GW - 001

C-141s

(5 of 7)

BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

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

RON CURRY
Secretary

SARAH COTTRELL
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 30, 2010

Mr. Randy Schmaltz
Environmental Manager
Western Refining, Southwest, Inc.
Bloomfield Refinery
P.O. Box 159
Bloomfield, New Mexico 87413

RE: NEWLY SURFACED GROUNDWATER DATA SUMMARY LETTER
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 (Western) *Newly Surfaced Groundwater Data Summary* letter dated July 22, 2010. The letter summarizes the discovery of surface water containing residual levels of benzene north of the Raw Water Ponds.

In response to the "Proposed Actions" described on page two, Western may cease pumping at the east Fork area. In place of the "Proposed Actions," Western must collect one surface water sample the week before the irrigation ditch company turns off the water to the Hammond Ditch; as well as collect one surface water sample at two, six, and ten weeks after the irrigation ditch company discontinues releasing water to the Hammond Ditch. The surface water samples must be analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tert-Butyl Ether (MTBE) using EPA Method 8021B or 8260 and General Chemistry (major cations/anions, nitrates/nitrites, carbonate). If a surface water sample can be collected at the six week interval, the sample must also be analyzed for gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) using EPA Method 8015. In addition, Western must also collect groundwater elevation measurements from monitoring wells MW-1, MW-50,

and MW-51 at the intervals specified above.

Western must submit a letter (similar to the July 22, 2010 letter) to NMED and the Oil Conservation Division (OCD) on or before February 15, 2011 that summarizes Western's findings. The letter must include the analytical laboratory reports, and all groundwater elevation measurements obtained in 2010, and any proposed future activities for this area.

If you have any questions regarding this letter, please contact Hope Monzeglio of my staff at (505) 476-6045.

Sincerely,

John Kieling
Program Manager
Permits Management Program
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
H. Monzeglio, NMED HWB
C. Chavez, OCD
A. Hains, Western
File: HWB-WRB-MISC and Reading File 2010

July 22, 2010

Ms. Hope Monzeglio
New Mexico Environmental Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Mr. Carl Chavez
State of New Mexico Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, NM 87505

Re: Western Refining Southwest, Inc. – Bloomfield Refinery
Newly Surfaced Groundwater Data Summary

Dear Ms. Monzeglio and Mr. Chavez:

Western Refining Southwest, Inc. – Bloomfield Refinery (Bloomfield) is providing New Mexico Environmental Department (NMED) and Oil Conservation Division (OCD) a summary of the activities performed and data collected to date that pertains to the newly surfaced groundwater location identified in May 2010.

Discovery Summary

On Wednesday, May 19th 2010 during the bi-monthly visual inspections of the area north of the Refinery, Bloomfield identified a new area where groundwater had surfaced. This new area is located north of the raw water ponds within an arroyo along the north side of the Hammond Ditch. Bloomfield has identified this area as the "East Fork" area based on its location within the arroyo. **Figure 1** includes an aerial photo identifying the approximate location of the East Fork area.

A sample of the surface water was collected on the day of discovery and analyzed for BTEX and MTBE by EPA method 8260. The results were received on May 26, 2010 and indicated a detected benzene concentration of 110 ug/L. All other analytes were non-detect. Bloomfield collected confirmation split samples on May 26, 2010 which were sent to Envirotech Analytical Laboratory (Envirotech) and Hall Environmental Analysis Laboratory (HEAL) for BTEX analysis. The split samples from Envirotech and HEAL detected benzene concentrations of 167 ug/L and 120 ug/L, respectively. All other analytes for the two split samples were non-detect.

On Tuesday, June 1, 2010 following receipt of the confirmation sample results, Bloomfield notified New Mexico Environment Department (NMED) Hazardous Waste Bureau and New Mexico Oil Conservation Division (NMOCD) via e-mail of the recent

developments regarding discovery of the new surface water in the East Fork area and immediate actions taken upon discovery.

Response Action Taken

Immediately following confirmation of the benzene results, Bloomfield installed a catchment system to catch the surfacing groundwater at the East Fork area. The system consists of a trough and pump, which transports the captured groundwater to the Refinery's waste water treatment system. The catchment system has remained operational since it was installed the first week of June 2010.

In addition, samples have been collected of the surfaced groundwater at the East Fork area on a weekly basis since May 26, 2010. The samples were analyzed for BTEX and MTBE by EPA Method 8260. At NMED's request as stated in an e-mail from Hope Monzeglio dated June 3, 2010, samples collected on June 3, 2010 were also analyzed for TPH-DRO, TPH-GRO, and TPH-MRO. **Table 1** attached provides a summary of the BTEX analytical results collected to-date. A copy of the respective analytical reports is provided in **Attachment A**. The chromatograms for the TPH and benzene results are provided in **Attachment B**.

The source of the newly surfaced groundwater at the East Fork area is not explicitly known. During visual inspection of the possible sources in the area, visually evident cracks were noticed in the concrete lining of the Hammond ditch. It is possible that the evident cracks in the Hammond ditch liner may be a significant hydraulic contributor to groundwater in this area. As requested by NMED in an e-mail dated June 3rd, 2010, groundwater elevations were collected from monitoring wells nearest the area of the East Fork area (MW-1, MW-50, and MW-51). Groundwater elevations measurements were collected in 2010 prior to the Hammond Ditch coming on-line (prior to April 15th, 2010), and after the Hammond Ditch was put into service (after April 15th, 2010). The average groundwater elevation increased after the Hammond Ditch was placed into service by approximately 0.18 ft. A summary of the groundwater elevations measurements collected are attached (**Table 2**).

Proposed Actions

The benzene concentrations at the newly identified groundwater surface location (East Fork area) have progressively decreased since May 26, 2010. Detected benzene concentrations have been below the WQCC screening level of 10 ug/L since June 3rd, 2010, and below the EPA Maximum Contaminant Level (MCL) of 5 ug/L since June 16th, 2010 (Refer to **Table 1** for the analytical summary trend).

Bloomfield proposes that the pumping cease at the East Fork area, thus allowing the surfaced groundwater to continue to promote vegetative growth in this area. Bloomfield also proposes to continue sampling the newly surfaced groundwater weekly through August 2010 and monthly thereafter through October 2010, at which time the flow in the Hammond ditch will have ceased due to the end of the irrigation season. Bloomfield will then re-evaluate the conditions of this area.

If you have any questions or would like to further discuss this topic, please contact me at (505) 632-4171.

Sincerely,

James R. Schmaltz
Environmental Manager
Western Refining Southwest, Inc.
Bloomfield Refinery

cc: Hope Monzeglio – NMED HWB
Dave Cobrain – NMED HWB
Carl Chavez – NMOCD (w/attachment)
Allen Hains – Western Refining El Paso

FIGURE

FIGURE 1
East Fork Area Location Map

TABLES

TABLE 1
Analytical Results for Newly Surfaced Groundwater Location (Sample ID = East Fork)

	Units	Screening Level		Date of Sample Collection								
				5/19/2010	5/26/2010	5/26/2010 (5)	6/3/2010	6/8/2010	6/16/2010	6/29/2010	7/1/20010	7/8/2010
Benzene	ug/L	5	(2)	110	120	167	9.6	5.2	3.4	1.6	2.3	2.0
Toluene	ug/L	750	(3)	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/L	700	(2)	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MTBE	ug/L	12	(1)	<1.0	<1.0	na	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes	ug/L	620	(3)	<2.0	<2.0	<0.2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
TPH-DRO	mg/L	1.34	(4)	ns	ns	ns	<0.20	ns	ns	ns	ns	ns
TPH-MRO	mg/L	-		ns	ns	ns	<2.5	ns	ns	ns	ns	ns
TPH-GRO	mg/L	1.34	(4)	ns	ns	ns	<0.05	ns	ns	ns	ns	ns

Notes:

(1) EPA Regional Screening Level (April 2009) - EPA Regional Screening Level Tap Water
(2) EPA - Regional Screening Level (April 2009) - MCL
(3) NMED WQCC Standards - Title 20 Chapter 6 Part 2 - 20.6.2.3101 Standards for Groundwater of 10,000 mg/L TDS Concentration or Less.
(4) NMED TPH Screening Guidelines October 2006 - #3 and #6 fuel oil.
(5) Split sample analyzed by Envirotech Analytical Labororatory.

TABLE 2
Groundwater Elevation Measurement Summary - Near East Fork Area

	MW-1	MW-50	MW-51	
TOC Elevation (ft amsl) ->	*5519.21*	*5518.794*	*5515.583*	
2/23/2010	5501.92	--	5500.79	Hammond Ditch Off-Line
3/10/2010	5501.90	5501.76	5500.75	
4/6/2010	5501.95	5501.88	5500.81	
5/10/2010	5502.10	--	5500.94	Hammond Ditch On-Line
6/7/2010	5502.12	5501.99	5500.97	

2010	MW-1	MW-50	MW-51
Avg Groundwater Elevation -> *(with Hammond Ditch Off-Line)*	5501.92	5501.82	5500.79
Avg Groundwater Elevation -> *(with Hammond Ditch On-Line)*	5502.11	5501.99	5500.96
Average Elevation Difference:	**0.19**	**0.17**	**0.17**

Historic Data	MW-50	MW-51
10/28/2008	5502.14	5501.00
1/8/2009	5501.62	5500.65

ATTACHMENT A
Analytical Reports

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, May 25, 2010

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: 5-19-10 Drainage North of TK#38

Order No.: 1005560

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 5/20/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

FOR Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc.

Date: *25-May-10*

CLIENT: Western Refining Southwest, Inc.
Project: 5-19-10 Drainage North of TK#38

Lab Order: 1005560

Lab ID: 1005560-01 **Collection Date:** 5/19/2010 2:15:00 PM
Client Sample ID: West Fork **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: HL
Benzene	ND	1.0		µg/L	1	5/20/2010 5:23:50 PM
Toluene	ND	1.0		µg/L	1	5/20/2010 5:23:50 PM
Ethylbenzene	ND	1.0		µg/L	1	5/20/2010 5:23:50 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/20/2010 5:23:50 PM
Xylenes, Total	ND	2.0		µg/L	1	5/20/2010 5:23:50 PM

Lab ID: 1005560-02 **Collection Date:** 5/19/2010 2:25:00 PM
Client Sample ID: East Fork **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: HL
Benzene	110	5.0		µg/L	5	5/21/2010 6:03:59 PM
Toluene	ND	1.0		µg/L	1	5/20/2010 6:52:11 PM
Ethylbenzene	ND	1.0		µg/L	1	5/20/2010 6:52:11 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/20/2010 6:52:11 PM
Xylenes, Total	ND	2.0		µg/L	1	5/20/2010 6:52:11 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: 5-19-10 Drainage North of TK#38 **Work Order:** 1005560

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260: Volatiles Short List											
Sample ID: 1005560-01a msd		*MSD*				Batch ID:	R38830	Analysis Date:		5/20/2010 6:22:54 PM	
Benzene	20.31	µg/L	1.0	20	0	102	72.4	126	0.138	20	
Toluene	21.54	µg/L	1.0	20	0	108	79.2	115	1.72	20	
Sample ID: 5ml rb		*MBLK*				Batch ID:	R38830	Analysis Date:		5/20/2010 8:45:56 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								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 5ml rb		*MBLK*				Batch ID:	R38844	Analysis Date:		5/21/2010 8:57:02 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								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 5ml rb		*MBLK*				Batch ID:	R38830	Analysis Date:		5/20/2010 8:45:56 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								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 100ng lcs		*LCS*				Batch ID:	R38830	Analysis Date:		5/20/2010 10:54:22 AM	
Benzene	20.06	µg/L	1.0	20	0	100	82.4	116			
Toluene	22.33	µg/L	1.0	20	0	112	89.5	123			
Sample ID: 100ng lcs		*LCS*				Batch ID:	R38844	Analysis Date:		5/21/2010 10:19:50 AM	
Benzene	18.82	µg/L	1.0	20	0	94.1	82.4	116			
Toluene	21.74	µg/L	1.0	20	0	109	89.5	123			
Sample ID: 100ng lcs		*LCS*				Batch ID:	R38830	Analysis Date:		5/20/2010 10:54:22 AM	
Benzene	20.06	µg/L	1.0	20	0	100	82.4	116			
Toluene	22.33	µg/L	1.0	20	0	112	89.5	123			
Sample ID: 1005560-01a ms		*MS*				Batch ID:	R38830	Analysis Date:		5/20/2010 5:53:38 PM	
Benzene	20.28	µg/L	1.0	20	0	101	72.4	126			
Toluene	21.91	µg/L	1.0	20	0	110	79.2	115			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING SOUT** Date Received: 5/20/2010

Work Order Number 1005560 Received by: TLS

Checklist completed by: _____ 5/20/10 Sample ID labels checked by: _____

Signature Date Initials

Matrix: Carrier name: UPS

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 ☐		Number of preserved bottles checked for pH:
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 ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**4.0°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

_____

_____

_____

_____

Corrective Action _____

_____

_____

Chain-of-Custody Record

Client: Western Refining

Mailing Address: #50 CR 4990
Bloomfield, NM 87413

Phone #: 505-632-4161

email or Fax#: 505-632-3911

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: 5-19-10
DRAINAGE North of TK# 38

Project #:

Project Manager:

Sampler: Cindy & Bob

On Ice: ☒ Yes ☐ No

Sample Temperature: 4.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No 1005360	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) BTEX, MTBE only	8270 (Semi-VOA)					Air Bubbles (Y or N)
5-19-10	2:15	H_2O	West Fork	3-VOA	HCl	1										X						
5-19-10	2:25	H_2O	East Fork	3-VOA	HCl	2										X						

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
5-19-10	3:00	Robert Knabow		5/20/10	1015	
Date:	Time:	Relinquished by:	Received by:	Date	Time	

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.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Wednesday, June 02, 2010

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: Drainage North of TK#38 5-26-10

Order No.: 1005835

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 5/27/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: *02-Jun-10*

CLIENT: Western Refining Southwest, Inc. **Lab Order:** 1005835
Project: Drainage North of TK#38 5-26-10

Lab ID: 1005835-01 **Collection Date:** 5/26/2010 1:05:00 PM
Client Sample ID: West Fork **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: DAM
Benzene	ND	1.0		µg/L	1	5/28/2010 10:37:23 AM
Toluene	ND	1.0		µg/L	1	5/28/2010 10:37:23 AM
Ethylbenzene	ND	1.0		µg/L	1	5/28/2010 10:37:23 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/28/2010 10:37:23 AM
Xylenes, Total	ND	2.0		µg/L	1	5/28/2010 10:37:23 AM

Lab ID: 1005835-02 **Collection Date:** 5/26/2010 12:50:00 PM
Client Sample ID: East Fork **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: DAM
Benzene	120	10		µg/L	10	5/28/2010 11:05:28 AM
Toluene	ND	1.0		µg/L	1	5/28/2010 11:33:35 AM
Ethylbenzene	ND	1.0		µg/L	1	5/28/2010 11:33:35 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/28/2010 11:33:35 AM
Xylenes, Total	ND	2.0		µg/L	1	5/28/2010 11:33:35 AM

Lab ID: 1005835-03 **Collection Date:** 5/26/2010 12:30:00 PM
Client Sample ID: Outfall #2 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: DAM
Benzene	ND	1.0		µg/L	1	5/28/2010 12:30:03 PM
Toluene	ND	1.0		µg/L	1	5/28/2010 12:30:03 PM
Ethylbenzene	ND	1.0		µg/L	1	5/28/2010 12:30:03 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/28/2010 12:30:03 PM
Xylenes, Total	ND	2.0		µg/L	1	5/28/2010 12:30:03 PM

Lab ID: 1005835-04 **Collection Date:** 5/26/2010 12:15:00 PM
Client Sample ID: MW-51 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: DAM
Benzene	6400	100		µg/L	100	5/28/2010 9:24:16 PM
Toluene	220	100		µg/L	100	5/28/2010 9:24:16 PM
Ethylbenzene	250	100		µg/L	100	5/28/2010 9:24:16 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/28/2010 12:57:13 PM
Xylenes, Total	1800	200		µg/L	100	5/28/2010 9:24:16 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK#38 5-26-10 **Work Order:** 1005835

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260: Volatiles Short List											
Sample ID: 5ml rb		*MBLK*				Batch ID:	**R38998**	Analysis Date:	5/28/2010 8:44:54 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								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 100ng lcs		*LCS*				Batch ID:	**R38998**	Analysis Date:	5/28/2010 9:41:09 AM		
Benzene	21.46	µg/L	1.0	20	0	107	82.4	116			
Toluene	23.42	µg/L	1.0	20	0	117	89.5	123			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT | Date Received: 5/27/2010

Work Order Number 1005835 | Received by: ARS

Checklist completed by: Signature 5/27/10 Date | Sample ID labels checked by: Initials

Matrix: | Carrier name: UPS

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 ☐		Number of preserved bottles checked for pH:
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 ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	6.7°	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ *Regarding:* _____

Comments: _____

_____

_____

_____

_____

Corrective Action _____

_____

_____

Chain-of-Custody Record

Client: Western Refining

Mailing Address: #50 CR 4990
Bloomfield, NM 87413

Phone #: 505-632-4161

email or Fax#: 505-632-3911

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name:
5-26-10
DRAINage North of TK#38

Project #:

Project Manager:

Sampler: Bob

On Ice: ☒ Yes ☐ No

Sample Temperature: 6.7

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1005635	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,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA) BTEX, MTBE only	8270 (Semi-VOA)					Air Bubbles (Y or N)
5-26-10	1:05	H_2O	West Fork	3-VOA	HCl	1										X						
	12:50		East Fork	3-VOA	HCl	2										X						
	12:30		outfall #2	3-VOA	HCl	3										X						
	12:15		MW-51	3-VOA	HCl	4										X						

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
5-26-10	3:00	Robert Krakow		5/27/10	1045
Date:	Time:	Relinquished by:	Received by:	Date	Time
				5/26/10	15:45

Remarks: Please cc Results to Kelly Robinson

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.

envirotech
Analytical Laboratory

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Western Refining	Project #:	96012-0009
Sample ID:	West Fork	Date Reported:	05-31-10
Chain of Custody:	9482	Date Sampled:	05-26-10
Laboratory Number:	54454	Date Received:	05-26-10
Sample Matrix:	Aqueous	Date Analyzed:	05-27-10
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	1.9	1	0.2
Toluene	ND	1	0.2
Ethylbenzene	ND	1	0.2
p,m-Xylene	ND	1	0.2
o-Xylene	ND	1	0.1
Total BTEX	1.9		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	**107 %**
	1,4-difluorobenzene	**98.3 %**
	4-bromochlorobenzene	**97.7 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Drainage North of TK #38**

Analyst

Review

5796 US Highway 64, Farmington, NM 87401 | Ph (505)632-0615 Fr (800)362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

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Analytical Laboratory

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Western Refining	Project #:	96012-0009
Sample ID:	East Fork	Date Reported:	05-31-10
Chain of Custody:	9482	Date Sampled:	05-26-10
Laboratory Number:	54455	Date Received:	05-26-10
Sample Matrix:	Aqueous	Date Analyzed:	05-27-10
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**167**	1	**0.2**
Toluene	**ND**	1	**0.2**
Ethylbenzene	**ND**	1	**0.2**
p,m-Xylene	**ND**	1	**0.2**
o-Xylene	**ND**	1	**0.1**
Total BTEX	**167**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	**113 %**
	1,4-difluorobenzene	**101 %**
	4-bromochlorobenzene	**122 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Drainage North of TK #38**

Analyst

Review

5796 US Highway 64, Farmington, NM 87401 | Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

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Analytical Laboratory

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	0528BBLK QA/QC	Date Reported:	05-20-10
Laboratory Number:	54454	Date Sampled:	N/A
Sample Matrix:	Aqueous	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-27-10
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff Accept. Range 0 - 15%	Blank Conc:	Detect. Limit
Benzene	1.2445E+006	1.2483E+006	0.30%	ND	0.2
Toluene	8.0034E+005	8.0275E+005	0.30%	ND	0.2
Ethylbenzene	6.5663E+005	6.5860E+005	0.30%	ND	0.2
p,m-Xylene	1.8965E+006	1.9022E+006	0.30%	ND	0.2
o-Xylene	6.2516E+005	6.2705E+005	0.30%	ND	0.1

Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff	Accept Limit
Benzene	1.9	1.8	0.0%	0 - 30%
Toluene	ND	ND	0.0%	0 - 30%
Ethylbenzene	ND	ND	0.0%	0 - 30%
p,m-Xylene	ND	ND	0.0%	0 - 30%
o-Xylene	ND	ND	0.0%	0 - 30%

Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	%Recovery	Accept Limits
Benzene	1.9	50.0	55.7	107%	39 - 150
Toluene	ND	50.0	56.2	112%	46 - 148
Ethylbenzene	ND	50.0	52.4	105%	32 - 160
p,m-Xylene	ND	100	118	118%	46 - 148
o-Xylene	ND	50.0	53.8	108%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 54454 and 54455.

Analyst

Review

5796 US Highway 64, Farmington, NM 87401 | Ph (505)632-0615 Fr (800)362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

CHAIN OF CUSTODY RECORD

09482

Client:	Project Name / Location:
Western Refining	Drainage North of TK# 38
Client Address:	Sampler Name: Bob
Client Phone No.:	Client No.: 96012 - 0009

Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative $HgCl_2$	Preservative HCl	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
West Fork	5-26-10	1:05	54454	Soil Sludge Solid Aqueous	3-VOA		X		X												X	X
East Fork	5-26-10	12:50	54455	Soil Sludge Solid Aqueous	3-VOA		X		X												X	X
				Soil Sludge Solid Aqueous																		
				Soil Sludge Solid Aqueous																		
				Soil Sludge Solid Aqueous																		
				Soil Sludge Solid Aqueous																		
				Soil Sludge Solid Aqueous																		
				Soil Sludge Solid Aqueous																		
				Soil Sludge Solid Aqueous																		
				Soil Sludge Solid Aqueous																		

ANALYSIS / PARAMETERS

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Robert Knabow	5-26-10	4:05		4:05	5-26-10
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

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Analytical Laboratory
5796 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • lab@envirotech-inc.com

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LABORATORY

COVER LETTER

Friday, June 11, 2010

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: Drainage North of TK#38 6/3/10

Order No.: 1006193

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 6/4/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc.

Date: *11-Jun-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	East Fork
Lab Order:	1006193	**Collection Date:**	6/3/2010 1:20:00 PM
Project:	Drainage North of TK#38 6/3/10	**Date Received:**	6/4/2010
Lab ID:	1006193-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JB
Diesel Range Organics (DRO)	ND	0.20		mg/L	1	6/10/2010 12:59:10 PM
Motor Oil Range Organics (MRO)	ND	2.5		mg/L	1	6/10/2010 12:59:10 PM
Surr: DNOP	137	82-162		%REC	1	6/10/2010 12:59:10 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/10/2010 1:27:25 PM
Surr: BFB	93.0	55.2-107		%REC	1	6/10/2010 1:27:25 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: HL
Benzene	9.6	1.0		µg/L	1	6/8/2010 2:57:30 PM
Toluene	ND	1.0		µg/L	1	6/8/2010 2:57:30 PM
Ethylbenzene	ND	1.0		µg/L	1	6/8/2010 2:57:30 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/8/2010 2:57:30 PM
Xylenes, Total	ND	2.0		µg/L	1	6/8/2010 2:57:30 PM
Surr: 1,2-Dichloroethane-d4	85.0	54.6-141		%REC	1	6/8/2010 2:57:30 PM
Surr: 4-Bromofluorobenzene	99.3	60.1-133		%REC	1	6/8/2010 2:57:30 PM
Surr: Dibromofluoromethane	91.3	78.5-130		%REC	1	6/8/2010 2:57:30 PM
Surr: Toluene-d8	102	79.5-126		%REC	1	6/8/2010 2:57:30 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK#38 6/3/10 **Work Order:** 1006193

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range											
Sample ID: MB-22560		*MBLK*				Batch ID:	**22560**	Analysis Date:		6/10/2010 9:35:54 AM	
Diesel Range Organics (DRO)	ND	mg/L	0.20								
Motor Oil Range Organics (MRO)	ND	mg/L	2.5								
Sample ID: LCS-22560		*LCS*				Batch ID:	**22560**	Analysis Date:		6/10/2010 10:09:45 AM	
Diesel Range Organics (DRO)	3.750	mg/L	0.20	2.5	0.1779	143	74	157			
Sample ID: LCSD-22560		*LCSD*				Batch ID:	**22560**	Analysis Date:		6/10/2010 10:43:52 AM	
Diesel Range Organics (DRO)	3.569	mg/L	0.20	2.5	0.1779	136	74	157	4.96	23	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R39200**	Analysis Date:		6/10/2010 9:35:51 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 2.5UG GRO LCS		*LCS*				Batch ID:	**R39200**	Analysis Date:		6/10/2010 6:45:23 PM	
Gasoline Range Organics (GRO)	0.4882	mg/L	0.050	0.5	0	97.6	77.8	124			
Method: EPA Method 8260: Volatiles Short List											
Sample ID: 5ml rb		*MBLK*				Batch ID:	**R39141**	Analysis Date:		6/8/2010 8:42:02 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								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 100ng lcs		*LCS*				Batch ID:	**R39141**	Analysis Date:		6/8/2010 9:53:19 AM	
Benzene	18.99	µg/L	1.0	20	0	94.9	82.4	116			
Toluene	21.58	µg/L	1.0	20	0	108	89.5	123			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT | Date Received: 6/4/2010

Work Order Number 1006193 | Received by: TLS

Checklist completed by: [signature] Signature | 6/4/10 Date | Sample ID labels checked by: AT Initials

Matrix: | Carrier name: UPS

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 ☐		Number of preserved bottles checked for pH:
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 ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	9.5°	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining

Mailing Address: #50 CR 4990
Bloomfield, NM 87413

Phone #: 505-632-4161

email or Fax#: 505-632-3911

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: 6-3-10
DRAINAGE NORTH of TK#38

Project #:

Project Manager:

Sampler: Bob

On Ice: ☒ Yes ☐ No

Sample Temperature: 9.5

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1008193	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) BTEX, MTBE	8270 (Semi-VOA)					Air Bubbles (Y or N)
6-3-10	1:20	H_2O	EAST FORK	3-VOA	HCl	1										X						
6-3-10	1:20	H_2O	EAST FORK	1-250	Amber	2			X													

Date:	Time:	Relinquished by:	Received by:	Date	Time
6-3-10	3:00	Robert Knabon		6/4/10	
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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.

HALL
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ANALYSIS
LABORATORY

COVER LETTER

Wednesday, June 16, 2010

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: Drainage North of TK#38 6-8-10

Order No.: 1006309

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 6/9/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc.

Date: *16-Jun-10*

CLIENT: Western Refining Southwest, Inc.
Project: Drainage North of TK#38 6-8-10

Lab Order: 1006309

Lab ID: 1006309-01 **Collection Date:** 6/8/2010 2:25:00 PM
Client Sample ID: MW-1 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: BDH
Benzene	ND	1.0		µg/L	1	6/10/2010 7:47:50 PM
Toluene	ND	1.0		µg/L	1	6/10/2010 7:47:50 PM
Ethylbenzene	ND	1.0		µg/L	1	6/10/2010 7:47:50 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/10/2010 7:47:50 PM
Xylenes, Total	ND	2.0		µg/L	1	6/10/2010 7:47:50 PM

Lab ID: 1006309-02 **Collection Date:** 6/8/2010 2:40:00 PM
Client Sample ID: Fresh Water Pond **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: BDH
Benzene	ND	1.0		µg/L	1	6/10/2010 8:16:06 PM
Toluene	ND	1.0		µg/L	1	6/10/2010 8:16:06 PM
Ethylbenzene	ND	1.0		µg/L	1	6/10/2010 8:16:06 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/10/2010 8:16:06 PM
Xylenes, Total	ND	2.0		µg/L	1	6/10/2010 8:16:06 PM

Lab ID: 1006309-03 **Collection Date:** 6/8/2010 2:50:00 PM
Client Sample ID: East Fork **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: MMS
Benzene	5.2	1.0		µg/L	1	6/11/2010 2:29:29 PM
Toluene	ND	1.0		µg/L	1	6/11/2010 2:29:29 PM
Ethylbenzene	ND	1.0		µg/L	1	6/11/2010 2:29:29 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/11/2010 2:29:29 PM
Xylenes, Total	ND	2.0		µg/L	1	6/11/2010 2:29:29 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK#38 6-8-10 Work Order: 1006309

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260: Volatiles Short List											
Sample ID: b2		*MBLK*				Batch ID: **R39204**		Analysis Date:	6/10/2010 11:34:40 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								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 100ng lcs		*LCS*				Batch ID: **R39204**		Analysis Date:	6/10/2010 11:06:25 AM		
Benzene	19.88	µg/L	1.0	20	0	99.4	82.4	116			
Toluene	19.09	µg/L	1.0	20	0	95.5	89.5	123			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT | Date Received: 6/9/2010

Work Order Number 1006309 | Received by: ARS

Checklist completed by: _____ 6/9/10 | Sample ID labels checked by: _____

Signature / Date / Initials

Matrix: | Carrier name: UPS

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 ☐		Number of preserved bottles checked for pH:
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 ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	8.3°"	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining

Mailing Address: #50 CR 4990
Bloomfield, NM 87413

Phone #: 505-632-4161

email or Fax#: 505-632-3911

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: 6-8-10
Drainage North of TK#38

Project #:

Project Manager:

Sampler: Bob

On Ice: ☒ Yes ☐ No

Sample Temperature: 6.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1004359	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) BTEX, MTBE	8270 (Semi-VOA)	Air Bubbles (Y or N)
6-8-10	2:25	H_2O	MW-1	3-VOA	HCl	1										X		
"	2:40	H_2O	Fresh water POND	3-VOA	HCl	2										X		
"	2:50	H_2O	EAST FORK	3-VOA	HCl	3										X		

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
6-8-10	3:00	Robert Krakow			
Date:	Time:	Relinquished by:	Received by:	6/9/10	10:15

Remarks:

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.

6/17

HALL ENVIRONMENTAL ANALYSIS LABORATORY

COVER LETTER

Friday, June 25, 2010

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: Drainage North of TK#38 6/16/10

Order No.: 1006609

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 6/17/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Jun-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	East Fork
Lab Order:	1006609	**Collection Date:**	6/16/2010 3:10:00 PM
Project:	Drainage North of TK#38 6/16/10	**Date Received:**	6/17/2010
Lab ID:	1006609-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: HL
Benzene	3.4	1.0		µg/L	1	6/23/2010 8:53:52 PM
Toluene	ND	1.0		µg/L	1	6/23/2010 8:53:52 PM
Ethylbenzene	ND	1.0		µg/L	1	6/23/2010 8:53:52 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/23/2010 8:53:52 PM
Xylenes, Total	ND	2.0		µg/L	1	6/23/2010 8:53:52 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK#38 6/16/10 Work Order: 1006609

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260: Volatiles Short List											
Sample ID: 1006609-01a msd		*MSD*				Batch ID:	R39454	Analysis Date:		6/23/2010 9:49:10 PM	
Benzene	23.61	µg/L	1.0	20	3.38	101	72.4	126	3.44	20	
Toluene	21.40	µg/L	1.0	20	0	107	79.2	115	0.200	20	
Sample ID: b6		*MBLK*				Batch ID:	R39454	Analysis Date:		6/23/2010 10:44:23 PM	
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								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 5ml rb		*MBLK*				Batch ID:	R39454	Analysis Date:		6/23/2010 9:38:36 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								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 100ng lcs_b		*LCS*				Batch ID:	R39454	Analysis Date:		6/23/2010 11:39:28 PM	
Benzene	18.87	µg/L	1.0	20	0	94.4	82.4	116			
Toluene	20.66	µg/L	1.0	20	0	103	89.5	123			
Sample ID: 100ng lcs		*LCS*				Batch ID:	R39454	Analysis Date:		6/23/2010 11:07:02 AM	
enzene	19.41	µg/L	1.0	20	0	97.0	82.4	116			
Toluene	20.35	µg/L	1.0	20	0	102	89.5	123			
Sample ID: 1006609-01a ms		*MS*				Batch ID:	R39454	Analysis Date:		6/23/2010 9:21:36 PM	
Benzene	22.81	µg/L	1.0	20	3.38	97.2	72.4	126			
Toluene	21.36	µg/L	1.0	20	0	107	79.2	115			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT — Date Received: 6/17/2010

Work Order Number 1006609 — Received by: TLS

Checklist completed by: _____ Signature — 6/17/10 Date — Sample ID labels checked by: _____ Initials

Matrix: — Carrier name: UPS

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 ☐		Number of preserved bottles checked for pH:
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 ☑	_____ *<2 >12 unless noted below.*
Container/Temp Blank temperature?	5.3°	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining

Mailing Address: #50 CR 4990
Bloomfield, NM 87413

Phone #: 505-632-4161

email or Fax#: 505-632-3911

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: 6-16-10
DRAINAGE NORTH of TK# 38

Project #:

Project Manager:

Sampler: Bob

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.5

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1006005	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) BTEX / MTBE +	8270 (Semi-VOA)					Air Bubbles (Y or N)
6-16-10	3:10	H2O	EAST FORK	3-VOA	HCl	-1										X						

Date:	Time:	Relinquished by:	Received by:	Date	Time
6-16-10	3:30	Robert Knakow			
Date:	Time:	Relinquished by:	Received by:	6/17/10	1025

Remarks:

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.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, July 08, 2010

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: Drainage North of TK #38 6/24/10

Order No.: 1006905

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 6/25/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

for Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc.

Date: *08-Jul-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	East Fork
Lab Order:	1006905	**Collection Date:**	6/29/2010 2:45:00 PM
Project:	Drainage North of TK #38 6/24/10	**Date Received:**	6/25/2010
Lab ID:	1006905-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: HL
Benzene	1.6	1.0		µg/L	1	7/7/2010 7:27:01 AM
Toluene	ND	1.0		µg/L	1	7/7/2010 7:27:01 AM
Ethylbenzene	ND	1.0		µg/L	1	7/7/2010 7:27:01 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/7/2010 7:27:01 AM
Xylenes, Total	ND	2.0		µg/L	1	7/7/2010 7:27:01 AM
Surr: 1,2-Dichloroethane-d4	95.6	73.1-133		%REC	1	7/7/2010 7:27:01 AM
Surr: 4-Bromofluorobenzene	110	82.9-140		%REC	1	7/7/2010 7:27:01 AM
Surr: Dibromofluoromethane	99.2	79.2-119		%REC	1	7/7/2010 7:27:01 AM
Surr: Toluene-d8	101	84.4-118		%REC	1	7/7/2010 7:27:01 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK #38 6/24/10 Work Order: 1006905

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260: Volatiles Short List											
Sample ID: 1006905-01a msd		*MSD*				Batch ID:	R39668	Analysis Date:		7/7/2010 8:22:12 AM	
Benzene	21.60	µg/L	1.0	20	1.63	99.8	71.2	127	7.27	20	
Toluene	20.59	µg/L	1.0	20	0	103	90.2	127	1.67	20	
Sample ID: b6		*MBLK*				Batch ID:	R39668	Analysis Date:		7/6/2010 10:43:45 PM	
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								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 100ng lcs_b		*LCS*				Batch ID:	R39668	Analysis Date:		7/6/2010 11:38:43 PM	
Benzene	19.14	µg/L	1.0	20	0	95.7	82.4	116			
Toluene	20.73	µg/L	1.0	20	0	104	89.5	123			
Sample ID: 1006905-01a ms		*MS*				Batch ID:	R39668	Analysis Date:		7/7/2010 7:54:38 AM	
Benzene	20.08	µg/L	1.0	20	1.63	92.3	71.2	127			
Toluene	20.25	µg/L	1.0	20	0	101	90.2	127			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT | Date Received: 6/25/2010

Work Order Number 1006905 | Received by: TLS

Checklist completed by: Signature 6/25/10 Date | Sample ID labels checked by: Initials

Matrix: | Carrier name: UPS

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 ☐		Number of preserved bottles checked for pH:
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 ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	9.6°	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted | Date contacted: | Person contacted

Contacted by: | Regarding:

Comments:

Corrective Action

Chain-of-Custody Record

Client: Western Refining

Mailing Address: #50 CR 4990
Bloomfield, NM 87413

Phone #: 505-632-4161

email or Fax#: 505-632-3911

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: 6-24-10
DRAINAGE North of TK#38

Project #:

Project Manager:

Sampler: Bob

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.6

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1006905	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) BTEX, MTBE only	8270 (Semi-VOA)					Air Bubbles (Y or N)
6-24-10	2:45	H_2O	EAST FORK	3-VOA	HCl	-1										X						

Analysis Request

Remarks:

Date:	Time:	Relinquished by:	Received by:	Date	Time
6-24-10	3:00	Robert Krakow			
Date:	Time:	Relinquished by:	Received by:	10/25/10	1050

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.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, July 13, 2010

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: Drainage North of TK#38 7-1-10

Order No.: 1007081

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 7/2/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Jul-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	East Fork
Lab Order:	1007081	**Collection Date:**	7/1/2010 2:30:00 PM
Project:	Drainage North of TK#38 7-1-10	**Date Received:**	7/2/2010
Lab ID:	1007081-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: HL
Benzene	2.3	1.0		µg/L	1	7/8/2010 11:54:58 PM
Toluene	ND	1.0		µg/L	1	7/8/2010 11:54:58 PM
Ethylbenzene	ND	1.0		µg/L	1	7/8/2010 11:54:58 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/8/2010 11:54:58 PM
Xylenes, Total	ND	2.0		µg/L	1	7/8/2010 11:54:58 PM
Surr: 1,2-Dichloroethane-d4	99.7	54.6-141		%REC	1	7/8/2010 11:54:58 PM
Surr: 4-Bromofluorobenzene	116	60.1-133		%REC	1	7/8/2010 11:54:58 PM
Surr: Dibromofluoromethane	101	78.5-130		%REC	1	7/8/2010 11:54:58 PM
Surr: Toluene-d8	111	79.5-126		%REC	1	7/8/2010 11:54:58 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK#38 7-1-10 Work Order: 1007081

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260: Volatiles Short List											
Sample ID: 5ml rb		*MBLK*				Batch ID:	R39704	Analysis Date:	7/8/2010 8:57:37 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								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: b5		*MBLK*				Batch ID:	R39704	Analysis Date:	7/8/2010 9:09:52 PM		
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								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 100ng lcs		*LCS*				Batch ID:	R39704	Analysis Date:	7/8/2010 10:20:21 AM		
Benzene	21.06	µg/L	1.0	20	0	105	82.4	116			
Toluene	21.60	µg/L	1.0	20	0	108	89.5	123			
Sample ID: 100ng lcs_b		*LCS*				Batch ID:	R39704	Analysis Date:	7/8/2010 10:04:52 PM		
Benzene	20.44	µg/L	1.0	20	0	102	82.4	116			
Toluene	21.56	µg/L	1.0	20	0	108	89.5	123			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT | Date Received: 7/2/2010

Work Order Number 1007081 | Received by: DAM

Checklist completed by: _____ 7/2/10 | Sample ID labels checked by: _____

Signature | Date | Initials

Matrix: | Carrier name: UPS

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 ☐		Number of preserved bottles checked for pH:
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 ☐	_____ *<2 >12 unless noted below.*
Container/Temp Blank temperature?	2.1°	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

_____

_____

_____

_____

Corrective Action _____

_____

_____

Chain-of-Custody Record

Client: Western Refining

Mailing Address: #50 CR 4990
Bloomfield, NM 87413

Phone #: 505-632-4161

email or Fax#: 505-632-3911

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name:
Drainage North of TK#38 7-1-10

Project #:

Project Manager:

Sampler: Bob

On Ice: ☒ Yes ☐ No

Sample Temperature: 2 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	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) BTEX, MTBE only	8270 (Semi-VOA)					Air Bubbles (Y or N)
7-1-10	2:30	H_2O	East Fork	3-VOA	HCl	1007081										X						

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
7-1-10	3:00	Robert Knabow		7/2/10	14:30
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, July 15, 2010

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: Drainage North of TK#38 7-8-10

Order No.: 1007281

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 7/9/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-10*

CLIENT:	Western Refining Southwest, Inc.	Client Sample ID:	East Fork
Lab Order:	1007281	Collection Date:	7/8/2010 2:15:00 PM
Project:	Drainage North of TK#38 7-8-10	Date Received:	7/9/2010
Lab ID:	1007281-01	Matrix:	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: MMS
Benzene	2.0	1.0		µg/L	1	7/13/2010 5:51:44 PM
Toluene	ND	1.0		µg/L	1	7/13/2010 5:51:44 PM
Ethylbenzene	ND	1.0		µg/L	1	7/13/2010 5:51:44 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/13/2010 5:51:44 PM
Xylenes, Total	ND	2.0		µg/L	1	7/13/2010 5:51:44 PM
Surr: 1,2-Dichloroethane-d4	88.4	54.6-141		%REC	1	7/13/2010 5:51:44 PM
Surr: 4-Bromofluorobenzene	91.1	60.1-133		%REC	1	7/13/2010 5:51:44 PM
Surr: Dibromofluoromethane	140	78.5-130	S	%REC	1	7/13/2010 5:51:44 PM
Surr: Toluene-d8	97.7	79.5-126		%REC	1	7/13/2010 5:51:44 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK#38 7-8-10 Work Order: 1007281

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260: Volatiles Short List											
Sample ID: 1007281-01a msd		*MSD*				Batch ID:	**R39786**	Analysis Date:		7/13/2010 6:48:17 PM	
Benzene	14.46	µg/L	1.0	20	2.025	62.2	72.4	126	12.3	20	S
Toluene	14.76	µg/L	1.0	20	0	73.8	79.2	115	10.9	20	S
Sample ID: 1007281-01a ms		*MS*				Batch ID:	**R39786**	Analysis Date:		7/13/2010 6:20:03 PM	
Benzene	16.35	µg/L	1.0	20	2.025	71.6	72.4	126			S
Toluene	16.46	µg/L	1.0	20	0	82.3	79.2	115			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT | Date Received: 7/9/2010

Work Order Number 1007281 | Received by: TLS

Checklist completed by: [signature] Signature | 7/9/10 Date | Sample ID labels checked by: [initials] Initials

Matrix: | Carrier name: Greyhound

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 ☐		Number of preserved bottles checked for pH:
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 ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	11.9°	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining

Mailing Address: #50 CR 4990
Bloomfield, NM 87413

Phone #: 505-632-4161

email or Fax#: 505-632-3911

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: 7-8-10 Drainage North of TK#38

Project #:

Project Manager:

Sampler: Cindy

On Ice: ☒ Yes ☐ No

Sample Temperature: 9

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1205281	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) BTEX, MTBE only	8270 (Semi-VOA)					Air Bubbles (Y or N)
7-8-10	215	H20	East Fork	3-VOA	HCl	-1										X						

Analysis Request

Date: 7-8-10 Time: 2300 Relinquished by: Cindy Hurtado Received by: [signature] Date: 7/9/10 Time: 1010

Date: Time: Relinquished by: Received by: Date: Time:

Remarks:

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.

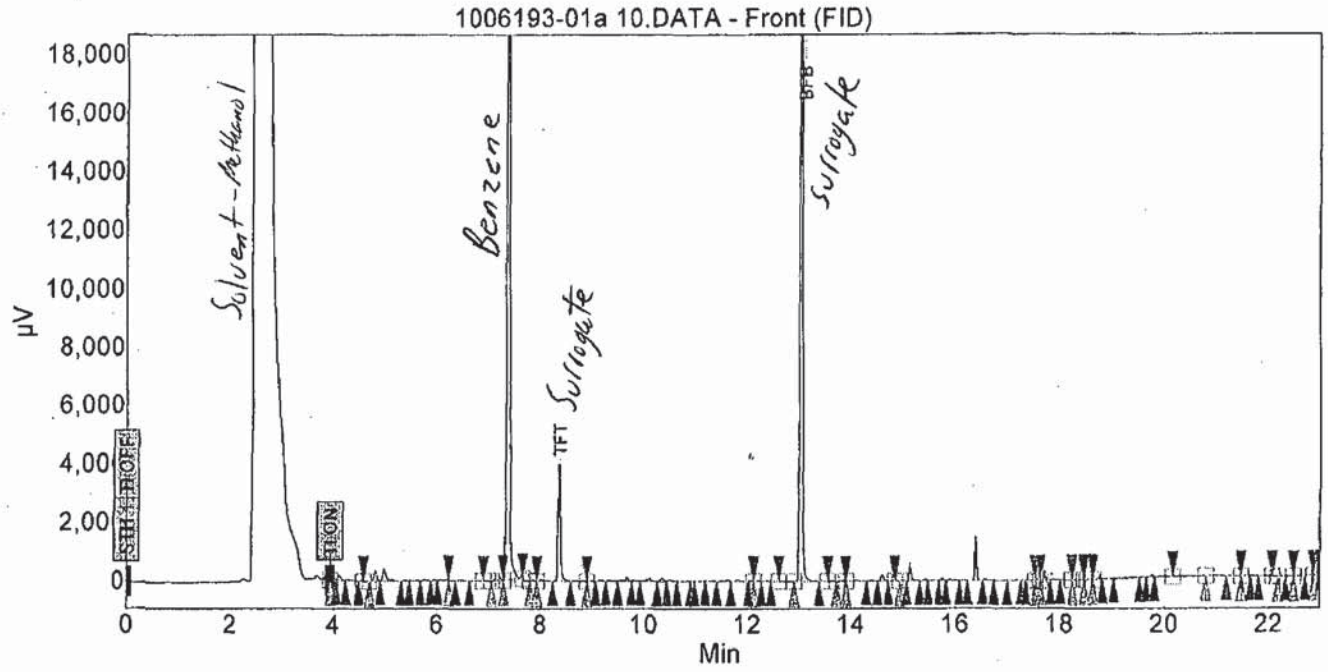
ATTACHMENT B
Chromatograms

Chromatogram : 1006193-01a 10_channel1

System : Apollo
Method : Test Mth
User : Nick Bliss
Description :x1 5ml g

GRO

Acquired : 6/10/2010 1:27:25 PM
Processed : 6/11/2010 8:01:51 AM
Printed : 6/11/2010 8:01:53 AM
Calibration : Apollo Headspace\Cal Curve\052310 Apollo GRO



Peak Results :

Index	Name	Time [Min]	Quantity [ug]	Regression model
19	TFT	8.37	0.000	
39	BFB	13.04	93.004	Linear
Total			93.122	

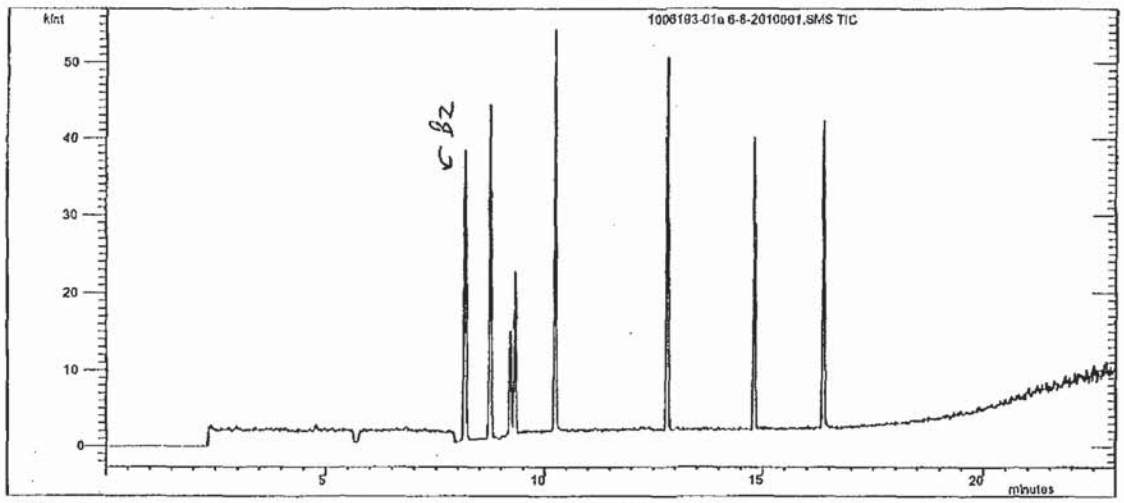
Group Results:

Index	Name	Area [pV.Min]	Quantity [ug]
1	gro c6-c14	2182.543	0.117
2	<c6	85.431	0.005
3	c6-c7	1791.986	0.096
4	c7-c8	255.641	0.002
5	c8-c9	52.615	0.003
6	c9-c10	1418.846	93.005
7	c10-c11	65.968	0.004
8	c11-c12	71.232	0.004
9	c12-c14	34.881	0.002
10	c14 &<	25.381	0.001
Total		5984.524	93.239

8260B Report

Sample Name:	1006193-01a	**Operator Name:**	Hongxuan Lu	**Instrument ID:**	Neptune_1
Inst. Method:	C:\VarianWS\methods\8260 042810n.mth	**Inj. Notes:**	r1 5ml East Fork	**Acquisition Date:**	6/8/2010 2:57:30 PM
Calculation Date:	6/8/2010 3:20:29 PM				

All other peaks are surrogates



#	Compound Name	RT	Scan	Area	Amount
28	Benzene, fluoro-	8.726	706	53744	50.000
49	Benzene-d5-, chloro-	12.813	1066	32826	50.000
72	1,4-Dichlorobenzene-d4	16.364	1379	10416	50.000
1	Dichlorodifluoromethane	2.461	153		N/A
2	Chloromethane	2.836	186	60	N/A
3	Vinyl chloride	3.010	202		N/A
4	Vinyl Acetate	3.468	242	1420	6.200
5	Chloroethane	3.570	251		N/A
6	Bromomethane	3.661	259	220	N/A
7	Trichlorofluoromethane	3.801	271		N/A
8	1,1-Dichloroethene	4.648	346		N/A
9	Carbon disulfide	4.849	364	79	N/A
10	Methyl tert-butyl ether (MTBE)	5.004	377		N/A
11	Acetone	5.136	389	4270	7.530
12	Iodomethane	5.275	401		N/A
13	Isopropyl ether	5.373	410		N/A
14	ETBE	5.769	445		N/A
15	trans-1,2-DCE	6.205	483		N/A
16	t-butanol	6.311	493		N/A
17	1,1-Dichloroethane	6.607	519		N/A
18	2,2-Dichloropropane	6.619	520		N/A
19	Methylene Chloride	6.822	538	5575	N/A

#	Compound Name	RT	Scan	Area	Amount
20	2-Butanone	6.912	546	1867	2.506
21	TAME	7.089	562		N/A
22	1,1-Dichloropropene	7.343	584		N/A
23	1,1,1-Trichloroethane	7.340	583		N/A
24	Carbon Tetrachloride	7.551	602		N/A
25	cis-1,2-DCE	8.147	655		N/A
26	Benzene	8.149	655	39629	48.208
27	Chloroform	8.601	695		N/A
29	Bromochloromethane	8.972	728		N/A
30	Trichloroethene (TCE)	9.005	731		N/A
31	Dibromofluoromethane	9.201	748	42807	45.629
32	1,2-Dichloroethane-d4	9.303	757	80603	42.492
33	1,2-Dichloroethane (EDC)	9.402	765		N/A
34	4-Methyl-2-pentanone	9.538	777		N/A
35	Isobutyl alcohol	9.550	778		N/A
36	1,2-Dichloropropane	9.563	780		N/A
37	Toluene-d8	10.228	838	46494	50.907
38	Toluene	10.300	844	427	N/A
39	Tetrachloroethene (PCE)	10.664	877		N/A
40	2-Hexanone	10.723	882		N/A
41	cis-1,3-dichloropropene	10.846	893		N/A
42	Bromodichloromethane	10.953	902		N/A
43	Dibromomethane	11.083	914		N/A
44	1,3-Dichloropropane	11.863	982		N/A
45	trans-1,3-dichloropropene	11.911	987		N/A
46	Ethylbenzene	12.054	999	149	N/A
47	mp-Xylenes	12.277	1019	620	0.288
48	1,1,2-Trichloroethane	12.638	1051		N/A
50	Chlorobenzene	12.849	1069		N/A
51	1,2-Dibromoethane (EDB)	12.990	1082		N/A
52	o-Xylene	13.007	1083		N/A
53	Isopropylbenzene	13.135	1094		N/A
54	1,1,1,2-Tetrachloroethane	13.210	1101		N/A
55	Dibromochloromethane	13.319	1111		N/A
56	Styrene	13.624	1138		N/A
57	n-Propylbenzene	13.753	1149		N/A
58	1,3,5-Trimethylbenzene	14.242	1192		N/A
59	tert-Butylbenzene	14.402	1207		N/A
60	sec-Butylbenzene	14.669	1230		N/A
61	2-Chlorotoluene	14.666	1230		N/A
62	4-Bromofluorobenzene	14.801	1242	43696	49.646
63	4-Chlorotoluene	14.829	1244		N/A
64	1,2,4-Trimethylbenzene	14.841	1245		N/A
65	Bromobenzene	14.928	1253		N/A
66	Toluene, p-isopropyl	14.943	1254	147	N/A
67	Bromoform	15.560	1309		N/A
68	n-Butylbenzene	15.580	1310		N/A
69	1,2,3-Trichloropropane	15.695	1320		N/A
70	1,3-Dichlorobenzene	16.114	1357		N/A
71	1,1,2,2-Tetrachloroethane	16.111	1357		N/A
73	1,4-Dichlorobenzene	16.400	1382		N/A

#	Compound Name	RT	Scan	Area	Amount
74	1,2-Dichlorobenzene	17.029	1438		N/A
75	Hexachlorobutadiene	18.426	1561		N/A
76	1,2-Dibromo-3-chloropropane	19.005	1612		N/A
77	1,2,4-Trichlorobenzene	19.306	1638		N/A
78	1,2,3-Trichlorobenzene	20.261	1722		N/A
79	Naphthalene	20.306	1726		N/A
80	2-Methylnaphthalene	21.823	1858		N/A
81	1-Methylnaphthalene	22.255	1895		N/A

****
Revision Log
****

6/8/2010 3:20 PM: Processed as Analysis sample using method:
'C:\VarianWS\methods\8260 042810n.mth'

Chavez, Carl J, EMNRD

From: Schmaltz, Randy [Randy.Schmaltz@wnr.com]
Sent: Wednesday, June 09, 2010 10:15 AM
To: Monzeglio, Hope, NMENV
Cc: Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD; Robinson, Kelly
Subject: RE: Newly surfaced groundwater

Hope,

My answers are below.

Thanks

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Thursday, June 03, 2010 1:46 PM
To: Schmaltz, Randy
Cc: Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD; Robinson, Kelly
Subject: Newly surfaced groundwater

Randy

A few questions concerning the new area where groundwater has surfaced:

1) Just to confirm, the Hammond Ditch is filled with water on April 15 of each year? That is correct April 15 of each year.

2) When does the water in the Hammond Ditch stop running? It is late October of each year I don't have an exact date.

3) Is the French drain located at the east end of the Hammond Ditch or is there some other system that could contribute to groundwater flow in that area? The French Drain that was installed by Giant stops just west of the pipeline right-of-way. The Hammond Ditch design did include a relief system to prevent the build up of water on any one side, or under the ditch that would exert additional pressure on the concrete causing damage. This relief system is basically a perforated pipe in a gravel bed that prevents the build up of water on any one side, or under of the concrete ditch.

4) When you sample next (next week) in addition to BTEX, also analyze for GRO and DRO and obtain the chromatograms (do you have chromatograms for the most recent analytical data?). We will analyze for BTEX, GRO, and DRO. We do not have chromatograms yet, but we have asked the lab to provide with the next samples.

5) Collect depth to water measurements from monitoring wells MW-50, MW-51, and MW-1. Compare MW-1 water levels to past sampling events and compare the MW-50 and MW-51 water level measurements to the data collected when these wells were installed. This may show an increase in water elevation in this area which may be linked to a leaking Hammond Ditch? We will collect the depth to water measurements requested.

6) Approximately how far is this location from East Outfall #1? This location is approximately 300 feet east of East Outfall #1.

I realize you are out of town until Monday and we may not hear from you until next week. Let me know if you have any questions.

Thanks
Hope

Hope Monzeglio

Environmental Specialist
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, BLDG 1
Santa Fe NM 87505
Phone: (505) 476-6045; Main No.: (505)-476-6000
Fax: (505)-476-6060
hope.monzeglio@state.nm.us

Websites:
New Mexico Environment Department
Hazardous Waste Bureau

Chavez, Carl J, EMNRD

From: Monzeglio, Hope, NMENV
Sent: Thursday, June 03, 2010 1:46 PM
To: Schmaltz, Randy
Cc: Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD; Robinson, Kelly
Subject: Newly surfaced groundwater

Randy

A few questions concerning the new area where groundwater has surfaced:

1) Just to confirm, the Hammond Ditch is filled with water on April 15 of each year?

2) When does the water in the Hammond Ditch stop running?

3) Is the French drain located at the east end of the Hammond Ditch or is there some other system that could contribute to groundwater flow in that area?

4) When you sample next (next week) in addition to BTEX, also analyze for GRO and DRO and obtain the chromatograms (do you have chromatograms for the most recent analytical data?).

5) Collect depth to water measurements from monitoring wells MW-50, MW-51, and MW-1. Compare MW-1 water levels to past sampling events and compare the MW-50 and MW-51 water level measurements to the data collected when these wells were installed. This may show an increase in water elevation in this area which may be linked to a leaking Hammond Ditch?

6) Approximately how far is this location from East Outfall #1?

I realize you are out of town until Monday and we may not hear from you until next week. Let me know if you have any questions.

Thanks
Hope

Hope Monzeglio
Environmental Specialist
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, BLDG 1
Santa Fe NM 87505
Phone: (505) 476-6045; Main No.: (505)-476-6000
Fax: (505)-476-6060
hope.monzeglio@state.nm.us

Websites:
New Mexico Environment Department
Hazardous Waste Bureau

Chavez, Carl J, EMNRD

From: Schmaltz, Randy [Randy.Schmaltz@wnr.com]
Sent: Wednesday, June 02, 2010 9:53 AM
To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Cc: Robinson, Kelly; Hurtado, Cindy
Subject: RE: Groundwater Discovery
Attachments: Pond Location Map.pdf

Carl,

The ponds you are thinking about and describing are either the "evaporation ponds" located south of the refinery or the "aeration Lagoons" which are located just west of the tank farm. The raw water ponds only store river water prior to filtering and plant use. I have enclosed a map showing the three different pond locations.

Thanks

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Wednesday, June 02, 2010 8:35 AM
To: Schmaltz, Randy; Monzeglio, Hope, NMENV
Cc: Robinson, Kelly; Hurtado, Cindy
Subject: RE: Groundwater Discovery

Randy:

As I recall, they also store UIC non-hazardous non-exempt oilfield waste fluids before disposal when the refinery was in operation and the disposal well was used, but I think you're saying that the fluids are currently not what they used to be when the refinery was in full operation. Thanks.

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) 476-3490
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: Schmaltz, Randy [mailto:Randy.Schmaltz@wnr.com]
Sent: Wednesday, June 02, 2010 8:30 AM
To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Cc: Robinson, Kelly; Hurtado, Cindy
Subject: RE: Groundwater Discovery

Carl,

The raw water ponds are the earthen ponds located on the north east portion of the refinery. These earthen pond receive the river water, their basic use is for storage and allow for settling to take place prior to filtering. I'm not sure what could be done on the Hammond Ditch irrigation canal.

Thanks
Randy

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Wednesday, June 02, 2010 5:55 AM
To: Schmaltz, Randy; Monzeglio, Hope, NMENV
Cc: Robinson, Kelly; Hurtado, Cindy
Subject: RE: Groundwater Discovery

Randy:

Seems like there were some secondary containment issues with the raw water ponds during OCD's last inspection. I'll review the OCD's last inspection of the ponds and LDSs. You indicated there may be recharge occurring from a damaged portion of the Hammond Drain? Is this repairable? Thanks.

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) 476-3490
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: Schmaltz, Randy [mailto:Randy.Schmaltz@wnr.com]
Sent: Tuesday, June 01, 2010 5:28 PM
To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Cc: Robinson, Kelly; Hurtado, Cindy
Subject: RE: Groundwater Discovery

Carl,

The area is a new location. I don't know why it is occurring but it only recently appeared. The catchment system will include a receiving vessel (tank, liner, etc) that will collect all the groundwater. This collected groundwater will be pumped back into the refinery's wastewater system (API separator) for treatment.

Western has sampled this groundwater downstream of the current location and it is "non-detect". The groundwater does not reach the water. Western will monitor this to insure it is contained.

I will keep you posted on Western's progress.

Thanks
Randy

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Tuesday, June 01, 2010 2:48 PM
To: Schmaltz, Randy; Monzeglio, Hope, NMENV
Cc: Robinson, Kelly; Hurtado, Cindy
Subject: RE: Groundwater Discovery

Randy:

Good afternoon. Some questions based on the discovery.

Is this a former or a new seep area or location? If so, do you know why it occurred or is occurring now?
A description of system to "catch" the groundwater would be appreciated? Also, how will the waste water system treat the contaminated ground water?
Has Western evaluated the potential discharge location(s) along the river and conducted any analytical surface water sampling along the river to assess any discharge of ground water or via overland flow into the river?

Please clarify the above and/or any followup plans based on the above to assess impacts to the river. 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) 476-3490
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: Schmaltz, Randy [mailto:Randy.Schmaltz@wnr.com]
Sent: Tuesday, June 01, 2010 2:33 PM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD
Cc: Robinson, Kelly; Hurtado, Cindy
Subject: Groundwater Discovery

Hope & Carl,

On Wednesday, May 19, 2010 during the bi-monthly visual inspections of area north of the refinery, Bloomfield found a new area where groundwater had surfaced. This new area is located north of the raw water ponds and is shown on the attached property map. A sample was collected on that day and analyzed for BTEX and MTBE using method 8260. Results were received on May 26, 2010 showing benzene at 110 ug/l. Bloomfield collected confirmation split samples on May 26, 2010, and received results from Envirotech Analytical Laboratory on June 1, 2010 showing benzene at 167 ug/l. Results from Hall Environmental Analysis Laboratory are still pending.

Bloomfield is currently installing a system to catch this groundwater, which will be transported to the refinery's wastewater system. Bloomfield will collect weekly samples of this captured water and will analyze for BTEX and MTBE. Bloomfield will provide a monthly summary on sample results and progress.

Randy Schmaltz
Environmental Manager

Western Refining Southwest, Inc.
Bloomfield Refinery
#50 County Road 4990
Bloomfield, New Mexico 87413
(505) 632-4171
(505) 320-6989
email: randy.schmaltz@wnr.com

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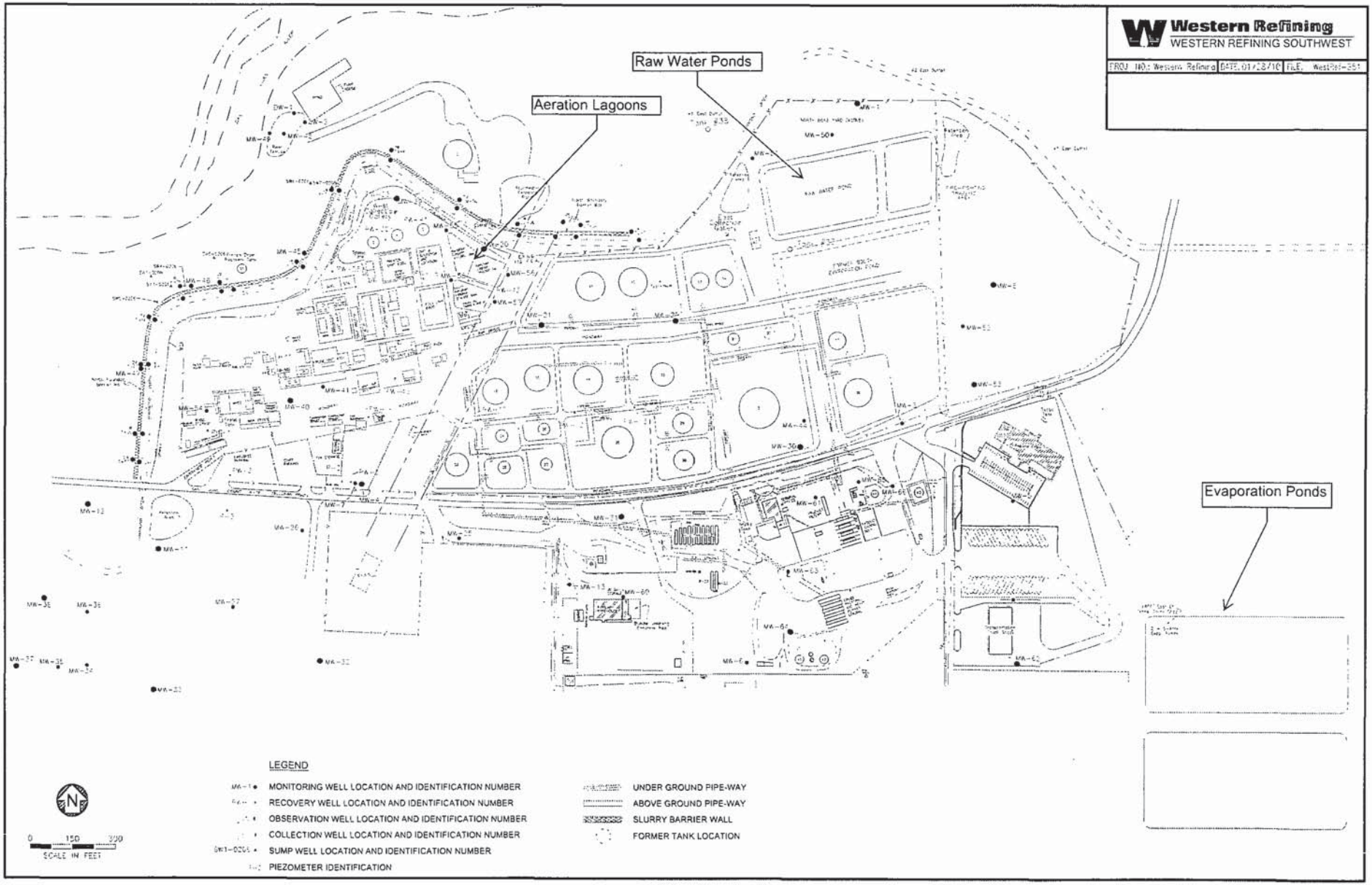
Western Refining
WESTERN REFINING SOUTHWEST
PROJ. NO.: Western Refinery
DATE: 01/28/10
FILE: WestRef-351
Raw Water Ponds
Aeration Lagoons
Evaporation Ponds
LEGEND
MONITORING WELL LOCATION AND IDENTIFICATION NUMBER
RECOVERY WELL LOCATION AND IDENTIFICATION NUMBER
OBSERVATION WELL LOCATION AND IDENTIFICATION NUMBER
COLLECTION WELL LOCATION AND IDENTIFICATION NUMBER
SUMP WELL LOCATION AND IDENTIFICATION NUMBER
PIEZOMETER IDENTIFICATION
UNDER GROUND PIPE-WAY
ABOVE GROUND PIPE-WAY
SLURRY BARRIER WALL
FORMER TANK LOCATION
0
150
300
SCALE IN FEET

Chavez, Carl J, EMNRD

From: Schmaltz, Randy [Randy.Schmaltz@wnr.com]
Sent: Tuesday, June 01, 2010 5:28 PM
To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Cc: Robinson, Kelly; Hurtado, Cindy
Subject: RE: Groundwater Discovery

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