analytical Method: SW8260B
Project: 750635601; 3000 Broadway	Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-6&B8-6	1604176-013A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	04/14/2016 17:13
cis-1,3-Dichloropropene	ND	0.0050	1	04/14/2016 17:13
trans-1,3-Dichloropropene	ND	0.0050	1	04/14/2016 17:13
Diisopropyl ether (DIPE)	ND	0.0050	1	04/14/2016 17:13
Ethylbenzene	ND	0.0050	1	04/14/2016 17:13
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	04/14/2016 17:13
Freon 113	ND	0.0050	1	04/14/2016 17:13
Hexachlorobutadiene	ND	0.0050	1	04/14/2016 17:13
Hexachloroethane	ND	0.0050	1	04/14/2016 17:13
2-Hexanone	ND	0.0050	1	04/14/2016 17:13
Isopropylbenzene	ND	0.0050	1	04/14/2016 17:13
4-Isopropyl toluene	ND	0.0050	1	04/14/2016 17:13
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	04/14/2016 17:13
Methylene chloride	ND	0.0050	1	04/14/2016 17:13
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	04/14/2016 17:13
Naphthalene	ND	0.0050	1	04/14/2016 17:13
n-Propyl benzene	ND	0.0050	1	04/14/2016 17:13
Styrene	ND	0.0050	1	04/14/2016 17:13
1,1,1,2-Tetrachloroethane	ND	0.0050	1	04/14/2016 17:13
1,1,2,2-Tetrachloroethane	ND	0.0050	1	04/14/2016 17:13
Tetrachloroethene	ND	0.0050	1	04/14/2016 17:13
Toluene	ND	0.0050	1	04/14/2016 17:13
1,2,3-Trichlorobenzene	ND	0.0050	1	04/14/2016 17:13
1,2,4-Trichlorobenzene	ND	0.0050	1	04/14/2016 17:13
1,1,1-Trichloroethane	ND	0.0050	1	04/14/2016 17:13
1,1,2-Trichloroethane	ND	0.0050	1	04/14/2016 17:13
Trichloroethene	ND	0.0050	1	04/14/2016 17:13
Trichlorofluoromethane	ND	0.0050	1	04/14/2016 17:13
1,2,3-Trichloropropane	ND	0.0050	1	04/14/2016 17:13
1,2,4-Trimethylbenzene	ND	0.0050	1	04/14/2016 17:13
1,3,5-Trimethylbenzene	ND	0.0050	1	04/14/2016 17:13
Vinyl Chloride	ND	0.0050	1	04/14/2016 17:13
Xylenes, Total	ND	0.0050	1	04/14/2016 17:13

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Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW5050B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750635601; 3000 Broadway **Unit:** mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-6&B8-6	1604176-013A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	99	70-130		04/14/2016 17:13
Toluene-d8	99	70-130		04/14/2016 17:13
4-BFB	102	70-130		04/14/2016 17:13
Benzene-d6	84	60-140		04/14/2016 17:13
Ethylbenzene-d10	94	60-140		04/14/2016 17:13
1,2-DCB-d4	78	60-140		04/14/2016 17:13

Analyst(s): AK



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9.18

Extraction Method: SW5030B

Date Prepared: 4/7/16

Analytical Method: SW8260B

Project: 750635601; 3000 Broadway

Unit: mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-8&B8-8	1604176-014A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	04/14/2016 17:53
tert-Amyl methyl ether (TAME)	ND	0.0050	1	04/14/2016 17:53
Benzene	ND	0.0050	1	04/14/2016 17:53
Bromobenzene	ND	0.0050	1	04/14/2016 17:53
Bromochloromethane	ND	0.0050	1	04/14/2016 17:53
Bromodichloromethane	ND	0.0050	1	04/14/2016 17:53
Bromoform	ND	0.0050	1	04/14/2016 17:53
Bromomethane	ND	0.0050	1	04/14/2016 17:53
2-Butanone (MEK)	ND	0.020	1	04/14/2016 17:53
t-Butyl alcohol (TBA)	ND	0.050	1	04/14/2016 17:53
n-Butyl benzene	ND	0.0050	1	04/14/2016 17:53
sec-Butyl benzene	ND	0.0050	1	04/14/2016 17:53
tert-Butyl benzene	ND	0.0050	1	04/14/2016 17:53
Carbon Disulfide	ND	0.0050	1	04/14/2016 17:53
Carbon Tetrachloride	ND	0.0050	1	04/14/2016 17:53
Chlorobenzene	ND	0.0050	1	04/14/2016 17:53
Chloroethane	ND	0.0050	1	04/14/2016 17:53
Chloroform	ND	0.0050	1	04/14/2016 17:53
Chloromethane	ND	0.0050	1	04/14/2016 17:53
2-Chlorotoluene	ND	0.0050	1	04/14/2016 17:53
4-Chlorotoluene	ND	0.0050	1	04/14/2016 17:53
Dibromochloromethane	ND	0.0050	1	04/14/2016 17:53
1,2-Dibromo-3-chloropropane	ND	0.0040	1	04/14/2016 17:53
1,2-Dibromoethane (EDB)	ND	0.0040	1	04/14/2016 17:53
Dibromomethane	ND	0.0050	1	04/14/2016 17:53
1,2-Dichlorobenzene	ND	0.0050	1	04/14/2016 17:53
1,3-Dichlorobenzene	ND	0.0050	1	04/14/2016 17:53
1,4-Dichlorobenzene	ND	0.0050	1	04/14/2016 17:53
Dichlorodifluoromethane	ND	0.0050	1	04/14/2016 17:53
1,1-Dichloroethane	ND	0.0050	1	04/14/2016 17:53
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	04/14/2016 17:53
1,1-Dichloroethene	ND	0.0050	1	04/14/2016 17:53
cis-1,2-Dichloroethene	ND	0.0050	1	04/14/2016 17:53
trans-1,2-Dichloroethene	ND	0.0050	1	04/14/2016 17:53
1,2-Dichloropropane	ND	0.0050	1	04/14/2016 17:53
1,3-Dichloropropane	ND	0.0050	1	04/14/2016 17:53
2,2-Dichloropropane	ND	0.0050	1	04/14/2016 17:53

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Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW5030B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750635601; 3000 Broadway **Unit:** mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-8&B8-8	1604176-014A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	04/14/2016 17:53
cis-1,3-Dichloropropene	ND	0.0050	1	04/14/2016 17:53
trans-1,3-Dichloropropene	ND	0.0050	1	04/14/2016 17:53
Diisopropyl ether (DIPE)	ND	0.0050	1	04/14/2016 17:53
Ethylbenzene	ND	0.0050	1	04/14/2016 17:53
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	04/14/2016 17:53
Freon 113	ND	0.0050	1	04/14/2016 17:53
Hexachlorobutadiene	ND	0.0050	1	04/14/2016 17:53
Hexachloroethane	ND	0.0050	1	04/14/2016 17:53
2-Hexanone	ND	0.0050	1	04/14/2016 17:53
Isopropylbenzene	ND	0.0050	1	04/14/2016 17:53
4-Isopropyl toluene	ND	0.0050	1	04/14/2016 17:53
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	04/14/2016 17:53
Methylene chloride	ND	0.0050	1	04/14/2016 17:53
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	04/14/2016 17:53
Naphthalene	ND	0.0050	1	04/14/2016 17:53
n-Propyl benzene	ND	0.0050	1	04/14/2016 17:53
Styrene	ND	0.0050	1	04/14/2016 17:53
1,1,1,2-Tetrachloroethane	ND	0.0050	1	04/14/2016 17:53
1,1,2,2-Tetrachloroethane	ND	0.0050	1	04/14/2016 17:53
Tetrachloroethene	ND	0.0050	1	04/14/2016 17:53
Toluene	ND	0.0050	1	04/14/2016 17:53
1,2,3-Trichlorobenzene	ND	0.0050	1	04/14/2016 17:53
1,2,4-Trichlorobenzene	ND	0.0050	1	04/14/2016 17:53
1,1,1-Trichloroethane	ND	0.0050	1	04/14/2016 17:53
1,1,2-Trichloroethane	ND	0.0050	1	04/14/2016 17:53
Trichloroethene	ND	0.0050	1	04/14/2016 17:53
Trichlorofluoromethane	ND	0.0050	1	04/14/2016 17:53
1,2,3-Trichloropropane	ND	0.0050	1	04/14/2016 17:53
1,2,4-Trimethylbenzene	ND	0.0050	1	04/14/2016 17:53
1,3,5-Trimethylbenzene	ND	0.0050	1	04/14/2016 17:53
Vinyl Chloride	ND	0.0050	1	04/14/2016 17:53
Xylenes, Total	ND	0.0050	1	04/14/2016 17:53

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Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW5050B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750635601; 3000 Broadway **Unit:** mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-8&B8-8	1604176-014A	Soil	04/02/2016	GC16	119135

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	97	70-130		04/14/2016 17:53
Toluene-d8	102	70-130		04/14/2016 17:53
4-BFB	104	70-130		04/14/2016 17:53
Benzene-d6	82	60-140		04/14/2016 17:53
Ethylbenzene-d10	88	60-140		04/14/2016 17:53
1,2-DCB-d4	79	60-140		04/14/2016 17:53

Analyst(s): KF



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW5030B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750635601; 3000 Broadway **Unit:** mg/kg
Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B9-1,3&B10-1,3	1604176-016A	Soil	04/01/2016	GC10	119135

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	04/13/2016 23:08
tert-Amyl methyl ether (TAME)	ND	0.0050	1	04/13/2016 23:08
Benzene	ND	0.0050	1	04/13/2016 23:08
Bromobenzene	ND	0.0050	1	04/13/2016 23:08
Bromochloromethane	ND	0.0050	1	04/13/2016 23:08
Bromodichloromethane	ND	0.0050	1	04/13/2016 23:08
Bromoform	ND	0.0050	1	04/13/2016 23:08
Bromomethane	ND	0.0050	1	04/13/2016 23:08
2-Butanone (MEK)	ND	0.020	1	04/13/2016 23:08
t-Butyl alcohol (TBA)	ND	0.050	1	04/13/2016 23:08
n-Butyl benzene	ND	0.0050	1	04/13/2016 23:08
sec-Butyl benzene	ND	0.0050	1	04/13/2016 23:08
tert-Butyl benzene	ND	0.0050	1	04/13/2016 23:08
Carbon Disulfide	ND	0.0050	1	04/13/2016 23:08
Carbon Tetrachloride	ND	0.0050	1	04/13/2016 23:08
Chlorobenzene	ND	0.0050	1	04/13/2016 23:08
Chloroethane	ND	0.0050	1	04/13/2016 23:08
Chloroform	ND	0.0050	1	04/13/2016 23:08
Chloromethane	ND	0.0050	1	04/13/2016 23:08
2-Chlorotoluene	ND	0.0050	1	04/13/2016 23:08
4-Chlorotoluene	ND	0.0050	1	04/13/2016 23:08
Dibromochloromethane	ND	0.0050	1	04/13/2016 23:08
1,2-Dibromo-3-chloropropane	ND	0.0040	1	04/13/2016 23:08
1,2-Dibromoethane (EDB)	ND	0.0040	1	04/13/2016 23:08
Dibromomethane	ND	0.0050	1	04/13/2016 23:08
1,2-Dichlorobenzene	ND	0.0050	1	04/13/2016 23:08
1,3-Dichlorobenzene	ND	0.0050	1	04/13/2016 23:08
1,4-Dichlorobenzene	ND	0.0050	1	04/13/2016 23:08
Dichlorodifluoromethane	ND	0.0050	1	04/13/2016 23:08
1,1-Dichloroethane	ND	0.0050	1	04/13/2016 23:08
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	04/13/2016 23:08
1,1-Dichloroethene	ND	0.0050	1	04/13/2016 23:08
cis-1,2-Dichloroethene	ND	0.0050	1	04/13/2016 23:08
trans-1,2-Dichloroethene	ND	0.0050	1	04/13/2016 23:08
1,2-Dichloropropane	ND	0.0050	1	04/13/2016 23:08
1,3-Dichloropropane	ND	0.0050	1	04/13/2016 23:08
2,2-Dichloropropane	ND	0.0050	1	04/13/2016 23:08

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Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 **Extraction Method:** SW5030B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750635601; 3000 Broadway **Unit:** mg/kg
Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B9-1,3&B10-1,3	1604176-016A	Soil	04/01/2016	GC10	119135

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	04/13/2016 23:08
cis-1,3-Dichloropropene	ND	0.0050	1	04/13/2016 23:08
trans-1,3-Dichloropropene	ND	0.0050	1	04/13/2016 23:08
Diisopropyl ether (DIPE)	ND	0.0050	1	04/13/2016 23:08
Ethylbenzene	ND	0.0050	1	04/13/2016 23:08
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	04/13/2016 23:08
Freon 113	ND	0.0050	1	04/13/2016 23:08
Hexachlorobutadiene	ND	0.0050	1	04/13/2016 23:08
Hexachloroethane	ND	0.0050	1	04/13/2016 23:08
2-Hexanone	ND	0.0050	1	04/13/2016 23:08
Isopropylbenzene	ND	0.0050	1	04/13/2016 23:08
4-Isopropyl toluene	ND	0.0050	1	04/13/2016 23:08
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	04/13/2016 23:08
Methylene chloride	ND	0.0050	1	04/13/2016 23:08
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	04/13/2016 23:08
Naphthalene	ND	0.0050	1	04/13/2016 23:08
n-Propyl benzene	ND	0.0050	1	04/13/2016 23:08
Styrene	ND	0.0050	1	04/13/2016 23:08
1,1,1,2-Tetrachloroethane	ND	0.0050	1	04/13/2016 23:08
1,1,2,2-Tetrachloroethane	ND	0.0050	1	04/13/2016 23:08
Tetrachloroethene	ND	0.0050	1	04/13/2016 23:08
Toluene	ND	0.0050	1	04/13/2016 23:08
1,2,3-Trichlorobenzene	ND	0.0050	1	04/13/2016 23:08
1,2,4-Trichlorobenzene	ND	0.0050	1	04/13/2016 23:08
1,1,1-Trichloroethane	ND	0.0050	1	04/13/2016 23:08
1,1,2-Trichloroethane	ND	0.0050	1	04/13/2016 23:08
Trichloroethene	ND	0.0050	1	04/13/2016 23:08
Trichlorofluoromethane	ND	0.0050	1	04/13/2016 23:08
1,2,3-Trichloropropane	ND	0.0050	1	04/13/2016 23:08
1,2,4-Trimethylbenzene	ND	0.0050	1	04/13/2016 23:08
1,3,5-Trimethylbenzene	ND	0.0050	1	04/13/2016 23:08
Vinyl Chloride	ND	0.0050	1	04/13/2016 23:08
Xylenes, Total	ND	0.0050	1	04/13/2016 23:08

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW5030B
Date Prepared: 4/7/16 **Analytical Method:** SW8260B
Project: 750635601; 3000 Broadway **Unit:** mg/kg

Included for Completeness - Not Related to UST Closure

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B9-1,3&B10-1,3	1604176-016A	Soil	04/01/2016	GC10	119135

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	92	70-130		04/13/2016 23:08
Toluene-d8	110	70-130		04/13/2016 23:08
4-BFB	83	70-130		04/13/2016 23:08
Benzene-d6	97	60-140		04/13/2016 23:08
Ethylbenzene-d10	102	60-140		04/13/2016 23:08
1,2-DCB-d4	81	60-140		04/13/2016 23:08

Analyst(s): KF



Analytical Report

Client: Treadwell & Rollo
Date Received: 4/7/16 9:18
Date Prepared: 4/8/16
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B11-GW	1604176-018A	Water	04/02/2016 11:50	GC28	119265
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	15		10	1	04/08/2016 14:08
tert-Amyl methyl ether (TAME)	ND		0.50	1	04/08/2016 14:08
Benzene	0.65		0.50	1	04/08/2016 14:08
Bromobenzene	ND		0.50	1	04/08/2016 14:08
Bromochloromethane	ND		0.50	1	04/08/2016 14:08
Bromodichloromethane	0.61		0.50	1	04/08/2016 14:08
Bromoform	ND		0.50	1	04/08/2016 14:08
Bromomethane	ND		0.50	1	04/08/2016 14:08
2-Butanone (MEK)	ND		2.0	1	04/08/2016 14:08
t-Butyl alcohol (TBA)	12		2.0	1	04/08/2016 14:08
n-Butyl benzene	ND		0.50	1	04/08/2016 14:08
sec-Butyl benzene	0.67		0.50	1	04/08/2016 14:08
tert-Butyl benzene	0.96		0.50	1	04/08/2016 14:08
Carbon Disulfide	ND		0.50	1	04/08/2016 14:08
Carbon Tetrachloride	ND		0.50	1	04/08/2016 14:08
Chlorobenzene	0.65		0.50	1	04/08/2016 14:08
Chloroethane	ND		0.50	1	04/08/2016 14:08
Chloroform	ND		0.50	1	04/08/2016 14:08
Chloromethane	ND		0.50	1	04/08/2016 14:08
2-Chlorotoluene	ND		0.50	1	04/08/2016 14:08
4-Chlorotoluene	ND		0.50	1	04/08/2016 14:08
Dibromochloromethane	ND		0.50	1	04/08/2016 14:08
1,2-Dibromo-3-chloropropane	ND		0.20	1	04/08/2016 14:08
1,2-Dibromoethane (EDB)	ND		0.50	1	04/08/2016 14:08
Dibromomethane	ND		0.50	1	04/08/2016 14:08
1,2-Dichlorobenzene	ND		0.50	1	04/08/2016 14:08
1,3-Dichlorobenzene	ND		0.50	1	04/08/2016 14:08
1,4-Dichlorobenzene	ND		0.50	1	04/08/2016 14:08
Dichlorodifluoromethane	ND		0.50	1	04/08/2016 14:08
1,1-Dichloroethane	ND		0.50	1	04/08/2016 14:08
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	04/08/2016 14:08
1,1-Dichloroethene	ND		0.50	1	04/08/2016 14:08
cis-1,2-Dichloroethene	ND		0.50	1	04/08/2016 14:08
trans-1,2-Dichloroethene	ND		0.50	1	04/08/2016 14:08
1,2-Dichloropropane	ND		0.50	1	04/08/2016 14:08
1,3-Dichloropropane	ND		0.50	1	04/08/2016 14:08
2,2-Dichloropropane	ND		0.50	1	04/08/2016 14:08

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: Treadwell & Rollo
Date Received: 4/7/16 9:18
Date Prepared: 4/8/16
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B11-GW	1604176-018A	Water	04/02/2016 11:50	GC28	119265
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1-Dichloropropene	ND		0.50	1	04/08/2016 14:08
cis-1,3-Dichloropropene	ND		0.50	1	04/08/2016 14:08
trans-1,3-Dichloropropene	ND		0.50	1	04/08/2016 14:08
Diisopropyl ether (DIPE)	ND		0.50	1	04/08/2016 14:08
Ethylbenzene	ND		0.50	1	04/08/2016 14:08
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	04/08/2016 14:08
Freon 113	ND		0.50	1	04/08/2016 14:08
Hexachlorobutadiene	ND		0.50	1	04/08/2016 14:08
Hexachloroethane	ND		0.50	1	04/08/2016 14:08
2-Hexanone	ND		0.50	1	04/08/2016 14:08
Isopropylbenzene	1.3		0.50	1	04/08/2016 14:08
4-Isopropyl toluene	ND		0.50	1	04/08/2016 14:08
Methyl-t-butyl ether (MTBE)	ND		0.50	1	04/08/2016 14:08
Methylene chloride	ND		0.50	1	04/08/2016 14:08
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	04/08/2016 14:08
Naphthalene	ND		0.50	1	04/08/2016 14:08
n-Propyl benzene	0.93		0.50	1	04/08/2016 14:08
Styrene	ND		0.50	1	04/08/2016 14:08
1,1,1,2-Tetrachloroethane	ND		0.50	1	04/08/2016 14:08
1,1,2,2-Tetrachloroethane	ND		0.50	1	04/08/2016 14:08
Tetrachloroethene	ND		0.50	1	04/08/2016 14:08
Toluene	ND		0.50	1	04/08/2016 14:08
1,2,3-Trichlorobenzene	ND		0.50	1	04/08/2016 14:08
1,2,4-Trichlorobenzene	ND		0.50	1	04/08/2016 14:08
1,1,1-Trichloroethane	ND		0.50	1	04/08/2016 14:08
1,1,2-Trichloroethane	ND		0.50	1	04/08/2016 14:08
Trichloroethene	ND		0.50	1	04/08/2016 14:08
Trichlorofluoromethane	ND		0.50	1	04/08/2016 14:08
1,2,3-Trichloropropane	ND		0.50	1	04/08/2016 14:08
1,2,4-Trimethylbenzene	ND		0.50	1	04/08/2016 14:08
1,3,5-Trimethylbenzene	ND		0.50	1	04/08/2016 14:08
Vinyl Chloride	ND		0.50	1	04/08/2016 14:08
Xylenes, Total	0.88		0.50	1	04/08/2016 14:08

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: Treadwell & Rollo
Date Received: 4/7/16 9:18
Date Prepared: 4/8/16
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B11-GW	1604176-018A	Water	04/02/2016 11:50	GC28	119265

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	104	70-130		04/08/2016 14:08
Toluene-d8	102	70-130		04/08/2016 14:08
4-BFB	94	70-130		04/08/2016 14:08

Analyst(s): HK

Analytical Comments: b1



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW3550B
Date Prepared: 4/9/16-4/12/16 **Analytical Method:** SW8270C
Project: 750635601; 3000 Broadway **Unit:** mg/Kg
Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-2.5,5&B4-2.5,5	1604176-002A	Soil	04/01/2016	GC17	119284

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	04/12/2016 13:27
Acenaphthylene	ND	0.25	1	04/12/2016 13:27
Acetochlor	ND	0.25	1	04/12/2016 13:27
Anthracene	ND	0.25	1	04/12/2016 13:27
Benzidine	ND	1.3	1	04/12/2016 13:27
Benzo (a) anthracene	ND	0.25	1	04/12/2016 13:27
Benzo (a) pyrene	ND	0.25	1	04/12/2016 13:27
Benzo (b) fluoranthene	ND	0.25	1	04/12/2016 13:27
Benzo (g,h,i) perylene	ND	0.25	1	04/12/2016 13:27
Benzo (k) fluoranthene	ND	0.25	1	04/12/2016 13:27
Benzyl Alcohol	ND	1.3	1	04/12/2016 13:27
1,1-Biphenyl	ND	0.25	1	04/12/2016 13:27
Bis (2-chloroethoxy) Methane	ND	0.25	1	04/12/2016 13:27
Bis (2-chloroethyl) Ether	ND	0.25	1	04/12/2016 13:27
Bis (2-chloroisopropyl) Ether	ND	0.25	1	04/12/2016 13:27
Bis (2-ethylhexyl) Adipate	ND	0.25	1	04/12/2016 13:27
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	04/12/2016 13:27
4-Bromophenyl Phenyl Ether	ND	0.25	1	04/12/2016 13:27
Butylbenzyl Phthalate	ND	0.25	1	04/12/2016 13:27
4-Chloroaniline	ND	0.50	1	04/12/2016 13:27
4-Chloro-3-methylphenol	ND	0.25	1	04/12/2016 13:27
2-Chloronaphthalene	ND	0.25	1	04/12/2016 13:27
2-Chlorophenol	ND	0.25	1	04/12/2016 13:27
4-Chlorophenyl Phenyl Ether	ND	0.25	1	04/12/2016 13:27
Chrysene	ND	0.25	1	04/12/2016 13:27
Dibenzo (a,h) anthracene	ND	0.25	1	04/12/2016 13:27
Dibenzofuran	ND	0.25	1	04/12/2016 13:27
Di-n-butyl Phthalate	ND	0.25	1	04/12/2016 13:27
1,2-Dichlorobenzene	ND	0.25	1	04/12/2016 13:27
1,3-Dichlorobenzene	ND	0.25	1	04/12/2016 13:27
1,4-Dichlorobenzene	ND	0.25	1	04/12/2016 13:27
3,3-Dichlorobenzidine	ND	0.50	1	04/12/2016 13:27
2,4-Dichlorophenol	ND	0.25	1	04/12/2016 13:27
Diethyl Phthalate	ND	0.25	1	04/12/2016 13:27
2,4-Dimethylphenol	ND	0.25	1	04/12/2016 13:27
Dimethyl Phthalate	ND	0.25	1	04/12/2016 13:27
4,6-Dinitro-2-methylphenol	ND	1.3	1	04/12/2016 13:27

(Cont.)



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW3550B
Date Prepared: 4/9/16-4/12/16 **Analytical Method:** SW8270C
Project: 750635601; 3000 Broadway **Unit:** mg/Kg
Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-2.5,5&B4-2.5,5	1604176-002A	Soil	04/01/2016	GC17	119284

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	6.3	1	04/12/2016 13:27
2,4-Dinitrotoluene	ND	0.25	1	04/12/2016 13:27
2,6-Dinitrotoluene	ND	0.25	1	04/12/2016 13:27
Di-n-octyl Phthalate	ND	0.50	1	04/12/2016 13:27
1,2-Diphenylhydrazine	ND	0.25	1	04/12/2016 13:27
Fluoranthene	ND	0.25	1	04/12/2016 13:27
Fluorene	ND	0.25	1	04/12/2016 13:27
Hexachlorobenzene	ND	0.25	1	04/12/2016 13:27
Hexachlorobutadiene	ND	0.25	1	04/12/2016 13:27
Hexachlorocyclopentadiene	ND	1.3	1	04/12/2016 13:27
Hexachloroethane	ND	0.25	1	04/12/2016 13:27
Indeno (1,2,3-cd) pyrene	ND	0.25	1	04/12/2016 13:27
Isophorone	ND	0.25	1	04/12/2016 13:27
2-Methylnaphthalene	ND	0.25	1	04/12/2016 13:27
2-Methylphenol (o-Cresol)	ND	0.25	1	04/12/2016 13:27
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	04/12/2016 13:27
Naphthalene	ND	0.25	1	04/12/2016 13:27
2-Nitroaniline	ND	1.3	1	04/12/2016 13:27
3-Nitroaniline	ND	1.3	1	04/12/2016 13:27
4-Nitroaniline	ND	1.3	1	04/12/2016 13:27
Nitrobenzene	ND	0.25	1	04/12/2016 13:27
2-Nitrophenol	ND	1.3	1	04/12/2016 13:27
4-Nitrophenol	ND	1.3	1	04/12/2016 13:27
N-Nitrosodiphenylamine	ND	0.25	1	04/12/2016 13:27
N-Nitrosodi-n-propylamine	ND	0.25	1	04/12/2016 13:27
Pentachlorophenol	ND	1.3	1	04/12/2016 13:27
Phenanthrene	ND	0.25	1	04/12/2016 13:27
Phenol	ND	0.25	1	04/12/2016 13:27
Pyrene	ND	0.25	1	04/12/2016 13:27
1,2,4-Trichlorobenzene	ND	0.25	1	04/12/2016 13:27
2,4,5-Trichlorophenol	ND	0.25	1	04/12/2016 13:27
2,4,6-Trichlorophenol	ND	0.25	1	04/12/2016 13:27

(Cont.)



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW3550B
Date Prepared: 4/9/16-4/12/16 **Analytical Method:** SW8270C
Project: 750635601; 3000 Broadway **Unit:** mg/Kg
Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-2.5,5&B4-2.5,5	1604176-002A	Soil	04/01/2016	GC17	119284

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	95	30-130		04/12/2016 13:27
Phenol-d5	85	30-130		04/12/2016 13:27
Nitrobenzene-d5	81	30-130		04/12/2016 13:27
2-Fluorobiphenyl	80	30-130		04/12/2016 13:27
2,4,6-Tribromophenol	66	16-130		04/12/2016 13:27
4-Terphenyl-d14	84	30-130		04/12/2016 13:27

Analyst(s): REB



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3550B

Date Prepared: 4/9/16-4/12/16

Analytical Method: SW8270C

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-7.5,10&B4-7,10.5	1604176-003A	Soil	04/01/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	04/14/2016 10:48
Acenaphthylene	ND	0.25	1	04/14/2016 10:48
Acetochlor	ND	0.25	1	04/14/2016 10:48
Anthracene	ND	0.25	1	04/14/2016 10:48
Benzidine	ND	1.3	1	04/14/2016 10:48
Benzo (a) anthracene	ND	0.25	1	04/14/2016 10:48
Benzo (a) pyrene	ND	0.25	1	04/14/2016 10:48
Benzo (b) fluoranthene	ND	0.25	1	04/14/2016 10:48
Benzo (g,h,i) perylene	ND	0.25	1	04/14/2016 10:48
Benzo (k) fluoranthene	ND	0.25	1	04/14/2016 10:48
Benzyl Alcohol	ND	1.3	1	04/14/2016 10:48
1,1-Biphenyl	ND	0.25	1	04/14/2016 10:48
Bis (2-chloroethoxy) Methane	ND	0.25	1	04/14/2016 10:48
Bis (2-chloroethyl) Ether	ND	0.25	1	04/14/2016 10:48
Bis (2-chloroisopropyl) Ether	ND	0.25	1	04/14/2016 10:48
Bis (2-ethylhexyl) Adipate	ND	0.25	1	04/14/2016 10:48
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	04/14/2016 10:48
4-Bromophenyl Phenyl Ether	ND	0.25	1	04/14/2016 10:48
Butylbenzyl Phthalate	ND	0.25	1	04/14/2016 10:48
4-Chloroaniline	ND	0.50	1	04/14/2016 10:48
4-Chloro-3-methylphenol	ND	0.25	1	04/14/2016 10:48
2-Chloronaphthalene	ND	0.25	1	04/14/2016 10:48
2-Chlorophenol	ND	0.25	1	04/14/2016 10:48
4-Chlorophenyl Phenyl Ether	ND	0.25	1	04/14/2016 10:48
Chrysene	ND	0.25	1	04/14/2016 10:48
Dibenzo (a,h) anthracene	ND	0.25	1	04/14/2016 10:48
Dibenzofuran	ND	0.25	1	04/14/2016 10:48
Di-n-butyl Phthalate	ND	0.25	1	04/14/2016 10:48
1,2-Dichlorobenzene	ND	0.25	1	04/14/2016 10:48
1,3-Dichlorobenzene	ND	0.25	1	04/14/2016 10:48
1,4-Dichlorobenzene	ND	0.25	1	04/14/2016 10:48
3,3-Dichlorobenzidine	ND	0.50	1	04/14/2016 10:48
2,4-Dichlorophenol	ND	0.25	1	04/14/2016 10:48
Diethyl Phthalate	ND	0.25	1	04/14/2016 10:48
2,4-Dimethylphenol	ND	0.25	1	04/14/2016 10:48
Dimethyl Phthalate	ND	0.25	1	04/14/2016 10:48
4,6-Dinitro-2-methylphenol	ND	1.3	1	04/14/2016 10:48

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Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3550B

Date Prepared: 4/9/16-4/12/16

Analytical Method: SW8270C

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-7.5,10&B4-7,10.5	1604176-003A	Soil	04/01/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	6.3	1	04/14/2016 10:48
2,4-Dinitrotoluene	ND	0.25	1	04/14/2016 10:48
2,6-Dinitrotoluene	ND	0.25	1	04/14/2016 10:48
Di-n-octyl Phthalate	ND	0.50	1	04/14/2016 10:48
1,2-Diphenylhydrazine	ND	0.25	1	04/14/2016 10:48
Fluoranthene	ND	0.25	1	04/14/2016 10:48
Fluorene	ND	0.25	1	04/14/2016 10:48
Hexachlorobenzene	ND	0.25	1	04/14/2016 10:48
Hexachlorobutadiene	ND	0.25	1	04/14/2016 10:48
Hexachlorocyclopentadiene	ND	1.3	1	04/14/2016 10:48
Hexachloroethane	ND	0.25	1	04/14/2016 10:48
Indeno (1,2,3-cd) pyrene	ND	0.25	1	04/14/2016 10:48
Isophorone	ND	0.25	1	04/14/2016 10:48
2-Methylnaphthalene	ND	0.25	1	04/14/2016 10:48
2-Methylphenol (o-Cresol)	ND	0.25	1	04/14/2016 10:48
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	04/14/2016 10:48
Naphthalene	ND	0.25	1	04/14/2016 10:48
2-Nitroaniline	ND	1.3	1	04/14/2016 10:48
3-Nitroaniline	ND	1.3	1	04/14/2016 10:48
4-Nitroaniline	ND	1.3	1	04/14/2016 10:48
Nitrobenzene	ND	0.25	1	04/14/2016 10:48
2-Nitrophenol	ND	1.3	1	04/14/2016 10:48
4-Nitrophenol	ND	1.3	1	04/14/2016 10:48
N-Nitrosodiphenylamine	ND	0.25	1	04/14/2016 10:48
N-Nitrosodi-n-propylamine	ND	0.25	1	04/14/2016 10:48
Pentachlorophenol	ND	1.3	1	04/14/2016 10:48
Phenanthrene	ND	0.25	1	04/14/2016 10:48
Phenol	ND	0.25	1	04/14/2016 10:48
Pyrene	ND	0.25	1	04/14/2016 10:48
1,2,4-Trichlorobenzene	ND	0.25	1	04/14/2016 10:48
2,4,5-Trichlorophenol	ND	0.25	1	04/14/2016 10:48
2,4,6-Trichlorophenol	ND	0.25	1	04/14/2016 10:48

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3550B

Date Prepared: 4/9/16-4/12/16

Analytical Method: SW8270C

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-7.5,10&B4-7,10.5	1604176-003A	Soil	04/01/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorophenol	99	30-130		04/14/2016 10:48
Phenol-d5	88	30-130		04/14/2016 10:48
Nitrobenzene-d5	79	30-130		04/14/2016 10:48
2-Fluorobiphenyl	78	30-130		04/14/2016 10:48
2,4,6-Tribromophenol	58	16-130		04/14/2016 10:48
4-Terphenyl-d14	77	30-130		04/14/2016 10:48

Analyst(s): REB



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9.18

Extraction Method: SW3550B

Date Prepared: 4/9/16 4/12/16

Analytical Method: SW8270C

Project: 750633601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-2.5,5&B6-2.5,5	1604176-008A	Soil	04/02/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	04/14/2016 11:17
Acenaphthylene	ND	0.25	1	04/14/2016 11:17
Acetochlor	ND	0.25	1	04/14/2016 11:17
Anthracene	ND	0.25	1	04/14/2016 11:17
Benzidine	ND	1.3	1	04/14/2016 11:17
Benzo (a) anthracene	ND	0.25	1	04/14/2016 11:17
Benzo (a) pyrene	ND	0.25	1	04/14/2016 11:17
Benzo (b) fluoranthene	ND	0.25	1	04/14/2016 11:17
Benzo (g,h,i) perylene	ND	0.25	1	04/14/2016 11:17
Benzo (k) fluoranthene	ND	0.25	1	04/14/2016 11:17
Benzyl Alcohol	ND	1.3	1	04/14/2016 11:17
1,1-Biphenyl	ND	0.25	1	04/14/2016 11:17
Bis (2-chloroethoxy) Methane	ND	0.25	1	04/14/2016 11:17
Bis (2-chloroethyl) Ether	ND	0.25	1	04/14/2016 11:17
Bis (2-chloroisopropyl) Ether	ND	0.25	1	04/14/2016 11:17
Bis (2-ethylhexyl) Adipate	ND	0.25	1	04/14/2016 11:17
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	04/14/2016 11:17
4-Bromophenyl Phenyl Ether	ND	0.25	1	04/14/2016 11:17
Butylbenzyl Phthalate	ND	0.25	1	04/14/2016 11:17
4-Chloroaniline	ND	0.50	1	04/14/2016 11:17
4-Chloro-3-methylphenol	ND	0.25	1	04/14/2016 11:17
2-Chloronaphthalene	ND	0.25	1	04/14/2016 11:17
2-Chlorophenol	ND	0.25	1	04/14/2016 11:17
4-Chlorophenyl Phenyl Ether	ND	0.25	1	04/14/2016 11:17
Chrysene	ND	0.25	1	04/14/2016 11:17
Dibenzo (a,h) anthracene	ND	0.25	1	04/14/2016 11:17
Dibenzofuran	ND	0.25	1	04/14/2016 11:17
Di-n-butyl Phthalate	ND	0.25	1	04/14/2016 11:17
1,2-Dichlorobenzene	ND	0.25	1	04/14/2016 11:17
1,3-Dichlorobenzene	ND	0.25	1	04/14/2016 11:17
1,4-Dichlorobenzene	ND	0.25	1	04/14/2016 11:17
3,3-Dichlorobenzidine	ND	0.50	1	04/14/2016 11:17
2,4-Dichlorophenol	ND	0.25	1	04/14/2016 11:17
Diethyl Phthalate	ND	0.25	1	04/14/2016 11:17
2,4-Dimethylphenol	ND	0.25	1	04/14/2016 11:17
Dimethyl Phthalate	ND	0.25	1	04/14/2016 11:17
4,6-Dinitro-2-methylphenol	ND	1.3	1	04/14/2016 11:17

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Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 ~~6-9-18~~ **Extraction Method:** SW5550B
Date Prepared: 4/9/16-4/12/16 **Analytical Method:** SW8270C
Project: 750635601; 3000 Broadway **Unit:** mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-2.5,5&B6-2.5,5	1604176-008A	Soil	04/02/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	6.3	1	04/14/2016 11:17
2,4-Dinitrotoluene	ND	0.25	1	04/14/2016 11:17
2,6-Dinitrotoluene	ND	0.25	1	04/14/2016 11:17
Di-n-octyl Phthalate	ND	0.50	1	04/14/2016 11:17
1,2-Diphenylhydrazine	ND	0.25	1	04/14/2016 11:17
Fluoranthene	ND	0.25	1	04/14/2016 11:17
Fluorene	ND	0.25	1	04/14/2016 11:17
Hexachlorobenzene	ND	0.25	1	04/14/2016 11:17
Hexachlorobutadiene	ND	0.25	1	04/14/2016 11:17
Hexachlorocyclopentadiene	ND	1.3	1	04/14/2016 11:17
Hexachloroethane	ND	0.25	1	04/14/2016 11:17
Indeno (1,2,3-cd) pyrene	ND	0.25	1	04/14/2016 11:17
Isophorone	ND	0.25	1	04/14/2016 11:17
2-Methylnaphthalene	ND	0.25	1	04/14/2016 11:17
2-Methylphenol (o-Cresol)	ND	0.25	1	04/14/2016 11:17
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	04/14/2016 11:17
Naphthalene	ND	0.25	1	04/14/2016 11:17
2-Nitroaniline	ND	1.3	1	04/14/2016 11:17
3-Nitroaniline	ND	1.3	1	04/14/2016 11:17
4-Nitroaniline	ND	1.3	1	04/14/2016 11:17
Nitrobenzene	ND	0.25	1	04/14/2016 11:17
2-Nitrophenol	ND	1.3	1	04/14/2016 11:17
4-Nitrophenol	ND	1.3	1	04/14/2016 11:17
N-Nitrosodiphenylamine	ND	0.25	1	04/14/2016 11:17
N-Nitrosodi-n-propylamine	ND	0.25	1	04/14/2016 11:17
Pentachlorophenol	ND	1.3	1	04/14/2016 11:17
Phenanthrene	ND	0.25	1	04/14/2016 11:17
Phenol	ND	0.25	1	04/14/2016 11:17
Pyrene	ND	0.25	1	04/14/2016 11:17
1,2,4-Trichlorobenzene	ND	0.25	1	04/14/2016 11:17
2,4,5-Trichlorophenol	ND	0.25	1	04/14/2016 11:17
2,4,6-Trichlorophenol	ND	0.25	1	04/14/2016 11:17

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Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW3550B
Date Prepared: 4/9/16-4/12/16 **Analytical Method:** SW8270C
Project: 750635601; 3000 Broadway **Unit:** mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-2.5,5&B6-2.5,5	1604176-008A	Soil	04/02/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorophenol	108	30-130		04/14/2016 11:17
Phenol-d5	98	30-130		04/14/2016 11:17
Nitrobenzene-d5	87	30-130		04/14/2016 11:17
2-Fluorobiphenyl	84	30-130		04/14/2016 11:17
2,4,6-Tribromophenol	63	16-130		04/14/2016 11:17
4-Terphenyl-d14	85	30-130		04/14/2016 11:17

Analyst(s): REB



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3550B

Date Prepared: 4/9/16-4/12/16

Analytical Method: SW8270C

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-7.5,10&B6-7.5,10	1604176-009A	Soil	04/02/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	04/14/2016 11:45
Acenaphthylene	ND	0.25	1	04/14/2016 11:45
Acetochlor	ND	0.25	1	04/14/2016 11:45
Anthracene	ND	0.25	1	04/14/2016 11:45
Benzidine	ND	1.3	1	04/14/2016 11:45
Benzo (a) anthracene	ND	0.25	1	04/14/2016 11:45
Benzo (a) pyrene	ND	0.25	1	04/14/2016 11:45
Benzo (b) fluoranthene	ND	0.25	1	04/14/2016 11:45
Benzo (g,h,i) perylene	ND	0.25	1	04/14/2016 11:45
Benzo (k) fluoranthene	ND	0.25	1	04/14/2016 11:45
Benzyl Alcohol	ND	1.3	1	04/14/2016 11:45
1,1-Biphenyl	ND	0.25	1	04/14/2016 11:45
Bis (2-chloroethoxy) Methane	ND	0.25	1	04/14/2016 11:45
Bis (2-chloroethyl) Ether	ND	0.25	1	04/14/2016 11:45
Bis (2-chloroisopropyl) Ether	ND	0.25	1	04/14/2016 11:45
Bis (2-ethylhexyl) Adipate	ND	0.25	1	04/14/2016 11:45
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	04/14/2016 11:45
4-Bromophenyl Phenyl Ether	ND	0.25	1	04/14/2016 11:45
Butylbenzyl Phthalate	ND	0.25	1	04/14/2016 11:45
4-Chloroaniline	ND	0.50	1	04/14/2016 11:45
4-Chloro-3-methylphenol	ND	0.25	1	04/14/2016 11:45
2-Chloronaphthalene	ND	0.25	1	04/14/2016 11:45
2-Chlorophenol	ND	0.25	1	04/14/2016 11:45
4-Chlorophenyl Phenyl Ether	ND	0.25	1	04/14/2016 11:45
Chrysene	ND	0.25	1	04/14/2016 11:45
Dibenzo (a,h) anthracene	ND	0.25	1	04/14/2016 11:45
Dibenzofuran	ND	0.25	1	04/14/2016 11:45
Di-n-butyl Phthalate	ND	0.25	1	04/14/2016 11:45
1,2-Dichlorobenzene	ND	0.25	1	04/14/2016 11:45
1,3-Dichlorobenzene	ND	0.25	1	04/14/2016 11:45
1,4-Dichlorobenzene	ND	0.25	1	04/14/2016 11:45
3,3-Dichlorobenzidine	ND	0.50	1	04/14/2016 11:45
2,4-Dichlorophenol	ND	0.25	1	04/14/2016 11:45
Diethyl Phthalate	ND	0.25	1	04/14/2016 11:45
2,4-Dimethylphenol	ND	0.25	1	04/14/2016 11:45
Dimethyl Phthalate	ND	0.25	1	04/14/2016 11:45
4,6-Dinitro-2-methylphenol	ND	1.3	1	04/14/2016 11:45

(Cont.)



Analytical Report

Client: Treadwell & Rollo WorkOrder: 1604176
Date Received: 4/7/16 9:18 Extraction Method: SW5550B
Date Prepared: 4/9/16-4/12/16 Analytical Method: SW8270C
Project: 750635601; 3000 Broadway Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-7.5,10&B6-7.5,10	1604176-009A	Soil	04/02/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	6.3	1	04/14/2016 11:45
2,4-Dinitrotoluene	ND	0.25	1	04/14/2016 11:45
2,6-Dinitrotoluene	ND	0.25	1	04/14/2016 11:45
Di-n-octyl Phthalate	ND	0.50	1	04/14/2016 11:45
1,2-Diphenylhydrazine	ND	0.25	1	04/14/2016 11:45
Fluoranthene	ND	0.25	1	04/14/2016 11:45
Fluorene	ND	0.25	1	04/14/2016 11:45
Hexachlorobenzene	ND	0.25	1	04/14/2016 11:45
Hexachlorobutadiene	ND	0.25	1	04/14/2016 11:45
Hexachlorocyclopentadiene	ND	1.3	1	04/14/2016 11:45
Hexachloroethane	ND	0.25	1	04/14/2016 11:45
Indeno (1,2,3-cd) pyrene	ND	0.25	1	04/14/2016 11:45
Isophorone	ND	0.25	1	04/14/2016 11:45
2-Methylnaphthalene	ND	0.25	1	04/14/2016 11:45
2-Methylphenol (o-Cresol)	ND	0.25	1	04/14/2016 11:45
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	04/14/2016 11:45
Naphthalene	ND	0.25	1	04/14/2016 11:45
2-Nitroaniline	ND	1.3	1	04/14/2016 11:45
3-Nitroaniline	ND	1.3	1	04/14/2016 11:45
4-Nitroaniline	ND	1.3	1	04/14/2016 11:45
Nitrobenzene	ND	0.25	1	04/14/2016 11:45
2-Nitrophenol	ND	1.3	1	04/14/2016 11:45
4-Nitrophenol	ND	1.3	1	04/14/2016 11:45
N-Nitrosodiphenylamine	ND	0.25	1	04/14/2016 11:45
N-Nitrosodi-n-propylamine	ND	0.25	1	04/14/2016 11:45
Pentachlorophenol	ND	1.3	1	04/14/2016 11:45
Phenanthrene	ND	0.25	1	04/14/2016 11:45
Phenol	ND	0.25	1	04/14/2016 11:45
Pyrene	ND	0.25	1	04/14/2016 11:45
1,2,4-Trichlorobenzene	ND	0.25	1	04/14/2016 11:45
2,4,5-Trichlorophenol	ND	0.25	1	04/14/2016 11:45
2,4,6-Trichlorophenol	ND	0.25	1	04/14/2016 11:45

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 **Extraction Method:** SW3550B
Date Prepared: 4/9/16-4/12/16 **Analytical Method:** SW8270C
Project: 750635601; 3000 Broadway **Unit:** mg/Kg
Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-7.5,10&B6-7.5,10	1604176-009A	Soil	04/02/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorophenol	94	30-130		04/14/2016 11:45
Phenol-d5	85	30-130		04/14/2016 11:45
Nitrobenzene-d5	76	30-130		04/14/2016 11:45
2-Fluorobiphenyl	75	30-130		04/14/2016 11:45
2,4,6-Tribromophenol	61	16-130		04/14/2016 11:45
4-Terphenyl-d14	76	30-130		04/14/2016 11:45

Analyst(s): REB



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3550R

Date Prepared: 4/9/16-4/12/16

Analytical Method: SW8270C

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-2&B8-2	1604176-011A	Soil	04/02/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	04/14/2016 12:14
Acenaphthylene	ND	0.25	1	04/14/2016 12:14
Acetochlor	ND	0.25	1	04/14/2016 12:14
Anthracene	ND	0.25	1	04/14/2016 12:14
Benzidine	ND	1.3	1	04/14/2016 12:14
Benzo (a) anthracene	ND	0.25	1	04/14/2016 12:14
Benzo (a) pyrene	ND	0.25	1	04/14/2016 12:14
Benzo (b) fluoranthene	ND	0.25	1	04/14/2016 12:14
Benzo (g,h,i) perylene	ND	0.25	1	04/14/2016 12:14
Benzo (k) fluoranthene	ND	0.25	1	04/14/2016 12:14
Benzyl Alcohol	ND	1.3	1	04/14/2016 12:14
1,1-Biphenyl	ND	0.25	1	04/14/2016 12:14
Bis (2-chloroethoxy) Methane	ND	0.25	1	04/14/2016 12:14
Bis (2-chloroethyl) Ether	ND	0.25	1	04/14/2016 12:14
Bis (2-chloroisopropyl) Ether	ND	0.25	1	04/14/2016 12:14
Bis (2-ethylhexyl) Adipate	ND	0.25	1	04/14/2016 12:14
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	04/14/2016 12:14
4-Bromophenyl Phenyl Ether	ND	0.25	1	04/14/2016 12:14
Butylbenzyl Phthalate	ND	0.25	1	04/14/2016 12:14
4-Chloroaniline	ND	0.50	1	04/14/2016 12:14
4-Chloro-3-methylphenol	ND	0.25	1	04/14/2016 12:14
2-Chloronaphthalene	ND	0.25	1	04/14/2016 12:14
2-Chlorophenol	ND	0.25	1	04/14/2016 12:14
4-Chlorophenyl Phenyl Ether	ND	0.25	1	04/14/2016 12:14
Chrysene	ND	0.25	1	04/14/2016 12:14
Dibenzo (a,h) anthracene	ND	0.25	1	04/14/2016 12:14
Dibenzofuran	ND	0.25	1	04/14/2016 12:14
Di-n-butyl Phthalate	ND	0.25	1	04/14/2016 12:14
1,2-Dichlorobenzene	ND	0.25	1	04/14/2016 12:14
1,3-Dichlorobenzene	ND	0.25	1	04/14/2016 12:14
1,4-Dichlorobenzene	ND	0.25	1	04/14/2016 12:14
3,3-Dichlorobenzidine	ND	0.50	1	04/14/2016 12:14
2,4-Dichlorophenol	ND	0.25	1	04/14/2016 12:14
Diethyl Phthalate	ND	0.25	1	04/14/2016 12:14
2,4-Dimethylphenol	ND	0.25	1	04/14/2016 12:14
Dimethyl Phthalate	ND	0.25	1	04/14/2016 12:14
4,6-Dinitro-2-methylphenol	ND	1.3	1	04/14/2016 12:14

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Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3550R

Date Prepared: 4/9/16-4/12/16

Analytical Method: SW8270C

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-2&B8-2	1604176-011A	Soil	04/02/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	6.3	1	04/14/2016 12:14
2,4-Dinitrotoluene	ND	0.25	1	04/14/2016 12:14
2,6-Dinitrotoluene	ND	0.25	1	04/14/2016 12:14
Di-n-octyl Phthalate	ND	0.50	1	04/14/2016 12:14
1,2-Diphenylhydrazine	ND	0.25	1	04/14/2016 12:14
Fluoranthene	ND	0.25	1	04/14/2016 12:14
Fluorene	ND	0.25	1	04/14/2016 12:14
Hexachlorobenzene	ND	0.25	1	04/14/2016 12:14
Hexachlorobutadiene	ND	0.25	1	04/14/2016 12:14
Hexachlorocyclopentadiene	ND	1.3	1	04/14/2016 12:14
Hexachloroethane	ND	0.25	1	04/14/2016 12:14
Indeno (1,2,3-cd) pyrene	ND	0.25	1	04/14/2016 12:14
Isophorone	ND	0.25	1	04/14/2016 12:14
2-Methylnaphthalene	ND	0.25	1	04/14/2016 12:14
2-Methylphenol (o-Cresol)	ND	0.25	1	04/14/2016 12:14
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	04/14/2016 12:14
Naphthalene	ND	0.25	1	04/14/2016 12:14
2-Nitroaniline	ND	1.3	1	04/14/2016 12:14
3-Nitroaniline	ND	1.3	1	04/14/2016 12:14
4-Nitroaniline	ND	1.3	1	04/14/2016 12:14
Nitrobenzene	ND	0.25	1	04/14/2016 12:14
2-Nitrophenol	ND	1.3	1	04/14/2016 12:14
4-Nitrophenol	ND	1.3	1	04/14/2016 12:14
N-Nitrosodiphenylamine	ND	0.25	1	04/14/2016 12:14
N-Nitrosodi-n-propylamine	ND	0.25	1	04/14/2016 12:14
Pentachlorophenol	ND	1.3	1	04/14/2016 12:14
Phenanthrene	ND	0.25	1	04/14/2016 12:14
Phenol	ND	0.25	1	04/14/2016 12:14
Pyrene	ND	0.25	1	04/14/2016 12:14
1,2,4-Trichlorobenzene	ND	0.25	1	04/14/2016 12:14
2,4,5-Trichlorophenol	ND	0.25	1	04/14/2016 12:14
2,4,6-Trichlorophenol	ND	0.25	1	04/14/2016 12:14

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Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW3550B
Date Prepared: 4/9/16-4/12/16 **Analytical Method:** SW8270C
Project: 750635601; 3000 Broadway **Unit:** mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-2&B8-2	1604176-011A	Soil	04/02/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	96	30-130		04/14/2016 12:14
Phenol-d5	87	30-130		04/14/2016 12:14
Nitrobenzene-d5	78	30-130		04/14/2016 12:14
2-Fluorobiphenyl	78	30-130		04/14/2016 12:14
2,4,6-Tribromophenol	58	16-130		04/14/2016 12:14
4-Terphenyl-d14	78	30-130		04/14/2016 12:14

Analyst(s): REB



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3550B

Date Prepared: 4/9/16-4/12/16

Analytical Method: SW8270C

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-4&B8-4	1604176-012A	Soil	04/02/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	04/14/2016 12:42
Acenaphthylene	ND	0.25	1	04/14/2016 12:42
Acetochlor	ND	0.25	1	04/14/2016 12:42
Anthracene	ND	0.25	1	04/14/2016 12:42
Benzidine	ND	1.3	1	04/14/2016 12:42
Benzo (a) anthracene	ND	0.25	1	04/14/2016 12:42
Benzo (a) pyrene	ND	0.25	1	04/14/2016 12:42
Benzo (b) fluoranthene	ND	0.25	1	04/14/2016 12:42
Benzo (g,h,i) perylene	ND	0.25	1	04/14/2016 12:42
Benzo (k) fluoranthene	ND	0.25	1	04/14/2016 12:42
Benzyl Alcohol	ND	1.3	1	04/14/2016 12:42
1,1-Biphenyl	ND	0.25	1	04/14/2016 12:42
Bis (2-chloroethoxy) Methane	ND	0.25	1	04/14/2016 12:42
Bis (2-chloroethyl) Ether	ND	0.25	1	04/14/2016 12:42
Bis (2-chloroisopropyl) Ether	ND	0.25	1	04/14/2016 12:42
Bis (2-ethylhexyl) Adipate	ND	0.25	1	04/14/2016 12:42
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	04/14/2016 12:42
4-Bromophenyl Phenyl Ether	ND	0.25	1	04/14/2016 12:42
Butylbenzyl Phthalate	ND	0.25	1	04/14/2016 12:42
4-Chloroaniline	ND	0.50	1	04/14/2016 12:42
4-Chloro-3-methylphenol	ND	0.25	1	04/14/2016 12:42
2-Chloronaphthalene	ND	0.25	1	04/14/2016 12:42
2-Chlorophenol	ND	0.25	1	04/14/2016 12:42
4-Chlorophenyl Phenyl Ether	ND	0.25	1	04/14/2016 12:42
Chrysene	ND	0.25	1	04/14/2016 12:42
Dibenzo (a,h) anthracene	ND	0.25	1	04/14/2016 12:42
Dibenzofuran	ND	0.25	1	04/14/2016 12:42
Di-n-butyl Phthalate	ND	0.25	1	04/14/2016 12:42
1,2-Dichlorobenzene	ND	0.25	1	04/14/2016 12:42
1,3-Dichlorobenzene	ND	0.25	1	04/14/2016 12:42
1,4-Dichlorobenzene	ND	0.25	1	04/14/2016 12:42
3,3-Dichlorobenzidine	ND	0.50	1	04/14/2016 12:42
2,4-Dichlorophenol	ND	0.25	1	04/14/2016 12:42
Diethyl Phthalate	ND	0.25	1	04/14/2016 12:42
2,4-Dimethylphenol	ND	0.25	1	04/14/2016 12:42
Dimethyl Phthalate	ND	0.25	1	04/14/2016 12:42
4,6-Dinitro-2-methylphenol	ND	1.3	1	04/14/2016 12:42

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Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3550B

Date Prepared: 4/9/16-4/12/16

Analytical Method: SW8270C

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-4&B8-4	1604176-012A	Soil	04/02/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	6.3	1	04/14/2016 12:42
2,4-Dinitrotoluene	ND	0.25	1	04/14/2016 12:42
2,6-Dinitrotoluene	ND	0.25	1	04/14/2016 12:42
Di-n-octyl Phthalate	ND	0.50	1	04/14/2016 12:42
1,2-Diphenylhydrazine	ND	0.25	1	04/14/2016 12:42
Fluoranthene	ND	0.25	1	04/14/2016 12:42
Fluorene	ND	0.25	1	04/14/2016 12:42
Hexachlorobenzene	ND	0.25	1	04/14/2016 12:42
Hexachlorobutadiene	ND	0.25	1	04/14/2016 12:42
Hexachlorocyclopentadiene	ND	1.3	1	04/14/2016 12:42
Hexachloroethane	ND	0.25	1	04/14/2016 12:42
Indeno (1,2,3-cd) pyrene	ND	0.25	1	04/14/2016 12:42
Isophorone	ND	0.25	1	04/14/2016 12:42
2-Methylnaphthalene	ND	0.25	1	04/14/2016 12:42
2-Methylphenol (o-Cresol)	ND	0.25	1	04/14/2016 12:42
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	04/14/2016 12:42
Naphthalene	ND	0.25	1	04/14/2016 12:42
2-Nitroaniline	ND	1.3	1	04/14/2016 12:42
3-Nitroaniline	ND	1.3	1	04/14/2016 12:42
4-Nitroaniline	ND	1.3	1	04/14/2016 12:42
Nitrobenzene	ND	0.25	1	04/14/2016 12:42
2-Nitrophenol	ND	1.3	1	04/14/2016 12:42
4-Nitrophenol	ND	1.3	1	04/14/2016 12:42
N-Nitrosodiphenylamine	ND	0.25	1	04/14/2016 12:42
N-Nitrosodi-n-propylamine	ND	0.25	1	04/14/2016 12:42
Pentachlorophenol	ND	1.3	1	04/14/2016 12:42
Phenanthrene	ND	0.25	1	04/14/2016 12:42
Phenol	ND	0.25	1	04/14/2016 12:42
Pyrene	ND	0.25	1	04/14/2016 12:42
1,2,4-Trichlorobenzene	ND	0.25	1	04/14/2016 12:42
2,4,5-Trichlorophenol	ND	0.25	1	04/14/2016 12:42
2,4,6-Trichlorophenol	ND	0.25	1	04/14/2016 12:42

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW3550P
Date Prepared: 4/9/16-4/12/16 **Analytical Method:** SW82700
Project: 750635601; 3000 Broadway **Unit:** mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-4&B8-4	1604176-012A	Soil	04/02/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	112	30-130		04/14/2016 12:42
Phenol-d5	100	30-130		04/14/2016 12:42
Nitrobenzene-d5	91	30-130		04/14/2016 12:42
2-Fluorobiphenyl	89	30-130		04/14/2016 12:42
2,4,6-Tribromophenol	88	16-130		04/14/2016 12:42
4-Terphenyl-d14	87	30-130		04/14/2016 12:42

Analyst(s): REB



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW3550B
Date Prepared: 4/9/16-4/12/16 **Analytical Method:** SW8270C
Project: 750535601; 3000 Broadway **Unit:** mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-6&B8-6	1604176-013A	Soil	04/02/2016	GC17	119348
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acenaphthene	ND		0.25	1	04/13/2016 00:28
Acenaphthylene	ND		0.25	1	04/13/2016 00:28
Acetochlor	ND		0.25	1	04/13/2016 00:28
Anthracene	ND		0.25	1	04/13/2016 00:28
Benzidine	ND		1.3	1	04/13/2016 00:28
Benzo (a) anthracene	ND		0.25	1	04/13/2016 00:28
Benzo (a) pyrene	ND		0.25	1	04/13/2016 00:28
Benzo (b) fluoranthene	ND		0.25	1	04/13/2016 00:28
Benzo (g,h,i) perylene	ND		0.25	1	04/13/2016 00:28
Benzo (k) fluoranthene	ND		0.25	1	04/13/2016 00:28
Benzyl Alcohol	ND		1.3	1	04/13/2016 00:28
1,1-Biphenyl	ND		0.25	1	04/13/2016 00:28
Bis (2-chloroethoxy) Methane	ND		0.25	1	04/13/2016 00:28
Bis (2-chloroethyl) Ether	ND		0.25	1	04/13/2016 00:28
Bis (2-chloroisopropyl) Ether	ND		0.25	1	04/13/2016 00:28
Bis (2-ethylhexyl) Adipate	ND		0.25	1	04/13/2016 00:28
Bis (2-ethylhexyl) Phthalate	ND		0.25	1	04/13/2016 00:28
4-Bromophenyl Phenyl Ether	ND		0.25	1	04/13/2016 00:28
Butylbenzyl Phthalate	ND		0.25	1	04/13/2016 00:28
4-Chloroaniline	ND		0.50	1	04/13/2016 00:28
4-Chloro-3-methylphenol	ND		0.25	1	04/13/2016 00:28
2-Chloronaphthalene	ND		0.25	1	04/13/2016 00:28
2-Chlorophenol	ND		0.25	1	04/13/2016 00:28
4-Chlorophenyl Phenyl Ether	ND		0.25	1	04/13/2016 00:28
Chrysene	ND		0.25	1	04/13/2016 00:28
Dibenzo (a,h) anthracene	ND		0.25	1	04/13/2016 00:28
Dibenzofuran	ND		0.25	1	04/13/2016 00:28
Di-n-butyl Phthalate	ND		0.25	1	04/13/2016 00:28
1,2-Dichlorobenzene	ND		0.25	1	04/13/2016 00:28
1,3-Dichlorobenzene	ND		0.25	1	04/13/2016 00:28
1,4-Dichlorobenzene	ND		0.25	1	04/13/2016 00:28
3,3-Dichlorobenzidine	ND		0.50	1	04/13/2016 00:28
2,4-Dichlorophenol	ND		0.25	1	04/13/2016 00:28
Diethyl Phthalate	ND		0.25	1	04/13/2016 00:28
2,4-Dimethylphenol	ND		0.25	1	04/13/2016 00:28
Dimethyl Phthalate	ND		0.25	1	04/13/2016 00:28
4,6-Dinitro-2-methylphenol	ND		1.3	1	04/13/2016 00:28

(Cont.)



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3550B

Date Prepared: 4/9/16-4/12/16

Analytical Method: SW8270C

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-6&B8-6	1604176-013A	Soil	04/02/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	6.3	1	04/13/2016 00:28
2,4-Dinitrotoluene	ND	0.25	1	04/13/2016 00:28
2,6-Dinitrotoluene	ND	0.25	1	04/13/2016 00:28
Di-n-octyl Phthalate	ND	0.50	1	04/13/2016 00:28
1,2-Diphenylhydrazine	ND	0.25	1	04/13/2016 00:28
Fluoranthene	ND	0.25	1	04/13/2016 00:28
Fluorene	ND	0.25	1	04/13/2016 00:28
Hexachlorobenzene	ND	0.25	1	04/13/2016 00:28
Hexachlorobutadiene	ND	0.25	1	04/13/2016 00:28
Hexachlorocyclopentadiene	ND	1.3	1	04/13/2016 00:28
Hexachloroethane	ND	0.25	1	04/13/2016 00:28
Indeno (1,2,3-cd) pyrene	ND	0.25	1	04/13/2016 00:28
Isophorone	ND	0.25	1	04/13/2016 00:28
2-Methylnaphthalene	ND	0.25	1	04/13/2016 00:28
2-Methylphenol (o-Cresol)	ND	0.25	1	04/13/2016 00:28
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	04/13/2016 00:28
Naphthalene	ND	0.25	1	04/13/2016 00:28
2-Nitroaniline	ND	1.3	1	04/13/2016 00:28
3-Nitroaniline	ND	1.3	1	04/13/2016 00:28
4-Nitroaniline	ND	1.3	1	04/13/2016 00:28
Nitrobenzene	ND	0.25	1	04/13/2016 00:28
2-Nitrophenol	ND	1.3	1	04/13/2016 00:28
4-Nitrophenol	ND	1.3	1	04/13/2016 00:28
N-Nitrosodiphenylamine	ND	0.25	1	04/13/2016 00:28
N-Nitrosodi-n-propylamine	ND	0.25	1	04/13/2016 00:28
Pentachlorophenol	ND	1.3	1	04/13/2016 00:28
Phenanthrene	ND	0.25	1	04/13/2016 00:28
Phenol	ND	0.25	1	04/13/2016 00:28
Pyrene	ND	0.25	1	04/13/2016 00:28
1,2,4-Trichlorobenzene	ND	0.25	1	04/13/2016 00:28
2,4,5-Trichlorophenol	ND	0.25	1	04/13/2016 00:28
2,4,6-Trichlorophenol	ND	0.25	1	04/13/2016 00:28

(Cont.)

NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW3550B
Date Prepared: 4/9/16-4/12/16 **Analytical Method:** SW8270C
Project: 750635601; 3000 Broadway **Unit:** mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-6&B8-6	1604176-013A	Soil	04/02/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
2-Fluorophenol	97	30-130		04/13/2016 00:28
Phenol-d5	88	30-130		04/13/2016 00:28
Nitrobenzene-d5	88	30-130		04/13/2016 00:28
2-Fluorobiphenyl	84	30-130		04/13/2016 00:28
2,4,6-Tribromophenol	51	16-130		04/13/2016 00:28
4-Terphenyl-d14	90	30-130		04/13/2016 00:28

Analyst(s): REB



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW3550B
Date Prepared: 4/9/16-4/12/16 **Analytical Method:** SW8270C
Project: 750635601; 3000 Broadway **Unit:** mg/Kg
Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B9-1,3&B10-1,3	1604176-016A	Soil	04/01/2016	GC17	119348
Analytes	Result	RL	DF	Date Analyzed	
Acenaphthene	ND	0.25	1	04/13/2016 00:56	
Acenaphthylene	ND	0.25	1	04/13/2016 00:56	
Acetochlor	ND	0.25	1	04/13/2016 00:56	
Anthracene	ND	0.25	1	04/13/2016 00:56	
Benzidine	ND	1.3	1	04/13/2016 00:56	
Benzo (a) anthracene	ND	0.25	1	04/13/2016 00:56	
Benzo (a) pyrene	ND	0.25	1	04/13/2016 00:56	
Benzo (b) fluoranthene	ND	0.25	1	04/13/2016 00:56	
Benzo (g,h,i) perylene	ND	0.25	1	04/13/2016 00:56	
Benzo (k) fluoranthene	ND	0.25	1	04/13/2016 00:56	
Benzyl Alcohol	ND	1.3	1	04/13/2016 00:56	
1,1-Biphenyl	ND	0.25	1	04/13/2016 00:56	
Bis (2-chloroethoxy) Methane	ND	0.25	1	04/13/2016 00:56	
Bis (2-chloroethyl) Ether	ND	0.25	1	04/13/2016 00:56	
Bis (2-chloroisopropyl) Ether	ND	0.25	1	04/13/2016 00:56	
Bis (2-ethylhexyl) Adipate	ND	0.25	1	04/13/2016 00:56	
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	04/13/2016 00:56	
4-Bromophenyl Phenyl Ether	ND	0.25	1	04/13/2016 00:56	
Butylbenzyl Phthalate	ND	0.25	1	04/13/2016 00:56	
4-Chloroaniline	ND	0.50	1	04/13/2016 00:56	
4-Chloro-3-methylphenol	ND	0.25	1	04/13/2016 00:56	
2-Chloronaphthalene	ND	0.25	1	04/13/2016 00:56	
2-Chlorophenol	ND	0.25	1	04/13/2016 00:56	
4-Chlorophenyl Phenyl Ether	ND	0.25	1	04/13/2016 00:56	
Chrysene	ND	0.25	1	04/13/2016 00:56	
Dibenzo (a,h) anthracene	ND	0.25	1	04/13/2016 00:56	
Dibenzofuran	ND	0.25	1	04/13/2016 00:56	
Di-n-butyl Phthalate	ND	0.25	1	04/13/2016 00:56	
1,2-Dichlorobenzene	ND	0.25	1	04/13/2016 00:56	
1,3-Dichlorobenzene	ND	0.25	1	04/13/2016 00:56	
1,4-Dichlorobenzene	ND	0.25	1	04/13/2016 00:56	
3,3-Dichlorobenzidine	ND	0.50	1	04/13/2016 00:56	
2,4-Dichlorophenol	ND	0.25	1	04/13/2016 00:56	
Diethyl Phthalate	ND	0.25	1	04/13/2016 00:56	
2,4-Dimethylphenol	ND	0.25	1	04/13/2016 00:56	
Dimethyl Phthalate	ND	0.25	1	04/13/2016 00:56	
4,6-Dinitro-2-methylphenol	ND	1.3	1	04/13/2016 00:56	

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Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 **Extraction Method:** SW3550B
Date Prepared: 4/9/16-4/12/16 **Analytical Method:** SW8270C
Project: 750635601; 3000 Broadway **Unit:** mg/Kg
Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B9-1,3&B10-1,3	1604176-016A	Soil	04/01/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	6.3	1	04/13/2016 00:56
2,4-Dinitrotoluene	ND	0.25	1	04/13/2016 00:56
2,6-Dinitrotoluene	ND	0.25	1	04/13/2016 00:56
Di-n-octyl Phthalate	ND	0.50	1	04/13/2016 00:56
1,2-Diphenylhydrazine	ND	0.25	1	04/13/2016 00:56
Fluoranthene	ND	0.25	1	04/13/2016 00:56
Fluorene	ND	0.25	1	04/13/2016 00:56
Hexachlorobenzene	ND	0.25	1	04/13/2016 00:56
Hexachlorobutadiene	ND	0.25	1	04/13/2016 00:56
Hexachlorocyclopentadiene	ND	1.3	1	04/13/2016 00:56
Hexachloroethane	ND	0.25	1	04/13/2016 00:56
Indeno (1,2,3-cd) pyrene	ND	0.25	1	04/13/2016 00:56
Isophorone	ND	0.25	1	04/13/2016 00:56
2-Methylnaphthalene	ND	0.25	1	04/13/2016 00:56
2-Methylphenol (o-Cresol)	ND	0.25	1	04/13/2016 00:56
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	04/13/2016 00:56
Naphthalene	ND	0.25	1	04/13/2016 00:56
2-Nitroaniline	ND	1.3	1	04/13/2016 00:56
3-Nitroaniline	ND	1.3	1	04/13/2016 00:56
4-Nitroaniline	ND	1.3	1	04/13/2016 00:56
Nitrobenzene	ND	0.25	1	04/13/2016 00:56
2-Nitrophenol	ND	1.3	1	04/13/2016 00:56
4-Nitrophenol	ND	1.3	1	04/13/2016 00:56
N-Nitrosodiphenylamine	ND	0.25	1	04/13/2016 00:56
N-Nitrosodi-n-propylamine	ND	0.25	1	04/13/2016 00:56
Pentachlorophenol	ND	1.3	1	04/13/2016 00:56
Phenanthrene	ND	0.25	1	04/13/2016 00:56
Phenol	ND	0.25	1	04/13/2016 00:56
Pyrene	ND	0.25	1	04/13/2016 00:56
1,2,4-Trichlorobenzene	ND	0.25	1	04/13/2016 00:56
2,4,5-Trichlorophenol	ND	0.25	1	04/13/2016 00:56
2,4,6-Trichlorophenol	ND	0.25	1	04/13/2016 00:56

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Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3550B

Date Prepared: 4/9/16-4/12/16

Analytical Method: SW8270C

Project: 750535601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B9-1,3&B10-1,3	1604176-016A	Soil	04/01/2016	GC17	119348

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorophenol	95	30-130		04/13/2016 00:56
Phenol-d5	86	30-130		04/13/2016 00:56
Nitrobenzene-d5	83	30-130		04/13/2016 00:56
2-Fluorobiphenyl	79	30-130		04/13/2016 00:56
2,4,6-Tribromophenol	47	16-130		04/13/2016 00:56
4-Terphenyl-d14	88	30-130		04/13/2016 00:56

Analyst(s): REB



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW3050B
Date Prepared: 4/7/16 **Analytical Method:** SW6020
Project: 750635601; 3000 Broadway **Unit:** mg/Kg

Included for Completeness - Not Related to UST Closure

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-1,3&B2-1,3	1604176-001A	Soil	04/01/2016	ICP-MS1	119130

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	04/07/2016 23:05
Arsenic	2.7	0.50	1	04/07/2016 23:05
Barium	120	5.0	1	04/07/2016 23:05
Beryllium	ND	0.50	1	04/07/2016 23:05
Cadmium	ND	0.25	1	04/07/2016 23:05
Chromium	36	0.50	1	04/07/2016 23:05
Cobalt	4.9	0.50	1	04/07/2016 23:05
Copper	11	0.50	1	04/07/2016 23:05
Lead	7.5	0.50	1	04/07/2016 23:05
Mercury	ND	0.050	1	04/07/2016 23:05
Molybdenum	ND	0.50	1	04/07/2016 23:05
Nickel	26	0.50	1	04/07/2016 23:05
Selenium	ND	0.50	1	04/07/2016 23:05
Silver	ND	0.50	1	04/07/2016 23:05
Thallium	ND	0.50	1	04/07/2016 23:05
Vanadium	30	0.50	1	04/07/2016 23:05
Zinc	20	5.0	1	04/07/2016 23:05

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	93	70-130	04/07/2016 23:05

Analyst(s): DVH



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW3050B
Date Prepared: 4/7/16 **Analytical Method:** SW6020
Project: 750535601; 3000 Broadway **Unit:** mg/Kg

Included for Completeness - Not Related to UST Closure

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-2.5,5&B4-2.5,5	1604176-002A	Soil	04/01/2016	ICP-MS1	119130

Analytes	Result	RL	DF	Date Analyzed
Antimony	2.7	0.50	1	04/08/2016 17:02
Arsenic	4.5	0.50	1	04/08/2016 17:02
Barium	150	5.0	1	04/08/2016 17:02
Beryllium	0.50	0.50	1	04/08/2016 17:02
Cadmium	ND	0.25	1	04/08/2016 17:02
Chromium	63	0.50	1	04/08/2016 17:02
Cobalt	12	0.50	1	04/08/2016 17:02
Copper	19	0.50	1	04/08/2016 17:02
Lead	270	0.50	1	04/08/2016 17:02
Mercury	0.15	0.050	1	04/08/2016 17:02
Molybdenum	2.1	0.50	1	04/08/2016 17:02
Nickel	38	0.50	1	04/08/2016 17:02
Selenium	ND	0.50	1	04/08/2016 17:02
Silver	ND	0.50	1	04/08/2016 17:02
Thallium	ND	0.50	1	04/08/2016 17:02
Vanadium	34	0.50	1	04/08/2016 17:02
Zinc	64	5.0	1	04/08/2016 17:02

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	106	70-130	04/08/2016 17:02

Analyst(s): AC



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3050B

Date Prepared: 4/7/16

Analytical Method: SW6020

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-7.5,10&B4-7,10.5	1604176-003A	Soil	04/01/2016	ICP-MS1	119130

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	04/08/2016 17:08
Arsenic	6.1	0.50	1	04/08/2016 17:08
Barium	140	5.0	1	04/08/2016 17:08
Beryllium	0.53	0.50	1	04/08/2016 17:08
Cadmium	ND	0.25	1	04/08/2016 17:08
Chromium	44	0.50	1	04/08/2016 17:08
Cobalt	10	0.50	1	04/08/2016 17:08
Copper	19	0.50	1	04/08/2016 17:08
Lead	6.4	0.50	1	04/08/2016 17:08
Mercury	0.050	0.050	1	04/08/2016 17:08
Molybdenum	ND	0.50	1	04/08/2016 17:08
Nickel	63	0.50	1	04/08/2016 17:08
Selenium	ND	0.50	1	04/08/2016 17:08
Silver	ND	0.50	1	04/08/2016 17:08
Thallium	ND	0.50	1	04/08/2016 17:08
Vanadium	38	0.50	1	04/08/2016 17:08
Zinc	44	5.0	1	04/08/2016 17:08

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	101	70-130	04/08/2016 17:08

Analyst(s): AC



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW3050B
Date Prepared: 4/7/16 **Analytical Method:** SW6020
Project: 750635601; 3000 Broadway **Unit:** mg/Kg
Included for Completeness - Not Related to UST Closure

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-12.5,15&B4-12.5,15	1604176-006A	Soil	04/01/2016	ICP-MS1	119130

Analytes	Result	RL	DF	Date Analyzed
Antimony	0.52	0.50	1	04/08/2016 17:14
Arsenic	5.3	0.50	1	04/08/2016 17:14
Barium	290	5.0	1	04/08/2016 17:14
Beryllium	0.57	0.50	1	04/08/2016 17:14
Cadmium	ND	0.25	1	04/08/2016 17:14
Chromium	54	0.50	1	04/08/2016 17:14
Cobalt	11	0.50	1	04/08/2016 17:14
Copper	26	0.50	1	04/08/2016 17:14
Lead	19	0.50	1	04/08/2016 17:14
Mercury	ND	0.050	1	04/08/2016 17:14
Molybdenum	0.55	0.50	1	04/08/2016 17:14
Nickel	95	0.50	1	04/08/2016 17:14
Selenium	ND	0.50	1	04/08/2016 17:14
Silver	ND	0.50	1	04/08/2016 17:14
Thallium	ND	0.50	1	04/08/2016 17:14
Vanadium	42	0.50	1	04/08/2016 17:14
Zinc	88	5.0	1	04/08/2016 17:14

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	105	70-130	04/08/2016 17:14

Analyst(s): AC



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9.18 **Extraction Method:** SW3050B
Date Prepared: 4/7/16 **Analytical Method:** SW6020
Project: 750635601; 3000 Broadway **Unit:** mg/Kg
Included for Completeness - Not Related to UST Closure

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-17.5,20&B4-17.5,20	1604176-007A	Soil	04/01/2016	ICP-MS2	119130

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	04/11/2016 22:50
Arsenic	3.1	0.50	1	04/11/2016 22:50
Barium	140	5.0	1	04/11/2016 22:50
Beryllium	0.76	0.50	1	04/11/2016 22:50
Cadmium	ND	0.25	1	04/11/2016 22:50
Chromium	53	0.50	1	04/11/2016 22:50
Cobalt	12	0.50	1	04/11/2016 22:50
Copper	22	0.50	1	04/11/2016 22:50
Lead	10	0.50	1	04/11/2016 22:50
Mercury	ND	0.050	1	04/11/2016 22:50
Molybdenum	ND	0.50	1	04/11/2016 22:50
Nickel	58	0.50	1	04/11/2016 22:50
Selenium	ND	0.50	1	04/11/2016 22:50
Silver	ND	0.50	1	04/11/2016 22:50
Thallium	ND	0.50	1	04/11/2016 22:50
Vanadium	43	0.50	1	04/11/2016 22:50
Zinc	60	5.0	1	04/11/2016 22:50

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	108	70-130	04/11/2016 22:50

Analyst(s): DVH



Analytical Report

Client: Treadwell & Rollo	WorkOrder: 1604176
Date Received: 4/7/16 9.18	Extraction Method: SW3030B
Date Prepared: 4/7/16	Analytical Method: SW6020
Project: 75063601; 3000 Broadway	Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-2.5,5&B6-2.5,5	1604176-008A	Soil	04/02/2016	ICP-MS1	119156

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	04/07/2016 23:11
Arsenic	4.2	0.50	1	04/07/2016 23:11
Barium	110	5.0	1	04/07/2016 23:11
Beryllium	ND	0.50	1	04/07/2016 23:11
Cadmium	ND	0.25	1	04/07/2016 23:11
Chromium	52	0.50	1	04/07/2016 23:11
Cobalt	8.8	0.50	1	04/07/2016 23:11
Copper	14	0.50	1	04/07/2016 23:11
Lead	7.6	0.50	1	04/07/2016 23:11
Mercury	ND	0.050	1	04/07/2016 23:11
Molybdenum	ND	0.50	1	04/07/2016 23:11
Nickel	44	0.50	1	04/07/2016 23:11
Selenium	ND	0.50	1	04/07/2016 23:11
Silver	ND	0.50	1	04/07/2016 23:11
Thallium	ND	0.50	1	04/07/2016 23:11
Vanadium	38	0.50	1	04/07/2016 23:11
Zinc	27	5.0	1	04/07/2016 23:11

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	97	70-130	04/07/2016 23:11

Analyst(s): DVH



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3050B

Date Prepared: 4/7/16

Analytical Method: SW6020

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-7.5,10&B6-7.5,10	1604176-009A	Soil	04/02/2016	ICP-MS1	119156

Analytes	Result	RL	DF	Date Analyzed
Antimony	0.54	0.50	1	04/07/2016 23:36
Arsenic	4.6	0.50	1	04/07/2016 23:36
Barium	160	5.0	1	04/07/2016 23:36
Beryllium	0.62	0.50	1	04/07/2016 23:36
Cadmium	ND	0.25	1	04/07/2016 23:36
Chromium	60	0.50	1	04/07/2016 23:36
Cobalt	12	0.50	1	04/07/2016 23:36
Copper	27	0.50	1	04/07/2016 23:36
Lead	7.8	0.50	1	04/07/2016 23:36
Mercury	ND	0.050	1	04/07/2016 23:36
Molybdenum	ND	0.50	1	04/07/2016 23:36
Nickel	89	0.50	1	04/07/2016 23:36
Selenium	ND	0.50	1	04/07/2016 23:36
Silver	ND	0.50	1	04/07/2016 23:36
Thallium	ND	0.50	1	04/07/2016 23:36
Vanadium	47	0.50	1	04/07/2016 23:36
Zinc	62	5.0	1	04/07/2016 23:36

Surrogates	REC (%)	Limits	
Terbium	85	70-130	04/07/2016 23:36

Analyst(s): DVH



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3050B

Date Prepared: 4/7/16

Analytical Method: SW6020

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-12.5,15&B6-12.5,15	1604176-010A	Soil	04/02/2016	ICP-MS2	119156

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	04/07/2016 23:21
Arsenic	2.6	0.50	1	04/07/2016 23:21
Barium	130	5.0	1	04/07/2016 23:21
Beryllium	0.61	0.50	1	04/07/2016 23:21
Cadmium	ND	0.25	1	04/07/2016 23:21
Chromium	56	0.50	1	04/07/2016 23:21
Cobalt	12	0.50	1	04/07/2016 23:21
Copper	25	0.50	1	04/07/2016 23:21
Lead	7.1	0.50	1	04/07/2016 23:21
Mercury	0.081	0.050	1	04/07/2016 23:21
Molybdenum	ND	0.50	1	04/07/2016 23:21
Nickel	75	0.50	1	04/07/2016 23:21
Selenium	ND	0.50	1	04/07/2016 23:21
Silver	ND	0.50	1	04/07/2016 23:21
Thallium	ND	0.50	1	04/07/2016 23:21
Vanadium	40	0.50	1	04/07/2016 23:21
Zinc	60	5.0	1	04/07/2016 23:21

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	95	70-130	04/07/2016 23:21

Analyst(s): DVH



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3050B

Date Prepared: 4/7/16

Analytical Method: SW6020

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-2&B8-2	1604176-011A	Soil	04/02/2016	ICP-MS1	119156

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	04/07/2016 23:42
Arsenic	3.8	0.50	1	04/07/2016 23:42
Barium	200	5.0	1	04/07/2016 23:42
Beryllium	1.0	0.50	1	04/07/2016 23:42
Cadmium	ND	0.25	1	04/07/2016 23:42
Chromium	59	0.50	1	04/07/2016 23:42
Cobalt	11	0.50	1	04/07/2016 23:42
Copper	23	0.50	1	04/07/2016 23:42
Lead	6.9	0.50	1	04/07/2016 23:42
Mercury	ND	0.050	1	04/07/2016 23:42
Molybdenum	ND	0.50	1	04/07/2016 23:42
Nickel	140	0.50	1	04/07/2016 23:42
Selenium	ND	0.50	1	04/07/2016 23:42
Silver	ND	0.50	1	04/07/2016 23:42
Thallium	ND	0.50	1	04/07/2016 23:42
Vanadium	41	0.50	1	04/07/2016 23:42
Zinc	46	5.0	1	04/07/2016 23:42

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	93	70-130	04/07/2016 23:42

Analyst(s): DVH



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW3050B
Date Prepared: 4/7/16 **Analytical Method:** SW6020
Project: 750535601; 3000 Broadway **Unit:** mg/Kg

Included for Completeness - Not Related to UST Closure

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-4&B8-4	1604176-012A	Soil	04/02/2016	ICP-MS1	119156

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	04/07/2016 23:48
Arsenic	4.1	0.50	1	04/07/2016 23:48
Barium	120	5.0	1	04/07/2016 23:48
Beryllium	0.69	0.50	1	04/07/2016 23:48
Cadmium	ND	0.25	1	04/07/2016 23:48
Chromium	65	0.50	1	04/07/2016 23:48
Cobalt	7.6	0.50	1	04/07/2016 23:48
Copper	22	0.50	1	04/07/2016 23:48
Lead	6.2	0.50	1	04/07/2016 23:48
Mercury	ND	0.050	1	04/07/2016 23:48
Molybdenum	ND	0.50	1	04/07/2016 23:48
Nickel	75	0.50	1	04/07/2016 23:48
Selenium	ND	0.50	1	04/07/2016 23:48
Silver	ND	0.50	1	04/07/2016 23:48
Thallium	ND	0.50	1	04/07/2016 23:48
Vanadium	45	0.50	1	04/07/2016 23:48
Zinc	47	5.0	1	04/07/2016 23:48

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	96	70-130	04/07/2016 23:48

Analyst(s): DVH



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3050B

Date Prepared: 4/7/16

Analytical Method: SW6020

Project: 75063601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-6&B8-6	1604176-013A	Soil	04/02/2016	ICP-MS1	119156

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	04/07/2016 23:54
Arsenic	4.3	0.50	1	04/07/2016 23:54
Barium	140	5.0	1	04/07/2016 23:54
Beryllium	0.60	0.50	1	04/07/2016 23:54
Cadmium	ND	0.25	1	04/07/2016 23:54
Chromium	58	0.50	1	04/07/2016 23:54
Cobalt	8.6	0.50	1	04/07/2016 23:54
Copper	23	0.50	1	04/07/2016 23:54
Lead	6.7	0.50	1	04/07/2016 23:54
Mercury	ND	0.050	1	04/07/2016 23:54
Molybdenum	ND	0.50	1	04/07/2016 23:54
Nickel	70	0.50	1	04/07/2016 23:54
Selenium	ND	0.50	1	04/07/2016 23:54
Silver	ND	0.50	1	04/07/2016 23:54
Thallium	ND	0.50	1	04/07/2016 23:54
Vanadium	46	0.50	1	04/07/2016 23:54
Zinc	51	5.0	1	04/07/2016 23:54

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	97	70-130	04/07/2016 23:54

Analyst(s): DVH



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW3050B
Date Prepared: 4/7/16 **Analytical Method:** SW6020
Project: 150635601; 3000 Broadway **Unit:** mg/Kg

Included for Completeness - Not Related to UST Closure

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-10&B8-10	1604176-015A	Soil	04/02/2016	ICP-MS1	119156

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	04/08/2016 00:07
Arsenic	2.2	0.50	1	04/08/2016 00:07
Barium	130	5.0	1	04/08/2016 00:07
Beryllium	ND	0.50	1	04/08/2016 00:07
Cadmium	ND	0.25	1	04/08/2016 00:07
Chromium	52	0.50	1	04/08/2016 00:07
Cobalt	9.6	0.50	1	04/08/2016 00:07
Copper	18	0.50	1	04/08/2016 00:07
Lead	5.7	0.50	1	04/08/2016 00:07
Mercury	ND	0.050	1	04/08/2016 00:07
Molybdenum	ND	0.50	1	04/08/2016 00:07
Nickel	62	0.50	1	04/08/2016 00:07
Selenium	ND	0.50	1	04/08/2016 00:07
Silver	ND	0.50	1	04/08/2016 00:07
Thallium	ND	0.50	1	04/08/2016 00:07
Vanadium	37	0.50	1	04/08/2016 00:07
Zinc	49	5.0	1	04/08/2016 00:07

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	85	70-130	04/08/2016 00:07

Analyst(s): DVH



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW3050B
Date Prepared: 4/7/16 **Analytical Method:** SW6020
Project: 750635601; 3000 Broadway **Unit:** mg/Kg

Included for Completeness - Not Related to UST Closure

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B9-1,3&B10-1,3	1604176-016A	Soil	04/01/2016	ICP-MS2	119156

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	04/07/2016 22:08
Arsenic	5.0	0.50	1	04/07/2016 22:08
Barium	180	5.0	1	04/07/2016 22:08
Beryllium	0.55	0.50	1	04/07/2016 22:08
Cadmium	ND	0.25	1	04/07/2016 22:08
Chromium	45	0.50	1	04/07/2016 22:08
Cobalt	15	0.50	1	04/07/2016 22:08
Copper	17	0.50	1	04/07/2016 22:08
Lead	7.0	0.50	1	04/07/2016 22:08
Mercury	0.057	0.050	1	04/07/2016 22:08
Molybdenum	ND	0.50	1	04/07/2016 22:08
Nickel	47	0.50	1	04/07/2016 22:08
Selenium	ND	0.50	1	04/07/2016 22:08
Silver	ND	0.50	1	04/07/2016 22:08
Thallium	ND	0.50	1	04/07/2016 22:08
Vanadium	39	0.50	1	04/07/2016 22:08
Zinc	34	5.0	1	04/07/2016 22:08

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	97	70-130	04/07/2016 22:08

Analyst(s): DVH



Analytical Report

Client: Treadwell & Rollo	WorkOrder: 1604176
Date Received: 4/7/16 9:18	Extraction Method: SW5030B
Date Prepared: 4/7/16-4/13/16	Analytical Method: SW8021B/8015Bm
Project: 750635601; 3000 Broadway	Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-1,3&B2-1,3	1604176-001A	Soil	04/01/2016	GC19	119430

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	04/13/2016 13:06
MTBE	---	0.050	1	04/13/2016 13:06
Benzene	---	0.0050	1	04/13/2016 13:06
Toluene	---	0.0050	1	04/13/2016 13:06
Ethylbenzene	---	0.0050	1	04/13/2016 13:06
Xylenes	---	0.015	1	04/13/2016 13:06

Surrogates	REC (%)	Limits
2-Fluorotoluene	87	70-130

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-2.5,5&B4-2.5,5	1604176-002A	Soil	04/01/2016	GC3	119430

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	04/13/2016 13:03
MTBE	---	0.050	1	04/13/2016 13:03
Benzene	---	0.0050	1	04/13/2016 13:03
Toluene	---	0.0050	1	04/13/2016 13:03
Ethylbenzene	---	0.0050	1	04/13/2016 13:03
Xylenes	---	0.015	1	04/13/2016 13:03

Surrogates	REC (%)	Limits
2-Fluorotoluene	81	70-130

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW5030B
Date Prepared: 4/7/16 4/13/16 **Analytical Method:** SW8021B/8015Bm
Project: 750635601; 3000 Broadway **Unit:** mg/Kg

Included for Completeness - Not Related to UST Closure

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-7.5,10&B4-7,10.5	1604176-003A	Soil	04/01/2016	GC3	119430

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	04/13/2016 13:34
MTBE	---	0.050	1	04/13/2016 13:34
Benzene	---	0.0050	1	04/13/2016 13:34
Toluene	---	0.0050	1	04/13/2016 13:34
Ethylbenzene	---	0.0050	1	04/13/2016 13:34
Xylenes	---	0.015	1	04/13/2016 13:34
Surrogates	REC (%)	Limits		
2-Fluorotoluene	82	70-130		04/13/2016 13:34

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-12.5,15&B4-12.5,15	1604176-006A	Soil	04/01/2016	GC19	119132

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	04/10/2016 06:19
MTBE	---	0.050	1	04/10/2016 06:19
Benzene	---	0.0050	1	04/10/2016 06:19
Toluene	---	0.0050	1	04/10/2016 06:19
Ethylbenzene	---	0.0050	1	04/10/2016 06:19
Xylenes	---	0.015	1	04/10/2016 06:19
Surrogates	REC (%)	Limits		
2-Fluorotoluene	113	70-130		04/10/2016 06:19

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo	WorkOrder: 1604176
Date Received: 4/7/16 9:18	Extraction Method: SW5030B
Date Prepared: 4/7/16-4/13/16	Analytical Method: SW8021B/8015Bm
Project: 750635601; 3000 Broadway	Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-17.5,20&B4-17.5,20	1604176-007A	Soil	04/01/2016	GC7	119132

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	04/11/2016 18:12
MTBE	---	0.050	1	04/11/2016 18:12
Benzene	---	0.0050	1	04/11/2016 18:12
Toluene	---	0.0050	1	04/11/2016 18:12
Ethylbenzene	---	0.0050	1	04/11/2016 18:12
Xylenes	---	0.015	1	04/11/2016 18:12

Surrogates	REC (%)	Limits
2-Fluorotoluene	108	70-130

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-2.5,5&B6-2.5,5	1604176-008A	Soil	04/02/2016	GC19	119369

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	04/12/2016 17:59
MTBE	---	0.050	1	04/12/2016 17:59
Benzene	---	0.0050	1	04/12/2016 17:59
Toluene	---	0.0050	1	04/12/2016 17:59
Ethylbenzene	---	0.0050	1	04/12/2016 17:59
Xylenes	---	0.015	1	04/12/2016 17:59

Surrogates	REC (%)	Limits
2-Fluorotoluene	92	70-130

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW5030R
Date Prepared: 4/7/16-4/13/16 **Analytical Method:** SW8021B/8015Bm
Project: 750635601; 3000 Broadway **Unit:** mg/Kg

Included for Completeness - Not Related to UST Closure

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-7.5,10&B6-7.5,10	1604176-009A	Soil	04/02/2016	GC3	119430

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	04/13/2016 14:04
MTBE	---	0.050	1	04/13/2016 14:04
Benzene	---	0.0050	1	04/13/2016 14:04
Toluene	---	0.0050	1	04/13/2016 14:04
Ethylbenzene	---	0.0050	1	04/13/2016 14:04
Xylenes	---	0.015	1	04/13/2016 14:04

Surrogates	REC (%)	Limits
2-Fluorotoluene	77	70-130

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-12.5,15&B6-12.5,15	1604176-010A	Soil	04/02/2016	GC19	119132

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	04/10/2016 01:20
MTBE	---	0.050	1	04/10/2016 01:20
Benzene	---	0.0050	1	04/10/2016 01:20
Toluene	---	0.0050	1	04/10/2016 01:20
Ethylbenzene	---	0.0050	1	04/10/2016 01:20
Xylenes	---	0.015	1	04/10/2016 01:20

Surrogates	REC (%)	Limits
2-Fluorotoluene	116	70-130

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo **WorkOrder:** 1604176
Date Received: 4/7/16 9:18 **Extraction Method:** SW5030R
Date Prepared: 4/7/16-4/13/16 **Analytical Method:** SW8021B/8015Brn
Project: 75063560 ; 3000 Broadway **Unit:** mg/Kg

Included for Completeness - Not Related to UST Closure

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-2&B8-2	1604176-011A	Soil	04/02/2016	GC7	119155

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	04/11/2016 18:42
MTBE	---	0.050	1	04/11/2016 18:42
Benzene	---	0.0050	1	04/11/2016 18:42
Toluene	---	0.0050	1	04/11/2016 18:42
Ethylbenzene	---	0.0050	1	04/11/2016 18:42
Xylenes	---	0.015	1	04/11/2016 18:42
Surrogates	REC (%)	Limits		
2-Fluorotoluene	112	70-130		04/11/2016 18:42

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-4&B8-4	1604176-012A	Soil	04/02/2016	GC3	119155

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	04/09/2016 18:45
MTBE	---	0.050	1	04/09/2016 18:45
Benzene	---	0.0050	1	04/09/2016 18:45
Toluene	---	0.0050	1	04/09/2016 18:45
Ethylbenzene	---	0.0050	1	04/09/2016 18:45
Xylenes	---	0.015	1	04/09/2016 18:45
Surrogates	REC (%)	Limits		
2-Fluorotoluene	99	70-130		04/09/2016 18:45

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo	WorkOrder: 1604176
Date Received: 4/7/16 9:18	Extraction Method: SW5030B
Date Prepared: 4/7/16-4/13/16	Analytical Method: SW8021B/8015Bm
Project: 750635601, 3000 Broadway	Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-6&B8-6	1604176-013A	Soil	04/02/2016	GC7	119155

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	04/11/2016 19:12
MTBE	---	0.050	1	04/11/2016 19:12
Benzene	---	0.0050	1	04/11/2016 19:12
Toluene	---	0.0050	1	04/11/2016 19:12
Ethylbenzene	---	0.0050	1	04/11/2016 19:12
Xylenes	---	0.015	1	04/11/2016 19:12
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	104	70-130		04/11/2016 19:12

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-8&B8-8	1604176-014A	Soil	04/02/2016	GC3	119430

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	04/13/2016 14:35
MTBE	---	0.050	1	04/13/2016 14:35
Benzene	---	0.0050	1	04/13/2016 14:35
Toluene	---	0.0050	1	04/13/2016 14:35
Ethylbenzene	---	0.0050	1	04/13/2016 14:35
Xylenes	---	0.015	1	04/13/2016 14:35
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	81	70-130		04/13/2016 14:35

Analyst(s): IA

(Cont.)

NELAP 4033ORELAP

Angela Rydelius, Lab Manager



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW5030B

Date Prepared: 4/7/16-4/13/16

Analytical Method: SW8021B/8015Bm

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-10&B8-10	1604176-015A	Soil	04/02/2016	GC7	119155

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	04/11/2016 15:43
MTBE	---	0.050	1	04/11/2016 15:43
Benzene	---	0.0050	1	04/11/2016 15:43
Toluene	---	0.0050	1	04/11/2016 15:43
Ethylbenzene	---	0.0050	1	04/11/2016 15:43
Xylenes	---	0.015	1	04/11/2016 15:43

Surrogates	REC (%)	Limits
2-Fluorotoluene	104	70-130

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B9-1,3&B10-1,3	1604176-016A	Soil	04/01/2016	GC3	119155

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	04/09/2016 19:15
MTBE	---	0.050	1	04/09/2016 19:15
Benzene	---	0.0050	1	04/09/2016 19:15
Toluene	---	0.0050	1	04/09/2016 19:15
Ethylbenzene	---	0.0050	1	04/09/2016 19:15
Xylenes	---	0.015	1	04/09/2016 19:15

Surrogates	REC (%)	Limits
2-Fluorotoluene	103	70-130

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo	WorkOrder: 1604176
Date Received: 4/7/16 9:18	Extraction Method: SW5030R
Date Prepared: 4/7/16-4/13/16	Analytical Method: SW8021B/8015 Bm
Project: 750635601; 3000 Broadway	Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B9-5&B10-5	1604176-017A	Soil	04/01/2016	GC19	119155

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	04/10/2016 06:49
MTBE	---	0.050	1	04/10/2016 06:49
Benzene	---	0.0050	1	04/10/2016 06:49
Toluene	---	0.0050	1	04/10/2016 06:49
Ethylbenzene	---	0.0050	1	04/10/2016 06:49
Xylenes	---	0.015	1	04/10/2016 06:49

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	107	70-130	04/10/2016 06:49

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo
Date Received: 4/7/16 9:18
Date Prepared: 4/8/16
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B11-GW	1604176-018A	Water	04/02/2016 11:50	GC3	119164
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	250		50	1	04/08/2016 11:04
MTBE	---		5.0	1	04/08/2016 11:04
Benzene	---		0.50	1	04/08/2016 11:04
Toluene	---		0.50	1	04/08/2016 11:04
Ethylbenzene	---		0.50	1	04/08/2016 11:04
Xylenes	---		1.5	1	04/08/2016 11:04
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>		
aaa-TFT	167	S	70-130		04/08/2016 11:04
<u>Analyst(s):</u> IA	<u>Analytical Comments:</u> d1,c1,b1				



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3050B

Date Prepared: 4/7/16

Analytical Method: SW6020

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

LUFT 5 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-8&B8-8	1604176-014A	Soil	04/02/2016	ICP-MS1	119156

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	04/08/2016 00:01
Chromium	63	0.50	1	04/08/2016 00:01
Lead	6.6	0.50	1	04/08/2016 00:01
Nickel	72	0.50	1	04/08/2016 00:01
Zinc	52	5.0	1	04/08/2016 00:01

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	90	70-130	04/08/2016 00:01

Analyst(s): DVH

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B9-5&B10-5	1604176-017A	Soil	04/01/2016	ICP-MS2	119156

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	04/07/2016 23:27
Chromium	55	0.50	1	04/07/2016 23:27
Lead	7.4	0.50	1	04/07/2016 23:27
Nickel	71	0.50	1	04/07/2016 23:27
Zinc	48	5.0	1	04/07/2016 23:27

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	96	70-130	04/07/2016 23:27

Analyst(s): DVH



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3550B

Date Prepared: 4/7/16

Analytical Method: SW8015B

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B1-1,3&B2-1,3	1604176-001A	Soil	04/01/2016	GC6B	119112

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	04/11/2016 13:33
TPH-Motor Oil (C18-C36)	ND	5.0	1	04/11/2016 13:33

Surrogates	REC (%)	Limits	Date Analyzed
C9	98	70-130	04/11/2016 13:33

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-2.5,5&B4-2.5,5	1604176-002A	Soil	04/01/2016	GC39A	119112

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	04/08/2016 19:16
TPH-Motor Oil (C18-C36)	ND	5.0	1	04/08/2016 19:16

Surrogates	REC (%)	Limits	Date Analyzed
C9	109	70-130	04/08/2016 19:16

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-7.5,10&B4-7,10.5	1604176-003A	Soil	04/01/2016	GC6B	119154

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	04/11/2016 14:44
TPH-Motor Oil (C18-C36)	ND	5.0	1	04/11/2016 14:44

Surrogates	REC (%)	Limits	Date Analyzed
C9	89	70-130	04/11/2016 14:44

Analyst(s): TK



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3550B

Date Prepared: 4/7/16

Analytical Method: SW8015B

Project: 750636601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-12.5,15&B4-12.5,15	1604176-006A	Soil	04/01/2016	GC11B	119154

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	04/11/2016 14:10
TPH-Motor Oil (C18-C36)	ND	5.0	1	04/11/2016 14:10

Surrogates	REC (%)	Limits
C9	91	70-130

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B3-17.5,20&B4-17.5,20	1604176-007A	Soil	04/01/2016	GC11B	119154

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	04/11/2016 14:49
TPH-Motor Oil (C18-C36)	ND	5.0	1	04/11/2016 14:49

Surrogates	REC (%)	Limits
C9	91	70-130

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-2.5,5&B6-2.5,5	1604176-008A	Soil	04/02/2016	GC11B	119154

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	04/11/2016 15:28
TPH-Motor Oil (C18-C36)	ND	5.0	1	04/11/2016 15:28

Surrogates	REC (%)	Limits
C9	91	70-130

Analyst(s): TK

(Cont.)



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3550B

Date Prepared: 4/7/16

Analytical Method: SW8015B

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-7.5,10&B6-7.5,10	1604176-009A	Soil	04/02/2016	GC11B	119154

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	04/11/2016 16:06
TPH-Motor Oil (C18-C36)	ND	5.0	1	04/11/2016 16:06

Surrogates	REC (%)	Limits
C9	90	70-130

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B5-12.5,15&B6-12.5,15	1604176-010A	Soil	04/02/2016	GC11A	119154

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	04/11/2016 16:06
TPH-Motor Oil (C18-C36)	ND	5.0	1	04/11/2016 16:06

Surrogates	REC (%)	Limits
C9	92	70-130

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-2&B8-2	1604176-011A	Soil	04/02/2016	GC6A	119154

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	04/07/2016 15:40
TPH-Motor Oil (C18-C36)	ND	5.0	1	04/07/2016 15:40

Surrogates	REC (%)	Limits
C9	87	70-130

Analyst(s): TK

(Cont.)



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3550B

Date Prepared: 4/7/16

Analytical Method: SW8015B

Project: 750625601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-4&B8-4	1604176-012A	Soil	04/02/2016	GC11A	119154

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	04/11/2016 14:49
TPH-Motor Oil (C18-C36)	ND	5.0	1	04/11/2016 14:49

Surrogates	REC (%)	Limits	Date Analyzed
C9	92	70-130	04/11/2016 14:49

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-6&B8-6	1604176-013A	Soil	04/02/2016	GC11A	119154

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	04/11/2016 14:10
TPH-Motor Oil (C18-C36)	ND	5.0	1	04/11/2016 14:10

Surrogates	REC (%)	Limits	Date Analyzed
C9	92	70-130	04/11/2016 14:10

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-8&B8-8	1604176-014A	Soil	04/02/2016	GC39A	119154

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	04/09/2016 07:35
TPH-Motor Oil (C18-C36)	ND	5.0	1	04/09/2016 07:35

Surrogates	REC (%)	Limits	Date Analyzed
C9	110	70-130	04/09/2016 07:35

Analyst(s): TK

(Cont.)



Analytical Report

Client: Treadwell & Rollo

WorkOrder: 1604176

Date Received: 4/7/16 9:18

Extraction Method: SW3550B

Date Prepared: 4/7/16

Analytical Method: SW8015B

Project: 750635601; 3000 Broadway

Unit: mg/Kg

Included for Completeness - Not Related to UST Closure

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B7-10&B8-10	1604176-015A	Soil	04/02/2016	GC39B	119154

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	04/08/2016 19:55
TPH-Motor Oil (C18-C36)	ND	5.0	1	04/08/2016 19:55

Surrogates	REC (%)	Limits	Date Analyzed
C9	95	70-130	04/08/2016 19:55

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B9-1,3&B10-1,3	1604176-016A	Soil	04/01/2016	GC39B	119154

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	04/08/2016 18:37
TPH-Motor Oil (C18-C36)	ND	5.0	1	04/08/2016 18:37

Surrogates	REC (%)	Limits	Date Analyzed
C9	95	70-130	04/08/2016 18:37

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B9-5&B10-5	1604176-017A	Soil	04/01/2016	GC9b	119154

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	04/07/2016 21:17
TPH-Motor Oil (C18-C36)	ND	5.0	1	04/07/2016 21:17

Surrogates	REC (%)	Limits	Date Analyzed
C9	91	70-130	04/07/2016 21:17

Analyst(s): TK



Analytical Report

Client: Treadwell & Rollo
Date Received: 4/7/16 9:18
Date Prepared: 4/7/16
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
Extraction Method: SW3510C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B11-GW	1604176-018A	Water	04/02/2016 11:50	GC2B	119109

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	460	100	1	04/08/2016 13:46
TPH-Motor Oil (C18-C36)	6900	500	1	04/08/2016 13:46

Surrogates	REC (%)	Limits	Date Analyzed
C9	105	70-130	04/08/2016 13:46

Analyst(s): TK **Analytical Comments:** e7,e2,e11,b1



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/7/16
Date Analyzed: 4/8/16
Instrument: GC23
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119152
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg
Sample ID: MB/LCS-119152
 1604175-004AMS/MSD

QC Summary Report for SW8081A/8082

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aldrin	ND	0.0460	0.0010	0.050	-	92	70-130
a-BHC	ND	-	0.0010	-	-	-	-
b-BHC	ND	-	0.0010	-	-	-	-
d-BHC	ND	-	0.0010	-	-	-	-
g-BHC	ND	0.0495	0.0010	0.050	-	99	70-130
Chlordane (Technical)	ND	-	0.025	-	-	-	-
a-Chlordane	ND	-	0.0010	-	-	-	-
g-Chlordane	ND	-	0.0010	-	-	-	-
p,p-DDD	ND	-	0.0010	-	-	-	-
p,p-DDE	ND	-	0.0010	-	-	-	-
p,p-DDT	ND	0.0510	0.0010	0.050	-	102	70-130
Dieldrin	ND	0.0548	0.0010	0.050	-	110	70-130
Endosulfan I	ND	-	0.0010	-	-	-	-
Endosulfan II	ND	-	0.0010	-	-	-	-
Endosulfan sulfate	ND	-	0.0010	-	-	-	-
Endrin	ND	0.0507	0.0010	0.050	-	101	70-130
Endrin aldehyde	ND	-	0.0010	-	-	-	-
Endrin ketone	ND	-	0.0010	-	-	-	-
Heptachlor	ND	0.0492	0.0010	0.050	-	98	70-130
Heptachlor epoxide	ND	-	0.0010	-	-	-	-
Hexachlorobenzene	ND	-	0.010	-	-	-	-
Hexachlorocyclopentadiene	ND	-	0.020	-	-	-	-
Methoxychlor	ND	-	0.0010	-	-	-	-
Toxaphene	ND	-	0.050	-	-	-	-
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	-	0.050	-	-	-	-
PCBs, total	ND	-	0.050	-	-	-	-
Surrogate Recovery							
Decachlorobiphenyl	0.0492	0.0532		0.050	98	107	70-130



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/7/16
Date Analyzed: 4/8/16
Instrument: GC23
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119152
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg
Sample ID: MB/LCS-119152
 1604175-004AMS/MSD

QC Summary Report for SW8081A/8082

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aldrin	NR	NR		ND<0.002	NR	NR	-	NR	
g-BHC	NR	NR		ND<0.002	NR	NR	-	NR	
p,p-DDT	NR	NR		ND<0.002	NR	NR	-	NR	
Dieldrin	NR	NR		ND<0.002	NR	NR	-	NR	
Endrin	NR	NR		ND<0.002	NR	NR	-	NR	
Heptachlor	NR	NR		ND<0.002	NR	NR	-	NR	
Surrogate Recovery									
Decachlorobiphenyl	NR	NR			NR	NR	-	NR	



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/6/16
Date Analyzed: 4/7/16
Instrument: GC10
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119135
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-119135

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0358	0.0050	0.050	-	72	53-116
Benzene	ND	0.0463	0.0050	0.050	-	93	63-137
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.159	0.050	0.20	-	80	41-135
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0422	0.0050	0.050	-	84	77-121
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0381	0.0040	0.050	-	76	67-119
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0434	0.0040	0.050	-	87	58-135
1,1-Dichloroethene	ND	0.0454	0.0050	0.050	-	91	42-145
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-

(Cont.)

NELAP 4033ORELAP

QA/QC Officer



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/6/16
Date Analyzed: 4/7/16
Instrument: GC10
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119135
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-119135

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
Diisopropyl ether (DIPE)	ND	0.0437	0.0050	0.050	-	87	52-129
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0424	0.0050	0.050	-	85	53-125
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0392	0.0050	0.050	-	78	58-122
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0460	0.0050	0.050	-	92	76-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0453	0.0050	0.050	-	91	72-132
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/6/16
Date Analyzed: 4/7/16
Instrument: GC10
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119135
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-119135

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	0.117	0.120		0.12	93	96	70-130
Toluene-d8	0.120	0.117		0.12	96	94	70-130
4-BFB	0.00926	0.00968		0.012	74	77	70-130
Benzene-d6	0.0756	0.0868		0.10	76	87	60-140
Ethylbenzene-d10	0.0864	0.0962		0.10	86	96	60-140
1,2-DCB-d4	0.0706	0.0756		0.10	71	76	60-140



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/6/16
Date Analyzed: 4/6/16
Instrument: GC3
Matrix: Water
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119164
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L
Sample ID: MB/LCS-119164
 1604053-005AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	54.9	40	60	-	91	70-130
MTBE	ND	8.97	5.0	10	-	90	70-130
Benzene	ND	8.62	0.50	10	-	86	70-130
Toluene	ND	8.79	0.50	10	-	88	70-130
Ethylbenzene	ND	8.82	0.50	10	-	88	70-130
Xylenes	ND	26.6	1.5	30	-	89	70-130
Surrogate Recovery							
aaa-TFT	9.92	9.43		10	99	94	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	NR	NR	60	468.5	NR	NR	70-130	NR	20
MTBE	145	142	10	134.1	112	79	70-130	2.25	20
Benzene	NR	NR	10	445.4	NR	NR	70-130	NR	20
Toluene	18.8	18.0	10	8.830	100	92	70-130	4.63	20
Ethylbenzene	12.0	11.4	10	1.806	101	96	70-130	4.28	20
Xylenes	38.8	37.2	30	7.993	103	97	70-130	4.26	20
Surrogate Recovery									
aaa-TFT	13.4	13.7	10		134	137	70-130	2.24	20



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/8/16
Date Analyzed: 4/8/16
Instrument: GC28
Matrix: Water
Project: 750635601; 3000 Broadway


WorkOrder: 1604176
BatchID: 119265
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-119265
 1604341-001CMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	8.25	0.50	10	-	82	54-140
Benzene	ND	9.66	0.50	10	-	97	47-158
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	35.8	2.0	40	-	89	42-140
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	9.59	0.50	10	-	96	43-157
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	8.64	0.50	10	-	86	44-155
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	8.78	0.50	10	-	88	66-125
1,1-Dichloroethene	ND	11.1	0.50	10	-	111	47-149
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-

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NELAP 4033ORELAP

 QA/QC Officer



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/8/16
Date Analyzed: 4/8/16
Instrument: GC28
Matrix: Water
Project: 750635601; 3000 Broadway


WorkOrder: 1604176
BatchID: 119265
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-119265
 1604341-001CMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
Diisopropyl ether (DIPE)	ND	10.4	0.50	10	-	104	57-136
Ethanol	ND	-	50	-	-	-	-
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	8.86	0.50	10	-	89	55-137
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methanol	ND	-	500	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	9.70	0.50	10	-	97	53-139
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	10.4	0.50	10	-	104	52-137
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	9.68	0.50	10	-	97	43-157
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-

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NELAP 4033ORELAP

 QA/QC Officer



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/8/16
Date Analyzed: 4/8/16
Instrument: GC28
Matrix: Water
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119265
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-119265
 1604341-001CMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	26.1	26.2		25	104	105	70-130
Toluene-d8	26.8	26.8		25	107	107	70-130
4-BFB	1.88	2.44		2.5	75	98	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	10.1	10.4	10	ND	101	104	69-139	3.00	20
Benzene	9.47	9.70	10	ND	95	97	69-141	2.36	20
t-Butyl alcohol (TBA)	41.6	43.0	40	13.52	70	74	41-152	3.19	20
Chlorobenzene	9.47	9.79	10	ND	95	98	77-120	3.38	20
1,2-Dibromoethane (EDB)	9.39	9.59	10	ND	91	93	76-135	2.07	20
1,2-Dichloroethane (1,2-DCA)	9.61	9.72	10	ND	96	97	73-139	1.12	20
1,1-Dichloroethene	10.6	10.8	10	ND	106	109	59-140	2.34	20
Diisopropyl ether (DIPE)	10.4	10.6	10	ND	103	105	72-140	1.48	20
Ethyl tert-butyl ether (ETBE)	9.70	9.94	10	ND	97	99	71-140	2.45	20
Methyl-t-butyl ether (MTBE)	10.6	11.0	10	ND	107	110	73-139	3.10	20
Toluene	10.0	10.3	10	ND	100	103	71-128	3.02	20
Trichloroethene	9.60	9.79	10	ND	96	98	64-132	1.98	20

Surrogate Recovery									
Dibromofluoromethane	26.8	26.5	25		107	106	70-130	0.971	20
Toluene-d8	26.6	26.8	25		106	107	70-130	0.553	20
4-BFB	2.48	2.50	2.5		99	100	70-130	0.759	20



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/8/16
Date Analyzed: 4/9/16
Instrument: GC17
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119284
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS-119284

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	4.18	0.25	5	-	84	30-130
Acenaphthylene	ND	-	0.25	-	-	-	-
Acetochlor	ND	-	0.25	-	-	-	-
Anthracene	ND	-	0.25	-	-	-	-
Benzidine	ND	-	1.3	-	-	-	-
Benzo (a) anthracene	ND	-	0.25	-	-	-	-
Benzo (a) pyrene	ND	-	0.25	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.25	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.25	-	-	-	-
Benzyl Alcohol	ND	-	1.3	-	-	-	-
1,1-Biphenyl	ND	-	0.25	-	-	-	-
Bis (2-chloroethoxy) Methane	ND	-	0.25	-	-	-	-
Bis (2-chloroethyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-chloroisopropyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Adipate	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	-	0.25	-	-	-	-
4-Bromophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Butylbenzyl Phthalate	ND	-	0.25	-	-	-	-
4-Chloroaniline	ND	-	0.50	-	-	-	-
4-Chloro-3-methylphenol	ND	4.39	0.25	5	-	88	30-130
2-Chloronaphthalene	ND	-	0.25	-	-	-	-
2-Chlorophenol	ND	4.21	0.25	5	-	84	30-130
4-Chlorophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Chrysene	ND	-	0.25	-	-	-	-
Dibenzo (a,h) anthracene	ND	-	0.25	-	-	-	-
Dibenzofuran	ND	-	0.25	-	-	-	-
Di-n-butyl Phthalate	ND	-	0.25	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,4-Dichlorobenzene	ND	3.88	0.25	5	-	78	30-130
3,3-Dichlorobenzidine	ND	-	0.50	-	-	-	-
2,4-Dichlorophenol	ND	-	0.25	-	-	-	-
Diethyl Phthalate	ND	-	0.25	-	-	-	-
2,4-Dimethylphenol	ND	-	0.25	-	-	-	-
Dimethyl Phthalate	ND	-	0.25	-	-	-	-
4,6-Dinitro-2-methylphenol	ND	-	1.3	-	-	-	-

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NELAP 4033ORELAP

QA/QC Officer



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/8/16
Date Analyzed: 4/9/16
Instrument: GC17
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119284
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS-119284

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
2,4-Dinitrophenol	ND	-	6.3	-	-	-	-
2,4-Dinitrotoluene	ND	4.02	0.25	5	-	80	30-130
2,6-Dinitrotoluene	ND	-	0.25	-	-	-	-
Di-n-octyl Phthalate	ND	-	0.50	-	-	-	-
1,2-Diphenylhydrazine	ND	-	0.25	-	-	-	-
Fluoranthene	ND	-	0.25	-	-	-	-
Fluorene	ND	-	0.25	-	-	-	-
Hexachlorobenzene	ND	-	0.25	-	-	-	-
Hexachlorobutadiene	ND	-	0.25	-	-	-	-
Hexachlorocyclopentadiene	ND	-	1.3	-	-	-	-
Hexachloroethane	ND	-	0.25	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.25	-	-	-	-
Isophorone	ND	-	0.25	-	-	-	-
2-Methylnaphthalene	ND	-	0.25	-	-	-	-
2-Methylphenol (o-Cresol)	ND	-	0.25	-	-	-	-
3 & 4-Methylphenol (m,p-Cresol)	ND	-	0.25	-	-	-	-
Naphthalene	ND	-	0.25	-	-	-	-
2-Nitroaniline	ND	-	1.3	-	-	-	-
3-Nitroaniline	ND	-	1.3	-	-	-	-
4-Nitroaniline	ND	-	1.3	-	-	-	-
Nitrobenzene	ND	-	0.25	-	-	-	-
2-Nitrophenol	ND	-	1.3	-	-	-	-
4-Nitrophenol	ND	3.57	1.3	5	-	71	30-130
N-Nitrosodiphenylamine	ND	-	0.25	-	-	-	-
N-Nitrosodi-n-propylamine	ND	3.76	0.25	5	-	75	30-130
Pentachlorophenol	ND	4.49	1.3	5	-	90	30-130
Phenanthrene	ND	-	0.25	-	-	-	-
Phenol	ND	3.87	0.25	5	-	77	30-130
Pyrene	ND	4.77	0.25	5	-	95	30-130
1,2,4-Trichlorobenzene	ND	4.38	0.25	5	-	88	30-130
2,4,5-Trichlorophenol	ND	-	0.25	-	-	-	-
2,4,6-Trichlorophenol	ND	-	0.25	-	-	-	-

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NELAP 4033ORELAP

QA/QC Officer



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/8/16
Date Analyzed: 4/9/16
Instrument: GC17
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119284
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS-119284

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
2-Fluorophenol	4.32	4.22		5	86	84	30-130
Phenol-d5	3.97	3.96		5	79	79	30-130
Nitrobenzene-d5	3.77	3.94		5	75	79	30-130
2-Fluorobiphenyl	3.72	3.89		5	74	78	30-130
2,4,6-Tribromophenol	3.01	3.55		5	60	71	16-130
4-Terphenyl-d14	4.00	4.14		5	80	83	30-130



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/11/16
Date Analyzed: 4/12/16
Instrument: GC17
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119348
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS-119348
 1604396-001AMS/MSD

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	3.61	0.25	5	-	72	30-130
Acenaphthylene	ND	-	0.25	-	-	-	-
Acetochlor	ND	-	0.25	-	-	-	-
Anthracene	ND	-	0.25	-	-	-	-
Benzidine	ND	-	1.3	-	-	-	-
Benzo (a) anthracene	ND	-	0.25	-	-	-	-
Benzo (a) pyrene	ND	-	0.25	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.25	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.25	-	-	-	-
Benzyl Alcohol	ND	-	1.3	-	-	-	-
1,1-Biphenyl	ND	-	0.25	-	-	-	-
Bis (2-chloroethoxy) Methane	ND	-	0.25	-	-	-	-
Bis (2-chloroethyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-chloroisopropyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Adipate	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	-	0.25	-	-	-	-
4-Bromophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Butylbenzyl Phthalate	ND	-	0.25	-	-	-	-
4-Chloroaniline	ND	-	0.50	-	-	-	-
4-Chloro-3-methylphenol	ND	3.92	0.25	5	-	78	30-130
2-Chloronaphthalene	ND	-	0.25	-	-	-	-
2-Chlorophenol	ND	3.56	0.25	5	-	71	30-130
4-Chlorophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Chrysene	ND	-	0.25	-	-	-	-
Dibenzo (a,h) anthracene	ND	-	0.25	-	-	-	-
Dibenzofuran	ND	-	0.25	-	-	-	-
Di-n-butyl Phthalate	ND	-	0.25	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,4-Dichlorobenzene	ND	3.27	0.25	5	-	65	30-130
3,3-Dichlorobenzidine	ND	-	0.50	-	-	-	-
2,4-Dichlorophenol	ND	-	0.25	-	-	-	-
Diethyl Phthalate	ND	-	0.25	-	-	-	-
2,4-Dimethylphenol	ND	-	0.25	-	-	-	-
Dimethyl Phthalate	ND	-	0.25	-	-	-	-
4,6-Dinitro-2-methylphenol	ND	-	1.3	-	-	-	-

(Cont.)

NELAP 4033ORELAP

QA/QC Officer



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/11/16
Date Analyzed: 4/12/16
Instrument: GC17
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119348
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS-119348
 1604396-001AMS/MSD

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
2,4-Dinitrophenol	ND	-	6.3	-	-	-	-
2,4-Dinitrotoluene	ND	3.72	0.25	5	-	74	30-130
2,6-Dinitrotoluene	ND	-	0.25	-	-	-	-
Di-n-octyl Phthalate	ND	-	0.50	-	-	-	-
1,2-Diphenylhydrazine	ND	-	0.25	-	-	-	-
Fluoranthene	ND	-	0.25	-	-	-	-
Fluorene	ND	-	0.25	-	-	-	-
Hexachlorobenzene	ND	-	0.25	-	-	-	-
Hexachlorobutadiene	ND	-	0.25	-	-	-	-
Hexachlorocyclopentadiene	ND	-	1.3	-	-	-	-
Hexachloroethane	ND	-	0.25	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.25	-	-	-	-
Isophorone	ND	-	0.25	-	-	-	-
2-Methylnaphthalene	ND	-	0.25	-	-	-	-
2-Methylphenol (o-Cresol)	ND	-	0.25	-	-	-	-
3 & 4-Methylphenol (m,p-Cresol)	ND	-	0.25	-	-	-	-
Naphthalene	ND	-	0.25	-	-	-	-
2-Nitroaniline	ND	-	1.3	-	-	-	-
3-Nitroaniline	ND	-	1.3	-	-	-	-
4-Nitroaniline	ND	-	1.3	-	-	-	-
Nitrobenzene	ND	-	0.25	-	-	-	-
2-Nitrophenol	ND	-	1.3	-	-	-	-
4-Nitrophenol	ND	3.70	1.3	5	-	74	30-130
N-Nitrosodiphenylamine	ND	-	0.25	-	-	-	-
N-Nitrosodi-n-propylamine	ND	3.45	0.25	5	-	69	30-130
Pentachlorophenol	ND	3.90	1.3	5	-	78	30-130
Phenanthrene	ND	-	0.25	-	-	-	-
Phenol	ND	3.32	0.25	5	-	66	30-130
Pyrene	ND	3.81	0.25	5	-	76	30-130
1,2,4-Trichlorobenzene	ND	3.68	0.25	5	-	74	30-130
2,4,5-Trichlorophenol	ND	-	0.25	-	-	-	-
2,4,6-Trichlorophenol	ND	-	0.25	-	-	-	-

(Cont.)

NELAP 4033ORELAP

QA/QC Officer



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/11/16
Date Analyzed: 4/12/16
Instrument: GC17
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119348
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS-119348
 1604396-001AMS/MSD

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
2-Fluorophenol	3.18	3.45		5	64	69	30-130
Phenol-d5	2.87	3.24		5	57	65	30-130
Nitrobenzene-d5	2.85	3.44		5	57	69	30-130
2-Fluorobiphenyl	2.63	3.32		5	53	66	30-130
2,4,6-Tribromophenol	3.17	3.30		5	63	66	16-130
4-Terphenyl-d14	2.44	3.28		5	49	66	30-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acenaphthene	NR	NR		ND<40	NR	NR	-	NR	
4-Chloro-3-methylphenol	NR	NR		ND<40	NR	NR	-	NR	
2-Chlorophenol	NR	NR		ND<40	NR	NR	-	NR	
1,4-Dichlorobenzene	NR	NR		ND<40	NR	NR	-	NR	
2,4-Dinitrotoluene	NR	NR		ND<40	NR	NR	-	NR	
4-Nitrophenol	NR	NR		ND<210	NR	NR	-	NR	
N-Nitrosodi-n-propylamine	NR	NR		ND<40	NR	NR	-	NR	
Pentachlorophenol	NR	NR		ND<210	NR	NR	-	NR	
Phenol	NR	NR		ND<40	NR	NR	-	NR	
Pyrene	NR	NR		ND<40	NR	NR	-	NR	
1,2,4-Trichlorobenzene	NR	NR		ND<40	NR	NR	-	NR	
Surrogate Recovery									
2-Fluorophenol	NR	NR			NR	NR	-	NR	
Phenol-d5	NR	NR			NR	NR	-	NR	
Nitrobenzene-d5	NR	NR			NR	NR	-	NR	
2-Fluorobiphenyl	NR	NR			NR	NR	-	NR	
2,4,6-Tribromophenol	NR	NR			NR	NR	-	NR	
4-Terphenyl-d14	NR	NR			NR	NR	-	NR	



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/6/16
Date Analyzed: 4/7/16
Instrument: ICP-MS1
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119130
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-119130
 1604201-001AMS/MSD

QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Antimony	ND	55.0	0.50	50	-	110	75-125
Arsenic	ND	55.0	0.50	50	-	110	75-125
Barium	ND	542	5.0	500	-	108	75-125
Beryllium	ND	52.8	0.50	50	-	106	75-125
Cadmium	ND	52.5	0.25	50	-	105	75-125
Chromium	ND	53.5	0.50	50	-	107	75-125
Cobalt	ND	52.4	0.50	50	-	105	75-125
Copper	ND	54.8	0.50	50	-	110	75-125
Lead	ND	53.5	0.50	50	-	107	75-125
Mercury	ND	1.32	0.050	1.25	-	105	75-125
Molybdenum	ND	53.0	0.50	50	-	106	75-125
Nickel	ND	54.0	0.50	50	-	108	75-125
Selenium	ND	53.8	0.50	50	-	108	75-125
Silver	ND	54.2	0.50	50	-	108	75-125
Thallium	ND	51.2	0.50	50	-	102	75-125
Vanadium	ND	52.9	0.50	50	-	106	75-125
Zinc	ND	535	5.0	500	-	107	75-125
Surrogate Recovery							
Terbium	531	512		500	106	102	70-130



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/6/16
Date Analyzed: 4/7/16
Instrument: ICP-MS1
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119130
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-119130
 1604201-001AMS/MSD

QC Summary Report for Metals

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Antimony	55.5	55.6	50	ND	111	111	75-125	0	20
Arsenic	57.8	56.8	50	3.548	109	107	75-125	1.76	20
Barium	617	638	500	59.14	111	116	75-125	3.49	20
Beryllium	53.9	54.0	50	ND	107	107	75-125	0	20
Cadmium	52.3	51.9	50	ND	104	104	75-125	0	20
Chromium	93.8	106	50	44.10	99	124	75-125	12.4	20
Cobalt	57.6	61.6	50	9.980	95	103	75-125	6.70	20
Copper	67.9	64.6	50	12.65	111	104	75-125	5.09	20
Lead	57.3	57.4	50	4.194	106	106	75-125	0	20
Mercury	1.34	1.41	1.25	0.05480	103	109	75-125	4.86	20
Molybdenum	53.4	53.4	50	0.5977	106	106	75-125	0	20
Nickel	95.5	106	50	49.39	92	113	75-125	10.5	20
Selenium	53.3	51.3	50	ND	106	102	75-125	3.77	20
Silver	54.4	53.7	50	ND	109	107	75-125	1.29	20
Thallium	51.9	51.4	50	ND	104	103	75-125	0.910	20
Vanadium	90.1	98.2	50	42.21	96	112	75-125	8.66	20
Zinc	555	556	500	32.85	104	105	75-125	0.0720	20
Surrogate Recovery									
Terbium	534	534	500		107	107	70-130	0	20



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/7/16
Date Analyzed: 4/7/16
Instrument: ICP-MS1
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119156
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-119156
 1604176-016AMS/MSD
 1604176-016APDS

QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Antimony	ND	53.5	0.50	50	-	107	75-125
Arsenic	ND	52.4	0.50	50	-	105	75-125
Barium	ND	526	5.0	500	-	105	75-125
Beryllium	ND	50.1	0.50	50	-	100	75-125
Cadmium	ND	49.8	0.25	50	-	100	75-125
Chromium	ND	51.5	0.50	50	-	103	75-125
Cobalt	ND	50.2	0.50	50	-	100	75-125
Copper	ND	52.3	0.50	50	-	105	75-125
Lead	ND	51.9	0.50	50	-	104	75-125
Mercury	ND	1.28	0.050	1.25	-	102	75-125
Molybdenum	ND	50.9	0.50	50	-	102	75-125
Nickel	ND	51.4	0.50	50	-	103	75-125
Selenium	ND	52.1	0.50	50	-	104	75-125
Silver	ND	52.5	0.50	50	-	105	75-125
Thallium	ND	49.4	0.50	50	-	99	75-125
Vanadium	ND	50.9	0.50	50	-	102	75-125
Zinc	ND	513	5.0	500	-	103	75-125
Surrogate Recovery							
Terbium	462	502		500	92	100	70-130



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/7/16
Date Analyzed: 4/7/16
Instrument: ICP-MS1
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119156
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-119156
 1604176-016AMS/MSD
 1604176-016APDS

QC Summary Report for Metals

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Antimony	50.4	50.1	50	ND	100	100	75-125	0	20
Arsenic	55.1	55.1	50	4.992	100	100	75-125	0	20
Barium	646	696	500	176.6	94	104	75-125	7.45	20
Beryllium	52.2	52.4	50	0.5547	103	104	75-125	0.459	20
Cadmium	50.2	50.1	50	ND	100	100	75-125	0	20
Chromium	116	115	50	45.09	142,F10	140,F10	75-125	0.950	20
Cobalt	69.3	65.9	50	15.33	108	101	75-125	5.00	20
Copper	72.3	71.6	50	16.91	111	109	75-125	1.03	20
Lead	57.1	57.7	50	6.950	100	102	75-125	1.06	20
Mercury	1.38	1.38	1.25	0.05670	106	106	75-125	0	20
Molybdenum	49.6	49.9	50	ND	99	99	75-125	0	20
Nickel	111	118	50	47.39	126,F10	141,F10	75-125	6.56	20
Selenium	49.0	49.4	50	ND	98	98	75-125	0	20
Silver	48.6	48.2	50	ND	97	96	75-125	0.764	20
Thallium	48.3	48.8	50	ND	96	97	75-125	0.988	20
Vanadium	98.7	102	50	38.94	120	127,F10	75-125	3.54	20
Zinc	548	539	500	33.67	103	101	75-125	1.62	20

Surrogate Recovery

Terbium	513	508	500		103	102	70-130	0.842	20
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Analyte	PDS Result	SPK Val	SPKRef Val	PDS %REC	PDS Limits
Chromium	93.6	50	45.09	97	75-125
Nickel	96.9	50	47.39	99	75-125
Vanadium	86.0	50	38.94	94	75-125

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Antimony	ND<2.5	ND		
Arsenic	4.61	4.992	7.65	
Barium	174	176.6	1.47	10
Beryllium	ND<2.5	0.5547		
Cadmium	ND<1.2	ND		
Chromium	45.6	45.09	1.13	10

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/7/16
Date Analyzed: 4/7/16
Instrument: ICP-MS1
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119156
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-119156
 1604176-016AMS/MSD
 1604176-016APDS

QC Summary Report for Metals

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Cobalt	15.4	15.33	0.457	10
Copper	16.1	16.91	4.79	10
Lead	6.82	6.950	1.87	
Mercury	ND<0.25	0.05670		
Molybdenum	ND<2.5	ND		
Nickel	46.7	47.39	1.46	10
Selenium	ND<2.5	ND		
Silver	ND<2.5	ND		
Thallium	ND<2.5	ND		
Vanadium	38.9	38.94	0.103	10
Zinc	31.8	33.67	5.55	

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/6/16
Date Analyzed: 4/7/16
Instrument: GC19
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119132
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS-119132
 1604202-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.571	0.40	0.60	-	95	70-130
MTBE	ND	0.0811	0.050	0.10	-	81	70-130
Benzene	ND	0.0997	0.0050	0.10	-	100	70-130
Toluene	ND	0.0998	0.0050	0.10	-	100	70-130
Ethylbenzene	ND	0.0996	0.0050	0.10	-	100	70-130
Xylenes	ND	0.322	0.015	0.30	-	107	70-130
Surrogate Recovery							
2-Fluorotoluene	0.117	0.112		0.10	117	111	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.454	0.414	0.60	ND	76	69,F1	70-130	9.29	20
MTBE	0.0758	0.0801	0.10	ND	76	80	70-130	5.58	20
Benzene	0.0719	0.0872	0.10	ND	72	87	70-130	19.2	20
Toluene	0.0737	0.0724	0.10	ND	73	71	70-130	1.85	20
Ethylbenzene	0.0836	0.0853	0.10	ND	84	85	70-130	1.96	20
Xylenes	0.267	0.256	0.30	ND	89	85	70-130	3.93	20
Surrogate Recovery									
2-Fluorotoluene	0.0976	0.103	0.10		98	103	70-130	5.37	20



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/7/16
Date Analyzed: 4/7/16 - 4/8/16
Instrument: GC3
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119155
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS-119155
 1604231-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.595	0.40	0.60	-	99	70-130
MTBE	ND	0.0836	0.050	0.10	-	84	70-130
Benzene	ND	0.0974	0.0050	0.10	-	97	70-130
Toluene	ND	0.0994	0.0050	0.10	-	99	70-130
Ethylbenzene	ND	0.0985	0.0050	0.10	-	98	70-130
Xylenes	ND	0.302	0.015	0.30	-	101	70-130
Surrogate Recovery							
2-Fluorotoluene	0.106	0.102		0.10	106	102	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	NR	NR		110	NR	NR	-	NR	
MTBE	NR	NR		ND<5	NR	NR	-	NR	
Benzene	NR	NR		ND<0.5	NR	NR	-	NR	
Toluene	NR	NR		1.5	NR	NR	-	NR	
Ethylbenzene	NR	NR		2.4	NR	NR	-	NR	
Xylenes	NR	NR		16	NR	NR	-	NR	
Surrogate Recovery									
2-Fluorotoluene	NR	NR			NR	NR	-	NR	



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/11/16
Date Analyzed: 4/12/16
Instrument: GC19
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119369
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS-119369

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.564	0.40	0.60	-	94	70-130
MTBE	ND	0.0846	0.050	0.10	-	85	70-130
Benzene	ND	0.0993	0.0050	0.10	-	99	70-130
Toluene	ND	0.100	0.0050	0.10	-	100	70-130
Ethylbenzene	ND	0.101	0.0050	0.10	-	101	70-130
Xylenes	ND	0.327	0.015	0.30	-	109	70-130
Surrogate Recovery							
2-Fluorotoluene	0.111	0.110		0.10	111	110	70-130



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/12/16
Date Analyzed: 4/13/16
Instrument: GC19
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119430
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS-119430

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.596	0.40	0.60	-	99	70-130
MTBE	ND	0.0870	0.050	0.10	-	87	70-130
Benzene	ND	0.115	0.0050	0.10	-	115	70-130
Toluene	ND	0.115	0.0050	0.10	-	115	70-130
Ethylbenzene	ND	0.113	0.0050	0.10	-	113	70-130
Xylenes	ND	0.351	0.015	0.30	-	117	70-130
Surrogate Recovery							
2-Fluorotoluene	0.107	0.122		0.10	107	122	70-130



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/7/16
Date Analyzed: 4/7/16
Instrument: ICP-MS1
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119156
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-119156
 1604176-016AMS/MSD
 1604176-016APDS

QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Cadmium	ND	49.8	0.25	50	-	100	75-125
Chromium	ND	51.5	0.50	50	-	103	75-125
Lead	ND	51.9	0.50	50	-	104	75-125
Nickel	ND	51.4	0.50	50	-	103	75-125
Zinc	ND	513	5.0	500	-	103	75-125
Surrogate Recovery							
Terbium	462	502		500	92	100	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Cadmium	50.2	50.1	50	ND	100	100	75-125	0	20
Chromium	116	115	50	45.09	142,F10	140,F10	75-125	0.950	20
Lead	57.1	57.7	50	6.950	100	102	75-125	1.06	20
Nickel	111	118	50	47.39	126,F10	141,F10	75-125	6.56	20
Zinc	548	539	500	33.67	103	101	75-125	1.62	20
Surrogate Recovery									
Terbium	513	508	500		103	102	70-130	0.842	20

Analyte	PDS Result	SPK Val	SPKRef Val	PDS %REC	PDS Limits
Chromium	93.6	50	45.09	97	75-125
Nickel	96.9	50	47.39	99	75-125

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Cadmium	ND<1.2	ND		
Chromium	45.6	45.09	1.13	10
Lead	6.82	6.950	1.87	
Nickel	46.7	47.39	1.46	10
Zinc	31.8	33.67	5.55	

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/6/16
Date Analyzed: 4/6/16
Instrument: GC11B
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119112
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg
Sample ID: MB/LCS-119112
 1604178-001AMS/MSD

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	47.6	1.0	40	-	119	70-130
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-
Surrogate Recovery							
C9	22.7	22.3		25	91	89	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	NR	NR		50	NR	NR	-	NR	
Surrogate Recovery									
C9	NR	NR			NR	NR	-	NR	



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/7/16
Date Analyzed: 4/7/16
Instrument: GC9b
Matrix: Soil
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119154
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg
Sample ID: MB/LCS-119154
 1604176-017AMS/MSD

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	49.6	1.0	40	-	124	70-130
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-
Surrogate Recovery							
C9	22.8	22.8		25	91	91	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	54.4	55.7	40	ND	136,F1	139,F1	70-130	2.33	30
Surrogate Recovery									
C9	22.8	22.8	25		91	91	70-130	0	30



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 4/6/16
Date Analyzed: 4/6/16
Instrument: GC11A
Matrix: Water
Project: 750635601; 3000 Broadway

WorkOrder: 1604176
BatchID: 119109
Extraction Method: SW3510C
Analytical Method: SW8015B
Unit: µg/L
Sample ID: MB/LCS/LCSD-119109

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	50	-	-	-
TPH-Motor Oil (C18-C36)	ND	250	-	-	-
Surrogate Recovery					
C9	580		625	93	65-122

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1300	1250	1000	130	125	61-157	3.41	30
Surrogate Recovery								
C9	588	577	625	94	92	65-122	1.82	30



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1604176

ClientCode: TWRK

WaterTrax WriteOn EDF Excel EQulS Email HardCopy ThirdParty J-flag

Report to:

Josh Graber
Treadwell & Rollo
501 14th Street, 3rd Floor
Oakland, CA 94612
(415) 955-9040 FAX: (415) 955-9041

Email: jdgraber@treadwellrollo.com
cc/3rd Party:
PO:
ProjectNo: 750635601; 3000 Broadway

Bill to:

Accounts Payable
Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111
Langan_InvoiceCapture@concur.solutio

Requested TAT: 5 days;

Date Received: 04/06/2016

Date Logged: 04/07/2016

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
1604176-001	B1-1,3&B2-1,3	Soil	4/1/2016	<input type="checkbox"/>		A				A	A			A		
1604176-002	B3-2.5,5&B4-2.5,5	Soil	4/1/2016	<input type="checkbox"/>	A	A		A	A	A	A			A		
1604176-003	B3-7.5,10&B4-7,10.5	Soil	4/1/2016	<input type="checkbox"/>	A	A		A		A	A			A		
1604176-006	B3-12.5,15&B4-12.5,15	Soil	4/1/2016	<input type="checkbox"/>		A				A	A			A		
1604176-007	B3-17.5,20&B4-17.5,20	Soil	4/1/2016	<input type="checkbox"/>						A	A			A		
1604176-008	B5-2.5,5&B6-2.5,5	Soil	4/2/2016	<input type="checkbox"/>	A	A		A		A	A			A		
1604176-009	B5-7.5,10&B6-7.5,10	Soil	4/2/2016	<input type="checkbox"/>	A	A		A	A	A	A			A		
1604176-010	B5-12.5,15&B6-12.5,15	Soil	4/2/2016	<input type="checkbox"/>		A				A	A			A		
1604176-011	B7-2&B8-2	Soil	4/2/2016	<input type="checkbox"/>	A	A		A		A	A			A		
1604176-012	B7-4&B8-4	Soil	4/2/2016	<input type="checkbox"/>		A		A		A	A			A		
1604176-013	B7-6&B8-6	Soil	4/2/2016	<input type="checkbox"/>		A		A		A	A			A		
1604176-014	B7-8&B8-8	Soil	4/2/2016	<input type="checkbox"/>		A					A		A	A		
1604176-015	B7-10&B8-10	Soil	4/2/2016	<input type="checkbox"/>						A	A			A		
1604176-016	B9-1,3&B10-1,3	Soil	4/1/2016	<input type="checkbox"/>	A	A		A		A	A			A		
1604176-017	B9-5&B10-5	Soil	4/1/2016	<input type="checkbox"/>							A		A	A		

Test Legend:

1	8081PCB_S	2	8260B_S	3	8260B_W	4	8270_S
5	ASBESTOS_E600PLM_S	6	CAM17MS_TTLC_S	7	G-MBTEX_S	8	G-MBTEX_W
9	LUFTMS_6020_TTLC_S	10	TPH(DMO)_S	11	TPH(DMO)_W	12	

Prepared by: Maria Venegas

The following SampIDs: 001A, 002A, 003A, 006A, 007A, 008A, 009A, 010A, 011A, 012A, 013A, 014A, 015A, 016A, 017A, 018A contain testgroup.

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.



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1604176

ClientCode: TWRK

WaterTrax
 WriteOn
 EDF
 Excel
 EQulS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

Josh Graber
 Treadwell & Rollo
 501 14th Street, 3rd Floor
 Oakland, CA 94612
 (415) 955-9040 FAX: (415) 955-9041

Email: jdgraber@treadwellrollo.com
 cc/3rd Party:
 PO:
 ProjectNo: 750635601; 3000 Broadway

Bill to:

Accounts Payable
 Treadwell & Rollo
 555 Montgomery St., Suite 1300
 San Francisco, CA 94111
 Langan_InvoiceCapture@concurolutio

Requested TAT: 5 days;

Date Received: 04/06/2016

Date Logged: 04/07/2016

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	
1604176-018	B11-GW	Water	4/2/2016 11:50	<input type="checkbox"/>			A						A			A	

Test Legend:

1	8081PCB_S	2	8260B_S	3	8260B_W	4	8270_S
5	ASBESTOS_E600PLM_S	6	CAM17MS_TTLC_S	7	G-MBTX_S	8	G-MBTX_W
9	LUFTMS_6020_TTLC_S	10	TPH(DMO)_S	11	TPH(DMO)_W	12	

Prepared by: Maria Venegas

The following SampIDs: 001A, 002A, 003A, 006A, 007A, 008A, 009A, 010A, 011A, 012A, 013A, 014A, 015A, 016A, 017A, 018A contain testgroup.

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: TREADWELL & ROLLO
Project: 750635601; 3000 Broadway
Comments:

QC Level: LEVEL 2
Client Contact: Josh Graber
Contact's Email: jdgraber@treadwellrollo.com

Work Order: 1604176
Date Logged: 4/7/2016

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Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1604176-001A	B1-1,3&B2-1,3	Soil	Multi-Range TPH(g,d,mo)	4 / (4:1)	Stainless Steel tube 2"x6"	<input type="checkbox"/>	4/1/2016	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8260B (VOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
1604176-002A	B3-2.5,5&B4-2.5,5	Soil	Multi-Range TPH(g,d,mo)	4 / (4:1)	Stainless Steel tube 2"x6"	<input type="checkbox"/>	4/1/2016	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			Asbestos - PLM			<input type="checkbox"/>		5 days	<input type="checkbox"/>	<input type="checkbox"/>	SubOut
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8260B (VOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
SW8081A/8082 (OC Pesticides+PCBs)	<input type="checkbox"/>	5 days	<input type="checkbox"/>								
1604176-003A	B3-7.5,10&B4-7,10.5	Soil	Multi-Range TPH(g,d,mo)	4 / (4:1)	Acetate Liner/Stainless Steel tube 2"x6"	<input type="checkbox"/>	4/1/2016	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8260B (VOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
SW8081A/8082 (OC Pesticides+PCBs)	<input type="checkbox"/>	5 days	<input type="checkbox"/>								
1604176-004A	B1-5	Soil		1	Acetate Liner	<input type="checkbox"/>	4/1/2016 10:10			<input checked="" type="checkbox"/>	
1604176-005A	B2-5	Soil		1	Acetate Liner	<input type="checkbox"/>	4/1/2016 11:15			<input checked="" 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).
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WORK ORDER SUMMARY

Client Name: TREADWELL & ROLLO
Project: 750635601; 3000 Broadway
Comments:

QC Level: LEVEL 2
Client Contact: Josh Graber
Contact's Email: jdgraber@treadwellrollo.com

Work Order: 1604176
Date Logged: 4/7/2016

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Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1604176-006A	B3-12.5,15&B4-12.5,15	Soil	Multi-Range TPH(g,d,mo)	4 / (4:1)	Acetate Liner	<input type="checkbox"/>	4/1/2016	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8260B (VOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
1604176-007A	B3-17.5,20&B4-17.5,20	Soil	Multi-Range TPH(g,d,mo)	4 / (4:1)	Acetate Liner	<input type="checkbox"/>	4/1/2016	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
1604176-008A	B5-2.5,5&B6-2.5,5	Soil	Multi-Range TPH(g,d,mo)	4 / (4:1)	Acetate Liner/Stainless Steel tube 2"x6"	<input type="checkbox"/>	4/2/2016	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8260B (VOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8081A/8082 (OC Pesticides+PCBs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
1604176-009A	B5-7.5,10&B6-7.5,10	Soil	Multi-Range TPH(g,d,mo)	4 / (4:1)	Acetate Liner	<input type="checkbox"/>	4/2/2016	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			Asbestos - PLM			<input type="checkbox"/>		5 days	<input type="checkbox"/>	<input type="checkbox"/>	SubOut
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>	<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>	<input type="checkbox"/>	
			SW8081A/8082 (OC Pesticides+PCBs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>	<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).
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WORK ORDER SUMMARY

Client Name: TREADWELL & ROLLO
Project: 750635601; 3000 Broadway
Comments:

QC Level: LEVEL 2
Client Contact: Josh Graber
Contact's Email: jdgrabert@treadwellrollo.com

Work Order: 1604176
Date Logged: 4/7/2016

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Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1604176-010A	B5-12.5,15&B6-12.5,15	Soil	Multi-Range TPH(g,d,mo)	4 / (4:1)	Acetate Liner	<input type="checkbox"/>	4/2/2016	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8260B (VOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
1604176-011A	B7-2&B8-2	Soil	Multi-Range TPH(g,d,mo)	2 / (2:1)	Stainless Steel tube 2"x3"	<input type="checkbox"/>	4/2/2016	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8260B (VOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8081A/8082 (OC Pesticides+PCBs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
1604176-012A	B7-4&B8-4	Soil	Multi-Range TPH(g,d,mo)	2 / (2:1)	Acetate Liner/Stainless Steel tube 2"x6"	<input type="checkbox"/>	4/2/2016	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8260B (VOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
1604176-013A	B7-6&B8-6	Soil	Multi-Range TPH(g,d,mo)	2 / (2:1)	Acetate Liner/Stainless Steel tube 2"x6"	<input type="checkbox"/>	4/2/2016	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8260B (VOCs)			<input type="checkbox"/>		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).
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WORK ORDER SUMMARY

Client Name: TREADWELL & ROLLO
Project: 750635601; 3000 Broadway
Comments:

QC Level: LEVEL 2
Client Contact: Josh Graber
Contact's Email: jdgraber@treadwellrollo.com

Work Order: 1604176
Date Logged: 4/7/2016

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 HardCopy
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Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1604176-014A	B7-8&B8-8	Soil	SW6020 (LUFT)	2 / (2:1)	Acetate Liner	<input type="checkbox"/>	4/2/2016	5 days		<input type="checkbox"/>	
			Multi-Range TPH(g,d,mo)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8260B (VOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
1604176-015A	B7-10&B8-10	Soil	Multi-Range TPH(g,d,mo)	2 / (2:1)	Acetate Liner	<input type="checkbox"/>	4/2/2016	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
1604176-016A	B9-1,3&B10-1,3	Soil	Multi-Range TPH(g,d,mo)	4 / (4:1)	Acetate Liner	<input type="checkbox"/>	4/1/2016	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8260B (VOCs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
			SW8081A/8082 (OC Pesticides+PCBs)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
1604176-017A	B9-5&B10-5	Soil	SW6020 (LUFT)	2 / (2:1)	Acetate Liner	<input type="checkbox"/>	4/1/2016	5 days		<input type="checkbox"/>	
			Multi-Range TPH(g,d,mo)			<input type="checkbox"/>		5 days	<input type="checkbox"/>		
1604176-018A	B11-GW	Water	Multi-Range TPH(g,d,mo)	2	1 VOAs w/HCL + 1-aVOAs (multi-range)	<input type="checkbox"/>	4/2/2016 11:50	5 days	25%+	<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days	25%+	<input type="checkbox"/>	

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CHAIN OF CUSTODY RECORD

555 Montgomery Street, Suite 1300, San Francisco, CA 94111 Ph: 415.955.9040/Fax: 415.955.9041
 501 14th Street, Third Floor, Oakland CA 94612 Ph: 510.874.4500/Fax: 510.874.4507
 777 Campus Commons Road, Suite 200, Sacramento, CA 95825 Ph: 916.565.7412/Fax: 916.565.7413

Site Name: 3000 Broadway
 Job Number: 750635001
 Project Manager/Contact: Joshua Graber
 Samplers: Nancy Tu
 Recorder (Signature Required): [Signature]

Turnaround Time Standard

Analysis Requested

Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix		No. Containers & Preservative						Analysis Requested		Silica gel clean-up	Hold	Remarks	
				Soil	Water	HCL	H ₂ SO ₄	HNO ₃	Ice	Other	TPH/dpmo	CAM 17	WAF 5				VOCs
B1-1	4/1/16	0945		X													
B1-3	4/1/16	0955		X													
B2-1	4/1/16	1050		X													
B2-3	4/1/16	1100		X													
B3-2.5	4/1/16	1445		X													
B3-5	4/1/16	1530		X													
B4-2.5	4/1/16	1510		X													
B4-5	4/1/16	1500		X													
B3-7.5	4/1/16	1725		X													
B3-10	4/1/16	1730		X													
B4-7	4/1/16	1625		X													
B4-10.5	4/1/16	1630		X													
B1-5	4/1/16	1010		X													X
B2-5	4/1/16	1115		X													X

composite
composite
composite

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>4-6-16</u>	Time <u>1025</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>4-6-16</u>	Time <u>1025</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date <u>4-6-16</u>	Time <u>1440</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>4/6/16</u>	Time <u>1440</u>
Relinquished by: (Signature)	Date	Time	Received by Lab: (Signature)	Date	Time

Sent to Laboratory (Name): Mc Campbell
 Laboratory Comments/Notes:
 Method of Shipment Lab courier Fed Ex Airborne UPS
 Hand Carried Private Courier (Co. Name)

CHAIN OF CUSTODY RECORD

555 Montgomery Street, Suite 1300, San Francisco, CA 94111 Ph: 415.955.9040/Fax: 415.955.9041
 501 14th Street, Third Floor, Oakland CA 94612 Ph: 510.874.4500/Fax: 510.874.4507
 777 Campus Commons Road, Suite 200, Sacramento, CA 95825 Ph: 916.565.7412/Fax: 916.565.7413

Site Name: 3000 Broadway
 Job Number: 750635601
 Project Manager/Contact: Joshua Graber
 Samplers: Nancy JM
 Recorder (Signature Required): Nancy JM

Turnaround
Time
Standard

Analysis Requested

No. Containers & Preservative

Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix			No. Containers & Preservative						Silica gel clean-up	Hold	Remarks		
				Soil	Water	Other	HCL	H ₂ SO ₄	HNO ₃	Ice	Other	TRHd-gms				CAM 17	Luft 5
B3-12.5	4/1/16	1745		X													
B3-15	4/1/16	1750		X													
B4-12.5	4/1/16	1640		X													
B4-15	4/1/16	1845		X													
B3-17.5	4/1/16	1800		X													
B3-20	4/1/16	1810		X													
B4-17.5	4/1/16	1700		X													
B4-20	4/1/16	1655		X													
B5-2.5	4/2/16	0750		X													
B5-5	4/2/16	0910		X													
B6-2.5	4/2/16	0840		X													
B6-5	4/2/16	1000		X													

composite composite composite

Relinquished by: (Signature) <u>Nancy JM</u>	Date <u>4-6-16</u>	Time <u>1025</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>4-6-16</u>	Time <u>1025</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date <u>4-6-16</u>	Time <u>1440</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>4/6/16</u>	Time <u>1440</u>
Relinquished by: (Signature)	Date	Time	Received by Lab: (Signature)	Date	Time

Sent to Laboratory (Name): McCampbell
 Laboratory Comments/Notes:

Method of Shipment Lab courier Fed Ex Airborne UPS
 Hand Carried Private Courier (Co. Name)

White Copy - Original

Yellow Copy - Laboratory

Pink Copy - Field

COC Number: **15357**

CHAIN OF CUSTODY RECORD

- 555 Montgomery Street, Suite 1300, San Francisco, CA 94111 Ph: 415.955.9040/Fax: 415.955.9041
- 501 14th Street, Third Floor, Oakland CA 94612 Ph: 510.874.4500/Fax: 510.874.4507
- 777 Campus Commons Road, Suite 200, Sacramento, CA 95825 Ph: 916.565.7412/Fax: 916.565.7413

Site Name: 3000 Broadway
 Job Number: 750635601
 Project Manager/Contact: Joshua Graber
 Samplers: Nancy JM
 Recorder (Signature Required): [Signature]

Turnaround
Time
Standard

Analysis Requested

Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix		No. Containers & Preservative						Analysis Requested										Silica gel clean-up	Hold	Remarks				
				Soil	Water	HCL	H ₂ SO ₄	HNO ₃	Ice	Other	TPH/gmo	CAm 17	Luft 5	VOCs	SVOCs	Asbestos	DCP/PCBs											
B5-7.5	4/2/16	0920		X																								
B5-10	4/2/16	0925		X																								
B6-7.5	4/2/16	0955		X																								
B6-10	4/2/16	1005		X																								
B5-12.5	4/2/16	0940		X																								
B5-15	4/2/16	0935		X																								
B6-12.5	4/2/16	1010		X																								
B6-15	4/2/16	1006		X																								
B7-2	4/2/16	1103		X																								
B8-2	4/2/16	1040		X																								
B7-4	4/2/16	1045		X																								
B8-4	4/2/16	1105		X																								
B7-6	4/2/16	1050		X																								
B8-6	4/2/16	1050		X																								

composite composite composite composite

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>4-6-16</u>	Time <u>1025</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>4-6-16</u>	Time <u>1025</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date <u>4-6-16</u>	Time <u>1440</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>4/6/16</u>	Time <u>1440</u>
Relinquished by: (Signature)	Date	Time	Received by Lab: (Signature)	Date	Time

Sent to Laboratory (Name): McC Campbell
 Laboratory Comments/Notes:
 Method of Shipment: Lab courier Fed Ex Airborne UPS
 Hand Carried Private Courier (Co. Name)

CHAIN OF CUSTODY RECORD

555 Montgomery Street, Suite 1300, San Francisco, CA 94111 Ph: 415.955.9040/Fax: 415.955.9041
 501 14th Street, Third Floor, Oakland CA 94612 Ph: 510.874.4500/Fax: 510.874.4507
 777 Campus Commons Road, Suite 200, Sacramento, CA 95825 Ph: 916.565.7412/Fax: 916.565.7413

Site Name: 3000 Broadway
 Job Number: 750635601
 Project Manager/Contact: Joshua Graber
 Samplers: NANCY TJ
 Recorder (Signature Required): N-John

Turnaround
Time
STANDARD

Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix		No. Containers & Preservative						Analysis Requested		Silica gel clean-up	Hold	Remarks	
				Soil	Water	Other	HCL	H ₂ SO ₄	HNO ₃	Ice	Other	TRT/qd/mo	CAM 17				Wft 5
<u>B7-8</u>	<u>4/2/16</u>	<u>1055</u>		<input checked="" type="checkbox"/>													
<u>B8-8</u>	<u>4/2/16</u>	<u>1110</u>		<input checked="" type="checkbox"/>													
<u>B9-10</u>	<u>4/2/16</u>	<u>1100</u>		<input checked="" type="checkbox"/>													
<u>B8-10</u>	<u>4/2/16</u>	<u>1115</u>		<input checked="" type="checkbox"/>													
<u>B9-1</u>	<u>4/1/16</u>	<u>1130</u>		<input checked="" type="checkbox"/>													
<u>B9-3</u>	<u>4/1/16</u>	<u>1400</u>		<input checked="" type="checkbox"/>													
<u>B10-1</u>	<u>4/1/16</u>	<u>1040</u>		<input checked="" type="checkbox"/>													
<u>B10-3</u>	<u>4/1/16</u>	<u>1330</u>		<input checked="" type="checkbox"/>													
<u>B9-5</u>	<u>4/1/16</u>	<u>1415</u>		<input checked="" type="checkbox"/>													
<u>B10-5</u>	<u>4/1/16</u>	<u>1405</u>		<input checked="" type="checkbox"/>													
<u>B11-GW</u>	<u>4/2/16</u>	<u>1150</u>			<input checked="" type="checkbox"/>												
<u>B12-GW</u>	<u>4/2/16</u>	<u>1200</u>			<input checked="" type="checkbox"/>												
																	<u>- Samples Received Broken</u>

composite
composite
composite
composite

Relinquished by: (Signature) <u>N-John</u>	Date <u>4-6-16</u>	Time <u>1025</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>4-6-16</u>	Time <u>1025</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date <u>4-6-16</u>	Time <u>1440</u>	Received by: (Signature) <u>[Signature]</u>	Date	Time
Relinquished by: (Signature)	Date	Time	Received by Lab: (Signature)	Date	Time

Sent to Laboratory (Name): Mc Campbell
 Laboratory Comments/Notes:

Method of Shipment Lab courier Fed Ex Airborne UPS
 Hand Carried Private Courier (Co. Name)

White Copy - Original Yellow Copy - Laboratory

ICE/ # 3.0
 GOOD CONDITION
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB
 PRESERVATION VOAS O&G METALS OTHER
 APPROPRIATE CONTAINERS
 PRESERVED IN LAB
 COC Number: **15359**



Sample Receipt Checklist

Client Name: Treadwell & Rollo
Project Name: 750635601; 3000 Broadway
WorkOrder №: 1604176 Matrix: Soil/Water
Carrier: Bernie Cummins (MAI Courier)

Date and Time Received: 4/6/2016 14:40
Date Logged: 4/7/2016
Received by: Maria Venegas
Logged by: Maria Venegas

Chain of Custody (COC) Information

Chain of custody present? Yes [checked] No []
Chain of custody signed when relinquished and received? Yes [checked] No []
Chain of custody agrees with sample labels? Yes [checked] No []
Sample IDs noted by Client on COC? Yes [checked] No []
Date and Time of collection noted by Client on COC? Yes [checked] No []
Sampler's name noted on COC? Yes [checked] No []

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes [] No [] NA [checked]
Shipping container/cooler in good condition? Yes [checked] No []
Samples in proper containers/bottles? Yes [checked] No []
Sample containers intact? Yes [checked] No []
Sufficient sample volume for indicated test? Yes [checked] No []

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes [checked] No []
Sample/Temp Blank temperature Temp: 3.8°C NA []
Water - VOA vials have zero headspace / no bubbles? Yes [checked] No [] NA []
Sample labels checked for correct preservation? Yes [checked] No []
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes [] No [] NA [checked]
Samples Received on Ice? Yes [checked] No []
(Ice Type: WET ICE)

UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes [] No [] NA [checked]
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes [] No [] NA [checked]

Comments: