

GW - 001

C-141s
(7 of 7)

Chavez, Carl J, EMNRD

From: Robinson, Kelly <Kelly.Robinson@andeavor.com>
Sent: Monday, May 21, 2018 10:21 AM
To: Fields, Vanessa, EMNRD; Smith, Cory, EMNRD; Chavez, Carl J, EMNRD; Tsinnajinnie, Leona, NMENV
Subject: Western Refining Bloomfield Terminal - Liquid Release from Below Ground Pipeline Follow-up Reporting

Good Morning Everyone,

Western Refining is providing a brief up-date of the efforts completed thus far as it pertains to a liquid release from a below ground pipeline located at the Western Refining Bloomfield Terminal originally reported on Friday, May 18th. Excavation crews continued to work through Saturday (May 19th) and will resume field efforts today. We have been able to locate the north end of the culvert which is in-place to protect several Western Refining pipelines that run across County Road 4990. We have not been able to locate the exact location of the line leak, but we suspect the release originated along the section of the slop line that is located inside or within close vicinity to the culvert. Excavation efforts will continue today to develop a clearance area where we can more safely access the entrance of the culvert and further assess the area within the culvert.

Prior to the start of the excavation effort, Operations flushed the section of the slop line that runs from the Terminal to the Tank Farm with clean water to clean-out the line as much as possible. The slop line will remain out-of-service until such time that repairs can be completed. Western Refining will continue to provide up-dates as new information is made available from the field team.

In the meantime, please let me know if you have any questions.

Kelly R. Robinson - Environmental Supervisor

111 County Road 4990 | Bloomfield, NM 87413
O: (505) 632-4166 | C: (505) 801-5616
E: Kelly.Robinson@andeavor.com



Please note: My email address changed to Kelly.Robinson@andeavor.com on July 31, 2017. Please update your records.

Chavez, Carl J, EMNRD

From: Robinson, Kelly <Kelly.Robinson@andeavor.com>
Sent: Friday, May 18, 2018 4:05 PM
To: Fields, Vanessa, EMNRD
Cc: Tsinnajinnie, Leona, NMENV; Roberts, Tommy D; Smith, Cory, EMNRD; Chavez, Carl J, EMNRD
Subject: RE: Western Refining - Bloomfield Terminal: Pipeline Leak Notification
Attachments: file-3.jpeg; Leak Location.pdf; file1-2.jpeg

Ma'am,

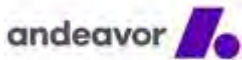
Attached is a google earth view of the facility and the marked location of where the surface impacts were initially identified. The initial leak was thought to be a steam leak because steam was coming from the ground at this location (see photos attached for wet area). The boiler was shut down and the soils were investigated more thoroughly, which we then identified an odor in the soils as well. This area, as you can see, is between the facility fence and the County Road. We have since installed berms with plastic on each side of this area to ensure no rain events (which do not look to be a factor) would cause run-off from this area. There has been no surface liquids evident since the line is underground. However, we are hydro-excavating in the area to see how the lines were constructed across the count road and to identify the integrity of the lines in the area. In doing so we revealed that the line in-question that is leaking has a metal insulation collar around it. By hydro-excavating that line, we removed a piece of the insulation which identified a water/product liquid to be able to drain from that spacing between the pipeline and the insulation collar. The liquids are being collected at the exposure location and transported to the on-site wastewater system for treatment. We will track how much liquids are collected by this process. We just started this process this week, and therefore will have more information shortly. The affected area is not fenced off, but rather barricaded to protect from the roadway activity. We contacted San Juan County and got their approval to perform this work in this area. We are a 24/7 staffed facility and will keep watch on this area during evening hours.

I hope this is helpful. Let me know if you need any more information.

Thanks Ma'am!

Kelly R. Robinson - Environmental Supervisor

111 County Road 4990 I Bloomfield, NM 87413
O: (505) 632-4166 | C: (505) 801-5616
E: Kelly.Robinson@andeavor.com



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From: Fields, Vanessa, EMNRD [mailto:Vanessa.Fields@state.nm.us]
Sent: Friday, May 18, 2018 3:25 PM
To: Robinson, Kelly <Kelly.Robinson@andeavor.com>; Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Cc: Tsinnajinnie, Leona, NMENV <Leona.Tsinnajinnie@state.nm.us>; Roberts, Tommy D <Tommy.D.Roberts@andeavor.com>
Subject: RE: Western Refining - Bloomfield Terminal: Pipeline Leak Notification

Good afternoon Kelly,

Could you please provide more information in regards to the spill?
Latitude and Longitude of the release.
Estimated volume of the release?
Was liquids recovered?
Were any waterways, drainages and/or surface drainages affected?
Was the affected area fenced off?

Thank you,

Vanessa Fields
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 119
Cell: (505) 419-0463
vanessa.fields@state.nm.us

From: Robinson, Kelly <Kelly.Robinson@andeavor.com>
Sent: Friday, May 18, 2018 3:09 PM
To: Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Cc: Tsinnajinnie, Leona, NMENV <Leona.Tsinnajinnie@state.nm.us>; Roberts, Tommy D <Tommy.D.Roberts@andeavor.com>
Subject: Western Refining - Bloomfield Terminal: Pipeline Leak Notification

Good Afternoon Everyone,

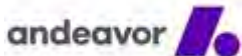
Yesterday afternoon Western Refining – Bloomfield Terminal identified a leak in a pipeline used to transfer water/crude/finished product mixtures from the Terminal Loading/Unloading areas on the south side of County Road 4990 to the on-site Wastewater Treatment System located north of County Road 4990. The line has since been isolated from service and additional investigation efforts are on-going to determine the cause of the leak and extent of impact to the surrounding soils. At this time it is unknown as to the quantity of liquids released from the pipeline. Western Refining has contracted Envirotech to support the on-going field investigation efforts. We will be providing up-dates on progress made in the field as more information becomes available.

If you have any questions in the meantime, please feel free to contact me at your convenience.

Thank you for your time!

Kelly R. Robinson - Environmental Supervisor

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E: Kelly.Robinson@andeavor.com



Please note: My email address changed to Kelly.Robinson@andeavor.com on July 31, 2017. Please update your records.





Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, May 18, 2018 3:40 PM
To: 'Robinson, Kelly'; Fields, Vanessa, EMNRD; Smith, Cory, EMNRD
Cc: Tsinnajinnie, Leona, NMENV; Roberts, Tommy D; Griswold, Jim, EMNRD
Subject: RE: Western Refining - Bloomfield Terminal: Pipeline Leak Notification

Kelly:

The New Mexico Oil Conservation Division (OCD) is in receipt of your initial notification of a release.

The agencies await receipt of the C-141 and standard process for responding to the release.

Thank you.

Mr. Carl J. Chavez, CHMM (#13099)
New Mexico Oil Conservation Division
Energy Minerals and Natural Resources Department
1220 South St Francis Drive
Santa Fe, New Mexico 87505
Ph. (505) 476-3490
E-mail: CarlJ.Chavez@state.nm.us

“Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?” (To see how, go to: <http://www.emnrd.state.nm.us/OCD> and see “Publications”)

From: Robinson, Kelly <Kelly.Robinson@andeavor.com>
Sent: Friday, May 18, 2018 3:09 PM
To: Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Cc: Tsinnajinnie, Leona, NMENV <Leona.Tsinnajinnie@state.nm.us>; Roberts, Tommy D <Tommy.D.Roberts@andeavor.com>
Subject: Western Refining - Bloomfield Terminal: Pipeline Leak Notification

Good Afternoon Everyone,

Yesterday afternoon Western Refining – Bloomfield Terminal identified a leak in a pipeline used to transfer water/crude/finished product mixtures from the Terminal Loading/Unloading areas on the south side of County Road 4990 to the on-site Wastewater Treatment System located north of County Road 4990. The line has since been isolated from service and additional investigation efforts are on-going to determine the cause of the leak and extent of impact to the surrounding soils. At this time it is unknown as to the quantity of liquids released from the pipeline. Western Refining has contracted Envirotech to support the on-going field investigation efforts. We will be providing up-dates on progress made in the field as more information becomes available.

If you have any questions in the meantime, please feel free to contact me at your convenience.

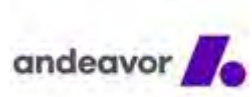
Thank you for your time!

Kelly R. Robinson - Environmental Supervisor

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O: (505) 632-4166| C: (505) 801-5616

E: Kelly.Robinson@andeavor.com



Please note: My email address changed to Kelly.Robinson@andeavor.com on July 31, 2017. Please update your records.

Chavez, Carl J, EMNRD

From: Robinson, Kelly <Kelly.Robinson@wnr.com>
Sent: Friday, April 28, 2017 2:57 PM
To: Chavez, Carl J, EMNRD
Cc: Schmaltz, Randy; Griswold, Jim, EMNRD; Smith, Cory, EMNRD; Tsinnajinnie, Leona, NMENV
Subject: FW: Bloomfield Terminal (GW-1) San Juan County Spill/Release Reconciliation Request
Attachments: Tank 41 Release_03 03 2016.pdf; Loading Rack Sump Release_08 03 2016.pdf; Used Water Release_08 27 2016.pdf; Ethanol Release_11 04 2016.pdf; Recoverd Groundwater_10 26 2016.pdf

Good Afternoon Sir,

The following information and associated attachments are being provided in response to information inquiries received from NMOCD pertaining to past spill events at the Bloomfield Terminal.

- **March 5, 2016 - Crude Oil Line Release Near Tank 41:** Initial notification of the incident was provided to NMOCD on March 5, 2016. Western submitted an up-dated (Revised) Initial C-141 Report on April 7, 2016 providing a summary of corrective action activities completed. A more detailed account of the sampling activities performed, analytical results, and summary of the spill delineation was included in the Corrective Action Report as an attachment to the revised C-141 Report. On May 2, 2016 following agency review of the Corrective Action Report, Western received approval from NMED-HWB to backfill the excavation site. On May 17, 2016, Western received a letter from NMED-HWB that included comments and requests for additional information as it pertained to the Corrective Action Report received on April 8, 2016. Western submitted a response to comments letter on August 5, 2016. Western's response letter included a revised Corrective Action Report. As part of the report recommendations, Western requested that the remaining corrective actions for this area be conducted under the direction of the 2007 Consent Order. Copies of the agency correspondence and final reports submittals are attached for reference.
- **August 4, 2016 – Product/Water Mixture at Loading Rack Sump:** On August 4, 2016, Western provided initial notification of the spill event to NMOCD and NMED-HWB via e-mail. An initial C-141 documenting the specifics of the event was submitted on August 8, 2016. Pursuant to the 2007 Consent Order, Western initiated additional discussions with NMED-HWB to determine the immediate corrective action required. On August 31, 2016, Western submitted an up-dated C-141 along with a letter report documenting the activities completed to-date. As stated in the letter report, Western requested that future corrective actions for this area be conducted pursuant to the conditions of the active 2007 Consent Order under the coordination of NMED-HWB. Copies of the agency correspondence and the referenced letter report are attached for reference.
- **August 27, 2016 – Used Water Release within Tank 11/12 Area:** The initial C-141 documenting the release was submitted to NMOCD on August 30th, 2016. As stated in the report, the water released to ground was used water from the Aeration lagoons. A sample of the water was collected and analyzed for BTEX, TPH-GRO, and TPH-DRO pursuant to the NMOCD clean-up guidelines. The analytical results indicated that the water released did not contain detectable concentrations of BTEX, TPH-GRO, and TPH-MRO. Diesel range organics were detected above the laboratory reporting limit, with a reported concentration of 1.9 mg/L. Based on the analytical results, Western requested approval from NMOCD for a "No Further Corrective Action Required" designation for this event. Copies of the initial and final C-141 reports are attached for reference.
- **November 3, 2016 – Ethanol Release at Tank 44:** Initial notification was provided to NMOCD on November 4, 2016. The initial C-141 Report documenting the event was submitted to NMOCD on November 8, 2016. Since the event occurred within an area previously investigated pursuant to the 2007 Consent Order issued through NMED-HWB, Western initiated additional discussions with NMED-HWB to determine what corrective actions are required for this active operational area. As part of the corrective actions completed in the field, Western removed visually impacted soils for off-site disposal. Following the completion of excavation activities, clean soil was used for backfill. A final C-141 Report was developed to document the agency coordination regarding this event, and the actions completed in the field. A copy of the agency correspondence and respective C-141 Reports are attached for reference.

- **October 26, 2016 – Recovered Groundwater Release near Tank 38:** This event involved the release of recovered groundwater at Tank 38. Western collected a sample of the waters released for TPH and BTEX analysis. The sample results showed that the waters did not contain measurable concentrations of TPH nor BTEX above the respective laboratory reporting limits. The results of the field sampling activities and corrective actions performed was submitted in a C-141 Initial/Final Report to NMOCD on November 9, 2016. The report requested that a “No Further Corrective Action” designation be approved for this event. A copy of the agency correspondence and respective C-141 Initial/Final Report are attached for reference.

All spill events were reported to NMOCD pursuant to 19.15.29 NMAC Release Notification regulations. Western assumed that NMOCD would not accept Final C-141 Reports for the March 3, 2016 Event and August 3, 2016 Event since the areas may require additional corrective actions once the areas are no longer part of the active operations of the Terminal. Therefore Final C-141 Reports have not yet been filed with NMOCD for these two events. If it is preferred that the Final C-141 Reports be submitted for these events to further document that future corrective actions will be conducted pursuant to the 2007 Consent Order under NMED-HWB, Western would be more than happy to do so.

In conclusion, I am hopeful that the above and attached information fully addresses the requests of NMOCD. The original information requests from NMOCD were initially addressed to the Gallup Refinery Environmental Team. If there is any further questions regarding these event or future events as it pertains to the Bloomfield Terminal, please feel free to contact either Randy Schmaltz (HSE Manager for Logistics) or myself directly at your convenience.

I appreciate your time, and please let me know if there is any additional information needed.

Sincerely,

Kelly R. Robinson | Environmental Supervisor

Western Refining | 111 County Road 4990 | Bloomfield, NM87413

(o) 505-632-4166 | (c) 505-801-5616 | (e) kelly.robinson@wnr.com

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From: Chavez, Carl J, EMNRD [<mailto:CarlJ.Chavez@state.nm.us>]

Sent: Friday, April 07, 2017 11:26 AM

To: Johnson, Cheryl <Cheryl.Johnson@wnr.com>

Cc: Griswold, Jim, EMNRD <Jim.Griswold@state.nm.us>; Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Tsinnajinnie, Leona, NMENV <Leona.Tsinnajinnie@state.nm.us>

Subject: Bloomfield Terminal (GW-1) San Juan County Spill/Release Reconciliation Request

This email was sent by an external sender. Please use caution when opening attachments, clicking web links, or replying until you have verified this email sender.

Cheryl:

Good morning.

The New Mexico Oil Conservation Division (OCD) is working to reconcile or follow-up on releases from the facility where a final C-141 Form has yet to be submitted or perhaps OCD- Santa Fe was not notified of a release at the facility. I have included some more recent inquiries on releases brought to OCD- Santa Fe's attention by Cory Smith on 3/28/17 that OCD also needs a response to.

OCD last contacted you on 12/21/2016 regarding some above related releases; however, OCD Aztec District Office is inquiring about some others below. I am providing you with the most recent internal OCD communication on releases that OCD Aztec is also attempting to follow-up on.

OCD is requesting a response to the releases mentioned in this communique on/or before April 28, 2017.

Thank you.

From: Smith, Cory, EMNRD

Sent: Tuesday, March 28, 2017 8:23 AM

To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>

Cc: Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>

Subject: Western Refining C-141's

Good Morning Carl,

I am working on some C-141's and have a backlog of Western Refining C-141's that I couldn't find online yesterday while looking through the GW-01 file were I normally find them.

Both of the releases are for the Western Bloomfield Terminal,

The first one is a denatured ethanol release, estimated at 25-30 BBLS from Tank 44, Date and Hour of Discovery is 11/3/16 at approximately 9:35AM. District III received the C-141 on 11/8/16

The Second one is recovered ground water release, estimated at 3-5 BBLs, Date and Hour of Discovery is 10/26/16 at approximately 7:15PM. District III received the C-141 on 11/10/16. (Note no immediate Notice given to the District or Santa Fe.)

I just wanted to see if you received the C-141's and perhaps put them in a different file?

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

3/31/2017

Cory:

It appears OCD received documents including the C-141 (Initial) on 11/4/2016 instead of 11/8/2016. OCD-SF has not received the final and will follow-up with the permittee. You will notice a OCD-SF reconciliation document (see attachment) from 12/2016 where the permittee did not respond to requests for final C-141s.

Regarding the second release, i.e., “recovered groundwater release” of 3-5 bbls, OCD- Santa Fe received no verbal notification or C-141 form.

Please contact me if you have questions. As always, thank you for the communication in these matters.

Mr. Carl J. Chavez, CHMM (#13099)
New Mexico Oil Conservation Division
Energy Minerals and Natural Resources Department
1220 South St Francis Drive
Santa Fe, New Mexico 87505
Ph. (505) 476-3490
E-mail: CarlJ.Chavez@state.nm.us

“Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?” (To see how, go to: <http://www.emnrd.state.nm.us/OCD> and see “Publications”)

Robinson, Kelly

From: Robinson, Kelly
Sent: Saturday, March 05, 2016 2:56 PM
To: Smith, Cory, EMNRD
Cc: Powell, Brandon, EMNRD; Tsinnajinnie, Leona, NMENV; Cobrain, Dave, NMENV; Dhawan, Neelam, NMENV; Schmaltz, Randy; Krakow, Matt; Weaver, Ron; Hawkins, Larry; Hains, Allen; Chavez, Carl J., EMNRD
Subject: C-141 Initial Notification - Crude Oil Release to Ground
Attachments: C-141 Initial Notificaiton_Crude Line Release.pdf

Good Afternoon Sir,

At approximately 11 am this morning, Western confirmed a crude oil release from an underground pipeline located at the Bloomfield Terminal in Bloomfield, NM. Evidence of a potential release was identified at 2:00 am this morning by Facility Operations when a 3-gallon soil stain was observed on the ground surface within the secondary containment of Tank 41. As of 12:15pm this afternoon, the breach in the pipeline identified as the source of the release has been repaired. Based on preliminary field observations, it is unknown as to the total volume of crude oil release. Facility Operations was able to recover approximately 8 barrels of free-standing oil from the soils. This material has been sent through the on-site wastewater treatment system for oil recovery. No surface water waters were impacted as a result of this incident. All surface impacted are contained within the facility property.

The attached report is to serve as the initial notification of this event. The area where the release occurred has been previously investigated (SWMU No. 3) under an active Consent Order issued through the New Mexico Environment Department – Hazardous Waste Bureau (NMED-HWB). Western will continue to communicate with both NMOCD and NMED-HWB within the up-coming week as clean-up efforts continue.

If you have any questions on this incident, please feel free to contact either Randy Schmaltz (505-632-4171) or myself at your convenience.

Kelly R. Robinson | Environmental Manager - Logistics
Western Refining | 111 County Road 4850 | Bloomfield, NM87413
(o) 505-632-4166 | (c) 505-801-5616 | (e) kelly.robinson@wnr.com

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Western Refining Southwest, Inc.	Contact: Kelly Robinson
Address: 50 Road 4990	Telephone No.: 505-632-4166
Facility Name: Bloomfield Terminal	Facility Type: Producers Terminal
Surface Owner: Western Refining Southwest, Inc.	Mineral Owner: A/U No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	27	29N	11W					

Latitude 36° 41' 45"N

Longitude 107° 58' 12" W

NATURE OF RELEASE

Type of Release: Crude Oil	Volume of Release: Unknown	Volume Recovered: 8 barrels
Source of Release: Crude Line Release Underground	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: 3/05/2016 at 2am
Was Immediate Notice Given? ☒ Yes ☐ No ☒ Not Required	If YES, To Whom? Cory Smith (NMOCD-Aztec) Carl Chavez (NMED-Santa Fe) Leona Tsinnajinnie (NMED-HWB) Dave Colrain (NMED-HWB) Noelani Dhawan (NMED-HWB)	
By Whom?: Kelly Robinson	Date and Hour: 6/11/2015 at 8:30 am MT	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

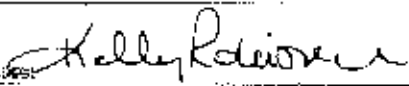
Describe Cause of Problem and Remedial Action Taken.*

At approximately 2am on Saturday, March 5th, 2016, Western Operations identified a small 3-gallon accumulation of crude oil on ground surface within the secondary containment of Tank 41. Based on the location of the surface stain, the release was initially thought to be associated with the wet oil system. Operations took immediate action in shutting down the wet oil system. By 7am the same day, Maintenance arrived on-site and worked to expose the source of the oil release. By 11am, Maintenance identified the source of the oil release to be a breach in the crude unloading pipeline. The pipeline is located approximately 3 ft below grade surface. The line was able to be isolated and a temporary repair was installed by 12:15pm.

Describe Area Affected and Cleanup Action Taken.*

Excess liquids were collected using an on-site vacuum truck. The recovered oil was sent through the on-site wastewater treatment system for oil recovery. The oil release came from an underground pipeline that is located within the secondary containment of Tank 41. As of 12:15pm this afternoon, temporary repairs have been completed on the pipeline. Surface soil impacts are localized to an area within the secondary containment of Tank 41. This crude oil release took place in an area previously investigated under an active Consent Order issued through New Mexico Hazardous Waste Bureau (NMED-HWB). Western will be coordinating with the NMED-HWB on implementing corrective actions pursuant to the condition of the Consent Order.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

<u>Signature:</u> 		<u>OIL CONSERVATION DIVISION</u>	
<u>Printed Name:</u> Kelly Robinson		<u>Approval by Environmental Specialist:</u>	
<u>Title:</u> Environmental Manager - Logistics		<u>Approval Date:</u>	<u>Expiration Date:</u>
<u>E-mail Address:</u> Kelly.Robinson@unr.com		<u>Conditions of Approval:</u>	<u>Attached</u> ☐
<u>Date:</u> 3-5-2016		<u>Phone:</u> (505) 632-4166	

* Attach Additional Sheets If Necessary

Robinson, Kelly

From: Robinson, Kelly
Sent: Thursday, April 07, 2016 8:23 AM
To: Tsinnajinnie, Leona, NMENV
Cc: Dhawan, Neelam, NMENV; Cobrain, Dave, NMENV; Chavez, Carl J., EMNRD; Schmitz, Randy; Krakow, Matt; Powell, Brandon, EMNRD
Subject: Corrective Action Report
Attachments: Corrective Action Report.pdf 

Good Afternoon Ma'am,

In response to an oil leak originally reported to NMED-HWB and NMOCDD on Saturday, March 5th, 2016, Western is submitting this Corrective Action Report summarizing the activities completed to-date. This Report is being submitted as an attachment to a revised C-141 Initial Report NMOCDD has requested previously. The Report documents the excavation activities completed to-date, results from confirmation samples collected within the excavation area, and diagrams/photos showing the physical extent of the excavation.

As you will see in the Report, the excavation efforts were completed to the extent possible at this time. Due to the proximity of existing facility equipment and process piping, Western is no longer able to remove any additional soils safely. Western is requesting permission to suspend any further corrective actions until such time that the active process piping/equipment are removed to provide safe access to the area. This is an active investigation area under the NMED-HWB Consent Order dated July 27, 2007, and therefore Western is requesting that the remaining corrective actions for this area be covered under the direction of the 2007 Consent Order. In addition, Western is requesting permission to backfill the excavation area to match existing grade. This area serves as a secondary containment for active facility process equipment, and exposed active piping is being temporarily supported. Western believes the immediate threat this release had to the area has been removed by the excavation activities completed to-date. The remaining corrective actions would be best complete at a later date when the area is more accessible in a safe manner.

We would be more than happy to discuss this matter with you via a conference call to help facilitate NMED's review of the event, if so desired. Please let us know if you have any questions, or if you need any additional information not otherwise provided in this report. A hardcopy of this report is being sent to you, as well as to the OGD District Office and OGD Santa Fe Office.

Thank you for your time!

Sincerely,

Kelly R. Robinson | Environmental
Western Refining | 111 County Road 4990 | Bloomfield, NM 87413
(u) 505-637-4166 | (c) 505-801-5816 | (e) kelly.robinson@wrr.com

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State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report (Revised) ☐ Final Report

Name of Company: Western Refining Southwest, Inc.	Contact: Kelly Robinson
Address: 50 Road 4990	Telephone No.: 505-632-4166
Facility Name: Bloomfield Terminal	Facility Type: Producers Terminal
Surface Owner: Western Refining Southwest, Inc.	Mineral Owner: APN No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	27	29N	11W					

Latitude 36° 41' 45" N

Longitude 107° 58' 12" W

NATURE OF RELEASE

Type of Release: Crude Oil	Volume of Release: Unknown	Volume Recovered: 8 barrels
Source of Release: Crude Line Release Underground	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: 3/05/2016 at 2am
Was Immediate Notice Given? ☒ Yes ☐ No ☒ Not Required	If YES, To Whom? Cory Smith (NMOC-D-Aztec) Carl Chavez (NMED-Santa Fe) Leona Tsinnajinnie (NMED-HWB) Dave Cobrain (NMED-HWB) Neelam Dhawan (NMED-HWB)	
By Whom? : Kelly Robinson	Date and Hour : 03/05/2016 at 2:56 pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

At approximately 2am on Saturday, March 5th, 2016, Western Operations identified a small 3-gallon accumulation of crude oil on ground surface within the secondary containment of Tank 41. Based on the location of the surface stain, the release was initially thought to be associated with the wet oil system. Operations took immediate action in shutting down the wet oil system. By 7am the same day, Maintenance arrived on-site and worked to expose the source of the oil release. By 11am, Maintenance identified the source of the oil release to be a breach in the crude unloading pipeline. The pipeline is located approximately 3 ft below grade surface. The line was able to be isolated and a temporary repair was installed by 12:15pm.

Describe Area Affected and Cleanup Action Taken.*

Excess liquids were collected using an on-site vacuum truck. The recovered oil was sent through the on-site wastewater treatment system for oil recovery. The oil release came from an underground pipeline that is located within the secondary containment of Tank 41. As of 12:15pm this afternoon, temporary repairs have been completed on the pipeline. Surface soil impacts are localized to an area within the secondary containment of Tank 41. This crude oil release took place in an area previously investigated under an active Consent Order issued through New Mexico Hazardous Waste Bureau (NMED-HWB). Western will be coordinating with the NMED-HWB on implementing corrective actions pursuant to the condition of the Consent Order.

Updated April 6, 2016: Attached is a Corrective Action Report documenting in-detail the corrective action completed to-date. Due to the proximity of existing equipment within the excavation area, Western is no longer able to remove additional soils safely. Therefore, Western is requesting permission to backfill the excavation area to match existing grade. This area serves as secondary containment for active in-service equipment. In addition, this is an active investigation area under the NMED-HWB Consent Order dated July 27, 2007, and therefore Western is requesting the remaining corrective actions for this area be covered under the direction of the 2007 Consent Order.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCB rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCB marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCB acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

OIL CONSERVATION DIVISION

Signature: Kelly Robinson

Printed Name: Kelly Robinson

Title: Environmental Manager - Logistics

E-mail Address: Kelly.Robinson@wmr.com

Date: 4-6-2016

Phone: (505) 632-4166

Approved by Environmental Specialist: _____

Approval Date: _____

Expiration Date: _____

Conditions of Approval: _____

Attached ☐

* Attach Additional Sheets If Necessary

Robinson, Kelly

From: Tsinnajinnie, Leona, NMENV [Leona.Tsinnajinnie@state.nm.us]
Sent: Monday, May 02, 2016 4:28 PM
To: Robinson, Kelly
Cc: Schmaltz, Randy; Cobrain, Dave, NMENV; VanHom, Kristen, NMENV; Dhawan, Neelam, NMENV; Chavez, Carl J, EMNRD
Subject: RE: Corrective Action Report

This email was sent by an external sender. Please use caution when opening attachments, clicking web links, or replying until you have verified this email sender.

Good Afternoon Kelly-

NMED has reviewed Bloomfield's *Corrective Action Report* and has determined that Bloomfield can move forward with backfilling the excavation site near Tanks 42a, 42b and 43. The backfill material must be clean fill and not the contaminated soil removed from the site.

NMED will provide a response letter to the *Corrective Action Report*.

Thanks,
Leona

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]
Sent: Thursday, April 07, 2016 6:23 AM
To: Tsinnajinnie, Leona, NMENV
Cc: Dhawan, Neelam, NMENV; Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD; Schmaltz, Randy; Krakow, Matt; Powell, Brandon, EMNRD
Subject: Corrective Action Report

Good Afternoon Ma'am,

In response to an oil leak originally reported to NMED-HWB and NMOCD on Saturday, March 5th, 2016, Western is submitting this Corrective Action Report summarizing the activities completed to-date. This Report is being submitted as an attachment to a revised C-141 Initial Report NMOCD has requested previously. The Report documents the excavation activities completed to-date, results from confirmation samples collected within the excavation area, and diagrams/photos showing the physical extent of the excavation.

As you will see in the Report, the excavation efforts were completed to the extent possible at this time. Due to the proximity of existing facility equipment and process piping, Western is no longer able to remove any additional soils safely. Western is requesting permission to suspend any further corrective actions until such time that the active process piping/equipment are removed to provide safe access to the area. This is an active investigation area under the NMED-HWB Consent Order dated July 27, 2007, and therefore Western is requesting that the remaining corrective actions for this area be covered under the direction of the 2007 Consent Order. In addition, Western is requesting permission to backfill the excavation area to match existing grade. This area serves as a secondary containment for active facility process equipment, and exposed active piping is being temporarily supported. Western believes the immediate threat this release had to the area has been removed by the excavation activities completed to-date. The remaining corrective actions would be best complete at a later date when the area is more accessible in a safe manner.

We would be more than happy to discuss this matter with you via a conference call to help facilitate NMED's review of the event, if so desired. Please let us know if you have any questions, or if you need any additional information not otherwise provided in this report. A hardcopy of this report is being sent to you, as well as to the OCD District Office and OCD Santa Fe Office.

Thank you for your time!

Sincerely,



SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

**NEW MEXICO
ENVIRONMENT DEPARTMENT**

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Phone (505) 476-6000 Fax (505) 476-6030
www.env.nm.gov



RYAN FLYNN
Cabinet Secretary
BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

May 17, 2016

Mr. Randy Schmaltz
Health, Safety, Environmental, and
Regulatory Director
Western Refining, Southwest, Inc.
Bloomfield Terminal
P.O. Box 159
Bloomfield, New Mexico 87413

**RE: RESPONSE TO CORRECTIVE ACTION REPORT
WESTERN REFINING SOUTHWEST INC., BLOOMFIELD REFINERY
EPA ID# NMD089416416
HWB-WRB-MISC**

Dear Mr. Schmaltz:

The New Mexico Environment Department (NMED) has received Western Refining Southwest, Inc., Bloomfield Refinery's (Western) *Corrective Action Report* (Report) received April 8, 2016. NMED has reviewed the Report and hereby issues the following comments.

Comment 1

In the section titled *Corrective Actions*, Western states "5-point composite samples were collected to characterize the North, South, East, West excavation walls. In addition, two 5-point composite samples were collected from the excavation base, one sample collected at the bottom of the deepest excavation base." Composite samples are not appropriate for confirmation sampling. Discrete samples must be collected for all future soil confirmation sampling. In addition, it is not clear where the samples were collected and at what depths because a figure was not provided and the sample locations were not described in the Report. Provide a figure with the sample locations and indicate the depths where the samples were collected in the response

letter. For all future Reports, soil sample locations and depths, where appropriate, must be clearly defined and a figure must be provided depicting the sample locations.

Comment 2

In the section titled *Waste Characterization*, Western provides the analytical methods used to characterize the excavated soils for disposal. However, Western did not provide copies of the waste manifest(s) with the Report. In addition, it is helpful to include the waste characterization analytical results in a table comparing them to the appropriate screening levels. Provide copies of the waste manifest(s) and generate a table (Analytical Summary of Waste Characterization Sample Results) that summarizes the waste characterization analytical results and compare them to the appropriate screening levels. Include the waste manifest(s) and additional table with the response letter.

Comment 3

In the section titled *Recommendations*, Western states that the New Mexico Oil Conservation Division's (OCD) *Guidelines for Remediation of Leaks, Spills, and Releases* (dated August 13, 1993) cleanup levels were utilized to evaluate the soil confirmation and waste characterization samples analytical results. NMED requires the use of the most recent construction worker soil screening levels (SSLs) from NMED's *Risk Assessment Guidance for Site Investigations and Remediation* because NMED's SSLs are more current than the screening levels in OCD's guidance document. In addition, utilizing NMED's SSLs will better characterize the contaminants detected in the soil confirmation and waste characterization samples because the cleanup levels provided in OCD's guidance document did not provide screening levels for a majority of the constituents analyzed by Western. It is expected that construction and excavation activities at the terminal will expose the workers to impacted soil; therefore, future soil confirmation samples that result from a leak, spill or release must be compared to NMED's construction worker SSLs because the terminal is still active and the tanks are still in use.

Comment 4

In the section titled *Recommendations*, Western requested "permission to backfill the excavation area to match [the] existing grade." Western states that "this is an active investigation area under the NMED-HWB Consent Order dated July 27, 2007, and therefore Western is requesting the remaining corrective actions for this area be covered under the direction of the 2007 Consent Order." NMED concurs with Western and sent an e-mail response on May 2, 2016 to Ms. Kelly Robinson to allow Western to backfill the excavation. In addition, NMED also concurs that corrective action activities at this site may be deferred until this area is no longer in use or otherwise accessible.

Comment 5

Diagram #2 is an aerial photo depicting the approximate location and excavation boundary at the site near Tanks 41, 42a, 42b, and 43. Diagrams 3 and 4 are field note diagrams depicting the

excavation boundary and photoionization detector (PID) readings at the corresponding excavation depths for the March 14 and 16, 2016 excavation events. Below are comments regarding Diagrams #2, 3, and 4:

- a. It appears that the excavation boundary in Diagram #2 may be a different shape than the boundary depicted in Diagrams 3 and 4. Provide an explanation or clearer Diagrams 3 and 4 to show that all three diagrams have the same excavation boundary.
- b. Diagrams 3 and 4 depict PID readings with the corresponding depths at several locations on the excavation boundary. However, Western circled 4 locations on each of the diagrams and did not explain why. In addition, there is a location with an "X" with a circle around it that is not explained. Explain why certain PID readings were circled in the response letter. For all future submittals, all figures with symbols must have a key to define the symbols.

Comment 6

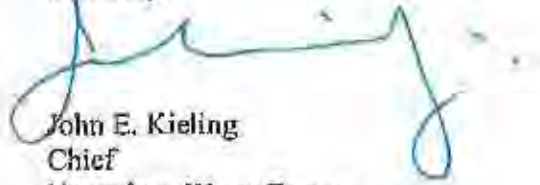
In Table 1 (Analytical Summary of Confirmation Sample Results), Western summarizes the analytical results for the soil confirmation samples and compares them to OCD Clean up Levels. As stated in Comment 3, NMED requires comparing the soil confirmation analytical results to the construction worker SSLs for all future leaks, spills or releases. Provide a revised Table 1 comparing the soil confirmation analytical results to the construction worker SSLs. In addition, there appears to be analytical results reported as detections in bold face print while others are not highlighted. Provide a footnote to explain the bold print analytical results in the revised table submitted with the response letter.

R. Schmaltz
May 17, 2016
Page 4 of 4

Western must address the comments from this response and provide the information required, along with a response letter to NMED by August 5, 2016.

If you have any questions regarding this letter, please contact Leona Tsinnajinnie of my staff at (505) 476-6057.

Sincerely,



John E. Kieling
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
N. Dhawan, NMED HWB
K. Van Horn, NMED HWB
L. Tsinnajinnie, NMED HWB
C. Chavez, NMENRD OCD (Santa Fe)
C. Smith, NMENRD OCD (Aztec)
A. Hains, Western Refining Company, El Paso, Texas
K. Robinson, Western Refining Company, Bloomfield, New Mexico

File: HWB-WRB-MISC and Reading 2016

Robinson, Kelly

From: Robinson, Kelly
Sent: Friday, August 05, 2016 3:54 PM
To: Tsinnajinnie, Leona, NMENV; Cobrain, Dave, NMENV; Dhawan, Neelam, NMENV
Cc: 'Smith, Cory, EMNRD'; 'Chavez, Carl J, EMNRD'; Schmaltz, Randy; Krakow, Matt
Subject: Response to NMED Comment Letter dated May 17, 2016 - Corrective Action Report for Oily Water Release.
Attachments: WNR Response to May 17 2016 CA Comment Letter.pdf

Good Afternoon Everyone!

A copy of Western's response to the NMED comment letter dated May 17, 2016 pertaining to the Corrective Action Report dated April 8, 2016 is attached. A hard copy of the report will be delivered to your office via FedEx. Courtesy hard copies of this submittal have also been sent to the New Mexico Oil Conservation Division in Aztec and Santa Fe. If you have any immediate questions regarding this submittal, please feel free to contact either Mr. Randy Schmaltz at 505-632-4171 or myself at your convenience.

Thank you for your time, and have a great weekend!

Kelly R. Robinson | Environmental
Western Refining | 111 County Road 4990 | Bloomfield, NM87413
(o) 505-632-4166 | (c) 505-801-6616 | (e) kelly.robinson@wrco.com

August 4, 2016

John Kieling, Bureau Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

FedEx #:

**Re: Western Response to Comments Dated May 17, 2016
Response to Corrective Action Report
Western Refining Southwest, Inc., Bloomfield Refinery
EPA ID# NMD089416416**

Dear Mr. Kieling,

Western Refining Southwest Inc. - Bloomfield Refinery ("Western") has received the New Mexico Environment Department's (NMED) comments dated May 17, 2016 on the Corrective Action Report initially submitted on April 8, 2016. The following are responses to the comments received.

NMED Comment 1

In the section titled Corrective Actions, Western states "5-point composite samples were collected to characterize the North, South, East, West excavation walls. In addition, two 5-point composite samples were collected from the excavation base, one sample collected at the bottom of the deepest excavation base." Composite samples are not appropriate for confirmation sampling. Discrete samples must be collected for all future soil confirmation sampling. In addition, it is not clear where the samples were collected and at what depths because the figure was not provided and the sample locations were not described in the Report. Provide a figure with the sample locations and indicate the depths where the samples were collected in the response letter. For all future Reports, soil sample locations and depths, where appropriate, must be clearly defined and a figure must be provided depicting the sample locations.

Western Response to Comment 1

A revised Corrective Action Report ("Report") is attached and includes a figure (Figure 4) showing the approximate lateral location of where each composite sample aliquot was collected. The depth of the samples varied to best represent the applicable sidewall. The floor samples were collected at the base of the excavation, which was approximately 7.5 feet below existing grade. The Report has been revised to include a discussion of where the samples were collected.

For all previous spill clean-ups regulated by the New Mexico Oil Conservation Division (NMOCD), Western has been required to collect 5-point composite samples for all confirmation sampling activities. This direction initiated by NMOCD for previous spills was the reason why discrete samples were not collected. Discrete samples will be collected for all future confirmation sampling activities, and specific sample depth information (where applicable) will be recorded and included in all respective sampling reports.

NMED Comment 2

In the Section titled Waste Characterization, Western provides the analytical methods used to characterize the excavated soils for disposal. However, Western did not provide copies of the waste manifest(s) with the Report. In addition, it is helpful to include the waste characterization analytical results in a table comparing them to the appropriate screening levels. Provide copies of the waste manifest(s) and generate a table (Analytical Summary of Waste Characterization Sample Results) that summarizes the waste characterization analytical results and compare them to the appropriate screening levels. Include the waste manifest(s) and additional table with the response letter.

Western Response to Comment 2

A table (Table 2) has been added to the Report that shows the comparison of the waste characterization results with the applicable RCRA toxicity screening levels. In addition, copies of the waste manifests used to ship the impacted soils off-site have been added to the revised Report.

NMED Comment 3

In the section titled Recommendations, Western states that the New Mexico Oil Conservation Division's (OCD) Guidelines for Remediation of Leaks, Spills, and Releases (dated August 13, 1993) cleanup levels were utilized to evaluate the soil confirmation and waste characterization samples analytical results. NMED requires the use of the most recent construction worker soil screening levels (SSLs) from NMED's Risk Assessment Guidance for Site Investigations and Remediation's because NMED's SSLs will better characterize the contaminants detected in the soil confirmation and waste characterization samples because the cleanup levels provided in OCD's guidance document did not provide screening levels for a majority of the constituents analyzed by Western. It is expected that construction and excavation activities at the terminal will expose the workers to impacted soil; therefore, future soil confirmation samples that result from a leak, spill or release must be compared to NMED's construction worker SSLs because the terminal is still active and the tanks are still in use.

Western Response to Comment 3

Western modified Table 1 to include the respective NMED's construction worker soil screening levels. The revised table is included in the attached revised Report.

NMED Comment 4

In the section titled Recommendations, Western requested "permission to backfill the excavation area to match [the] existing grade." Western states that "this is an active investigation area under the NMED-HWB Consent Order dated July 27, 2007, and therefore Western is requesting the remaining corrective actions for this area be covered under the direction of the 2007 Consent Order." NMED concurs with Western and sent an e-mail response on May 2, 2016 to Ms. Kelly Robinson to allow Western to backfill the excavation. In addition, NMED also concurs that corrective action activities at this site may be deferred until this area is no longer in use or otherwise accessible.

Western Response to Comment 4

No comment required.

NMED Comment 5

Diagram #2 is an aerial photo depicting the approximate location and excavation boundary at the site near Tanks #1, 42a, 42b, and 43. Diagrams 3 and 4 are field note diagrams depicting the excavation boundary and photoionization detector (PID) readings at the corresponding excavation depths for the March 14 and 16, 2016 excavation events. Below are comments regarding Diagrams #2, 3, and 4:

- a. It appears that the excavation boundary in Diagram #2 may be different shape than the boundary depicted in Diagrams 3 and 4. Provide an explanation or clearer Diagram 3 and 4 to show that all three diagrams have the same excavation boundary.*
- b. Diagrams 3 and 4 depict PID readings with the corresponding depths at several locations on the excavation boundary. However, Western circled 4 locations on each of the diagrams and did not explain why. In addition, there is a location with an "X" with a circle around it that is not explained. Explain why certain PID readings were circled in the response letter. For all future submittals, all figures with symbols must have a key to define the symbols.*

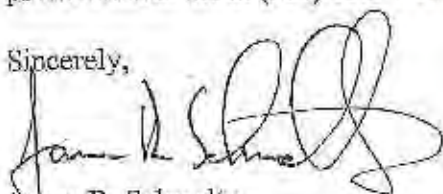
Western Response to Comment 5

The intent of Diagram #2 was to provide a general footprint of the excavation area. A portion of the area disturbed was not a result of crude impacts, but rather to allow equipment better access to be able to remove impacted soils to the extent possible. Diagram 3 and 4 represented copies of the field noted. As stated in the Report, Western targeted removing soils exhibiting a PID reading greater than 300 ppm. The circles on the field forms were to reflect the general target areas. The "X" on the field form was placed to reflect the approximate release location in relation to the extent of the excavation.

To address these comments and concerns of inconsistent information, Western has consolidated the field PID readings into one figure (refer to Figure 3 in the revised Report). This figure identifies the approximate areas where soils were removed for benching down, and the approximate areas where the PID samples were collected in the field. The new Figures have been incorporated into the revised Report.

If you have any questions or would like to discuss the revised Corrective Action Report, please contact me at (505) 632-4171 or Randy.Schmaltz@wnr.com.

Sincerely,



James R. Schmaltz
Health, Safety, Environmental, and Regulatory Director
Western Refining Southwest, Inc. - Bloomfield Refinery

cc:D. Cobrain (NMED-HWB)
C. Chavez (OCD - Santa Fe)
N. Dhawan (NMED-IIWB)
K. Van Horn (NMED-IIWB)
L. Tsimmajumie (NMED-HWB)
C. Smith (OCD - Aztec)
A. Hains (WNR)
K. Robinson (WNR)

CORRECTIVE ACTION REPORT

Western Refining – Bloomfield Terminal

Cause of the Release

On Saturday, March 5th, 2016 at approximately 2am, the Operator on-duty at the Western Refining Bloomfield Terminal noticed a small stain of crude oil adjacent (east) of the Tank 42a/42b secondary containment pad. This area is located within the southern portion of the facility, south of highway 4990. The operator used absorbent material to soak-up the oil, and notified the Terminal Operations Manager. By 8am that same day, Maintenance personnel arrived on-scene to investigate the source of the stain. Using a backhoe, Western was able to identify a small leak in a 3-inch insulated crude oil pipeline used to convey crude oil from the Wet Oil System (Tank 41) to the facility Tank Farm area. The location of where the repair was made on the pipeline is approximately 10 to 15 feet east of where the crude oil surfaced. The pipeline was insulated with a fiberglass wrap, which likely was the reason why the oil released to surface slightly adjacent to the leak source location. Maintenance was able to isolate the line and repair the leak with a temporary clamp. The pipeline was returned to service by 12 noon on Saturday, March 5th, 2016. An initial notification of the release event was submitted to the New Mexico Oil Conservation Division (NMOCD) and New Mexico Environment Department – Hazardous Waste Bureau (NMED-HWB) on March 5th, 2016. The approximate location of where the release occurred within the facility boundary is shown in Figure 2. The approximate footprint of the excavation is shown in Figure 3 and Figure 4.

Corrective Actions

Western contracted with Adobe Construction ("Adobe") to perform the excavation effort, and with LT Environmental to provide environmental over-site of the excavation efforts. Excavation activities commenced on Wednesday, March 9th, 2016 following clearance to dig through the New Mexico One Call System. The initial effort involved hand-digging to expose any existing pipelines within the area. Three additional pipelines were located within the excavation area. These additional lines have been confirmed by Operations to be out-of-service. Once the pipelines were exposed, a backhoe was used to progress the excavation effort.

The excavation area was limited by the existing in-service aboveground pipelines to the north and east, existing concrete containment for in-service tanks to the west, and an existing tank to the south. The Photo Log attached shows the adjacent facility equipment around the perimeter of the excavated area. Due to the restrictions from the existing structures, the lateral extent of the excavation was approximately 26 feet East – West and 12 feet North-South. The benching on the south side of the excavation was done to allow for means of egress for additional hand-digging around the pipelines.

Field monitoring was conducted using a Photo Ionization Detector (PID) meter. The PID readings assisted in identifying the areas for which additional excavation was needed. Figure 3 shows the relative depth below original grade in feet, and the corresponding PID reading in parts per million (ppm). The excavation had reached approximately 7.5 ft within eastern portion of the excavation. The west side

was benched down approximately 2.5 feet, providing the backhoe an area to reach between the pipelines. Along the north western portion of the excavation, there was an area of sandy soils exhibiting higher organic concentrations as observed using the PID. The excavation extended down deeper in this location, creating a hole approximately 3 feet by 2 feet by 13 feet deep (the maximum reach of the equipment used for excavation).

Between March 14th and March 16th, 2016, additional soils were removed, targeting areas higher than 300 ppm. Sidewall field readings indicated that the deeper hole needed to be extended laterally to the extent possible with the equipment used while taking into consideration the adjacent pipelines. PID readings of the excavated area as of March 16th, 2016 are included in Figure 3. Due to adjacent facility equipment and concerns of being able to safely support the active pipeline that crosses the excavation, no additional soils were able to be removed at this time. A photo log showing pictures of the excavated area is attached.

Soil Sampling

Between March 14th and March 16, 2016, 5-point composite samples were collected of the North Wall, East Wall, South Wall, and Floor. In addition, one discrete sample was collected from the deepest point of the excavation (i.e. referred to as the "NW Pothole") and a 4-point composite sample was collected along the West Wall. As shown in Figure 3, the exposed west wall was of a smaller surface area since the excavation only extended 2.5 feet below surface, and thus why a 4-point composite sample was collected to characterize this smaller area. The composite sample aliquots were collected from various depths to best characterize the excavation wall. Samples collected from the excavation floor were collected approximately 7.5 ft below original grade. The soil samples were analyzed for the following:

- Total Petroleum Hydrocarbons (TPH) – Gasoline Range Organics (GRO) by EPA Method 8015
- TPH – Diesel Range Organics (DRO) by EPA Method 8015
- TPH– Motor Oil Range Organics (MRO) by EPA Method 8015
- Total Metals by EPA Method 6010B
- Volatile Organic Compounds (VOCs) by EPA Method 8260B
- Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270C

A summary of the analytical results are provided in Table 1. The analytical results were compared to the most recent construction worker soil screening levels (SSLs) from NMED's *Risk Assessment Guidance for Site Investigations and Remediation*. A copy of the analytical results is provided as an attachment.

Waste Characterization

Excavated soils were temporarily stock-piled on-site during excavation activities. Approximately 80 yards of impacts soils were removed from the excavation. A composite sample was collected and analyzed for the following:

- TCLP VOCs by EPA Method 8260B
- TCLP SVOCs by EPA Method 8270C
- TCLP RCRA 8 Metals by EPA Method 6010B
- TPH-GRO by EPA Method 8015
- TPH-DRO by EPA Method 8015
- TPH-MRO by EPA Method 8015

The waste characterization results were compared to the RCRA toxicity screening levels pursuant to 40 CFR 261.24. The analytical results show that the material is classified as non-hazardous non-exempt waste. A summary table of the waste characterization results is provided in Table 2. A copy of the respective analytical report is attached. The waste was sent to the Envirotech landfarm for treatment and disposal. Copies of the waste manifest used to ship the material off-site are provided as an attachment to this report.

Recommendations

The analytical results show that the north and south lateral extent of the impacted area has been defined. The remaining soils along the north and south boundary of the excavation area exhibit concentrations below the most conservative clean-up levels pursuant to the New Mexico Oil Conservation Division *Guidelines for Remediation of Leaks, Spill and Releases* dated August 13, 1993.

Confirmation samples collected from the west, east, and excavation base show that the residual soil concentrations are above the OCD clean-up levels for closure. However, the remaining soils no longer exhibit visual saturation staining. Due to the proximity of existing equipment within the excavation area, Western is no longer able to remove additional soils safely.

With this said, Western is requesting permission to backfill the excavation area to match existing grade. This area serves as secondary containment for active in-service equipment. In addition, this is an active investigation area under the NMED-HWB Consent Order dated July 27, 2007, and therefore Western is requesting the remaining corrective actions for this area be covered under the direction of the 2007 Consent Order.

FIGURES

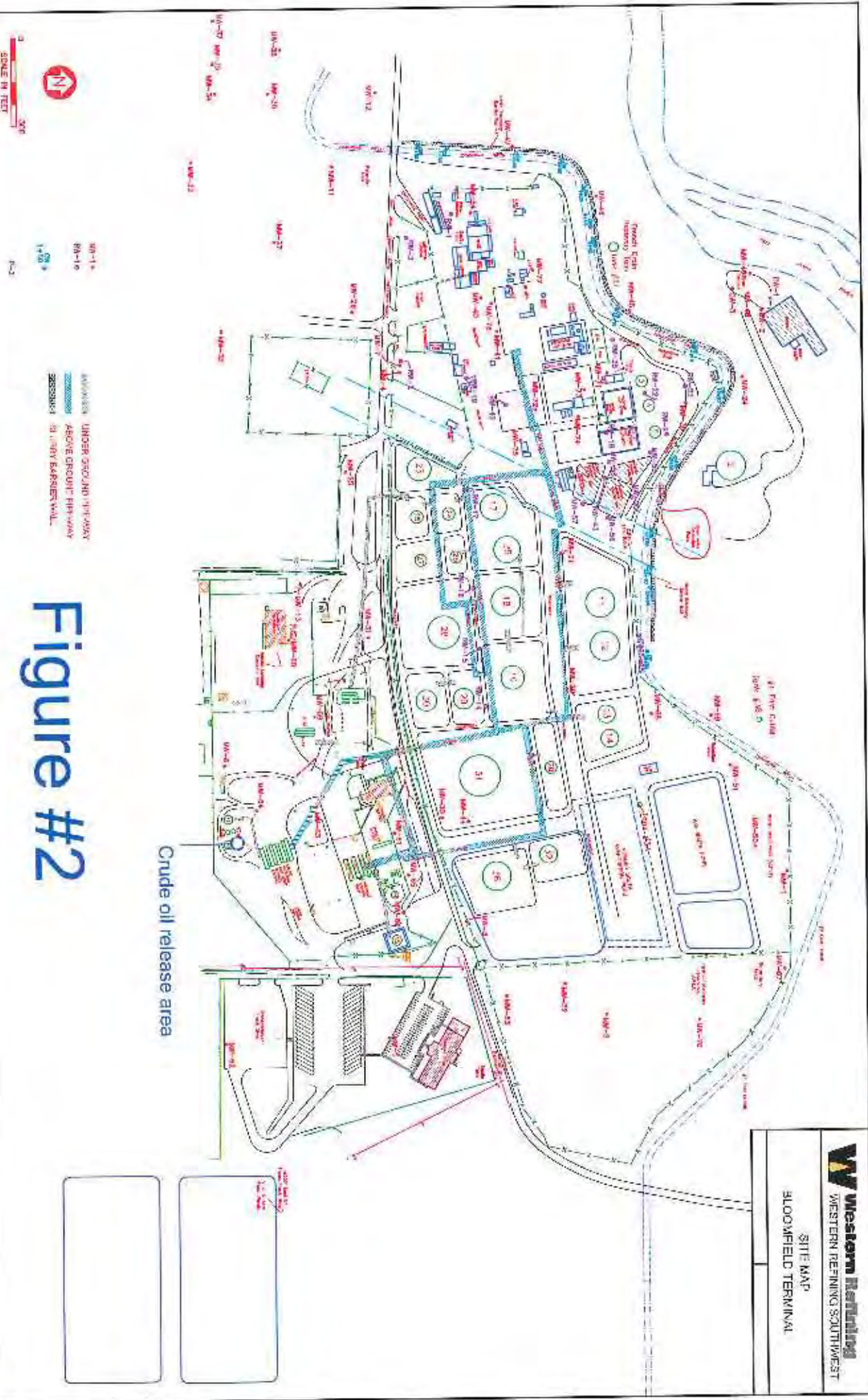
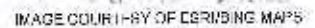


Figure #2



TABLES

TABLE 1
WEST OIL RELEASE LABORATORY ANALYTICAL RESULTS
CONFIRMATION SOIL SAMPLES
BLOOMFIELD TERMINAL
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

ANALYTE	UNIT	NMMD Construction Worker SSL July 2015	NW Pathline 1/2'	North Well	East Wall	Flow	Source Well	West Well
Moisture								
	%	NE	5.7	12	1.2	7.7	8.5	9.1
EPA Method 8015B: Volatiles								
Benzene	µg/kg	142	<0.018	<0.026	6.2	14	<0.025	15
Toluene	mg/kg	14,020	0.11	<0.022	61	150	<0.049	20
Ethylbenzene	µg/kg	1,770	0.065	<0.052	11	25	<0.345	18
Xylenes, Total	mg/kg	798	0.71	<0.10	105	240	<0.260	160
Total BTEX	mg/kg	N/A	0.882	<0.122	181.2	430	<0.395	295
EPA Method 8015								
GRO	µg/kg	N/A	12	<0.2	2,750	5,000	<0.9	1,200
DRO	mg/kg	N/A	17	<11	760	3,500	27	4,600
MRO	µg/kg	N/A	<54	<54	250	1,300	6E	1,800
Total Petroleum Hydrocarbons	mg/kg	N/A	23	<51	3,340	10,400	95	10,430
EPA Method 7671: Mercury								
Mercury	mg/kg	20.7	<0.014	<0.017	<0.035	<0.035	<0.050	<0.036
EPA Method 6010B: Soil Metals								
Arsenic	µg/kg	57.4	<0.6	3.1	<0.6	<0.7	<0.7	<0.7
Barium	mg/kg	<250	20	330	32	190	30	165
Chromium	mg/kg	72.1	<0.10	<0.11	<0.11	<0.11	<0.11	<0.11
Chromium	mg/kg	134	2.3	6.3	4.3	4.5	4.8	5.3
Lead	mg/kg	610	2.4	5.0	3.8	7.2	4.0	1.8
Selenium	µg/kg	1,750	<0.6	<0.9	<1.6	<1.7	<1.7	<2.7
Silver	mg/kg	1,770	<0.11	<0.13	<0.26	<0.27	<0.37	<0.27
EPA Method 8210B: Volatiles								
Acetone	mg/kg	242,000	<0.75	<0.84	<1.7	<1.5	0.79	<1.6
Bromodichloromethane	mg/kg	1.3	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Bromonitromethane	mg/kg	17.9	<0.15	<0.17	<1.5	<1.6	<0.16	<1.0
2-Butanone	mg/kg	91,700	<0.50	<0.55	<1.0	<1.0	<0.52	<1.0
Carbon disulfide	mg/kg	1,532	<0.50	<0.55	<1.0	<1.0	<0.52	<1.0
Carbon tetrachloride	mg/kg	2.2	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Chlorobenzene	mg/kg	412	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Chloroform	mg/kg	134	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Chloroethane	mg/kg	235	<0.15	<0.17	<1.5	<1.6	<0.16	<1.0
1,2-Dibromo-3-chloropropane	mg/kg	2,347	<0.050	<0.056	1.4	6.2	<0.052	2.6
1,2-Dibromoethane	mg/kg	3.3	<0.10	<0.11	<1.0	<1.0	<0.10	<1.0
1,2-Dichloroethane	mg/kg	540	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,2-Dichloroethane (EDC)	mg/kg	33.5	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,2-Dibromochloroethane (EDB)	mg/kg	6.5	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,4-Dichlorobenzene	mg/kg	746	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1,1-Trichloroethane	mg/kg	161	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1,1-Trichloroethane	mg/kg	1,820	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0

TABLE 1
WET OIL RELEASE LABORATORY ANALYTICAL RESULTS
CONFIRMATION SOIL SAMPLES

BLOOMFIELD TERMINAL
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

ANALYTE	UNL	MSD Concentration Wettest SST, July 2015	NTV Profile 14 3/14/2016	North Wall 3/14/2016	East Wall 3/14/2016	K-202 3/16/2016	South Wall 3/16/2016	West Wall 3/16/2016
Hexachlorocyclopentadiene	mg/kg	198	<0.21	<0.3	<0.2	<0.2	<0.2	<0.2
Trinitrotoluene (TNT)	mg/kg	240	<0.21	<0.3	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	53,700	<0.22	<0.3	<0.3	<0.3	<0.4	<0.6
Nitrobenzene	mg/kg	153	<0.22	<0.3	<0.3	<0.3	<0.4	<0.6
N-Nitrosodiphenylamine	mg/kg	37,000	<0.21	<0.3	<0.2	<0.2	<0.2	<0.2
Polychlorophenol	mg/kg	346	<0.22	<0.3	<0.3	<0.3	<0.4	<0.6
Phenanthrene	mg/kg	7,900	<0.21	<0.3	<0.2	<0.2	<0.2	<0.2
Phenol	mg/kg	73,400	<0.21	<0.3	<0.2	<0.2	<0.3	<0.2
Pyrene	mg/kg	7,900	<0.21	<0.3	<0.2	<0.2	<0.2	<0.2
2,4,5-Trichlorophenol	mg/kg	26,900	<0.21	<0.3	<0.2	<0.2	<0.2	<0.2
2,4,6-Trichlorophenol	mg/kg	260	<0.21	<0.3	<0.2	<0.2	<0.2	<0.2
1-Methylphtalene	mg/kg	NB	<0.21	<0.21	<0.2	2.4	<0.22	3.0
2-Methylphtalene	mg/kg	NB	<0.2	<0.23	1.5	8.5	<0.22	4.6

Notes:
 < - below the applicable laboratory reporting limit
 % - percent
 PCBs - benzene, toluene, ethylbenzene, total xylenes
 mg/kg - milligrams per kilogram
 NT - not testable
 MSD - New Mexico Environmental Department
 SST - Soil Screening Levels

TABLE 2
WET OIL RELEASE LABORATORY ANALYTICAL RESULTS
WASTE CHARACTERIZATION

BLOOMFIELD TERMINAL
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

ANALYTE	UNIT	Regulatory Level*	Waste Characterization
			3/14/2016
EPA Method 8015B: Volatiles			
Benzene	mg/kg	0.5	< 0.50
EPA Method 8015			
GC10	mg/kg	NE	2,500
GC20	mg/kg	NE	5,500
GC30	mg/kg	NE	3,500
Total Petroleum Hydrocarbons	mg/kg	NE	11,100
EPA Method 7471: Mercury			
Mercury	mg/kg	0.2	< 0.020
EPA Method 6010B: Soil Metals			
Arsenic	mg/kg	5.0	< 5.0
Barium	mg/kg	100.0	< 100
Cadmium	mg/kg	1.0	< 1.0
Chromium	mg/kg	5.0	< 5.0
Copper	mg/kg	5.0	< 5.0
Lead	mg/kg	1.0	< 1.0
Selenium	mg/kg	5.0	< 5.0
Silver	mg/kg	5.0	< 5.0
EPA 8260/8131			
2-Butanone	mg/kg	200.0	< 200
Carbon tetrachloride	mg/kg	0.5	< 0.50
Chlorobenzene	mg/kg	100.0	< 100
Chloroform	mg/kg	6.0	< 6.0
Hexachlorobutadiene	mg/kg	0.5	< 0.50
1,2-Dichloroethane (EDC)	mg/kg	0.5	< 0.50
1,4-Dichlorobenzene	mg/kg	7.5	< 7.5
1,1-Dichloroethene	mg/kg	0.7	< 0.70
Trichloroethylene (TCE)	mg/kg	0.7	< 0.70
Vinyl chloride	mg/kg	0.3	< 0.30
Trichloroethylene (TCE)	mg/kg	0.5	< 0.50
EPA 8270 C TCLP			
2,4-Dinitrotoluene	mg/kg	0.13	< 0.13
2-Methylphenol	mg/kg	200.0	< 200
3+4-Methylphenol	mg/kg	200.0	< 200
Cresols, Total	mg/kg	200.0	< 200
Hexachlorobenzene	mg/kg	0.13	< 0.13
Hexachlorocyclopentadiene	mg/kg	3.0	< 3.0
Nitrobenzene	mg/kg	2.0	< 2.0
Pentachlorophenol	mg/kg	100.0	< 100
Phenol	mg/kg	NE	< 200
2,4,5-Trichlorophenol	mg/kg	400.0	< 400
2,4,6-Trichlorophenol	mg/kg	2.0	< 2.0
Pyridine	mg/kg	5.0	< 5.0

Notes:

* - Resource Conservation and Recovery Act (RCRA) 261.24 Toxicity Characteristic

< - below the applicable laboratory reporting limit

mg/kg - milligrams per kilogram

NE - not established

PHOTOS

PHOTOGRAPHIC LOG

Bloomfield Refinery Spill Response



Photo # 1 Release Point / Floor Composite Sample



Photo # 2 East Wall Composite Sample



Photo # 3 North Wall Composite Sample



Photo # 4 South Wall Composite Sample



Photo # 5 West Wall Composite Sample & NW Pothole 14'

MANIFESTS





MANIFEST #

GENERATOR *Wesley R. F.*

POINT OF ORIGIN BlueField, Louisiana

TRANSPORTER *ABC*

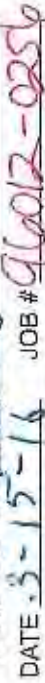
DATE: 7.21-16 JOB # 96012-0256

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

Phone

DISTRIBUTION: White - Company Records, Yellow - Billing, Pink - Customer, Goldenrod - LF Copy

van mijn reproductie 575-126



TRANSPORTING COMPANY

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

Goldenrod - LF Copy



DATE 3-14-16 JOB # 912-0250

TRANSPORTING COMPANY

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

061-875 9474

ANALYTICALS



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 16, 2016

Matt Krakow

Western Refining Southwest, Inc.

#50 CR 4990

Bloomfield, NM 87413

TEL: (505) 632-4135

FAX (505) 632-3911

RI: Crude Unloading Line

OrderNo.: 1603350

Dear Matt Krakow:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/7/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1603350

Date Reported: 3/16/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Waste Characterization

Project: Crude Unloading Line

Collection Date: 3/7/2016 1:00:00 PM

Lab ID: 1603350-001

Matrix: SOIL

Received Date: 3/7/2016 4:52:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
MERCURY, TCLP							Analyst: pmf
Mercury	ND	0.020		mg/L	1	3/10/2016 12:42:47 PM	24168
EPA METHOD 6010B: TCLP METALS							Analyst: ELS
Arsenic	ND	5.0		mg/L	1	3/10/2016 10:48:24 AM	24167
Barium	ND	100		mg/L	1	3/10/2016 10:48:24 AM	24167
Cadmium	ND	1.0		mg/L	1	3/10/2016 10:48:24 AM	24167
Chromium	ND	5.0		mg/L	1	3/10/2016 10:48:24 AM	24167
Lead	ND	5.0		mg/L	1	3/10/2016 10:48:24 AM	24167
Selenium	ND	1.0		mg/L	1	3/10/2016 10:48:24 AM	24167
Silver	ND	5.0		mg/L	1	3/10/2016 10:48:24 AM	24167
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	5500	96		mg/Kg	10	3/14/2016 11:08:16 AM	24225
Motor Oil Range Organics (MRO)	3100	480		mg/Kg	10	3/14/2016 11:08:16 AM	24225
Sum: DNOP	0	70-130	S	%Rec	10	3/14/2016 11:08:16 AM	24225
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	2500	98		mg/Kg	20	3/14/2016 9:10:19 AM	24219
Sum: BFR	622	88.2-112	S	%Rec	20	3/14/2016 9:10:19 AM	24219
EPA METHOD 8270C TCLP							Analyst: DAM
2-Methylphenol	ND	200		mg/L	1	3/12/2016 3:18:41 PM	24177
3+4-Methylphenol	ND	200		mg/L	1	3/12/2016 3:18:41 PM	24177
Phenol	ND	200		mg/L	1	3/12/2016 3:18:41 PM	24177
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/12/2016 3:18:41 PM	24177
Hexachlorobenzene	ND	0.13		mg/L	1	3/12/2016 3:18:41 PM	24177
Hexachlorobutadiene	ND	0.50		mg/L	1	3/12/2016 3:18:41 PM	24177
Hexachloroethane	ND	3.0		mg/L	1	3/12/2016 3:18:41 PM	24177
Nitrobenzene	ND	2.0		mg/L	1	3/12/2016 3:18:41 PM	24177
Pentachlorophenol	ND	100		mg/L	1	3/12/2016 3:18:41 PM	24177
Pyridine	ND	5.0		mg/L	1	3/12/2016 3:18:41 PM	24177
2,4,6-Trichlorophenol	ND	400		mg/L	1	3/12/2016 3:18:41 PM	24177
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/12/2016 3:18:41 PM	24177
Cresols, Total	ND	200		mg/L	1	3/12/2016 3:18:41 PM	24177
Sum: 2-Fluorophenol	56.4	19-121		%Rec	1	3/12/2016 3:18:41 PM	24177
Sum: Phenol-d5	47.2	31.8-117		%Rec	1	3/12/2016 3:18:41 PM	24177
Sum: 2,4,6-Tribromophenol	88.2	31.3-139		%Rec	1	3/12/2016 3:18:41 PM	24177
Sum: Nitrobenzene-d5	77.2	48.2-128		%Rec	1	3/12/2016 3:18:41 PM	24177
Sum: 2-Fluorobiphenyl	70.3	58.4-114		%Rec	1	3/12/2016 3:18:41 PM	24177
Sum: 4-Terphenyl-d14	79.0	17.4-141		%Rec	1	3/12/2016 3:18:41 PM	24177

VOLATILES BY 8260B/1311

Analyst: DJF

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	A Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	C Value above quantization range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RTD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603350

Date Reported: 3/16/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Waste Characterization

Project: Crude Unloading Line

Collection Date: 3/7/2016 1:00:00 PM

Lab ID: 1603350-001

Matrix: SOLT

Received Date: 3/7/2016 4:52:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
VOLATILES BY 8260B/1311							Analyst: DJF
Benzene	ND	0.50		mg/L	1	3/9/2016 5:51:30 PM	24135
2-Butanone	ND	200		mg/L	1	3/9/2016 5:51:30 PM	24135
Carbon Tetrachloride	ND	0.50		mg/L	1	3/9/2016 5:51:30 PM	24135
Chlorobenzene	ND	100		mg/L	1	3/9/2016 5:51:30 PM	24135
Chloroform	ND	8.0		mg/L	1	3/9/2016 5:51:30 PM	24135
1,4-Dichlorobenzene	ND	7.5		mg/L	1	3/9/2016 5:51:30 PM	24135
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	3/9/2016 5:51:30 PM	24135
1,1-Dichloroethane	ND	0.70		mg/L	1	3/9/2016 5:51:30 PM	24135
1,1,1-Trichloroethane	ND	0.50		mg/L	1	3/9/2016 5:51:30 PM	24135
1,1,2-Trichloroethane (PCE)	ND	0.70		mg/L	1	3/9/2016 5:51:30 PM	24135
Trichloroethane (TCE)	ND	0.50		mg/L	1	3/9/2016 5:51:30 PM	24135
Vinyl chloride	ND	0.20		mg/L	1	3/9/2016 5:51:30 PM	24135
Surr: 1,2-Dichloroethane-d4	94.9	70-130		%Rec	1	3/9/2016 5:51:30 PM	24135
Surr: 4-Bromofluorobenzene	112	70-130		%Rec	1	3/9/2016 5:51:30 PM	24135
Surr: Dibromofluoromethane	91.8	70-130		%Rec	1	3/9/2016 5:51:30 PM	24135
Surr: Toluene-d8	100	70-130		%Rec	1	3/9/2016 5:51:30 PM	24135

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID: LCS-24225	Sample Type: LCS	Test Code: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 24225	Run No: 32764								
Prep Date: 3/14/2016	Analysis Date: 3/14/2016	Seq No: 1003209 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	%RPD	RPD Limit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	76.3	65.8	136			
Surr: DNOP	3.6		5.000		71.5	70	130			

Sample ID: MB-24225	Sample Type: MBLK	Test Code: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 24225	Run No: 32764								
Prep Date: 3/14/2016	Analysis Date: 3/14/2016	Seq No: 1003210 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	%RPD	RPD Limit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.5		10.00		74.7	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WQ#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID: MB-24219	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 24219	RunNo: 32770								
Prep Date: 3/11/2016	Analysis Date: 3/14/2016	SeqNo: 1004230 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Sum: BFB	1100		1000		106	66.2	112			

Sample ID: LCS-24219	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 24219	RunNo: 32770								
Prep Date: 3/11/2016	Analysis Date: 3/14/2016	SeqNo: 1004231 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.3	80	120			
Sum: BFB	1100		1000		114	66.2	112			S

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level | B Analyte detected in the associated Method Blank |
| D Sample Disturbed Due to Matrix | E Value above quantitation range |
| II Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WOF: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID: mb-24135	SampType: MBLK	TestCode: Volatiles by 8260B/1311								
Client ID: PBS	Batch ID: 24135	RunNo: 32688								
Prep Date: 3/8/2016	Analysis Date: 3/9/2016	SeqNo: 1000429 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.50								
2-Butanone	ND	200								
Carbon Tetrachloride	ND	0.50								
Chlorobenzene	ND	100								
Chloroform	ND	6.0								
1,4-Dichlorobenzene	ND	7.5								
1,2-Dichloroethane (EDC)	ND	0.50								
1,1-Dichloroethane	ND	0.70								
Hexachlorobutadiene	ND	0.50								
Tetrachloroethane (PCE)	ND	0.70								
Trichloroethene (TCE)	ND	0.50								
Vinyl chloride	ND	0.20								
Surr: 1,2-Dichloroethane-d4	0.19		0.2000		94.3	70	130			
Surr: 4-Bromofluorobenzene	0.23		0.2000		117	70	130			
Surr: Dibromofluoromethane	0.19		0.2000		94.3	70	130			
Surr: Toluene-d8	0.19		0.2000		97.1	70	130			

Sample ID: lcs-24135	SampType: LCS	TestCode: Volatiles by 8260B/1311								
Client ID: LCSS	Batch ID: 24135	RunNo: 32688								
Prep Date: 3/8/2016	Analysis Date: 3/9/2016	SeqNo: 1000431		Units: mg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.38	0.30	0.4000	0	94.2	70	130			
Chlorobenzene	0.44	0.30	0.4000	0	109	70	130			
1,1-Dichloroethane	0.39	0.30	0.4000	0	98.1	70	130			
Trichloroethene (TCE)	0.38	0.30	0.4000	0	98.4	58.7	129			
Surr: 1,2-Dichloroethane-d4	0.20		0.2000		99.2	70	130			
Surr: 4-Bromofluorobenzene	0.21		0.2000		107	70	130			
Surr: Dibromofluoromethane	0.19		0.2000		85.8	70	130			
Surr: Toluene-d8	0.20		0.2000		103	70	130			

Sample ID: 1603350-001ams	SampType: MS	TestCode: Volatiles by 8260B/1311								
Client ID: Waste Characterizat	Batch ID: 24135	RunNo: 32688								
Prep Date: 3/8/2016	Analysis Date: 3/9/2016	SeqNo: 1000435 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.40	0.30	0.4000	0	100	70	130			
Chlorobenzene	0.42	0.30	0.4000	0	105	70	130			
1,1-Dichloroethane	0.40	0.30	0.4000	0	99.0	70	130			
Trichloroethene (TCE)	0.38	0.30	0.4000	0	95.0	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level | D Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| U Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not in Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WQ#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID: 1603350-001ams	SampType: MS	TestCode: Volatiles by 8260B/1311								
Client ID: Waste Characterizat	Batch ID: 24135	RunNo: 32688								
Prep Date: 3/8/2016	Analysis Date: 3/9/2016	SeqNo: 1000436 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sum: 1,2-Dichloroethane d4	0.19		0.2000		82.9	70	130			
Sum: 4-Bromofluorobenzene	0.23		0.2000		115	70	130			
Sum: Dibromofluoromethane	0.19		0.2000		96.0	70	130			
Sum: Toluene-d8	0.19		0.2000		96.5	70	130			

Sample ID: 1603350-001amsd	SampType: MSD	TestCode: Volatiles by 8260B/1311								
Client ID: Waste Characterizat	Batch ID: 24135	RunNo: 32688								
Prep Date: 3/8/2016	Analysis Date: 3/9/2016	SeqNo: 1000450 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.38	0.30	0.4000	0	94.2	70	130	5.98	20	
Chlorobenzene	0.40	0.30	0.4000	0	99.4	70	130	5.41	20	
1,1-Dichloroethene	0.35	0.30	0.4000	0	88.6	70	130	11.0	20	
Trichloroethene (TCE)	0.35	0.30	0.4000	0	86.7	70	130	9.13	20	
Sum: 1,2-Dichloroethane-d4	0.19		0.2000		94.8	70	130	0	0	
Sum: 4-Bromofluorobenzene	0.22		0.2000		111	70	130	0	0	
Sum: Dibromofluoromethane	0.18		0.2000		91.2	70	130	0	0	
Sum: Toluene-d8	0.19		0.2000		95.5	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding Times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- F Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID: mb-24177	SampType: MBLK	TestCode: EPA Method 8270C TCLP								
Client ID: PBS	Batch ID: 24177	RunNo: 32755								
Prep Date: 3/10/2016	Analysis Date: 3/12/2016	SeqNo: 1004050 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Sum: 2-Fluorophenol	0.16		0.2000		78.8	19	121			
Sum: Phenol-d5	0.18		0.2000		90.3	31.8	117			
Sum: 2,4,6-Trichlorophenol	0.17		0.2000		86.5	31.3	130			
Sum: Nitrobenzene-d5	0.079		0.1000		78.7	48.2	128			
Sum: 2-Fluorobiphenyl	0.076		0.1000		78.2	58.4	114			
Sum: 4-Terphenyl-d14	0.11		0.1000		107	17.4	141			

Sample ID: lcs-24177	SampType: LCS	TestCode: EPA Method 8270C TCLP								
Client ID: LCSS	Batch ID: 24177	RunNo: 32755								
Prep Date: 3/10/2016	Analysis Date: 3/12/2016	SeqNo: 1004052 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%RfC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.082	0.010	0.1000	0	82.3	37.8	110			
3-4-Methylphenol	0.19	0.010	0.2000	0	95.6	30.5	149			
2,4-Dinitrotoluene	0.056	0.010	0.1000	0	55.8	24.8	93.7			
Hexachlorobenzene	0.088	0.010	0.1000	0	88.1	40	114			
Hexachlorobutadiene	0.076	0.010	0.1000	0	76.1	37.4	119			
Hexachloroethane	0.072	0.010	0.1000	0	72.2	33.8	105			
Nitrobenzene	0.075	0.010	0.1000	0	75.4	33.4	115			
Pentachlorophenol	0.071	0.010	0.1000	0	70.9	27.9	90.3			
Pyridine	0.069	0.010	0.1000	0	69.1	29.3	105			
2,4,5-Trichlorophenol	0.093	0.010	0.1000	0	92.8	34	110			
2,4,6-Trichlorophenol	0.090	0.010	0.1000	0	89.7	34.1	109			
Cresols, Total	0.27	0.010	0.3000	0	91.2	30	136			
Sum: 2-Fluorophenol	0.14		0.2000		71.4	19	121			
Sum: Phenol-d5	0.16		0.2000		79.8	31.8	117			

Qualifiers:

- | | | | |
|----|---|----|---|
| + | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| D | Sample Diluted Due to Matrix | B | Value above quantitation range |
| IL | Holding times for preparation or analysis exceeded | J | Analyte detected below quantitation limits |
| ND | Not Detected at the Reporting Limit | P | Sample pH Not in Range |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | % Recovery outside of range due to dilution or matrix | W | Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID: ics-24177	SampType: LCS	TestCode: EPA Method 8270C TCLP								
Client ID: LCSS	Batch ID: 24177	RunNo: 32755								
Prep Date: 3/10/2016	Analysis Date: 3/12/2016	SeqNo: 1004052 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sum: 2,4,6-Tribromophenol	0.18		0.2000		89.8	31.3	139			
Sum: Nitrobenzene-d5	0.075		0.1000		74.7	48.2	128			
Sum: 2-Fluorobiphenyl	0.076		0.1000		75.7	58.4	114			
Sum: 4-Terphenyl-d14	0.078		0.1000		78.1	17.4	141			

Sample ID: 1603350-001ams	SampType: MS	TestCode: EPA Method 8270C TCLP								
Client ID: Waste Characterizat	Batch ID: 24177	RunNo: 32755								
Prep Date: 3/10/2016	Analysis Date: 3/12/2016	SeqNo: 1004054 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.10	0.010	0.1000	0	101	43.1	114			
3,4-Methylphenol	0.21	0.010	0.2000	0	107	37.8	128			
2,4-Dinitrotoluene	0.076	0.010	0.1000	0	75.3	36.5	125			
Hexachlorobenzene	0.11	0.010	0.1000	0	112	41.4	108			S
Hexachlorobutadiene	0.085	0.010	0.1000	0	84.8	30.4	101			
Hexachloroethane	0.087	0.010	0.1000	0	87.3	37.3	115			
Nitrobenzene	0.10	0.010	0.1000	0	102	40.2	132			
Pentachlorophenol	0.043	0.010	0.1000	0	43.0	8.72	103			
Pyridine	0.074	0.010	0.1000	0	73.9	9.36	106			
2,4,5-Trichlorophenol	0.11	0.010	0.1000	0	105	16.5	123			
2,4,6-Trichlorophenol	0.082	0.010	0.1000	0	81.6	11.3	117			
Creosols, Total	0.32	0.010	0.3000	0	105	23.2	151			
Sum: 2-Fluorophenol	0.13		0.2000		63.8	19	121			
Sum: Phenol-d5	0.11		0.2000		53.1	31.8	117			
Sum: 2,4,6-Tribromophenol	0.20		0.2000		102	31.3	139			
Sum: Nitrobenzene-d5	0.10		0.1000		101	48.2	128			
Sum: 2-Fluorobiphenyl	0.096		0.1000		95.5	58.4	114			
Sum: 4-Terphenyl-d14	0.076		0.1000		76.1	17.4	141			

Sample ID: 1603350-001amsd	SampType: MSD	TestCode: EPA Method 8270C TCLP								
Client ID: Waste Characterizat	Batch ID: 24177	RunNo: 32755								
Prep Date: 3/10/2016	Analysis Date: 3/12/2016	SeqNo: 1004056 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.069	0.010	0.1000	0	69.2	43.1	114	37.2	28.4	R
3,4-Methylphenol	0.14	0.010	0.2000	0	70.8	37.8	128	46.7	29.4	R
2,4-Dinitrotoluene	0.055	0.010	0.1000	0	55.5	36.5	125	31.6	24.7	R
Hexachlorobenzene	0.079	0.010	0.1000	0	78.8	41.4	108	34.7	20	R
Hexachlorobutadiene	0.063	0.010	0.1000	0	63.2	30.4	101	29.1	29	R
Hexachloroethane	0.060	0.010	0.1000	0	60.3	37.3	115	36.6	25.2	R

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID: 1603350-001amed	SampType: MSD	TestCode: EPA Method 8270C TCLP								
Client ID: Waste Characterizat	Batch ID: 24177	RunNo: 32755								
Prep Date: 3/10/2016	Analysis Date: 3/12/2016	SeqNo: 1004056 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDI limit	Qual
Nitrobenzene	0.070	0.010	0.1000	0	70.4	40.2	132	36.5	26.9	R
Pentachlorophenol	0.074	0.010	0.1000	0	74.0	8.72	103	53.0	59.2	
Pyridine	0.051	0.010	0.1000	0	51.5	9.30	106	35.8	48	
2,4,6-Trichlorophenol	0.087	0.010	0.1000	0	86.8	16.5	123	19.2	70.8	
2,4,6-Trichlorophenol	0.077	0.010	0.1000	0	76.7	11.3	117	6.16	78	
Cresols, Total	0.21	0.010	0.3000	0	70.3	23.2	151	39.6	30.8	R
Sum: 2-Fluorophenol	0.092		0.2000		45.8	19	121	0	0	
Sum: Phenol-d5	0.074		0.2000		37.0	31.8	117	0	0	
Sum: 2,4,6-Tribromophenol	0.15		0.2000		75.3	31.3	139	0	0	
Sum: Nitrobenzene-d5	0.074		0.1000		73.5	48.2	128	0	0	
Sum: 2-Fluorobiphenyl	0.070		0.1000		70.3	58.4	134	0	0	
Sum: 4-Terphenyl-d14	0.050		0.1000		58.1	17.4	141	0	0	

Qualifiers:

- | | |
|---|---|
| † Value exceeds Maximum Contaminant Level | D Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| II Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID: MB-24168	SampleType: MBLK	TestCode: MERCURY, TCLP								
Client ID: PBW	Batch ID: 24168	RunNo: 32705								
Prep Date: 3/9/2016	Analysis Date: 3/10/2016	SeqNo: 1001072 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID: LCS-24168	SampType: LCS	TestCode: MERCURY, TCLP								
Client ID: LCSW	Batch ID: 24168	RunNo: 32705								
Prep Date: 3/9/2016	Analysis Date: 3/10/2016	SeqNo: 1001074 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	98.3	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID: MB-24167	SampType: MBLK	TestCode: EPA Method 6010B: TCLP Metals								
Client ID: PBW	Batch ID: 24167	RunNo: 32695								
Prep Date: 3/9/2016	Analysis Date: 3/10/2016	SeqNo: 1000719		Units: mg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID: LCS-24167	SampType: LCS	TestCode: EPA Method 6010B: TCLP Metals								
Client ID: LCSW	Batch ID: 24167	RunNo: 32695								
Prep Date: 3/9/2016	Analysis Date: 3/10/2016	SeqNo: 1000720		Units: mg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	114	80	120			
Barium	ND	100	0.5000	0	99.6	80	120			
Cadmium	ND	1.0	0.5000	0	105	80	120			
Chromium	ND	5.0	0.5000	0	99.7	80	120			
Lead	ND	5.0	0.5000	0	104	80	120			
Selenium	ND	1.0	0.5000	0	112	80	120			
Silver	ND	5.0	0.1000	0	110	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| E Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RI Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |



Hall Environmental Analysis Laboratory
4901 Bosking NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-1107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Southw

Work Order Number: 1603350

RcptNo: 1

Received by/date:

Logged By: Ashley Gallegos

3/7/2016 4:52:00 PM

Completed By: Ashley Gallegos

3/8/2016 9:08:31 AM

Reviewed By:

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☐

No ☐

No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐

No ☒

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

Adjusted?

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

Checked by:

(If no, notify customer for authorization.)

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified

Date

By Whom:

Via:

☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.4	Good	Yes			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: 50 CR 4990

Doonfield, NM 87413

Phone #: 505-632-4169

Mail or Fax#:

IA/QC Package:

☒ Standard ☒ Level 4 (Full Validation)

Credentialed:

☐ NELAP ☐ Other

1 EDD (Type)

Date

Time

Matrix

Sample Request ID

7-16-00 Soil

Waste Characterization

2-80255

HEAL No. 110033 SD

-001

Container Type and #

Preservative Type

Sample Temperature: 5.4

On Ice: ☒ Yes ☐ No

Sampler: Matt Krause

Project Manager: Matt Krause

Project #:

Crude Unloading line

Project Name:

☐ Standard ☒ Rush ASAP

Turn-Around Time:

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX + MTBE + TMBs (8021)

BTEX + MTBE + TPH (Gas only)

TPH 8015B (GRO / DRO / MRO)

TPH (Method 418.1)

EDB (Method 504.1)

PAHs (8310 or 8270 SIMS)

RCRA 8 Metals

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCBs

8260B (VOA) TCLP

8270 (Semi-VOA) TCLP

Air Bubbles (Y or N)

Received by: Jason

Date: 03/07/06

Time: 1652

Received by:

Date:

Time:

Remarks:

work added 7/17/05

AS 03/14/06



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-243-3973 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 21, 2016

Kelly Robinson

Western Refining Southwest, Inc.

#50 CR 4990

Bloomfield, NM 87413

TEL: (505) 632-4135

FAX: (505) 632-3911

RE: Bloomfield Terminal

Order No.: 1603876

Dear Kelly Robinson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 3/17/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 – NMED-DWB Cert #NM9425 – NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1603876

Date Reported: 3/21/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: NW Pathoc @ 14'

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:20:00 PM

Lab ID: 1603876-001

Matrix: MEOL (SOIL)

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	6.1	1.0		wt%	1	3/17/2016 4:00:00 PM	R32877
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	17	11		mg/Kg-dry	1	3/17/2016 6:14:08 PM	24297
Motor Oil Range Organics (MRO)	ND	54		mg/Kg-dry	1	3/17/2016 6:14:08 PM	24297
Sum: DNOP	91.6	70-130		%Rec	1	3/17/2016 6:14:08 PM	24297
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	12	3.5		mg/Kg-dry	1	3/17/2016 4:23:07 PM	24284
Sum: BFB	187	66.2-112	S	%Rec	1	3/17/2016 4:23:07 PM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg dry	1	3/17/2016 4:23:07 PM	24284
Toluene	0.11	0.036		mg/Kg dry	1	3/17/2016 4:23:07 PM	24284
Ethylbenzene	0.065	0.036		mg/Kg dry	1	3/17/2016 4:23:07 PM	24284
Xylenes, Total	0.71	0.071		mg/Kg dry	1	3/17/2016 4:23:07 PM	24284
Sum: 4-Bromofluorobenzene	127	80-120	S	%Rec	1	3/17/2016 4:23:07 PM	24284

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	U	Holdup times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603876

Date Reported: 3/21/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Reclining Southwest, Inc.

Client Sample ID: N Wall

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:40:00 PM

Lab ID: 1603876-002

Matrix: MEQH (SOIL)

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	11	1.0		wt%	1	3/17/2016 4:00:00 PM	R32877
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	11		mg/Kg-dry	1	3/17/2016 2:14:55 PM	24287
Motor Oil Range Organics (MRO)	ND	54		mg/Kg-dry	1	3/17/2016 2:14:55 PM	24287
Sum: DNOP	87.0	70-130		%Rec	1	3/17/2016 2:14:55 PM	24287
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.2		mg/Kg-dry	1	3/17/2016 11:40:31 AM	24284
Sum: BFB	111	88.2-112		%Rec	1	3/17/2016 11:40:31 AM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.026		mg/Kg-dry	1	3/17/2016 11:40:31 AM	24284
Toluene	ND	0.052		mg/Kg-dry	1	3/17/2016 11:40:31 AM	24284
Ethylbenzene	ND	0.052		mg/Kg-dry	1	3/17/2016 11:40:31 AM	24284
Xylenes, Total	ND	0.10		mg/Kg-dry	1	3/17/2016 11:40:31 AM	24284
Sum: 4-Bromofluorobenzene	117	80-120		%Rec	1	3/17/2016 11:40:31 AM	24284

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level. - D Sample Diluted Due to Matrix - H Holding times for preparation or analysis exceeded - ND Not Detected at the Reporting Limit - R RPD outside accepted recovery limits - S % Recovery outside of range due to dilution or matrix	- R Analyte detected in the associated Method Blank - E Value above quantitation range - J Analyte detected below quantitation limits - P Sample pH Not in Range - RL Reporting Detection Limit - W Sample container temperature is out of limit as specified
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Analytical Report

Lab Order 1603876

Date Reported: 3/21/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: F Wall

Project: Bloomfield Terminal

Collection Date: 3/15/2016 2:20:00 PM

Lab ID: 1603876-003

Matrix: MEOH (SOIL)

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	7.9	1.0		wt%	1	3/17/2016 4:00:00 PM	R32877
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	760	11		mg/Kg-dry	1	3/17/2016 3:20:44 PM	24297
Motor Oil Range Organics (MRO)	280	54		mg/Kg-dry	1	3/17/2016 3:20:44 PM	24297
Surr: UNOP	101	70-130		%Rec	1	3/17/2016 3:20:44 PM	24297
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	2300	210		mg/Kg-dry	50	3/17/2016 12:04:06 PM	24284
Surr: BFB	209	86.2-112	S	%Rec	50	3/17/2016 12:04:06 PM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	6.2	1.1		mg/Kg-dry	50	3/17/2016 12:04:06 PM	24284
Toluene	64	2.1		mg/Kg-dry	50	3/17/2016 12:04:06 PM	24284
Ethylbenzene	11	2.1		mg/Kg-dry	50	3/17/2016 12:04:06 PM	24284
Xylenes, Total	100	4.3		mg/Kg-dry	50	3/17/2016 12:04:06 PM	24284
Surr: 4-Bromofluorobenzene	130	80-120	S	%Rec	50	3/17/2016 12:04:06 PM	24284

Refer to the QC Summary report and sample log/in checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	H Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	K Value above quantitation range
	II Holding times for preparation or analysis exceeded	I Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603876

Date Reported: 3/21/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Flour

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:40:00 PM

Lab ID: 1603876-004

Matrix: MEOH (SOIL)

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	7.6	1.0		wt%	1	3/17/2016 4:00:00 PM	R32877
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	3500	100		mg/Kg-dry	10	3/17/2016 4:04:11 PM	24297
Motor Oil Range Organics (MRO)	1300	510		mg/Kg-dry	10	3/17/2016 4:04:11 PM	24297
Surr: DNOP	0	70-130	S	%Rec	50	3/17/2016 4:04:11 PM	24297
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	5600	280		mg/Kg-dry	50	3/17/2016 12:27:44 PM	24284
Surr: BFB	310	66.2-112	S	%Rec	50	3/17/2016 12:27:44 PM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	14	1.4		mg/Kg-dry	50	3/17/2016 12:27:44 PM	24284
Toluene	150	2.8		mg/Kg dry	50	3/17/2016 12:27:44 PM	24284
Ethylbenzene	26	2.8		mg/Kg dry	50	3/17/2016 12:27:44 PM	24284
Xylenes, Total	240	5.5		mg/Kg dry	50	3/17/2016 12:27:44 PM	24284
Surr: 4-Bromofluorobenzene	135	80-120	S	%Rec	50	3/17/2016 12:27:44 PM	24284

Refer to the QC Summary report and sample log/in checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	C Value above quantitation range
	II Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RI Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603876

Date Reported: 3/21/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: S Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:50:00 PM

Lab ID: 1603876-005

Matrix: MJOH (SOIL)

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	10	1.0		wt%	1	3/17/2016 4:00:00 PM	R32877
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	27	10		mg/Kg-dry	1	3/18/2016 7:55:20 AM	24297
Motor Oil Range Organics (MRO)	68	50		mg/Kg-dry	1	3/18/2016 7:55:20 AM	24297
Sum: UNOP	87.8	70-130		%Rec	1	3/18/2016 7:55:20 AM	24297
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg-dry	1	3/17/2016 12:51:26 PM	24284
Sum: BFB	118	68.2-112	S	%Rec	1	3/17/2016 12:51:26 PM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg-dry	1	3/17/2016 12:51:26 PM	24284
Toluene	ND	0.049		mg/Kg-dry	1	3/17/2016 12:51:26 PM	24284
Ethylbenzene	ND	0.049		mg/Kg-dry	1	3/17/2016 12:51:26 PM	24284
Xylenes, Total	ND	0.099		mg/Kg-dry	1	3/17/2016 12:51:26 PM	24284
Sum: 4-Bromofluorobenzene	118	80-120		%Rec	1	3/17/2016 12:51:26 PM	24284

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level - D Sample Diluted Due to Matrix - H Holding times for preparation or analysis exceeded - ND Not Detected at the Reporting Limit - R RPD outside accepted recovery limits - S % Recovery outside of range due to dilution or matrix	- B Analyte detected in the associated Method Blank - E Value above quantitation range - J Analyte detected below quantitation limits - P Sample pH Not In Range - RL Reporting Detection Limit - W Sample container temperature is out of limit as specified
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Analytical Report

Lab Order 1603876

Date Reported: 3/21/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: W Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 2:10:00 PM

Lab ID: 1603876-006

Matrix: MEOH (SOIL)

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	11	1.0		wt%	1	3/17/2016 4:00:00 PM	R32B77
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	4600	110		mg/Kg-dry	10	3/17/2016 5:30:55 PM	24287
Motor Oil Range Organics (MRO)	1800	550		mg/Kg-dry	10	3/17/2016 5:30:55 PM	24287
Surr: DNOP	0	70-130	S	%Rec	10	3/17/2016 5:30:55 PM	24287
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	4000	280		mg/Kg-dry	50	3/17/2016 5:56:51 PM	24284
Surr: BFB	255	66.2-112	S	%Rec	50	3/17/2016 5:56:51 PM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	15	1.4		mg/Kg-dry	50	3/17/2016 5:56:51 PM	24284
Toluene	100	2.8		mg/Kg-dry	50	3/17/2016 5:56:51 PM	24284
Ethylbenzene	18	2.8		mg/Kg-dry	50	3/17/2016 5:56:51 PM	24284
Xylenes, Total	160	5.6		mg/Kg-dry	50	3/17/2016 5:56:51 PM	24284
Surr: 4-Bromofluorobenzene	134	80-120	S	%Rec	50	3/17/2016 5:56:51 PM	24284

Refer to the QC Summary report and sample log/in checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	II Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603876

21-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID: MB-24297	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 24297	RunNo: 32861								
Prep Date: 3/17/2016	Analysis Date: 3/17/2016	SeqNo: 1007390		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Sum: DNOP	9.8		10.00		98.4	70	130			

Sample ID: LCS-24297	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LC55	Batch ID: 24297	RunNo: 32861								
Prep Date: 3/17/2016	Analysis Date: 3/17/2016	SeqNo: 1007392		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	65.8	136			
Sum: DNOP	4.5		5.000		89.7	70	130			

Sample ID: 1603876-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: NW Pothole @ 14'	Batch ID: 24297	RunNo: 32861								
Prep Date: 3/17/2016	Analysis Date: 3/17/2016	SeqNo: 1007414		Units: mg/Kg-dry						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	78	10	51.42	17.07	119	31.2	162			
Sum: DNOP	4.4		5.142		86.2	70	130			

Sample ID: 1603876-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: NW Pothole @ 14'	Batch ID: 24297	RunNo: 32861								
Prep Date: 3/17/2016	Analysis Date: 3/17/2016	SeqNo: 1007417		Units: mg/Kg-dry						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	150	10	51.67	17.07	265	31.2	162	65.0	31.7	RS
Sum: DNOP	4.7		5.167		90.7	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603876

21-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID: MB-24284	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 24284	RunNo: 32868								
Prep Date: 3/16/2016	Analysis Date: 3/17/2016	SeqNo: 1007393 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Sur: BFB	1100		1000		109	86.2	112			

Sample ID: LCS-24284	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 24284	RunNo: 32868								
Prep Date: 3/16/2016	Analysis Date: 3/17/2016	SeqNo: 1007394 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.1	80	120			
Sur: BFB	1100		1000		115	86.2	112			S

Sample ID: 1603876-001AMS	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: NW Pothole @ 14'	Batch ID: 24284	RunNo: 32868								
Prep Date:	Analysis Date: 3/17/2016	SeqNo: 1007411 Units: mg/Kg-dry								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	High limit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	3.5	17.66	11.65	95.6	59.3	143			
Sur: BFB	1400		706.4		198	66.2	112			S

Sample ID: 1603876-001AMSD	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: NW Pothole @ 14'	Batch ID: 24284	RunNo: 32868								
Prep Date:	Analysis Date: 3/17/2016	SeqNo: 1007412 Units: mg/Kg-dry								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	3.5	17.66	11.65	111	59.3	143	9.30	20	
Surf:BFB	1400		706.4		201	66.2	112	0	0	S

Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding time for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not in Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603876

21-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID: MB-24284	Sample Type: MBLK	Test Code: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 24284	Run No: 32868								
Prep Date: 3/16/2016	Analysis Date: 3/17/2016	Seq No: 1007424		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Sum: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Sample ID: LCS-24284	Sample Type: LCS	Test Code: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 24284	Run No: 32868								
Prep Date: 3/16/2016	Analysis Date: 3/17/2016	Seq No: 1007426		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	108	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Sum: 4-Bromofluorobenzene	1.2		1.000		120	80	120			

Qualifiers:

- + Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Southw

Work Order Number: 1803878

ReptNo: 1

Received by/date:

Logged By:

Lindsay Mangin

3/17/2016 7:33:00 AM

Completed By:

Lindsay Mangin

3/17/2016 8:33:50 AM

Reviewed By:

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☐

No ☐

No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Yes			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-343-3973 FAX: 505-345-1107
Website: www.hallenvironmental.com

March 25, 2016

Kelly Robinson

Western Refining Southwest, Inc.

#50 CR 4990

Bloomfield, NM 87413

TEL: (505) 632-4135

FAX: (505) 632-3911

RE: Bloomfield Terminal

Order No.: 1603878

Dear Kelly Robinson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 3/17/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: NW Pothole @ 14'

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:20:00 PM

Lab ID: 1603878-001

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	5.7	1.0		wt%	1	3/21/2016 12:00:00 PM	R32872
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.034		mg/Kg-dry	1	3/22/2016 5:35:09 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.6		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
Barium	30	0.10		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
Cadmium	ND	0.10		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
Chromium	2.5	0.31		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
Lead	2.4	0.26		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
Selenium	ND	2.6		mg/Kg-dry	1	3/24/2016 8:04:01 AM	24353
Silver	ND	0.26		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Acenaphthylene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Aniline	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Anthracene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Azobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benz(a)anthracene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzo(a)pyrene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzo(b)fluoranthene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzo(g,h,i)perylene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzo(k)fluoranthene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzoic acid	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzyl alcohol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Bis(2-chloroethoxy)methane	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Bis(2-chloroethyl)ether	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Bis(2-chloroisopropyl)ether	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Bis(2-ethylhexyl)phthalate	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Bromophenyl phenyl ether	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Butyl benzyl phthalate	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Carbazole	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Chloro-3-methylphenol	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Chloroaniline	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Chloronaphthalene	ND	0.26		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Chlorophenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Chlorophenyl phenyl ether	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Chrysene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Di-n-butyl phthalate	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	B Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not in Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: NW Pothole @ 14'

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:20:00 PM

Lab ID: 1603878-001

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Dibenz(a,h)anthracene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Dibenzofuran	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
1,2-Dichlorobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
1,3-Dichlorobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
1,4-Dichlorobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
3,3'-Dichlorobenzidine	ND	0.26		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Diethyl phthalate	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Dimethyl phthalate	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4-Dichlorophenol	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4-Dimethylphenol	ND	0.32		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4,6-Dinitro-2-methylphenol	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4-Dinitrophenol	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4-Dinitrotoluene	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,6-Dinitrotoluene	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Fluoranthene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Fluorene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Hexachlorobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Hexachlorobutadiene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Hexachlorocyclopentadiene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Hexachloroethane	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Indeno(1,2,3-cd)pyrene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Isophorone	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
1-Methylnaphthalene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Methylnaphthalene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Methylphenol	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
3,4-Methylphenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
N-Nitrosodi-n-propylamine	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
N-Nitrosodiphenylamine	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Naphthalene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Nitroaniline	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
3-Nitroaniline	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Nitroaniline	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Nitrobenzene	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Nitrophenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Nitrophenol	ND	0.20		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Pentachlorophenol	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Phenanthrene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Phenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	I	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limits as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: NW Pothole @ 14'

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:20:00 PM

Lab ID: 1603878-001

Matrix: SOU.

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Pyridine	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
1,2,4-Trichlorobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4,5-Trichlorophenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4,6-Trichlorophenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Surr: 2-Fluorophenol	48.5	28.3-102		%Rec	1	3/23/2016 7:30:21 PM	24350
Surr: Phenol-d5	59.8	35.7-103		%Rec	1	3/23/2016 7:30:21 PM	24350
Surr: 2,4,6-Tribromophenol	61.2	35.2-108		%Rec	1	3/23/2016 7:30:21 PM	24350
Surr: Nitrobenzene-d5	58.4	24-118		%Rec	1	3/23/2016 7:30:21 PM	24350
Surr: 2-Fluorobiphenyl	62.4	35.4-111		%Rec	1	3/23/2016 7:30:21 PM	24350
Surr: 4-Terphenyl-d14	60.6	15-91.7		%Rec	1	3/23/2016 7:30:21 PM	24350
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.025		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Toluene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Ethylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Naphthalene	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1-Methylnaphthalene	ND	0.20		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
2-Methylnaphthalene	ND	0.20		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Acetone	ND	0.75		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Bromobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Bromodichloromethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Bromotetra	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Bromomethane	ND	0.15		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
2-Butanone	ND	0.50		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Carbon disulfide	ND	0.50		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Carbon tetrachloride	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Chlorobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Chloroethane	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Chloroform	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Chloromethane	ND	0.15		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
2-Chlorotoluene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
4-Chlorotoluene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
cis-1,2-DCE	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
cis-1,3-Dichloropropene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	D Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	II Folding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: NW Pothole @ 14'

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:20:00 PM

Lab ID: 1603878-001

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJP
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Dibromochloromethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Dibromomethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2-Dichlorobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,3-Dichlorobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,4-Dichlorobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Dichlorodifluoromethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1-Dichloroethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1-Dichloroethene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2-Dichloropropane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,3-Dichloropropane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
2,2-Dichloropropane	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1-Dichloropropane	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Hexachlorobutadiene	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
2-Hexanone	ND	0.50		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Isopropylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
4-Isopropyltoluene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
4-Methyl-2-pentanone	ND	0.50		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Methylene chloride	ND	0.15		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
n-Butylbenzene	ND	0.15		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
n-Propylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
sec-Butylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Styrene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
tert-Butylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Tetrachloroethene (PCE)	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
trans-1,2-DCE	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
trans-1,3-Dichloropropene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1,3-Trichloroethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1,2-Trichloroethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Trichloroethane (TCE)	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Trichlorofluoromethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2,3-Trichloropropane	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Vinyl chloride	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Xylenes, Total	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Sum: Dibromodifluoromethane	103	70-130		%Rec	1	3/18/2016 5:30:34 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank.
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not in Range
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is not of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: NW Pothole @ 14'

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:20:00 PM

Lab ID: 1603878-001

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surf: 1,2-Dichloroethane-d4	88.2	70-130		%Rec	1	3/18/2016 5:30:34 PM	24321
Surf: Toluene-d8	102	70-130		%Rec	1	3/18/2016 5:30:34 PM	24321
Surf: 4-Bromofluorobenzene	105	70-130		%Rec	1	3/18/2016 5:30:34 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	†	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not in Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: N Wall

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:40:00 PM

Lab ID: 1603878-002

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	12	1.0		wt%	1	3/21/2016 12:00:00 PM	R32872
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.037		mg/Kg-dry	1	3/22/2016 5:44:27 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	3.1	2.9		mg/Kg-dry	1	3/22/2016 9:00:50 AM	24353
Barium	230	0.11		mg/Kg-dry	1	3/22/2016 9:00:50 AM	24353
Cadmium	ND	0.11		mg/Kg-dry	1	3/22/2016 9:00:50 AM	24353
Chromium	6.3	0.34		mg/Kg-dry	1	3/22/2016 9:00:50 AM	24353
Cobalt	5.0	0.29		mg/Kg-dry	1	3/22/2016 9:00:50 AM	24353
Selenium	ND	2.9		mg/Kg dry	1	3/24/2016 8:07:45 AM	24353
Silver	ND	0.29		mg/Kg dry	1	3/22/2016 9:00:50 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Acenaphthylene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Aniline	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Anthracene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Azobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benz(a)anthracene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzo(a)pyrene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzo(b)fluoranthene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzo(g,h,i)perylene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzo(k)fluoranthene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzoic acid	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzyl alcohol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Bis(2-chloroethoxy)methane	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Bis(2-chloroethyl)ether	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Bis(2-chloroisopropyl)ether	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Bis(2-ethylhexyl)phthalate	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4-Bromophenyl phenyl ether	ND	2.3	D	mg/Kg dry	10	3/23/2016 8:58:51 PM	24350
Butyl benzyl phthalate	ND	2.3	D	mg/Kg dry	10	3/23/2016 8:58:51 PM	24350
Carbazole	ND	2.3	D	mg/Kg dry	10	3/23/2016 8:58:51 PM	24350
4-Chloro-3-methylphenol	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4-Chloroaniline	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Chloronaphthalene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Chlorophenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4-Chlorophenyl phenyl ether	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Chrysene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Di-n butyl phthalate	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level,	U Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	L Value above quantitation range
	H Holding times for preparation or analysis exceeded	I Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	3 % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: N Wall

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:40:00 PM

Lab ID: 1603878-002

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Dibenz(a,h)anthracene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Dibenzofuran	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
1,2-Dichlorobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
1,3-Dichlorobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
1,4-Dichlorobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
3,3'-Dichlorobenzidine	ND	2.8	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Diethyl phthalate	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Dimethyl phthalate	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,4-Dichlorophenol	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,4-Dimethylphenol	ND	3.4	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4,6-Dinitro-2-methylphenol	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,4-Dinitrophenol	ND	6.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,4-Dinitrotoluene	ND	6.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,6-Dinitrotoluene	ND	6.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Fluoranthene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Fluorene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Hexachlorobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Hexachlorobutadiene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Hexachlorocyclopentadiene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Hexachloroethane	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Indeno(1,2,3-cd)pyrene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Isophorone	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
1-Methylnaphthalene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Methylnaphthalene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Methylphenol	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
3+4-Methylphenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
N-Nitrosodi-n-propylamine	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
N-Nitrosodiphenylamine	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Naphthalene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Nitroaniline	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
3-Nitroaniline	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4-Nitroaniline	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Nitrobenzene	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Nitrophenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4-Nitrophenol	ND	2.8	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Pentachlorophenol	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Phenanthrene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Phenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	D	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: N Wall

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:40:00 PM

Lab ID: 1603878-002

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: OAM
Pyrene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24360
Pyridine	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24360
1,2,4-Trichlorobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24360
2,4,6-Trichlorophenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24360
2,4,6-Trichlorophenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24360
Sum: 2-Hlorophenol	0	28.3-102	SD	%Rec	10	3/23/2016 8:58:51 PM	24360
Sum: Phenol-d5	0	35.7-103	SD	%Rec	10	3/23/2016 8:58:51 PM	24360
Sum: 2,4,6-Tribromophenol	0	35.2-108	SD	%Rec	10	3/23/2016 8:58:51 PM	24360
Sum: Nitrobenzene-d5	0	24-118	SD	%Rec	10	3/23/2016 8:58:51 PM	24360
Sum: 2-Fluorobiphenyl	0	35.4-111	SD	%Rec	10	3/23/2016 8:58:51 PM	24360
Sum: 4-Terphenyl d14	0	15-91.7	SD	%Rec	10	3/23/2016 8:58:51 PM	24360
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.028		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Toluene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Ethylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Methyl tert-butyl ether (MTBE)	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2,4-Trimethylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,3,5-Trimethylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2-Dichloroethane (EDC)	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2-Dibromoethane (EDB)	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Naphthalene	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1-Methylnaphthalene	ND	0.23		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
2-Methylnaphthalene	ND	0.23		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Acetone	ND	0.84		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Bromobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Bromodichloromethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Bromoform	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Bromomethane	ND	0.17		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
2-Butanone	ND	0.56		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Carbon disulfide	ND	0.56		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Carbon tetrachloride	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Chlorobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Chloroethane	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Chloroform	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Chloromethane	ND	0.17		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
2-Chlorotoluene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
4-Chlorotoluene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
cis-1,2-DCE	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
cis-1,3-Dichloropropene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	R	Analyte detected in the associated Method Blank.
	D	Sample Diluted Due to Matrix	R	Value above quantitation range
	II	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: N Wall

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:40:00 PM

Lab ID: 1603878-002

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Dibromochloromethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Dibromomethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2-Dichlorobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,3-Dichlorobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,4-Dichlorobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Dichlorodifluoromethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1-Dichloroethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1-Dichloroethene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2-Dichloropropane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,3-Dichloropropane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
2,2-Dichloropropane	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1-Dichloropropene	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Hexachlorobutadiene	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
2-Hexanone	ND	0.56		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Isopropylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
4-Isopropyltoluene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
4-Methyl-2-pentanone	ND	0.56		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Methylene chloride	ND	0.17		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
n-Butylbenzene	ND	0.17		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
n-Propylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
sec-Butylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Styrene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
tert-Butylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1,1,2-Tetrachloroethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1,2,2-Tetrachloroethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Tetrachloroethene (PCE)	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
trans-1,2-DCE	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
trans-1,3-Dichloropropene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2,3-Trichlorobenzene	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2,4-Trichlorobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1,1-Trichloroethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1,2-Trichloroethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Trichloroethene (TCE)	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Trichlorofluoromethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2,3-Trichloropropane	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Vinyl chloride	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Xylenes, Total	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Sum: Dibromofluoromethane	107	70-130		%Rec	1	3/21/2016 1:43:35 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantization range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantization limits
ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: N Wall

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:40:00 PM

Lab ID: 1603878-002

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: 1,2-Dichloroethane d4	103	70-130		%Rec	1	3/21/2016 1:43:35 PM	24321
Surr: Toluene-d8	101	70-130		%Rec	1	3/21/2016 1:43:35 PM	24321
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	3/21/2016 1:43:35 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E	Value above quantitation range
	II Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: E Wall

Project: Bloomfield Terminal

Collection Date: 3/15/2016 2:20:00 PM

Lab ID: 1603878-003

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DI	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	7.4	1.0		wt%	1	3/21/2016 12:00:00 PM	R32972
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.036		mg/Kg-dry	1	3/22/2016 5:46:13 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.6		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
Barium	82	0.11		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
Cadmium	ND	0.11		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
Chromium	4.3	0.32		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
Lead	3.8	0.26		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
Selenium	ND	2.6		mg/Kg-dry	1	3/24/2016 6:11:18 AM	24353
Silver	ND	0.26		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Acenaphthylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Aniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Azobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benz(a)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzo(a)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzo(b)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzo(g,h,i)perylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzo(k)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzoic acid	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzyl alcohol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Bis(2-chloroethoxy)methane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Bis(2-chloroethyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Bis(2-chloroisopropyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Bis(2-ethylhexyl)phthalate	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Bromophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Butyl benzyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Carbazole	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Chloro-3-methylphenol	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Chloroaniline	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Chloronaphthalene	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Chlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Chlorophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Chrysene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Di-n-butyl phthalate	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	II Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limit
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: R Wall

Project: Bloomfield Terminal

Collection Date: 3/15/2016 2:20:00 PM

Lab ID: 1603878-003

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Dibenz(a,h)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Dibenzofuran	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
1,2-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
1,3-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
1,4-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
3,3'-Dichlorobenzidine	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Diethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Dimethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4-Dichlorophenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4-Dimethylphenol	ND	3.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4,6-Dinitro-2-methylphenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4-Dinitrophenol	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4-Dinitrotoluene	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,6-Dinitrotoluene	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Fluorene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Hexachlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Hexachlorobutadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Hexachlorocyclopentadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Hexachloroethane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Indeno(1,2,3-cd)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Isophorone	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
1-Methylnaphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Methylnaphthalene	2.9	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Methylphenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
3+4-Methylphenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
N-Nitrosodi-n-propylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
N-Nitrosodiphenylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Naphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
3-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Nitroaniline	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Nitrobenzene	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Nitrophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Nitrophenol	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Pentachlorophenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Phenanthrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Phenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limit
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: B Wall

Project: Bloomfield Terminal

Collection Date: 3/15/2016 2:20:00 PM

Lab ID: 1603878-003

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Pyridine	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
1,2,4-Trichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4,6-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4,6-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Surr: 2-Fluorophenol	0	28.3-102	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
Surr: Phenol-d5	0	35.7-103	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
Surr: 2,4,6-Tribromophenol	0	35.2-108	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
Surr: Nitrobenzene-d5	0	24-110	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
Surr: 2-Fluorobiphenyl	0	35.4-111	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
Surr: 4-Terphenyl-d14	0	15-91.7	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	1.6	0.26		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Toluene	29	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Ethylbenzene	5.8	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Methyl tert-butyl ether (MTBE)	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2,4-Trimethylbenzene	14	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,3,5-Trimethylbenzene	6.7	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2-Dichloroethane (EDC)	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2-Dibromoethane (EDB)	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Naphthalene	1.9	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1-Methylnaphthalene	2.4	2.1		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
2-Methylnaphthalene	3.7	2.1		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Acetone	ND	7.7		mg/Kg dry	10	3/21/2016 2:11:56 PM	24321
Bromobenzene	ND	0.51		mg/Kg dry	10	3/21/2016 2:11:56 PM	24321
Bromodichloromethane	ND	0.51		mg/Kg dry	10	3/21/2016 2:11:56 PM	24321
Bromoform	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Bromomethane	ND	1.5		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
2-Butanone	ND	5.1		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Carbon disulfide	ND	5.1		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Carbon tetrachloride	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Chlorobenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Chloroethane	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Chloroform	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Chloromethane	ND	1.5		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
2-Chlorotoluene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
4-Chlorotoluene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
cis-1,2-DCE	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
cis-1,3-Dichloropropene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	-	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	F	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix.	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: E Wall

Project: Bloomfield Terminal

Collection Date: 3/15/2016 2:20:00 PM

Lab ID: 1603878-003

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromom-3-chloropropane	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
Dibromochloromethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
Dibromomethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
1,2-Dichlorobenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
1,3-Dichlorobenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
1,4-Dichlorobenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
Dichlorodifluoromethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
1,1-Dichloroethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
1,1-Dichloroethene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
1,2-Dichloropropane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
1,3-Dichloropropane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
2,2-Dichloropropane	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
1,1-Dichloropropene	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
Hexachlorobutadiene	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
2-Hexanone	ND	5.1		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
Isopropylbenzene	1.4	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
4-Isopropyltoluene	0.80	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
4-Methyl-2-pentanone	ND	5.1		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
Methylene chloride	ND	1.5		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
n-Butylbenzene	ND	1.5		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
n-Propylbenzene	2.2	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
sec-Butylbenzene	0.72	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
Styrene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
tert-Butylbenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
1,1,1,2-Tetrachloroethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
1,1,2,2-Tetrachloroethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
Tetrachloroethene (PCF)	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
trans-1,2 DCE	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
trans-1,3-Dichloropropene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
1,2,4-Trichlorobenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
1,1,1-Trichloroethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
1,1,2-Trichloroethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
Trichloroethene (TCE)	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
Trichlorofluoromethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
1,2,3-Trichloropropane	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
Vinyl chloride	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
Xylenes, Total	57	1.0		mg/Kg-dry	10	3/21/2016 2:11:58 PM	24321
Surf: Dibromofluoromethane	99.3	70-130		%Rec	10	3/21/2016 2:11:58 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	+	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	II	Holdup times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: E Wall

Project: Bloomfield Terminal

Collection Date: 3/15/2016 2:20:00 PM

Lab ID: 1603878-003

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Sum: 1,2-Dichloroethane-d4	106	70-130		%Rec	10	3/21/2016 2:11:56 PM	24321
Sum: Toluene-d8	101	70-130		%Rec	10	3/21/2016 2:11:56 PM	24321
Sum: 4-Bromofluorobenzene	113	70-130		%Rec	10	3/21/2016 2:11:56 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	+	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: 1400r

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:40:00 PM

Lab ID: 1603878-004

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	7.7	1.0		wt%	1	3/21/2016 12:00:00 PM	R32872
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.035		mg/Kg-dry	1	3/22/2016 5:48:00 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.7		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
Barium	150	0.11		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
Cadmium	ND	0.11		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
Chromium	4.5	0.32		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
Lead	4.2	0.27		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
Selenium	ND	2.7		mg/Kg-dry	1	3/24/2016 6:12:32 AM	24353
Silver	ND	0.27		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Acenaphthylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Aniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Azobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benz(a)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzo(a)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzo(b)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzo(g,h,i)perylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzo(k)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzoic acid	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzyl alcohol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Bis(2-chloroethoxy)methane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Bis(2-chloroethyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Bis(2-chloroisopropyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Bis(2-ethylhexyl)phthalate	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Bromophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Butyl benzyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Carbazole	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Chloro-3-methylphenol	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Chloroaniline	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Chloronaphthalene	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Chlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Chlorophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Chrysene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Di-n-butyl phthalate	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350

Refer to the QC Summary report and sample log-in checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E	Value above quantitation range
	II Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Floor

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:40:00 PM

Lab ID: 1603878-004

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270G: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Dibenz(a,h)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Dibenzofuran	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
1,2-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
1,3-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
1,4-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
3,3'-Dichlorobenzidine	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Diethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Dimethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4-Dichlorophenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4-Dimethylphenol	ND	3.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4,6-Dinitro-2-methylphenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4-Dinitrophenol	ND	6.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4-Dinitrotoluene	ND	6.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,6-Dinitrotoluene	ND	6.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Fluorene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Hexachlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Hexachlorobutadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Hexachlorocyclopentadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Hexachloroethane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Indeno(1,2,3-cd)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Isophorane	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
1-Methylnaphthalene	5.4	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Methylnaphthalene	9.6	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Methylphenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
3+4-Methylphenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
N-Nitrosodi-n-propylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
N-Nitrosodiphenylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Naphthalene	3.5	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
3-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Nitroaniline	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Nitrobenzene	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Nitrophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Nitrophenol	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Pentachlorophenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Phenanthrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Phenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350

Refer to the QC Summary report and sample log in checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	I Analyte detected below quantitation limit
ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Floor

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:40:00 PM

Lab ID: 1603878-004

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	2.2	D	mg/Kg dry	10	3/23/2016 9:57:34 PM	24350
Pyridine	ND	4.3	D	mg/Kg dry	10	3/23/2016 9:57:34 PM	24350
1,2,4-Trichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4,5-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4,6-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Surr: 2-Fluorophenol	0	28.3-102	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
Surr: Phenol-d5	0	35.7-103	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
Surr: 2,4,6-Tribromophenol	0	35.2-108	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
Surr: Nitrobenzene-d5	0	24-118	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
Surr: 2-Fluorobiphenyl	0	35.4-111	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
Surr: 4-Terphenyl-d14	0	15-91.7	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	13	0.50		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Toluene	180	5.0		mg/Kg-dry	100	3/22/2016 7:09:38 AM	24321
Ethylbenzene	27	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Methyl tert butyl ether (MTBE)	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2,4-Trimethylbenzene	56	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,3,5-Trimethylbenzene	27	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Naphthalene	7.2	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1-Methylnaphthalene	8.9	4.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
2-Methylnaphthalene	14	4.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Acetone	ND	15		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Bromobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Bromodichloromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Bromoform	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Bromomethane	ND	3.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
2-Butanone	ND	10		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Carbon disulfide	ND	10		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Carbon tetrachloride	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Chlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Chloroethane	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Chloroform	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Chloromethane	ND	3.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
2-Chlorotoluene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
4-Chlorotoluene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
cis-1,2-DCE	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
cis-1,3-Dichloropropene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E	Value above quantitation range
	II Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	ND Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Floor

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:40:00 PM

Lab ID: 1603878-004

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Dibromochloromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Dibromomethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,3-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,4-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Dichlorodifluoromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1-Dichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1-Dichloroethene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2-Dichloropropane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,3-Dichloropropane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
2,2-Dichloropropane	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1-Dichloropropene	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Hexachlorobutadiene	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
2-Hexanone	ND	10		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Isopropylbenzene	6.2	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
4-Isopropyltoluene	3.3	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
4-Methyl-2-pentanone	ND	10		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Methylene chloride	ND	3.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
n-Butylbenzene	3.5	3.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
n-Propylbenzene	9.8	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
sec-Butylbenzene	3.0	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Styrene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
tert-Butylbenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Tetrachloroethene (PCE)	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
trans-1,2-DCE	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
trans-1,3-Dichloropropene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1,1-Trichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1,2-Trichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Trichloroethene (TCE)	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Trichlorofluoromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2,3-Trichloropropane	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Vinyl chloride	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Xylenes, Total	270	10		mg/Kg-dry	100	3/22/2016 7:09:36 AM	24321
Surr. Dibromofluoromethane	97.5	70-130		%Rec	20	3/21/2016 2:40:24 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	II Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** Floor**Project:** Bloomfield Terminal**Collection Date:** 3/16/2016 1:40:00 PM**Lab ID:** 1603878-004**Matrix:** SOIL**Received Date:** 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: 1,2-Dichloroethane-d4	97.9	70-130		%Rec	20	3/21/2016 2:40:24 PM	24321
Surr: Toluene-d8	107	70-130		%Rec	20	3/21/2016 2:40:24 PM	24321
Surr: 4-Bromofluorobenzene	120	70-130		%Rec	20	3/21/2016 2:40:24 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	• Value exceeds Maximum Contaminant Level - D Sample Diluted Due to Matrix - H Holding times for preparation or analysis exceeded - ND Not Detected at the Reporting Limit - R RPD outside accepted recovery limits - S % Recovery outside of range due to dilution or matrix	- B Analyte detected in the associated Method Blank - E Value above quantitation range - J Analyte detected below quantitation limits - P Sample pH Not In Range - RL Reporting Detection Limit - W Sample container temperature is out of limit as specified
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: S Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:50:00 PM

Lab ID: 1603878-005

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DT	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	8.8	1.0		wt%	1	3/21/2016 12:00:00 PM	R32972
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.035		mg/Kg-dry	1	3/22/2016 5:49:48 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.7		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
Barium	130	0.11		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
Cadmium	ND	0.11		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
Chromium	4.8	0.33		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
Lead	4.0	0.27		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
Selenium	ND	2.7		mg/Kg-dry	1	3/24/2016 8:13:46 AM	24353
Silver	ND	0.27		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Acenaphthylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Aniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Azobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benz(a)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzo(a)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzo(b)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzo(g,h,i)perylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzo(k)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzoic acid	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzyl alcohol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Bis(2-chloroethoxy)methane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Bis(2-chloroethyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Bis(2-chloroisopropyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Bis(2-ethylhexyl)phthalate	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Bromophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Butyl benzyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Carbazole	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Chloro-3-methylphenol	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Chloroaniline	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Chloronaphthalene	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Chlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Chlorophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Chrysene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Di-n-butyl phthalate	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	B Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limit
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: S Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:50:00 PM

Lab ID: 1603878-005

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Dibenz(a,h)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Dibenzofuran	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
1,2-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
1,3-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
1,4-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
3,3'-Dichlorobenzidine	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Diethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Dimethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4-Dichlorophenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4-Dimethylphenol	ND	3.3	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4,6-Dinitro 2-methylphenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4-Dinitrophenol	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4-Dinitrotoluene	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,6-Dinitrotoluene	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Fluorene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Hexachlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Hexachlorobutadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Hexachlorocyclopentadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Hexachloroethane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Indeno(1,2,3-cd)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Isophthalene	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
1-Methylnaphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Methylnaphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Methylphenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
3,4-Methylphenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
N-Nitrosodi-n-propylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
N-Nitrosodiphenylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Naphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
3-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Nitroaniline	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Nitrobenzene	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Nitrophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Nitrophenol	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Pentachlorophenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Phenanthrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Phenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	II Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	R1 Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: S Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:50:00 PM

Lab ID: 1603878-005

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Pyridine	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
1,2,4-Trichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4,5-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4,6-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Sum: 2-Fluorophenol	0	28.3-102	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
Sum: Phenol-d5	0	35.7-103	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
Sum: 2,4,6-Trichlorophenol	0	35.2-108	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
Sum: Nitrobenzene-d5	0	24-118	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
Sum: 2-Fluorobiphenyl	0	35.4-111	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
Sum: 4-Terphenyl-d14	0	15-91.7	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.026		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Toluene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Ethylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Methyl tert-butyl ether (MTBE)	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2,4-Trimethylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,3,5-Trimethylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2-Dichloroethane (EDC)	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2-Dibromoethane (EDB)	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Naphthalene	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1-Methylnaphthalene	ND	0.21		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
2-Methylnaphthalene	ND	0.21		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Acetone	ND	0.70		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Bromobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Bromodichloromethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Bromoform	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Bromomethane	ND	0.16		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
2-Butanone	ND	0.52		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Carbon disulfide	ND	0.52		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Carbon tetrachloride	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Chlorobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Chloroethane	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Chloroform	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Chloromethane	ND	0.16		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
2-Chlorotoluene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
4-Chlorotoluene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
cis 1,2-DCE	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
cis 1,3-Dichloropropene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limit
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RI Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: S Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:50:00 PM

Lab ID: 1603878-005

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Dibromochloromethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Dibromomethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2-Dichlorobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,3-Dichlorobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,4-Dichlorobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Dichlorodifluoromethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1-Dichloroethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1-Dichloroethene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2-Dichloropropane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,3-Dichloropropane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
2,2-Dichloropropane	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1-Dichloropropene	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Hexachlorobutadiene	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
2-Hexanone	ND	0.52		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Isopropylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
4-Isopropyltoluene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
4-Methyl-2-pentanone	ND	0.52		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Methylene chloride	ND	0.16		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
n-Butylbenzene	ND	0.16		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
n-Propylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
sec-Butylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Styrene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
tert-Butylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1,1,2-Tetrachloroethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1,2,2-Tetrachloroethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Tetrachloroethene (PCE)	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
trans-1,2-DCE	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
trans-1,3-Dichloropropene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2,4-Trichlorobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1,1-Trichloroethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1,2-Trichloroethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Trichloroethene (TCE)	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Trichlorofluoromethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2,3-Trichloropropane	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Vinyl chloride	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Xylenes, Total	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Sum: Dibromofluoromethane	105	70-130		%Rec	1	3/21/2016 12:46:58 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	K Value above quantitation range
	IL Holding times for preparation or analysis exceeded	S Analyte detected below quantitation limit
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: S Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:50:00 PM

Lab ID: 1603878-005

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: 1,2-Dichloroethane-d4	101	70	130	%Rec	1	3/21/2016 12:46:58 PM	24321
Surr: Toluene-d8	101	70	130	%Rec	1	3/21/2016 12:46:58 PM	24321
Surr: 4-Bromofluorobenzene	106	70	130	%Rec	1	3/21/2016 12:46:58 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	L Value above quantization range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not in Range
	R RPD outside accepted recovery limits	RI Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: W Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 2:10:00 PM

Lab ID: 1603878-006

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	9.1	1.0		wt%	1	3/21/2016 12:00:00 PM	R32872
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.036		mg/Kg-dry	1	3/22/2016 5:51:38 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.7		mg/Kg-dry	1	3/22/2016 9:15:56 AM	24353
Barium	180	0.11		mg/Kg-dry	1	3/22/2016 9:15:56 AM	24353
Cadmium	ND	0.11		mg/Kg-dry	1	3/22/2016 9:15:56 AM	24353
Chromium	5.3	0.33		mg/Kg-dry	1	3/22/2016 9:15:56 AM	24353
Lead	3.8	0.27		mg/Kg-dry	1	3/22/2016 9:15:56 AM	24353
Selenium	ND	2.7		mg/Kg dry	1	3/24/2016 8:14:59 AM	24353
Silver	ND	0.27		mg/Kg dry	1	3/22/2016 9:15:56 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Acenaphthylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Aniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Azobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benz(a)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzo(a)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzo(b)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzo(g,h,i)perylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzo(k)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzoic acid	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzyl alcohol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Bis(2-chloroethoxy)methane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Bis(2-chloroethyl)ether	ND	2.2	D	mg/Kg dry	10	3/23/2016 10:56:07 PM	24350
Bis(2-chloroisopropyl)ether	ND	2.2	D	mg/Kg dry	10	3/23/2016 10:56:07 PM	24350
Bis(2-ethylhexyl)phthalate	ND	5.5	D	mg/Kg dry	10	3/23/2016 10:56:07 PM	24350
4-Bromophenyl phenyl ether	ND	2.2	D	mg/Kg dry	10	3/23/2016 10:56:07 PM	24350
Butyl benzyl phthalate	ND	2.2	D	mg/Kg dry	10	3/23/2016 10:56:07 PM	24350
Carbazole	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
4-Chloro-3-methylphenol	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
4-Chloroaniline	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2-Chloronaphthalene	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2-Chlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
4-Chlorophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Chrysene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Di-n-butyl phthalate	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level - D Sample Diluted Due to Matrix - II Holding times for preparation or analysis exceeded - ND Not Detected at the Reporting Limit - R RSD outside accepted recovery limits - S % Recovery outside of range due to dilution or matrix	- B Analyte detected in the associated Method Blank - E Value above quantitation range - J Analyte detected below quantitation limit - P Sample pH Not In Range - RI Reporting Detection Limit - W Sample container temperature is out of limit as specified
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Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: W Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 2:10:00 PM

Lab ID: 1603878-006

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Dibenz(a,h)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Dibenzofuran	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
1,2-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
1,3-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
1,4-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
3,3'-Dichlorobenzidine	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Diethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Dimethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
2,4-Dichlorophenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
2,4-Dimethylphenol	ND	3.3	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
4,6-Dinitro-2-methylphenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
2,4-Dinitrophenol	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
2,4-Dinitrotoluene	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
2,6-Dinitrotoluene	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Fluorene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Hexachlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Hexachlorobutadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Hexachlorocyclopentadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Hexachloroethane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Indeno(1,2,3-cd)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Isophorone	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
1-Methylnaphthalene	3.0	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
2-Methylnaphthalene	4.6	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
2-Methylphenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
3+4 Methylphenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
N-Nitrosodi-n-propylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
N-Nitrosodiphenylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Naphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
2-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
3-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
4-Nitroaniline	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Nitrobenzene	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
2-Nitrophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
4-Nitrophenol	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Pentachlorophenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Phenanthrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Phenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E	Value above quantitation range
	U Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	ND Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R RPD outside accepted recovery limits	RI	Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: W Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 2:10:00 PM

Lab ID: 1603878-006

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Pyridine	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
1,2,4-Trichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
2,4,5-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
2,4,6-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:58:07 PM	24350
Surr: 2-Fluorophenol	0	28.3-102	SD	%Rec	10	3/23/2016 10:58:07 PM	24350
Surr: Phenol-d5	0	35.7-103	SD	%Rec	10	3/23/2016 10:58:07 PM	24350
Surr: 2,4,6-Tribromophenol	0	35.2-108	SD	%Rec	10	3/23/2016 10:58:07 PM	24350
Surr: Nitrobenzene-d5	0	24-118	SD	%Rec	10	3/23/2016 10:58:07 PM	24350
Surr: 2-Fluorobiphenyl	0	35.4-111	SD	%Rec	10	3/23/2016 10:58:07 PM	24350
Surr: 4-Terphenyl-d14	0	15-91.7	SD	%Rec	10	3/23/2016 10:58:07 PM	24350
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	7.2	0.52		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Toluene	52	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Ethylbenzene	9.3	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2,4-Trimethylbenzene	28	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,3,5-Trimethylbenzene	13	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Naphthalene	4.4	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1-Methylnaphthalene	6.3	4.2		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
2-Methylnaphthalene	9.5	4.2		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Acetone	ND	18		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Bromobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Bromodichloromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Bromoform	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Bromomethane	ND	3.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
2-Butanone	ND	10		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Carbon disulfide	ND	10		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Carbon tetrachloride	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Chlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Chloroethane	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Chloroform	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Chloromethane	ND	3.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
2-Chlorotoluene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
4-Chlorotoluene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
cis-1,2-DCE	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
cis-1,3-Dichloropropene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	▼ Value exceeds Maximum Contaminant Level - D Sample Diluted Due to Matrix - II Holding times for preparation or analysis exceeded - ND Not Detected at the Reporting Unit - R RPD outside accepted recovery limits - S % Recovery outside of range due to dilution or matrix	- B Analyte detected in the associated Method Blank - E Value above quantitation range - J Analyte detected below quantitation limits - P Sample pH Not In Range - RL Reporting Detection Limit - W Sample container temperature is out of limit as specified
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Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: W Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 2:10:00 PM

Lab ID: 1603878-006

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Dibromochloromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Dibromomethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,3-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,4-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Dichlorodifluoromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1-Dichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1-Dichloroethene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2-Dichloropropane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,3-Dichloropropane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
2,2-Dichloropropane	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1-Dichloropropene	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Hexachlorobutadiene	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
2-Hexanone	ND	10		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Isopropylbenzene	2.6	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
4-Isopropyltoluene	1.7	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
4-Methyl-2-pentanone	ND	10		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Methylene chloride	ND	3.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
n-Butylbenzene	ND	3.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
n-Propylbenzene	4.3	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
sec-Butylbenzene	1.5	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Styrene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
tert-Butylbenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Tetrachloroethene (PCE)	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
trans-1,2-DCE	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
trans-1,3-Dichloropropene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2,3-Trichlorobenzene	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1,1-Trichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1,2-Trichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Trichloroethene (TCE)	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Trichlorofluoromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2,3-Trichloropropane	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Vinyl chloride	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Xylenes, Total	88	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Surr: Dibromofluoromethane	97.9	70-130		%Rec	20	3/21/2016 1:15:14 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	+	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RS	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** W Wall**Project:** Bloomfield Terminal**Collection Date:** 3/16/2016 2:10:00 PM**Lab ID:** 1603878-006**Matrix:** SOIL**Received Date:** 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%Rec	20	3/21/2016 1:15:14 PM	24321
Surr: Toluene-d8	98.0	70-130		%Rec	20	3/21/2016 1:15:14 PM	24321
Surr: 4-Bromofluorobenzene	116	70-130		%Rec	20	3/21/2016 1:15:14 PM	24321

Refer to the QC Summary report and sample log/in checklist for flagged QC data and preservation information.

Qualifiers:	• Value exceeds Maximum Contaminant Level. - D Sample Diluted Due to Matrix - H Holding times for preparation or analysis exceeded - ND Not Detected at the Reporting Limit - R RPD outside accepted recovery limits - S % Recovery outside of range due to dilution or matrix	- B Analyte detected in the associated Method Blank - E Value above quantitation range - F Analyte detected below quantitation limit - P Sample pH/Noi In Range - RI Reporting Detection Limit - W Sample container temperature is out of limit as specified
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID: mb-24321	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles							
Client ID: PBS	Batch ID: 24321		RunNo: 32918							
Prep Date: 3/17/2016	Analysis Date: 3/18/2016		SeqNo: 1009413		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromodichloroethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.050								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.050								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- II Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- Z Analyte detected below quantitation limits
- P Sample pH Not in Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID: mb-24321	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles								
Client ID: PBS	Batch ID: 24321	RunNo: 32918								
Prep Date: 3/17/2016	Analysis Date: 3/18/2016	SeqNo: 1009413		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Sum: Dibromofluoromethane	0.50		0.5000		101	70	130			
Sum: 1,2-Dichloroethane-d4	0.50		0.5000		100	70	130			
Sum: Toluene-d8	0.51		0.5000		101	70	130			
Sum: 4-Bromofluorobenzene	0.53		0.5000		106	70	130			

Sample ID: lcs-24321	SampType: LCS	TestCode: EPA Method 8260B: Volatiles								
Client ID: LCSS	Batch ID: 24321	RunNo: 32918								
Prep Date: 3/17/2016	Analysis Date: 3/18/2016	SeqNo: 1009414		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.8	70	130			
Toluene	1.0	0.050	1.000	0	99.6	70	130			
Chlorobenzene	0.99	0.050	1.000	0	98.8	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | C Value above quantitation range |
| U Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RI Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WOF: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID: Ics-24321	Sample Type: LCS	Test Code: EPA Method 8260B: Volatiles								
Client ID: LCSS	Batch ID: 24321	Run No: 32918								
Prep Date: 3/17/2016	Analysis Date: 3/18/2016	Seq No: 1009414 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1 Dichloroethene	1.1	0.050	1.000	0	155	70	130			
Trichloroethene (TCE)	0.96	0.050	1.000	0	95.1	70	130			
Sum: Dibromofluoromethane	0.51		0.5000		103	70	130			
Sum: 1,2 Dichloroethane-d4	0.48		0.5000		96.6	70	130			
Sum: Toluene d8	0.53		0.5000		106	70	130			
Sum: 4-Bromofluorobenzene	0.55		0.5000		109	70	130			

Sample ID	1603878-001ams	SampType:	MS	TestCode:	EPA Method 8260B: Volatiles					
Client ID:	NW Pothole @ 14'	Batch ID:	24321	RunNo:	32918					
Prep Date:	3/17/2016	Analysis Date:	3/18/2016	SeqNo:	1009416	Units:	mg/Kg-dry			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	0.9896	0	112	49.2	155			
Toluene	1.2	0.049	0.9896	0	121	52	154			
Chlorobenzene	1.2	0.049	0.9896	0	117	53.2	150			
1,1-Dichloroethane	1.1	0.049	0.9896	0	115	34.2	163			
Trichloroethene (TCE)	1.1	0.049	0.9896	0	115	48.2	151			
Sum: Dibromofluoromethane	0.51		0.4948		103	70	130			
Sum: 1,2-Dichloroethane-d4	0.48		0.4948		97.2	70	130			
Sum: Toluene-d8	0.52		0.4948		106	70	130			
Sum: 4-Bromofluorobenzene	0.53		0.4948		106	70	130			

Sample ID: 1603878-001amsd	SampType: MSD	TestCode: EPA Method 8260B: Volatiles								
Client ID: NW Pothole @ 14'	Batch ID: 24321	RunNo: 32918								
Prep Date: 3/17/2016	Analysis Date: 3/18/2016	SeqNo: 1009417 Units: mg/Kg-dry								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.026	1.038	0	102	49.2	155	4.47	20	
Toluene	1.1	0.052	1.038	0	108	52	154	8.18	20	
Chlorobenzene	1.1	0.052	1.038	0	104	53.2	150	7.58	20	
1,1-Dichloroethane	1.0	0.052	1.038	0	98.6	34.2	163	10.5	20	
Trichloroethene (TCE)	1.1	0.052	1.038	0	103	48.2	151	5.84	20	
Sum: Dibromofluoromethane	0.53		0.5191		101	70	130	0	0	
Sum: 1,2-Dichloroethane-d4	0.50		0.5191		95.4	70	130	0	0	
Sum: Toluene-d8	0.52		0.5191		101	70	130	0	0	
Sum: 4-Bromofluorobenzene	0.54		0.5191		105	70	130	0	0	

Qualifiers:

- + Value exceeds Maximum Constituent Level
- D Sample Diluted Due to Matrix
- II Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- D Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not in Range
- RL Repeating Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID: mb-24350	SampType: MBLK	TestCode: EPA Method 8270C: Semivolatiles								
Client ID: PBS	Batch ID: 24350	RunNo: 32992								
Prep Date: 3/21/2016	Analysis Date: 3/23/2016	SeqNo: 1013032		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benz(a)pyrene	ND	0.20								
Benz(b)fluoranthene	ND	0.20								
Benz(g,h,i)perylene	ND	0.20								
Benz(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.40								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dichloro-2-methylphenol	ND	0.40								
2,4-Dichlorophenol	ND	0.50								

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- II Holding time for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RI Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID: mb-24350	SampType: MBLK	TestCode: EPA Method 8270C: Semivolatiles								
Client ID: PBS	Batch ID: 24350	RunNo: 32992								
Prep Date: 3/21/2016	Analysis Date: 3/23/2016	SeqNo: 1013032		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrofluene	ND	0.50								
2,6-Dinitrofluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachlorocyclohexane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.40								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.40								
3-4-Methylphenol	ND	0.20								
N-Nitrosodipropylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.40								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.40								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Sum: 2-Fluorophenol	2.1		3.330		63.4	28.3	102			
Sum: Phenols	2.5		3.330		74.4	35.7	103			
Sum: 2,4,6-Tribromophenol	2.4		3.330		70.8	35.2	108			
Sum: Nitrobenzene-d5	1.2		1.670		80.7	24	118			
Sum: 2-Fluorobiphenyl	1.2		1.670		70.4	35.4	111			
Sum: 4-Tolphenyl-d14	1.6		1.870		87.9	15	91.7			S

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | C Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not in Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WOL: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID: lcs-24350	SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles							
Client ID: LCSS	Batch ID: 24350		RunNo: 32992							
Prep Date: 3/21/2016	Analysis Date: 3/23/2016		SeqNo: 1013033		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acephenithene	1.3	0.20	1.670	0	75.1	45.8	99.8			
4-Chloro-3-methylphenol	2.4	0.50	3.330	0	73.1	51.5	103			
2-Chlorophenol	2.4	0.20	3.330	0	71.4	46.5	105			
1,4-Dichlorobenzene	1.2	0.20	1.670	0	72.2	45.5	103			
2,4-Dinitrotoluene	1.2	0.50	1.670	0	70.8	36	87.2			
N-Nitrosodi-n-propylamine	1.0	0.20	1.670	0	80.4	47.3	154			
4-Nitrophenol	2.7	0.25	3.330	0	80.8	47.3	95.3			
Parachlorophenol	2.1	0.40	3.330	0	63.0	38.7	89.3			
Phenol	2.4	0.20	3.330	0	72.8	47.8	105			
Pyrene	1.1	0.20	1.670	0	68.7	33.4	105			
1,2,4-Trichlorobenzene	1.4	0.20	1.670	0	85.9	50.4	115			
Surr: 2-Fluorophenol	2.2		3.330		65.3	28.3	102			
Surr: Phenol-d5	2.5		3.330		74.2	35.7	103			
Surr: 2,4,6-Tribromophenol	2.3		3.330		70.4	35.2	108			
Surr: Nitrobenzene-d5	1.3		1.670		79.3	24	118			
Surr: 2-Fluorobiphenyl	1.3		1.670		77.5	35.4	111			
Surr: 4-Terphenyl-d14	1.2		1.670		71.6	15	91.7			

Sample ID: 1603878-001ams	SampType: MS		TestCode: EPA Method 8270C: Semivolatiles							
Client ID: NW Pothole @ 14'	Batch ID: 24350		RunNo: 32992							
Prep Date: 3/21/2016	Analysis Date: 3/23/2016		SeqNo: 1013040		Units: mg/Kg-dry					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acephenithene	1.3	0.21	1.768	0	72.1	27.5	117			
4-Chloro-3-methylphenol	2.8	0.53	3.526	0	78.2	26.3	116			
2-Chlorophenol	2.2	0.21	3.526	0	61.4	21.4	113			
1,4-Dichlorobenzene	0.92	0.21	1.768	0	52.2	25	105			
2,4-Dinitrotoluene	1.4	0.53	1.768	0	76.8	21.1	119			
N-Nitrosodi-n-propylamine	1.0	0.21	1.768	0	58.7	21.3	126			
4-Nitrophenol	2.9	0.26	3.526	0	82.0	21.3	120			
Parachlorophenol	2.6	0.42	3.526	0	74.6	11.5	115			
Phenol	2.2	0.21	3.526	0	62.7	23	118			
Pyrene	1.4	0.21	1.768	0	76.4	25.7	110			
1,2,4-Trichlorobenzene	1.2	0.21	1.768	0	67.4	31.1	107			
Surr: 2-Fluorophenol	1.7		3.526		49.0	28.3	102			
Surr: Phenol-d5	2.2		3.526		61.9	35.7	103			
Surr: 2,4,6-Tribromophenol	2.5		3.526		71.8	35.2	108			
Surr: Nitrobenzene-d5	1.1		1.768		80.0	24	118			
Surr: 2-Fluorobiphenyl	1.1		1.768		64.3	35.4	111			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| U Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | R1 Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Moonfield Terminal

Sample ID: 1603878-001ams	SampType: MS	TestCode: EPA Method 8270C: Semivolatiles
Client ID: NW Pothole @ 14'	Batch ID: 24350	RunNo: 32992
Prep Date: 3/21/2016	Analysis Date: 3/23/2016	SeqNo: 1013040
Units: mg/Kg-dry		
Analyte	Result	PQL
Sum: 4 Terphenyl-d14	1.2	1.768

Sample ID: 1603878-001amsd	SampType: MSD	TestCode: EPA Method 8270C: Semivolatiles								
Client ID: NW Pothole @ 14'	Batch ID: 24350	RunNo: 32992								
Prep Date: 3/21/2016	Analysis Date: 3/23/2016	SeqNo: 1013041								
Units: mg/Kg-dry										
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.4	0.21	1.759	0	78.1	27.5	117	7.53	25.4	
4-Chloro-3-methylphenol	2.7	0.53	3.508	0	75.5	26.3	116	3.91	30.4	
2-Chlorophenol	2.3	0.21	3.508	0	66.9	21.4	113	8.07	33.4	
1,4-Dichlorobenzene	1.1	0.21	1.759	0	60.7	25	105	14.5	20.8	
2,4-Dinitrotoluene	1.3	0.53	1.759	0	73.4	21.1	119	5.23	27.8	
N-Nitrosodipropylamine	1.1	0.21	1.759	0	60.4	21.3	126	2.28	27.5	
4-Nitrophenol	2.5	0.25	3.508	0	71.3	21.3	120	14.5	33.7	
Pentachlorophenol	2.5	0.42	3.508	0	70.9	11.5	115	5.51	39.7	
Phenol	2.3	0.21	3.508	0	66.1	23	118	4.84	30.1	
Pyrene	1.3	0.21	1.759	0	72.9	25.7	110	5.10	22.7	
1,2,4-Trichlorobenzene	1.3	0.21	1.759	0	73.5	31.1	107	8.23	27.8	
Sum: 2-Fluorophenol	1.0		3.508		54.7	28.3	102	0	0	
Sum: Phenol-d5	2.5		3.508		70.2	35.7	103	0	0	
Sum: 2,4,6-Trichlorophenol	2.8		3.508		74.6	35.2	108	0	0	
Sum: Nitrobenzene-d5	1.3		1.759		73.7	24	118	0	0	
Sum: 2-Fluorobiphenyl	1.3		1.759		76.4	35.4	111	0	0	
Sum: 4-Terphenyl-d14	1.1		1.759		65.3	15	91.7	0	0	

Qualifiers:

- M Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- II Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- L Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	MB-24354	SampType:	mblk	TestCode:	EPA Method 7471: Mercury					
Client ID:	PBS	Batch ID:	24354	RunNo:	32987					
Prep Date:	3/21/2016	Analysis Date:	3/22/2016	SeqNo:	1011747	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID: LCS-24354	Sample Type: lcs	Test Code: EPA Method 7471: Mercury								
Client ID: LCSS	Batch ID: 24354	Run No: 32987								
Prep Date: 3/21/2016	Analysis Date: 3/22/2016	Seq No: 1011748 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1667	0	107	EU	120			

Sample ID: 1603878-001AMS	SampType: ms	TestCode: EPA Method 7471: Mercury								
Client ID: NW Pothole @ 14'	Batch ID: 24354	RunNo: 32987								
Prep Date: 3/21/2016	Analysis Date: 3/22/2016	SeqNo: 1011750 Units: mg/Kg-dry								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	High Limit	%RPD	RPDLimit	Qual
Mercury	0.19	0.035	0.1778	0.003482	105	75	125			

Sample ID: 1603878-001AMSD	SampType: msd	TestCode: EPA Method 7471: Mercury								
Client ID: NW Pothole @ 14'	Batch ID: 24354	RunNo: 32987								
Prep Date: 3/21/2016	Analysis Date: 3/22/2016	SeqNo: 1011751 Units: mg/Kg-dry								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.034	0.1734	0.003482	106	75	125	1.14	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is not of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WOT: 1603878

23-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID: MB-24353	Sample Type: MBLK	Test Code: EPA Method 6010B: Soil Metals								
Client ID: PBS	Batch ID: 24353	Run No: 32957								
Prep Date: 3/21/2016	Analysis Date: 3/22/2016	Seq No: 1010798 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	%RPD	RPD Limit	Qual
Arsenic	ND	2.6								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Lead	ND	0.25								
Silver	ND	0.25								

Sample ID: LCS-24353	Sample Type: LCS	Test Code: EPA Method 6010B: Soil Metals								
Client ID: LCSS	Batch ID: 24353	Run No: 32957								
Prep Date: 3/21/2016	Analysis Date: 3/22/2016	Seq No: 1010799 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	%RPD	RPD Limit	Qual
Arsenic	25	2.5	25.00	0	102	80	120			
Barium	25	0.10	25.00	0	98.5	80	120			
Cadmium	25	0.10	25.00	0	99.3	80	120			
Chromium	24	0.30	25.00	0	98.0	80	120			
Lead	24	0.25	25.00	0	96.0	80	120			
Silver	5.0	0.25	5.000	0	99.2	80	120			

Sample ID: 1603878-001AMS	Sample Type: MS	Test Code: EPA Method 6010B: Soil Metals								
Client ID: NW Pothole @ 14'	Batch ID: 24353	Run No: 32957								
Prep Date: 3/21/2016	Analysis Date: 3/22/2016	Seq No: 1010813 Units: mg/Kg-dry								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	%RPD	RPD Limit	Qual
Arsenic	20	2.6	26.34	2.094	91.1	75	125			
Barium	56	0.11	26.34	29.71	98.5	75	125			
Cadmium	24	0.11	26.34	0	90.8	75	125			
Chromium	27	0.32	26.34	2.472	92.1	75	125			
Lead	25	0.26	26.34	2.427	86.4	75	125			
Silver	4.6	0.26	5.268	0	87.6	75	125			

Sample ID: 1603878-001AMSD	Sample Type: MSD	Test Code: EPA Method 6010B: Soil Metals								
Client ID: NW Pothole @ 14'	Batch ID: 24353	Run No: 32957								
Prep Date: 3/21/2016	Analysis Date: 3/22/2016	Seq No: 1010814 Units: mg/Kg-dry								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	%RPD	RPD Limit	Qual
Arsenic	25	2.6	26.04	2.094	89.3	75	125	2.86	20	
Barium	61	0.10	26.04	29.71	120	75	125	9.20	20	
Cadmium	23	0.10	26.04	0	88.2	75	125	4.15	20	
Chromium	26	0.31	26.04	2.472	89.8	75	125	3.59	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	1603878-001AMSD	SampType:	MSD	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	NW Pothole @ 14'	Batch ID:	24353	RunNo:	32957					
Prep Date:	3/21/2016	Analysis Date:	3/22/2016	SeqNo:	1010814					
Units: mg/Kg-dry										
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	24	0.26	26.04	2.427	83.0	75	125	4.66	20	
Silver	4.5	0.26	5.209	0	86.5	75	125	2.46	20	

Sample ID	MB-24353	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	PBS	Batch ID:	24353	RunNo:	33016					
Prep Date:	3/21/2016	Analysis Date:	3/24/2016	SeqNo:	1012884	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%RFC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	2.5								

Sample ID	LCS-24353	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	LCSS	Batch ID:	24353	RunNo:	33016					
Prep Date:	3/21/2016	Analysis Date:	3/24/2016	SeqNo:	1012885					
				Units:	mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	26	2.5	25.00	0	103	80	120			

Sample ID	1603878-001AMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	NW Pothole @ 14'	Batch ID:	24353	RunNo:	33016					
Prep Date:	3/21/2016	Analysis Date:	3/24/2016	SeqNo:	1012889	Units: mg/Kg-dry				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	23	2.6	26.34	0	87.8	75	125			

Sample ID: 1603878-001AMSD	SampType: MSD	TestCode: EPA Method 6010B: Soil Metals								
Client ID: NW Pothole @ 14'	Batch ID: 24353	RunNo: 33016								
Prep Date: 3/21/2016	Analysis Date: 3/24/2016	SeqNo: 1012890								
Units: mg/Kg-dry										
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	23	2.6	25.04	0	88.8	75	125	0.0715	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| IL Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not in Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4167
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Southw

Work Order Number: 1603878

Rep/No: 1

Received by/date:

Logged By: Lindsay Mangin

3/17/2016 7:33:00 AM

Completed By: Lindsay Mangin

3/17/2016 8:47:05 AM

Reviewed By:

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐
- # of preserved bottles checked for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Yes			

Chain-of-Custody Record

Client: Western Refining

111

Shipping Address: 111 CR 4990

Bloomfield NM 87413

Phone #: (505) 632-4166

Fax #: _____

Package: _____

Standard ☐ Level 4 (Full Validation)

Standard ☐ Other _____

NE LAP _____

ECOD (Type) DEL

Sample Request ID _____

Date Time Matrix

1320 Soil NW Pathok @ 14'

1340 N Wall

1420 E Wall

1340 Floor

1360 S Wall

1410 W Wall

Turn-Around Time:

☒ Standard ☒ Rush ASAP

Project Name:

Bloomfield Terminal

Project #:



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Project Manager: Kelly Robinson

Sampler: Michael Wicker

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.2

Container Type and #

Preservative Type

HEAL No. 1603878

BTX + MTBE + TMS (8021)

BTX + MTBE + TPH (Gas only)

TPH 8015B (GRO / DRG / MKO)

TPH (Method 418.1)

EDB (Method 504.1)

PAHs (8310 or 8270 SIMS)

HCHA B Metals

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCBs

8260B (VOA)

8270 (Semi-VOA)

VOCs 8260

S-VOCs 8270

Total Metals 6010/6020

Mercury 7970

Air Bubbles (Y or N)

Remarks:

Please CC M.Wicker@LTCen.com

Received by:

Chet Valt 3/16/16 1716

Received by:

[Signature] 03/17/16 0755

Robinson, Kelly

From: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Sent: Tuesday, August 09, 2016 7:45 AM
To: Robinson, Kelly
Subject: RE: Sump Overflow Immediate Notification - Western Refining Bloomfield Terminal

This email was sent by an external sender. Please use caution when opening attachments, clicking web links, or replying until you have verified this email sender.

Kelly:

Received. Thank you.

Carl J. Chavez, CHMM
Environmental Engineer
Oil Conservation Division- Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Phone: (505) 476-3490
Main Phone: (505) 476-3440
Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: www.emnrd.state.nm.us/ocd

Why not prevent pollution, minimize waste, reduce operation costs, and move forward with the rest of the Nation? To see how, go to "Publications" and "Pollution Prevention" on the OCD Website.

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Monday, August 08, 2016 9:37 PM

To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>

Cc: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Tsinnajinnie, Leona, NMENV <Leona.Tsinnajinnie@state.nm.us>; Schmaltz, Randy <Randy.Schmaltz@wnr.com>; Krakow, Matt <Matt.Krakow@wnr.com>; Robinson, Kelly <Kelly.Robinson@wnr.com>

Subject: Re: Sump Overflow Immediate Notification - Western Refining Bloomfield Terminal

Good Evening Sir,

Attached is the signed Initial C-141 Report, as requested, for the above referenced release. Western is currently working to finalize the Remediation Plan for NMOCD's review, which we expect to be finalized and submitted to NMOCD this week.

If you have any immediate questions or concerns, please feel free to contact me at your convenience.

Thank you for your time!

Sincerely,

Kelly R. Robinson
Western Refining - Bloomfield Terminal

From: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Sent: Friday, August 5, 2016 4:13 PM
To: Robinson, Kelly
Cc: Smith, Cory, EMNRD; Tsinnajinnie, Leona, NMENV
Subject: RE: Sump Overflow Immediate Notification - Western Refining Bloomfield Terminal

This email was sent by an external sender. Please use caution when opening attachments, clicking web links, or replying until you have verified this email sender.

Kelly:

Please submit a C-141 and Remediation Plan to OCD.

Thank you.

Carl J. Chavez, CHMM
Environmental Engineer
Oil Conservation Division- Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Phone: (505) 476-3490
Main Phone: (505) 476-3440
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: www.emnrd.state.nm.us/oed

Why not prevent pollution, minimize waste, reduce operation costs, and move forward with the rest of the Nation? To see how, go to "Publications" and "Pollution Prevention" on the OCD Website.

From: Robinson, Kelly [<mailto:Kelly.Robinson@wnr.com>]
Sent: Thursday, August 04, 2016 3:54 PM
To: Tsinnajinnie, Leona, NMENV <Leona.Tsinnajinnie@state.nm.us>; Cobrain, Dave, NMENV <dave.cobrain@state.nm.us>; Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>; Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Krakow, Matt <Matt.Krakow@wnr.com>; Schmaltz, Randy <Randy.Schmaltz@wnr.com>; Reagan, Emmett <Emmett.Reagan@wnr.com>; Roberts, Dale <Dale.Roberts@wnr.com>
Subject: Sump Overflow Immediate Notification - Western Refining Bloomfield Terminal

Good Afternoon!

At approximately 6am this morning, a malfunction of the fire suppression system at the Western Refining Bloomfield Terminal ("Western") product loading rack resulted in the overfill of the loading rack sump. The event involved the unexpected activation of the fire suppression system, resulting in a large volume of fresh water to drain through the loading rack drains and into the loading rack sump. This event lasted only a few minutes, but the volume of fresh water release was more than the sump could manage in a short period of time. The overflow material from the product sump was a mixture of fresh water and the finished product residuals that remained in the sump. All of the overflow material was contained within the boundary of the Bloomfield Terminal and was localized within the earthen bermed area around the loading rack sump. Upon immediate observation of the event, Operations manually turned off the fire system, stopping the flow of water to the sump.

Western estimates that approximately 150 bbls of water/product mixture overflowed from the sump, all of which remained within the containment area. A large portion of the released volume was recovered using an on-site vacuum truck. Western is still investigating the cause of the malfunction and will be developing a Corrective Action Plan to address the necessary clean-up efforts. Due to the

dual jurisdiction between NMED and OCD for the Bloomfield Facility, this e-mail is intended to serve as the immediate notification pursuant to NMAC 19.15.29.9.A and the NMED Consent Order dated July 27, 2007.

If you have any immediate questions please feel free to contact me or Mr. Randy Schmaltz at 505-62-4171.

Sincerely,

Kelly R. Robinson | Environmental Manager - Logistics
Western Refining | 111 County Road 4990 | Bloomfield, NM87413
(o) 505-632-4166 | (c) 505-801-5616 | (e) kelly.robinson@wnr.com

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Western Refining Southwest, Inc.	Contact: Kelly Robinson
Address: 50 Road 4990	Telephone No.: 505-632-4166
Facility Name: Bloomfield Terminal	Facility Type: Products Terminal

Surface Owner: Western Refining Southwest, Inc.	Mineral Owner	API No.
---	---------------	---------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	27	29N	11W					

Latitude 36.696775 Longitude -107.971133

NATURE OF RELEASE

Type of Release: Product/Water mixture	Volume of Release: estimated 150 bbl	Volume Recovered: approx. 140 bbl
Source of Release: Unloading Rack Sump	Date and Hour of Occurrence: 8/4/2016 at approx. 6am	Date and Hour of Discovery: 8/4/2016 at approx. 6am
Was Immediate Notice Given? ☒ Yes ☐ No ☒ Not Required	If YES, To Whom? Cory Smith (NMOCD-Aztec) Cari Chavez (NMED-Santa Fe) Leona Tsinnajinnie (NMED-HWB) Dave Cobrain (NMED-HWB) Neelam Dhawan (NMED-HWB)	
By Whom?: Kelly Robinson	Date and Hour : 8/4/2016 at 3:54pm via e-mail	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

At approximately 6am on August 4, 2016, a malfunction of the fire suppression system at the Western Refining Bloomfield Terminal ("Western") product loading rack resulted in the overflow of the loading rack sump. The event involved the unexpected activation of the fire suppression system, resulting in a large volume of fresh water to drain through the loading rack drains and into the loading rack sump. This event lasted only a few minutes, but the volume of fresh water release was more than the sump could manage in a short period of time. The overflow material from the product sump was a mixture of fresh water and the finished product residuals that remained in the sump.

Describe Area Affected and Cleanup Action Taken.*

All of the overflow material was contained within the boundary of the Bloomfield Terminal and was localized within the earthen bermed area around the loading rack sump. Upon immediate observation of the event Operations manually turned off the fire system, stopping the flow of water to the sump.

Western estimates that approximately 150 bbls of water/product mixture overflowed from the sump, all of which remained within the containment area. A large portion of the released volume was recovered using an on-site vacuum truck. Western is still investigating the cause of the malfunction and will be developing a Corrective Action Plan to address the necessary clean-up efforts.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <u>Kelly Robinson</u>		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: <u>Kelly Robinson</u>		Approved by Environmental Specialist:	
Title: <u>Environmental Manager - Logistics</u>		Approval Date:	Expiration Date:
E-mail Address: <u>Kelly.Robinson@dnr.com</u>		Conditions of Approval:	Attached ☐
Date: <u>8/8/16</u> Phone: <u>505-632-4166</u>			

* Attach Additional Sheets If Necessary

Robinson, Kelly

From: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Sent: Thursday, September 01, 2016 11:38 AM
To: Robinson, Kelly
Subject: RE: Up-Dated C-141 Initial Report for August 4th, 2016 Sump Overflow Event - Western Refining Bloomfield Terminal

This email was sent by an external sender. Please use caution when opening attachments, clicking web links, or replying until you have verified this email sender.

Received. Thank you.

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]
Sent: Wednesday, August 31, 2016 7:53 AM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Cc: Schmaltz, Randy <Randy.Schmaltz@wnr.com>; Krakow, Matt <Matt.Krakow@wnr.com>; Tsinnajinnie, Leona, NMENV <Leona.Tsinnajinnie@state.nm.us>; Cobrain, Dave, NMENV <dave.cobrain@state.nm.us>; Dhawan, Neelam, NMENV <neelam.dhawan@state.nm.us>
Subject: Up-Dated C-141 Initial Report for August 4th, 2016 Sump Overflow Event - Western Refining Bloomfield Terminal

Good Morning Sir,

Western Refining is submitting an updated C-141 initial report pertaining to the August 4th, 2016 Sump Overflow Incident that was previously reported to NMOCDD. A hard copy of the attached letter has been sent to you and is expected to arrive at your office later this morning. If you have any questions regarding this event, please feel free to contact Mr. Randy Schmaltz or myself at your convenience.

Thank you for your time, and have a great day!

Sincerely,

Kelly R. Robinson | Environmental Supervisor
Western Refining | 111 County Road 4990 | Bloomfield, NM87413
(o) 505-632-4166 | (c) 505-801-5616 | (e) kelly.robinson@wnr.com

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August 29, 2016

Carl Chavez
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Frances Drive
Santa Fe, New Mexico 87505

UPS Tracking #: 1Z 881 839 01 4279 6114 (OCD – Santa Fe)
Certified Mailer #: 7015 0640 0005 8540 2704 (OCD – Aztec)
UPS Tracking #: 1Z 881 839 01 4194 7122 (NMED-HWB)

**Re: August 4th, 2016 Sump Overflow Incident
Response to Corrective Action Report Request
Western Refining Southwest, Inc. – Bloomfield Terminal
EPA ID# NMD089416416**

Dear Mr. Chavez:

On August 4th, 2016, Western Refining Southwest Inc. - Bloomfield Terminal ("Western") provided notification to the New Mexico Oil Conservation Division ("NMOCD") and the New Mexico Environment Department Hazardous Waste Bureau ("NMED-HWB") regarding a sump overflow event that occurred near the Bloomfield Terminal Product Loading Rack Area. Figures showing the approximate location of the release are attached. The cause of the incident was the result of a malfunction of the fire suppression system at the Product Loading Rack, which resulted in a large volume of water to drain to the sump during a short period of time, thus causing the sump to overflow. Corrective actions were initiated upon immediate notification of the event, which included the shutdown of the Loading Rack and the removal of surface fluids using the on-site vacuum truck. The release was contained to within the earthen berm area around the sump.

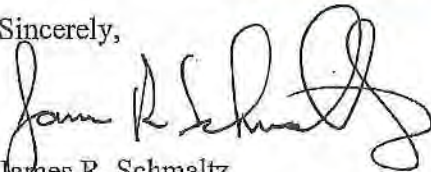
Western has contracted with LT Environmental to oversee the removal of visually impacted soils within the release area to the extent that the soils removal does not compromise the integrity of the containment berm for this sump area and adjacent loading rack. Excavated soils will be replaced with clean soil so as to re-establish the containment area sufficient for daily operations.

The area in which this overflow occurred has been previously investigated under an active Consent Order issued through NMED-HWB. Previous investigation results indicate concentrations within the surrounding soils that will require further investigation and corrective actions once the area is no longer in-service and is accessible to implement corrective action activities. With this said, Western is requesting approval from the NMOCD to defer closure of this area until such time that the area is no longer part of facility operations. In addition, Western is requesting that future corrective actions for this area be conducted pursuant to the conditions of the active Consent Order under the coordination

with NMED-HWB. To reflect this request, Western has enclosed a revised C-141 Initial Report indicating that on-going corrective actions, as it pertains to this release area, will be coordinated with NMED-HWB pursuant to the Consent Order dated July 27, 2007.

If you have any questions or would like to discuss this topic, please feel free to contact me at (505) 632-4171 or Randy.Schmaltz@wnr.com.

Sincerely,



James R. Schmaltz
Health, Safety, Environmental, and Regulatory Manager
Western Refining Southwest, Inc. – Bloomfield Terminal

cc:D. Cobrain (NMED-HWB)
N. Dhawan (NMED-HWB)
K. Van Horn (NMED-HWB)
L. Tsinnajinnie (NMED-HWB)
C. Smith (OCD – Aztec)
A. Hains (WNR)
K. Robinson (WNR)

Site Location

Western Refining Bloomfield Terminal

Legend





- = Top of sump ; source of overflow release .
- = Area of impact.
- ↑ = Showing direction of surface flow due to surface gradient.
- = Symbol of existing earthen berm.

C-141 Initial Report (Revised August 29, 2016)

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report (revised 8/29/2016) ☐ Final Report

Name of Company: Western Refining Southwest, Inc.	Contact: Kelly Robinson	
Address: 50 Road 4990	Telephone No.: 505-632-4166	
Facility Name: Bloomfield Terminal	Facility Type: Products Terminal	
Surface Owner: Western Refining Southwest, Inc.	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	27	29N	11W					

Latitude 36.696775 Longitude -107.971133

NATURE OF RELEASE

Type of Release: Product/Water mixture	Volume of Release: estimated 150 bbl	Volume Recovered: approx. 140 bbl
Source of Release: Unloading Rack Sump	Date and Hour of Occurrence: 8/4/2016 at approx. 6am	Date and Hour of Discovery: 8/4/2016 at approx. 6am
Was Immediate Notice Given? ☒ Yes ☐ No ☒ Not Required	If YES, To Whom? Cory Smith (NMOCD-Aztec) Carl Chavez (NMED-Santa Fe) Leona Tsinnajinnie (NMED-HWB) Dave Cobrain (NMED-HWB) Neelam Dhawan (NMED-HWB)	
By Whom?: Kelly Robinson	Date and Hour : 8/4/2016 at 3:54pm via e-mail	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* At approximately 6am on August 4, 2016, a malfunction of the fire suppression system at the Western Refining Bloomfield Terminal ("Western") product loading rack resulted in the overflow of the loading rack sump. The event involved the unexpected activation of the fire suppression system, resulting in a large volume of fresh water to drain through the loading rack drains and into the loading rack sump. This event lasted only a few minutes, but the volume of fresh water release was more than the sump could manage in a short period of time. The overflow material from the product sump was a mixture of fresh water and the finished product residuals that remained in the sump.		
Describe Area Affected and Cleanup Action Taken.* All of the overflow material was contained within the boundary of the Bloomfield Terminal and was localized within the earthen bermed area around the loading rack sump. Upon immediate observation of the event Operations manually turned off the fire system, stopping the flow of water to the sump. Western estimates that approximately 150 bbls of water/product mixture overflowed from the sump, all of which remained within the containment area. A large portion of the released volume was recovered using an on-site vacuum truck. This product/water release occurred in an area previously investigated under an active Consent Order issued through the New Mexico Hazardous Waste Bureau (NMED-HWB). Western will be coordinating with the NMED-HWB on implementing corrective action pursuant to the condition of the Consent Order.		

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

OIL CONSERVATION DIVISION

Signature:

Kelly Robinson

Printed Name:

Kelly Robinson

Approved by Environmental Specialist:

Title:

Environmental Supervisor

Approval Date:

Expiration Date:

E-mail Address:

Kelly.Robinson@CWR.com

Conditions of Approval:

Attached ☐

Date:

8-29-16

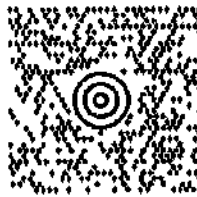
Phone:

505-632-4166

* Attach Additional Sheets If Necessary

FROM:

JANET MACKEY
(505) 632-8013
BLOOMFIELD REFINING CO.
#50 CR 4990
BLOOMFIELD NM 87413-9619

1 LBS**1 OF 1****NM 875 0-03****SHIP TO:**

LEONA TSINNAJINNIE
NMED - HAZARDOUS WASTE BUREAU
2905 RODEO PARK DRIVE EAST, BLDG. 1
SANTA FE NM 87505

UPS NEXT DAY AIR

TRACKING #: 1Z 881 839 01 4194 7122

1

REF 1:LEONA TSINNAJINNIE
REF 2:ENVIROMENTAL

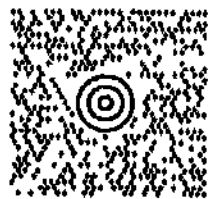
BILLING: P/P

WS 19.0.24 HP Universal 78.0A 07/2016

Fold here and place in label pouch

FROM:
JANET MACKEY
(505) 632-8013
BLOOMFIELD REFINING CO.
#50 CR 4990
BLOOMFIELD NM 87413-9619

0.5 LBS LTR 1 OF 1



NM 875 0-03



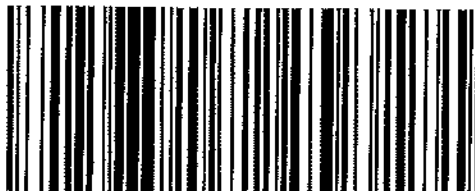
SHIP TO:

CARL CHAVEZ
NM ENERGY MINERALS NATURAL RESOURCE
1220 S. SAINT FRANCIS DRIVE
SANTA FE NM 87505

UPS NEXT DAY AIR

TRACKING #: 1Z 881 839 01 4279 6114

1



REF 1:CARL CHAVEZ
REF 2:ENVIOMENTAL

BILLING: P/P

WS 19.0.24 HP Universal 79.0A 07/2018

Fold here and place in label pouch

Robinson, Kelly

From: Robinson, Kelly
Sent: Tuesday, August 30, 2016 4:27 PM
To: Carl Chavez (CarlJ.Chavez@state.nm.us)
Cc: Smith, Cory, EMNRD; Schmaltz, Randy; Krakow, Matt; Tsinnajinnie, Leona, NMENV; Cobrain, Dave, NMENV; Neelam Dhawan (neelam.dhawan@state.nm.us)
Subject: C 141 Initial Notification - Used Water Release at Bloomfield Terminal
Attachments: C 141 Initial Notification__Used water release.pdf

Sir,

On Saturday, August 27th, 2016, Bloomfield Terminal Operations identified a leak in the used water line that conveys treated water from the aeration ponds to the evaporation ponds. Attached is the Initial C-141 Report documenting this event. A hard copy of this report is being sent to NMOCD-Santa Fe, NMOCD-Aztec, and NMED-HWB for reference. Please feel free to contact Randy Schmaltz (505-632-4171) if you have any questions regarding this event.

Thank you for your time!

Sincerely,

Kelly R. Robinson | Environmental Supervisor
Western Refining | 111 County Road 4990 | Bloomfield, NM87413
(o) 505-632-4166 | (c) 505-801-5616 | (e) kelly.robinson@wnr.com

This message may contain PRIVILEGED AND CONFIDENTIAL INFORMATION intended solely for the use of the addressee(s) named above. Any disclosure, distribution, copying or use of the information by others is strictly prohibited. If you have received this message in error, please advise the sender by immediate reply and delete the original message.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Western Refining Southwest, Inc.	Contact: Kelly Robinson	
Address: 50 Road 4990	Telephone No.: 505-632-4166	
Facility Name: Bloomfield Terminal	Facility Type: Bulk Storage Terminal	
Surface Owner: Western Refining Southwest, Inc.	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	27	29N	11W					

Latitude 36.69888 Longitude 107.9736111

NATURE OF RELEASE

Type of Release: Used Water at Discharge of WWTS	Volume of Release: unknown	Volume Recovered: > 5 bbls
Source of Release: Used Water Discharge Piping within Tank 11/12 containment area	Date and Hour of Occurrence: 8/27/2016 at approx. 7am	Date and Hour of Discovery: 8/27/2016 at approx. 7am
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom? :	Date and Hour :	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

At approximately 7am on Saturday, August 27th, 2016, Terminal Operation's discovered a small area within Tank 11/12 containment area where moisture appeared to surface. It was known that the used water pipeline that conveys treated water from the aeration ponds to the evaporation ponds is located in this area. The line was isolated from service, and Western Maintenance Personnel were called out to the Terminal to expose and repair the line.

The PVC pipeline exhibited a small crack, which caused used water to seep from the line to the surrounding soils. The majority of the volume released was caused by the need to drain down the line for repair. Western formed a depression in the area where the drain-down water was allowed to collect. The on-site vacuum truck was used to pull the waters from the depression, and the waters were returned to the wastewater treatment plant inlet for reprocessing. No surface waters were released from the containment area.

Describe Area Affected and Cleanup Action Taken.*

Upon observation of the leak at surface, Operations shutdown the transfer used water transfer line and Maintenance was able to expose the line for repair. Surface waters were pulled with the on-site vacuum truck and brought to the inlet to the on-site wastewater treatment system for reprocessing.

Western collected a sample of the waters from the repaired pipeline and submitted the sampled to Hall Laboratory for analysis. The sample is being analyzed for TPH-GRO, TPH-DRO, Benzene, Toluene, Ethylbenzene, and Xylenes. The analytical results will be submitted to NMOCD for review following receipt from the lab.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

OIL CONSERVATION DIVISION

Signature:

Kelly Robinson

Printed Name:

Kelly Robinson

Approved by Environmental Specialist:

Title:

Environmental Supervisor

Approval Date:

Expiration Date:

E-mail Address:

Kelly.Robinson@WNR.com

Conditions of Approval:

Attached ☐Date: *8-30-16*Phone: *505-632-4166*

* Attach Additional Sheets If Necessary

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Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom? :	Date and Hour :	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

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Upon observation of the leak at surface, Operations shutdown the transfer used water transfer line and Maintenance was able to expose the line for repair. Surface waters were pulled with the on-site vacuum truck and brought to the inlet to the on-site wastewater treatment system for reprocessing.

Western collected a sample of the waters from the repaired pipeline and submitted the sample to Hall Laboratory for analysis. The sample is being analyzed for TPH-GRO, TPH-DRO, Benzene, Toluene, Ethylbenzene, and Xylenes. The analytical results will be submitted to NMOCDD for review following receipt from the lab.

Up-Dated 9/19/2016: The analytical results from the water sample collected on August 29, 2016 indicate that the BTEX, TPH-MRO, and TPH-DRO concentrations are below the respective laboratory detection limits. TPH-DRO was detected at a concentration of 1.9 mg/l. A copy of the analytical report is attached. Based on the NMOCDD "Guidelines for Remediation of Leaks, Spills and Releases" dated August 13, 1993, Western is requesting approval for a No Further Corrective Action Required designation for this incident.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Kelly Robinson		Approved by Environmental Specialist:	
Title: Environmental Supervisor		Approval Date:	Expiration Date:
E-mail Address: Kelly.Robinson@wnr.com		Conditions of Approval:	Attached ☐
Date: 9/19/2016 Phone: (505) 632-4166			

* Attach Additional Sheets If Necessary



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 06, 2016

Kelly Robinson

Western Refining Southwest, Inc.

#50 CR 4990

Bloomfield, NM 87413

TEL: (505) 632-4135

FAX (505) 632-3911

RE: Bloomfield Terminal

OrderNo.: 1608G76

Dear Kelly Robinson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/30/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1608G76

Date Reported: 9/6/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** Aeration Pond 3**Project:** Bloomfield Terminal**Collection Date:** 8/29/2016 3:00:00 PM**Lab ID:** 1608G76-001**Matrix:** AQUEOUS**Received Date:** 8/30/2016 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	1.9	1.0		mg/L	1	8/31/2016 10:46:22 AM	27273
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/31/2016 10:46:22 AM	27273
Surr: DNOP	111	77.1-144		%Rec	1	8/31/2016 10:46:22 AM	27273
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/31/2016 12:06:21 PM	G36893
Surr: BFB	88.8	66.4-120		%Rec	1	8/31/2016 12:06:21 PM	G36893
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: AG
Benzene	ND	1.0		µg/L	1	9/1/2016 11:13:24 AM	L36926
Toluene	ND	1.0		µg/L	1	9/1/2016 11:13:24 AM	L36926
Ethylbenzene	ND	1.0		µg/L	1	9/1/2016 11:13:24 AM	L36926
Xylenes, Total	ND	1.5		µg/L	1	9/1/2016 11:13:24 AM	L36926
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	9/1/2016 11:13:24 AM	L36926
Surr: 4-Bromofluorobenzene	94.4	70-130		%Rec	1	9/1/2016 11:13:24 AM	L36926
Surr: Dibromofluoromethane	97.1	70-130		%Rec	1	9/1/2016 11:13:24 AM	L36926
Surr: Toluene-d8	99.6	70-130		%Rec	1	9/1/2016 11:13:24 AM	L36926

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608G76

06-Sep-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID: 1608G76-001BMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range								
Client ID: Aeration Pond 3	Batch ID: 27273	RunNo: 36883								
Prep Date: 8/31/2016	Analysis Date: 8/31/2016	SeqNo: 1143264 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	7.3	1.0	5.000	1.926	108	59.4	160			
Surr: DNOP	0.56		0.5000		111	77.1	144			

Sample ID	1608G76-001BMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range				
Client ID:	Aeration Pond 3		Batch ID:	27273		RunNo:	36883				
Prep Date:	8/31/2016		Analysis Date:	8/31/2016		SeqNo:	1143350		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	7.7	1.0	5.000	1.926	115	59.4	160	4.70	20		
Surr: DNOP	0.56		0.5000		113	77.1	144	0	0		

Sample ID	MB-27273	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range					
Client ID:	PBW	Batch ID:	27273	RunNo:	36883					
Prep Date:	8/31/2016	Analysis Date:	8/31/2016	SeqNo:	1143428	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		112	77.1	144			

Sample ID	LCS-27273		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range				
Client ID:	LCSW		Batch ID:	27273		RunNo:	36883				
Prep Date:	8/31/2016		Analysis Date:	8/31/2016		SeqNo:	1143512		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	5.5	1.0	5.000	0	109	71.3	139				
Surr: DNOP	0.53		0.5000		106	77.1	144				

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608G76

06-Sep-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID: B30	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBW	Batch ID: G36893	RunNo: 36893								
Prep Date:	Analysis Date: 8/31/2016	SeqNo: 1143756 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		87.3	66.4	120			

Sample ID: 2.5UG GRO LCS	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSW	Batch ID: G36893	RunNo: 36893								
Prep Date:	Analysis Date: 8/31/2016	SeqNo: 1143757 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.49	0.050	0.5000	0	98.6	80	120			
Surr: BFB	21		20.00		103	66.4	120			

Sample ID: 1608G76-001AMS	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: Aeration Pond 3	Batch ID: G36893	RunNo: 36893								
Prep Date:	Analysis Date: 8/31/2016	SeqNo: 1143760 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.050	0.5000	0	104	70	130			
Surr: BFB	20		20.00		98.8	66.4	120			

Sample ID: 1608G76-001AMSD	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: Aeration Pond 3	Batch ID: G36893	RunNo: 36893								
Prep Date:	Analysis Date: 8/31/2016	SeqNo: 1143761 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.050	0.5000	0	104	70	130	0.539	20	
Surr: BFB	20		20.00		98.3	66.4	120	0	0	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
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| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RJ Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608G76

06-Sep-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID: 100ng ics	SampType: LCS	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: LCSW	Batch ID: L36926	RunNo: 36926								
Prep Date:	Analysis Date: 9/1/2016	SeqNo: 1145036 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.1	70	130			
Toluene	18	1.0	20.00	0	89.6	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.1	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	9.4		10.00		94.3	70	130			

Sample ID: rb	SampType: MBLK	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: PBW	Batch ID: L36926	RunNo: 36926								
Prep Date:	Analysis Date: 9/1/2016	SeqNo: 1145037 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	9.8		10.00		97.8	70	130			

Qualifiers:

- | | |
|---|---|
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Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Southw**

Work Order Number: **1608G76**

RcptNo: 1

Received by/date:

[Signature]

08/30/16

Logged By: **Lindsay Mangin**

8/30/2016 9:15:00 AM

[Signature]

Completed By: **Lindsay Mangin**

8/30/2016 9:42:46 AM

[Signature]

Reviewed By:

IO

8/30/16

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? UPS

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH: ☐ (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted? ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by: ☐

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good	Yes			



Western Refining
111 Road 4990
Bloomfield, NM 87413

NMOCB - Aztec Office
Attn: Corey Smith
1000 Rio Brazos Rd
Aztec, NM 87410

HAND DELIVERED

Robinson, Kelly

From: Robinson, Kelly
Sent: Wednesday, November 09, 2016 4:24 PM
To: Smith, Cory, EMNRD; Fields, Vanessa, EMNRD
Cc: Schmaltz, Randy; Krakow, Matt
Subject: C-141 Initial/ Final Report_Minor Spill
Attachments: C-141_Initial_Final Report.pdf

Good Afternoon,

On October 26, 2016, approximately 5-10 bbls of recovered groundwater was inadvertently released to the tank secondary area following a mechanical issue with the tank discharge pump. The liquids released did not contain oils, but the volume released was over the minor spill reporting volume. Western collected a sample of the recovered groundwater at the time of the release and had the sample analyzed pursuant to the NMOCDC spill response guidelines to further demonstrate the quality of the water released. Attached is the initial/final C-141 documenting this event. Included in the report is analytical of the water sample collected, and a location map showing the approximate location of the release. No surface waters were impacted. No sheen or odors were present at the time of the release.

A hard copy of this report will be delivered to your office tomorrow. If you have any questions regarding this event, please let us know at your convenience.

Thank you so much for your time!

Sincerely,

Kelly R. Robinson | Environmental Supervisor
Western Refining | 111 County Road 4990 | Bloomfield, NM87413
(o) 505-632-4166 | (c) 505-801-5616 | (e) kelly.robinson@wnr.com

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State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company: Western Refining Southwest, Inc.	Contact: Kelly Robinson	
Address: 50 Road 4990	Telephone No.: 505-632-4166	
Facility Name: Bloomfield Terminal	Facility Type: Bulk Storage Terminal	
Surface Owner: Western Refining Southwest, Inc.	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	27	29N	11W					

Latitude 36.700351 Longitude -107.972744

NATURE OF RELEASE

Type of Release: Recovered Groundwater	Volume of Release: 3-5 bbls	Volume Recovered: 5-10 bbls
Source of Release: Recovered groundwater	Date and Hour of Occurrence: Uncertain	Date and Hour of Discovery: 10/26/2016 at 7:15pm
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom? :	Date and Hour :	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

At approximately 7:15pm, Bloomfield Terminal Operations discovered that the variable drive (VFD) on the discharge pump of Tank 38 failed, causing Tank 38 to fill and run over into the tank secondary containment area. Tank 38 captures groundwater from East Outfall #1. Operations personnel quickly used the on-site vacuum truck to pull down the level in the tank, and thus stopping the discharge to ground. The vacuum truck was also used to recover excess liquids within the tank secondary containment. All fluids recovered were transported to the on-site wastewater treatment system.

The event resulted in the release of approximately 5-10 barrels of recovered groundwater, of which approximately 2-4 barrels were recovered from the secondary containment. No surface water were impacted. The liquids did not exhibit a sheen and did not exhibit any odors.

Describe Area Affected and Cleanup Action Taken.*

Tank 38 was originally put into service to collect groundwater from East Outfall #1 when there was a concern of groundwater impacts in the area during the time when the facility operated as a Refinery. For the past several years, the water at this location no longer exhibits characteristics of being impacted. No odor was detected in the water released to ground, and no sheen was visible.

To demonstrate the quality of liquids released in this event, Western collected a sample of the water from Tank 38 and submitted the sample to Hall Laboratory for analysis. The sample was analyzed for total petroleum hydrocarbons (TPH), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX). The results show that the liquids do not exhibit any detectable concentrations of TPH or BTEX, therefore Western is requesting a No Further Corrective Action designation for this event.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <u>Kelly Robinson</u>		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: <u>Kelly Robinson</u>		Approved by Environmental Specialist:	
Title: <u>Environmental Supervisor</u>		Approval Date:	Expiration Date:
E-mail Address: <u>Kelly.Robinson@wnr.com</u>		Conditions of Approval:	Attached ☐
Date: <u>11-9-16</u> Phone: <u>(505) 632-4166</u>			

* Attach Additional Sheets If Necessary

Bloomfield Terminal

Legend

Tank 38

Wooten Rd

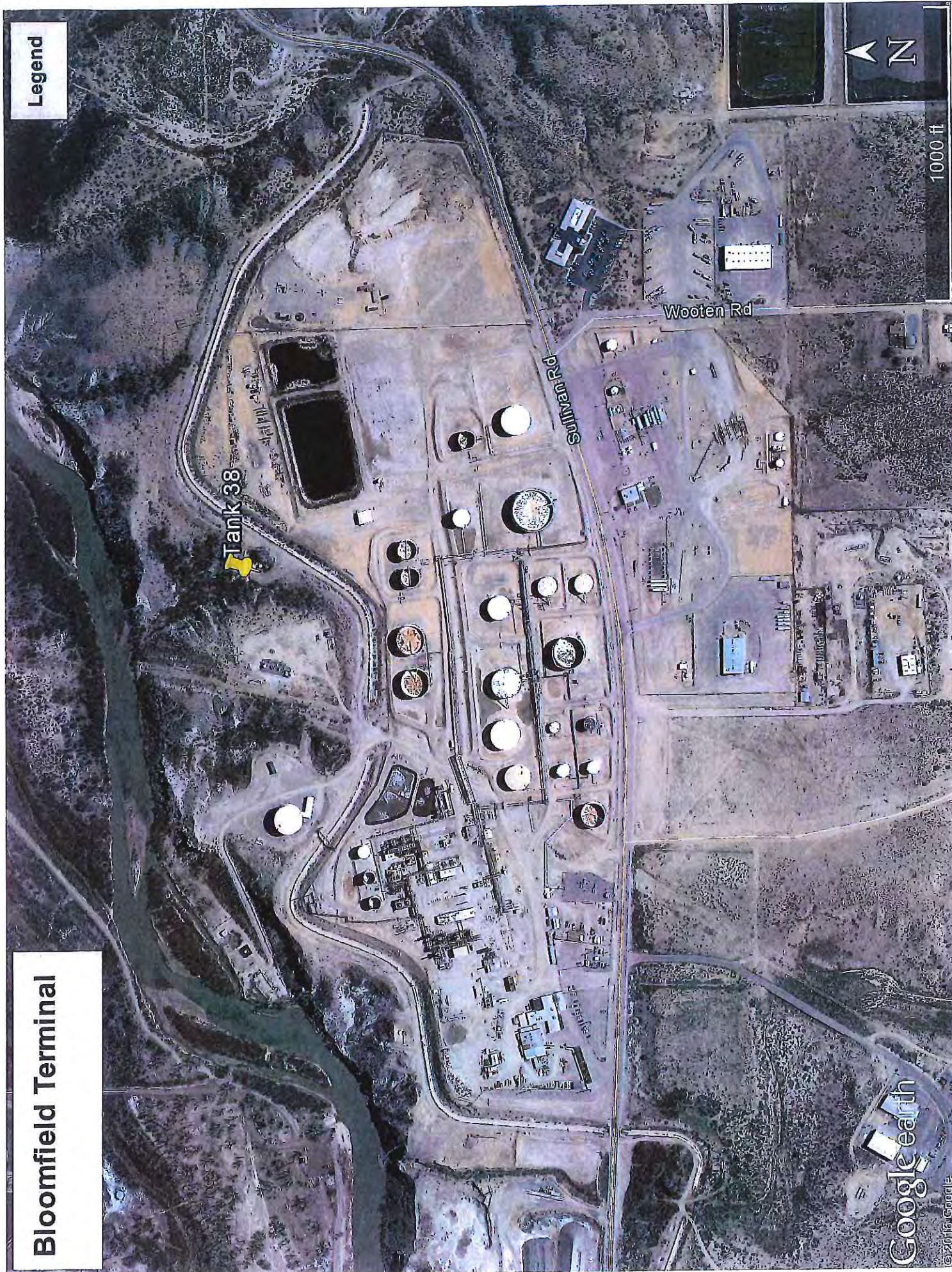
Sullivan Rd

N

1000 ft

Google earth

© 2010 Google





Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 07, 2016

Kelly Robinson

Western Refining Southwest, Inc.

#50 CR 4990

Bloomfield, NM 87413

TEL: (505) 632-4135

FAX (505) 632-3911

RE: Tank 38

OrderNo.: 1611108

Dear Kelly Robinson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 11/2/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1611108

Date Reported: 11/7/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: TK 38 Water

Project: Tank 38

Collection Date: 10/26/2016 8:00:00 PM

Lab ID: 1611108-001

Matrix: AQUEOUS

Received Date: 11/2/2016 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: MAB
Petroleum Hydrocarbons, TR	ND	1.0	H	mg/L	1	11/3/2016	28445
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	1.0		µg/L	1	11/4/2016 9:20:20 AM	B38456
Toluene	ND	1.0		µg/L	1	11/4/2016 9:20:20 AM	B38456
Ethylbenzene	ND	1.0		µg/L	1	11/4/2016 9:20:20 AM	B38456
Xylenes, Total	ND	2.0		µg/L	1	11/4/2016 9:20:20 AM	B38456
Sum: 4-Bromofluorobenzene	99.8	87.9-146		%Rec	1	11/4/2016 9:20:20 AM	B38456

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611108

07-Nov-16

Client: Western Refining Southwest, Inc.

Project: Tank 38

Sample ID	MB-28445	SampType:	MBLK	TestCode:	EPA Method 418.1: TPH					
Client ID:	PBW	Batch ID:	28445	RunNo:	38438					
Prep Date:	11/3/2016	Analysis Date:	11/3/2016	SeqNo:	1200230	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	1.0								

Sample ID	LCS-28445	SampType:	LCS	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSW	Batch ID:	28445	RunNo:	38438					
Prep Date:	11/3/2016	Analysis Date:	11/3/2016	SeqNo:	1200231	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	5.8	1.0	5.000	0	117	79.2	126			

Sample ID	LCSD-28445	SampType:	LCSD	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS02	Batch ID:	28445	RunNo:	38438					
Prep Date:	11/3/2016	Analysis Date:	11/3/2016	SeqNo:	1200232	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	5.5	1.0	5.000	0	110	79.2	126	6.07	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611108

07-Nov-16

Client: Western Refining Southwest, Inc.

Project: Tank 38

Sample ID	RB	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBW	Batch ID:	B38456		RunNo:	38456				
Prep Date:		Analysis Date:	11/4/2016		SeqNo:	1201592	Units:	µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	21		20.00		105	87.9	146			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	B38456	RunNo:	38456					
Prep Date:		Analysis Date:	11/4/2016	SeqNo:	1201593					
				Units:	µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	80	120			
Toluene	20	1.0	20.00	0	99.0	80	120			
Ethylbenzene	18	1.0	20.00	0	90.7	80	120			
Xylenes, Total	53	2.0	60.00	0	88.1	80	120			
Surr: 4-Bromofluorobenzene	20		20.00		100	87.9	146			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Southw

Work Order Number: 1611108

ReptNo: 1

Received by/date:

Logged By: Ashley Gallegos

11/2/2016 10:15:00 AM

Completed By: Ashley Gallegos

11/2/2016 12:20:29 PM

Reviewed By: IO

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

UPS

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☒

No ☐

No VOA Vials ☐

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody)

Yes ☒

No ☐

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?
(If no, notify customer for authorization.)

Yes ☒

No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Western Refining Terminals, LLC.	Contact: Kelly Robinson
Address: 50 Road 4990	Telephone No.: 505-632-4166
Facility Name: Bloomfield Terminal	Facility Type: Products Terminal

Surface Owner: Western Refining Southwest, Inc.	Mineral Owner	API No.
---	---------------	---------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	27	29N	11W					

Latitude 36.696870 Longitude -107.970785

NATURE OF RELEASE

Type of Release: Denatured Ethanol	Volume of Release: estimated 25-30 bbls	Volume Recovered: approx. 22 bbl
Source of Release: Tank 44 Ethanol Tank	Date and Hour of Occurrence: 11/3/2016 at approx. 9:30pm	Date and Hour of Discovery: 11/3/2016 at approx. 9:35pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Cory Smith (NMOCD-Aztec) Vanessa Fields (NMOCD-Aztec) Carl Chavez (NMED-Santa Fe) Leona Tsinnajinnie (NMED-HWB) Dave Cobrain (NMED-HWB) Neelam Dhawan (NMED-HWB)	
By Whom? : Kelly Robinson	Date and Hour : 11/4/2016 at 2:26pm via e-mail	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

At approximately 9:30pm on November 3, 2016, a delivery truck inadvertently overfilled Tank 44 resulting in the release of denatured ethanol into the tank secondary containment area. Upon discovery, the truck driver ceased unloading activities and Western Operations Personnel initiated corrective actions which included recovering excess liquids using the on-site vacuum truck. The recovered ethanol was sent through the facility WWTS for recovery and disposal. Preliminary estimates are that the total volume released was approximately 25-30 barrels of denatured ethanol, of which 22 barrels were recovered and processed through the facility WWTS.

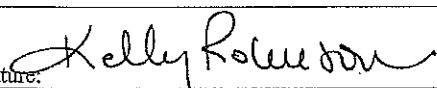
Describe Area Affected and Cleanup Action Taken.*

The volume released was contained within the earthen tank secondary containment area. No surface liquids were released from the facility boundary. Western is contracting with Envirotech to initiate excavation clean-up activities. Confirmation samples will be collected in the field and compared to applicable clean-up standards pursuant to the NMOCD "Guidelines for Remediation of Leaks, Spills, and Releases" dated August 13, 1993. In addition, this event occurred in an area previously investigated under the active Consent Order issued through the New Mexico Hazardous Waste Bureau (NMED-HWB). Western will be coordinating with the NMED-HWB on implementing corrective actions pursuant to the conditions of the Consent Order.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

OIL CONSERVATION DIVISION

Signature:



Printed Name: Kelly Robinson

Approved by Environmental Specialist:

Title: Environmental Supervisor

Approval Date:

Expiration Date:

E-mail Address: Kelly.robinson@wnr.com

Conditions of Approval:

Attached ☐

Date: 11/4/2016

Phone: (505) 632-4166

* Attach Additional Sheets If Necessary

WESTERN REFINING
BLOOMFIELD TERMINAL



O = TANK 44 (Denatured Ethanol)

LAT/LONG: 36.696870 , -107.976785

NESE Sect: 27 / T29N / R11W

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:

New Mexico Oil Conservation Div.
ATTN: Cory. Smith
000 Rio Brazos Road
Aztec, NM 87410



9590 9402 1629 6053 0974 04

Article Number (Transfer from service label)

15 1520 0001 8113 5901

Form 3811, July 2015 PSN 7530-02-000-9053

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usps.com/poboxes.

All sales final on stamps and postage
Refunds for guaranteed services only
Thank you for your business

HELP US SERVE YOU BETTER

TELL US ABOUT YOUR RECENT
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<https://postalexperience.com/Pos>

840-5870-0093-002-00006-41973-02

or scan this code with
your mobile device:



or call 1-800-410-7420.

YOUR OPINION COUNTS

#: 840-58700093-2-641973-2
k: 03

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Brandon Powell*

- ☐ Agent
- ☐ Addressee

B. Received by (Printed Name)

Brandon Powell

C. Date of Delivery

11-8-16

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over \$500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

Aztec, NM 87410

PS Form 3800, April 2015 PSN 7580-02-000-9047

See Reverse for Instructions

MAIL® RECEIPT

Visit our website at www.usps.com

SPECIAL USE

Add fee as appropriate)

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\$
\$
\$
\$
\$
\$

Postmark
Here

Lab & Natural Resources -OCD

Box No. 205 Road

87410

SECTION

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

- ☐ Agent
- ☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over \$500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery



12 1629 6053 0974 04

(Transfer from service label)

0 0001 8113 5901

July 2015 PSN 7530-02-000-9053

TK 44 Initial C141

Domestic Return Receipt

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Western Refining Terminals, LLC.	Contact: Kelly Robinson	
Address: 50 Road 4990	Telephone No.: 505-632-4166	
Facility Name: Bloomfield Terminal	Facility Type: Products Terminal	
Surface Owner: Western Refining Southwest, Inc.	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	27	29N	11W					

Latitude 36.696870 Longitude -107.970785

NATURE OF RELEASE

Type of Release: Ethanol	Volume of Release: estimated 25-30 bbls	Volume Recovered: approx. 22 bbl
Source of Release: Tank 44 Ethanol Tank	Date and Hour of Occurrence: 11/3/2016 at approx. 9:30pm	Date and Hour of Discovery: 11/3/2016 at approx. 9:35pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Cory Smith (NMOCD-Aztec) Vanessa Fields (NMOCD-Aztec) Carl Chavez (NMED-Santa Fe) Leona Tsinnajinnie (NMED-HWB) Dave Cobrain (NMED-HWB) Neelam Dhawan (NMED-HWB)	
By Whom? : Kelly Robinson	Date and Hour : 11/4/2016 at 2:26pm via e-mail	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* At approximately 9:30pm on November 3, 2016, a delivery truck inadvertently overfilled Tank 44 resulting in the release of ethanol into the tank secondary containment area. Upon discovery, the truck driver ceased unloading activities and Western Operations Personnel initiated corrective actions which included recovering excess liquids using the on-site vacuum truck. The recovered ethanol was sent through the facility WWTS for recovery and disposal. Western estimates are that the total volume released was approximately 25-30 barrels of ethanol, of which 22 barrels were recovered and processed through the facility WWTS.		

Describe Area Affected and Cleanup Action Taken.*

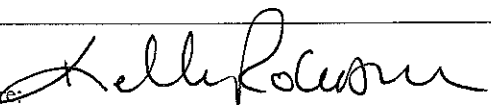
The volume released was contained within the earthen tank secondary containment area. No surface liquids were released from the facility boundary. Western contracted with Envirotech to initiate excavation clean-up activities. Between November 7th and November 11th, 2016, approximately 40 cubic yards of soil were removed from within the containment area. The vertical extent of the excavation area ranged between 8-inches and 30-inches, with the deepest areas of the excavation being the area where fluids collected as a result of the contour of the containment base at the time of the release. The extent of soils removed was based on visual inspection (snell, sight).

This event occurred in an area previously investigated under the active Consent Order issued through the New Mexico Hazardous Waste Bureau (NMED-HWB). On Friday, November 4, 2016, Western contacted the NMED-HWB requesting guidance on what additional sampling, if any, are required at this time in-response to the spill event. A copy of the Initial C-141 and photos of the spill area were provided to NMED for their review. On November 9, 2016, NMED-HWB completed their review of the event. No additional delineation samples were required to be collected from the excavation area.

Western did collect a sample of the impacted soils for waste characterization. The analytical results of the soils indicate that the soils are characterized as non-hazardous, and thus will be disposed of at the Envirotech Landfill south of Bloomfield, New Mexico. A copy of the waste analytical report is attached for review.

Based on this information provided in this report, Western is requesting NMOCD issue a "No Further Corrective Action Required" designation for this event.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Kelly Robinson		Approved by Environmental Specialist:	
Title: Environmental Supervisor		Approval Date:	Expiration Date:
E-mail Address: Kelly.robinson@wnr.com		Conditions of Approval:	Attached ☐
Date: 12/2/2016 Phone: (505) 632-4166			

* Attach Additional Sheets If Necessary

110716 MK



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 18, 2016

Matt Krakow

Western Refining Southwest, Inc.

#50 CR 4990

Bloomfield, NM 87413

TEL: (505) 632-4135

FAX (505) 632-3911

RE: Tank 44

OrderNo.: 1611448

Dear Matt Krakow:

Hall Environmental Analysis Laboratory received 1 sample(s) on 11/9/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1611448

Date Reported: 11/18/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: TK-44

Project: Tank 44

Collection Date: 11/7/2016 3:00:00 PM

Lab ID: 1611448-001

Matrix: SOIL

Received Date: 11/9/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
MERCURY, TCLP							Analyst: DBD
Mercury	ND	0.020		mg/L	1	11/17/2016 11:39:17 AM	28719
EPA METHOD 6010B: TCLP METALS							Analyst: MED
Arsenic	ND	5.0		mg/L	1	11/16/2016 9:24:40 AM	28630
Barium	ND	100		mg/L	1	11/16/2016 9:24:40 AM	28630
Cadmium	ND	1.0		mg/L	1	11/16/2016 9:24:40 AM	28630
Chromium	ND	5.0		mg/L	1	11/16/2016 9:24:40 AM	28630
Lead	ND	5.0		mg/L	1	11/16/2016 9:24:40 AM	28630
Selenium	ND	1.0		mg/L	1	11/16/2016 9:24:40 AM	28630
Silver	ND	5.0		mg/L	1	11/16/2016 9:24:40 AM	28630
EPA METHOD 8270C TCLP							Analyst: DAM
2-Methylphenol	ND	200		mg/L	1	11/14/2016 6:41:54 PM	28585
3+4-Methylphenol	ND	200		mg/L	1	11/14/2016 6:41:54 PM	28585
Phenol	ND	200		mg/L	1	11/14/2016 6:41:54 PM	28585
2,4-Dinitrotoluene	ND	0.13		mg/L	1	11/14/2016 6:41:54 PM	28585
Hexachlorobenzene	ND	0.13		mg/L	1	11/14/2016 6:41:54 PM	28585
Hexachlorobutadiene	ND	0.50		mg/L	1	11/14/2016 6:41:54 PM	28585
Hexachloroethane	ND	3.0		mg/L	1	11/14/2016 6:41:54 PM	28585
Nitrobenzene	ND	2.0		mg/L	1	11/14/2016 6:41:54 PM	28585
Pentachlorophenol	ND	100		mg/L	1	11/14/2016 6:41:54 PM	28585
Pyridine	ND	5.0		mg/L	1	11/14/2016 6:41:54 PM	28585
2,4,5-Trichlorophenol	ND	400		mg/L	1	11/14/2016 6:41:54 PM	28585
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	11/14/2016 6:41:54 PM	28585
Cresols, Total	ND	200		mg/L	1	11/14/2016 6:41:54 PM	28585
Surr: 2-Fluorophenol	24.0	15-123		%Rec	1	11/14/2016 6:41:54 PM	28585
Surr: Phenol-d5	19.3	15-118		%Rec	1	11/14/2016 6:41:54 PM	28585
Surr: 2,4,6-Tribromophenol	36.4	15-170		%Rec	1	11/14/2016 6:41:54 PM	28585
Surr: Nitrobenzene-d5	59.4	15-129		%Rec	1	11/14/2016 6:41:54 PM	28585
Surr: 2-Fluorobiphenyl	47.2	15-135		%Rec	1	11/14/2016 6:41:54 PM	28585
Surr: 4-Terphenyl-d14	42.0	15-144		%Rec	1	11/14/2016 6:41:54 PM	28585
EPA METHOD 8260B: TCLP COMPOUNDS							Analyst: DJF
Benzene	ND	0.50		ppm	10	11/11/2016 1:22:49 AM	28565
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	11/11/2016 1:22:49 AM	28565
2-Butanone	ND	200		ppm	10	11/11/2016 1:22:49 AM	28565
Carbon tetrachloride	ND	0.50		ppm	10	11/11/2016 1:22:49 AM	28565
Chlorobenzene	ND	100		ppm	10	11/11/2016 1:22:49 AM	28565
Chloroform	ND	6.0		ppm	10	11/11/2016 1:22:49 AM	28565
1,4-Dichlorobenzene	ND	7.5		ppm	10	11/11/2016 1:22:49 AM	28565
1,1-Dichloroethene	ND	0.70		ppm	10	11/11/2016 1:22:49 AM	28565

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1611448

Date Reported: 11/18/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** TK-44**Project:** Tank 44**Collection Date:** 11/7/2016 3:00:00 PM**Lab ID:** 1611448-001**Matrix:** SOIL**Received Date:** 11/9/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: TCLP COMPOUNDS							Analyst: DJF
Tetrachloroethene (PCE)	ND	0.70		ppm	10	11/11/2016 1:22:49 AM	28565
Trichloroethene (TCE)	ND	0.50		ppm	10	11/11/2016 1:22:49 AM	28565
Vinyl chloride	ND	0.20		ppm	10	11/11/2016 1:22:49 AM	28565
Surr: 1,2-Dichloroethane-d4	87.6	70-130		%Rec	10	11/11/2016 1:22:49 AM	28565
Surr: 4-Bromofluorobenzene	91.6	70-130		%Rec	10	11/11/2016 1:22:49 AM	28565
Surr: Dibromofluoromethane	92.6	70-130		%Rec	10	11/11/2016 1:22:49 AM	28565
Surr: Toluene-d8	97.5	70-130		%Rec	10	11/11/2016 1:22:49 AM	28565

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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1611448-001B TK-44

Collected date/time: 11/07/16 15:00

SAMPLE RESULTS - 01

L871654

ONE LAB. NATIONWIDE.



Wet Chemistry by Method 9012 B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Reactive Cyanide	mg/kg		mg/kg			
	ND		0.250	1	11/15/2016 09:03	WG926628

²Tc

Wet Chemistry by Method 9034-9030B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Reactive Sulfide	mg/kg		mg/kg			
	296		25.0	1	11/11/2016 00:45	WG924775

³Ss⁴Cn

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Corrosivity by pH	su				
	8.25		1	11/15/2016 11:29	WG925927

⁵Sr⁶Qc

Sample Narrative:

9045D L871654-01 WG925927: 8.25 at 20.6c

⁷Gl⁸Al

Wet Chemistry by Method D93/1010A

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Ignitability	Deg. F				
	125		1	11/11/2016 08:42	WG925358

⁹Sc

WG926628

Wet Chemistry by Method 9012 B

QUALITY CONTROL SUMMARY

L871654-01

ONE LAB. NATIONWIDE.

Method Blank (MB)

(MB) R3178119-4	11/15/16 08:56	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Analyte Reactive Cyanide	U		0.0390	0.250	

L872124-03 Original Sample (OS) • Duplicate (DUP)

(OS) L872124-03	11/15/16 09:09 • (DUP) R3178119-5	11/15/16 09:10	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Analyte Reactive Cyanide	ND	ND	1	0.000	20			

L872311-02 Original Sample (OS) • Duplicate (DUP)

(OS) L872311-02	11/15/16 09:27 • (DUP) R3178119-8	11/15/16 09:28	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Analyte Reactive Cyanide	ND	ND	1	0.000	20			

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCS)

(LCS) R3178119-2	11/15/16 08:57 • (LCS) R3178119-3	11/15/16 08:58	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Analyte Reactive Cyanide	48.4	61.0	67.5	126	139	50.0-150	10.0	20				

L872309-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

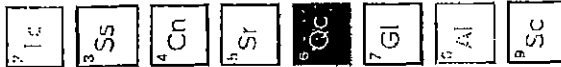
(OS) L872309-01 11/15/16 09:24 • (MS) R3178119-6 11/15/16 09:25 • (MSD) R3178119-7 11/15/16 09:26													
Spike Amount		Original Result		MS Result		MSD Result		MSD Rec.		Dilution		Rec. Limits	
mg/kg		mg/kg		mg/kg		mg/kg		%				%	
3.23		ND		3.55		3.38		105		1		75.0-125	
mg/kg		mg/kg		mg/kg		mg/kg		%		MSD Qualifier		RPD	
3.23		ND		3.55		3.38		105		E		5.00	
mg/kg		mg/kg		mg/kg		mg/kg		%		MS Qualifier		RPD	
3.23		ND		3.55		3.38		105		E		5.00	
mg/kg		mg/kg		mg/kg		mg/kg		%		MSD Qualifier		RPD	
3.23		ND		3.55		3.38		105		E		5.00	
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mg/kg		mg/kg		mg/kg		mg/kg		%		MS Qualifier		RPD	
3.23		ND		3.55		3.38		105		E		5.00	
mg/kg		mg/kg		mg/kg		mg/kg		%		MSD Qualifier		RPD	
3.23		ND		3.55		3.38		105		E		5.00	
mg/kg		mg/kg		mg/kg		mg/kg		%		MS Qualifier		RPD	
3.23		ND		3.55		3.38		105		E		5.00	
mg/kg		mg/kg		mg/kg		mg/kg		%		MSD Qualifier		RPD	
3.23		ND		3.55		3.38		105		E		5.00	
mg/kg		mg/kg		mg/kg		mg/kg		%		MS Qualifier		RPD	
3.23		ND		3.55		3.38		105		E		5.00	

ACCOUNT:
Hall Environmental Analysis Laboratory

PROJECT:

SDG:
L871654

DATE/TIME:
11/15/16 17:05



QUALITY CONTROL SUMMARY

L871654-01

WG924775

Wet Chemistry by Method 9034-9030B

Method Blank (MB)

(MB) WG924775-1 11/11/16 00:45

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Reactive Sulfide	12.0	J	7.63	25.0

1870892-02 Original Sample (OS) • Duplicate (DUP):

(OS) L870892-02 11/11/16 00:45 • (DUP) WG924775-4 11/11/16 00:45

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Reactive Sulfide	84.4	84.4	1	0.000		20

1871691-01 Original Sample (OS) • Duplicate (DUP)

(OS) L871691-01 11/11/16 00:45 • (DUP) WG924775-5 11/11/16 00:45

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Reactive Sulfide	78.4	72.3	1	8.10		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) WG924775-2 11/11/16 00:45 • (LCSD) WG924775-3 11/11/16 00:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Reactive Sulfide	100	72.3	78.4	72.3	78.4	70.0-130			8.10	20

1	Tc
3	Ss
4	Cn
5	Sr
6	Qc
7	Gl
8	Al
9	Sc

ACCOUNT:
Hall Environmental Analysis Laboratory

PROJECT:

SDG:
L871654

DATE/TIME
11/15/16 17:05

WG925927

L871654-01

(LCS) WG925927-1 11/15/16 11:29 • (LCS) WG925927-2 11/15/16 11:29

Analyte	Spike Amount su	LCS Result su	LCSD Result su	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Corrosivity by pH	6.11	6.07	6.11	99.3	100	98.4-102			0.657	10

^1Li
 ^3SS
 ^4Cn
 ^5Sr
 ^6Qe
 ^7Gl
 ^8Al
 ^9Sc

DATE/TIME: 11/15/16 17:05

QUALITY CONTROL SUMMARY

WG9253558
Wet Chemistry by Method D93/1010A

L871654-01

L87199-01 Original Sample (OS) • Duplicate (DUP)

(OS) L87199-01 11/11/16 08:42 • (DUP) WG9253558-3 11/11/16 08:42	
Original Result	DUP Result
Deg. F	Deg. F
125	124
Dilution	%
1	0.465
DUP Qualifier	DUP RPD Limits
%	%
10	10

L871654-01 Original Sample (OS) • Duplicate (DUP)

(OS) L871654-01 11/11/16 08:42 • (DUP) WG9253558-4 11/11/16 08:42	
Original Result	DUP Result
Deg. F	Deg. F
125	125
Dilution	%
1	0.256
DUP Qualifier	DUP RPD Limits
%	%
10	10

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCS-D)

(LCS) WG9253558-1 11/11/16 08:42 • (LCS-D) WG9253558-2 11/11/16 08:42	
Spike Amount	LCS Result
Deg. F	Deg. F
82.0	83.8
LCS Rec.	LCSD Result
%	Deg. F
102	84.0
LCSD Rec.	Rec. Limits
%	%
102	93.0-107
LCSD Qualifier	LCS Qualifier
%	%
0.238	0.238
RPD Limits	RPD Limits
%	%
20	20

1c

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

ONE LAB. NATIONWIDE.



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Rec.	Recovery.

Qualifier Description

E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611448

18-Nov-16

Client: Western Refining Southwest, Inc.

Project: Tank 44

Sample ID	mb-28565	SampType:	MBLK	TestCode:	EPA Method 8260B: TCLP Compounds					
Client ID:	PBS	Batch ID:	28565	RunNo:	38603					
Prep Date:	11/9/2016	Analysis Date:	11/11/2016	SeqNo:	1206509	Units:	ppm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
2-Butanone	ND	20								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	10								
Chloroform	ND	0.60								
1,4-Dichlorobenzene	ND	0.75								
1,1-Dichloroethene	ND	0.070								
Tetrachloroethene (PCE)	ND	0.070								
Trichloroethene (TCE)	ND	0.050								
Vinyl chloride	ND	0.020								
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		89.8	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.5000		88.3	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.4	70	130			
Surr: Toluene-d8	0.50		0.5000		100	70	130			

Sample ID	lcs-28565	SampType:	LCS	TestCode:	EPA Method 8260B: TCLP Compounds					
Client ID:	LCSS	Batch ID:	28565	RunNo:	38603					
Prep Date:	11/9/2016	Analysis Date:	11/11/2016	SeqNo:	1206510	Units:	ppm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.050	1.000	0	98.5	70	130			
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		86.7	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		90.5	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		96.3	70	130			
Surr: Toluene-d8	0.49		0.5000		98.7	70	130			

Sample ID	1611448-001ams	SampType:	MS	TestCode:	EPA Method 8260B: TCLP Compounds					
Client ID:	TK-44	Batch ID:	28565	RunNo:	38603					
Prep Date:	11/9/2016	Analysis Date:	11/11/2016	SeqNo:	1206512	Units:	ppm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.50	0.9950	0	111	70	130			
Surr: 1,2-Dichloroethane-d4	4.7		4.975		94.5	70	130			
Surr: 4-Bromofluorobenzene	4.7		4.975		93.7	70	130			
Surr: Dibromofluoromethane	5.0		4.975		100	70	130			
Surr: Toluene-d8	5.0		4.975		99.9	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611448

18-Nov-16

Client: Western Refining Southwest, Inc.

Project: Tank 44

Sample ID	1611448-001amsd	SampType: MSD	TestCode: EPA Method 8260B: TCLP Compounds							
Client ID:	TK-44	Batch ID: 28565	RunNo: 38603							
Prep Date:	11/9/2016	Analysis Date: 11/11/2016	SeqNo: 1206513	Units: ppm						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.50	0.9970	0	104	70	130	6.28	20	
Surr: 1,2-Dichloroethane-d4	4.5		4.985		90.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	4.7		4.985		93.8	70	130	0	0	
Surr: Dibromofluoromethane	4.8		4.985		96.4	70	130	0	0	
Surr: Toluene-d8	4.9		4.985		97.7	70	130	0	0	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611448

18-Nov-16

Client: Western Refining Southwest, Inc.

Project: Tank 44

Sample ID	Ics-28585		SampType: LCS			TestCode: EPA Method 8270C TCLP				
Client ID:	LCSS		Batch ID: 28585			RunNo: 38694				
Prep Date:	11/10/2016		Analysis Date: 11/14/2016			SeqNo: 1208440		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.074	0.010	0.1000	0	73.8	38.6	122			
3+4-Methylphenol	0.16	0.010	0.2000	0	81.1	38.1	148			
2,4-Dinitrotoluene	0.070	0.010	0.1000	0	70.3	35	107			
Hexachlorobenzene	0.078	0.010	0.1000	0	78.0	48.8	123			
Hexachlorobutadiene	0.063	0.010	0.1000	0	63.2	16.6	142			
Hexachloroethane	0.059	0.010	0.1000	0	58.6	19	121			
Nitrobenzene	0.076	0.010	0.1000	0	75.6	38.5	119			
Pentachlorophenol	0.067	0.010	0.1000	0	67.1	37.9	107			
Pyridine	0.042	0.010	0.1000	0	41.8	15	131			
2,4,5-Trichlorophenol	0.086	0.010	0.1000	0	86.3	46	139			
2,4,6-Trichlorophenol	0.080	0.010	0.1000	0	79.7	39	135			
Cresols, Total	0.24	0.010	0.3000	0	78.6	30	136			
Surr: 2-Fluorophenol	0.13		0.2000		65.7	15	123			
Surr: Phenol-d5	0.12		0.2000		58.6	15	118			
Surr: 2,4,6-Tribromophenol	0.16		0.2000		79.4	15	170			
Surr: Nitrobenzene-d5	0.076		0.1000		75.9	15	129			
Surr: 2-Fluorobiphenyl	0.068		0.1000		67.9	15	135			
Surr: 4-Terphenyl-d14	0.068		0.1000		68.2	15	144			

Sample ID	mb-28585		SampType: MBLK			TestCode: EPA Method 8270C TCLP				
Client ID:	PBS		Batch ID: 28585			RunNo: 38694				
Prep Date:	11/10/2016		Analysis Date: 11/14/2016			SeqNo: 1208441		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.085		0.2000		42.5	15	123			
Surr: Phenol-d5	0.062		0.2000		31.1	15	118			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611448

18-Nov-16

Client: Western Refining Southwest, Inc.

Project: Tank 44

Sample ID	mb-28585	SampType:	MBLK	TestCode:	EPA Method 8270C TCLP					
Client ID:	PBS	Batch ID:	28585	RunNo:	38694					
Prep Date:	11/10/2016	Analysis Date:	11/14/2016	SeqNo:	1208441	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.15		0.2000		77.4	15	170			
Surr: Nitrobenzene-d5	0.065		0.1000		65.5	15	129			
Surr: 2-Fluorobiphenyl	0.058		0.1000		57.8	15	135			
Surr: 4-Terphenyl-d14	0.067		0.1000		66.9	15	144			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | I Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611448

18-Nov-16

Client: Western Refining Southwest, Inc.

Project: Tank 44

Sample ID	MB-28719	SampType:	MBLK	TestCode:	MERCURY, TCLP					
Client ID:	PBW	Batch ID:	28719	RunNo:	38780					
Prep Date:	11/16/2016	Analysis Date:	11/17/2016	SeqNo:	1211707	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID	LCS-28719	SampType:	LCS	TestCode:	MERCURY, TCLP					
Client ID:	LCSW	Batch ID:	28719	RunNo:	38780					
Prep Date:	11/16/2016	Analysis Date:	11/17/2016	SeqNo:	1211708	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	101	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611448

18-Nov-16

Client: Western Refining Southwest, Inc.

Project: Tank 44

Sample ID	1611448-001AMSD	SampType:	MSD	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	TK-44	Batch ID:	28630	RunNo:	38731					
Prep Date:	11/12/2016	Analysis Date:	11/16/2016	SeqNo:	1210141	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	100	0.5000	1.037	86.7	75	125	0	20	
Cadmium	ND	1.0	0.5000	0	97.1	75	125	0	20	
Chromium	ND	5.0	0.5000	0	91.3	75	125	0	20	
Lead	ND	5.0	0.5000	0	84.4	75	125	0	20	
Selenium	ND	1.0	0.5000	0	91.6	75	125	0	20	
Silver	ND	5.0	0.1000	0	95.0	75	125	0	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Southw

Work Order Number: 1611448

RcptNo: 1

Received by/date:	LC 11/09/16		
Logged By:	Anne Thorne	11/9/2016 8:00:00 AM	Anne Thorne
Completed By:	Anne Thorne	11/9/2016	Anne Thorne
Reviewed By:	[Signature] 11/09/16		

Chain of Custody

- | | | | |
|--|---|-----------------------------|---|
| 1. Custody seals intact on sample bottles? | Yes ☐ | No ☐ | Not Present ☒ |
| 2. Is Chain of Custody complete? | Yes ☒ | No ☐ | Not Present ☐ |
| 3. How was the sample delivered? | Courier | | |

Log In

- | | | | |
|---|---|--|--|
| 4. Was an attempt made to cool the samples? | Yes ☒ | No ☐ | NA ☐ |
| 5. Were all samples received at a temperature of >0° C to 6.0°C | Yes ☒ | No ☐ | NA ☐ |
| 6. Sample(s) in proper container(s)? | Yes ☒ | No ☐ | |
| 7. Sufficient sample volume for indicated test(s)? | Yes ☒ | No ☐ | |
| 8. Are samples (except VOA and ONG) properly preserved? | Yes ☒ | No ☐ | |
| 9. Was preservative added to bottles? | Yes ☐ | No ☒ | NA ☐ |
| 10. VOA vials have zero headspace? | Yes ☐ | No ☐ | No VOA Vials ☒ |
| 11. Were any sample containers received broken? | Yes ☐ | No ☒ | |

12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody)

Yes ☒ No ☐

13. Are matrices correctly identified on Chain of Custody?

Yes ☒ No ☐

14. Is it clear what analyses were requested?

Yes ☒ No ☐

15. Were all holding times able to be met?

Yes ☒ No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

RECEIVED 000

August 4, 2016

2016 AUG -8 P 1:49

John Kieling, Bureau Chief
New Mexico Environmental Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

FedEx #:

**Re: Western Response to Comments Dated May 17, 2016
Response to Corrective Action Report
Western Refining Southwest, Inc., Bloomfield Refinery
EPA ID# NMD089416416**

Dear Mr. Kieling:

Western Refining Southwest Inc. - Bloomfield Refinery ("Western") has received the New Mexico Environment Department's (NMED) comments dated May 17, 2016 on the Corrective Action Report initially submitted on April 8, 2016. The following are responses to the comments received.

NMED Comment 1

In the section titled Corrective Actions, Western states "5-point composite samples were collected to characterize the North, South, East, West excavation walls. In addition, two 5-point composite samples were collected from the excavation base, one sample collected at the bottom of the deepest excavation base." Composite samples are not appropriate for confirmation sampling. Discrete samples must be collected for all future soil confirmation sampling. In addition, it is not clear where the samples were collected and at what depths because the figure was not provided and the sample locations were not described in the Report. Provide a figure with the sample locations and indicate the depths where the samples were collected in the response letter. For all future Reports, soil sample locations and depths, where appropriate, must be clearly defined and a figure must be provided depicting the sample locations.

Western Response to Comment 1

A revised Corrective Action Report ("Report") is attached and includes a figure (Figure 4) showing the approximate lateral location of where each composite sample aliquot was collected. The depth of the samples varied to best represent the applicable sidewall. The floor samples were collected at the base of the excavation, which was approximately 7.5 feet below existing grade. The Report has been revised to include a discussion of where the samples were collected.

For all previous spill clean-ups regulated by the New Mexico Oil Conservation Division (NMOCD), Western has been required to collect 5-point composite samples for all confirmation sampling activities. This direction initiated by NMOCD for previous spills was the reason why discrete samples were not collected. Discrete samples will be collected for all future confirmation sampling activities, and specific sample depth information (where applicable) will be recorded and included in all respective sampling reports.

NMED Comment 2

In the Section titled Waste Characterization, Western provides the analytical methods used to characterize the excavated soils for disposal. However, Western did not provide copies of the waste manifest(s) with the Report. In addition, it is helpful to include the waste characterization analytical results in a table comparing them to the appropriate screening levels. Provide copies of the waste manifest(s) and generate a table (Analytical Summary of Waste Characterization Sample Results) that summarizes the waste characterization analytical results and compare them to the appropriate screening levels. Include the waste manifest(s) and additional table with the response letter.

Western Response to Comment 2

A table (Table 2) has been added to the Report that shows the comparison of the waste characterization results with the applicable RCRA toxicity screening levels. In addition, copies of the waste manifests used to ship the impacted soils off-site have been added to the revised Report.

NMED Comment 3

In the section titled Recommendations, Western states that the New Mexico Oil Conservation Division's (OCD) Guidelines for Remediation of Leaks, Spills, and Releases (dated August 13, 1993) cleanup levels were utilized to evaluate the soil confirmation and waste characterization samples analytical results. NMED requires the use of the most recent construction worker soil screening levels (SSLs) from NMED's Risk Assessment Guidance for Site Investigations and Remediation's because NMED's SSLs will better characterize the contaminants detected in the soil confirmation and waste characterization samples because the cleanup levels provided in OCD's guidance document did not provide screening levels for a majority of the constituents analyzed by Western. It is expected that construction and excavation activities at the terminal will expose the workers to impacted soil; therefore, future soil confirmation samples that result from a leak, spill or release must be compared to NMED's construction worker SSLs because the terminal is still active and the tanks are still in use.

Western Response to Comment 3

Western modified Table 1 to include the respective NMED's construction worker soil screening levels. The revised table is included in the attached revised Report.

NMED Comment 4

In the section titled Recommendations, Western requested “permission to backfill the excavation area to match [the] existing grade.” Western states that “this is an active investigation area under the NMED-HWB Consent Order dated July 27, 2007, and therefore Western is requesting the remaining corrective actions for this area be covered under the direction of the 2007 Consent Order.” NMED concurs with Western and sent an e-mail response on May 2, 2016 to Ms. Kelly Robinson to allow Western to backfill the excavation. In addition, NMED also concurs that corrective action activities at this site may be deferred until this area is no longer in use or otherwise accessible.

Western Response to Comment 4

No comment required.

NMED Comment 5

Diagram #2 is an aerial photo depicting the approximate location and excavation boundary at the site near Tanks 41, 42a, 42b, and 43. Diagrams 3 and 4 are field note diagrams depicting the excavation boundary and photoionization detector (PID) readings at the corresponding excavation depths for the March 14 and 16, 2016 excavation events. Below are comments regarding Diagrams #2, 3, and 4:

- a. It appears that the excavation boundary in Diagram #2 may be different shape than the boundary depicted in Diagrams 3 and 4. Provide an explanation or clearer Diagram 3 and 4 to show that all three diagrams have the same excavation boundary.*
- b. Diagrams 3 and 4 depict PID readings with the corresponding depths at several locations on the excavation boundary. However, Western circled 4 locations on each of the diagrams and did not explain why. In addition, there is a location with an “X” with a circle around it that is not explained. Explain why certain PID readings were circled in the response letter. For all future submittals, all figures with symbols must have a key to define the symbols.*

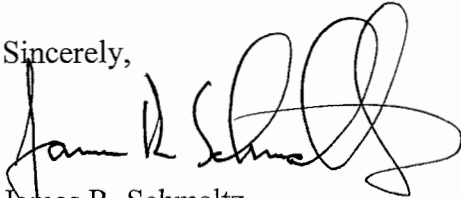
Western Response to Comment 5

The intent of Diagram #2 was to provide a general footprint of the excavation area. A portion of the area disturbed was not a result of crude impacts, but rather to allow equipment better access to be able to remove impacted soils to the extent possible. Diagram 3 and 4 represented copies of the field noted. As stated in the Report, Western targeted removing soils exhibiting a PID reading greater than 300 ppm. The circles on the field forms were to reflect the general target areas. The “X” on the field form was placed to reflect the approximate release location in relation to the extent of the excavation.

To address these comments and concerns of inconsistent information, Western has consolidated the field PID readings into one Figure (refer to Figure 3 in the revised Report). This figure identifies the approximate areas where soils were removed for benching down, and the approximate areas where the PID samples were collected in the field. The new Figures have been incorporated into the revised Report.

If you have any questions or would like to discuss the revised Corrective Action Report, please contact me at (505) 632-4171 or Randy.Schmaltz@wnr.com.

Sincerely,



James R. Schmaltz
Health, Safety, Environmental, and Regulatory Director
Western Refining Southwest, Inc. - Bloomfield Refinery

cc:D. Cobrain (NMED-HWB)
C. Chavez (OCD – Santa Fe)
N. Dhawan (NMED-HWB)
K. Van Horn (NMED-HWB)
L. Tsinnajinnie (NMED-HWB)
C. Smith (OCD – Aztec)
A. Hains (WNR)
K. Robinson (WNR)

CORRECTIVE ACTION REPORT

Western Refining – Bloomfield Terminal

Cause of the Release

On Saturday, March 5th, 2016 at approximately 2am, the Operator on-duty at the Western Refining Bloomfield Terminal noticed a small stain of crude oil adjacent (east) of the Tank 42a/42b secondary containment pad. This area is located within the southern portion of the facility, south of highway 4990. The operator used absorbent material to soak-up the oil, and notified the Terminal Operations Manager. By 8am that same day, Maintenance personnel arrived on-scene to investigate the source of the stain. Using a backhoe, Western was able to identify a small leak in a 3-inch insulated crude oil pipeline used to convey crude oil from the Wet Oil System (Tank 41) to the facility Tank Farm area. The location of where the repair was made on the pipeline is approximately 10 to 15 feet east of where the crude oil surfaced. The pipeline was insulated with a fiberglass wrap, which likely was the reason why the oil released to surface slightly adjacent to the leak source location. Maintenance was able to isolate the line and repair the leak with a temporary clamp. The pipeline was returned to service by 12 noon on Saturday, March 5th, 2016. An initial notification of the release event was submitted to the New Mexico Oil Conservation Division (NMOCD) and New Mexico Environment Department – Hazardous Waste Bureau (NMED-HWB) on March 5th, 2016. The approximate location of where the release occurred within the facility boundary is shown in Figure 2. The approximate footprint of the excavation is shown in Figure 3 and Figure 4.

Corrective Actions

Western contracted with Adobe Construction ("Adobe") to perform the excavation effort, and with LT Environmental to provide environmental over-site of the excavation efforts. Excavation activities commenced on Wednesday, March 9th, 2016 following clearance to dig through the New Mexico One Call System. The initial effort involved hand-digging to expose any existing pipelines within the area. Three additional pipelines were located within the excavation area. These additional lines have been confirmed by Operations to be out-of-service. Once the pipelines were exposed, a backhoe was used to progress the excavation effort.

The excavation area was limited by the existing in-service aboveground pipelines to the north and east, existing concrete containment for in-service tanks to the west, and an existing tank to the south. The Photo Log attached shows the adjacent facility equipment around the perimeter of the excavated area. Due to the restrictions from the existing structures, the lateral extent of the excavation was approximately 26 feet East – West and 12 feet North-South. The benching on the south side of the excavation was done to allow for means of egress for additional hand-digging around the pipelines.

Field monitoring was conducted using a Photo Ionization Detector (PID) meter. The PID readings assisted in identifying the areas for which additional excavation was needed. Figure 3 shows the relative depth below original grade in feet, and the corresponding PID reading in parts per million (ppm). The excavation had reached approximately 7.5 ft within eastern portion of the excavation. The west side

was benched down approximately 2.5 feet, providing the backhoe an area to reach between the pipelines. Along the north western portion of the excavation, there was an area of sandy soils exhibiting higher organic concentrations as observed using the PID. The excavation extended down deeper in this location, creating a hole approximately 3 feet by 2 feet by 13 feet deep (the maximum reach of the equipment used for excavation).

Between March 14th and March 16th, 2016, additional soils were removed, targeting areas higher than 300 ppm. Sidewall field readings indicated that the deeper hole needed to be extended laterally to the extent possible with the equipment used while taking into consideration the adjacent pipelines. PID readings of the excavated area as of March 16th, 2016 are included in Figure 3. Due to adjacent facility equipment and concerns of being able to safely support the active pipeline that crosses the excavation, no additional soils were able to be removed at this time. A photo log showing pictures of the excavated area is attached.

Soil Sampling

Between March 14th and March 16, 2016, 5-point composite samples were collected of the North Wall, East Wall, South Wall, and Floor. In addition, one discrete sample was collected from the deepest point of the excavation (i.e. referred to as the "NW Pothole") and a 4-point composite sample was collected along the West Wall. As shown in Figure 3, the exposed west wall was of a smaller surface area since the excavation only extended 2.5 feet below surface, and thus why a 4-point composite sample was collected to characterize this smaller area. The composite sample aliquots were collected from various depths to best characterize the excavation wall. Samples collected from the excavation floor were collected approximately 7.5 ft below original grade. The soil samples were analyzed for the following:

- Total Petroleum Hydrocarbons (TPH) – Gasoline Range Organics (GRO) by EPA Method 8015
- TPH – Diesel Range Organics (DRO) by EPA Method 8015
- TPH- Motor Oil Range Organics (MRO) by EPA Method 8015
- Total Metals by EPA Method 6010B
- Volatile Organic Compounds (VOCs) by EPA Method 8260B
- Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270C

A summary of the analytical results are provided in Table 1. The analytical results were compared to the most recent construction worker soil screening levels (SSLs) from NMED's *Risk Assessment Guidance for Site Investigations and Remediation*. A copy of the analytical results is provided as an attachment.

Waste Characterization

Excavated soils were temporarily stock-piled on-site during excavation activities. Approximately 80 yards of impacts soils were removed from the excavation. A composite sample was collected and analyzed for the following:

- TCLP VOCs by EPA Method 8260B
- TCLP SVOCs by EPA Method 8270C
- TCLP RCRA 8 Metals by EPA Method 6010B
- TPH-GRO by EPA Method 8015
- TPH-DRO by EPA Method 8015
- TPH-MRO by EPA Method 8015

The waste characterization results were compared to the RCRA toxicity screening levels pursuant to 40 CFR 261.24. The analytical results show that the material is classified as non-hazardous non-exempt waste. A summary table of the waste characterization results is provided in Table 2. A copy of the respective analytical report is attached. The waste was sent to the Envirotech landfarm for treatment and disposal. Copies of the waste manifest used to ship the material off-site are provided as an attachment to this report.

Recommendations

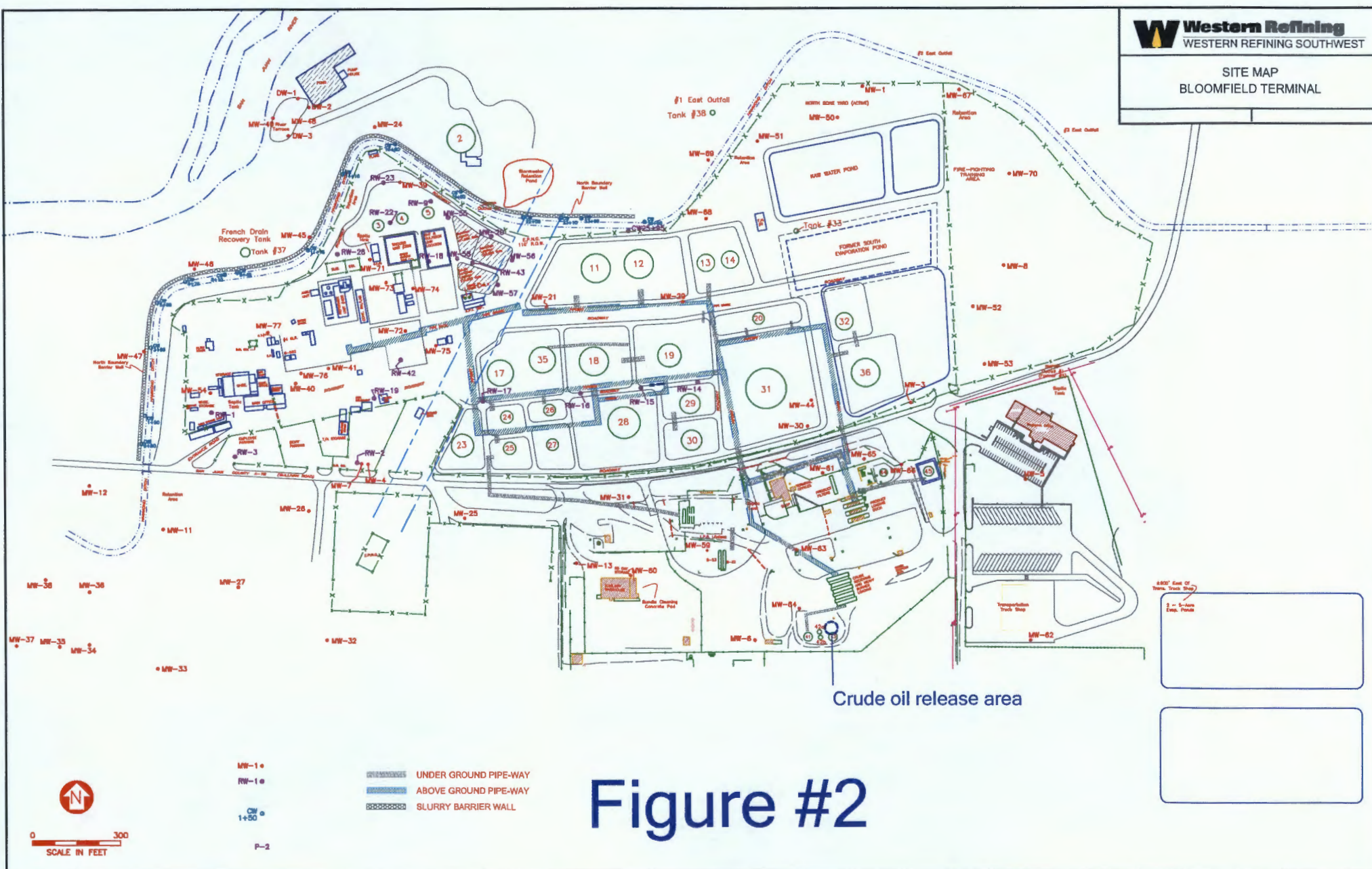
The analytical results show that the north and south lateral extent of the impacted area has been defined. The remaining soils along the north and south boundary of the excavation area exhibit concentrations below the most conservative clean-up levels pursuant to the New Mexico Oil Conservation Division *Guidelines for Remediation of Leaks, Spill and Releases* dated August 13, 1993.

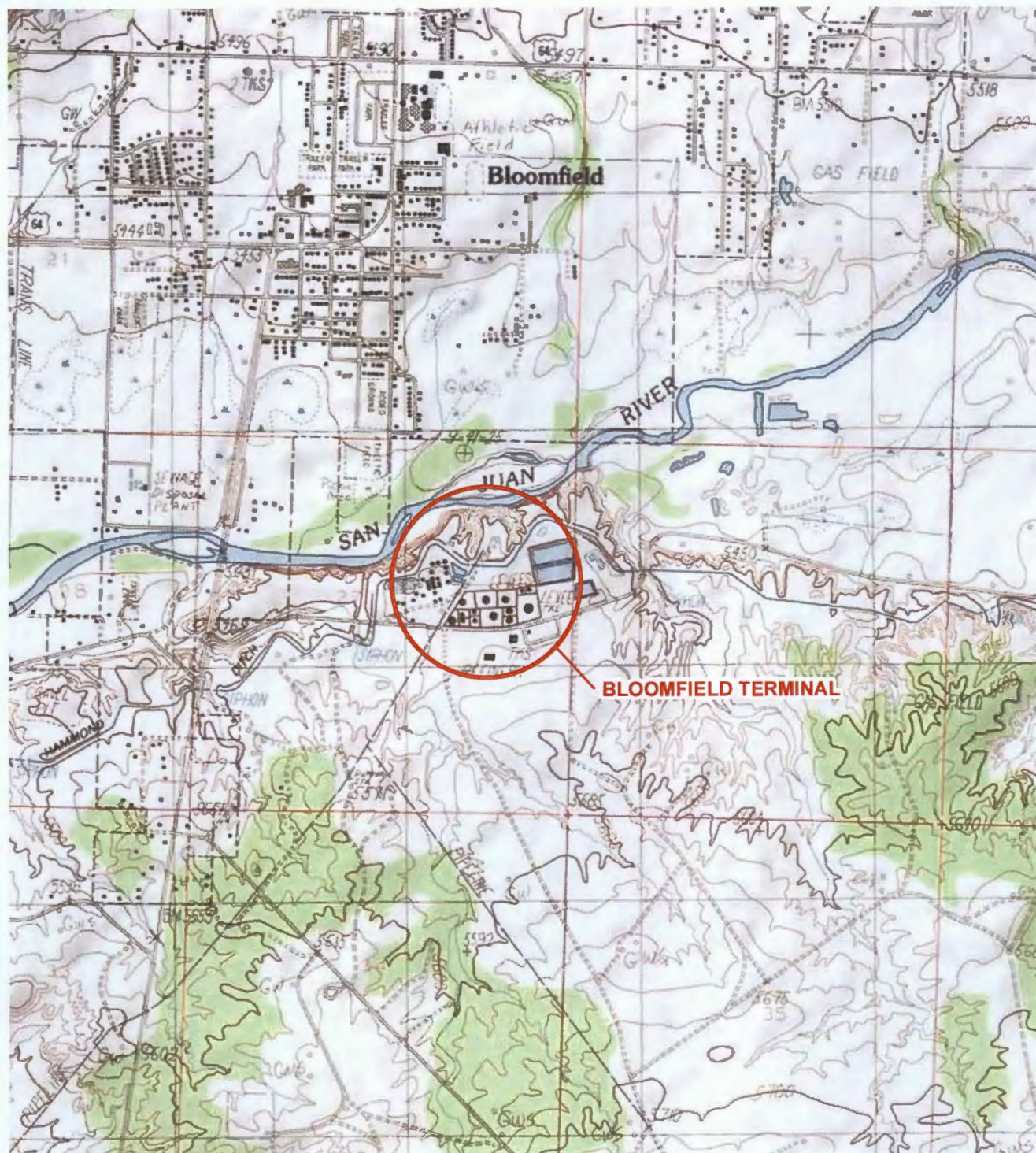
Confirmation samples collected from the west, east, and excavation base show that the residual soil concentrations are above the OCD clean-up levels for closure. However, the remaining soils no longer exhibit visual saturation staining. Due to the proximity of existing equipment within the excavation area, Western is no longer able to remove additional soils safely.

With this said, Western is requesting permission to backfill the excavation area to match existing grade. This area serves as secondary containment for active in-service equipment. In addition, this is an active investigation area under the NMED-HWB Consent Order dated July 27, 2007, and therefore Western is requesting the remaining corrective actions for this area be covered under the direction of the 2007 Consent Order.

FIGURES

SITE MAP
BLOOMFIELD TERMINAL





LEGEND

○ SITE LOCATION

IMAGE COURTESY OF ESRI/BING MAPS

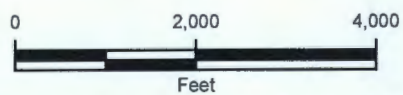
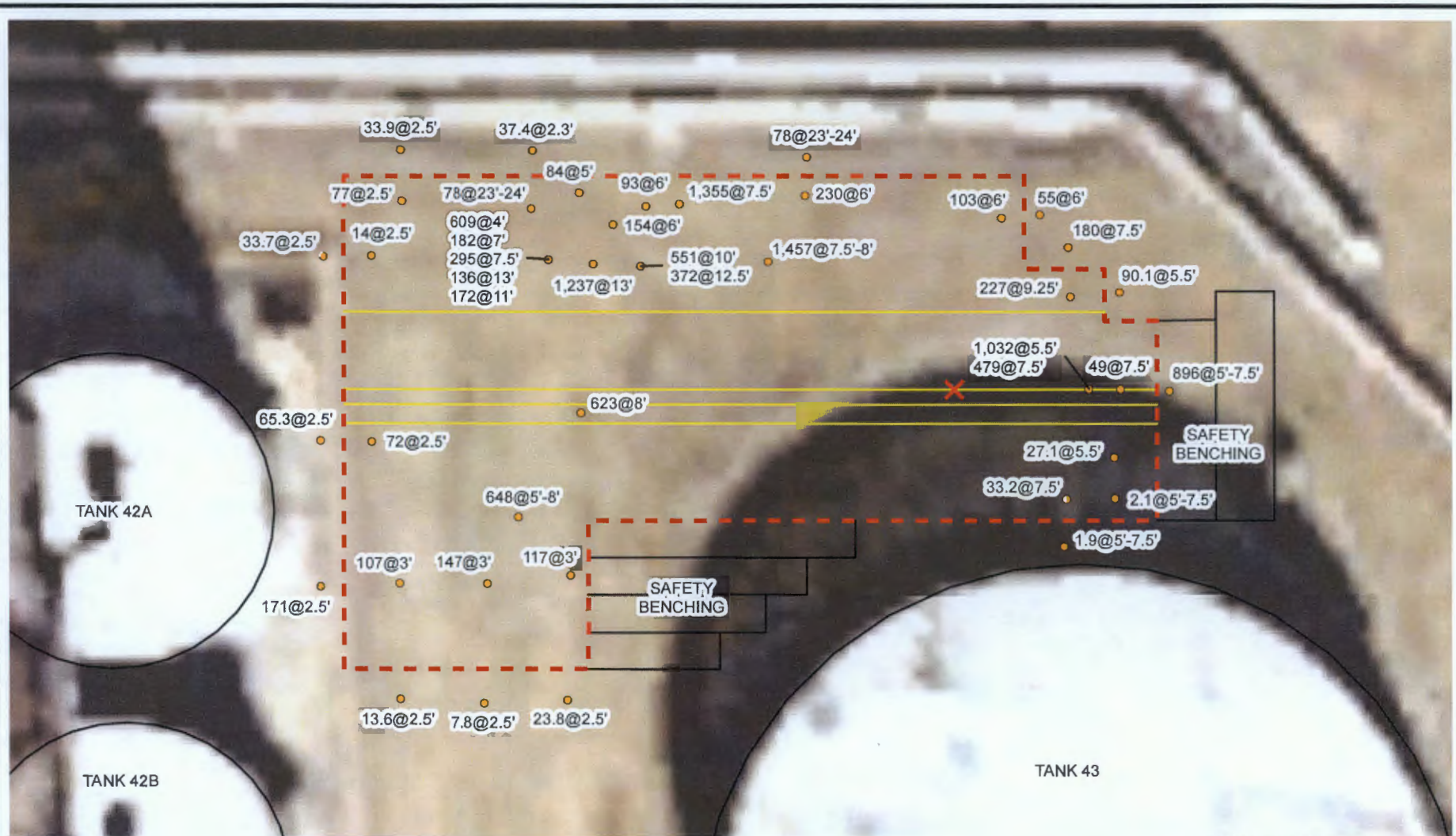


FIGURE 1
SITE LOCATION MAP
BLOOMFIELD TERMINAL RELEASE RESPONSE
SAN JUAN COUNTY, NEW MEXICO

WESTERN REFINING SOUTHWEST, INC.





LEGEND

✕ RELEASE LOCATION

• SOIL SAMPLE

— PIPELINE

- - - EXCAVATION EXTENT

33.9@2.5' - FIELD SCREENING RESULTS @ DEPTH OF SAMPLE

IMAGE COURTESY OF GOOGLE EARTH 2015

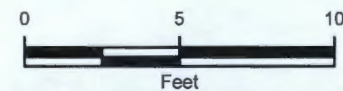
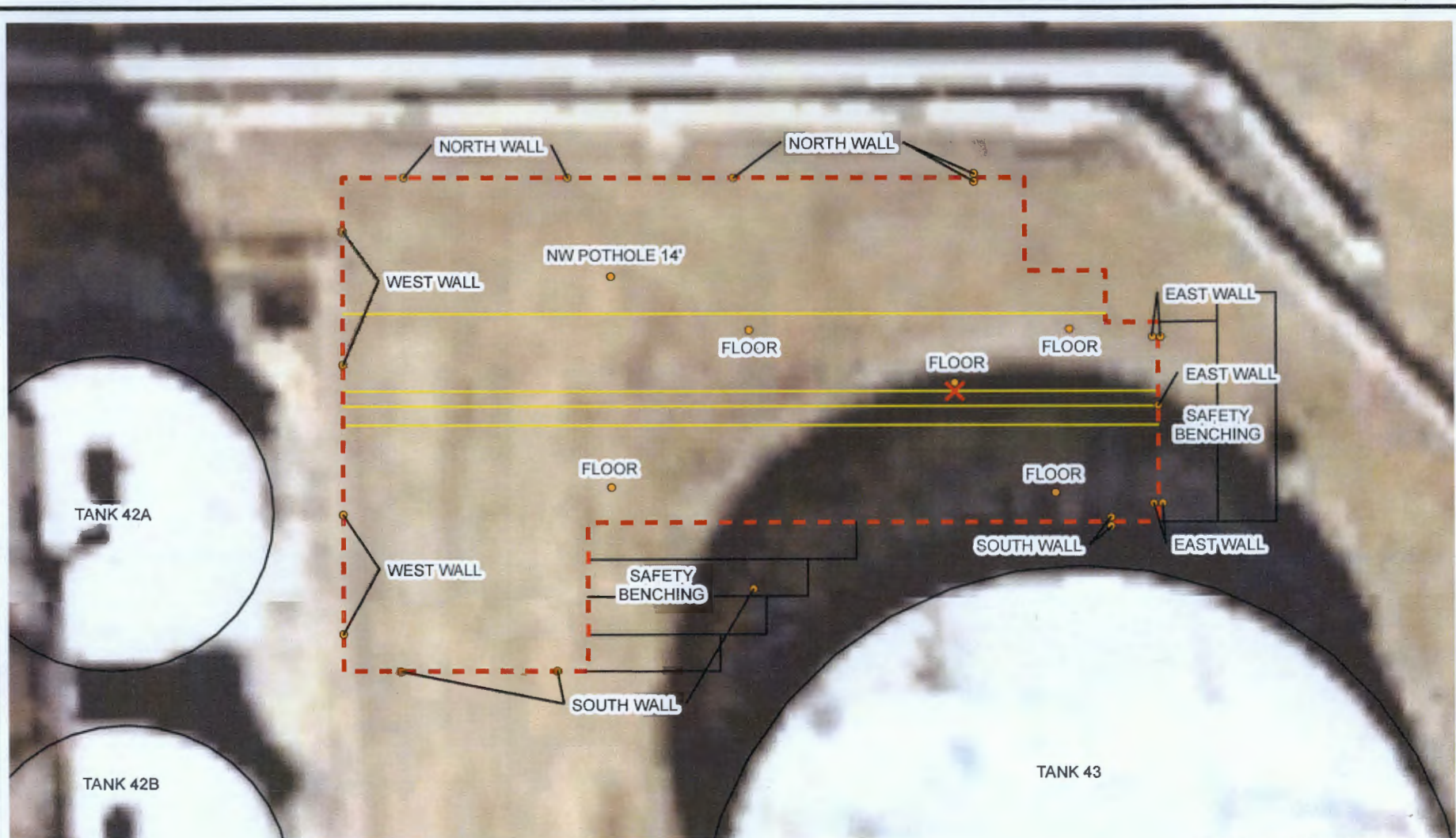


FIGURE 3
FIELD SCREENING RESULTS
BLOOMFIELD TERMINAL SPILL RESPONSE
SAN JUAN COUNTY, NEW MEXICO

WESTERN REFINING SOUTHWEST, INC.





LEGEND

- X RELEASE LOCATION
- COMPOSITE SAMPLE ALLIQUOT
- PIPELINE
- EXCAVATION EXTENT

IMAGE COURTESY OF GOOGLE EARTH 2015

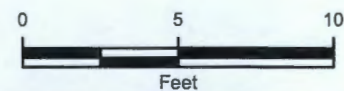


FIGURE 4
SOIL SAMPLE LOCATIONS
BLOOMFIELD TERMINAL SPILL RESPONSE
SAN JUAN COUNTY, NEW MEXICO

WESTERN REFINING SOUTHWEST, INC.



TABLES

TABLE 1
WET OIL RELEASE LABORATORY ANALYTICAL RESULTS
CONFIRMATION SOIL SAMPLES

BLOOMFIELD TERMINAL
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

ANALYTE	UNIT	NMED Construction Worker SSL July 2015	NW Pothole 14'	North Wall	East Wall	Floor	South Wall	W est Wall
			3/14/2016	3/14/2016	3/15/2016	3/16/2016	3/16/2016	3/16/2016
Moisture								
Moisture	%	NE	5.7	12	7.4	7.7	8.8	9.1
EPA Method 8021B: Volatiles								
Benzene	mg/kg	142	<0.018	<0.026	6.2	14	<0.025	15
Toluene	mg/kg	14,000	0.11	<0.052	64	150	<0.049	100
Ethylbenzene	mg/kg	1,770	0.065	<0.052	11	26	<0.049	18
Xylenes, Total	mg/kg	798	0.71	<0.10	100	240	<0.099	160
Total BTEX	mg/kg	NE	0.885	<0.052	181.2	430	<0.099	293
EPA Method 8015								
GRO	mg/kg	NE	12	<5.2	2,300	5,600	<4.9	4,000
DRO	mg/kg	NE	17	<11	760	3,500	27	4,600
MRO	mg/kg	NE	<54	<54	280	1,300	68	1,800
Total Petroleum Hydrocarbons	mg/kg	NE	29	<54	3,340	10,400	95	10,400
EPA Method 7471: Mercury								
Mercury	mg/kg	20.7	<0.034	<0.037	<0.035	<0.035	<0.035	<0.036
EPA Method 6010B: Soil Metals								
Arsenic	mg/kg	57.4	<2.6	3.1	<2.6	<2.7	<2.7	<2.7
Barium	mg/kg	4,390	30	230	82	150	130	160
Cadmium	mg/kg	72.1	<0.10	<0.11	<0.11	<0.11	<0.11	<0.11
Chromium	mg/kg	134	2.5	6.3	4.3	4.5	4.8	5.3
Lead	mg/kg	800	2.4	5.0	3.8	4.2	4.0	3.8
Selenium	mg/kg	1,750	<2.6	<2.9	<2.6	<2.7	<2.7	<2.7
Silver	mg/kg	1,770	<0.26	<0.29	<0.26	<0.27	<0.27	<0.27
EPA 8260B: Volatiles								
Acetone	mg/kg	242,000	<0.75	<0.84	<7.7	<15	0.79	<16
Bromodichloromethane	mg/kg	143	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Bromomethane	mg/kg	17.9	<0.15	<0.17	<1.5	<3.0	<0.16	<3.1
2-Butanone	mg/kg	91,700	<0.50	<0.56	<5.1	<10	<0.52	<10
Carbon disulfide	mg/kg	1,620	<0.50	<0.56	<5.1	<10	<0.52	<10
Carbon tetrachloride	mg/kg	202	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Chlorobenzene	mg/kg	412	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Chloroform	mg/kg	134	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Chloromethane	mg/kg	235	<0.15	<0.17	<1.5	<3.0	<0.16	<3.1
Isopropylbenzene	mg/kg	2,740	<0.050	<0.056	1.4	6.2	<0.052	2.6
1,2-Dibromo-3-chloropropane	mg/kg	5.53	<0.10	<0.11	<1.0	<2.0	<0.10	<2.1
Dibromochloromethane	mg/kg	340	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,2-Dichloroethane (EDC)	mg/kg	53.8	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,2-Dibromoethane (EDB)	mg/kg	16.3	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,4-Dichlorobenzene	mg/kg	746	<0.050	<0.056	<0.51	<1.0	<0.052	<2.2
Dichlorodifluoromethane	mg/kg	161	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1-Dichloroethane	mg/kg	1,820	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1-Dichloroethene	mg/kg	424	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,2-Dichloropropane	mg/kg	25.4	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Dibromomethane	mg/kg	53.9	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0

TABLE 1
WET OIL RELASE LABORATORY ANALYTICAL RESULTS
CONFIRMATION SOIL SAMPLES

BLOOMFIELD TERMINAL
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

ANALYTE	UNIT	NMED Construction Worker SSL July 2015	NW Pothole 14'	North Wall	East Wall	Floor	South Wall	West Wall
			3/14/2016	3/14/2016	3/15/2016	3/16/2016	3/16/2016	3/16/2016
Methylene chloride	mg/kg	1,210	<0.15	<0.17	<1.5	<3.0	<0.16	<3.1
Naphthalene	mg/kg	159	<0.10	<0.11	1.9	7.2	<0.10	4.4
Styrene	mg/kg	10,200	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1,1,2-Tetrachloroethane	mg/kg	659	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1,2,2-Tetrachloroethane	mg/kg	197	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Tetrachloroethene (PCE)	mg/kg	120	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Bromoform	mg/kg	5,380	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,2,4-Trichlorobenzene	mg/kg	79.1	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1,1-Trichloroethane	mg/kg	13,600	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1,2-Trichloroethane	mg/kg	2.3	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Trichlorofluoromethane	mg/kg	1,130	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,2,3-Trichloropropane	mg/kg	6.31	<0.10	<0.11	<1.0	<2.0	<0.10	<2.1
Vinyl chloride	mg/kg	161	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1-Dichloroethane	mg/kg	1,820	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1-Dichloroethene	mg/kg	305	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Methylene chloride	mg/kg	1,210	<0.15	<0.17	<1.5	<3.0	<0.16	<3.1
1,1,2,2-Tetrachloroethane	mg/kg	197	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Tetrachloroethylene (PCE)	mg/kg	NE	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Trichloroethylene (TCE)	mg/kg	6.9	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
EPA 8270C: SemiVolatiles								
Acenaphthene	mg/kg	15,100	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Anthracene	mg/kg	75,300	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Benzo(a)pyrene	mg/kg	24	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Benzo(b)fluoranthene	mg/kg	240	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Benzo(k)fluoranthene	mg/kg	2,310	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Bis(2-chloroethyl) ether	mg/kg	1.95	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Bis(2-chloroisopropyl) ether	mg/kg	3,540	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Bis(2-ethylhexyl) phthalate	mg/kg	5,380	<0.53	<5.7	<5.4	<5.4	<5.5	<5.5
2-Chlorophenol	mg/kg	1,770	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Chrysene	mg/kg	23,100	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Dibenz(a,h)anthracene	mg/kg	24	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
2,4-Dichlorophenol	mg/kg	807	<0.42	<4.5	<4.3	<4.3	<4.4	<4.4
Diethyl phthalate	mg/kg	215,000	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
2,4-Dimethylphenol	mg/kg	5,380	<0.32	<3.4	<3.2	<3.3	<3.3	<3.3
2,4-Dinitrophenol	mg/kg	538	<0.53	<5.7	<5.4	<5.4	<5.5	<5.5
2,4-Dinitrotoluene	mg/kg	536	<0.53	<5.7	<5.4	<5.4	<5.5	<5.5
2,6-Dinitrotoluene	mg/kg	80.9	<0.53	<5.7	<5.4	<5.4	<5.5	<5.5
Fluoranthene	mg/kg	1,000	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Fluorene	mg/kg	18,100	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Hexachlorobenzene	mg/kg	117	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Hexachlorocyclopentadiene	mg/kg	867	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Hexachloroethane	mg/kg	188	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Indeno(1,2,3-c,d)pyrene	mg/kg	240	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Isophorone	mg/kg	53,700	<0.42	<4.5	<4.3	<4.3	<4.4	<4.4
Nitrobenzene	mg/kg	353	<0.42	<4.5	<4.3	<4.3	<4.4	<4.4
N-Nitrosodiphenylamine	mg/kg	37,900	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Pentachlorophenol	mg/kg	346	<0.42	<4.5	<4.3	<4.3	<4.4	<4.4
Phenanthrene	mg/kg	7,530	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2

TABLE 1
WET OIL RELEASE LABORATORY ANALYTICAL RESULTS
CONFIRMATION SOIL SAMPLES

BLOOMFIELD TERMINAL
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

ANALYTE	UNIT	NMED Construction Worker SSL July 2015	NW Pothole 14'	North Wall	East Wall	Floor	South Wall	West Wall
			3/14/2016	3/14/2016	3/15/2016	3/16/2016	3/16/2016	3/16/2016
Phenol	mg/kg	77,400	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Pyrene	mg/kg	7,530	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
2,4,5-Trichlorophenol	mg/kg	26,900	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
2,4,6-Trichlorophenol	mg/kg	269	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
1-Methylnaphthalene	mg/kg	NE	<0.21	<0.23	<2.2	5.4	<0.22	3.0
2-Methylnaphthalene	mg/kg	NE	<0.21	<0.23	2.9	9.5	<0.22	4.6

Notes:

<- below the applicable laboratory reporting limit

% - percent

BTEX - benzene, toluene, ethylbenzene, total xylenes

mg/kg - milligrams per kilogram

NE - not established

NMED - New Mexico Environmental Department

SSL - Soil Screening Levels

**TABLE 2
WET OIL RELASE LABORATORY ANALYTICAL RESULTS
WASTE CHARACTERIZATION**

**BLOOMFIELD TERMINAL
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.**

ANALYTE	UNIT	Regulatory Level*	Waste Characterization
			3/14/2016
EPA Method 8021B: Volatiles			
Benzene	mg/kg	0.5	< 0.50
EPA Method 8015			
GRO	mg/kg	NE	2,500
DRO	mg/kg	NE	5,500
MRO	mg/kg	NE	3,100
Total Petroleum Hydrocarbons	mg/kg	NE	11,100
EPA Method 7471: Mercury			
Mercury	mg/kg	0.2	< 0.020
EPA Method 6010B: Soil Metals			
Arsenic	mg/kg	5.0	< 5.0
Barium	mg/kg	100.0	< 100
Cadmium	mg/kg	1.0	< 1.0
Chromium	mg/kg	5.0	< 5.0
Lead	mg/kg	5.0	< 5.0
Selenium	mg/kg	1.0	< 1.0
Silver	mg/kg	5.0	< 5.0
EPA 8260B/1311			
2-Butanone	mg/kg	200.0	< 200
Carbon tetrachloride	mg/kg	0.5	< 0.50
Chlorobenzene	mg/kg	100.0	< 100
Chloroform	mg/kg	6.0	< 6.0
Hexachlorobutadiene	mg/kg	0.5	< 0.50
1,2-Dichloroethane (EDC)	mg/kg	0.5	< 0.50
1,4-Dichlorobenzene	mg/kg	7.5	< 7.5
1,1-Dichloroethene	mg/kg	0.7	< 0.70
Tetrachloroethene (PCE)	mg/kg	0.7	< 0.70
Vinyl chloride	mg/kg	0.2	< 0.20
Trichloroethylene (TCE)	mg/kg	0.5	< 0.50
EPA 8270C TCLP			
2,4-Dinitrotoluene	mg/kg	0.13	< 0.13
2-Methylphenol	mg/kg	200.0	< 200
3+4-Methylphenol	mg/kg	200.0	< 200
Cresols, Total	mg/kg	200.0	< 200
Hexachlorobenzene	mg/kg	0.13	< 0.13
Hexachloroethane	mg/kg	3.0	< 3.0
Nitrobenzene	mg/kg	2.0	< 2.0
Pentachlorophenol	mg/kg	100.0	< 100
Phenol	mg/kg	NE	< 200
2,4,5-Trichlorophenol	mg/kg	400.0	< 400
2,4,6-Trichlorophenol	mg/kg	2.0	< 2.0
Pyridine	mg/kg	5.0	< 5.0

Notes:

* - Resource Conservation and Recovery Act (RCRA) 261.24 Toxicity Characteristic

< - below the applicable laboratory reporting limit

mg/kg - milligrams per kilogram

NE - not established

PHOTOS

PHOTOGRAPHIC LOG

Bloomfield Refinery Spill Response



Photo # 1 Release Point / Floor Composite Sample



Photo # 2 East Wall Composite Sample



Photo # 3 North Wall Composite Sample



Photo # 4 South Wall Composite Sample



Photo # 5 West Wall Composite Sample & NW Pothole 14'

MANIFESTS



Bill of Lading

MANIFEST # 53990

GENERATOR Western RefPOINT OF ORIGIN Bloom Field Ter.TRANSPORTER AdobeDATE 3-15-16 JOB # 96012-0256

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT					TRANSPORTING COMPANY			
	DESTINATION	MATERIAL	GRID	YDS	BBLs	TKT#	TRK#	TIME	DRIVER SIGNATURE
1	LF II -	CON + SOIL	m-2	15	—	—	126	0950	Drew Wilson
2	LF II	" "	m-2	10	—	—	126	1110	Drew Wilson
3	LF II	" "	m-2	10	—	—	126	1325	Drew Wilson
				35					
RESULTS		LANDFARM EMPLOYEE	NOTES						
4305	CHLORIDE TEST								
	PAINT FILTER TEST	1	Certification of above receipt & placement						

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

Generator Onsite Contact _____ Phone _____

Signatures required prior to distribution of the legal document.

DISTRIBUTION: White - Company Records, Yellow - Billing, Pink - Customer, Goldenrod - LF Copy

ANALYTICAL



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 25, 2016

Kelly Robinson

Western Refining Southwest, Inc.

#50 CR 4990

Bloomfield, NM 87413

TEL: (505) 632-4135

FAX (505) 632-3911

RE: Bloomfield Terminal

OrderNo.: 1603878

Dear Kelly Robinson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 3/17/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: NW Pothole @ 14'

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:20:00 PM

Lab ID: 1603878-001

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	5.7	1.0		wt%	1	3/21/2016 12:00:00 PM	R32972
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.034		mg/Kg-dry	1	3/22/2016 5:39:09 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.6		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
Barium	30	0.10		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
Cadmium	ND	0.10		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
Chromium	2.5	0.31		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
Lead	2.4	0.26		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
Selenium	ND	2.6		mg/Kg-dry	1	3/24/2016 6:04:01 AM	24353
Silver	ND	0.26		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Acenaphthylene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Aniline	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Anthracene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Azobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benz(a)anthracene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzo(a)pyrene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzo(b)fluoranthene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzo(g,h,i)perylene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzo(k)fluoranthene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzoic acid	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzyl alcohol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Bis(2-chloroethoxy)methane	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Bis(2-chloroethyl)ether	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Bis(2-chloroisopropyl)ether	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Bis(2-ethylhexyl)phthalate	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Bromophenyl phenyl ether	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Butyl benzyl phthalate	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Carbazole	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Chloro-3-methylphenol	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Chloroaniline	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Chloronaphthalene	ND	0.26		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Chlorophenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Chlorophenyl phenyl ether	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Chrysene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Di-n-butyl phthalate	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: NW Pothole @ 14'

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:20:00 PM

Lab ID: 1603878-001

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Dibenz(a,h)anthracene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Dibenzofuran	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
1,2-Dichlorobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
1,3-Dichlorobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
1,4-Dichlorobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
3,3'-Dichlorobenzidine	ND	0.26		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Diethyl phthalate	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Dimethyl phthalate	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4-Dichlorophenol	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4-Dimethylphenol	ND	0.32		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4,6-Dinitro-2-methylphenol	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4-Dinitrophenol	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4-Dinitrotoluene	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,6-Dinitrotoluene	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Fluoranthene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Fluorene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Hexachlorobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Hexachlorobutadiene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Hexachlorocyclopentadiene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Hexachloroethane	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Indeno(1,2,3-cd)pyrene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Isophorone	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
1-Methylnaphthalene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Methylnaphthalene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Methylphenol	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
3+4-Methylphenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
N-Nitrosodi-n-propylamine	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
N-Nitrosodiphenylamine	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Naphthalene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Nitroaniline	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
3-Nitroaniline	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Nitroaniline	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Nitrobenzene	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Nitrophenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Nitrophenol	ND	0.26		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Pentachlorophenol	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Phenanthrene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Phenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: NW Pothole @ 14'

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:20:00 PM

Lab ID: 1603878-001

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Pyridine	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
1,2,4-Trichlorobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4,5-Trichlorophenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4,6-Trichlorophenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Surr: 2-Fluorophenol	48.5	28.3-102		%Rec	1	3/23/2016 7:30:21 PM	24350
Surr: Phenol-d5	59.8	35.7-103		%Rec	1	3/23/2016 7:30:21 PM	24350
Surr: 2,4,6-Tribromophenol	61.2	35.2-108		%Rec	1	3/23/2016 7:30:21 PM	24350
Surr: Nitrobenzene-d5	58.4	24-118		%Rec	1	3/23/2016 7:30:21 PM	24350
Surr: 2-Fluorobiphenyl	62.4	35.4-111		%Rec	1	3/23/2016 7:30:21 PM	24350
Surr: 4-Terphenyl-d14	69.6	15-91.7		%Rec	1	3/23/2016 7:30:21 PM	24350
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.025		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Toluene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Ethylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Naphthalene	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1-Methylnaphthalene	ND	0.20		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
2-Methylnaphthalene	ND	0.20		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Acetone	ND	0.75		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Bromobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Bromodichloromethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Bromoform	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Bromomethane	ND	0.15		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
2-Butanone	ND	0.50		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Carbon disulfide	ND	0.50		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Carbon tetrachloride	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Chlorobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Chloroethane	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Chloroform	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Chloromethane	ND	0.15		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
2-Chlorotoluene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
4-Chlorotoluene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
cis-1,2-DCE	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
cis-1,3-Dichloropropene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: NW Pothole @ 14'

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:20:00 PM

Lab ID: 1603878-001

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Dibromochloromethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Dibromomethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2-Dichlorobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,3-Dichlorobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,4-Dichlorobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Dichlorodifluoromethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1-Dichloroethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1-Dichloroethene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2-Dichloropropane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,3-Dichloropropane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
2,2-Dichloropropane	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1-Dichloropropene	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Hexachlorobutadiene	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
2-Hexanone	ND	0.50		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Isopropylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
4-Isopropyltoluene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
4-Methyl-2-pentanone	ND	0.50		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Methylene chloride	ND	0.15		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
n-Butylbenzene	ND	0.15		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
n-Propylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
sec-Butylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Styrene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
tert-Butylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Tetrachloroethene (PCE)	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
trans-1,2-DCE	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
trans-1,3-Dichloropropene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1,1-Trichloroethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1,2-Trichloroethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Trichloroethene (TCE)	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Trichlorofluoromethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2,3-Trichloropropane	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Vinyl chloride	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Xylenes, Total	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Surr: Dibromofluoromethane	103	70-130		%Rec	1	3/18/2016 5:30:34 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical ReportLab Order **1603878**Date Reported: **3/25/2016****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** NW Pothole @ 14'**Project:** Bloomfield Terminal**Collection Date:** 3/14/2016 1:20:00 PM**Lab ID:** 1603878-001**Matrix:** SOIL**Received Date:** 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: 1,2-Dichloroethane-d4	96.2	70-130		%Rec	1	3/18/2016 5:30:34 PM	24321
Surr: Toluene-d8	102	70-130		%Rec	1	3/18/2016 5:30:34 PM	24321
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	3/18/2016 5:30:34 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit		P	Sample pH Not In Range
R	RPD outside accepted recovery limits		RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: N Wall

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:40:00 PM

Lab ID: 1603878-002

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	12	1.0		wt%	1	3/21/2016 12:00:00 PM	R32972
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.037		mg/Kg-dry	1	3/22/2016 5:44:27 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	3.1	2.9		mg/Kg-dry	1	3/22/2016 9:00:50 AM	24353
Barium	230	0.11		mg/Kg-dry	1	3/22/2016 9:00:50 AM	24353
Cadmium	ND	0.11		mg/Kg-dry	1	3/22/2016 9:00:50 AM	24353
Chromium	6.3	0.34		mg/Kg-dry	1	3/22/2016 9:00:50 AM	24353
Lead	5.0	0.29		mg/Kg-dry	1	3/22/2016 9:00:50 AM	24353
Selenium	ND	2.9		mg/Kg-dry	1	3/24/2016 6:07:45 AM	24353
Silver	ND	0.29		mg/Kg-dry	1	3/22/2016 9:00:50 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Acenaphthylene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Aniline	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Anthracene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Azobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benz(a)anthracene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzo(a)pyrene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzo(b)fluoranthene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzo(g,h,i)perylene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzo(k)fluoranthene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzoic acid	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzyl alcohol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Bis(2-chloroethoxy)methane	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Bis(2-chloroethyl)ether	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Bis(2-chloroisopropyl)ether	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Bis(2-ethylhexyl)phthalate	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4-Bromophenyl phenyl ether	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Butyl benzyl phthalate	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Carbazole	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4-Chloro-3-methylphenol	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4-Chloroaniline	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Chloronaphthalene	ND	2.8	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Chlorophenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4-Chlorophenyl phenyl ether	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Chrysene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Di-n-butyl phthalate	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: N Wall

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:40:00 PM

Lab ID: 1603878-002

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Dibenz(a,h)anthracene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Dibenzofuran	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
1,2-Dichlorobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
1,3-Dichlorobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
1,4-Dichlorobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
3,3'-Dichlorobenzidine	ND	2.8	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Diethyl phthalate	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Dimethyl phthalate	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,4-Dichlorophenol	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,4-Dimethylphenol	ND	3.4	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4,6-Dinitro-2-methylphenol	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,4-Dinitrophenol	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,4-Dinitrotoluene	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,6-Dinitrotoluene	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Fluoranthene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Fluorene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Hexachlorobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Hexachlorobutadiene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Hexachlorocyclopentadiene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Hexachloroethane	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Indeno(1,2,3-cd)pyrene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Isophorone	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
1-Methylnaphthalene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Methylnaphthalene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Methylphenol	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
3+4-Methylphenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
N-Nitrosodi-n-propylamine	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
N-Nitrosodiphenylamine	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Naphthalene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Nitroaniline	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
3-Nitroaniline	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4-Nitroaniline	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Nitrobenzene	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Nitrophenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4-Nitrophenol	ND	2.8	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Pentachlorophenol	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Phenanthrene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Phenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: N Wall

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:40:00 PM

Lab ID: 1603878-002

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Pyridine	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
1,2,4-Trichlorobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,4,5-Trichlorophenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,4,6-Trichlorophenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Surr: 2-Fluorophenol	0	28.3-102	SD	%Rec	10	3/23/2016 8:58:51 PM	24350
Surr: Phenol-d5	0	35.7-103	SD	%Rec	10	3/23/2016 8:58:51 PM	24350
Surr: 2,4,6-Tribromophenol	0	35.2-108	SD	%Rec	10	3/23/2016 8:58:51 PM	24350
Surr: Nitrobenzene-d5	0	24-118	SD	%Rec	10	3/23/2016 8:58:51 PM	24350
Surr: 2-Fluorobiphenyl	0	35.4-111	SD	%Rec	10	3/23/2016 8:58:51 PM	24350
Surr: 4-Terphenyl-d14	0	15-91.7	SD	%Rec	10	3/23/2016 8:58:51 PM	24350
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.028		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Toluene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Ethylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Methyl tert-butyl ether (MTBE)	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2,4-Trimethylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,3,5-Trimethylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2-Dichloroethane (EDC)	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2-Dibromoethane (EDB)	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Naphthalene	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1-Methylnaphthalene	ND	0.23		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
2-Methylnaphthalene	ND	0.23		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Acetone	ND	0.84		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Bromobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Bromodichloromethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Bromoform	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Bromomethane	ND	0.17		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
2-Butanone	ND	0.56		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Carbon disulfide	ND	0.56		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Carbon tetrachloride	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Chlorobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Chloroethane	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Chloroform	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Chloromethane	ND	0.17		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
2-Chlorotoluene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
4-Chlorotoluene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
cis-1,2-DCE	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
cis-1,3-Dichloropropene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: N Wall

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:40:00 PM

Lab ID: 1603878-002

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Dibromochloromethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Dibromomethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2-Dichlorobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,3-Dichlorobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,4-Dichlorobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Dichlorodifluoromethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1-Dichloroethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1-Dichloroethene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2-Dichloropropane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,3-Dichloropropane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
2,2-Dichloropropane	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1-Dichloropropene	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Hexachlorobutadiene	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
2-Hexanone	ND	0.56		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Isopropylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
4-Isopropyltoluene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
4-Methyl-2-pentanone	ND	0.56		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Methylene chloride	ND	0.17		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
n-Butylbenzene	ND	0.17		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
n-Propylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
sec-Butylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Styrene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
tert-Butylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1,1,2-Tetrachloroethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1,2,2-Tetrachloroethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Tetrachloroethene (PCE)	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
trans-1,2-DCE	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
trans-1,3-Dichloropropene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2,3-Trichlorobenzene	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2,4-Trichlorobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1,1-Trichloroethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1,2-Trichloroethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Trichloroethene (TCE)	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Trichlorofluoromethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2,3-Trichloropropane	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Vinyl chloride	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Xylenes, Total	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Surr: Dibromofluoromethane	107	70-130		%Rec	1	3/21/2016 1:43:35 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical ReportLab Order **1603878**

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** N Wall**Project:** Bloomfield Terminal**Collection Date:** 3/14/2016 1:40:00 PM**Lab ID:** 1603878-002**Matrix:** SOIL**Received Date:** 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	3/21/2016 1:43:35 PM	24321
Surr: Toluene-d8	101	70-130		%Rec	1	3/21/2016 1:43:35 PM	24321
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	3/21/2016 1:43:35 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: E Wall

Project: Bloomfield Terminal

Collection Date: 3/15/2016 2:20:00 PM

Lab ID: 1603878-003

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	7.4	1.0		wt%	1	3/21/2016 12:00:00 PM	R32972
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.035		mg/Kg-dry	1	3/22/2016 5:46:13 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.6		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
Barium	82	0.11		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
Cadmium	ND	0.11		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
Chromium	4.3	0.32		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
Lead	3.8	0.26		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
Selenium	ND	2.6		mg/Kg-dry	1	3/24/2016 6:11:18 AM	24353
Silver	ND	0.26		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Acenaphthylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Aniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Azobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benz(a)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzo(a)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzo(b)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzo(g,h,i)perylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzo(k)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzoic acid	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzyl alcohol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Bis(2-chloroethoxy)methane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Bis(2-chloroethyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Bis(2-chloroisopropyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Bis(2-ethylhexyl)phthalate	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Bromophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Butyl benzyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Carbazole	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Chloro-3-methylphenol	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Chloroaniline	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Chloronaphthalene	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Chlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Chlorophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Chrysene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Di-n-butyl phthalate	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: E Wall

Project: Bloomfield Terminal

Collection Date: 3/15/2016 2:20:00 PM

Lab ID: 1603878-003

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Dibenz(a,h)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Dibenzofuran	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
1,2-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
1,3-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
1,4-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
3,3'-Dichlorobenzidine	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Diethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Dimethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4-Dichlorophenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4-Dimethylphenol	ND	3.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4,6-Dinitro-2-methylphenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4-Dinitrophenol	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4-Dinitrotoluene	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,6-Dinitrotoluene	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Fluorene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Hexachlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Hexachlorobutadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Hexachlorocyclopentadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Hexachloroethane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Indeno(1,2,3-cd)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Isophorone	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
1-Methylnaphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Methylnaphthalene	2.9	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Methylphenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
3+4-Methylphenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
N-Nitrosodi-n-propylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
N-Nitrosodiphenylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Naphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
3-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Nitroaniline	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Nitrobenzene	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Nitrophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Nitrophenol	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Pentachlorophenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Phenanthrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Phenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: E Wall

Project: Bloomfield Terminal

Collection Date: 3/15/2016 2:20:00 PM

Lab ID: 1603878-003

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Pyridine	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
1,2,4-Trichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4,5-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4,6-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Surr: 2-Fluorophenol	0	28.3-102	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
Surr: Phenol-d5	0	35.7-103	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
Surr: 2,4,6-Tribromophenol	0	35.2-108	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
Surr: Nitrobenzene-d5	0	24-118	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
Surr: 2-Fluorobiphenyl	0	35.4-111	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
Surr: 4-Terphenyl-d14	0	15-91.7	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	1.6	0.26		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Toluene	29	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Ethylbenzene	5.8	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Methyl tert-butyl ether (MTBE)	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2,4-Trimethylbenzene	14	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,3,5-Trimethylbenzene	6.7	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2-Dichloroethane (EDC)	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2-Dibromoethane (EDB)	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Naphthalene	1.9	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1-Methylnaphthalene	2.4	2.1		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
2-Methylnaphthalene	3.7	2.1		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Acetone	ND	7.7		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Bromobenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Bromodichloromethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Bromoform	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Bromomethane	ND	1.5		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
2-Butanone	ND	5.1		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Carbon disulfide	ND	5.1		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Carbon tetrachloride	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Chlorobenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Chloroethane	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Chloroform	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Chloromethane	ND	1.5		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
2-Chlorotoluene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
4-Chlorotoluene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
cis-1,2-DCE	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
cis-1,3-Dichloropropene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: E Wall

Project: Bloomfield Terminal

Collection Date: 3/15/2016 2:20:00 PM

Lab ID: 1603878-003

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Dibromochloromethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Dibromomethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2-Dichlorobenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,3-Dichlorobenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,4-Dichlorobenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Dichlorodifluoromethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,1-Dichloroethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,1-Dichloroethene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2-Dichloropropane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,3-Dichloropropane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
2,2-Dichloropropane	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,1-Dichloropropene	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Hexachlorobutadiene	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
2-Hexanone	ND	5.1		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Isopropylbenzene	1.4	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
4-Isopropyltoluene	0.80	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
4-Methyl-2-pentanone	ND	5.1		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Methylene chloride	ND	1.5		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
n-Butylbenzene	ND	1.5		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
n-Propylbenzene	2.2	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
sec-Butylbenzene	0.72	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Styrene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
tert-Butylbenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,1,1,2-Tetrachloroethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,1,2,2-Tetrachloroethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Tetrachloroethene (PCE)	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
trans-1,2-DCE	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
trans-1,3-Dichloropropene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2,4-Trichlorobenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,1,1-Trichloroethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,1,2-Trichloroethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Trichloroethene (TCE)	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Trichlorofluoromethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2,3-Trichloropropane	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Vinyl chloride	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Xylenes, Total	57	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Surr: Dibromofluoromethane	99.3	70-130		%Rec	10	3/21/2016 2:11:56 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical ReportLab Order **1603878**

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** E Wall**Project:** Bloomfield Terminal**Collection Date:** 3/15/2016 2:20:00 PM**Lab ID:** 1603878-003**Matrix:** SOIL**Received Date:** 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	10	3/21/2016 2:11:56 PM	24321
Surr: Toluene-d8	101	70-130		%Rec	10	3/21/2016 2:11:56 PM	24321
Surr: 4-Bromofluorobenzene	113	70-130		%Rec	10	3/21/2016 2:11:56 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Floor

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:40:00 PM

Lab ID: 1603878-004

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	7.7	1.0		wt%	1	3/21/2016 12:00:00 PM	R32972
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.035		mg/Kg-dry	1	3/22/2016 5:48:00 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.7		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
Barium	150	0.11		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
Cadmium	ND	0.11		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
Chromium	4.5	0.32		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
Lead	4.2	0.27		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
Selenium	ND	2.7		mg/Kg-dry	1	3/24/2016 6:12:32 AM	24353
Silver	ND	0.27		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Acenaphthylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Aniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Azobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benz(a)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzo(a)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzo(b)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzo(g,h,i)perylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzo(k)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzoic acid	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzyl alcohol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Bis(2-chloroethoxy)methane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Bis(2-chloroethyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Bis(2-chloroisopropyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Bis(2-ethylhexyl)phthalate	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Bromophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Butyl benzyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Carbazole	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Chloro-3-methylphenol	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Chloroaniline	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Chloronaphthalene	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Chlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Chlorophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Chrysene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Di-n-butyl phthalate	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Floor

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:40:00 PM

Lab ID: 1603878-004

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Dibenz(a,h)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Dibenzofuran	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
1,2-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
1,3-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
1,4-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
3,3'-Dichlorobenzidine	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Diethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Dimethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4-Dichlorophenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4-Dimethylphenol	ND	3.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4,6-Dinitro-2-methylphenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4-Dinitrophenol	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4-Dinitrotoluene	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,6-Dinitrotoluene	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Fluorene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Hexachlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Hexachlorobutadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Hexachlorocyclopentadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Hexachloroethane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Indeno(1,2,3-cd)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Isophorone	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
1-Methylnaphthalene	5.4	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Methylnaphthalene	9.5	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Methylphenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
3+4-Methylphenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
N-Nitrosodi-n-propylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
N-Nitrosodiphenylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Naphthalene	3.5	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
3-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Nitroaniline	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Nitrobenzene	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Nitrophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Nitrophenol	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Pentachlorophenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Phenanthrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Phenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Floor

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:40:00 PM

Lab ID: 1603878-004

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Pyridine	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
1,2,4-Trichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4,5-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4,6-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Surr: 2-Fluorophenol	0	28.3-102	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
Surr: Phenol-d5	0	35.7-103	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
Surr: 2,4,6-Tribromophenol	0	35.2-108	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
Surr: Nitrobenzene-d5	0	24-118	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
Surr: 2-Fluorobiphenyl	0	35.4-111	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
Surr: 4-Terphenyl-d14	0	15-91.7	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	13	0.50		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Toluene	180	5.0		mg/Kg-dry	100	3/22/2016 7:09:36 AM	24321
Ethylbenzene	27	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2,4-Trimethylbenzene	56	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,3,5-Trimethylbenzene	27	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Naphthalene	7.2	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1-Methylnaphthalene	8.9	4.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
2-Methylnaphthalene	14	4.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Acetone	ND	15		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Bromobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Bromodichloromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Bromoform	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Bromomethane	ND	3.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
2-Butanone	ND	10		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Carbon disulfide	ND	10		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Carbon tetrachloride	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Chlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Chloroethane	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Chloroform	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Chloromethane	ND	3.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
2-Chlorotoluene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
4-Chlorotoluene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
cis-1,2-DCE	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
cis-1,3-Dichloropropene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Floor

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:40:00 PM

Lab ID: 1603878-004

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Dibromochloromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Dibromomethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,3-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,4-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Dichlorodifluoromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1-Dichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1-Dichloroethene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2-Dichloropropane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,3-Dichloropropane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
2,2-Dichloropropane	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1-Dichloropropene	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Hexachlorobutadiene	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
2-Hexanone	ND	10		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Isopropylbenzene	6.2	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
4-Isopropyltoluene	3.3	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
4-Methyl-2-pentanone	ND	10		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Methylene chloride	ND	3.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
n-Butylbenzene	3.5	3.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
n-Propylbenzene	9.6	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
sec-Butylbenzene	3.0	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Styrene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
tert-Butylbenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Tetrachloroethene (PCE)	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
trans-1,2-DCE	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
trans-1,3-Dichloropropene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1,1-Trichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1,2-Trichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Trichloroethene (TCE)	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Trichlorofluoromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2,3-Trichloropropane	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Vinyl chloride	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Xylenes, Total	270	10		mg/Kg-dry	100	3/22/2016 7:09:36 AM	24321
Surr: Dibromofluoromethane	97.5	70-130		%Rec	20	3/21/2016 2:40:24 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical ReportLab Order **1603878**

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** Floor**Project:** Bloomfield Terminal**Collection Date:** 3/16/2016 1:40:00 PM**Lab ID:** 1603878-004**Matrix:** SOIL**Received Date:** 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: 1,2-Dichloroethane-d4	97.9	70-130		%Rec	20	3/21/2016 2:40:24 PM	24321
Surr: Toluene-d8	107	70-130		%Rec	20	3/21/2016 2:40:24 PM	24321
Surr: 4-Bromofluorobenzene	120	70-130		%Rec	20	3/21/2016 2:40:24 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: S Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:50:00 PM

Lab ID: 1603878-005

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	8.8	1.0		wt%	1	3/21/2016 12:00:00 PM	R32972
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.035		mg/Kg-dry	1	3/22/2016 5:49:48 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.7		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
Barium	130	0.11		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
Cadmium	ND	0.11		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
Chromium	4.8	0.33		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
Lead	4.0	0.27		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
Selenium	ND	2.7		mg/Kg-dry	1	3/24/2016 6:13:46 AM	24353
Silver	ND	0.27		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Acenaphthylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Aniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Azobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benz(a)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzo(a)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzo(b)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzo(g,h,i)perylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzo(k)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzoic acid	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzyl alcohol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Bis(2-chloroethoxy)methane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Bis(2-chloroethyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Bis(2-chloroisopropyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Bis(2-ethylhexyl)phthalate	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Bromophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Butyl benzyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Carbazole	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Chloro-3-methylphenol	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Chloroaniline	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Chloronaphthalene	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Chlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Chlorophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Chrysene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Di-n-butyl phthalate	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350

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	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: S Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:50:00 PM

Lab ID: 1603878-005

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Dibenz(a,h)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Dibenzofuran	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
1,2-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
1,3-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
1,4-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
3,3'-Dichlorobenzidine	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Diethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Dimethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4-Dichlorophenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4-Dimethylphenol	ND	3.3	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4,6-Dinitro-2-methylphenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4-Dinitrophenol	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4-Dinitrotoluene	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,6-Dinitrotoluene	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Fluorene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Hexachlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Hexachlorobutadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Hexachlorocyclopentadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Hexachloroethane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Indeno(1,2,3-cd)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Isophorone	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
1-Methylnaphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Methylnaphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Methylphenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
3+4-Methylphenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
N-Nitrosodi-n-propylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
N-Nitrosodiphenylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Naphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
3-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Nitroaniline	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Nitrobenzene	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Nitrophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Nitrophenol	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Pentachlorophenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Phenanthrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Phenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350

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Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: S Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:50:00 PM

Lab ID: 1603878-005

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Pyridine	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
1,2,4-Trichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4,5-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4,6-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Surr: 2-Fluorophenol	0	28.3-102	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
Surr: Phenol-d5	0	35.7-103	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
Surr: 2,4,6-Tribromophenol	0	35.2-108	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
Surr: Nitrobenzene-d5	0	24-118	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
Surr: 2-Fluorobiphenyl	0	35.4-111	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
Surr: 4-Terphenyl-d14	0	15-91.7	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.026		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Toluene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Ethylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Methyl tert-butyl ether (MTBE)	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2,4-Trimethylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,3,5-Trimethylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2-Dichloroethane (EDC)	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2-Dibromoethane (EDB)	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Naphthalene	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1-Methylnaphthalene	ND	0.21		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
2-Methylnaphthalene	ND	0.21		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Acetone	ND	0.79		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Bromobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Bromodichloromethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Bromoform	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Bromomethane	ND	0.16		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
2-Butanone	ND	0.52		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Carbon disulfide	ND	0.52		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Carbon tetrachloride	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Chlorobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Chloroethane	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Chloroform	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Chloromethane	ND	0.16		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
2-Chlorotoluene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
4-Chlorotoluene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
cis-1,2-DCE	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
cis-1,3-Dichloropropene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: S Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:50:00 PM

Lab ID: 1603878-005

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Dibromochloromethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Dibromomethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2-Dichlorobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,3-Dichlorobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,4-Dichlorobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Dichlorodifluoromethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1-Dichloroethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1-Dichloroethene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2-Dichloropropane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,3-Dichloropropane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
2,2-Dichloropropane	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1-Dichloropropene	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Hexachlorobutadiene	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
2-Hexanone	ND	0.52		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Isopropylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
4-Isopropyltoluene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
4-Methyl-2-pentanone	ND	0.52		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Methylene chloride	ND	0.16		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
n-Butylbenzene	ND	0.16		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
n-Propylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
sec-Butylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Styrene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
tert-Butylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1,1,2-Tetrachloroethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1,2,2-Tetrachloroethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Tetrachloroethene (PCE)	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
trans-1,2-DCE	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
trans-1,3-Dichloropropene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2,4-Trichlorobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1,1-Trichloroethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1,2-Trichloroethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Trichloroethene (TCE)	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Trichlorofluoromethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2,3-Trichloropropane	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Vinyl chloride	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Xylenes, Total	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Surr: Dibromofluoromethane	105	70-130		%Rec	1	3/21/2016 12:46:58 PM	24321

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Analytical ReportLab Order **1603878**Date Reported: **3/25/2016****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** S Wall**Project:** Bloomfield Terminal**Collection Date:** 3/16/2016 1:50:00 PM**Lab ID:** 1603878-005**Matrix:** SOIL**Received Date:** 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	3/21/2016 12:46:58 PM	24321
Surr: Toluene-d8	101	70-130		%Rec	1	3/21/2016 12:46:58 PM	24321
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	3/21/2016 12:46:58 PM	24321

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	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: W Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 2:10:00 PM

Lab ID: 1603878-006

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	9.1	1.0		wt%	1	3/21/2016 12:00:00 PM	R32972
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.036		mg/Kg-dry	1	3/22/2016 5:51:36 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.7		mg/Kg-dry	1	3/22/2016 9:15:56 AM	24353
Barium	160	0.11		mg/Kg-dry	1	3/22/2016 9:15:56 AM	24353
Cadmium	ND	0.11		mg/Kg-dry	1	3/22/2016 9:15:56 AM	24353
Chromium	5.3	0.33		mg/Kg-dry	1	3/22/2016 9:15:56 AM	24353
Lead	3.8	0.27		mg/Kg-dry	1	3/22/2016 9:15:56 AM	24353
Selenium	ND	2.7		mg/Kg-dry	1	3/24/2016 6:14:59 AM	24353
Silver	ND	0.27		mg/Kg-dry	1	3/22/2016 9:15:56 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Acenaphthylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Aniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Azobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benz(a)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzo(a)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzo(b)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzo(g,h,i)perylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzo(k)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzoic acid	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzyl alcohol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Bis(2-chloroethoxy)methane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Bis(2-chloroethyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Bis(2-chloroisopropyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Bis(2-ethylhexyl)phthalate	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
4-Bromophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Butyl benzyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Carbazole	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
4-Chloro-3-methylphenol	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
4-Chloroaniline	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2-Chloronaphthalene	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2-Chlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
4-Chlorophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Chrysene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Di-n-butyl phthalate	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: W Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 2:10:00 PM

Lab ID: 1603878-006

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Dibenz(a,h)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Dibenzofuran	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
1,2-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
1,3-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
1,4-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
3,3'-Dichlorobenzidine	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Diethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Dimethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2,4-Dichlorophenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2,4-Dimethylphenol	ND	3.3	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
4,6-Dinitro-2-methylphenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2,4-Dinitrophenol	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2,4-Dinitrotoluene	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2,6-Dinitrotoluene	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Fluorene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Hexachlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Hexachlorobutadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Hexachlorocyclopentadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Hexachloroethane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Indeno(1,2,3-cd)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Isophorone	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
1-Methylnaphthalene	3.0	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2-Methylnaphthalene	4.6	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2-Methylphenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
3+4-Methylphenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
N-Nitrosodi-n-propylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
N-Nitrosodiphenylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Naphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
3-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
4-Nitroaniline	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Nitrobenzene	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2-Nitrophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
4-Nitrophenol	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Pentachlorophenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Phenanthrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Phenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: W Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 2:10:00 PM

Lab ID: 1603878-006

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Pyridine	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
1,2,4-Trichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2,4,5-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2,4,6-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Surr: 2-Fluorophenol	0	28.3-102	SD	%Rec	10	3/23/2016 10:56:07 PM	24350
Surr: Phenol-d5	0	35.7-103	SD	%Rec	10	3/23/2016 10:56:07 PM	24350
Surr: 2,4,6-Tribromophenol	0	35.2-108	SD	%Rec	10	3/23/2016 10:56:07 PM	24350
Surr: Nitrobenzene-d5	0	24-118	SD	%Rec	10	3/23/2016 10:56:07 PM	24350
Surr: 2-Fluorobiphenyl	0	35.4-111	SD	%Rec	10	3/23/2016 10:56:07 PM	24350
Surr: 4-Terphenyl-d14	0	15-91.7	SD	%Rec	10	3/23/2016 10:56:07 PM	24350
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	7.2	0.52		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Toluene	52	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Ethylbenzene	9.3	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2,4-Trimethylbenzene	28	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,3,5-Trimethylbenzene	13	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Naphthalene	4.4	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1-Methylnaphthalene	6.3	4.2		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
2-Methylnaphthalene	9.5	4.2		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Acetone	ND	16		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Bromobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Bromodichloromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Bromoform	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Bromomethane	ND	3.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
2-Butanone	ND	10		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Carbon disulfide	ND	10		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Carbon tetrachloride	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Chlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Chloroethane	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Chloroform	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Chloromethane	ND	3.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
2-Chlorotoluene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
4-Chlorotoluene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
cis-1,2-DCE	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
cis-1,3-Dichloropropene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: W Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 2:10:00 PM

Lab ID: 1603878-006

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Dibromochloromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Dibromomethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,3-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,4-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Dichlorodifluoromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1-Dichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1-Dichloroethene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2-Dichloropropane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,3-Dichloropropane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
2,2-Dichloropropane	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1-Dichloropropene	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Hexachlorobutadiene	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
2-Hexanone	ND	10		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Isopropylbenzene	2.6	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
4-Isopropyltoluene	1.7	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
4-Methyl-2-pentanone	ND	10		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Methylene chloride	ND	3.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
n-Butylbenzene	ND	3.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
n-Propylbenzene	4.3	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
sec-Butylbenzene	1.5	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Styrene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
tert-Butylbenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Tetrachloroethene (PCE)	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
trans-1,2-DCE	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
trans-1,3-Dichloropropene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2,3-Trichlorobenzene	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1,1-Trichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1,2-Trichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Trichloroethene (TCE)	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Trichlorofluoromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2,3-Trichloropropane	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Vinyl chloride	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Xylenes, Total	88	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Surr: Dibromofluoromethane	97.9	70-130		%Rec	20	3/21/2016 1:15:14 PM	24321

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
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	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical ReportLab Order **1603878**Date Reported: **3/25/2016****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** W Wall**Project:** Bloomfield Terminal**Collection Date:** 3/16/2016 2:10:00 PM**Lab ID:** 1603878-006**Matrix:** SOIL**Received Date:** 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%Rec	20	3/21/2016 1:15:14 PM	24321
Surr: Toluene-d8	98.0	70-130		%Rec	20	3/21/2016 1:15:14 PM	24321
Surr: 4-Bromofluorobenzene	116	70-130		%Rec	20	3/21/2016 1:15:14 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	mb-24321	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles
Client ID:	PBS	Batch ID:	24321	RunNo:	32918
Prep Date:	3/17/2016	Analysis Date:	3/18/2016	SeqNo:	1009413
				Units:	mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.050								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.050								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	mb-24321	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles					
Client ID:	PBS	Batch ID:	24321	RunNo:	32918					
Prep Date:	3/17/2016	Analysis Date:	3/18/2016	SeqNo:	1009413	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

1,1-Dichloropropene ND 0.10

Hexachlorobutadiene ND 0.10

2-Hexanone ND 0.50

Isopropylbenzene ND 0.050

4-Isopropyltoluene ND 0.050

4-Methyl-2-pentanone ND 0.50

Methylene chloride ND 0.15

n-Butylbenzene ND 0.15

n-Propylbenzene ND 0.050

sec-Butylbenzene ND 0.050

Styrene ND 0.050

tert-Butylbenzene ND 0.050

1,1,1,2-Tetrachloroethane ND 0.050

1,1,2,2-Tetrachloroethane ND 0.050

Tetrachloroethene (PCE) ND 0.050

trans-1,2-DCE ND 0.050

trans-1,3-Dichloropropene ND 0.050

1,2,3-Trichlorobenzene ND 0.10

1,2,4-Trichlorobenzene ND 0.050

1,1,1-Trichloroethane ND 0.050

1,1,2-Trichloroethane ND 0.050

Trichloroethene (TCE) ND 0.050

Trichlorofluoromethane ND 0.050

1,2,3-Trichloropropane ND 0.10

Vinyl chloride ND 0.050

Xylenes, Total ND 0.10

Surr: Dibromofluoromethane 0.50 0.5000 101 70 130

Surr: 1,2-Dichloroethane-d4 0.50 0.5000 100 70 130

Surr: Toluene-d8 0.51 0.5000 101 70 130

Surr: 4-Bromofluorobenzene 0.53 0.5000 106 70 130

Sample ID	lcs-24321	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles					
Client ID:	LCSS	Batch ID:	24321	RunNo:	32918					
Prep Date:	3/17/2016	Analysis Date:	3/18/2016	SeqNo:	1009414	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene 0.98 0.025 1.000 0 97.8 70 130

Toluene 1.0 0.050 1.000 0 99.6 70 130

Chlorobenzene 0.99 0.050 1.000 0 98.8 70 130

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	lcs-24321		SampType:	LCS		TestCode:	EPA Method 8260B: Volatiles				
Client ID:	LCSS		Batch ID:	24321		RunNo:	32918				
Prep Date:	3/17/2016		Analysis Date:	3/18/2016		SeqNo:	1009414		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	1.1	0.050	1.000	0	105	70	130				
Trichloroethene (TCE)	0.96	0.050	1.000	0	96.1	70	130				
Surr: Dibromofluoromethane	0.51		0.5000		103	70	130				
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.6	70	130				
Surr: Toluene-d8	0.53		0.5000		106	70	130				
Surr: 4-Bromofluorobenzene	0.55		0.5000		109	70	130				

Sample ID	1603878-001ams		SampType:	MS		TestCode:	EPA Method 8260B: Volatiles				
Client ID:	NW Pothole @ 14'		Batch ID:	24321		RunNo:	32918				
Prep Date:	3/17/2016		Analysis Date:	3/18/2016		SeqNo:	1009416		Units: mg/Kg-dry		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.1	0.025	0.9896	0	112	49.2	155				
Toluene	1.2	0.049	0.9896	0	121	52	154				
Chlorobenzene	1.2	0.049	0.9896	0	117	53.2	150				
1,1-Dichloroethene	1.1	0.049	0.9896	0	115	34.2	163				
Trichloroethene (TCE)	1.1	0.049	0.9896	0	115	48.2	151				
Surr: Dibromofluoromethane	0.51		0.4948		103	70	130				
Surr: 1,2-Dichloroethane-d4	0.48		0.4948		97.2	70	130				
Surr: Toluene-d8	0.52		0.4948		106	70	130				
Surr: 4-Bromofluorobenzene	0.53		0.4948		106	70	130				

Sample ID	1603878-001amsd		SampType:	MSD		TestCode:	EPA Method 8260B: Volatiles				
Client ID:	NW Pothole @ 14'		Batch ID:	24321		RunNo:	32918				
Prep Date:	3/17/2016		Analysis Date:	3/18/2016		SeqNo:	1009417		Units: mg/Kg-dry		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.1	0.026	1.038	0	102	49.2	155	4.47	20		
Toluene	1.1	0.052	1.038	0	108	52	154	6.18	20		
Chlorobenzene	1.1	0.052	1.038	0	104	53.2	150	7.38	20		
1,1-Dichloroethene	1.0	0.052	1.038	0	98.6	34.2	163	10.5	20		
Trichloroethene (TCE)	1.1	0.052	1.038	0	103	48.2	151	5.84	20		
Surr: Dibromofluoromethane	0.53		0.5191		101	70	130	0	0		
Surr: 1,2-Dichloroethane-d4	0.50		0.5191		95.4	70	130	0	0		
Surr: Toluene-d8	0.52		0.5191		101	70	130	0	0		
Surr: 4-Bromofluorobenzene	0.54		0.5191		105	70	130	0	0		

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	mb-24350	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBS	Batch ID:	24350	RunNo:	32992					
Prep Date:	3/21/2016	Analysis Date:	3/23/2016	SeqNo:	1013032	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.40								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.40								
2,4-Dinitrophenol	ND	0.50								

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	mb-24350	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBS	Batch ID:	24350	RunNo:	32992					
Prep Date:	3/21/2016	Analysis Date:	3/23/2016	SeqNo:	1013032	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.40								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.40								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.40								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.40								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2-Fluorophenol	2.1		3.330		63.4	28.3	102			
Surr: Phenol-d5	2.5		3.330		74.4	35.7	103			
Surr: 2,4,6-Tribromophenol	2.4		3.330		70.8	35.2	108			
Surr: Nitrobenzene-d5	1.2		1.670		69.7	24	118			
Surr: 2-Fluorobiphenyl	1.2		1.670		70.4	35.4	111			
Surr: 4-Terphenyl-d14	1.6		1.670		97.9	15	91.7			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	lcs-24350		SampType: LCS			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	LCSS		Batch ID: 24350			RunNo: 32992				
Prep Date:	3/21/2016		Analysis Date: 3/23/2016			SeqNo: 1013033		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.3	0.20	1.670	0	75.1	45.8	99.8			
4-Chloro-3-methylphenol	2.4	0.50	3.330	0	73.1	51.5	103			
2-Chlorophenol	2.4	0.20	3.330	0	71.4	46.5	105			
1,4-Dichlorobenzene	1.2	0.20	1.670	0	72.2	45.5	103			
2,4-Dinitrotoluene	1.2	0.50	1.670	0	70.8	36	87.2			
N-Nitrosodi-n-propylamine	1.0	0.20	1.670	0	60.4	47.3	104			
4-Nitrophenol	2.7	0.25	3.330	0	80.8	47.3	95.3			
Pentachlorophenol	2.1	0.40	3.330	0	63.9	38.7	89.3			
Phenol	2.4	0.20	3.330	0	72.6	47.8	106			
Pyrene	1.1	0.20	1.670	0	68.7	33.4	105			
1,2,4-Trichlorobenzene	1.4	0.20	1.670	0	85.9	50.4	115			
Surr: 2-Fluorophenol	2.2		3.330		65.3	28.3	102			
Surr: Phenol-d5	2.5		3.330		74.2	35.7	103			
Surr: 2,4,6-Tribromophenol	2.3		3.330		70.4	35.2	108			
Surr: Nitrobenzene-d5	1.3		1.670		79.3	24	118			
Surr: 2-Fluorobiphenyl	1.3		1.670		77.5	35.4	111			
Surr: 4-Terphenyl-d14	1.2		1.670		71.6	15	91.7			

Sample ID	1603878-001ams		SampType: MS			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	NW Pothole @ 14'		Batch ID: 24350			RunNo: 32992				
Prep Date:	3/21/2016		Analysis Date: 3/23/2016			SeqNo: 1013040		Units: mg/Kg-dry		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.3	0.21	1.768	0	72.1	27.5	117			
4-Chloro-3-methylphenol	2.8	0.53	3.526	0	78.2	26.3	116			
2-Chlorophenol	2.2	0.21	3.526	0	61.4	21.4	113			
1,4-Dichlorobenzene	0.92	0.21	1.768	0	52.2	25	105			
2,4-Dinitrotoluene	1.4	0.53	1.768	0	76.9	21.1	119			
N-Nitrosodi-n-propylamine	1.0	0.21	1.768	0	58.7	21.3	126			
4-Nitrophenol	2.9	0.26	3.526	0	82.0	21.3	120			
Pentachlorophenol	2.6	0.42	3.526	0	74.6	11.5	115			
Phenol	2.2	0.21	3.526	0	62.7	23	118			
Pyrene	1.4	0.21	1.768	0	76.4	25.7	110			
1,2,4-Trichlorobenzene	1.2	0.21	1.768	0	67.4	31.1	107			
Surr: 2-Fluorophenol	1.7		3.526		49.0	28.3	102			
Surr: Phenol-d5	2.2		3.526		61.9	35.7	103			
Surr: 2,4,6-Tribromophenol	2.5		3.526		71.8	35.2	108			
Surr: Nitrobenzene-d5	1.1		1.768		60.0	24	118			
Surr: 2-Fluorobiphenyl	1.1		1.768		64.3	35.4	111			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	1603878-001ams	SampType:	MS	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	NW Pothole @ 14'	Batch ID:	24350	RunNo:	32992					
Prep Date:	3/21/2016	Analysis Date:	3/23/2016	SeqNo:	1013040	Units:	mg/Kg-dry			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	1.2		1.768		65.7	15	91.7			

Sample ID	1603878-001amsd	SampType:	MSD	TestCode: EPA Method 8270C: Semivolatiles						
Client ID:	NW Pothole @ 14'	Batch ID:	24350	RunNo: 32992						
Prep Date:	3/21/2016	Analysis Date:	3/23/2016	SeqNo: 1013041			Units: mg/Kg-dry			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.4	0.21	1.759	0	78.1	27.5	117	7.53	25.4	
4-Chloro-3-methylphenol	2.7	0.53	3.508	0	75.5	26.3	116	3.91	30.4	
2-Chlorophenol	2.3	0.21	3.508	0	66.9	21.4	113	8.07	33.4	
1,4-Dichlorobenzene	1.1	0.21	1.759	0	60.7	25	105	14.5	20.9	
2,4-Dinitrotoluene	1.3	0.53	1.759	0	73.4	21.1	119	5.23	27.9	
N-Nitrosodi-n-propylamine	1.1	0.21	1.759	0	60.4	21.3	126	2.28	27.5	
4-Nitrophenol	2.5	0.26	3.508	0	71.3	21.3	120	14.5	33.7	
Pentachlorophenol	2.5	0.42	3.508	0	70.9	11.5	115	5.51	39.7	
Phenol	2.3	0.21	3.508	0	66.1	23	118	4.84	30.1	
Pyrene	1.3	0.21	1.759	0	72.9	25.7	110	5.10	22.7	
1,2,4-Trichlorobenzene	1.3	0.21	1.759	0	73.5	31.1	107	8.23	27.8	
Surr: 2-Fluorophenol	1.9		3.508		54.7	28.3	102	0	0	
Surr: Phenol-d5	2.5		3.508		70.2	35.7	103	0	0	
Surr: 2,4,6-Tribromophenol	2.6		3.508		74.6	35.2	108	0	0	
Surr: Nitrobenzene-d5	1.3		1.759		73.7	24	118	0	0	
Surr: 2-Fluorobiphenyl	1.3		1.759		76.4	35.4	111	0	0	
Surr: 4-Terphenyl-d14	1.1		1.759		65.3	15	91.7	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	MB-24354	SampType:	mblk	TestCode:	EPA Method 7471: Mercury					
Client ID:	PBS	Batch ID:	24354	RunNo:	32987					
Prep Date:	3/21/2016	Analysis Date:	3/22/2016	SeqNo:	1011747	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-24354		SampType:	lcs		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS		Batch ID:	24354		RunNo:	32987				
Prep Date:	3/21/2016		Analysis Date:	3/22/2016		SeqNo:	1011748		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.18	0.033	0.1667	0	107	80	120				

Sample ID	1603878-001AMS			SampType:	ms		TestCode:	EPA Method 7471: Mercury			
Client ID:	NW Pothole @ 14'			Batch ID:	24354		RunNo:	32987			
Prep Date:	3/21/2016		Analysis Date:	3/22/2016		SeqNo:	1011750		Units: mg/Kg-dry		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.19	0.035	0.1779	0.003482	105	75	125				

Sample ID	1603878-001AMSD			SampType:	msd		TestCode:	EPA Method 7471: Mercury			
Client ID:	NW Pothole @ 14'			Batch ID:	24354		RunNo:	32987			
Prep Date:	3/21/2016		Analysis Date:	3/22/2016		SeqNo:	1011751		Units: mg/Kg-dry		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.19	0.034	0.1734	0.003482	106	75	125	1.14	20		

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	MB-24353		SampType:	MBLK		TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	PBS		Batch ID:	24353		RunNo:	32957			
Prep Date:	3/21/2016		Analysis Date:	3/22/2016		SeqNo:	1010798		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Lead	ND	0.25								
Silver	ND	0.25								

Sample ID	LCS-24353		SampType:	LCS		TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	LCSS		Batch ID:	24353		RunNo:	32957			
Prep Date:	3/21/2016		Analysis Date:	3/22/2016		SeqNo:	1010799		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.5	25.00	0	102	80	120			
Barium	25	0.10	25.00	0	98.5	80	120			
Cadmium	25	0.10	25.00	0	99.3	80	120			
Chromium	24	0.30	25.00	0	98.0	80	120			
Lead	24	0.25	25.00	0	96.0	80	120			
Silver	5.0	0.25	5.000	0	99.2	80	120			

Sample ID	1603878-001AMS		SampType:	MS		TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	NW Pothole @ 14'		Batch ID:	24353		RunNo:	32957			
Prep Date:	3/21/2016		Analysis Date:	3/22/2016		SeqNo:	1010813		Units: mg/Kg-dry	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	26	2.6	26.34	2.094	91.1	75	125			
Barium	56	0.11	26.34	29.71	98.5	75	125			
Cadmium	24	0.11	26.34	0	90.9	75	125			
Chromium	27	0.32	26.34	2.472	92.1	75	125			
Lead	25	0.26	26.34	2.427	86.4	75	125			
Silver	4.6	0.26	5.268	0	87.6	75	125			

Sample ID	1603878-001AMSD		SampType:	MSD		TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	NW Pothole @ 14'		Batch ID:	24353		RunNo:	32957			
Prep Date:	3/21/2016		Analysis Date:	3/22/2016		SeqNo:	1010814		Units: mg/Kg-dry	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.6	26.04	2.094	89.3	75	125	2.86	20	
Barium	61	0.10	26.04	29.71	120	75	125	9.20	20	
Cadmium	23	0.10	26.04	0	88.2	75	125	4.15	20	
Chromium	26	0.31	26.04	2.472	89.6	75	125	3.59	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	1603878-001AMSD			SampType:	MSD		TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	NW Pothole @ 14'		Batch ID:		24353		RunNo:	32957			
Prep Date:	3/21/2016		Analysis Date:		3/22/2016		SeqNo:	1010814		Units:	mg/Kg-dry
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	24	0.26	26.04	2.427	83.0	75	125	4.66	20		
Silver	4.5	0.26	5.209	0	86.5	75	125	2.46	20		

Sample ID	MB-24353	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	PBS	Batch ID:	24353	RunNo:	33016					
Prep Date:	3/21/2016	Analysis Date:	3/24/2016	SeqNo:	1012884	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	2.5								

Sample ID	LCS-24353		SampType: LCS		TestCode: EPA Method 6010B: Soil Metals					
Client ID:	LCSS		Batch ID: 24353		RunNo: 33016					
Prep Date:	3/21/2016		Analysis Date: 3/24/2016		SeqNo: 1012885		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	26	2.5	25.00	0	103	80	120			

Sample ID	1603878-001AMS			SampType:	MS		TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	NW Pothole @ 14'			Batch ID:	24353		RunNo:	33016			
Prep Date:	3/21/2016		Analysis Date:	3/24/2016		SeqNo:	1012889		Units:	mg/Kg-dry	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Selenium	23	2.6	26.34	0	87.8	75	125				

Sample ID	1603878-001AMSD			SampType:	MSD		TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	NW Pothole @ 14'		Batch ID:	24353		RunNo:	33016				
Prep Date:	3/21/2016		Analysis Date:	3/24/2016		SeqNo:	1012890		Units:	mg/Kg-dry	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Selenium	23	2.6	26.04	0	88.8	75	125	0.0715	20		

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Southw

Work Order Number: 1603878

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

3/17/2016 7:33:00 AM

Completed By: Lindsay Mangin

3/17/2016 8:47:05 AM

Reviewed By:

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐
- # of preserved bottles checked for pH: _____
(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (If applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:	
Client: <u>Western Refining</u>		☒ Standard	☒ Rush <u>ASAP</u> <u>402A-1</u>
Unit: <u>111</u>		Project Name:	
Billing Address: <u>111 CR 4990</u>		<u>Bloomfield Terminal</u>	
Location: <u>Bloomfield, NM 87413</u>		Project #:	
Phone #: <u>(505) 632-4166</u>		Project Manager:	
Email or Fax#:		<u>Kelly Robinson</u>	
QA/QC Package:		Sampler: <u>Michael Wicker</u>	
☒ Standard	☐ Level 4 (Full Validation)	On Ice: ☒ Yes ☐ No	
Accreditation:		Sample Temperature: <u>2.2</u>	
NELAP ☐ Other _____			
EDD (Type) <u>Pool</u>			

☒ Standard ☒ Rush ASAP 40%

Bloomfield Terminal

Project Manager:

Kelly Robinson

Sampler: Michael Wicker

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.2



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

Re:	Time:	Relinquished by:	Received by:	Date	Time
4/16	1731h	[Signature]	[Signature]	3/16/16	1714
Re:	Time:	Relinquished by:	Received by:	Date	Time
4/16	1965	[Signature]	[Signature]	03/17/16	0733

Remarks: Please CC MWicker@LTEnvicorp

If necessary, samples submitted to Hal Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly noted on the analytical report.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 21, 2016

Kelly Robinson

Western Refining Southwest, Inc.

#50 CR 4990

Bloomfield, NM 87413

TEL: (505) 632-4135

FAX (505) 632-3911

RE: Bloomfield Terminal

OrderNo.: 1603876

Dear Kelly Robinson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 3/17/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603876

Date Reported: 3/21/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: NW Pothole @ 14'

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:20:00 PM

Lab ID: 1603876-001

Matrix: MEOH (SOIL)

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	6.1	1.0		wt%	1	3/17/2016 4:00:00 PM	R32877
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	17	11		mg/Kg-dry	1	3/17/2016 6:14:08 PM	24297
Motor Oil Range Organics (MRO)	ND	54		mg/Kg-dry	1	3/17/2016 6:14:08 PM	24297
Surr: DNOP	91.6	70-130		%Rec	1	3/17/2016 6:14:08 PM	24297
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	12	3.5		mg/Kg-dry	1	3/17/2016 4:23:07 PM	24284
Surr: BFB	187	66.2-112	S	%Rec	1	3/17/2016 4:23:07 PM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg-dry	1	3/17/2016 4:23:07 PM	24284
Toluene	0.11	0.035		mg/Kg-dry	1	3/17/2016 4:23:07 PM	24284
Ethylbenzene	0.065	0.035		mg/Kg-dry	1	3/17/2016 4:23:07 PM	24284
Xylenes, Total	0.71	0.071		mg/Kg-dry	1	3/17/2016 4:23:07 PM	24284
Surr: 4-Bromofluorobenzene	127	80-120	S	%Rec	1	3/17/2016 4:23:07 PM	24284

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603876

Date Reported: 3/21/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: N Wall

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:40:00 PM

Lab ID: 1603876-002

Matrix: MEOH (SOIL)

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	11	1.0		wt%	1	3/17/2016 4:00:00 PM	R32877
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	11		mg/Kg-dry	1	3/17/2016 2:14:55 PM	24297
Motor Oil Range Organics (MRO)	ND	54		mg/Kg-dry	1	3/17/2016 2:14:55 PM	24297
Surr: DNOP	87.0	70-130		%Rec	1	3/17/2016 2:14:55 PM	24297
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.2		mg/Kg-dry	1	3/17/2016 11:40:31 AM	24284
Surr: BFB	111	66.2-112		%Rec	1	3/17/2016 11:40:31 AM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.026		mg/Kg-dry	1	3/17/2016 11:40:31 AM	24284
Toluene	ND	0.052		mg/Kg-dry	1	3/17/2016 11:40:31 AM	24284
Ethylbenzene	ND	0.052		mg/Kg-dry	1	3/17/2016 11:40:31 AM	24284
Xylenes, Total	ND	0.10		mg/Kg-dry	1	3/17/2016 11:40:31 AM	24284
Surr: 4-Bromofluorobenzene	117	80-120		%Rec	1	3/17/2016 11:40:31 AM	24284

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical ReportLab Order **1603876**Date Reported: **3/21/2016****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** E Wall**Project:** Bloomfield Terminal**Collection Date:** 3/15/2016 2:20:00 PM**Lab ID:** 1603876-003**Matrix:** MEOH (SOIL)**Received Date:** 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	7.9	1.0		wt%	1	3/17/2016 4:00:00 PM	R32877
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	760	11		mg/Kg-dry	1	3/17/2016 3:20:44 PM	24297
Motor Oil Range Organics (MRO)	280	54		mg/Kg-dry	1	3/17/2016 3:20:44 PM	24297
Surr: DNOP	101	70-130		%Rec	1	3/17/2016 3:20:44 PM	24297
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	2300	210		mg/Kg-dry	50	3/17/2016 12:04:06 PM	24284
Surr: BFB	209	66.2-112	S	%Rec	50	3/17/2016 12:04:06 PM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	6.2	1.1		mg/Kg-dry	50	3/17/2016 12:04:06 PM	24284
Toluene	64	2.1		mg/Kg-dry	50	3/17/2016 12:04:06 PM	24284
Ethylbenzene	11	2.1		mg/Kg-dry	50	3/17/2016 12:04:06 PM	24284
Xylenes, Total	100	4.3		mg/Kg-dry	50	3/17/2016 12:04:06 PM	24284
Surr: 4-Bromofluorobenzene	130	80-120	S	%Rec	50	3/17/2016 12:04:06 PM	24284

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical ReportLab Order **1603876**Date Reported: **3/21/2016****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** Floor**Project:** Bloomfield Terminal**Collection Date:** 3/16/2016 1:40:00 PM**Lab ID:** 1603876-004**Matrix:** MEOH (SOIL)**Received Date:** 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	7.6	1.0		wt%	1	3/17/2016 4:00:00 PM	R32877
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	3500	100		mg/Kg-dry	10	3/17/2016 4:04:11 PM	24297
Motor Oil Range Organics (MRO)	1300	510		mg/Kg-dry	10	3/17/2016 4:04:11 PM	24297
Surr: DNOP	0	70-130	S	%Rec	10	3/17/2016 4:04:11 PM	24297
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	5600	280		mg/Kg-dry	50	3/17/2016 12:27:44 PM	24284
Surr: BFB	310	66.2-112	S	%Rec	50	3/17/2016 12:27:44 PM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	14	1.4		mg/Kg-dry	50	3/17/2016 12:27:44 PM	24284
Toluene	150	2.8		mg/Kg-dry	50	3/17/2016 12:27:44 PM	24284
Ethylbenzene	26	2.8		mg/Kg-dry	50	3/17/2016 12:27:44 PM	24284
Xylenes, Total	240	5.5		mg/Kg-dry	50	3/17/2016 12:27:44 PM	24284
Surr: 4-Bromofluorobenzene	135	80-120	S	%Rec	50	3/17/2016 12:27:44 PM	24284

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603876

Date Reported: 3/21/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** S Wall**Project:** Bloomfield Terminal**Collection Date:** 3/16/2016 1:50:00 PM**Lab ID:** 1603876-005**Matrix:** MEOH (SOIL)**Received Date:** 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	10	1.0		wt%	1	3/17/2016 4:00:00 PM	R32877
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	27	10		mg/Kg-dry	1	3/18/2016 7:55:20 AM	24297
Motor Oil Range Organics (MRO)	68	50		mg/Kg-dry	1	3/18/2016 7:55:20 AM	24297
Surr: DNOP	87.8	70-130		%Rec	1	3/18/2016 7:55:20 AM	24297
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg-dry	1	3/17/2016 12:51:26 PM	24284
Surr: BFB	118	66.2-112	S	%Rec	1	3/17/2016 12:51:26 PM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg-dry	1	3/17/2016 12:51:26 PM	24284
Toluene	ND	0.049		mg/Kg-dry	1	3/17/2016 12:51:26 PM	24284
Ethylbenzene	ND	0.049		mg/Kg-dry	1	3/17/2016 12:51:26 PM	24284
Xylenes, Total	ND	0.099		mg/Kg-dry	1	3/17/2016 12:51:26 PM	24284
Surr: 4-Bromofluorobenzene	118	80-120		%Rec	1	3/17/2016 12:51:26 PM	24284

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603876

Date Reported: 3/21/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** W Wall**Project:** Bloomfield Terminal**Collection Date:** 3/16/2016 2:10:00 PM**Lab ID:** 1603876-006**Matrix:** MEOH (SOIL)**Received Date:** 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	11	1.0		wt%	1	3/17/2016 4:00:00 PM	R32877
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	4600	110		mg/Kg-dry	10	3/17/2016 5:30:55 PM	24297
Motor Oil Range Organics (MRO)	1800	550		mg/Kg-dry	10	3/17/2016 5:30:55 PM	24297
Surr: DNOP	0	70-130	S	%Rec	10	3/17/2016 5:30:55 PM	24297
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	4000	280		mg/Kg-dry	50	3/17/2016 5:56:51 PM	24284
Surr: BFB	255	66.2-112	S	%Rec	50	3/17/2016 5:56:51 PM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	15	1.4		mg/Kg-dry	50	3/17/2016 5:56:51 PM	24284
Toluene	100	2.8		mg/Kg-dry	50	3/17/2016 5:56:51 PM	24284
Ethylbenzene	18	2.8		mg/Kg-dry	50	3/17/2016 5:56:51 PM	24284
Xylenes, Total	160	5.6		mg/Kg-dry	50	3/17/2016 5:56:51 PM	24284
Surr: 4-Bromofluorobenzene	134	80-120	S	%Rec	50	3/17/2016 5:56:51 PM	24284

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603876

21-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	MB-24297	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	24297	RunNo:	32861					
Prep Date:	3/17/2016	Analysis Date:	3/17/2016	SeqNo:	1007390	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		98.4	70	130			

Sample ID	LCS-24297	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	24297	RunNo:	32861					
Prep Date:	3/17/2016	Analysis Date:	3/17/2016	SeqNo:	1007392	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	65.8	136			
Surr: DNOP	4.5		5.000		89.7	70	130			

Sample ID	1603876-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	NW Pothole @ 14'	Batch ID:	24297	RunNo:	32861					
Prep Date:	3/17/2016	Analysis Date:	3/17/2016	SeqNo:	1007414	Units:	mg/Kg-dry			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	79	10	51.42	17.07	119	31.2	162			
Surr: DNOP	4.4		5.142		86.2	70	130			

Sample ID	1603876-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	NW Pothole @ 14'	Batch ID:	24297	RunNo:	32861					
Prep Date:	3/17/2016	Analysis Date:	3/17/2016	SeqNo:	1007417	Units:	mg/Kg-dry			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	150	10	51.67	17.07	265	31.2	162	65.0	31.7	RS
Surr: DNOP	4.7		5.167		90.7	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603876

21-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	MB-24284	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	24284	RunNo:	32868					
Prep Date:	3/16/2016	Analysis Date:	3/17/2016	SeqNo:	1007393	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		109	66.2	112			

Sample ID	LCS-24284	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	24284	RunNo:	32868					
Prep Date:	3/16/2016	Analysis Date:	3/17/2016	SeqNo:	1007394	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.1	80	120			
Surr: BFB	1100		1000		115	66.2	112			S

Sample ID	1603876-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	NW Pothole @ 14'	Batch ID:	24284	RunNo:	32868					
Prep Date:		Analysis Date:	3/17/2016	SeqNo:	1007411	Units:	mg/Kg-dry			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	3.5	17.66	11.65	95.6	59.3	143			
Surr: BFB	1400		706.4		198	66.2	112			S

Sample ID	1603876-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	NW Pothole @ 14'	Batch ID:	24284	RunNo:	32868					
Prep Date:		Analysis Date:	3/17/2016	SeqNo:	1007412	Units:	mg/Kg-dry			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	3.5	17.66	11.65	111	59.3	143	9.30	20	
Surr: BFB	1400		706.4		201	66.2	112	0	0	S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603876

21-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	MB-24284		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	24284		RunNo:	32868			
Prep Date:	3/16/2016		Analysis Date:	3/17/2016		SeqNo:	1007424		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Sample ID	LCS-24284		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	24284		RunNo:	32868			
Prep Date:	3/16/2016		Analysis Date:	3/17/2016		SeqNo:	1007426		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	108	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		120	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Southw

Work Order Number: 1603876

RcptNo: 1

Received by/date:

[Signature] 03/17/16

Logged By: Lindsay Mangin

3/17/2016 7:33:00 AM

[Signature]

Completed By: Lindsay Mangin

3/17/2016 8:33:58 AM

[Signature]

Reviewed By:

[Signature] 03/17/16

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:	
Client: <u>Western Refining</u>		☐ Standard ☒ Rush <u>ASAP</u> ^{24hr}	
Billing Address: <u>111 CR 4990</u>		Project Name: <u>Bloomfield Terminal</u>	
<u>Bloomfield, NM 87413</u>		Project #: <u>12615528</u>	
Phone #: <u>(505) 632-4166</u>		Project Manager: <u>Kelly Robinson</u>	
Mail or Fax#:			
A/QC Package: ☒ Standard ☐ Level 4 (Full Validation)		Sampler: <u>Michael Wicker</u>	
Accreditation: ☒ NELAP ☐ Other _____		On Ice: ☒ Yes ☐ No	
EDD (Type) <u>Excel</u>		Sample Temperature: <u>22</u>	

☐ Standard☒ Rush

ASAP 24th

Project Name:

Bloomfield Terminal

Project #:

12615528

Project Manager:

Kelly Robinson

Sampler: Michael Wicker

On Ice: ☒ Yes ☐ No

Sample Temperature: 7.2



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

	<---	X	BTEX + MTBE + PCE's (8021)
			BTEX + MTBE + TPH (Gas only)
	<---	X	TPH 8015B (GRO / DRO / MRO)
			TPH (Method 418.t)
			EDB (Method 504.1)
			PAH's (8310 or 8270 SIMS)
			RCPRA 8 Metals
			Anions (F^- , Cl^- , NO_3^- , PO_4^{3-} , SO_4^{2-})
			8081 Pesticides / 8082 PCB's
			8260B (VOA)
			8270 (Semi-VOA)
			Air Bubbles (% air-N)

ate:	Time:	Relinquished by:	Received by:	Date:	Time:
4/10	1710			3/16/16	1710
ate:	Time:	Relinquished by:	Received by:	Date:	Time:
6/16	1905			03/17/16	0733

Remarks: Please CC mwicker@LTEW.com

² necessary, samples submitted to his Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 16, 2016

Matt Krakow

Western Refining Southwest, Inc.

#50 CR 4990

Bloomfield, NM 87413

TEL: (505) 632-4135

FAX (505) 632-3911

RE: Crude Unloading Line

OrderNo.: 1603350

Dear Matt Krakow:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/7/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603350

Date Reported: 3/16/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Waste Characterization

Project: Crude Unloading Line

Collection Date: 3/7/2016 1:00:00 PM

Lab ID: 1603350-001

Matrix: SOIL

Received Date: 3/7/2016 4:52:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
MERCURY, TCLP							Analyst: pmf
Mercury	ND	0.020		mg/L	1	3/10/2016 12:42:47 PM	24168
EPA METHOD 6010B: TCLP METALS							Analyst: ELS
Arsenic	ND	5.0		mg/L	1	3/10/2016 10:48:24 AM	24167
Barium	ND	100		mg/L	1	3/10/2016 10:48:24 AM	24167
Cadmium	ND	1.0		mg/L	1	3/10/2016 10:48:24 AM	24167
Chromium	ND	5.0		mg/L	1	3/10/2016 10:48:24 AM	24167
Lead	ND	5.0		mg/L	1	3/10/2016 10:48:24 AM	24167
Selenium	ND	1.0		mg/L	1	3/10/2016 10:48:24 AM	24167
Silver	ND	5.0		mg/L	1	3/10/2016 10:48:24 AM	24167
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	5500	95		mg/Kg	10	3/14/2016 11:08:16 AM	24225
Motor Oil Range Organics (MRO)	3100	480		mg/Kg	10	3/14/2016 11:08:16 AM	24225
Surr: DNOP	0	70-130	S	%Rec	10	3/14/2016 11:08:16 AM	24225
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	2500	98		mg/Kg	20	3/14/2016 9:10:19 AM	24219
Surr: BFB	622	66.2-112	S	%Rec	20	3/14/2016 9:10:19 AM	24219
EPA METHOD 8270C TCLP							Analyst: DAM
2-Methylphenol	ND	200		mg/L	1	3/12/2016 3:18:41 PM	24177
3+4-Methylphenol	ND	200		mg/L	1	3/12/2016 3:18:41 PM	24177
Phenol	ND	200		mg/L	1	3/12/2016 3:18:41 PM	24177
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/12/2016 3:18:41 PM	24177
Hexachlorobenzene	ND	0.13		mg/L	1	3/12/2016 3:18:41 PM	24177
Hexachlorobutadiene	ND	0.50		mg/L	1	3/12/2016 3:18:41 PM	24177
Hexachloroethane	ND	3.0		mg/L	1	3/12/2016 3:18:41 PM	24177
Nitrobenzene	ND	2.0		mg/L	1	3/12/2016 3:18:41 PM	24177
Pentachlorophenol	ND	100		mg/L	1	3/12/2016 3:18:41 PM	24177
Pyridine	ND	5.0		mg/L	1	3/12/2016 3:18:41 PM	24177
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/12/2016 3:18:41 PM	24177
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/12/2016 3:18:41 PM	24177
Cresols, Total	ND	200		mg/L	1	3/12/2016 3:18:41 PM	24177
Surr: 2-Fluorophenol	56.4	19-121		%Rec	1	3/12/2016 3:18:41 PM	24177
Surr: Phenol-d5	47.2	31.8-117		%Rec	1	3/12/2016 3:18:41 PM	24177
Surr: 2,4,6-Tribromophenol	88.2	31.3-139		%Rec	1	3/12/2016 3:18:41 PM	24177
Surr: Nitrobenzene-d5	77.2	48.2-128		%Rec	1	3/12/2016 3:18:41 PM	24177
Surr: 2-Fluorobiphenyl	70.3	58.4-114		%Rec	1	3/12/2016 3:18:41 PM	24177
Surr: 4-Terphenyl-d14	79.0	17.4-141		%Rec	1	3/12/2016 3:18:41 PM	24177

VOLATILES BY 8260B/1311

Analyst: DJF

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical ReportLab Order **1603350**Date Reported: **3/16/2016****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** Waste Characterization**Project:** Crude Unloading Line**Collection Date:** 3/7/2016 1:00:00 PM**Lab ID:** 1603350-001**Matrix:** SOIL**Received Date:** 3/7/2016 4:52:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
VOLATILES BY 8260B/1311							Analyst: DJF
Benzene	ND	0.50		mg/L	1	3/9/2016 5:51:30 PM	24135
2-Butanone	ND	200		mg/L	1	3/9/2016 5:51:30 PM	24135
Carbon Tetrachloride	ND	0.50		mg/L	1	3/9/2016 5:51:30 PM	24135
Chlorobenzene	ND	100		mg/L	1	3/9/2016 5:51:30 PM	24135
Chloroform	ND	6.0		mg/L	1	3/9/2016 5:51:30 PM	24135
1,4-Dichlorobenzene	ND	7.5		mg/L	1	3/9/2016 5:51:30 PM	24135
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	3/9/2016 5:51:30 PM	24135
1,1-Dichloroethene	ND	0.70		mg/L	1	3/9/2016 5:51:30 PM	24135
Hexachlorobutadiene	ND	0.50		mg/L	1	3/9/2016 5:51:30 PM	24135
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	3/9/2016 5:51:30 PM	24135
Trichloroethene (TCE)	ND	0.50		mg/L	1	3/9/2016 5:51:30 PM	24135
Vinyl chloride	ND	0.20		mg/L	1	3/9/2016 5:51:30 PM	24135
Surr: 1,2-Dichloroethane-d4	94.9	70-130		%Rec	1	3/9/2016 5:51:30 PM	24135
Surr: 4-Bromofluorobenzene	112	70-130		%Rec	1	3/9/2016 5:51:30 PM	24135
Surr: Dibromofluoromethane	91.6	70-130		%Rec	1	3/9/2016 5:51:30 PM	24135
Surr: Toluene-d8	100	70-130		%Rec	1	3/9/2016 5:51:30 PM	24135

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID	LCS-24225		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 24225		RunNo: 32764					
Prep Date:	3/14/2016		Analysis Date: 3/14/2016		SeqNo: 1003209		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	76.3	65.8	136			
Surr: DNOP	3.6		5.000		71.5	70	130			

Sample ID	MB-24225		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 24225		RunNo: 32764					
Prep Date:	3/14/2016		Analysis Date: 3/14/2016		SeqNo: 1003210		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.5		10.00		74.7	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID	MB-24219	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	24219	RunNo:	32770					
Prep Date:	3/11/2016	Analysis Date:	3/14/2016	SeqNo:	1004230	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		106	66.2	112			

Sample ID	LCS-24219	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	24219	RunNo:	32770					
Prep Date:	3/11/2016	Analysis Date:	3/14/2016	SeqNo:	1004231	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.3	80	120			
Surr: BFB	1100		1000		114	66.2	112			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID	mb-24135		SampType:	MBLK		TestCode:	Volatiles by 8260B/1311			
Client ID:	PBS		Batch ID:	24135		RunNo:	32688			
Prep Date:	3/8/2016		Analysis Date:	3/9/2016		SeqNo:	1000429		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.50								
2-Butanone	ND	200								
Carbon Tetrachloride	ND	0.50								
Chlorobenzene	ND	100								
Chloroform	ND	6.0								
1,4-Dichlorobenzene	ND	7.5								
1,2-Dichloroethane (EDC)	ND	0.50								
1,1-Dichloroethene	ND	0.70								
Hexachlorobutadiene	ND	0.50								
Tetrachloroethene (PCE)	ND	0.70								
Trichloroethene (TCE)	ND	0.50								
Vinyl chloride	ND	0.20								
Surr: 1,2-Dichloroethane-d4	0.19		0.2000		94.3	70	130			
Surr: 4-Bromofluorobenzene	0.23		0.2000		117	70	130			
Surr: Dibromofluoromethane	0.19		0.2000		94.3	70	130			
Surr: Toluene-d8	0.19		0.2000		97.1	70	130			

Sample ID	lcs-24135		SampType:	LCS		TestCode:	Volatiles by 8260B/1311			
Client ID:	LCSS		Batch ID:	24135		RunNo:	32688			
Prep Date:	3/8/2016		Analysis Date:	3/9/2016		SeqNo:	1000431		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.38	0.30	0.4000	0	94.2	70	130			
Chlorobenzene	0.44	0.30	0.4000	0	109	70	130			
1,1-Dichloroethene	0.39	0.30	0.4000	0	98.1	70	130			
Trichloroethene (TCE)	0.39	0.30	0.4000	0	98.4	58.7	129			
Surr: 1,2-Dichloroethane-d4	0.20		0.2000		99.2	70	130			
Surr: 4-Bromofluorobenzene	0.21		0.2000		107	70	130			
Surr: Dibromofluoromethane	0.19		0.2000		95.8	70	130			
Surr: Toluene-d8	0.20		0.2000		100	70	130			

Sample ID	1603350-001ams		SampType:	MS		TestCode:	Volatiles by 8260B/1311			
Client ID:	Waste Characterizat		Batch ID:	24135		RunNo:	32688			
Prep Date:	3/8/2016		Analysis Date:	3/9/2016		SeqNo:	1000436		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.40	0.30	0.4000	0	100	70	130			
Chlorobenzene	0.42	0.30	0.4000	0	105	70	130			
1,1-Dichloroethene	0.40	0.30	0.4000	0	99.0	70	130			
Trichloroethene (TCE)	0.38	0.30	0.4000	0	95.0	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID	1603350-001ams	SampType:	MS	TestCode:	Volatiles by 8260B/1311					
Client ID:	Waste Characterizat	Batch ID:	24135	RunNo:	32688					
Prep Date:	3/8/2016	Analysis Date:	3/9/2016	SeqNo:	1000436	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.19		0.2000		92.9	70	130			
Surr: 4-Bromofluorobenzene	0.23		0.2000		115	70	130			
Surr: Dibromofluoromethane	0.19		0.2000		95.0	70	130			
Surr: Toluene-d8	0.19		0.2000		96.5	70	130			

Sample ID	1603350-001amsd		SampType:	MSD		TestCode:	Volatiles by 8260B/1311				
Client ID:	Waste Characterizat		Batch ID:	24135		RunNo:	32688				
Prep Date:	3/8/2016		Analysis Date:	3/9/2016		SeqNo:	1000450		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.38	0.30	0.4000	0	94.2	70	130	5.98	20		
Chlorobenzene	0.40	0.30	0.4000	0	99.4	70	130	5.41	20		
1,1-Dichloroethene	0.35	0.30	0.4000	0	88.6	70	130	11.0	20		
Trichloroethene (TCE)	0.35	0.30	0.4000	0	86.7	70	130	9.13	20		
Surr: 1,2-Dichloroethane-d4	0.19		0.2000		94.8	70	130	0	0		
Surr: 4-Bromofluorobenzene	0.22		0.2000		111	70	130	0	0		
Surr: Dibromofluoromethane	0.18		0.2000		91.2	70	130	0	0		
Surr: Toluene-d8	0.19		0.2000		95.5	70	130	0	0		

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID	mb-24177		SampType:	MBLK		TestCode:	EPA Method 8270C TCLP				
Client ID:	PBS		Batch ID:	24177		RunNo:	32755				
Prep Date:	3/10/2016		Analysis Date:	3/12/2016		SeqNo:	1004050		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.16		0.2000		78.8	19	121			
Surr: Phenol-d5	0.18		0.2000		90.3	31.8	117			
Surr: 2,4,6-Tribromophenol	0.17		0.2000		86.5	31.3	139			
Surr: Nitrobenzene-d5	0.079		0.1000		78.7	48.2	128			
Surr: 2-Fluorobiphenyl	0.076		0.1000		76.2	58.4	114			
Surr: 4-Terphenyl-d14	0.11		0.1000		107	17.4	141			

Sample ID	lcs-24177		SampType: LCS		TestCode: EPA Method 8270C TCLP					
Client ID:	LCSS		Batch ID: 24177		RunNo: 32755					
Prep Date:	3/10/2016		Analysis Date: 3/12/2016		SeqNo: 1004052		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

2-Methylphenol	0.082	0.010	0.1000	0	82.3	37.6	110			
3+4-Methylphenol	0.19	0.010	0.2000	0	95.6	30.5	149			
2,4-Dinitrotoluene	0.056	0.010	0.1000	0	55.8	24.9	93.7			
Hexachlorobenzene	0.088	0.010	0.1000	0	88.1	40	114			
Hexachlorobutadiene	0.076	0.010	0.1000	0	76.1	37.4	119			
Hexachloroethane	0.072	0.010	0.1000	0	72.2	33.8	105			
Nitrobenzene	0.075	0.010	0.1000	0	75.4	33.4	115			
Pentachlorophenol	0.071	0.010	0.1000	0	70.9	27.9	90.3			
Pyridine	0.069	0.010	0.1000	0	69.1	29.3	105			
2,4,5-Trichlorophenol	0.093	0.010	0.1000	0	92.8	34	118			
2,4,6-Trichlorophenol	0.090	0.010	0.1000	0	89.7	34.1	109			
Cresols, Total	0.27	0.010	0.3000	0	91.2	30	136			
Surr: 2-Fluorophenol	0.14		0.2000		71.4	19	121			
Surr: Phenol-d5	0.16		0.2000		79.6	31.8	117			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID	ics-24177		SampType: LCS	TestCode: EPA Method 8270C TCLP						
Client ID:	LCSS		Batch ID: 24177	RunNo: 32755						
Prep Date:	3/10/2016		Analysis Date: 3/12/2016	SeqNo: 1004052		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.18		0.2000		89.8	31.3	139			
Surr: Nitrobenzene-d5	0.075		0.1000		74.7	48.2	128			
Surr: 2-Fluorobiphenyl	0.076		0.1000		75.7	58.4	114			
Surr: 4-Terphenyl-d14	0.078		0.1000		78.1	17.4	141			

Sample ID	1603350-001ams		SampType: MS	TestCode: EPA Method 8270C TCLP						
Client ID:	Waste Characterizat		Batch ID: 24177	RunNo: 32755						
Prep Date:	3/10/2016		Analysis Date: 3/12/2016	SeqNo: 1004054		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.10	0.010	0.1000	0	101	43.1	114			
3+4-Methylphenol	0.21	0.010	0.2000	0	107	37.8	128			
2,4-Dinitrotoluene	0.076	0.010	0.1000	0	76.3	36.5	125			
Hexachlorobenzene	0.11	0.010	0.1000	0	112	41.4	108			S
Hexachlorobutadiene	0.085	0.010	0.1000	0	84.8	30.4	101			
Hexachloroethane	0.087	0.010	0.1000	0	87.3	37.3	115			
Nitrobenzene	0.10	0.010	0.1000	0	102	40.2	132			
Pentachlorophenol	0.043	0.010	0.1000	0	43.0	8.72	103			
Pyridine	0.074	0.010	0.1000	0	73.9	9.36	106			
2,4,5-Trichlorophenol	0.11	0.010	0.1000	0	105	16.5	123			
2,4,6-Trichlorophenol	0.082	0.010	0.1000	0	81.6	11.3	117			
Cresols, Total	0.32	0.010	0.3000	0	105	23.2	151			
Surr: 2-Fluorophenol	0.13		0.2000		63.8	19	121			
Surr: Phenol-d5	0.11		0.2000		53.1	31.8	117			
Surr: 2,4,6-Tribromophenol	0.20		0.2000		102	31.3	139			
Surr: Nitrobenzene-d5	0.10		0.1000		101	48.2	128			
Surr: 2-Fluorobiphenyl	0.096		0.1000		95.5	58.4	114			
Surr: 4-Terphenyl-d14	0.076		0.1000		76.1	17.4	141			

Sample ID	1603350-001amsd		SampType: MSD	TestCode: EPA Method 8270C TCLP						
Client ID:	Waste Characterizat		Batch ID: 24177	RunNo: 32755						
Prep Date:	3/10/2016		Analysis Date: 3/12/2016	SeqNo: 1004056		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.069	0.010	0.1000	0	69.2	43.1	114	37.2	28.4	R
3+4-Methylphenol	0.14	0.010	0.2000	0	70.8	37.8	128	40.7	29.4	R
2,4-Dinitrotoluene	0.055	0.010	0.1000	0	55.5	36.5	125	31.6	24.7	R
Hexachlorobenzene	0.079	0.010	0.1000	0	78.8	41.4	108	34.7	20	R
Hexachlorobutadiene	0.063	0.010	0.1000	0	63.2	30.4	101	29.1	29	R
Hexachloroethane	0.060	0.010	0.1000	0	60.3	37.3	115	36.6	25.2	R

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID	1603350-001amsd		SampType: MSD		TestCode: EPA Method 8270C TCLP						
Client ID:	Waste Characterizat		Batch ID: 24177		RunNo: 32755						
Prep Date:	3/10/2016		Analysis Date: 3/12/2016		SeqNo: 1004056		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Nitrobenzene	0.070	0.010	0.1000	0	70.4	40.2	132	36.5	26.9	R	
Pentachlorophenol	0.074	0.010	0.1000	0	74.0	8.72	103	53.0	59.2		
Pyridine	0.051	0.010	0.1000	0	51.5	9.36	106	35.8	48		
2,4,5-Trichlorophenol	0.087	0.010	0.1000	0	86.8	16.5	123	19.2	70.8		
2,4,6-Trichlorophenol	0.077	0.010	0.1000	0	76.7	11.3	117	6.16	78		
Cresols, Total	0.21	0.010	0.3000	0	70.3	23.2	151	39.6	30.8	R	
Surr: 2-Fluorophenol	0.092		0.2000		45.8	19	121	0	0		
Surr: Phenol-d5	0.074		0.2000		37.0	31.8	117	0	0		
Surr: 2,4,6-Tribromophenol	0.15		0.2000		75.3	31.3	139	0	0		
Surr: Nitrobenzene-d5	0.074		0.1000		73.5	48.2	128	0	0		
Surr: 2-Fluorobiphenyl	0.070		0.1000		70.3	58.4	114	0	0		
Surr: 4-Terphenyl-d14	0.056		0.1000		56.1	17.4	141	0	0		

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID	MB-24168	SampType:	MBLK	TestCode:	MERCURY, TCLP					
Client ID:	PBW	Batch ID:	24168	RunNo:	32705					
Prep Date:	3/9/2016	Analysis Date:	3/10/2016	SeqNo:	1001072	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID	LCS-24168	SampType:	LCS	TestCode:	MERCURY, TCLP					
Client ID:	LCSW	Batch ID:	24168	RunNo:	32705					
Prep Date:	3/9/2016	Analysis Date:	3/10/2016	SeqNo:	1001074	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	98.3	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID	MB-24167	SampType:	MBLK	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	PBW	Batch ID:	24167	RunNo:	32695					
Prep Date:	3/9/2016	Analysis Date:	3/10/2016	SeqNo:	1000719	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID	LCS-24167	SampType:	LCS	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	LCSW	Batch ID:	24167	RunNo:	32695					
Prep Date:	3/9/2016	Analysis Date:	3/10/2016	SeqNo:	1000720	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	ND	5.0	0.5000	0	114	80	120			
Barium	ND	100	0.5000	0	99.6	80	120			
Cadmium	ND	1.0	0.5000	0	105	80	120			
Chromium	ND	5.0	0.5000	0	99.7	80	120			
Lead	ND	5.0	0.5000	0	104	80	120			
Selenium	ND	1.0	0.5000	0	112	80	120			
Silver	ND	5.0	0.1000	0	110	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Southw

Work Order Number: 1603350

RcptNo: 1

Received by/date:

Logged By: Ashley Gallegos

3/7/2016 4:52:00 PM

Completed By: Ashley Gallegos

3/8/2016 9:08:31 AM

Reviewed By:

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted?
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.4	Good	Yes			

Client: <u>Western Refining</u>	☐ Standard ☒ Rush <u>ASA</u>
Mailing Address: <u>50 CR 4990</u>	Project Name: <u>Crude Unloading line</u>
<u>Bloomfield, NM 87413</u>	Project #: _____
Phone #: <u>505-632-4169</u>	Project Manager: <u>Matt Krakow</u>
Email or Fax#: _____	Sampler: <u>Matt Krakow</u>
QA/QC Package: ☒ Standard ☒ Level 4 (Full Validation)	On Ice: ☒ Yes ☐ No
Accreditation ☐ NELAP ☐ Other _____	Sample Temperature: <u>5.4</u>
☐ EDD (Type) _____	

Turn-Around Time:	☒ Rush ASAP
Project Name:	Crude Unloading line
Project #:	
Project Manager:	Matt Krakow
Sampler:	Matt Krakow
On Ice:	☒ Yes ☐ No
Sample Temperature:	5.4



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
2/16	4:52 AM	Kelly Werner	Jack	03/07/16	1652
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:
per mk added TPN 805 FL
A5 03/11/16

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Western Refining Southwest, Inc.	Contact: Kelly Robinson	
Address: 50 Road 4990	Telephone No.: 505-632-4166	
Facility Name: Bloomfield Terminal	Facility Type: Bulk Storage Terminal	
Surface Owner: Western Refining Southwest, Inc.	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	27	29N	11W					

Latitude 36.69888 Longitude 107.9736111

NATURE OF RELEASE

Type of Release: Used Water at Discharge of WWTS	Volume of Release: unknown	Volume Recovered: > 5 bbls
Source of Release: Used Water Discharge Piping within Tank 11/12 containment area	Date and Hour of Occurrence: 8/27/2016 at approx. 7am	Date and Hour of Discovery: 8/27/2016 at approx. 7am
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom? :	Date and Hour :	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* At approximately 7am on Saturday, August 27 th , 2016, Terminal Operation's discovered a small area within Tank 11/12 containment area where moisture appeared to surface. It was known that the used water pipeline that conveys treated water from the aeration ponds to the evaporation ponds is located in this area. The line was isolated from service, and Western Maintenance Personnel were called out to the Terminal to expose and repair the line. The PVC pipeline exhibited a small crack, which caused used water to seep from the line to the surrounding soils. The majority of the volume released was caused by the need to drain down the line for repair. Western formed a depression in the area where the drain-down water was allowed to collect. The on-site vacuum truck was used to pull the waters from the depression, and the waters were returned to the wastewater treatment plant inlet for reprocessing. No surface waters were released from the containment area.		
Describe Area Affected and Cleanup Action Taken.* Upon observation of the leak at surface, Operations shutdown the transfer used water transfer line and Maintenance was able to expose the line for repair. Surface waters were pulled with the on-site vacuum truck and brought to the inlet to the on-site wastewater treatment system for reprocessing. Western collected a sample of the waters from the repaired pipeline and submitted the sampled to Hall Laboratory for analysis. The sample is being analyzed for TPH-GRO, TPH-DRO, Benzene, Toluene, Ethylbenzene, and Xylenes. The analytical results will be submitted to NMOCD for review following receipt from the lab.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		

Signature: <i>Kelly Robinson</i>		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Kelly Robinson		Approved by Environmental Specialist:	
Title: Environmental Supervisor		Approval Date:	Expiration Date:
E-mail Address: Kelly.Robinson@WNR.com		Conditions of Approval:	Attached ☐
Date: 8-30-16 Phone: 505-632-4166			

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
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State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Western Refining Southwest, Inc.	Contact: Kelly Robinson	
Address: 50 Road 4990	Telephone No.: 505-632-4166	
Facility Name: Bloomfield Terminal	Facility Type: Products Terminal	
Surface Owner: Western Refining Southwest, Inc.	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	27	29N	11W					

Latitude 36.696775 Longitude -107.971133

NATURE OF RELEASE

Type of Release: Product/Water mixture	Volume of Release: estimated 150 bbl	Volume Recovered: approx. 140 bbl
Source of Release: Unloading Rack Sump	Date and Hour of Occurrence: 8/4/2016 at approx. 6am	Date and Hour of Discovery: 8/4/2016 at approx. 6am
Was Immediate Notice Given? ☒ Yes ☐ No ☒ Not Required	If YES, To Whom? Cory Smith (NMOCD-Aztec) Carl Chavez (NMED-Santa Fe) Leona Tsinnajinnie (NMED-HWB) Dave Cobrain (NMED-HWB) Neelam Dhawan (NMED-HWB)	
By Whom? : Kelly Robinson	Date and Hour : 8/4/2016 at 3:54pm via e-mail	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

At approximately 6am on August 4, 2016, a malfunction of the fire suppression system at the Western Refining Bloomfield Terminal ("Western") product loading rack resulted in the overflow of the loading rack sump. The event involved the unexpected activation of the fire suppression system, resulting in a large volume of fresh water to drain through the loading rack drains and into the loading rack sump. This event lasted only a few minutes, but the volume of fresh water release was more than the sump could manage in a short period of time. The overflow material from the product sump was a mixture of fresh water and the finished product residuals that remained in the sump.

Describe Area Affected and Cleanup Action Taken.*

All of the overflow material was contained within the boundary of the Bloomfield Terminal and was localized within the earthen bermed area around the loading rack sump. Upon immediate observation of the event Operations manually turned off the fire system, stopping the flow of water to the sump.

Western estimates that approximately 150 bbls of water/product mixture overflowed from the sump, all of which remained within the containment area. A large portion of the released volume was recovered using an on-site vacuum truck. Western is still investigating the cause of the malfunction and will be developing a Corrective Action Plan to address the necessary clean-up efforts.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>Kelly Robinson</i>		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Kelly Robinson		Approved by Environmental Specialist:	
Title: Environmental Manager - Logistics		Approval Date:	Expiration Date:
E-mail Address: Kelly.Robinson@wnr.com		Conditions of Approval:	
Date: 8/8/16 Phone: 205-632-4166		Attached ☐	

* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Robinson, Kelly <Kelly.Robinson@wnr.com>
Sent: Friday, August 05, 2016 3:55 PM
To: Tsinnajinnie, Leona, NMENV; Cobrain, Dave, NMENV; Dhawan, Neelam, NMENV
Cc: Smith, Cory, EMNRD; Chavez, Carl J, EMNRD; Schmaltz, Randy; Krakow, Matt
Subject: Response to NMED Comment Letter dated May 17, 2016 - Corrective Action Report for Oily Water Release.
Attachments: WNR Response to May 17 2016 CA Comment Letter.pdf

Good Afternoon Everyone!

A copy of Western's response to the NMED comment letter dated May 17, 2016 pertaining to the Corrective Action Report dated April 8, 2016 is attached. A hard copy of the report will be delivered to your office via FedEx. Courtesy hard copies of this submittal have also been sent to the New Mexico Oil Conservation Division in Aztec and Santa Fe. If you have any immediate questions regarding this submittal, please feel free to contact either Mr. Randy Schmaltz at 505-632-4171 or myself at your convenience.

Thank you for your time, and have a great weekend!

Kelly R. Robinson | Environmental
Western Refining | 111 County Road 4990 | Bloomfield, NM87413
(o) 505-632-4166 | (c) 505-801-5616 | (e) kelly.robinson@wnr.com

August 4, 2016

John Kieling, Bureau Chief
New Mexico Environmental Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

FedEx #:

**Re: Western Response to Comments Dated May 17, 2016
Response to Corrective Action Report
Western Refining Southwest, Inc., Bloomfield Refinery
EPA ID# NMD089416416**

Dear Mr. Kieling:

Western Refining Southwest Inc. - Bloomfield Refinery ("Western") has received the New Mexico Environment Department's (NMED) comments dated May 17, 2016 on the Corrective Action Report initially submitted on April 8, 2016. The following are responses to the comments received.

NMED Comment 1

In the section titled Corrective Actions, Western states "5-point composite samples were collected to characterize the North, South, East, West excavation walls. In addition, two 5-point composite samples were collected from the excavation base, one sample collected at the bottom of the deepest excavation base." Composite samples are not appropriate for confirmation sampling. Discrete samples must be collected for all future soil confirmation sampling. In addition, it is not clear where the samples were collected and at what depths because the figure was not provided and the sample locations were not described in the Report. Provide a figure with the sample locations and indicate the depths where the samples were collected in the response letter. For all future Reports, soil sample locations and depths, where appropriate, must be clearly defined and a figure must be provided depicting the sample locations.

Western Response to Comment 1

A revised Corrective Action Report ("Report") is attached and includes a figure (Figure 4) showing the approximate lateral location of where each composite sample aliquot was collected. The depth of the samples varied to best represent the applicable sidewall. The floor samples were collected at the base of the excavation, which was approximately 7.5 feet below existing grade. The Report has been revised to include a discussion of where the samples were collected.

For all previous spill clean-ups regulated by the New Mexico Oil Conservation Division (NMOCD), Western has been required to collect 5-point composite samples for all confirmation sampling activities. This direction initiated by NMOCD for previous spills was the reason why discrete samples were not collected. Discrete samples will be collected for all future confirmation sampling activities, and specific sample depth information (where applicable) will be recorded and included in all respective sampling reports.

NMED Comment 2

In the Section titled Waste Characterization, Western provides the analytical methods used to characterize the excavated soils for disposal. However, Western did not provide copies of the waste manifest(s) with the Report. In addition, it is helpful to include the waste characterization analytical results in a table comparing them to the appropriate screening levels. Provide copies of the waste manifest(s) and generate a table (Analytical Summary of Waste Characterization Sample Results) that summarizes the waste characterization analytical results and compare them to the appropriate screening levels. Include the waste manifest(s) and additional table with the response letter.

Western Response to Comment 2

A table (Table 2) has been added to the Report that shows the comparison of the waste characterization results with the applicable RCRA toxicity screening levels. In addition, copies of the waste manifests used to ship the impacted soils off-site have been added to the revised Report.

NMED Comment 3

In the section titled Recommendations, Western states that the New Mexico Oil Conservation Division's (OCD) Guidelines for Remediation of Leaks, Spills, and Releases (dated August 13, 1993) cleanup levels were utilized to evaluate the soil confirmation and waste characterization samples analytical results. NMED requires the use of the most recent construction worker soil screening levels (SSLs) from NMED's Risk Assessment Guidance for Site Investigations and Remediation's because NMED's SSLs will better characterize the contaminants detected in the soil confirmation and waste characterization samples because the cleanup levels provided in OCD's guidance document did not provide screening levels for a majority of the constituents analyzed by Western. It is expected that construction and excavation activities at the terminal will expose the workers to impacted soil; therefore, future soil confirmation samples that result from a leak, spill or release must be compared to NMED's construction worker SSLs because the terminal is still active and the tanks are still in use.

Western Response to Comment 3

Western modified Table 1 to include the respective NMED's construction worker soil screening levels. The revised table is included in the attached revised Report.

NMED Comment 4

In the section titled Recommendations, Western requested "permission to backfill the excavation area to match [the] existing grade." Western states that "this is an active investigation area under the NMED-HWB Consent Order dated July 27, 2007, and therefore Western is requesting the remaining corrective actions for this area be covered under the direction of the 2007 Consent Order." NMED concurs with Western and sent an e-mail response on May 2, 2016 to Ms. Kelly Robinson to allow Western to backfill the excavation. In addition, NMED also concurs that corrective action activities at this site may be deferred until this area is no longer in use or otherwise accessible.

Western Response to Comment 4

No comment required.

NMED Comment 5

Diagram #2 is an aerial photo depicting the approximate location and excavation boundary at the site near Tanks 41, 42a, 42b, and 43. Diagrams 3 and 4 are field note diagrams depicting the excavation boundary and photoionization detector (PID) readings at the corresponding excavation depths for the March 14 and 16, 2016 excavation events. Below are comments regarding Diagrams #2, 3, and 4:

- a. It appears that the excavation boundary in Diagram #2 may be different shape than the boundary depicted in Diagrams 3 and 4. Provide an explanation or clearer Diagram 3 and 4 to show that all three diagrams have the same excavation boundary.*
- b. Diagrams 3 and 4 depict PID readings with the corresponding depths at several locations on the excavation boundary. However, Western circled 4 locations on each of the diagrams and did not explain why. In addition, there is a location with an "X" with a circle around it that is not explained. Explain why certain PID readings were circled in the response letter. For all future submittals, all figures with symbols must have a key to define the symbols.*

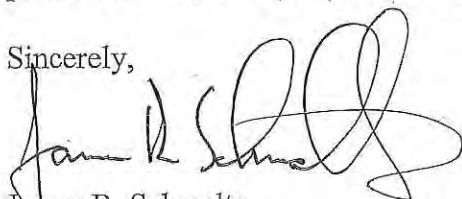
Western Response to Comment 5

The intent of Diagram #2 was to provide a general footprint of the excavation area. A portion of the area disturbed was not a result of crude impacts, but rather to allow equipment better access to be able to remove impacted soils to the extent possible. Diagram 3 and 4 represented copies of the field noted. As stated in the Report, Western targeted removing soils exhibiting a PID reading greater than 300 ppm. The circles on the field forms were to reflect the general target areas. The "X" on the field form was placed to reflect the approximate release location in relation to the extent of the excavation.

To address these comments and concerns of inconsistent information, Western has consolidated the field PID readings into one Figure (refer to Figure 3 in the revised Report). This figure identifies the approximate areas where soils were removed for benching down, and the approximate areas where the PID samples were collected in the field. The new Figures have been incorporated into the revised Report.

If you have any questions or would like to discuss the revised Corrective Action Report, please contact me at (505) 632-4171 or Randy.Schmaltz@wnr.com.

Sincerely,



James R. Schmaltz

Health, Safety, Environmental, and Regulatory Director
Western Refining Southwest, Inc. - Bloomfield Refinery

cc:D. Cobrain (NMED-HWB)

C. Chavez (OCD – Santa Fe)

N. Dhawan (NMED-HWB)

K. Van Horn (NMED-HWB)

L. Tsinnajinnie (NMED-HWB)

C. Smith (OCD – Aztec)

A. Hains (WNR)

K. Robinson (WNR)

CORRECTIVE ACTION REPORT

Western Refining – Bloomfield Terminal

Cause of the Release

On Saturday, March 5th, 2016 at approximately 2am, the Operator on-duty at the Western Refining Bloomfield Terminal noticed a small stain of crude oil adjacent (east) of the Tank 42a/42b secondary containment pad. This area is located within the southern portion of the facility, south of highway 4990. The operator used absorbent material to soak-up the oil, and notified the Terminal Operations Manager. By 8am that same day, Maintenance personnel arrived on-scene to investigate the source of the stain. Using a backhoe, Western was able to identify a small leak in a 3-inch insulated crude oil pipeline used to convey crude oil from the Wet Oil System (Tank 41) to the facility Tank Farm area. The location of where the repair was made on the pipeline is approximately 10 to 15 feet east of where the crude oil surfaced. The pipeline was insulated with a fiberglass wrap, which likely was the reason why the oil released to surface slightly adjacent to the leak source location. Maintenance was able to isolate the line and repair the leak with a temporary clamp. The pipeline was returned to service by 12 noon on Saturday, March 5th, 2016. An initial notification of the release event was submitted to the New Mexico Oil Conservation Division (NMOCD) and New Mexico Environment Department – Hazardous Waste Bureau (NMED-HWB) on March 5th, 2016. The approximate location of where the release occurred within the facility boundary is shown in Figure 2. The approximate footprint of the excavation is shown in Figure 3 and Figure 4.

Corrective Actions

Western contracted with Adobe Construction ("Adobe") to perform the excavation effort, and with LT Environmental to provide environmental over-site of the excavation efforts. Excavation activities commenced on Wednesday, March 9th, 2016 following clearance to dig through the New Mexico One Call System. The initial effort involved hand-digging to expose any existing pipelines within the area. Three additional pipelines were located within the excavation area. These additional lines have been confirmed by Operations to be out-of-service. Once the pipelines were exposed, a backhoe was used to progress the excavation effort.

The excavation area was limited by the existing in-service aboveground pipelines to the north and east, existing concrete containment for in-service tanks to the west, and an existing tank to the south. The Photo Log attached shows the adjacent facility equipment around the perimeter of the excavated area. Due to the restrictions from the existing structures, the lateral extent of the excavation was approximately 26 feet East – West and 12 feet North-South. The benching on the south side of the excavation was done to allow for means of egress for additional hand-digging around the pipelines.

Field monitoring was conducted using a Photo Ionization Detector (PID) meter. The PID readings assisted in identifying the areas for which additional excavation was needed. Figure 3 shows the relative depth below original grade in feet, and the corresponding PID reading in parts per million (ppm). The excavation had reached approximately 7.5 ft within eastern portion of the excavation. The west side

was benched down approximately 2.5 feet, providing the backhoe an area to reach between the pipelines. Along the north western portion of the excavation, there was an area of sandy soils exhibiting higher organic concentrations as observed using the PID. The excavation extended down deeper in this location, creating a hole approximately 3 feet by 2 feet by 13 feet deep (the maximum reach of the equipment used for excavation).

Between March 14th and March 16th, 2016, additional soils were removed, targeting areas higher than 300 ppm. Sidewall field readings indicated that the deeper hole needed to be extended laterally to the extent possible with the equipment used while taking into consideration the adjacent pipelines. PID readings of the excavated area as of March 16th, 2016 are included in Figure 3. Due to adjacent facility equipment and concerns of being able to safely support the active pipeline that crosses the excavation, no additional soils were able to be removed at this time. A photo log showing pictures of the excavated area is attached.

Soil Sampling

Between March 14th and March 16, 2016, 5-point composite samples were collected of the North Wall, East Wall, South Wall, and Floor. In addition, one discrete sample was collected from the deepest point of the excavation (i.e. referred to as the "NW Pothole") and a 4-point composite sample was collected along the West Wall. As shown in Figure 3, the exposed west wall was of a smaller surface area since the excavation only extended 2.5 feet below surface, and thus why a 4-point composite sample was collected to characterize this smaller area. The composite sample aliquots were collected from various depths to best characterize the excavation wall. Samples collected from the excavation floor were collected approximately 7.5 ft below original grade. The soil samples were analyzed for the following:

- Total Petroleum Hydrocarbons (TPH) – Gasoline Range Organics (GRO) by EPA Method 8015
- TPH – Diesel Range Organics (DRO) by EPA Method 8015
- TPH- Motor Oil Range Organics (MRO) by EPA Method 8015
- Total Metals by EPA Method 6010B
- Volatile Organic Compounds (VOCs) by EPA Method 8260B
- Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270C

A summary of the analytical results are provided in Table 1. The analytical results were compared to the most recent construction worker soil screening levels (SSLs) from NMED's *Risk Assessment Guidance for Site Investigations and Remediation*. A copy of the analytical results is provided as an attachment.

Waste Characterization

Excavated soils were temporarily stock-piled on-site during excavation activities. Approximately 80 yards of impacts soils were removed from the excavation. A composite sample was collected and analyzed for the following:

- TCLP VOCs by EPA Method 8260B
- TCLP SVOCs by EPA Method 8270C
- TCLP RCRA 8 Metals by EPA Method 6010B
- TPH-GRO by EPA Method 8015
- TPH-DRO by EPA Method 8015
- TPH-MRO by EPA Method 8015

The waste characterization results were compared to the RCRA toxicity screening levels pursuant to 40 CFR 261.24. The analytical results show that the material is classified as non-hazardous non-exempt waste. A summary table of the waste characterization results is provided in Table 2. A copy of the respective analytical report is attached. The waste was sent to the Envirotech landfarm for treatment and disposal. Copies of the waste manifest used to ship the material off-site are provided as an attachment to this report.

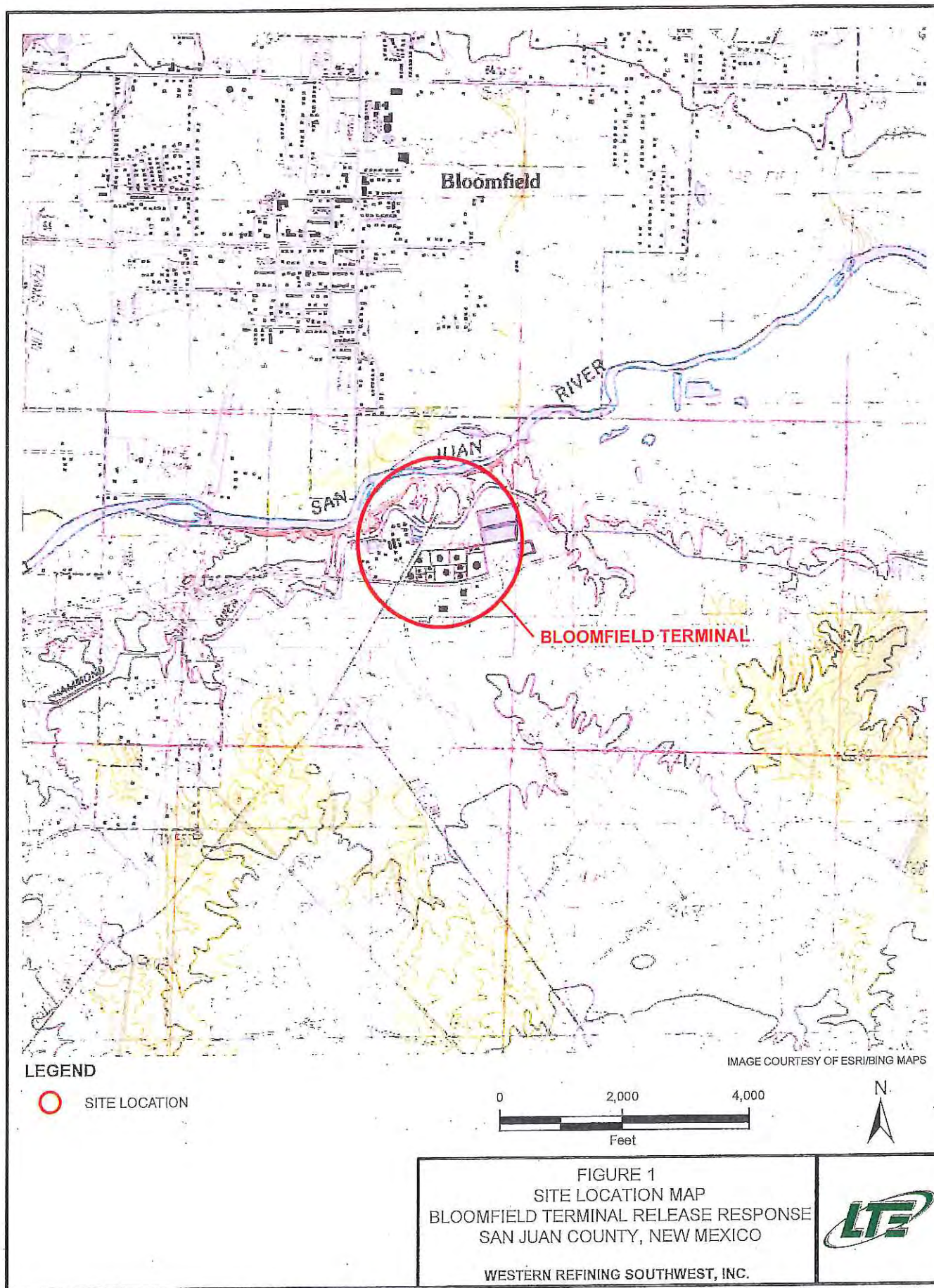
Recommendations

The analytical results show that the north and south lateral extent of the impacted area has been defined. The remaining soils along the north and south boundary of the excavation area exhibit concentrations below the most conservative clean-up levels pursuant to the New Mexico Oil Conservation Division *Guidelines for Remediation of Leaks, Spill and Releases* dated August 13, 1993.

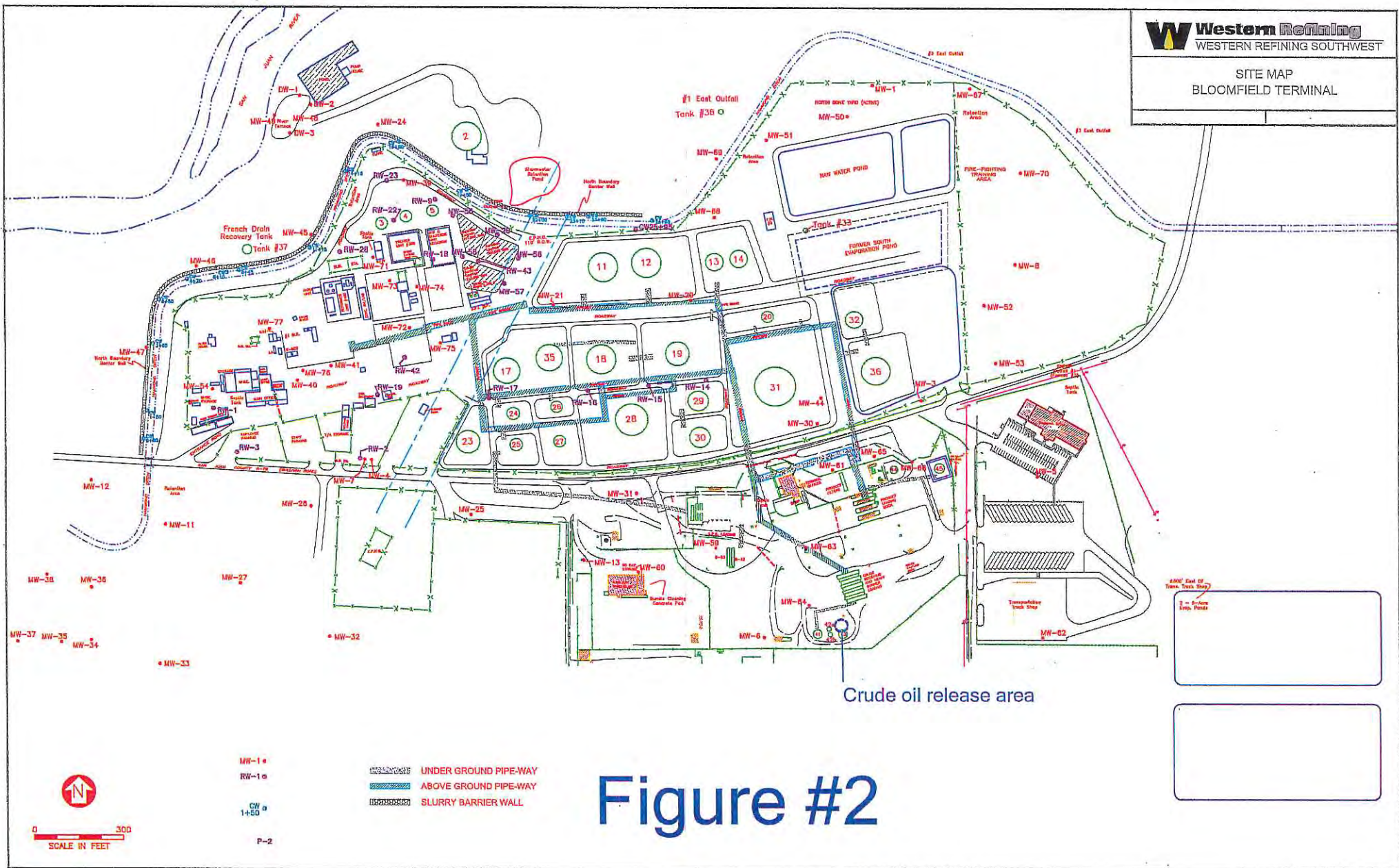
Confirmation samples collected from the west, east, and excavation base show that the residual soil concentrations are above the OCD clean-up levels for closure. However, the remaining soils no longer exhibit visual saturation staining. Due to the proximity of existing equipment within the excavation area, Western is no longer able to remove additional soils safely.

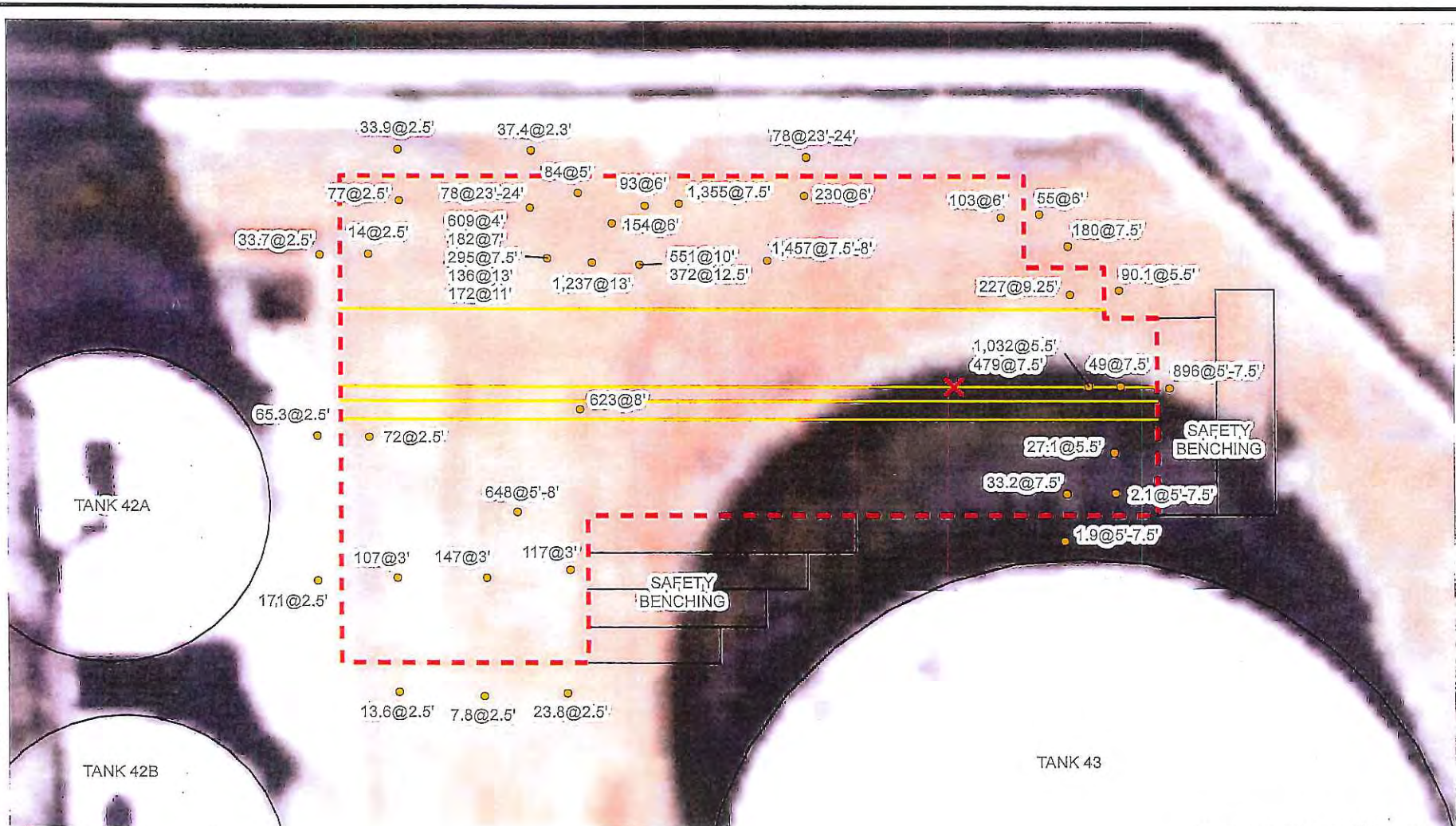
With this said, Western is requesting permission to backfill the excavation area to match existing grade. This area serves as secondary containment for active in-service equipment. In addition, this is an active investigation area under the NMED-HWB Consent Order dated July 27, 2007, and therefore Western is requesting the remaining corrective actions for this area be covered under the direction of the 2007 Consent Order.

FIGURES



SITE MAP
BLOOMFIELD TERMINAL





LEGEND

✗ RELEASE LOCATION

● SOIL SAMPLE

— PIPELINE

- - - EXCAVATION EXTENT

33.9@2.5' - FIELD SCREENING RESULTS @ DEPTH OF SAMPLE

IMAGE COURTESY OF GOOGLE EARTH 2015

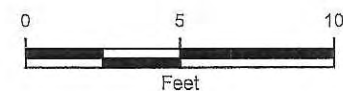
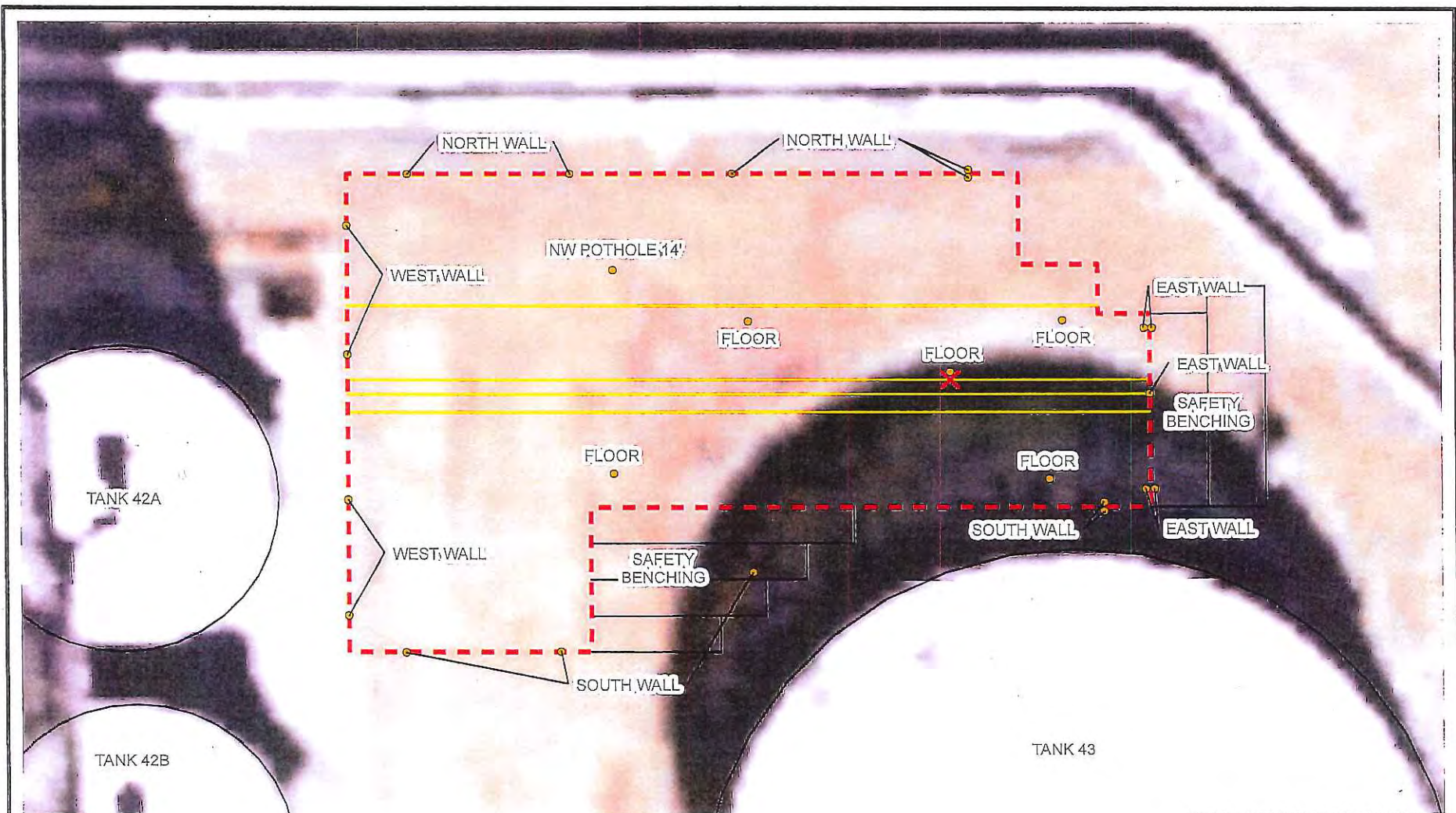


FIGURE 3
FIELD SCREENING RESULTS
BLOOMFIELD TERMINAL SPILL RESPONSE
SAN JUAN COUNTY, NEW MEXICO

WESTERN REFINING SOUTHWEST, INC.





LEGEND

- X RELEASE LOCATION
- COMPOSITE SAMPLE ALLIQUOT
- PIPELINE
- - - EXCAVATION EXTENT

IMAGE COURTESY OF GOOGLE EARTH 2015

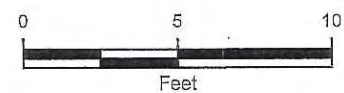


FIGURE 4
SOIL SAMPLE LOCATIONS
BLOOMFIELD TERMINAL SPILL RESPONSE
SAN JUAN COUNTY, NEW MEXICO



WESTERN REFINING SOUTHWEST, INC.

TABLES

TABLE 1
WET OIL RELEASE LABORATORY ANALYTICAL RESULTS
CONFIRMATION SOIL SAMPLES

BLOOMFIELD TERMINAL
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

ANALYTE	UNIT	NMED Construction Worker SSL July 2015	NW Pothole 14'	North Wall	East Wall	Floor	South Wall	West Wall
Moisture	%	NE	5.7	12	7.4	7.7	8.8	9.1
EPA Method 8021B: Volatiles								
Benzene	mg/kg	142	<0.018	<0.026	6.2	14	<0.025	15
Toluene	mg/kg	14,000	0.11	<0.052	64	150	<0.049	100
Ethylbenzene	mg/kg	1,770	0.065	<0.052	11	26	<0.049	18
Xylenes, Total	mg/kg	798	0.71	<0.10	100	240	<0.099	160
Total BTEX	mg/kg	NE	0.885	<0.052	181.2	430	<0.099	293
EPA Method 8015								
GRO	mg/kg	NE	12	<5.2	2,300	5,600	<4.9	4,000
DRO	mg/kg	NE	17	<11	760	3,500	27	4,600
MRO	mg/kg	NE	<54	<54	280	1,300	68	1,800
Total Petroleum Hydrocarbons	mg/kg	NE	29	<54	3,340	10,400	95	10,400
EPA Method 7471: Mercury								
Mercury	mg/kg	20.7	<0.034	<0.037	<0.035	<0.035	<0.035	<0.036
EPA Method 6010B: Soil Metals								
Arsenic	mg/kg	57.4	<2.6	3.1	<2.6	<2.7	<2.7	<2.7
Barium	mg/kg	4,390	30	230	82	150	130	160
Cadmium	mg/kg	72.1	<0.10	<0.11	<0.11	<0.11	<0.11	<0.11
Chromium	mg/kg	134	2.5	6.3	4.3	4.5	4.8	5.3
Lead	mg/kg	800	2.4	5.0	3.8	4.2	4.0	3.8
Selenium	mg/kg	1,750	<2.6	<2.9	<2.6	<2.7	<2.7	<2.7
Silver	mg/kg	1,770	<0.26	<0.29	<0.26	<0.27	<0.27	<0.27
EPA 8260B: Volatiles								
Acetone	mg/kg	242,000	<0.75	<0.84	<7.7	<15	0.79	<16
Bromodichloromethane	mg/kg	143	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Bromomethane	mg/kg	17.9	<0.15	<0.17	<1.5	<3.0	<0.16	<3.1
2-Butanone	mg/kg	91,700	<0.50	<0.56	<5.1	<10	<0.52	<10
Carbon disulfide	mg/kg	1,620	<0.50	<0.56	<5.1	<10	<0.52	<10
Carbon tetrachloride	mg/kg	202	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Chlorobenzene	mg/kg	412	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Chloroform	mg/kg	134	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Chloromethane	mg/kg	235	<0.15	<0.17	<1.5	<3.0	<0.16	<3.1
Isopropylbenzene	mg/kg	2,740	<0.050	<0.056	1.4	6.2	<0.052	2.6
1,2-Dibromo-3-chloropropane	mg/kg	5.53	<0.10	<0.11	<1.0	<2.0	<0.10	<2.1
Dibromochloromethane	mg/kg	340	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,2-Dichloroethane (EDC)	mg/kg	53.8	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,2-Dibromomethane (EDB)	mg/kg	16.3	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,4-Dichlorobenzene	mg/kg	746	<0.050	<0.056	<0.51	<1.0	<0.052	<2.2
Dichlorodifluoromethane	mg/kg	161	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1-Dichloroethane	mg/kg	1,820	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,4-Dichlorobenzene	mg/kg	424	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,2-Dichloropropane	mg/kg	25.4	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Dibromomethane	mg/kg	53.9	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0

TABLE 1
WET OIL RELASE LABORATORY ANALYTICAL RESULTS
CONFIRMATION SOIL SAMPLES
BLOOMFIELD TERMINAL
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

ANALYTE	UNIT	NMED Construction Worker SSL July 2015	NW Pot hole 14'	North Wall	East Wall	Floor	South Wall	West Wall
Methylene chloride	mg/kg	1,210	<0.15	<0.17	<1.5	<1.0	<0.16	<1.0
Naphthalene	mg/kg	159	<0.10	<0.11	1.9	7.2	<0.10	4.4
Styrene	mg/kg	10,200	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1,1,2-Tetrachloroethane	mg/kg	659	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1,1,2,2-Tetrachloroethane	mg/kg	197	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Tetrachloroethene (PCE)	mg/kg	120	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Bromoform	mg/kg	5,380	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,2,4-Trichlorobenzene	mg/kg	79.1	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1,1-Trichloroethane	mg/kg	13,600	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1,2-Trichloroethane	mg/kg	2.3	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Trichlorofluoromethane	mg/kg	1,130	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1,2,3-Trichloropropane	mg/kg	6.31	<0.10	<0.11	<1.0	<1.0	<0.10	<1.0
Vinyl chloride	mg/kg	161	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1-Dichloroethane	mg/kg	1,820	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
1,1-Dichloroethene	mg/kg	305	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Methylene chloride	mg/kg	1,210	<0.15	<0.17	<1.5	<1.0	<0.16	<1.0
1,1,2,2-Tetrachloroethane	mg/kg	197	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Tetrachloroethene (PCE)	mg/kg	NE	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
Trichloroethylene (TCE)	mg/kg	6.9	<0.050	<0.056	<0.51	<1.0	<0.052	<1.0
EPA 8270C: SemiVolatiles								
Acenaphthene	mg/kg	15,100	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Anthracene	mg/kg	75,300	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Benzo(b)pyrene	mg/kg	24	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Benzo(b)fluoranthene	mg/kg	240	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Benzo(k)fluoranthene	mg/kg	2,310	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Bis(2-chloroethyl) ether	mg/kg	1.95	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Bis(2-chloroisopropyl) ether	mg/kg	3,540	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Bis(2-ethylhexyl) phthalate	mg/kg	5,380	<0.53	<5.7	<5.4	<5.4	<5.5	<5.5
2-Chlorophenol	mg/kg	1,770	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Chrysene	mg/kg	23,100	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Dibenz(a,h)anthracene	mg/kg	24	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
2,4-Dichlorophenol	mg/kg	807	<0.42	<4.5	<4.3	<4.3	<4.4	<4.4
Diethyl phthalate	mg/kg	215,000	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
2,4-Dimethylphenol	mg/kg	5,380	<0.32	<3.4	<3.2	<3.3	<3.3	<3.3
2,4-Dinitrophenol	mg/kg	538	<0.53	<5.7	<5.4	<5.4	<5.5	<5.5
2,4-Dinitrotoluene	mg/kg	536	<0.53	<5.7	<5.4	<5.4	<5.5	<5.5
2,6-Dinitrotoluene	mg/kg	80.9	<0.53	<5.7	<5.4	<5.4	<5.5	<5.5
Fluoranthene	mg/kg	1,000	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Fluorene	mg/kg	18,100	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Hexachlorobenzene	mg/kg	117	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Hexachlorocyclopentadiene	mg/kg	867	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Hexachloroethane	mg/kg	188	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Indeno(1,2,3-c,d)pyrene	mg/kg	240	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Isophorone	mg/kg	53,700	<0.42	<4.5	<4.3	<4.3	<4.4	<4.4
Nitrobenzene	mg/kg	353	<0.42	<4.5	<4.3	<4.3	<4.4	<4.4
N-Nitrosodiphenylamine	mg/kg	37,900	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Pentachlorophenol	mg/kg	346	<0.42	<4.5	<4.3	<4.3	<4.4	<4.4
Phenanthrene	mg/kg	7,530	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2

TABLE 1
WET OIL RELEASE LABORATORY ANALYTICAL RESULTS
CONFIRMATION SOIL SAMPLES

BLOOMFIELD TERMINAL
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

ANALYTE	UNIT	NMED Construction Worker SSL July 2015	NW Pothole 14 ¹	North Wall	East Wall	Floor	South Wall	West Wall
Phenol	mg/kg	77,400	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
Pyrene	mg/kg	7,530	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
2,4,5-Trichlorophenol	mg/kg	26,900	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
2,4,6-Trichlorophenol	mg/kg	269	<0.21	<2.3	<2.2	<2.2	<2.2	<2.2
1-Methylnaphthalene	mg/kg	NE	<0.21	<0.23	<2.2	5.4	<0.22	3.0
2-Methylnaphthalene	mg/kg	NE	<0.21	<0.23	2.9	9.5	<0.22	4.6

Notes:
<- below the applicable laboratory reporting limit
% - percent
BTEX - benzene, toluene, ethylbenzene, total xylenes
mg/kg - milligrams per kilogram
NE - not established
NMED - New Mexico Environmental Department
SSL - Soil Screening Levels

TABLE 2
WET OIL RELEASE LABORATORY ANALYTICAL RESULTS
WASTE CHARACTERIZATION

BLOOMFIELD TERMINAL
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

ANALYTE	UNIT	Regulatory Level*	Waste Characterization
			3/14/2016
EPA Method 8021B: Volatiles			
Benzene	mg/kg	0.5	< 0.50
EPA Method 8015			
GRO	mg/kg	NE	2,500
DRO	mg/kg	NE	5,500
MRO	mg/kg	NE	3,100
Total Petroleum Hydrocarbons	mg/kg	NE	11,100
EPA Method 7471: Mercury			
Mercury	mg/kg	0.2	< 0.020
EPA Method 6010B: Soil Metals			
Arsenic	mg/kg	5.0	< 5.0
Barium	mg/kg	100.0	< 100
Cadmium	mg/kg	1.0	< 1.0
Chromium	mg/kg	5.0	< 5.0
Lead	mg/kg	5.0	< 5.0
Selenium	mg/kg	1.0	< 1.0
Silver	mg/kg	5.0	< 5.0
EPA 8260B/1311			
2-Butanone	mg/kg	200.0	< 200
Carbon tetrachloride	mg/kg	0.5	< 0.50
Chlorobenzene	mg/kg	100.0	< 100
Chloroform	mg/kg	6.0	< 6.0
Hexachlorobutadiene	mg/kg	0.5	< 0.50
1,2-Dichloroethane (EDC)	mg/kg	0.5	< 0.50
1,4-Dichlorobenzene	mg/kg	7.5	< 7.5
1,1-Dichloroethene	mg/kg	0.7	< 0.70
Tetrachloroethene (PCE)	mg/kg	0.7	< 0.70
Vinyl chloride	mg/kg	0.2	< 0.20
Trichloroethylene (TCE)	mg/kg	0.5	< 0.50
EPA 8270C TCLP			
2,4-Dinitrotoluene	mg/kg	0.13	< 0.13
2-Methylphenol	mg/kg	200.0	< 200
3+4-Methylphenol	mg/kg	200.0	< 200
Cresols, Total	mg/kg	200.0	< 200
Hexachlorobenzene	mg/kg	0.13	< 0.13
Hexachloroethane	mg/kg	3.0	< 3.0
Nitrobenzene	mg/kg	2.0	< 2.0
Pentachlorophenol	mg/kg	100.0	< 100
Phenol	mg/kg	NE	< 200
2,4,5-Trichlorophenol	mg/kg	400.0	< 400
2,4,6-Trichlorophenol	mg/kg	2.0	< 2.0
Pyridine	mg/kg	5.0	< 5.0

Notes:

- * - Resource Conservation and Recovery Act (RCRA) 261.24 Toxicity Characteristic
- < - below the applicable laboratory reporting limit
- mg/kg - milligrams per kilogram
- NE - not established

PHOTOS

PHOTOGRAPHIC LOG

Bloomfield Refinery Spill Response



Photo # 1 Release Point / Floor Composite Sample



Photo # 2 East Wall Composite Sample



Photo # 3 North Wall Composite Sample

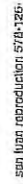


Photo # 4 South Wall Composite Sample



Photo # 5 West Wall Composite Sample & NW Pothole 14'

MANIFESTS





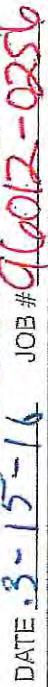
DATE 3.21-16 JOB # 96012-0256

TRANSPORTING COMPANY

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

Signatures required prior to distribution of the legal document.

White - Company Records,	Yellow - Billing,	Goldenrod - LF Copy
DISTRIBUTION:		
White - Customer,	Yellow - Billing,	Pink - Customer,



By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

Goldenrod - LF Copy



MANIFEST #

GENERATOR Western Ref

POINT OF ORIGIN Bloomfield ter. SJC

TRANSPORTER 72060

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

DATE 3-14-16 JOB # 9012-0250

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

Generator Onsite Contact:

Phone:

Signatures required prior to distribution of the legal document.

DISTRIBUTION: White - Company Records.

Yellow - Billing,

Pink - Customer;

Goldenrod - LF Copy

ANALYTICAL



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 25, 2016

Kelly Robinson

Western Refining Southwest, Inc.

#50 CR 4990

Bloomfield, NM 87413

TEL: (505) 632-4135

FAX (505) 632-3911

RE: Bloomfield Terminal

OrderNo.: 1603878

Dear Kelly Robinson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 3/17/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: NW Pothole @ 14'

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:20:00 PM

Lab ID: 1603878-001

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	5.7	1.0		wt%	1	3/21/2016 12:00:00 PM	R32972
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.034		mg/Kg-dry	1	3/22/2016 5:39:09 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.6		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
Barium	30	0.10		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
Cadmium	ND	0.10		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
Chromium	2.5	0.31		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
Lead	2.4	0.26		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
Selenium	ND	2.6		mg/Kg-dry	1	3/24/2016 6:04:01 AM	24353
Silver	ND	0.26		mg/Kg-dry	1	3/22/2016 8:52:32 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Acenaphthylene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Aniline	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Anthracene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Azobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benz(a)anthracene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzo(a)pyrene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzo(b)fluoranthene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzo(g,h,i)perylene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzo(k)fluoranthene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzoic acid	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Benzyl alcohol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Bis(2-chloroethoxy)methane	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Bis(2-chloroethyl)ether	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Bis(2-chloroisopropyl)ether	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Bis(2-ethylhexyl)phthalate	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Bromophenyl phenyl ether	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Butyl benzyl phthalate	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Carbazole	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Chloro-3-methylphenol	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Chloroaniline	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Chloronaphthalene	ND	0.26		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Chlorophenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Chlorophenyl phenyl ether	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Chrysene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Di-n-butyl phthalate	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: NW Pothole @ 14'

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:20:00 PM

Lab ID: 1603878-001

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Dibenz(a,h)anthracene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Dibenzofuran	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
1,2-Dichlorobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
1,3-Dichlorobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
1,4-Dichlorobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
3,3'-Dichlorobenzidine	ND	0.26		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Diethyl phthalate	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Dimethyl phthalate	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4-Dichlorophenol	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4-Dimethylphenol	ND	0.32		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4,6-Dinitro-2-methylphenol	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4-Dinitrophenol	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4-Dinitrotoluene	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,6-Dinitrotoluene	ND	0.53		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Fluoranthene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Fluorene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Hexachlorobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Hexachlorobutadiene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Hexachlorocyclopentadiene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Hexachloroethane	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Indeno(1,2,3-cd)pyrene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Isophorone	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
1-Methylnaphthalene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Methylnaphthalene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Methylphenol	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
3+4-Methylphenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
N-Nitrosodi-n-propylamine	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
N-Nitrosodiphenylamine	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Naphthalene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Nitroaniline	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
3-Nitroaniline	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Nitroaniline	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Nitrobenzene	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2-Nitrophenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
4-Nitrophenol	ND	0.26		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Pentachlorophenol	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Phenanthrene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Phenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: NW Pothole @ 14'

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:20:00 PM

Lab ID: 1603878-001

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Pyridine	ND	0.42		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
1,2,4-Trichlorobenzene	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4,5-Trichlorophenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
2,4,6-Trichlorophenol	ND	0.21		mg/Kg-dry	1	3/23/2016 7:30:21 PM	24350
Surr: 2-Fluorophenol	48.5	28.3-102		%Rec	1	3/23/2016 7:30:21 PM	24350
Surr: Phenol-d5	59.8	35.7-103		%Rec	1	3/23/2016 7:30:21 PM	24350
Surr: 2,4,6-Tribromophenol	61.2	35.2-108		%Rec	1	3/23/2016 7:30:21 PM	24350
Surr: Nitrobenzene-d5	58.4	24-118		%Rec	1	3/23/2016 7:30:21 PM	24350
Surr: 2-Fluorobiphenyl	62.4	35.4-111		%Rec	1	3/23/2016 7:30:21 PM	24350
Surr: 4-Terphenyl-d14	69.6	15-91.7		%Rec	1	3/23/2016 7:30:21 PM	24350
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.025		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Toluene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Ethylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Naphthalene	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1-Methylnaphthalene	ND	0.20		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
2-Methylnaphthalene	ND	0.20		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Acetone	ND	0.75		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Bromobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Bromodichloromethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Bromoform	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Bromomethane	ND	0.15		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
2-Butanone	ND	0.50		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Carbon disulfide	ND	0.50		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Carbon tetrachloride	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Chlorobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Chloroethane	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Chloroform	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Chloromethane	ND	0.15		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
2-Chlorotoluene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
4-Chlorotoluene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
cis-1,2-DCE	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
cis-1,3-Dichloropropene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix.	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: NW Pothole @ 14'

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:20:00 PM

Lab ID: 1603878-001

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Dibromochloromethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Dibromomethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2-Dichlorobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,3-Dichlorobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,4-Dichlorobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Dichlorodifluoromethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1-Dichloroethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1-Dichloroethene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2-Dichloropropane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,3-Dichloropropane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
2,2-Dichloropropane	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1-Dichloropropene	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Hexachlorobutadiene	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
2-Hexanone	ND	0.50		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Isopropylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
4-Isopropyltoluene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
4-Methyl-2-pentanone	ND	0.50		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Methylene chloride	ND	0.15		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
n-Butylbenzene	ND	0.15		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
n-Propylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
sec-Butylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Styrene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
tert-Butylbenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Tetrachloroethene (PCE)	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
trans-1,2-DCE	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
trans-1,3-Dichloropropene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1,1-Trichloroethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,1,2-Trichloroethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Trichloroethene (TCE)	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Trichlorofluoromethane	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
1,2,3-Trichloropropane	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Vinyl chloride	ND	0.050		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Xylenes, Total	ND	0.10		mg/Kg-dry	1	3/18/2016 5:30:34 PM	24321
Surr: Dibromofluoromethane	103	70-130		%Rec	1	3/18/2016 5:30:34 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** NW Pothole @ 14'**Project:** Bloomfield Terminal**Collection Date:** 3/14/2016 1:20:00 PM**Lab ID:** 1603878-001**Matrix:** SOIL**Received Date:** 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: 1,2-Dichloroethane-d4	96.2	70-130		%Rec	1	3/18/2016 5:30:34 PM	24321
Surr: Toluene-d8	102	70-130		%Rec	1	3/18/2016 5:30:34 PM	24321
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	3/18/2016 5:30:34 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: N Wall

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:40:00 PM

Lab ID: 1603878-002

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	12	1.0		wt%	1	3/21/2016 12:00:00 PM	R32972
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.037		mg/Kg-dry	1	3/22/2016 5:44:27 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	3.1	2.9		mg/Kg-dry	1	3/22/2016 9:00:50 AM	24353
Barium	230	0.11		mg/Kg-dry	1	3/22/2016 9:00:50 AM	24353
Cadmium	ND	0.11		mg/Kg-dry	1	3/22/2016 9:00:50 AM	24353
Chromium	6.3	0.34		mg/Kg-dry	1	3/22/2016 9:00:50 AM	24353
Lead	5.0	0.29		mg/Kg-dry	1	3/22/2016 9:00:50 AM	24353
Selenium	ND	2.9		mg/Kg-dry	1	3/24/2016 6:07:45 AM	24353
Silver	ND	0.29		mg/Kg-dry	1	3/22/2016 9:00:50 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Acenaphthylene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Aniline	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Anthracene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Azobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benz(a)anthracene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzo(a)pyrene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzo(b)fluoranthene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzo(g,h,i)perylene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzo(k)fluoranthene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzoic acid	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Benzyl alcohol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Bis(2-chloroethoxy)methane	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Bis(2-chloroethyl)ether	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Bis(2-chloroisopropyl)ether	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Bis(2-ethylhexyl)phthalate	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4-Bromophenyl phenyl ether	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Butyl benzyl phthalate	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Carbazole	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4-Chloro-3-methylphenol	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4-Chloroaniline	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Chloronaphthalene	ND	2.8	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Chlorophenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4-Chlorophenyl phenyl ether	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Chrysene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Di-n-butyl phthalate	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: N Wall

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:40:00 PM

Lab ID: 1603878-002

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Dibenz(a,h)anthracene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Dibenzofuran	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
1,2-Dichlorobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
1,3-Dichlorobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
1,4-Dichlorobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
3,3'-Dichlorobenzidine	ND	2.8	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Diethyl phthalate	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Dimethyl phthalate	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,4-Dichlorophenol	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,4-Dimethylphenol	ND	3.4	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4,6-Dinitro-2-methylphenol	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,4-Dinitrophenol	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,4-Dinitrotoluene	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,6-Dinitrotoluene	ND	5.7	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Fluoranthene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Fluorene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Hexachlorobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Hexachlorobutadiene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Hexachlorocyclopentadiene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Hexachloroethane	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Indeno(1,2,3-cd)pyrene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Isophorone	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
1-Methylnaphthalene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Methylnaphthalene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Methylphenol	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
3+4-Methylphenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
N-Nitrosodi-n-propylamine	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
N-Nitrosodiphenylamine	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Naphthalene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Nitroaniline	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
3-Nitroaniline	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4-Nitroaniline	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Nitrobenzene	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2-Nitrophenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
4-Nitrophenol	ND	2.8	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Pentachlorophenol	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Phenanthrene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Phenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: N Wall

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:40:00 PM

Lab ID: 1603878-002

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Pyridine	ND	4.5	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
1,2,4-Trichlorobenzene	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,4,5-Trichlorophenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
2,4,6-Trichlorophenol	ND	2.3	D	mg/Kg-dry	10	3/23/2016 8:58:51 PM	24350
Surr: 2-Fluorophenol	0	28.3-102	SD	%Rec	10	3/23/2016 8:58:51 PM	24350
Surr: Phenol-d5	0	35.7-103	SD	%Rec	10	3/23/2016 8:58:51 PM	24350
Surr: 2,4,6-Tribromophenol	0	35.2-108	SD	%Rec	10	3/23/2016 8:58:51 PM	24350
Surr: Nitrobenzene-d5	0	24-118	SD	%Rec	10	3/23/2016 8:58:51 PM	24350
Surr: 2-Fluorobiphenyl	0	35.4-111	SD	%Rec	10	3/23/2016 8:58:51 PM	24350
Surr: 4-Terphenyl-d14	0	15-91.7	SD	%Rec	10	3/23/2016 8:58:51 PM	24350
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.028		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Toluene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Ethylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Methyl tert-butyl ether (MTBE)	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2,4-Trimethylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,3,5-Trimethylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2-Dichloroethane (EDC)	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2-Dibromoethane (EDB)	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Naphthalene	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1-Methylnaphthalene	ND	0.23		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
2-Methylnaphthalene	ND	0.23		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Acetone	ND	0.84		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Bromobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Bromodichloromethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Bromoform	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Bromomethane	ND	0.17		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
2-Butanone	ND	0.56		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Carbon disulfide	ND	0.56		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Carbon tetrachloride	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Chlorobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Chloroethane	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Chloroform	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Chloromethane	ND	0.17		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
2-Chlorotoluene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
4-Chlorotoluene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
cis-1,2-DCE	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
cis-1,3-Dichloropropene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: N Wall

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:40:00 PM

Lab ID: 1603878-002

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Dibromochloromethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Dibromomethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2-Dichlorobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,3-Dichlorobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,4-Dichlorobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Dichlorodifluoromethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1-Dichloroethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1-Dichloroethene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2-Dichloropropane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,3-Dichloropropane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
2,2-Dichloropropane	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1-Dichloropropene	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Hexachlorobutadiene	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
2-Hexanone	ND	0.56		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Isopropylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
4-Isopropyltoluene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
4-Methyl-2-pentanone	ND	0.56		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Methylene chloride	ND	0.17		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
n-Butylbenzene	ND	0.17		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
n-Propylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
sec-Butylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Styrene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
tert-Butylbenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1,1,2-Tetrachloroethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1,2,2-Tetrachloroethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Tetrachloroethene (PCE)	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
trans-1,2-DCE	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
trans-1,3-Dichloropropene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2,3-Trichlorobenzene	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2,4-Trichlorobenzene	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1,1-Trichloroethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,1,2-Trichloroethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Trichloroethene (TCE)	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Trichlorofluoromethane	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
1,2,3-Trichloropropane	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Vinyl chloride	ND	0.056		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Xylenes, Total	ND	0.11		mg/Kg-dry	1	3/21/2016 1:43:35 PM	24321
Surr: Dibromofluoromethane	107	70-130		%Rec	1	3/21/2016 1:43:35 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: N Wall

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:40:00 PM

Lab ID: 1603878-002

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	3/21/2016 1:43:35 PM	24321
Surr: Toluene-d8	101	70-130		%Rec	1	3/21/2016 1:43:35 PM	24321
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	3/21/2016 1:43:35 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: E Wall

Project: Bloomfield Terminal

Collection Date: 3/15/2016 2:20:00 PM

Lab ID: 1603878-003

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	7.4	1.0		wt%	1	3/21/2016 12:00:00 PM	R32972
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.035		mg/Kg-dry	1	3/22/2016 5:46:13 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.6		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
Barium	82	0.11		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
Cadmium	ND	0.11		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
Chromium	4.3	0.32		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
Lead	3.8	0.26		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
Selenium	ND	2.6		mg/Kg-dry	1	3/24/2016 6:11:18 AM	24353
Silver	ND	0.26		mg/Kg-dry	1	3/22/2016 9:07:43 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Acenaphthylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Aniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Azobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benz(a)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzo(a)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzo(b)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzo(g,h,i)perylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzo(k)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzoic acid	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Benzyl alcohol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Bis(2-chloroethoxy)methane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Bis(2-chloroethyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Bis(2-chloroisopropyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Bis(2-ethylhexyl)phthalate	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Bromophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Butyl benzyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Carbazole	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Chloro-3-methylphenol	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Chloroaniline	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Chloronaphthalene	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Chlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Chlorophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Chrysene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Di-n-butyl phthalate	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: E Wall

Project: Bloomfield Terminal

Collection Date: 3/15/2016 2:20:00 PM

Lab ID: 1603878-003

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Dibenz(a,h)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Dibenzofuran	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
1,2-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
1,3-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
1,4-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
3,3'-Dichlorobenzidine	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Diethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Dimethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4-Dichlorophenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4-Dimethylphenol	ND	3.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4,6-Dinitro-2-methylphenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4-Dinitrophenol	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4-Dinitrotoluene	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,6-Dinitrotoluene	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Fluorene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Hexachlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Hexachlorobutadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Hexachlorocyclopentadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Hexachloroethane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Indeno(1,2,3-cd)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Isophorone	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
1-Methylnaphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Methylnaphthalene	2.9	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Methylphenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
3+4-Methylphenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
N-Nitrosodi-n-propylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
N-Nitrosodiphenylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Naphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
3-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Nitroaniline	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Nitrobenzene	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2-Nitrophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
4-Nitrophenol	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Pentachlorophenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Phenanthrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Phenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: E Wall

Project: Bloomfield Terminal

Collection Date: 3/15/2016 2:20:00 PM

Lab ID: 1603878-003

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Pyridine	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
1,2,4-Trichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4,5-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
2,4,6-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:28:14 PM	24350
Surr: 2-Fluorophenol	0	28.3-102	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
Surr: Phenol-d5	0	35.7-103	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
Surr: 2,4,6-Tribromophenol	0	35.2-108	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
Surr: Nitrobenzene-d5	0	24-118	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
Surr: 2-Fluorobiphenyl	0	35.4-111	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
Surr: 4-Terphenyl-d14	0	15-91.7	SD	%Rec	10	3/23/2016 9:28:14 PM	24350
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	1.6	0.26		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Toluene	29	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Ethylbenzene	5.8	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Methyl tert-butyl ether (MTBE)	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2,4-Trimethylbenzene	14	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,3,5-Trimethylbenzene	6.7	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2-Dichloroethane (EDC)	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2-Dibromoethane (EDB)	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Naphthalene	1.9	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1-Methylnaphthalene	2.4	2.1		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
2-Methylnaphthalene	3.7	2.1		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Acetone	ND	7.7		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Bromobenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Bromodichloromethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Bromoform	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Bromomethane	ND	1.5		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
2-Butanone	ND	5.1		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Carbon disulfide	ND	5.1		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Carbon tetrachloride	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Chlorobenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Chloroethane	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Chloroform	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Chloromethane	ND	1.5		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
2-Chlorotoluene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
4-Chlorotoluene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
cis-1,2-DCE	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
cis-1,3-Dichloropropene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: E Wall

Project: Bloomfield Terminal

Collection Date: 3/15/2016 2:20:00 PM

Lab ID: 1603878-003

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Dibromochloromethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Dibromomethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2-Dichlorobenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,3-Dichlorobenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,4-Dichlorobenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Dichlorodifluoromethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,1-Dichloroethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,1-Dichloroethene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2-Dichloropropane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,3-Dichloropropane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
2,2-Dichloropropane	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,1-Dichloropropene	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Hexachlorobutadiene	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
2-Hexanone	ND	5.1		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Isopropylbenzene	1.4	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
4-Isopropyltoluene	0.80	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
4-Methyl-2-pentanone	ND	5.1		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Methylene chloride	ND	1.5		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
n-Butylbenzene	ND	1.5		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
n-Propylbenzene	2.2	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
sec-Butylbenzene	0.72	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Styrene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
tert-Butylbenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,1,1,2-Tetrachloroethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,1,2,2-Tetrachloroethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Tetrachloroethene (PCE)	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
trans-1,2-DCE	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
trans-1,3-Dichloropropene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2,4-Trichlorobenzene	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,1,1-Trichloroethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,1,2-Trichloroethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Trichloroethene (TCE)	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Trichlorofluoromethane	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
1,2,3-Trichloropropane	ND	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Vinyl chloride	ND	0.51		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Xylenes, Total	57	1.0		mg/Kg-dry	10	3/21/2016 2:11:56 PM	24321
Surr: Dibromofluoromethane	99.3	70-130		%Rec	10	3/21/2016 2:11:56 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** E Wall**Project:** Bloomfield Terminal**Collection Date:** 3/15/2016 2:20:00 PM**Lab ID:** 1603878-003**Matrix:** SOIL**Received Date:** 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	10	3/21/2016 2:11:56 PM	24321
Surr: Toluene-d8	101	70-130		%Rec	10	3/21/2016 2:11:56 PM	24321
Surr: 4-Bromofluorobenzene	113	70-130		%Rec	10	3/21/2016 2:11:56 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Floor

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:40:00 PM

Lab ID: 1603878-004

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	7.7	1.0		wt%	1	3/21/2016 12:00:00 PM	R32972
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.035		mg/Kg-dry	1	3/22/2016 5:48:00 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.7		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
Barium	150	0.11		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
Cadmium	ND	0.11		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
Chromium	4.5	0.32		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
Lead	4.2	0.27		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
Selenium	ND	2.7		mg/Kg-dry	1	3/24/2016 6:12:32 AM	24353
Silver	ND	0.27		mg/Kg-dry	1	3/22/2016 9:10:30 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Acenaphthylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Aniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Azobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benz(a)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzo(a)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzo(b)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzo(g,h,i)perylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzo(k)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzoic acid	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Benzyl alcohol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Bis(2-chloroethoxy)methane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Bis(2-chloroethyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Bis(2-chloroisopropyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Bis(2-ethylhexyl)phthalate	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Bromophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Butyl benzyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Carbazole	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Chloro-3-methylphenol	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Chloroaniline	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Chloronaphthalene	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Chlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Chlorophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Chrysene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Di-n-butyl phthalate	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Floor

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:40:00 PM

Lab ID: 1603878-004

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Dibenz(a,h)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Dibenzofuran	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
1,2-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
1,3-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
1,4-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
3,3'-Dichlorobenzidine	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Diethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Dimethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4-Dichlorophenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4-Dimethylphenol	ND	3.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4,6-Dinitro-2-methylphenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4-Dinitrophenol	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4-Dinitrotoluene	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,6-Dinitrotoluene	ND	5.4	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Fluorene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Hexachlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Hexachlorobutadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Hexachlorocyclopentadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Hexachloroethane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Indeno(1,2,3-cd)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Isophorone	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
1-Methylnaphthalene	5.4	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Methylnaphthalene	9.5	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Methylphenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
3+4-Methylphenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
N-Nitrosodi-n-propylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
N-Nitrosodiphenylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Naphthalene	3.5	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
3-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Nitroaniline	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Nitrobenzene	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2-Nitrophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
4-Nitrophenol	ND	2.7	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Pentachlorophenol	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Phenanthrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Phenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Floor

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:40:00 PM

Lab ID: 1603878-004

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Pyridine	ND	4.3	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
1,2,4-Trichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4,5-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
2,4,6-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 9:57:34 PM	24350
Surr: 2-Fluorophenol	0	28.3-102	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
Surr: Phenol-d5	0	35.7-103	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
Surr: 2,4,6-Tribromophenol	0	35.2-108	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
Surr: Nitrobenzene-d5	0	24-118	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
Surr: 2-Fluorobiphenyl	0	35.4-111	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
Surr: 4-Terphenyl-d14	0	15-91.7	SD	%Rec	10	3/23/2016 9:57:34 PM	24350
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	13	0.50		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Toluene	180	5.0		mg/Kg-dry	100	3/22/2016 7:09:36 AM	24321
Ethylbenzene	27	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2,4-Trimethylbenzene	56	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,3,5-Trimethylbenzene	27	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Naphthalene	7.2	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1-Methylnaphthalene	8.9	4.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
2-Methylnaphthalene	14	4.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Acetone	ND	15		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Bromobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Bromodichloromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Bromoform	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Bromomethane	ND	3.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
2-Butanone	ND	10		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Carbon disulfide	ND	10		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Carbon tetrachloride	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Chlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Chloroethane	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Chloroform	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Chloromethane	ND	3.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
2-Chlorotoluene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
4-Chlorotoluene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
cis-1,2-DCE	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
cis-1,3-Dichloropropene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Floor

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:40:00 PM

Lab ID: 1603878-004

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Dibromochloromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Dibromomethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,3-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,4-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Dichlorodifluoromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1-Dichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1-Dichloroethene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2-Dichloropropane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,3-Dichloropropane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
2,2-Dichloropropane	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1-Dichloropropene	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Hexachlorobutadiene	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
2-Hexanone	ND	10		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Isopropylbenzene	6.2	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
4-Isopropyltoluene	3.3	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
4-Methyl-2-pentanone	ND	10		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Methylene chloride	ND	3.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
n-Butylbenzene	3.5	3.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
n-Propylbenzene	9.6	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
sec-Butylbenzene	3.0	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Styrene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
tert-Butylbenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Tetrachloroethene (PCE)	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
trans-1,2-DCE	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
trans-1,3-Dichloropropene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1,1-Trichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,1,2-Trichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Trichloroethene (TCE)	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Trichlorofluoromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
1,2,3-Trichloropropane	ND	2.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Vinyl chloride	ND	1.0		mg/Kg-dry	20	3/21/2016 2:40:24 PM	24321
Xylenes, Total	270	10		mg/Kg-dry	100	3/22/2016 7:09:36 AM	24321
Surr: Dibromofluoromethane	97.5	70-130		%Rec	20	3/21/2016 2:40:24 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** Floor**Project:** Bloomfield Terminal**Collection Date:** 3/16/2016 1:40:00 PM**Lab ID:** 1603878-004**Matrix:** SOIL**Received Date:** 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: 1,2-Dichloroethane-d4	97.9	70-130		%Rec	20	3/21/2016 2:40:24 PM	24321
Surr: Toluene-d8	107	70-130		%Rec	20	3/21/2016 2:40:24 PM	24321
Surr: 4-Bromofluorobenzene	120	70-130		%Rec	20	3/21/2016 2:40:24 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: S Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:50:00 PM

Lab ID: 1603878-005

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	8.8	1.0		wt%	1	3/21/2016 12:00:00 PM	R32972
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.035		mg/Kg-dry	1	3/22/2016 5:49:48 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.7		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
Barium	130	0.11		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
Cadmium	ND	0.11		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
Chromium	4.8	0.33		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
Lead	4.0	0.27		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
Selenium	ND	2.7		mg/Kg-dry	1	3/24/2016 6:13:46 AM	24353
Silver	ND	0.27		mg/Kg-dry	1	3/22/2016 9:13:12 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Acenaphthylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Aniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Azobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benz(a)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzo(a)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzo(b)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzo(g,h,i)perylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzo(k)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzoic acid	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Benzyl alcohol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Bis(2-chloroethoxy)methane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Bis(2-chloroethyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Bis(2-chloroisopropyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Bis(2-ethylhexyl)phthalate	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Bromophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Butyl benzyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Carbazole	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Chloro-3-methylphenol	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Chloroaniline	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Chloronaphthalene	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Chlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Chlorophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Chrysene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Di-n-butyl phthalate	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: S Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:50:00 PM

Lab ID: 1603878-005

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Dibenz(a,h)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Dibenzofuran	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
1,2-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
1,3-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
1,4-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
3,3'-Dichlorobenzidine	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Diethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Dimethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4-Dichlorophenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4-Dimethylphenol	ND	3.3	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4,6-Dinitro-2-methylphenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4-Dinitrophenol	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4-Dinitrotoluene	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,6-Dinitrotoluene	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Fluorene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Hexachlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Hexachlorobutadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Hexachlorocyclopentadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Hexachloroethane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Indeno(1,2,3-cd)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Isophorone	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
1-Methylnaphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Methylnaphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Methylphenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
3+4-Methylphenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
N-Nitrosodi-n-propylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
N-Nitrosodiphenylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Naphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
3-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Nitroaniline	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Nitrobenzene	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2-Nitrophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
4-Nitrophenol	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Pentachlorophenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Phenanthrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Phenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: S Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:50:00 PM

Lab ID: 1603878-005

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Pyridine	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
1,2,4-Trichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4,5-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
2,4,6-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:26:49 PM	24350
Surr: 2-Fluorophenol	0	28.3-102	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
Surr: Phenol-d5	0	35.7-103	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
Surr: 2,4,6-Tribromophenol	0	35.2-108	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
Surr: Nitrobenzene-d5	0	24-118	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
Surr: 2-Fluorobiphenyl	0	35.4-111	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
Surr: 4-Terphenyl-d14	0	15-91.7	SD	%Rec	10	3/23/2016 10:26:49 PM	24350
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	0.026		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Toluene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Ethylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Methyl tert-butyl ether (MTBE)	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2,4-Trimethylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,3,5-Trimethylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2-Dichloroethane (EDC)	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2-Dibromoethane (EDB)	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Naphthalene	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1-Methylnaphthalene	ND	0.21		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
2-Methylnaphthalene	ND	0.21		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Acetone	ND	0.79		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Bromobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Bromodichloromethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Bromoform	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Bromomethane	ND	0.16		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
2-Butanone	ND	0.52		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Carbon disulfide	ND	0.52		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Carbon tetrachloride	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Chlorobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Chloroethane	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Chloroform	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Chloromethane	ND	0.16		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
2-Chlorotoluene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
4-Chlorotoluene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
cis-1,2-DCE	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
cis-1,3-Dichloropropene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: S Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:50:00 PM

Lab ID: 1603878-005

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Dibromochloromethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Dibromomethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2-Dichlorobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,3-Dichlorobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,4-Dichlorobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Dichlorodifluoromethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1-Dichloroethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1-Dichloroethene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2-Dichloropropane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,3-Dichloropropane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
2,2-Dichloropropane	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1-Dichloropropene	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Hexachlorobutadiene	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
2-Hexanone	ND	0.52		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Isopropylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
4-Isopropyltoluene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
4-Methyl-2-pentanone	ND	0.52		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Methylene chloride	ND	0.16		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
n-Butylbenzene	ND	0.16		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
n-Propylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
sec-Butylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Styrene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
tert-Butylbenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1,1,2-Tetrachloroethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1,2,2-Tetrachloroethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Tetrachloroethene (PCE)	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
trans-1,2-DCE	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
trans-1,3-Dichloropropene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2,4-Trichlorobenzene	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1,1-Trichloroethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,1,2-Trichloroethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Trichloroethene (TCE)	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Trichlorofluoromethane	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
1,2,3-Trichloropropane	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Vinyl chloride	ND	0.052		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Xylenes, Total	ND	0.10		mg/Kg-dry	1	3/21/2016 12:46:58 PM	24321
Surr: Dibromofluoromethane	105	70-130		%Rec	1	3/21/2016 12:46:58 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: S Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:50:00 PM

Lab ID: 1603878-005

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	3/21/2016 12:46:58 PM	24321
Surr: Toluene-d8	101	70-130		%Rec	1	3/21/2016 12:46:58 PM	24321
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	3/21/2016 12:46:58 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: W Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 2:10:00 PM

Lab ID: 1603878-006

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	9.1	1.0		wt%	1	3/21/2016 12:00:00 PM	R32972
EPA METHOD 7471: MERCURY							Analyst: pmf
Mercury	ND	0.036		mg/Kg-dry	1	3/22/2016 5:51:36 PM	24354
EPA METHOD 6010B: SOIL METALS							Analyst: MED
Arsenic	ND	2.7		mg/Kg-dry	1	3/22/2016 9:15:56 AM	24353
Barium	160	0.11		mg/Kg-dry	1	3/22/2016 9:15:56 AM	24353
Cadmium	ND	0.11		mg/Kg-dry	1	3/22/2016 9:15:56 AM	24353
Chromium	5.3	0.33		mg/Kg-dry	1	3/22/2016 9:15:56 AM	24353
Lead	3.8	0.27		mg/Kg-dry	1	3/22/2016 9:15:56 AM	24353
Selenium	ND	2.7		mg/Kg-dry	1	3/24/2016 6:14:59 AM	24353
Silver	ND	0.27		mg/Kg-dry	1	3/22/2016 9:15:56 AM	24353
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Acenaphthylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Aniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Azobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benz(a)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzo(a)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzo(b)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzo(g,h,i)perylene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzo(k)fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzoic acid	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Benzyl alcohol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Bis(2-chloroethoxy)methane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Bis(2-chloroethyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Bis(2-chloroisopropyl)ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Bis(2-ethylhexyl)phthalate	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
4-Bromophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Butyl benzyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Carbazole	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
4-Chloro-3-methylphenol	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
4-Chloroaniline	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2-Chloronaphthalene	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2-Chlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
4-Chlorophenyl phenyl ether	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Chrysene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Di-n-butyl phthalate	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: W Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 2:10:00 PM

Lab ID: 1603878-006

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Dibenz(a,h)anthracene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Dibenzofuran	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
1,2-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
1,3-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
1,4-Dichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
3,3'-Dichlorobenzidine	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Diethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Dimethyl phthalate	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2,4-Dichlorophenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2,4-Dimethylphenol	ND	3.3	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
4,6-Dinitro-2-methylphenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2,4-Dinitrophenol	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2,4-Dinitrotoluene	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2,6-Dinitrotoluene	ND	5.5	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Fluoranthene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Fluorene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Hexachlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Hexachlorobutadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Hexachlorocyclopentadiene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Hexachloroethane	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Indeno(1,2,3-cd)pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Isophorone	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
1-Methylnaphthalene	3.0	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2-Methylnaphthalene	4.6	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2-Methylphenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
3+4-Methylphenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
N-Nitrosodi-n-propylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
N-Nitrosodiphenylamine	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Naphthalene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
3-Nitroaniline	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
4-Nitroaniline	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Nitrobenzene	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2-Nitrophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
4-Nitrophenol	ND	2.7	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Pentachlorophenol	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Phenanthrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Phenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: W Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 2:10:00 PM

Lab ID: 1603878-006

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Pyridine	ND	4.4	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
1,2,4-Trichlorobenzene	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2,4,5-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
2,4,6-Trichlorophenol	ND	2.2	D	mg/Kg-dry	10	3/23/2016 10:56:07 PM	24350
Surr: 2-Fluorophenol	0	28.3-102	SD	%Rec	10	3/23/2016 10:56:07 PM	24350
Surr: Phenol-d5	0	35.7-103	SD	%Rec	10	3/23/2016 10:56:07 PM	24350
Surr: 2,4,6-Tribromophenol	0	35.2-108	SD	%Rec	10	3/23/2016 10:56:07 PM	24350
Surr: Nitrobenzene-d5	0	24-118	SD	%Rec	10	3/23/2016 10:56:07 PM	24350
Surr: 2-Fluorobiphenyl	0	35.4-111	SD	%Rec	10	3/23/2016 10:56:07 PM	24350
Surr: 4-Terphenyl-d14	0	15-91.7	SD	%Rec	10	3/23/2016 10:56:07 PM	24350
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	7.2	0.52		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Toluene	52	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Ethylbenzene	9.3	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2,4-Trimethylbenzene	28	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,3,5-Trimethylbenzene	13	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Naphthalene	4.4	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1-Methylnaphthalene	6.3	4.2		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
2-Methylnaphthalene	9.5	4.2		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Acetone	ND	16		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Bromobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Bromodichloromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Bromoform	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Bromomethane	ND	3.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
2-Butanone	ND	10		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Carbon disulfide	ND	10		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Carbon tetrachloride	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Chlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Chloroethane	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Chloroform	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Chloromethane	ND	3.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
2-Chlorotoluene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
4-Chlorotoluene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
cis-1,2-DCE	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
cis-1,3-Dichloropropene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: W Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 2:10:00 PM

Lab ID: 1603878-006

Matrix: SOIL

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Dibromochloromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Dibromomethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,3-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,4-Dichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Dichlorodifluoromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1-Dichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1-Dichloroethene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2-Dichloropropane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,3-Dichloropropane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
2,2-Dichloropropane	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1-Dichloropropene	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Hexachlorobutadiene	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
2-Hexanone	ND	10		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Isopropylbenzene	2.6	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
4-Isopropyltoluene	1.7	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
4-Methyl-2-pentanone	ND	10		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Methylene chloride	ND	3.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
n-Butylbenzene	ND	3.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
n-Propylbenzene	4.3	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
sec-Butylbenzene	1.5	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Styrene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
tert-Butylbenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Tetrachloroethene (PCE)	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
trans-1,2-DCE	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
trans-1,3-Dichloropropene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2,3-Trichlorobenzene	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1,1-Trichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,1,2-Trichloroethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Trichloroethene (TCE)	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Trichlorofluoromethane	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
1,2,3-Trichloropropane	ND	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Vinyl chloride	ND	1.0		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Xylenes, Total	88	2.1		mg/Kg-dry	20	3/21/2016 1:15:14 PM	24321
Surr: Dibromofluoromethane	97.9	70-130		%Rec	20	3/21/2016 1:15:14 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603878

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Inc.**Client Sample ID:** W Wall**Project:** Bloomfield Terminal**Collection Date:** 3/16/2016 2:10:00 PM**Lab ID:** 1603878-006**Matrix:** SOIL**Received Date:** 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%Rec	20	3/21/2016 1:15:14 PM	24321
Surr: Toluene-d8	98.0	70-130		%Rec	20	3/21/2016 1:15:14 PM	24321
Surr: 4-Bromofluorobenzene	116	70-130		%Rec	20	3/21/2016 1:15:14 PM	24321

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	mb-24321	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles					
Client ID:	PBS	Batch ID:	24321	RunNo:	32918					
Prep Date:	3/17/2016	Analysis Date:	3/18/2016	SeqNo:	1009413	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.050								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.050								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	mb-24321	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles					
Client ID:	PBS	Batch ID:	24321	RunNo:	32918					
Prep Date:	3/17/2016	Analysis Date:	3/18/2016	SeqNo:	1009413	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: Dibromofluoromethane	0.50		0.5000		101	70	130			
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		100	70	130			
Surr: Toluene-d8	0.51		0.5000		101	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		106	70	130			

Sample ID	ics-24321	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles					
Client ID:	LCSS	Batch ID:	24321	RunNo:	32918					
Prep Date:	3/17/2016	Analysis Date:	3/18/2016	SeqNo:	1009414	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.8	70	130			
Toluene	1.0	0.050	1.000	0	99.6	70	130			
Chlorobenzene	0.99	0.050	1.000	0	98.8	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	Ics-24321	SampType: LCS		TestCode: EPA Method 8260B: Volatiles						
Client ID:	LCSS	Batch ID: 24321		RunNo: 32918						
Prep Date:	3/17/2016	Analysis Date: 3/18/2016		SeqNo: 1009414		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	1.1	0.050	1.000	0	105	70	130			
Trichloroethene (TCE)	0.96	0.050	1.000	0	96.1	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		103	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.6	70	130			
Surr: Toluene-d8	0.53		0.5000		106	70	130			
Surr: 4-Bromofluorobenzene	0.55		0.5000		109	70	130			

Sample ID	1603878-001ams	SampType:	MS	TestCode:	EPA Method 8260B: Volatiles					
Client ID:	NW Pothole @ 14'	Batch ID:	24321	RunNo:	32918					
Prep Date:	3/17/2016	Analysis Date:	3/18/2016	SeqNo:	1009416	Units:	mg/Kg-dry			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	0.9896	0	112	49.2	155			
Toluene	1.2	0.049	0.9896	0	121	52	154			
Chlorobenzene	1.2	0.049	0.9896	0	117	53.2	150			
1,1-Dichloroethene	1.1	0.049	0.9896	0	115	34.2	163			
Trichloroethene (TCE)	1.1	0.049	0.9896	0	115	48.2	151			
Surr: Dibromofluoromethane	0.51		0.4948		103	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.4948		97.2	70	130			
Surr: Toluene-d8	0.52		0.4948		106	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.4948		106	70	130			

Sample ID	1603878-001amsd	SampType: MSD	TestCode: EPA Method 8260B: Volatiles							
Client ID:	NW Pothole @ 14'	Batch ID: 24321	RunNo: 32918							
Prep Date:	3/17/2016	Analysis Date: 3/18/2016	SeqNo: 1009417		Units: mg/Kg-dry					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.026	1.038	0	102	49.2	155	4.47	20	
Toluene	1.1	0.052	1.038	0	108	52	154	6.18	20	
Chlorobenzene	1.1	0.052	1.038	0	104	53.2	150	7.38	20	
1,1-Dichloroethene	1.0	0.052	1.038	0	98.6	34.2	163	10.5	20	
Trichloroethene (TCE)	1.1	0.052	1.038	0	103	48.2	151	5.84	20	
Surr: Dibromofluoromethane	0.53		0.5191		101	70	130	0	0	
Surr: 1,2-Dichloroethane-d4	0.50		0.5191		95.4	70	130	0	0	
Surr: Toluene-d8	0.52		0.5191		101	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.54		0.5191		105	70	130	0	0	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	mb-24350	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles						
Client ID:	PBS	Batch ID:	24350	RunNo:	32992						
Prep Date:	3/21/2016	Analysis Date:	3/23/2016	SeqNo:	1013032	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Acenaphthene	ND	0.20									
Acenaphthylene	ND	0.20									
Aniline	ND	0.20									
Anthracene	ND	0.20									
Azobenzene	ND	0.20									
Benz(a)anthracene	ND	0.20									
Benzo(a)pyrene	ND	0.20									
Benzo(b)fluoranthene	ND	0.20									
Benzo(g,h,i)perylene	ND	0.20									
Benzo(k)fluoranthene	ND	0.20									
Benzoic acid	ND	0.50									
Benzyl alcohol	ND	0.20									
Bis(2-chloroethoxy)methane	ND	0.20									
Bis(2-chloroethyl)ether	ND	0.20									
Bis(2-chloroisopropyl)ether	ND	0.20									
Bis(2-ethylhexyl)phthalate	ND	0.50									
4-Bromophenyl phenyl ether	ND	0.20									
Butyl benzyl phthalate	ND	0.20									
Carbazole	ND	0.20									
4-Chloro-3-methylphenol	ND	0.50									
4-Chloroaniline	ND	0.50									
2-Chloronaphthalene	ND	0.25									
2-Chlorophenol	ND	0.20									
4-Chlorophenyl phenyl ether	ND	0.20									
Chrysene	ND	0.20									
Di-n-butyl phthalate	ND	0.40									
Di-n-octyl phthalate	ND	0.40									
Dibenz(a,h)anthracene	ND	0.20									
Dibenzofuran	ND	0.20									
1,2-Dichlorobenzene	ND	0.20									
1,3-Dichlorobenzene	ND	0.20									
1,4-Dichlorobenzene	ND	0.20									
3,3'-Dichlorobenzidine	ND	0.25									
Diethyl phthalate	ND	0.20									
Dimethyl phthalate	ND	0.20									
2,4-Dichlorophenol	ND	0.40									
2,4-Dimethylphenol	ND	0.30									
4,6-Dinitro-2-methylphenol	ND	0.40									
2,4-Dinitrophenol	ND	0.50									

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	mb-24350	SampType	MBLK	TestCode	EPA Method 8270C: Semivolatiles					
Client ID	PBS	Batch ID	24350	RunNo	32992					
Prep Date	3/21/2016	Analysis Date	3/23/2016	SeqNo	1013032	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.40								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.40								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.40								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.40								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2-Fluorophenol	2.1		3.330		63.4	28.3	102			
Surr: Phenol-d5	2.5		3.330		74.4	35.7	103			
Surr: 2,4,6-Tribromophenol	2.4		3.330		70.8	35.2	108			
Surr: Nitrobenzene-d5	1.2		1.670		69.7	24	118			
Surr: 2-Fluorobiphenyl	1.2		1.670		70.4	35.4	111			
Surr: 4-Terphenyl-d14	1.6		1.670		97.9	15	91.7			S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	Ics-24350		SampType: LCS			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	LCSS		Batch ID: 24350			RunNo: 32992				
Prep Date:	3/21/2016		Analysis Date: 3/23/2016			SeqNo: 1013033		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.3	0.20	1.670	0	75.1	45.8	99.8			
4-Chloro-3-methylphenol	2.4	0.50	3.330	0	73.1	51.5	103			
2-Chlorophenol	2.4	0.20	3.330	0	71.4	46.5	105			
1,4-Dichlorobenzene	1.2	0.20	1.670	0	72.2	45.5	103			
2,4-Dinitrotoluene	1.2	0.50	1.670	0	70.8	36	87.2			
N-Nitrosodi-n-propylamine	1.0	0.20	1.670	0	60.4	47.3	104			
4-Nitrophenol	2.7	0.25	3.330	0	80.8	47.3	95.3			
Pentachlorophenol	2.1	0.40	3.330	0	63.9	38.7	89.3			
Phenol	2.4	0.20	3.330	0	72.6	47.8	106			
Pyrene	1.1	0.20	1.670	0	68.7	33.4	105			
1,2,4-Trichlorobenzene	1.4	0.20	1.670	0	85.9	50.4	115			
Surr: 2-Fluorophenol	2.2		3.330		65.3	28.3	102			
Surr: Phenol-d5	2.5		3.330		74.2	35.7	103			
Surr: 2,4,6-Tribromophenol	2.3		3.330		70.4	35.2	108			
Surr: Nitrobenzene-d5	1.3		1.670		79.3	24	118			
Surr: 2-Fluorobiphenyl	1.3		1.670		77.5	35.4	111			
Surr: 4-Terphenyl-d14	1.2		1.670		71.6	15	91.7			

Sample ID	1603878-001ams		SampType: MS			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	NW Pothole @ 14'		Batch ID: 24350			RunNo: 32992				
Prep Date:	3/21/2016		Analysis Date: 3/23/2016			SeqNo: 1013040		Units: mg/Kg-dry		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.3	0.21	1.768	0	72.1	27.5	117			
4-Chloro-3-methylphenol	2.8	0.53	3.526	0	78.2	26.3	116			
2-Chlorophenol	2.2	0.21	3.526	0	61.4	21.4	113			
1,4-Dichlorobenzene	0.92	0.21	1.768	0	52.2	25	105			
2,4-Dinitrotoluene	1.4	0.53	1.768	0	76.9	21.1	119			
N-Nitrosodi-n-propylamine	1.0	0.21	1.768	0	58.7	21.3	126			
4-Nitrophenol	2.9	0.26	3.526	0	82.0	21.3	120			
Pentachlorophenol	2.6	0.42	3.526	0	74.6	11.5	115			
Phenol	2.2	0.21	3.526	0	62.7	23	118			
Pyrene	1.4	0.21	1.768	0	76.4	25.7	110			
1,2,4-Trichlorobenzene	1.2	0.21	1.768	0	67.4	31.1	107			
Surr: 2-Fluorophenol	1.7		3.526		49.0	28.3	102			
Surr: Phenol-d5	2.2		3.526		61.9	35.7	103			
Surr: 2,4,6-Tribromophenol	2.5		3.526		71.8	35.2	108			
Surr: Nitrobenzene-d5	1.1		1.768		60.0	24	118			
Surr: 2-Fluorobiphenyl	1.1		1.768		64.3	35.4	111			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	1603878-001ams	SampType: MS	TestCode: EPA Method 8270C: Semivolatiles							
Client ID:	NW Pothole @ 14'	Batch ID: 24350	RunNo: 32992							
Prep Date:	3/21/2016	Analysis Date: 3/23/2016	SeqNo: 1013040 Units: mg/Kg-dry							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	1.2		1.768		65.7	15	91.7			

Sample ID	1603878-001amsd	SampType: MSD	TestCode: EPA Method 8270C: Semivolatiles							
Client ID:	NW Pothole @ 14'	Batch ID: 24350	RunNo: 32992							
Prep Date:	3/21/2016	Analysis Date: 3/23/2016	SeqNo: 1013041		Units: mg/Kg-dry					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.4	0.21	1.759	0	78.1	27.5	117	7.53	25.4	
4-Chloro-3-methylphenol	2.7	0.53	3.508	0	75.5	26.3	116	3.91	30.4	
2-Chlorophenol	2.3	0.21	3.508	0	66.9	21.4	113	8.07	33.4	
1,4-Dichlorobenzene	1.1	0.21	1.759	0	80.7	25	105	14.5	20.9	
2,4-Dinitrotoluene	1.3	0.53	1.759	0	73.4	21.1	119	5.23	27.9	
N-Nitrosodi-n-propylamine	1.1	0.21	1.759	0	60.4	21.3	126	2.28	27.5	
4-Nitrophenol	2.5	0.26	3.508	0	71.3	21.3	120	14.5	33.7	
Pentachlorophenol	2.5	0.42	3.508	0	70.9	11.5	115	5.51	39.7	
Phenol	2.3	0.21	3.508	0	66.1	23	118	4.84	30.1	
Pyrene	1.3	0.21	1.759	0	72.9	25.7	110	5.10	22.7	
1,2,4-Trichlorobenzene	1.3	0.21	1.759	0	73.5	31.1	107	8.23	27.8	
Surr: 2-Fluorophenol	1.9		3.508		54.7	28.3	102	0	0	
Surr: Phenol-d5	2.5		3.508		70.2	35.7	103	0	0	
Surr: 2,4,6-Tribromophenol	2.6		3.508		74.6	35.2	108	0	0	
Surr: Nitrobenzene-d5	1.3		1.759		73.7	24	118	0	0	
Surr: 2-Fluorobiphenyl	1.3		1.759		76.4	35.4	111	0	0	
Surr: 4-Terphenyl-d14	1.1		1.759		65.3	15	91.7	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	MB-24354	SampType:	mblk	TestCode:	EPA Method 7471: Mercury					
Client ID:	PBS	Batch ID:	24354	RunNo:	32987					
Prep Date:	3/21/2016	Analysis Date:	3/22/2016	SeqNo:	1011747	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-24354	SampType:	lcs	TestCode:	EPA Method 7471: Mercury					
Client ID:	LCSS	Batch ID:	24354	RunNo:	32987					
Prep Date:	3/21/2016	Analysis Date:	3/22/2016	SeqNo:	1011748	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1667	0	107	80	120			

Sample ID	1603878-001AMS	SampType:	ms	TestCode:	EPA Method 7471: Mercury					
Client ID:	NW Pothole @ 14'	Batch ID:	24354	RunNo:	32987					
Prep Date:	3/21/2016	Analysis Date:	3/22/2016	SeqNo:	1011750	Units:	mg/Kg-dry			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.19	0.035	0.1779	0.003482	105	75	125			

Sample ID	1603878-001AMSD	SampType:	msd	TestCode:	EPA Method 7471: Mercury					
Client ID:	NW Pothole @ 14'	Batch ID:	24354	RunNo:	32987					
Prep Date:	3/21/2016	Analysis Date:	3/22/2016	SeqNo:	1011751	Units:	mg/Kg-dry			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.19	0.034	0.1734	0.003482	106	75	125	1.14	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	MB-24353	SampType	MBLK	TestCode	EPA Method 6010B: Soil Metals					
Client ID	PBS	Batch ID	24353	RunNo	32957					
Prep Date	3/21/2016	Analysis Date	3/22/2016	SeqNo	1010798	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Lead	ND	0.25								
Silver	ND	0.25								

Sample ID	LCS-24353	SampType	LCS	TestCode	EPA Method 6010B: Soil Metals					
Client ID	LCSS	Batch ID	24353	RunNo	32957					
Prep Date	3/21/2016	Analysis Date	3/22/2016	SeqNo	1010799	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.5	25.00	0	102	80	120			
Barium	25	0.10	25.00	0	98.5	80	120			
Cadmium	25	0.10	25.00	0	99.3	80	120			
Chromium	24	0.30	25.00	0	98.0	80	120			
Lead	24	0.25	25.00	0	96.0	80	120			
Silver	5.0	0.25	5.000	0	99.2	80	120			

Sample ID	1603878-001AMS	SampType	MS	TestCode	EPA Method 6010B: Soil Metals					
Client ID	NW Pothole @ 14'	Batch ID	24353	RunNo	32957					
Prep Date	3/21/2016	Analysis Date	3/22/2016	SeqNo	1010813	Units	mg/Kg-dry			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	26	2.6	26.34	2.094	91.1	75	125			
Barium	56	0.11	26.34	29.71	98.5	75	125			
Cadmium	24	0.11	26.34	0	90.9	75	125			
Chromium	27	0.32	26.34	2.472	92.1	75	125			
Lead	25	0.26	26.34	2.427	86.4	75	125			
Silver	4.6	0.26	5.268	0	87.6	75	125			

Sample ID	1603878-001AMSD	SampType	MSD	TestCode	EPA Method 6010B: Soil Metals					
Client ID	NW Pothole @ 14'	Batch ID	24353	RunNo	32957					
Prep Date	3/21/2016	Analysis Date	3/22/2016	SeqNo	1010814	Units	mg/Kg-dry			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.6	26.04	2.094	89.3	75	125	2.86	20	
Barium	61	0.10	26.04	29.71	120	75	125	9.20	20	
Cadmium	23	0.10	26.04	0	88.2	75	125	4.15	20	
Chromium	26	0.31	26.04	2.472	89.6	75	125	3.59	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603878

25-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	1603878-001AMSD	SampType: MSD	TestCode: EPA Method 6010B: Soil Metals							
Client ID:	NW Pothole @ 14'	Batch ID: 24353	RunNo: 32957							
Prep Date:	3/21/2016	Analysis Date: 3/22/2016	SeqNo: 1010814		Units: mg/Kg-dry					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	24	0.26	26.04	2.427	83.0	75	125	4.66	20	
Silver	4.5	0.26	5.209	0	86.5	75	125	2.46	20	

Sample ID	MB-24353	SampType: MBLK	TestCode: EPA Method 6010B: Soil Metals							
Client ID:	PBS	Batch ID: 24353	RunNo: 33016							
Prep Date:	3/21/2016	Analysis Date: 3/24/2016	SeqNo: 1012884	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	2.5								

Sample ID	LCS-24353	SampType: LCS	TestCode: EPA Method 6010B: Soil Metals							
Client ID:	LCSS	Batch ID: 24353	RunNo: 33016							
Prep Date:	3/21/2016	Analysis Date: 3/24/2016	SeqNo: 1012885		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	26	2.5	25.00	0	103	80	120			

Sample ID	1603878-001AMS	SampType: MS	TestCode: EPA Method 6010B: Soil Metals							
Client ID:	NW Pothole @ 14'	Batch ID: 24353	RunNo: 33016							
Prep Date:	3/21/2016	Analysis Date: 3/24/2016	SeqNo: 1012889 Units: mg/Kg-dry							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	23	2.6	26.34	0	87.8	75	125			

Sample ID	1603878-001AMSD		SampType: MSD	TestCode: EPA Method 6010B: Soil Metals						
Client ID:	NW Pothole @ 14'		Batch ID: 24353	RunNo: 33016						
Prep Date:	3/21/2016		Analysis Date: 3/24/2016	SeqNo: 1012890		Units: mg/Kg-dry				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	23	2.6	26.04	0	88.8	75	125	0.0715	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- B Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Southw

Work Order Number: 1603878

ReptNo: 1

Received by/date:

Logged By: Lindsay Mangin

3/17/2016 7:33:00 AM

Completed By: Lindsay Mangin

3/17/2016 8:47:05 AM

Reviewed By:

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☐

No ☐

No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐

No ☒

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

12. Does paperwork match bottle labels?

(Note discrepancies on chain of custody)

Yes ☒

No ☐

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

(If no, notify customer for authorization.)

Yes ☒

No ☐

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Yes			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 21, 2016

Kelly Robinson

Western Refining Southwest, Inc.

#50 CR 4990

Bloomfield, NM 87413

TEL: (505) 632-4135

FAX (505) 632-3911

RE: Bloomfield Terminal

OrderNo.: 1603876

Dear Kelly Robinson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 3/17/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1603876

Date Reported: 3/21/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: NW Pothole @ 14'

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:20:00 PM

Lab ID: 1603876-001

Matrix: MEOH (SOIL)

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	6.1	1.0		wt%	1	3/17/2016 4:00:00 PM	R32877
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	17	11		mg/Kg-dry	1	3/17/2016 6:14:08 PM	24297
Motor Oil Range Organics (MRO)	ND	54		mg/Kg-dry	1	3/17/2016 6:14:08 PM	24297
Surr: DNOP	91.6	70-130		%Rec	1	3/17/2016 6:14:08 PM	24297
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	12	3.5		mg/Kg-dry	1	3/17/2016 4:23:07 PM	24284
Surr: BFB	187	66.2-112	S	%Rec	1	3/17/2016 4:23:07 PM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg-dry	1	3/17/2016 4:23:07 PM	24284
Toluene	0.11	0.035		mg/Kg-dry	1	3/17/2016 4:23:07 PM	24284
Ethylbenzene	0.065	0.035		mg/Kg-dry	1	3/17/2016 4:23:07 PM	24284
Xylenes, Total	0.71	0.071		mg/Kg-dry	1	3/17/2016 4:23:07 PM	24284
Surr: 4-Bromofluorobenzene	127	80-120	S	%Rec	1	3/17/2016 4:23:07 PM	24284

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603876

Date Reported: 3/21/2016

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: N Wall

Project: Bloomfield Terminal

Collection Date: 3/14/2016 1:40:00 PM

Lab ID: 1603876-002

Matrix: MEOH (SOIL)

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	11	1.0		wt%	1	3/17/2016 4:00:00 PM	R32877
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	11		mg/Kg-dry	1	3/17/2016 2:14:55 PM	24297
Motor Oil Range Organics (MRO)	ND	54		mg/Kg-dry	1	3/17/2016 2:14:55 PM	24297
Surr: DNOP	87.0	70-130		%Rec	1	3/17/2016 2:14:55 PM	24297
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.2		mg/Kg-dry	1	3/17/2016 11:40:31 AM	24284
Surr: BFB	111	66.2-112		%Rec	1	3/17/2016 11:40:31 AM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.026		mg/Kg-dry	1	3/17/2016 11:40:31 AM	24284
Toluene	ND	0.052		mg/Kg-dry	1	3/17/2016 11:40:31 AM	24284
Ethylbenzene	ND	0.052		mg/Kg-dry	1	3/17/2016 11:40:31 AM	24284
Xylenes, Total	ND	0.10		mg/Kg-dry	1	3/17/2016 11:40:31 AM	24284
Surr: 4-Bromofluorobenzene	117	80-120		%Rec	1	3/17/2016 11:40:31 AM	24284

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603876

Date Reported: 3/21/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: E Wall

Project: Bloomfield Terminal

Collection Date: 3/15/2016 2:20:00 PM

Lab ID: 1603876-003

Matrix: MEOH (SOIL)

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	7.9	1.0		wt%	1	3/17/2016 4:00:00 PM	R32877
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	760	11		mg/Kg-dry	1	3/17/2016 3:20:44 PM	24297
Motor Oil Range Organics (MRO)	280	54		mg/Kg-dry	1	3/17/2016 3:20:44 PM	24297
Surr: DNOP	101	70-130		%Rec	1	3/17/2016 3:20:44 PM	24297
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	2300	210		mg/Kg-dry	50	3/17/2016 12:04:06 PM	24284
Surr: BFB	209	66.2-112	S	%Rec	50	3/17/2016 12:04:06 PM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	6.2	1.1		mg/Kg-dry	50	3/17/2016 12:04:06 PM	24284
Toluene	64	2.1		mg/Kg-dry	50	3/17/2016 12:04:06 PM	24284
Ethylbenzene	11	2.1		mg/Kg-dry	50	3/17/2016 12:04:06 PM	24284
Xylenes, Total	100	4.3		mg/Kg-dry	50	3/17/2016 12:04:06 PM	24284
Surr: 4-Bromofluorobenzene	130	80-120	S	%Rec	50	3/17/2016 12:04:06 PM	24284

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not in Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Floor

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:40:00 PM

Lab ID: 1603876-004

Matrix: MEOH (SOIL)

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	7.6	1.0		wt%	1	3/17/2016 4:00:00 PM	R32877
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	3500	100		mg/Kg-dry	10	3/17/2016 4:04:11 PM	24297
Motor Oil Range Organics (MRO)	1300	510		mg/Kg-dry	10	3/17/2016 4:04:11 PM	24297
Surr: DNOP	0	70-130	S	%Rec	10	3/17/2016 4:04:11 PM	24297
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	5600	280		mg/Kg-dry	50	3/17/2016 12:27:44 PM	24284
Surr: BFB	310	66.2-112	S	%Rec	50	3/17/2016 12:27:44 PM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	14	1.4		mg/Kg-dry	50	3/17/2016 12:27:44 PM	24284
Toluene	150	2.8		mg/Kg-dry	50	3/17/2016 12:27:44 PM	24284
Ethylbenzene	26	2.8		mg/Kg-dry	50	3/17/2016 12:27:44 PM	24284
Xylenes, Total	240	5.5		mg/Kg-dry	50	3/17/2016 12:27:44 PM	24284
Surr: 4-Bromofluorobenzene	135	80-120	S	%Rec	50	3/17/2016 12:27:44 PM	24284

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603876

Date Reported: 3/21/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: S Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 1:50:00 PM

Lab ID: 1603876-005

Matrix: MEOH (SOIL)

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	10	1.0		wt%	1	3/17/2016 4:00:00 PM	R32877
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	27	10		mg/Kg-dry	1	3/18/2016 7:55:20 AM	24297
Motor Oil Range Organics (MRO)	68	50		mg/Kg-dry	1	3/18/2016 7:55:20 AM	24297
Surr: DNOP	87.8	70-130		%Rec	1	3/18/2016 7:55:20 AM	24297
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg-dry	1	3/17/2016 12:51:26 PM	24284
Surr: BFB	118	66.2-112	S	%Rec	1	3/17/2016 12:51:26 PM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg-dry	1	3/17/2016 12:51:26 PM	24284
Toluene	ND	0.049		mg/Kg-dry	1	3/17/2016 12:51:26 PM	24284
Ethylbenzene	ND	0.049		mg/Kg-dry	1	3/17/2016 12:51:26 PM	24284
Xylenes, Total	ND	0.099		mg/Kg-dry	1	3/17/2016 12:51:26 PM	24284
Surr: 4-Bromofluorobenzene	118	80-120		%Rec	1	3/17/2016 12:51:26 PM	24284

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603876

Date Reported: 3/21/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: W Wall

Project: Bloomfield Terminal

Collection Date: 3/16/2016 2:10:00 PM

Lab ID: 1603876-006

Matrix: MEOH (SOIL)

Received Date: 3/17/2016 7:33:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
PERCENT MOISTURE							Analyst: AG
Percent Moisture	11	1.0		wt%	1	3/17/2016 4:00:00 PM	R32877
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	4600	110		mg/Kg-dry	10	3/17/2016 5:30:55 PM	24297
Motor Oil Range Organics (MRO)	1800	550		mg/Kg-dry	10	3/17/2016 5:30:55 PM	24297
Surr: DNOP	0	70-130	S	%Rec	10	3/17/2016 5:30:55 PM	24297
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	4000	280		mg/Kg-dry	50	3/17/2016 5:56:51 PM	24284
Surr: BFB	255	66.2-112	S	%Rec	50	3/17/2016 5:56:51 PM	24284
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	15	1.4		mg/Kg-dry	50	3/17/2016 5:56:51 PM	24284
Toluene	100	2.8		mg/Kg-dry	50	3/17/2016 5:56:51 PM	24284
Ethylbenzene	18	2.8		mg/Kg-dry	50	3/17/2016 5:56:51 PM	24284
Xylenes, Total	160	5.6		mg/Kg-dry	50	3/17/2016 5:56:51 PM	24284
Surr: 4-Bromofluorobenzene	134	80-120	S	%Rec	50	3/17/2016 5:56:51 PM	24284

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	B Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603876

21-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	MB-24297	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	24297	RunNo:	32861					
Prep Date:	3/17/2016	Analysis Date:	3/17/2016	SeqNo:	1007390	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		98.4	70	130			

Sample ID	LCS-24297	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	24297	RunNo:	32861					
Prep Date:	3/17/2016	Analysis Date:	3/17/2016	SeqNo:	1007392	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	65.8	136			
Surr: DNOP	4.5		5.000		89.7	70	130			

Sample ID	1603876-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	NW Pothole @ 14'	Batch ID:	24297	RunNo:	32861					
Prep Date:	3/17/2016	Analysis Date:	3/17/2016	SeqNo:	1007414	Units:	mg/Kg-dry			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	79	10	51.42	17.07	119	31.2	162			
Surr: DNOP	4.4		5.142		86.2	70	130			

Sample ID	1603876-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	NW Pothole @ 14'	Batch ID:	24297	RunNo:	32861					
Prep Date:	3/17/2016	Analysis Date:	3/17/2016	SeqNo:	1007417	Units:	mg/Kg-dry			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	150	10	51.67	17.07	265	31.2	162	65.0	31.7	RS
Surr: DNOP	4.7		5.167		90.7	70	130	0	0	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603876

21-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	MB-24284	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	24284	RunNo:	32868					
Prep Date:	3/16/2016	Analysis Date:	3/17/2016	SeqNo:	1007393	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		109	66.2	112			

Sample ID	LCS-24284	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	24284	RunNo:	32868					
Prep Date:	3/16/2016	Analysis Date:	3/17/2016	SeqNo:	1007394	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.1	80	120			
Surr: BFB	1100		1000		115	66.2	112			S

Sample ID	1603876-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	NW Pothole @ 14'	Batch ID:	24284	RunNo:	32868					
Prep Date:		Analysis Date:	3/17/2016	SeqNo:	1007411	Units:	mg/Kg-dry			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	3.5	17.66	11.65	95.6	59.3	143			
Surr: BFB	1400		706.4		198	66.2	112			S

Sample ID	1603876-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	NW Pothole @ 14'	Batch ID:	24284	RunNo:	32868					
Prep Date:		Analysis Date:	3/17/2016	SeqNo:	1007412	Units:	mg/Kg-dry			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	3.5	17.66	11.65	111	59.3	143	9.30	20	
Surr: BFB	1400		706.4		201	66.2	112	0	0	S

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603876

21-Mar-16

Client: Western Refining Southwest, Inc.

Project: Bloomfield Terminal

Sample ID	MB-24284	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	24284	RunNo:	32868					
Prep Date:	3/16/2016	Analysis Date:	3/17/2016	SeqNo:	1007424	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Sample ID	LCS-24284	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	24284	RunNo:	32868					
Prep Date:	3/16/2016	Analysis Date:	3/17/2016	SeqNo:	1007426	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	108	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		120	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Southw

Work Order Number: 1603876

ReptNo: 1

Received by/date:

Logged By: Lindsay Mangin

3/17/2016 7:33:00 AM

Completed By: Lindsay Mangin

3/17/2016 8:33:58 AM

Reviewed By:

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☐

No ☐

No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Yes			

Chain-of-Custody Record

Client: Western Refining

Shipping Address: 111 CR 4990

Bloomfield, NM 87413

Phone #: (505) 632-4166

Mail or Fax#:

A/QC Package:

☐ Standard

Level 4 (Full Validation)

Other ☐

INELAP ☐

EDO (Type) Final

Date Time Matrix Sample Request ID

1-16	1320	Soil	NW Pathside @ 14"
2-16	1340	N Wall	
3-16	1420	E Wall	
4-16	1340	Floor	
5-16	1350	S Wall	
6-16	1410	W Wall	

Turn-Around Time:

☐ Standard ☒ Rush

ASAP

Project Name:

Bloomfield Terminal

Project #:

12613528

Project Manager:

Kelly Robinson

Sampler: Michael Wicker

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.2

Container Type and #

2-8oz	Cool
↓	
1-8oz, 2-4oz	
4-4oz	
↓	

Preservative Type

Cool

HEAL No.

1603876
-001
-002
-003
-004
-005
-006



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX + MTBE + TPH (Gas only)	BTEX + MTBE + TPH (Gas only)	TPH 80158 (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

Site: 17W

Time: 17W

Requisitioned by: [Signature]

Requisitioned by: [Signature]

Time: 1905

Date: 3/16/06

Received by:

[Signature]

Date:

3/16/06

Time:

17W

Date:

3/16/06

Time:

17W

Remarks: Please CC mwicker@LEW.com



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 16, 2016

Matt Krakow
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4135
FAX (505) 632-3911

RE: Crude Unloading Line

OrderNo.: 1603350

Dear Matt Krakow:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/7/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1603350

Date Reported: 3/16/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Waste Characterization

Project: Crude Unloading Line

Collection Date: 3/7/2016 1:00:00 PM

Lab ID: 1603350-001

Matrix: SOIL

Received Date: 3/7/2016 4:52:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
Analyst: pmf							
MERCURY, TCLP							
Mercury	ND	0.020		mg/L	1	3/10/2016 12:42:47 PM	24168
Analyst: ELS							
EPA METHOD 6010B: TCLP METALS							
Arsenic	ND	5.0		mg/L	1	3/10/2016 10:48:24 AM	24167
Barium	ND	100		mg/L	1	3/10/2016 10:48:24 AM	24167
Cadmium	ND	1.0		mg/L	1	3/10/2016 10:48:24 AM	24167
Chromium	ND	5.0		mg/L	1	3/10/2016 10:48:24 AM	24167
Lead	ND	5.0		mg/L	1	3/10/2016 10:48:24 AM	24167
Selenium	ND	1.0		mg/L	1	3/10/2016 10:48:24 AM	24167
Silver	ND	5.0		mg/L	1	3/10/2016 10:48:24 AM	24167
Analyst: KJH							
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Diesel Range Organics (DRO)	5500	95		mg/Kg	10	3/14/2016 11:08:16 AM	24225
Motor Oil Range Organics (MRO)	3100	480		mg/Kg	10	3/14/2016 11:08:16 AM	24225
Surr: DNOP	0	70-130	S	%Rec	10	3/14/2016 11:08:16 AM	24225
Analyst: NSB							
EPA METHOD 8015D: GASOLINE RANGE							
Gasoline Range Organics (GRO)	2500	98		mg/Kg	20	3/14/2016 9:10:19 AM	24219
Surr: BFB	622	66.2-112	S	%Rec	20	3/14/2016 9:10:19 AM	24219
Analyst: DAM							
EPA METHOD 8270C TCLP							
2-Methylphenol	ND	200		mg/L	1	3/12/2016 3:18:41 PM	24177
3+4-Methylphenol	ND	200		mg/L	1	3/12/2016 3:18:41 PM	24177
Phenol	ND	200		mg/L	1	3/12/2016 3:18:41 PM	24177
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/12/2016 3:18:41 PM	24177
Hexachlorobenzene	ND	0.13		mg/L	1	3/12/2016 3:18:41 PM	24177
Hexachlorobutadiene	ND	0.50		mg/L	1	3/12/2016 3:18:41 PM	24177
Hexachloroethane	ND	3.0		mg/L	1	3/12/2016 3:18:41 PM	24177
Nitrobenzene	ND	2.0		mg/L	1	3/12/2016 3:18:41 PM	24177
Pentachlorophenol	ND	100		mg/L	1	3/12/2016 3:18:41 PM	24177
Pyridine	ND	5.0		mg/L	1	3/12/2016 3:18:41 PM	24177
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/12/2016 3:18:41 PM	24177
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/12/2016 3:18:41 PM	24177
Cresols, Total	ND	200		mg/L	1	3/12/2016 3:18:41 PM	24177
Surr: 2-Fluorophenol	56.4	19-121		%Rec	1	3/12/2016 3:18:41 PM	24177
Surr: Phenol-d5	47.2	31.8-117		%Rec	1	3/12/2016 3:18:41 PM	24177
Surr: 2,4,6-Tribromophenol	88.2	31.3-139		%Rec	1	3/12/2016 3:18:41 PM	24177
Surr: Nitrobenzene-d5	77.2	48.2-128		%Rec	1	3/12/2016 3:18:41 PM	24177
Surr: 2-Fluorobiphenyl	70.3	58.4-114		%Rec	1	3/12/2016 3:18:41 PM	24177
Surr: 4-Terphenyl-d14	79.0	17.4-141		%Rec	1	3/12/2016 3:18:41 PM	24177
Analyst: DJF							
VOLATILES BY 8260B/1311							

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1603350

Date Reported: 3/16/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Waste Characterization

Project: Crude Unloading Line

Collection Date: 3/7/2016 1:00:00 PM

Lab ID: 1603350-001

Matrix: SOIL

Received Date: 3/7/2016 4:52:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
VOLATILES BY 8260B/1311							Analyst: DJF
Benzene	ND	0.50		mg/L	1	3/9/2016 5:51:30 PM	24135
2-Butanone	ND	200		mg/L	1	3/9/2016 5:51:30 PM	24135
Carbon Tetrachloride	ND	0.50		mg/L	1	3/9/2016 5:51:30 PM	24135
Chlorobenzene	ND	100		mg/L	1	3/9/2016 5:51:30 PM	24135
Chloroform	ND	6.0		mg/L	1	3/9/2016 5:51:30 PM	24135
1,4-Dichlorobenzene	ND	7.5		mg/L	1	3/9/2016 5:51:30 PM	24135
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	3/9/2016 5:51:30 PM	24135
1,1-Dichloroethene	ND	0.70		mg/L	1	3/9/2016 5:51:30 PM	24135
Hexachlorobutadiene	ND	0.50		mg/L	1	3/9/2016 5:51:30 PM	24135
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	3/9/2016 5:51:30 PM	24135
Trichloroethene (TCE)	ND	0.50		mg/L	1	3/9/2016 5:51:30 PM	24135
Vinyl chloride	ND	0.20		mg/L	1	3/9/2016 5:51:30 PM	24135
Surr: 1,2-Dichloroethane-d4	94.9	70-130		%Rec	1	3/9/2016 5:51:30 PM	24135
Surr: 4-Bromofluorobenzene	112	70-130		%Rec	1	3/9/2016 5:51:30 PM	24135
Surr: Dibromofluoromethane	91.6	70-130		%Rec	1	3/9/2016 5:51:30 PM	24135
Surr: Toluene-d8	100	70-130		%Rec	1	3/9/2016 5:51:30 PM	24135

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID	LCS-24225	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	24225	RunNo:	32764					
Prep Date:	3/14/2016	Analysis Date:	3/14/2016	SeqNo:	1003209	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	76.3	65.8	136			
Sur: DNOP	3.6		5.000		71.5	70	130			

Sample ID	MB-24225	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	24225	RunNo:	32764					
Prep Date:	3/14/2016	Analysis Date:	3/14/2016	SeqNo:	1003210	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Sur: DNOP	7.5		10.00		74.7	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID	MB-24219	SampType	MBLK	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	PBS	Batch ID	24219	RunNo	32770					
Prep Date	3/11/2016	Analysis Date	3/14/2016	SeqNo	1004230	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Sur: BFB	1100		1000		106	66.2	112			

Sample ID	LCS-24219	SampType	LCS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	LCSS	Batch ID	24219	RunNo	32770					
Prep Date	3/11/2016	Analysis Date	3/14/2016	SeqNo	1004231	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.3	80	120			
Sur: BFB	1100		1000		114	66.2	112			S

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID	mb-24135	SampType:	MBLK	TestCode:	Volatiles by 8260B/1311					
Client ID:	PBS	Batch ID:	24135	RunNo:	32688					
Prep Date:	3/8/2016	Analysis Date:	3/9/2016	SeqNo:	1000429	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.50								
2-Butanone	ND	200								
Carbon Tetrachloride	ND	0.50								
Chlorobenzene	ND	100								
Chloroform	ND	6.0								
1,4-Dichlorobenzene	ND	7.5								
1,2-Dichloroethane (EDC)	ND	0.50								
1,1-Dichloroethene	ND	0.70								
Hexachlorobutadiene	ND	0.50								
Tetrachloroethene (PCE)	ND	0.70								
Trichloroethene (TCE)	ND	0.50								
Vinyl chloride	ND	0.20								
Surr: 1,2-Dichloroethane-d4	0.19		0.2000		94.3	70	130			
Surr: 4-Bromofluorobenzene	0.23		0.2000		117	70	130			
Surr: Dibromofluoromethane	0.19		0.2000		94.3	70	130			
Surr: Toluene-d8	0.19		0.2000		97.1	70	130			

Sample ID	lcs-24135	SampType:	LCS	TestCode:	Volatiles by 8260B/1311					
Client ID:	LCSS	Batch ID:	24135	RunNo:	32688					
Prep Date:	3/8/2016	Analysis Date:	3/9/2016	SeqNo:	1000431	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.38	0.30	0.4000	0	94.2	70	130			
Chlorobenzene	0.44	0.30	0.4000	0	109	70	130			
1,1-Dichloroethene	0.39	0.30	0.4000	0	98.1	70	130			
Trichloroethene (TCE)	0.39	0.30	0.4000	0	98.4	58.7	129			
Surr: 1,2-Dichloroethane-d4	0.20		0.2000		99.2	70	130			
Surr: 4-Bromofluorobenzene	0.21		0.2000		107	70	130			
Surr: Dibromofluoromethane	0.19		0.2000		95.8	70	130			
Surr: Toluene-d8	0.20		0.2000		100	70	130			

Sample ID	1603350-001ams	SampType:	MS	TestCode:	Volatiles by 8260B/1311					
Client ID:	Waste Characterizat	Batch ID:	24135	RunNo:	32688					
Prep Date:	3/8/2016	Analysis Date:	3/9/2016	SeqNo:	1000436	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.40	0.30	0.4000	0	100	70	130			
Chlorobenzene	0.42	0.30	0.4000	0	105	70	130			
1,1-Dichloroethene	0.40	0.30	0.4000	0	99.0	70	130			
Trichloroethene (TCE)	0.38	0.30	0.4000	0	95.0	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | B Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID	1603350-001ams	SampType:	MS	TestCode:	Volatiles by 8260B/1311					
Client ID:	Waste Characterizat	Batch ID:	24135	RunNo:	32688					
Prep Date:	3/8/2016	Analysis Date:	3/9/2016	SeqNo:	1000436	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.19		0.2000		92.9	70	130			
Surr: 4-Bromofluorobenzene	0.23		0.2000		115	70	130			
Surr: Dibromofluoromethane	0.19		0.2000		95.0	70	130			
Surr: Toluene-d8	0.19		0.2000		96.5	70	130			

Sample ID	1603350-001amsd	SampType:	MSD	TestCode:	Volatiles by 8260B/1311					
Client ID:	Waste Characterizat	Batch ID:	24135	RunNo:	32688					
Prep Date:	3/8/2016	Analysis Date:	3/9/2016	SeqNo:	1000450	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.38	0.30	0.4000	0	94.2	70	130	5.98	20	
Chlorobenzene	0.40	0.30	0.4000	0	99.4	70	130	5.41	20	
1,1-Dichloroethene	0.35	0.30	0.4000	0	88.6	70	130	11.0	20	
Trichloroethene (TCE)	0.35	0.30	0.4000	0	86.7	70	130	9.13	20	
Sum: 1,2-Dichloroethane-d4	0.19		0.2000		94.8	70	130	0	0	
Sum: 4-Bromofluorobenzene	0.22		0.2000		111	70	130	0	0	
Sum: Dibromofluoromethane	0.18		0.2000		91.2	70	130	0	0	
Sum: Toluene-d8	0.19		0.2000		95.5	70	130	0	0	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID	mb-24177	SampType:	MBLK	TestCode:	EPA Method 8270C TCLP					
Client ID:	PBS	Batch ID:	24177	RunNo:	32755					
Prep Date:	3/10/2016	Analysis Date:	3/12/2016	SeqNo:	1004050	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3-4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Sum: 2-Fluorophenol	0.16		0.2000		78.8	19	121			
Sum: Phenol-d5	0.18		0.2000		90.3	31.8	117			
Sum: 2,4,6-Tribromophenol	0.17		0.2000		86.5	31.3	139			
Sum: Nitrobenzene-d5	0.079		0.1000		78.7	48.2	128			
Sum: 2-Fluorobiphenyl	0.076		0.1000		76.2	58.4	114			
Sum: 4-Terphenyl-d14	0.11		0.1000		107	17.4	141			

Sample ID	lcs-24177	SampType: LCS			TestCode: EPA Method 8270C TCLP					
Client ID:	LCSS	Batch ID: 24177			RunNo: 32755					
Prep Date:	3/10/2016	Analysis Date: 3/12/2016			SeqNo: 1004052		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.082	0.010	0.1000	0	82.3	37.6	110			
3-4-Methylphenol	0.19	0.010	0.2000	0	95.6	30.5	149			
2,4-Dinitrotoluene	0.056	0.010	0.1000	0	55.8	24.9	93.7			
Hexachlorobenzene	0.088	0.010	0.1000	0	88.1	40	114			
Hexachlorobutadiene	0.076	0.010	0.1000	0	76.1	37.4	119			
Hexachloroethane	0.072	0.010	0.1000	0	72.2	33.8	105			
Nitrobenzene	0.075	0.010	0.1000	0	75.4	33.4	115			
Pentachlorophenol	0.071	0.010	0.1000	0	70.9	27.9	90.3			
Pyridine	0.069	0.010	0.1000	0	69.1	29.3	105			
2,4,5-Trichlorophenol	0.093	0.010	0.1000	0	92.8	34	118			
2,4,6-Trichlorophenol	0.090	0.010	0.1000	0	89.7	34.1	109			
Cresols, Total	0.27	0.010	0.3000	0	91.2	30	136			
Sum: 2-Fluorophenol	0.14		0.2000		71.4	19	121			
Sum: Phenol-d5	0.16		0.2000		79.6	31.8	117			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID	1603350-001amsd	SampType:	MSD	TestCode: EPA Method 8270C TCLP						
Client ID:	Waste Characterizat	Batch ID:	24177	RunNo: 32755						
Prep Date:	3/10/2016	Analysis Date:	3/12/2016	SeqNo: 1004056		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrobenzene	0.070	0.010	0.1000	0	70.4	40.2	132	36.5	26.9	R
Pentachlorophenol	0.074	0.010	0.1000	0	74.0	8.72	103	53.0	59.2	
Pyridine	0.051	0.010	0.1000	0	51.5	9.36	106	35.8	48	
2,4,5-Trichlorophenol	0.087	0.010	0.1000	0	86.8	16.5	123	19.2	70.8	
2,4,6-Trichlorophenol	0.077	0.010	0.1000	0	76.7	11.3	117	6.16	78	
Cresols, Total	0.21	0.010	0.3000	0	70.3	23.2	151	39.6	30.8	R
Sum: 2-Fluorophenol	0.092		0.2000		45.8	19	121	0	0	
Sum: Phenol-d5	0.074		0.2000		37.0	31.8	117	0	0	
Sum: 2,4,6-Tribromophenol	0.15		0.2000		75.3	31.3	139	0	0	
Sum: Nitrobenzene-d5	0.074		0.1000		73.5	48.2	128	0	0	
Sum: 2-Fluorobiphenyl	0.070		0.1000		70.3	58.4	114	0	0	
Sum: 4-Terphenyl-d14	0.056		0.1000		56.1	17.4	141	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- B Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID: MB-24168	SampType: MBLK	TestCode: MERCURY, TCLP
Client ID: PBW	Batch ID: 24168	RunNo: 32705
Prep Date: 3/9/2016	Analysis Date: 3/10/2016	SeqNo: 1001072 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Mercury	ND	0.020

Sample ID: LCS-24168	SampType: LCS	TestCode: MERCURY, TCLP
Client ID: LCSW	Batch ID: 24168	RunNo: 32705
Prep Date: 3/9/2016	Analysis Date: 3/10/2016	SeqNo: 1001074 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Mercury	ND	0.020 0.005000 0 98.3 80 120

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603350

16-Mar-16

Client: Western Refining Southwest, Inc.

Project: Crude Unloading Line

Sample ID	MB-24167	SampType: MBLK		TestCode: EPA Method 6010B: TCLP Metals						
Client ID:	PBW	Batch ID: 24167		RunNo: 32695						
Prep Date:	3/9/2016	Analysis Date: 3/10/2016		SeqNo: 1000719			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID	LCS-24167	SampType:	LCS	TestCode: EPA Method 6010B: TCLP Metals						
Client ID:	LCSW	Batch ID:	24167	RunNo: 32695						
Prep Date:	3/9/2016	Analysis Date:	3/10/2016	SeqNo: 1000720			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	114	80	120			
Barium	ND	100	0.5000	0	99.6	80	120			
Cadmium	ND	1.0	0.5000	0	105	80	120			
Chromium	ND	5.0	0.5000	0	99.7	80	120			
Lead	ND	5.0	0.5000	0	104	80	120			
Selenium	ND	1.0	0.5000	0	112	80	120			
Silver	ND	5.0	0.1000	0	110	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |



Hall Environmental Analysis Laboratory
1900 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Southw

Work Order Number: 1603350

ReptNo: 1

Received by/date:

Logged By: Ashley Gallegos

3/7/2016 4:52:00 PM

Completed By: Ashley Gallegos

3/8/2016 9:08:31 AM

Reviewed By:

03/08/16

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 5.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH: Adjusted?
(<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date

By Whom:

Via:

☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.4	Good	Yes			

Turn-Around Time:

Client: Western Refining

Tailing Address: 50 CR 4990

Blomfield, NM 87413

Phone #: 505-632-4169

mail or Fax#

MA/QC Package:

Standard	Level 4 (Full Validation)
1.1	
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1.100	

Standard

Accreditation

☐ NELAP ☐ Other

J EDD (Type)

Date	Time	Matrix	Sample Request ID
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Matrix

Sample Request ID

7-16	1:00	Sci
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Waste Characterization

Container Type and #	Preservative Type
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Preservative
Type

HEAL No.

100355

8

Date:	Time:
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Relinquished by:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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late:	Time:
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Relinquished by:

Received by:

Date, Time

Received by:

Date/Time

Remarks:

marks:

431116

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, August 05, 2016 4:11 PM
To: 'Robinson, Kelly'
Cc: Smith, Cory, EMNRD; Tsinnajinnie, Leona, NMENV
Subject: RE: Sump Overflow Immediate Notification - Western Refining Bloomfield Terminal

Kelly:

Please submit a C-141 and Remediation Plan to OCD.

Thank you.

Carl J. Chavez, CHMM
Environmental Engineer
Oil Conservation Division- Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Phone: (505) 476-3490
Main Phone: (505) 476-3440
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: www.emnrd.state.nm.us/oed

Why not prevent pollution, minimize waste, reduce operation costs, and move forward with the rest of the Nation? To see how, go to "Publications" and "Pollution Prevention" on the OCD Website.

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]
Sent: Thursday, August 04, 2016 3:54 PM
To: Tsinnajinnie, Leona, NMENV <Leona.Tsinnajinnie@state.nm.us>; Cobrain, Dave, NMENV <dave.cobrain@state.nm.us>; Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>; Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Krakow, Matt <Matt.Krakow@wnr.com>; Schmaltz, Randy <Randy.Schmaltz@wnr.com>; Reagan, Emmett <Emmett.Reagan@wnr.com>; Roberts, Dale <Dale.Roberts@wnr.com>
Subject: Sump Overflow Immediate Notification - Western Refining Bloomfield Terminal

Good Afternoon!

At approximately 6am this morning, a malfunction of the fire suppression system at the Western Refining Bloomfield Terminal ("Western") product loading rack resulted in the overflow of the loading rack sump. The event involved the unexpected activation of the fire suppression system, resulting in a large volume of fresh water to drain through the loading rack drains and into the loading rack sump. This event lasted only a few minutes, but the volume of fresh water release was more than the sump could manage in a short period of time. The overflow material from the product sump was a mixture of fresh water and the finished product residuals that remained in the sump. All of the overflow material was contained within the boundary of the Bloomfield Terminal and was localized within the earthen bermed area around the loading rack sump. Upon immediate observation of the event, Operations manually turned off the fire system, stopping the flow of water to the sump.

Western estimates that approximately 150 bbls of water/product mixture overflowed from the sump, all of which remained within the containment area. A large portion of the released volume was recovered using an on-site vacuum truck. Western is still investigating the cause of the malfunction and will be developing a Corrective Action Plan to address the necessary clean-up efforts. Due to the

dual jurisdiction between NMED and OCD for the Bloomfield Facility, this e-mail is intended to serve as the immediate notification pursuant to NMAC 19.15.29.9.A and the NMED Consent Order dated July 27, 2007.

If you have any immediate questions please feel free to contact me or Mr. Randy Schmaltz at 505-62-4171.

Sincerely,

Kelly R. Robinson | Environmental Manager - Logistics

Western Refining | 111 County Road 4990 | Bloomfield, NM87413

(o) 505-632-4166 | (c) 505-801-5616 | (e) kelly.robinson@wnr.com

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E

Work Order: 0908234

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 300.0: Anions

Sample ID: MB-19889

MBLK

Batch ID: 19889 Analysis Date: 8/17/2009 12:11:39 PM

Fluoride	ND	mg/Kg	0.30
Chloride	ND	mg/Kg	0.30
Nitrogen, Nitrite (As N)	ND	mg/Kg	0.30
Nitrogen, Nitrate (As N)	ND	mg/Kg	0.30
Phosphorus, Orthophosphate (As P)	ND	mg/Kg	1.5
Sulfate	3.201	mg/Kg	1.5

Sample ID: MB-19889

MBLK

Batch ID: 19889 Analysis Date: 8/18/2009 2:07:17 AM

Fluoride	ND	mg/Kg	0.30
Chloride	ND	mg/Kg	0.30
Nitrogen, Nitrite (As N)	ND	mg/Kg	0.30
Nitrogen, Nitrate (As N)	ND	mg/Kg	0.30
Phosphorus, Orthophosphate (As P)	ND	mg/Kg	1.5
Sulfate	2.985	mg/Kg	1.5

Sample ID: LCS-19889

LCS

Batch ID: 19889 Analysis Date: 8/17/2009 12:29:03 PM

Fluoride	1.557	mg/Kg	0.30	1.5	0	104	90	110
Chloride	14.71	mg/Kg	0.30	15	0	98.0	90	110
Nitrogen, Nitrite (As N)	2.990	mg/Kg	0.30	3	0	99.7	90	110
Nitrogen, Nitrate (As N)	7.378	mg/Kg	0.30	7.5	0	98.4	90	110
Phosphorus, Orthophosphate (As P)	14.57	mg/Kg	1.5	15	0	97.1	90	110
Sulfate	29.49	mg/Kg	1.5	30	2.985	88.4	90	110

BS

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E

Work Order: 0908234

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB		MBLK									
						Batch ID: R34924	Analysis Date: 8/14/2009 8:54:06 AM				
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrogen, Nitrite (As N)	ND	mg/L	0.10								
Nitrogen, Nitrate (As N)	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		MBLK									
						Batch ID: R34944	Analysis Date: 8/17/2009 8:53:05 AM				
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrogen, Nitrite (As N)	ND	mg/L	0.10								
Nitrogen, Nitrate (As N)	ND	mg/L	0.10								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		MBLK									
						Batch ID: R34961	Analysis Date: 8/18/2009 10:29:06 AM				
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		MBLK									
						Batch ID: R34971	Analysis Date: 8/19/2009 11:28:08 AM				
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		LCS									
						Batch ID: R34924	Analysis Date: 8/14/2009 9:11:31 AM				
Fluoride	0.5038	mg/L	0.10	0.5	0	101	90	110			
Chloride	4.778	mg/L	0.10	5	0	95.6	90	110			
Nitrogen, Nitrite (As N)	0.9352	mg/L	0.10	1	0	93.5	90	110			
Nitrogen, Nitrate (As N)	2.418	mg/L	0.10	2.5	0	96.7	90	110			
Nitrate (As N)+Nitrite (As N)	3.353	mg/L	0.20	3.5	0	95.8	90	110			
Phosphorus, Orthophosphate (As P)	4.885	mg/L	0.50	5	0	97.7	90	110			
Sulfate	9.849	mg/L	0.50	10	0	98.5	90	110			
Sample ID: LCS		LCS									
						Batch ID: R34944	Analysis Date: 8/17/2009 9:10:30 AM				
Fluoride	0.4744	mg/L	0.10	0.5	0	94.9	90	110			
Chloride	4.793	mg/L	0.10	5	0	95.9	90	110			
Nitrogen, Nitrite (As N)	0.9172	mg/L	0.10	1	0	91.7	90	110			
Nitrogen, Nitrate (As N)	2.438	mg/L	0.10	2.5	0	97.5	90	110			
Phosphorus, Orthophosphate (As P)	4.816	mg/L	0.50	5	0	96.3	90	110			
Sulfate	9.772	mg/L	0.50	10	0	97.7	90	110			
Sample ID: LCS		LCS									
						Batch ID: R34961	Analysis Date: 8/18/2009 10:46:30 AM				
Fluoride	0.5198	mg/L	0.10	0.5	0	104	90	110			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E

Work Order: 0908234

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: LCS		LCS				Batch ID: R34961		Analysis Date: 8/18/2009 10:46:30 AM			
Chloride	4.931	mg/L	0.10	5	0	98.6	90	110			
Nitrate (As N)+Nitrite (As N)	3.454	mg/L	0.20	3.5	0	98.7	90	110			
Phosphorus, Orthophosphate (As P)	4.969	mg/L	0.50	5	0	99.4	90	110			
Sulfate	10.03	mg/L	0.50	10	0	100	90	110			
Sample ID: LCS		LCS				Batch ID: R34971		Analysis Date: 8/19/2009 11:45:32 AM			
Fluoride	0.5090	mg/L	0.10	0.5	0	102	90	110			
Chloride	4.761	mg/L	0.10	5	0	95.2	90	110			
Nitrate (As N)+Nitrite (As N)	3.345	mg/L	0.20	3.5	0	95.6	90	110			
Phosphorus, Orthophosphate (As P)	4.812	mg/L	0.50	5	0	96.2	90	110			
Sulfate	9.624	mg/L	0.50	10	0	96.2	90	110			
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: MB-19884		MBLK				Batch ID: 19884		Analysis Date: 8/17/2009			
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Motor Oil Range Organics (MRO)	ND	mg/Kg	50								
Sample ID: LCS-19884		LCS				Batch ID: 19884		Analysis Date: 8/17/2009			
Diesel Range Organics (DRO)	35.66	mg/Kg	10	50	0	71.3	64.6	116			
Sample ID: LCSD-19884		LCSD				Batch ID: 19884		Analysis Date: 8/17/2009			
Diesel Range Organics (DRO)	39.25	mg/Kg	10	50	0	78.5	64.6	116	9.59	17.4	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 0908234-07A MSD		MSD				Batch ID: 19881		Analysis Date: 8/22/2009 1:20:59 AM			
Gasoline Range Organics (GRO)	24.75	mg/Kg	5.0	25	2.92	87.3	69.5	120	6.53	11.6	
Sample ID: MB-19881		MBLK				Batch ID: 19881		Analysis Date: 8/19/2009 4:30:09 AM			
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-19881		LCS				Batch ID: 19881		Analysis Date: 8/22/2009 1:51:16 AM			
Gasoline Range Organics (GRO)	26.50	mg/Kg	5.0	25	0	106	64.4	133			
Sample ID: 0908234-07A MS		MS				Batch ID: 19881		Analysis Date: 8/22/2009 12:50:46 AM			
Gasoline Range Organics (GRO)	26.42	mg/Kg	5.0	25	2.92	94.0	69.5	120			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E

Work Order: 0908234

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: 0908234-07A MSD		MSD		Batch ID: 19881		Analysis Date: 8/22/2009 6:55:04 AM					
Methyl tert-butyl ether (MTBE)	0.9896	mg/Kg	0.10	1	0	99.0	67.9	135	1.49	28	
Benzene	0.9577	mg/Kg	0.050	1	0.0039	95.4	78.8	132	1.46	27	
Toluene	0.9437	mg/Kg	0.050	1	0	94.4	78.9	112	0.734	19	
Ethylbenzene	0.9408	mg/Kg	0.050	1	0	94.1	69.3	125	0.908	10	
Xylenes, Total	2.747	mg/Kg	0.10	3	0	91.6	73	128	0.215	13	
Sample ID: MB-19881		MBLK		Batch ID: 19881		Analysis Date: 8/19/2009 4:30:09 AM					
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.10								
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: LCS-19881		LCS		Batch ID: 19881		Analysis Date: 8/23/2009 4:58:36 AM					
Methyl tert-butyl ether (MTBE)	0.8267	mg/Kg	0.10	1	0	82.7	67.9	135			
Benzene	0.9609	mg/Kg	0.050	1	0.0029	95.8	78.8	132			
Toluene	0.9366	mg/Kg	0.050	1	0	93.7	78.9	112			
Ethylbenzene	0.9119	mg/Kg	0.050	1	0	91.2	69.3	125			
Xylenes, Total	2.702	mg/Kg	0.10	3	0	90.1	73	128			
Sample ID: 0908234-07A MS		MS		Batch ID: 19881		Analysis Date: 8/22/2009 6:24:34 AM					
Methyl tert-butyl ether (MTBE)	0.9750	mg/Kg	0.10	1	0	97.5	67.9	135			
Benzene	0.9438	mg/Kg	0.050	1	0.0039	94.0	78.8	132			
Toluene	0.9368	mg/Kg	0.050	1	0	93.7	78.9	112			
Ethylbenzene	0.9323	mg/Kg	0.050	1	0	93.2	69.3	125			
Xylenes, Total	2.741	mg/Kg	0.10	3	0	91.4	73	128			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E

Work Order: 0908234

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb

MBLK

Batch ID: R34941 Analysis Date: 8/17/2009 8:58:35 AM

Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0
1,2,4-Trimethylbenzene	ND	µg/L	1.0
1,3,5-Trimethylbenzene	ND	µg/L	1.0
1,2-Dichloroethane (EDC)	ND	µg/L	1.0
1,2-Dibromoethane (EDB)	ND	µg/L	1.0
Naphthalene	ND	µg/L	2.0
1-Methylnaphthalene	ND	µg/L	4.0
2-Methylnaphthalene	ND	µg/L	4.0
Acetone	ND	µg/L	10
Bromobenzene	ND	µg/L	1.0
Bromodichloromethane	ND	µg/L	1.0
Bromoform	ND	µg/L	1.0
Bromomethane	ND	µg/L	1.0
2-Butanone	ND	µg/L	10
Carbon disulfide	ND	µg/L	10
Carbon Tetrachloride	ND	µg/L	1.0
Chlorobenzene	ND	µg/L	1.0
Chloroethane	ND	µg/L	2.0
Chloroform	ND	µg/L	1.0
Chloromethane	ND	µg/L	1.0
2-Chlorotoluene	ND	µg/L	1.0
4-Chlorotoluene	ND	µg/L	1.0
cis-1,2-DCE	ND	µg/L	1.0
cis-1,3-Dichloropropene	ND	µg/L	1.0
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0
Dibromochloromethane	ND	µg/L	1.0
Dibromomethane	ND	µg/L	1.0
1,2-Dichlorobenzene	ND	µg/L	1.0
1,3-Dichlorobenzene	ND	µg/L	1.0
1,4-Dichlorobenzene	ND	µg/L	1.0
Dichlorodifluoromethane	ND	µg/L	1.0
1,1-Dichloroethane	ND	µg/L	1.0
1,1-Dichloroethene	ND	µg/L	1.0
1,2-Dichloropropane	ND	µg/L	1.0
1,3-Dichloropropane	ND	µg/L	1.0
2,2-Dichloropropane	ND	µg/L	2.0
1,1-Dichloropropene	ND	µg/L	1.0
Hexachlorobutadiene	ND	µg/L	1.0
2-Hexanone	ND	µg/L	10
Isopropylbenzene	ND	µg/L	1.0
4-Isopropyltoluene	ND	µg/L	1.0

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E

Work Order: 0908234

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 6ml rb

MBLK

Batch ID: R34941 Analysis Date: 8/17/2009 8:58:35 AM

4-Methyl-2-pentanone	ND	µg/L	1.0
Methylene Chloride	ND	µg/L	3.0
n-Butylbenzene	ND	µg/L	1.0
n-Propylbenzene	ND	µg/L	1.0
sec-Butylbenzene	ND	µg/L	1.0
Styrene	ND	µg/L	1.0
tert-Butylbenzene	ND	µg/L	1.0
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0
Tetrachloroethene (PCE)	ND	µg/L	1.0
trans-1,2-DCE	ND	µg/L	1.0
trans-1,3-Dichloropropene	ND	µg/L	1.0
1,2,3-Trichlorobenzene	ND	µg/L	1.0
1,2,4-Trichlorobenzene	ND	µg/L	1.0
1,1,1-Trichloroethane	ND	µg/L	1.0
1,1,2-Trichloroethane	ND	µg/L	1.0
Trichloroethene (TCE)	ND	µg/L	1.0
Trichlorofluoromethane	ND	µg/L	1.0
1,2,3-Trichloropropane	ND	µg/L	2.0
Vinyl chloride	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	1.5

Sample ID: 100ng ics

LCS

Batch ID: R34941 Analysis Date: 8/17/2009 9:54:43 AM

Benzene	22.50	µg/L	1.0	20	0	113	76.7	114
Toluene	20.05	µg/L	1.0	20	0	100	78.4	117
Chlorobenzene	20.10	µg/L	1.0	20	0	100	80.7	127
1,1-Dichloroethene	25.15	µg/L	1.0	20	0	126	80.2	128
Trichloroethene (TCE)	24.23	µg/L	1.0	20	0	121	77.4	115

S

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E

Work Order: 0908234

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 6010B: Dissolved Metals

Sample ID: MB MBLK Batch ID: R34935 Analysis Date: 8/17/2009 3:19:12 PM

Calcium	ND	mg/L	1.0
Magnesium	ND	mg/L	1.0
Potassium	ND	mg/L	1.0
Sodium	ND	mg/L	1.0

Sample ID: MB MBLK Batch ID: R35008 Analysis Date: 8/24/2009 11:08:34 AM

Calcium	ND	mg/L	1.0
Magnesium	ND	mg/L	1.0
Potassium	ND	mg/L	1.0
Sodium	ND	mg/L	1.0

Sample ID: LCS LCS Batch ID: R34935 Analysis Date: 8/17/2009 3:22:13 PM

Calcium	49.11	mg/L	1.0	50.5	0	97.3	80	120
Magnesium	49.11	mg/L	1.0	50.5	0	97.3	80	120
Potassium	52.25	mg/L	1.0	55	0	95.0	80	120
Sodium	48.51	mg/L	1.0	50.5	0	96.1	80	120

Sample ID: LCS LCS Batch ID: R35008 Analysis Date: 8/24/2009 11:11:37 AM

Calcium	51.07	mg/L	1.0	50.5	0.0429	101	80	120
Magnesium	51.62	mg/L	1.0	50.5	0.0213	102	80	120
Potassium	56.10	mg/L	1.0	55	0.1766	102	80	120
Sodium	51.14	mg/L	1.0	50.5	0.0804	101	80	120

Method: EPA Method 6010B: Soil Metals

Sample ID: MB-19887 MBLK Batch ID: 19887 Analysis Date: 8/18/2009 4:55:33 PM

Calcium	ND	mg/Kg	25
Magnesium	ND	mg/Kg	25
Potassium	ND	mg/Kg	50
Sodium	ND	mg/Kg	25

Sample ID: MB-19887 MBLK Batch ID: 19887 Analysis Date: 8/20/2009 12:14:44 PM

Calcium	ND	mg/Kg	25
Magnesium	ND	mg/Kg	25
Potassium	ND	mg/Kg	50
Sodium	ND	mg/Kg	25

Sample ID: LCS-19887 LCS Batch ID: 19887 Analysis Date: 8/18/2009 4:58:37 PM

Calcium	2321	mg/Kg	25	2500	0	92.8	80	120
Magnesium	2336	mg/Kg	25	2500	0	93.5	80	120
Potassium	2508	mg/Kg	50	2500	0	100	80	120
Sodium	2490	mg/Kg	25	2500	0	99.6	80	120

Sample ID: LCS-19887 LCS Batch ID: 19887 Analysis Date: 8/20/2009 12:17:47 PM

Calcium	2440	mg/Kg	25	2500	0	97.6	80	120
Magnesium	2433	mg/Kg	25	2500	0	97.3	80	120
Potassium	2609	mg/Kg	50	2500	15.88	104	80	120
Sodium	2628	mg/Kg	25	2500	0	105	80	120

Qualifiers:

E Estimated value
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **XTO ENERGY**

Date Received:

8/14/2009

Work Order Number **0908234**

Received by: **TLS**

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name: **FedEx**

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☒

No ☐

N/A ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

N/A ☐

Container/Temp Blank temperature?

0.1°

<6° C Acceptable

If given sufficient time to cool.

Number of preserved bottles checked for pH:

2 >12 unless noted below.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

Chain-of-Custody Record

Client: XTB Energy, Inc. by Tetra Tech

Mailing Address: 382 CR-3100

Artec, NM

Phone #: (505) 237-8440 Tetra Tech

email or Fax #: (505) 333-3196-XTB

QA/QC Package: Kelly Blanchard@tetratech.com

☒ Standard ☐ Level 4 (Full Validation)

☐ Other

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Davis GC FH#1E

Project #:

Project Manager: Kelly Blanchard -

Tetra Tech; Martin Nee -

XTB Energy

Sampler: Kelly Blanchard

On-site Analysis: Yes ☐ No

Sample Temperature: 21

HEAT No. 0108234

Date	Time	Matrix	Sample Request ID
8-12-09	1455	Water	B1-GW
8-12-09	1455	Water	B1-GW
8-12-09	1455	Water	B1-GW
8-12-09	1520	Water	B2-GW
8-12-09	1520	Water	B2-GW
8-12-09	1520	Water	B2-GW
8-13-09	9:00	Water	B4-GW
8-13-09	9:00	Water	B4-GW
8-13-09	9:00	Water	B4-GW
8-13-09	9:20	Water	B5-GW
8-13-09	9:20	Water	B5-GW
8-13-09	9:20	Water	B5-GW

Date: 8-13-09 Time: 1630

Relinquished by: Kelly Blanchard

Date: _____ Time: _____

Received by:

[Signature] 8/14/09

Date

Time

Remarks:



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX + MTBE + TMB's (6021)	
BTEX + MTBE + TPH (Gas only)	
TPH Method 8015B (Gas/Diesel)	
TPH (Method 418.1)	
EDB (Method 504.1)	
8310 (PNA or PAH)	
RCRA 8 Metals	
Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	
8081 Pesticides / 8082 PCB's	
8260B (VOA)	
8270 (Semi-VOA)	
Cations	
Nitrate	
Air Bubbles (Y or N)	

COVER LETTER

Thursday, September 17, 2009

Martin Nee
XTO Energy
382 County Road 3100
Aztec, NM 87410

TEL: (505) 333-3100
FAX (505) 333-3280

RE: Davis GC F#1E

Order No.: 0908259

Dear Martin Nee:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 8/17/2009 for the analyses presented in the following report.

This report is an addendum to the report dated August 24, 2009. This is an updated report.

No determination of compounds below these (denoted by the ND or < sign) has been made. Please don't hesitate to contact Hall Environmental for any additional information or clarifications.

Reporting limits are determined by EPA methodology.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,



Andy Freeman, Laboratory Manager



Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

CLIENT: XTO Energy
Project: Davis GC F#1E
Lab Order: 0908259

CASE NARRATIVE

See Corrective Action: [2595] MB for batch 19889 for 300.0 in soil had value for SO4 in blank higher than reporting limit.

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

CLIENT: XTO Energy
Lab Order: 0908259
Project: Davis GC F#1E
Lab ID: 0908259-01

Client Sample ID: Excavation South Bottom (18')
Collection Date: 8/14/2009 9:00:00 AM
Date Received: 8/17/2009
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	80.3	61.7-135		%REC	1	8/18/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/19/2009 1:27:13 AM
Surr: BFB	85.1	58.8-123		%REC	1	8/19/2009 1:27:13 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	8/19/2009 1:27:13 AM
Toluene	ND	0.050		mg/Kg	1	8/19/2009 1:27:13 AM
Ethylbenzene	ND	0.050		mg/Kg	1	8/19/2009 1:27:13 AM
Xylenes, Total	ND	0.10		mg/Kg	1	8/19/2009 1:27:13 AM
Surr: 4-Bromofluorobenzene	91.4	66.8-139		%REC	1	8/19/2009 1:27:13 AM
EPA METHOD 300.0: ANIONS						Analyst: TAF
Fluoride	1.6	1.5		mg/Kg	5	8/17/2009 12:46:28 PM
Chloride	45	1.5		mg/Kg	5	8/17/2009 12:46:28 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 12:46:28 PM
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 12:46:28 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 12:46:28 PM
Sulfate	230	7.5		mg/Kg	5	8/17/2009 12:46:28 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Calcium	2200	25		mg/Kg	1	8/18/2009 6:31:06 PM
Magnesium	900	25		mg/Kg	1	8/18/2009 6:31:06 PM
Potassium	240	50		mg/Kg	1	8/18/2009 6:31:06 PM
Sodium	830	25		mg/Kg	1	8/18/2009 6:31:06 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

CLIENT: XTO Energy

Client Sample ID: Excavation North Wall (15-17')

Lab Order: 0908259

Collection Date: 8/14/2009 2:30:00 PM

Project: Davis GC F#1E

Date Received: 8/17/2009

Lab ID: 0908259-02

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	85.3	61.7-135		%REC	1	8/18/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/19/2009 1:57:33 AM
Surr: BFB	87.2	58.8-123		%REC	1	8/19/2009 1:57:33 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	8/19/2009 1:57:33 AM
Toluene	ND	0.050		mg/Kg	1	8/19/2009 1:57:33 AM
Ethylbenzene	ND	0.050		mg/Kg	1	8/19/2009 1:57:33 AM
Xylenes, Total	ND	0.10		mg/Kg	1	8/19/2009 1:57:33 AM
Surr: 4-Bromofluorobenzene	99.1	66.8-139		%REC	1	8/19/2009 1:57:33 AM
EPA METHOD 300.0: ANIONS						Analyst: TAF
Fluoride	2.0	1.5		mg/Kg	5	8/17/2009 1:21:18 PM
Chloride	630	15		mg/Kg	50	8/17/2009 1:38:42 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 1:21:18 PM
Nitrogen, Nitrate (As N)	3.2	1.5		mg/Kg	5	8/17/2009 1:21:18 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 1:21:18 PM
Sulfate	430	7.5		mg/Kg	5	8/17/2009 1:21:18 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Calcium	2500	25		mg/Kg	1	8/18/2009 6:33:57 PM
Magnesium	850	25		mg/Kg	1	8/18/2009 6:33:57 PM
Potassium	370	50		mg/Kg	1	8/18/2009 6:33:57 PM
Sodium	670	25		mg/Kg	1	8/18/2009 6:33:57 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

CLIENT: XTO Energy
Lab Order: 0908259
Project: Davis GC F#1E
Lab ID: 0908259-03

Client Sample ID: Excavation North Bottom (18')
Collection Date: 8/14/2009 2:45:00 PM
Date Received: 8/17/2009
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	83.6	61.7-135		%REC	1	8/18/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/19/2009 2:28:02 AM
Surr: BFB	86.5	58.8-123		%REC	1	8/19/2009 2:28:02 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	8/19/2009 2:28:02 AM
Toluene	ND	0.050		mg/Kg	1	8/19/2009 2:28:02 AM
Ethylbenzene	ND	0.050		mg/Kg	1	8/19/2009 2:28:02 AM
Xylenes, Total	ND	0.10		mg/Kg	1	8/19/2009 2:28:02 AM
Surr: 4-Bromofluorobenzene	98.2	66.8-139		%REC	1	8/19/2009 2:28:02 AM
EPA METHOD 300.0: ANIONS						Analyst: TAF
Fluoride	1.6	1.5		mg/Kg	5	8/17/2009 1:56:06 PM
Chloride	50	1.5		mg/Kg	5	8/17/2009 1:56:06 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 1:56:06 PM
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 1:56:06 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 1:56:06 PM
Sulfate	180	7.5		mg/Kg	5	8/17/2009 1:56:06 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Calcium	2400	25		mg/Kg	1	8/18/2009 6:42:51 PM
Magnesium	870	25		mg/Kg	1	8/18/2009 6:42:51 PM
Potassium	210	50		mg/Kg	1	8/18/2009 6:42:51 PM
Sodium	330	25		mg/Kg	1	8/18/2009 6:42:51 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

CLIENT: XTO Energy
Lab Order: 0908259
Project: Davis GC F#1E
Lab ID: 0908259-04

Client Sample ID: Excavation D
Collection Date: 8/14/2009 3:00:00 PM
Date Received: 8/17/2009
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/18/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2009
Surr: DNOP	81.9	61.7-135		%REC	1	8/18/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/19/2009 3:28:47 AM
Surr: BFB	83.8	58.8-123		%REC	1	8/19/2009 3:28:47 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	8/19/2009 3:28:47 AM
Toluene	ND	0.050		mg/Kg	1	8/19/2009 3:28:47 AM
Ethylbenzene	ND	0.050		mg/Kg	1	8/19/2009 3:28:47 AM
Xylenes, Total	ND	0.10		mg/Kg	1	8/19/2009 3:28:47 AM
Surr: 4-Bromofluorobenzene	94.9	66.8-139		%REC	1	8/19/2009 3:28:47 AM
EPA METHOD 300.0: ANIONS						Analyst: TAF
Fluoride	ND	1.5		mg/Kg	5	8/17/2009 2:30:55 PM
Chloride	10	1.5		mg/Kg	5	8/17/2009 2:30:55 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	8/17/2009 2:30:55 PM
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	8/17/2009 2:30:55 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	8/17/2009 2:30:55 PM
Sulfate	57	7.5		mg/Kg	5	8/17/2009 2:30:55 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Calcium	2600	25		mg/Kg	1	8/18/2009 6:45:51 PM
Magnesium	700	25		mg/Kg	1	8/18/2009 6:45:51 PM
Potassium	180	50		mg/Kg	1	8/18/2009 6:45:51 PM
Sodium	270	25		mg/Kg	1	8/18/2009 6:45:51 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E

Work Order: 0908259

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB-19889		MBLK									
Batch ID: 19889											Analysis Date: 8/17/2009 12:11:39 PM
Fluoride	ND	mg/Kg	0.30								
Chloride	ND	mg/Kg	0.30								
Nitrogen, Nitrite (As N)	ND	mg/Kg	0.30								
Nitrogen, Nitrate (As N)	ND	mg/Kg	0.30								
Phosphorus, Orthophosphate (As P)	ND	mg/Kg	1.5								
Sulfate	3.201	mg/Kg	1.5								
Sample ID: MB-19889		MBLK									
Batch ID: 19889											Analysis Date: 8/18/2009 2:07:17 AM
Fluoride	ND	mg/Kg	0.30								
Chloride	ND	mg/Kg	0.30								
Nitrogen, Nitrite (As N)	ND	mg/Kg	0.30								
Nitrogen, Nitrate (As N)	ND	mg/Kg	0.30								
Phosphorus, Orthophosphate (As P)	ND	mg/Kg	1.5								
Sulfate	2.985	mg/Kg	1.5								
Sample ID: LCS-19889		LCS									
Batch ID: 19889											Analysis Date: 8/17/2009 12:29:03 PM
Fluoride	1.557	mg/Kg	0.30	1.5	0	104	90	110			
Chloride	14.71	mg/Kg	0.30	15	0	98.0	90	110			
Nitrogen, Nitrite (As N)	2.990	mg/Kg	0.30	3	0	99.7	90	110			
Nitrogen, Nitrate (As N)	7.378	mg/Kg	0.30	7.5	0	98.4	90	110			
Phosphorus, Orthophosphate (As P)	14.57	mg/Kg	1.5	15	0	97.1	90	110			
Sulfate	29.49	mg/Kg	1.5	30	2.985	88.4	90	110			BS
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: MB-19884		MBLK									
Batch ID: 19884											Analysis Date: 8/17/2009
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Motor Oil Range Organics (MRO)	ND	mg/Kg	50								
Sample ID: LCS-19884		LCS									
Batch ID: 19884											Analysis Date: 8/17/2009
Diesel Range Organics (DRO)	35.66	mg/Kg	10	50	0	71.3	64.6	116			
Sample ID: LCSD-19884		LCSD									
Batch ID: 19884											Analysis Date: 8/17/2009
Diesel Range Organics (DRO)	39.25	mg/Kg	10	50	0	78.5	64.6	116	9.59	17.4	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: MB-19898		MBLK									
Batch ID: 19898											Analysis Date: 8/19/2009 5:00:35 AM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-19898		LCS									
Batch ID: 19898											Analysis Date: 8/22/2009 2:21:25 AM
Gasoline Range Organics (GRO)	31.42	mg/Kg	5.0	25	0	126	64.4	133			
Sample ID: LCSD-19898		LCSD									
Batch ID: 19898											Analysis Date: 8/22/2009 2:51:57 AM
Gasoline Range Organics (GRO)	30.88	mg/Kg	5.0	25	0	124	69.5	133	1.73	11.6	

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E

Work Order: 0908259

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: MB-19898		MBLK				Batch ID: 19898		Analysis Date: 8/19/2009 5:00:35 AM			
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.10								
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: LCS-19898		LCS				Batch ID: 19898		Analysis Date: 8/23/2009 5:28:56 AM			
Methyl tert-butyl ether (MTBE)	0.8509	mg/Kg	0.10	1	0	85.1	67.9	135			
Benzene	1.012	mg/Kg	0.050	1	0.0025	101	78.8	132			
Toluene	1.051	mg/Kg	0.050	1	0	105	78.9	112			
Ethylbenzene	1.085	mg/Kg	0.050	1	0	107	69.3	125			
Xylenes, Total	3.166	mg/Kg	0.10	3	0	106	73	128			
Sample ID: LCSD-19898		LCSD				Batch ID: 19898		Analysis Date: 8/23/2009 5:59:28 AM			
Methyl tert-butyl ether (MTBE)	0.8444	mg/Kg	0.10	1	0	84.4	67.9	135	0.767	28	
Benzene	0.9735	mg/Kg	0.050	1	0.0025	97.1	78.8	132	3.83	27	
Toluene	0.9391	mg/Kg	0.050	1	0	93.9	78.9	112	11.3	19	
Ethylbenzene	0.9243	mg/Kg	0.050	1	0	92.4	69.3	125	14.1	10	R
Xylenes, Total	2.724	mg/Kg	0.10	3	0	90.8	73	128	15.0	13	R
Method: EPA Method 6010B: Soil Metals											
Sample ID: 0908259-02BMSD		MSD				Batch ID: 19901		Analysis Date: 8/18/2009 6:39:52 PM			
Calcium	4426	mg/Kg	25	2486	2485	78.1	75	125	3.17	30	
Magnesium	2788	mg/Kg	25	2486	845.5	78.2	75	125	0.858	30	
Potassium	2443	mg/Kg	50	2486	370.1	83.4	75	125	0.772	30	
Sodium	2750	mg/Kg	25	2486	667.7	83.7	75	125	0.626	30	
Sample ID: MB-19901		MBLK				Batch ID: 19901		Analysis Date: 8/18/2009 6:23:20 PM			
Calcium	ND	mg/Kg	25								
Magnesium	ND	mg/Kg	25								
Potassium	ND	mg/Kg	50								
Sodium	ND	mg/Kg	25								
Sample ID: LCS-19901		LCS				Batch ID: 19901		Analysis Date: 8/18/2009 6:26:24 PM			
Calcium	2427	mg/Kg	25	2500	0	97.1	80	120			
Magnesium	2432	mg/Kg	25	2500	0	97.3	80	120			
Potassium	2554	mg/Kg	50	2500	0	102	80	120			
Sodium	2592	mg/Kg	25	2500	0	104	80	120			
Sample ID: 0908259-02BMS		MS				Batch ID: 19901		Analysis Date: 8/18/2009 6:36:53 PM			
Calcium	4568	mg/Kg	25	2474	2485	84.2	75	125			
Magnesium	2812	mg/Kg	25	2474	845.5	79.5	75	125			
Potassium	2462	mg/Kg	49	2474	370.1	84.6	75	125			
Sodium	2767	mg/Kg	25	2474	667.7	84.9	75	125			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Chain-of-Custody Record

Client: XTO Energy

Mailing Address: 382 CR-3100

Phone #: 505-333-3100

email or Fax#: Kelly.blandhard@tetra-tech.com

QA/QC Package:
☒ Standard
☐ Other
☐ EDD (Type) _____

☐ Level 4 (Full Validation)

Turn-Around Time:

Standard Rush 48 hr

Project Name:

DAVIS GC FILE

Project #:

Project Manager: Martin Noel - XTO

Kelly Blandhard - Tetra Tech

Sampler: Kelly Blandhard

On Ice ☐ Yes ☐ No
 Sample Temperature: 33

Container Type and #
 Preservative Type
18" glass jar (2) Cold
18" glass jar (2) Cold
18" glass jar (2) Cold
glass jar (2) Cold

Date	Time	Matrix	Sample Request ID
8-14-09	900	Soil	Excavation South Bottom (18" glass jar (2))
8-14-09	1430	Soil	Excavation North Wall (15-ft) glass jar (2)
8-14-09	1445	Soil	Excavation North Bottom (18" glass jar (2))
8-14-09	1500	Soil	Excavation D



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Cations	Air Bubbles (Y or N)
X	X	X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	X	X	X	X	

Received by: Kelly Blandhard Date: 8-16-09 Time: 1340

Relinquished by: Kelly Blandhard Date: 8-16-09 Time: 1340

Received by: Kelly Blandhard Date: 8-17-09 Time: 8:38

Relinquished by: Kelly Blandhard Date: 8-17-09 Time: 8:38

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

COVER LETTER

Thursday, September 17, 2009

Martin Nee
XTO Energy
382 County Road 3100
Aztec, NM 87410

TEL: (505) 333-3100

FAX (505) 333-3280

RE: Davis GC F#1E

Order No.: 0908316

Dear Martin Nee:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 8/19/2009 for the analyses presented in the following report.

This report is an addendum to the report dated August 28, 2009. This is an updated report.

No determination of compounds below these (denoted by the ND or < sign) has been made. Please don't hesitate to contact Hall Environmental for any additional information or clarifications.

Reporting limits are determined by EPA methodology.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,



Andy Freeman, Laboratory Manager



Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

CLIENT: XTO Energy
Lab Order: 0908316
Project: Davis GC F#1E
Lab ID: 0908316-01

Client Sample ID: Excavation East Wall (12-17)
Collection Date: 8/17/2009 11:00:00 AM
Date Received: 8/19/2009
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/21/2009 5:50:04 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/21/2009 5:50:04 AM
Surr: DNOP	77.6	61.7-135		%REC	1	8/21/2009 5:50:04 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/23/2009 10:46:14 PM
Surr: BFB	86.0	65.9-118		%REC	1	8/23/2009 10:46:14 PM
EPA METHOD 300.0: ANIONS						Analyst: TAF
Fluoride	0.69	0.30		mg/Kg	1	8/21/2009 7:46:31 AM
Chloride	5.1	0.30		mg/Kg	1	8/21/2009 7:46:31 AM
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	8/21/2009 7:46:31 AM
Nitrogen, Nitrate (As N)	0.33	0.30		mg/Kg	1	8/21/2009 7:46:31 AM
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	8/21/2009 7:46:31 AM
Sulfate	570	75		mg/Kg	50	8/21/2009 8:03:55 AM
EPA METHOD 6010B: SOIL METALS						Analyst: TES
Calcium	2600	25		mg/Kg	1	8/26/2009 12:13:33 PM
Magnesium	670	25		mg/Kg	1	8/26/2009 12:13:33 PM
Potassium	280	50		mg/Kg	1	8/26/2009 12:13:33 PM
Sodium	160	25		mg/Kg	1	8/26/2009 12:13:33 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	8/24/2009 2:36:37 PM
Toluene	ND	0.050		mg/Kg	1	8/24/2009 2:36:37 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/24/2009 2:36:37 PM
Xylenes, Total	ND	0.10		mg/Kg	1	8/24/2009 2:36:37 PM
Surr: 4-Bromofluorobenzene	97.1	84.7-111		%REC	1	8/24/2009 2:36:37 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Sep-09

CLIENT: XTO Energy
Lab Order: 0908316
Project: Davis GC F#1E
Lab ID: 0908316-02

Client Sample ID: Excavation GW2
Collection Date: 8/19/2009 8:40:00 AM
Date Received: 8/19/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/20/2009 9:25:38 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/20/2009 9:25:38 PM
Surr: DNOP	108	58-140		%REC	1	8/20/2009 9:25:38 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/24/2009 1:49:05 AM
Surr: BFB	81.7	55.2-107		%REC	1	8/24/2009 1:49:05 AM
EPA METHOD 300.0: ANIONS						Analyst: TAF
Fluoride	0.44	0.10		mg/L	1	8/19/2009 9:02:38 PM
Chloride	590	5.0		mg/L	50	8/21/2009 9:13:34 AM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	8/19/2009 9:54:51 PM
Nitrogen, Nitrate (As N)	3.3	0.10		mg/L	1	8/19/2009 9:02:38 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/20/2009 2:04:30 PM
Sulfate	2200	25		mg/L	50	8/21/2009 9:13:34 AM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: IC
Calcium	550	10		mg/L	10	8/24/2009 12:22:18 PM
Magnesium	71	1.0		mg/L	1	8/24/2009 11:26:27 AM
Potassium	6.3	1.0		mg/L	1	8/24/2009 11:26:27 AM
Sodium	630	10		mg/L	10	8/24/2009 12:22:18 PM
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	1.0		µg/L	1	8/20/2009 2:56:47 PM
Toluene	ND	1.0		µg/L	1	8/20/2009 2:56:47 PM
Ethylbenzene	ND	1.0		µg/L	1	8/20/2009 2:56:47 PM
Xylenes, Total	ND	1.5		µg/L	1	8/20/2009 2:56:47 PM
Surr: 1,2-Dichloroethane-d4	97.2	54.6-141		%REC	1	8/20/2009 2:56:47 PM
Surr: 4-Bromofluorobenzene	101	60.1-133		%REC	1	8/20/2009 2:56:47 PM
Surr: Dibromofluoromethane	103	78.5-130		%REC	1	8/20/2009 2:56:47 PM
Surr: Toluene-d8	99.4	79.5-126		%REC	1	8/20/2009 2:56:47 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E

Work Order: 0908316

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: 0908316-01BMSD			MSD			Batch ID:	19925	Analysis Date:	8/21/2009 8:38:45 AM		
Fluoride	1.956	mg/Kg	0.30	1.5	0.6912	84.3	50	150	0.847	20	
Chloride	20.55	mg/Kg	0.30	15	5.127	103	53.9	146	0.162	20	
Nitrogen, Nitrite (As N)	3.033	mg/Kg	0.30	3	0	101	74.9	116	2.62	20	
Nitrogen, Nitrate (As N)	7.597	mg/Kg	0.30	7.5	0.3267	96.9	71.4	132	2.63	20	
Phosphorus, Orthophosphate (As P)	10.89	mg/Kg	1.5	15	0	72.6	50	150	4.50	20	
Sample ID: MB-19925			MBLK			Batch ID:	19925	Analysis Date:	8/21/2009 7:11:42 AM		
Fluoride	ND	mg/Kg	0.30								
Chloride	ND	mg/Kg	0.30								
Nitrogen, Nitrite (As N)	ND	mg/Kg	0.30								
Nitrogen, Nitrate (As N)	ND	mg/Kg	0.30								
Phosphorus, Orthophosphate (As P)	ND	mg/Kg	1.5								
Sulfate	ND	mg/Kg	1.5								
Sample ID: LCS-19925			LCS			Batch ID:	19925	Analysis Date:	8/21/2009 7:29:07 AM		
Fluoride	1.508	mg/Kg	0.30	1.5	0	101	90	110			
Chloride	15.18	mg/Kg	0.30	15	0	101	90	110			
Nitrogen, Nitrite (As N)	3.120	mg/Kg	0.30	3	0	104	90	110			
Nitrogen, Nitrate (As N)	7.533	mg/Kg	0.30	7.5	0	100	90	110			
Phosphorus, Orthophosphate (As P)	14.73	mg/Kg	1.5	15	0	98.2	90	110			
Sulfate	30.09	mg/Kg	1.5	30	0	100	90	110			
Sample ID: 0908316-01BMS			MS			Batch ID:	19925	Analysis Date:	8/21/2009 8:21:20 AM		
Fluoride	1.940	mg/Kg	0.30	1.5	0.6912	83.2	50	150			
Chloride	20.58	mg/Kg	0.30	15	5.127	103	53.9	146			
Nitrogen, Nitrite (As N)	3.113	mg/Kg	0.30	3	0	104	74.9	116			
Nitrogen, Nitrate (As N)	7.791	mg/Kg	0.30	7.5	0.3267	99.5	71.4	132			
Phosphorus, Orthophosphate (As P)	11.39	mg/Kg	1.5	15	0	75.9	50	150			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E

Work Order: 0908316

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	--------	---------	------	----------	-----------	------	----------	------

Method: EPA Method 300.0: Anions

Sample ID: MB

MBLK

Batch ID: R34971 Analysis Date: 8/19/2009 11:28:08 AM

Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrogen, Nitrite (As N)	ND	mg/L	0.10								
Nitrogen, Nitrate (As N)	ND	mg/L	0.10								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								

Sample ID: MB

MBLK

Batch ID: R34983 Analysis Date: 8/20/2009 2:56:44 PM

Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrogen, Nitrite (As N)	ND	mg/L	0.10								
Nitrogen, Nitrate (As N)	ND	mg/L	0.10								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								

Sample ID: LCS

LCS

Batch ID: R34971 Analysis Date: 8/19/2009 11:45:32 AM

Fluoride	0.5090	mg/L	0.10	0.5	0	102	90	110			
Chloride	4.761	mg/L	0.10	5	0	95.2	90	110			
Nitrogen, Nitrite (As N)	0.9067	mg/L	0.10	1	0	90.7	90	110			
Nitrogen, Nitrate (As N)	2.438	mg/L	0.10	2.5	0	97.5	90	110			
Phosphorus, Orthophosphate (As P)	4.812	mg/L	0.50	5	0	96.2	90	110			
Sulfate	9.624	mg/L	0.50	10	0	96.2	90	110			

Sample ID: LCS

LCS

Batch ID: R34983 Analysis Date: 8/20/2009 3:14:09 PM

Fluoride	0.4961	mg/L	0.10	0.5	0	99.2	90	110			
Chloride	4.912	mg/L	0.10	5	0	98.2	90	110			
Nitrogen, Nitrite (As N)	1.019	mg/L	0.10	1	0	102	90	110			
Nitrogen, Nitrate (As N)	2.439	mg/L	0.10	2.5	0	97.6	90	110			
Phosphorus, Orthophosphate (As P)	4.818	mg/L	0.50	5	0	96.4	90	110			
Sulfate	9.842	mg/L	0.50	10	0	98.4	90	110			

Method: EPA Method 8015B: Diesel Range Organics

Sample ID: MB-19914

MBLK

Batch ID: 19914 Analysis Date: 8/20/2009 6:56:37 AM

Diesel Range Organics (DRO)	ND	mg/Kg	10								
Motor Oil Range Organics (MRO)	ND	mg/Kg	50								

Sample ID: LCS-19914

LCS

Batch ID: 19914 Analysis Date: 8/20/2009 7:32:41 AM

Diesel Range Organics (DRO)	37.47	mg/Kg	10	50	0	74.9	64.6	116			
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Sample ID: LCSD-19914

LCSD

Batch ID: 19914 Analysis Date: 8/20/2009 8:08:41 AM

Diesel Range Organics (DRO)	37.88	mg/Kg	10	50	0	75.8	64.6	116	1.09	17.4	
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Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E

Work Order: 0908316

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range											
Sample ID: MB-19924		MBLK									
Diesel Range Organics (DRO)	ND	mg/L	1.0								
Motor Oil Range Organics (MRO)	ND	mg/L	5.0								
Sample ID: LCS-19924		LCS									
Diesel Range Organics (DRO)	4.378	mg/L	1.0	5	0	87.6	74	157			
Sample ID: LCSD-19924		LCSD									
Diesel Range Organics (DRO)	4.502	mg/L	1.0	5	0	90.0	74	157	2.78	23	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: MB-19923		MBLK									
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-19923		LCS									
Gasoline Range Organics (GRO)	30.53	mg/Kg	5.0	25	3.82	107	64.4	133			
Method: EPA Method 8015B: Gasoline Range											
Sample ID: b 17		MBLK									
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 2.5UG GRO LCS		LCS									
Gasoline Range Organics (GRO)	0.5046	mg/L	0.050	0.5	0	101	80	115			
Sample ID: 2.5UG GRO LCSD		LCSD									
Gasoline Range Organics (GRO)	0.5182	mg/L	0.050	0.5	0	104	80	115	2.66	8.39	
Method: EPA Method 8260B: Volatiles Short List											
Sample ID: 0908316-01a msd		MSD									
Benzene	1.058	mg/Kg	0.050	1	0	106	83.2	118	1.23	19	
Toluene	0.9718	mg/Kg	0.050	1	0	97.2	84.8	112	4.71	0	
Sample ID: mb-19923		MBLK									
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.050								
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: lcs-19923		LCS									
Benzene	1.100	mg/Kg	0.050	1	0	110	78.2	123			
Toluene	0.9760	mg/Kg	0.050	1	0	97.6	72.6	128			
Sample ID: 0908316-01a ms		MS									
Benzene	1.045	mg/Kg	0.050	1	0	105	83.2	118			
Toluene	0.9271	mg/Kg	0.050	1	0	92.7	84.8	112			

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
 Project: Davis GC F#1E

Work Order: 0908316

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb

MBLK

Batch ID: R34985 Analysis Date: 8/20/2009 9:03:32 AM

Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0
1,2,4-Trimethylbenzene	ND	µg/L	1.0
1,3,5-Trimethylbenzene	ND	µg/L	1.0
1,2-Dichloroethane (EDC)	ND	µg/L	1.0
1,2-Dibromoethane (EDB)	ND	µg/L	1.0
Naphthalene	ND	µg/L	2.0
1-Methylnaphthalene	ND	µg/L	4.0
2-Methylnaphthalene	ND	µg/L	4.0
Acetone	ND	µg/L	10
Bromobenzene	ND	µg/L	1.0
Bromodichloromethane	ND	µg/L	1.0
Bromoform	ND	µg/L	1.0
Bromomethane	ND	µg/L	1.0
2-Butanone	ND	µg/L	10
Carbon disulfide	ND	µg/L	10
Carbon Tetrachloride	ND	µg/L	1.0
Chlorobenzene	ND	µg/L	1.0
Chloroethane	ND	µg/L	2.0
Chloroform	ND	µg/L	1.0
Chloromethane	ND	µg/L	1.0
2-Chlorotoluene	ND	µg/L	1.0
4-Chlorotoluene	ND	µg/L	1.0
cis-1,2-DCE	ND	µg/L	1.0
cis-1,3-Dichloropropene	ND	µg/L	1.0
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0
Dibromochloromethane	ND	µg/L	1.0
Dibromomethane	ND	µg/L	1.0
1,2-Dichlorobenzene	ND	µg/L	1.0
1,3-Dichlorobenzene	ND	µg/L	1.0
1,4-Dichlorobenzene	ND	µg/L	1.0
Dichlorodifluoromethane	ND	µg/L	1.0
1,1-Dichloroethane	ND	µg/L	1.0
1,1-Dichloroethene	ND	µg/L	1.0
1,2-Dichloropropane	ND	µg/L	1.0
1,3-Dichloropropane	ND	µg/L	1.0
2,2-Dichloropropane	ND	µg/L	2.0
1,1-Dichloropropene	ND	µg/L	1.0
Hexachlorobutadiene	ND	µg/L	1.0
2-Hexanone	ND	µg/L	10
Isopropylbenzene	ND	µg/L	1.0
4-Isopropyltoluene	ND	µg/L	1.0

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E

Work Order: 0908316

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb MBLK Batch ID: R34985 Analysis Date: 8/20/2009 9:03:32 AM

4-Methyl-2-pentanone	ND	µg/L	10
Methylene Chloride	ND	µg/L	3.0
n-Butylbenzene	ND	µg/L	1.0
n-Propylbenzene	ND	µg/L	1.0
sec-Butylbenzene	ND	µg/L	1.0
Styrene	ND	µg/L	1.0
tert-Butylbenzene	ND	µg/L	1.0
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0
Tetrachloroethene (PCE)	ND	µg/L	1.0
trans-1,2-DCE	ND	µg/L	1.0
trans-1,3-Dichloropropene	ND	µg/L	1.0
1,2,3-Trichlorobenzene	ND	µg/L	1.0
1,2,4-Trichlorobenzene	ND	µg/L	1.0
1,1,1-Trichloroethane	ND	µg/L	1.0
1,1,2-Trichloroethane	ND	µg/L	1.0
Trichloroethene (TCE)	ND	µg/L	1.0
Trichlorofluoromethane	ND	µg/L	1.0
1,2,3-Trichloropropane	ND	µg/L	2.0
Vinyl chloride	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	1.5

Sample ID: 100ng lcsb LCS Batch ID: R34985 Analysis Date: 8/20/2009 10:59:43 AM

Benzene	21.90	µg/L	1.0	20	0	109	76.7	114
Toluene	20.89	µg/L	1.0	20	0	104	78.4	117
Chlorobenzene	20.75	µg/L	1.0	20	0	104	80.7	127
1,1-Dichloroethene	23.68	µg/L	1.0	20	0	118	80.2	128
Trichloroethene (TCE)	21.53	µg/L	1.0	20	0	108	77.4	115

Method: EPA Method 6010B: Dissolved Metals

Sample ID: MB MBLK Batch ID: R35008 Analysis Date: 8/24/2009 11:08:34 AM

Calcium	ND	mg/L	1.0
Magnesium	ND	mg/L	1.0
Potassium	ND	mg/L	1.0
Sodium	ND	mg/L	1.0

Sample ID: LCS LCS Batch ID: R36008 Analysis Date: 8/24/2009 11:11:37 AM

Calcium	51.07	mg/L	1.0	50.5	0.0429	101	80	120
Magnesium	51.62	mg/L	1.0	50.5	0.0213	102	80	120
Potassium	56.10	mg/L	1.0	55	0.1766	102	80	120
Sodium	51.14	mg/L	1.0	50.5	0.0804	101	80	120

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Davis GC F#1E

Work Order: 0908316

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 6010B: Soil Metals

Sample ID: MB-19929

MBLK

Batch ID: 19929 Analysis Date: 8/26/2009 12:30:39 PM

Calcium	ND	mg/Kg	25								
Magnesium	ND	mg/Kg	25								
Potassium	ND	mg/Kg	50								
Sodium	ND	mg/Kg	25								

Sample ID: LCS-19929

LCS

Batch ID: 19929 Analysis Date: 8/26/2009 12:33:41 PM

Calcium	2562	mg/Kg	25	2500	0	102	80	120			
Magnesium	2482	mg/Kg	25	2500	0	99.3	80	120			
Potassium	2633	mg/Kg	50	2500	11.11	105	80	120			
Sodium	2601	mg/Kg	25	2500	0	104	80	120			

Qualifiers:

E Estimated value
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **XTO ENERGY**

Date Received: **8/19/2009**

Work Order Number **0908316**

Received by: **ARS**

Checklist completed by: _____

Signature

Date

Sample ID labels checked by: _____

Initials

Matrix: _____

Carrier name: Client drop-off

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Present ☐

Not Shipped ☒

Custody seals intact on sample bottles?

Yes ☒

No ☐

N/A ☐

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☒

No ☐

N/A ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

N/A ☐

Container/Temp Blank temperature?

3.9°

<6° C Acceptable

If given sufficient time to cool.

Number of preserved bottles checked for pH:

2
<2 > 12 unless noted below.

COMMENTS:

Client contacted _____

Date contacted: _____

Person contacted _____

Contacted by: _____

Regarding: _____

Comments: _____

Corrective Action _____

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, March 18, 2008 4:58 PM
To: Jones, Brad A., EMNRD
Subject: FW: Naptha Unit Leak Bloomfield Refinery (GW-1)
Attachments: IMG_0804.jpg

FYI.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
(Pollution Prevention Guidance is under "Publications")

From: Randy Schmaltz [mailto:Randy.Schmaltz@wnr.com]
Sent: Tuesday, March 18, 2008 4:26 PM
To: Chavez, Carl J, EMNRD
Subject: RE: Naptha Unit Leak Bloomfield Refinery (GW-1)

Carl,

The spill was less than two barrels of mostly water and some Naphtha. It occurred in the tank farm, it was on a line at the water draw sump of Tank #19 (picture enclosed). We did not send C-141 as the spill was below the OCD five barrel reportable quantity.

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Tuesday, March 18, 2008 4:01 PM
To: Randy Schmaltz
Cc: Price, Wayne, EMNRD
Subject: Naptha Unit Leak Bloomfield Refinery (GW-1)

Randy:

I received word that there is a leak at the Naptha Unit and contaminated soils are being removed for disposal. I do not recall receiving a C-141 for this kind of release? Can you update me on the Naptha leak? Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
(Pollution Prevention Guidance is under "Publications")

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