GW - 001

C-141s
(4 of 7)

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: _____ 6/17/10 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 ☐		
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?	5.3°	*<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: _____

_____

_____

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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: 5.3

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. 1005620-1	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)
6-16-10	3:10	H2O	EAST FORK	3-VOA	HCl	-1										X						

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
6-16-10	3:30	Robert Knabow				
Date:	Time:	Relinquished by:	Received by:	6/17/10	1020	

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
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
H	Holding times for preparation or analysis exceeded
NC	Non-Chlorinated
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: _____ 6/25/10
Signature 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 ☐		
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?	9.6°	<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: _____

_____

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Corrective Action _____

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_____

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: 6.6

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
6-24-10	2:45	H_2O	East Fork	3-VOA	HCl	-1

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) BTEX, MTBE only	8270 (Semi-VOA)					Air Bubbles (Y or N)
									X						

Date:	Time:	Relinquished by:	Received by:	Date	Time
6-24-10	3:00	Robert Knabow		6/25/10	1058
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

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
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting 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 ☐		
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?	2.1°	*<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: _____

_____

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Corrective Action _____

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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 Knalson		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 7/9/10 Date Sample ID labels checked by: 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: 1.9

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. 1206212	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	H2O	East Fork	3-VOA	HCl	-1										X		

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
7-8-10	2301	Cindy Hurtado		7/9/10	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.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Wednesday, October 27, 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

Order No.: 1010563

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 10/6/2010 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: *28-Oct-10*

CLIENT: Western Refining Southwest, Inc.
Project: Drainage North of TK #38
Lab Order: 1010563

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
1010563-01A	East Fork	R41532	EPA Method 8260: Volatiles Short List	10/6/2010 8:45:00 AM
1010563-01B	East Fork	R41620	EPA Method 300.0: Anions	10/6/2010 8:45:00 AM
1010563-01B	East Fork	R41594	EPA Method 300.0: Anions	10/6/2010 8:45:00 AM
1010563-01B	East Fork	R41585	SM 2320B: Alkalinity	10/6/2010 8:45:00 AM
1010563-01B	East Fork	R41535	EPA Method 300.0: Anions	10/6/2010 8:45:00 AM
1010563-01B	East Fork	R41535	EPA Method 300.0: Anions	10/6/2010 8:45:00 AM
1010563-01C	East Fork	24117	EPA 6010B: Total Recoverable Metals	10/6/2010 8:45:00 AM

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Oct-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	East Fork
Lab Order:	1010563	**Collection Date:**	10/6/2010 8:45:00 AM
Project:	Drainage North of TK #38	**Date Received:**	10/6/2010
Lab ID:	1010563-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.47	0.10		mg/L	1	10/13/2010 4:56:42 PM
Chloride	13	0.50		mg/L	1	10/13/2010 4:56:42 PM
Bromide	0.11	0.10		mg/L	1	10/16/2010 8:58:39 PM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	10/18/2010 4:33:35 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	10/13/2010 4:56:42 PM
Sulfate	110	10		mg/L	20	10/13/2010 5:14:07 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Calcium	73	1.0		mg/L	1	10/17/2010 4:59:03 PM
Magnesium	19	1.0		mg/L	1	10/17/2010 4:59:03 PM
Potassium	1.9	1.0		mg/L	1	10/17/2010 4:59:03 PM
Sodium	57	1.0		mg/L	1	10/17/2010 4:59:03 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **MMS**
Benzene	ND	1.0		µg/L	1	10/13/2010 10:05:24 PM
Toluene	ND	1.0		µg/L	1	10/13/2010 10:05:24 PM
Ethylbenzene	ND	1.0		µg/L	1	10/13/2010 10:05:24 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/13/2010 10:05:24 PM
Xylenes, Total	ND	2.0		µg/L	1	10/13/2010 10:05:24 PM
Surr: 1,2-Dichloroethane-d4	91.9	54.6-141		%REC	1	10/13/2010 10:05:24 PM
Surr: 4-Bromofluorobenzene	89.4	60.1-133		%REC	1	10/13/2010 10:05:24 PM
Surr: Dibromofluoromethane	105	78.5-130		%REC	1	10/13/2010 10:05:24 PM
Surr: Toluene-d8	99.5	79.5-126		%REC	1	10/13/2010 10:05:24 PM
SM 2320B: ALKALINITY						Analyst: **IC**
Alkalinity, Total (As CaCO3)	250	20		mg/L CaCO3	1	10/14/2010 5:09:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	10/14/2010 5:09:00 PM
Bicarbonate	250	20		mg/L CaCO3	1	10/14/2010 5:09:00 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

Hall Environmental Analysis Laboratory, Inc.

28-Oct-10

Lab Order: 1010563
Client: Western Refining Southwest, Inc.
Project: Drainage North of TK #38

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Instrument Run ID	QC Batch ID	Prep Date	Analysis Date
1010563-01A	East Fork	10/6/2010 8:45:00 AM	Aqueous	EPA Method 8260: Volatiles Short List	VAL_101013A	R41532		10/13/2010
1010563-01B				EPA Method 300.0: Anions	ORION_101018A	R41620		10/18/2010
				EPA Method 300.0: Anions	ORION_101015B	R41594		10/16/2010
				EPA Method 300.0: Anions	TRITON_101013A	R41535		10/13/2010
				EPA Method 300.0: Anions	TRITON_101013A	R41535		10/13/2010
				SM 2320B: Alkalinity	OSEIDON_101014.	R41585		10/14/2010
1010563-01C				EPA 6010B: Total Recoverable Metals	ISIS_101017A	24117	10/14/2010	10/17/2010

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK #38 **Work Order:** 1010563

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:	**R41535**	Analysis Date:	10/13/2010 11:08:35 AM		
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
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:	**R41535**	Analysis Date:	10/14/2010 2:48:39 AM		
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
Bromide	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:	**R41594**	Analysis Date:	10/16/2010 11:52:46 PM		
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
Bromide	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:	**R41620**	Analysis Date:	10/18/2010 11:20:10 AM		
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
Bromide	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:	**R41535**	Analysis Date:	10/13/2010 11:25:59 AM		
Fluoride	0.5051	mg/L	0.10	0.5	0	101	90	110			
Chloride	4.977	mg/L	0.50	5	0	99.5	90	110			
Bromide	2.501	mg/L	0.10	2.5	0	100	90	110			
Nitrate (As N)+Nitrite (As N)	3.517	mg/L	0.20	3.5	0	100	90	110			
Phosphorus, Orthophosphate (As P)	5.097	mg/L	0.50	5	0	102	90	110			
Sulfate	10.07	mg/L	0.50	10	0	101	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R41535**	Analysis Date:	10/14/2010 3:06:04 AM		
Fluoride	0.5473	mg/L	0.10	0.5	0	109	90	110			
Chloride	5.219	mg/L	0.50	5	0	104	90	110			
Bromide	2.654	mg/L	0.10	2.5	0	106	90	110			
Nitrate (As N)+Nitrite (As N)	3.737	mg/L	0.20	3.5	0	107	90	110			
Phosphorus, Orthophosphate (As P)	5.249	mg/L	0.50	5	0	105	90	110			
Sulfate	10.53	mg/L	0.50	10	0	105	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R41594**	Analysis Date:	10/17/2010 12:10:11 AM		
Fluoride	0.5353	mg/L	0.10	0.5	0	107	90	110			
Chloride	4.902	mg/L	0.50	5	0	98.0	90	110			

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK #38 **Work Order:** 1010563

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:	**R41594**	Analysis Date:	10/17/2010 12:10:11 AM		
Bromide	2.505	mg/L	0.10	2.5	0	100	90	110			
Nitrate (As N)+Nitrite (As N)	3.601	mg/L	0.20	3.5	0	103	90	110			
Phosphorus, Orthophosphate (As P)	5.012	mg/L	0.50	5	0	100	90	110			
Sulfate	10.31	mg/L	0.50	10	0	103	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R41620**	Analysis Date:	10/18/2010 11:37:35 AM		
Fluoride	0.5359	mg/L	0.10	0.5	0	107	90	110			
Chloride	4.960	mg/L	0.50	5	0	99.2	90	110			
Bromide	2.561	mg/L	0.10	2.5	0	102	90	110			
Nitrate (As N)+Nitrite (As N)	3.637	mg/L	0.20	3.5	0	104	90	110			
Phosphorus, Orthophosphate (As P)	5.148	mg/L	0.50	5	0	103	90	110			
Sulfate	10.44	mg/L	0.50	10	0	104	90	110			
Method: SM 2320B: Alkalinity											
Sample ID: MB-1		*MBLK*				Batch ID:	**R41585**	Analysis Date:	10/14/2010 4:10:00 PM		
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: MB-2		*MBLK*				Batch ID:	**R41585**	Analysis Date:	10/14/2010 11:08:00 PM		
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: LCS-1		*LCS*				Batch ID:	**R41585**	Analysis Date:	10/14/2010 4:16:00 PM		
Alkalinity, Total (As CaCO3)	79.36	mg/L Ca	20	80	0	99.2	96.5	104			
Sample ID: LCS-2		*LCS*				Batch ID:	**R41585**	Analysis Date:	10/14/2010 11:15:00 PM		
Alkalinity, Total (As CaCO3)	80.00	mg/L Ca	20	80	0	100	96.5	104			
Method: EPA Method 8260: Volatiles Short List											
Sample ID: 1010563-01a msd		*MSD*				Batch ID:	**R41532**	Analysis Date:	10/13/2010 11:01:46 PM		
Benzene	16.70	µg/L	1.0	20	0	83.5	72.4	126	3.39	20	
Toluene	19.28	µg/L	1.0	20	0	96.4	79.2	115	6.66	20	
Sample ID: b2		*MBLK*				Batch ID:	**R41532**	Analysis Date:	10/13/2010 1:37:25 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:	**R41532**	Analysis Date:	10/13/2010 12:41:50 PM		
Benzene	19.37	µg/L	1.0	20	0	96.8	82.4	116			
Toluene	19.26	µg/L	1.0	20	0	96.3	89.5	123			
Sample ID: 1010563-01a ms		*MS*				Batch ID:	**R41532**	Analysis Date:	10/13/2010 10:33:39 PM		
Benzene	17.27	µg/L	1.0	20	0	86.4	72.4	126			
Toluene	20.61	µg/L	1.0	20	0	103	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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK #38 **Work Order:** 1010563

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals											
Sample ID: MB-24117		*MBLK*				Batch ID:	**24117**	Analysis Date:	10/17/2010 4:34:57 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: LCS-24117		*LCS*				Batch ID:	**24117**	Analysis Date:	10/17/2010 4:37:55 PM		
Calcium	52.61	mg/L	1.0	50	0	105	80	120			
Magnesium	53.22	mg/L	1.0	50	0	106	80	120			
Potassium	55.24	mg/L	1.0	50	0.0943	110	80	120			
Sodium	56.26	mg/L	1.0	50	0.4958	112	80	120			
Sample ID: LCS-24117		*LCS*				Batch ID:	**24117**	Analysis Date:	10/17/2010 4:41:05 PM		
Calcium	52.48	mg/L	1.0	50	0	105	80	120			
Magnesium	53.25	mg/L	1.0	50	0	106	80	120			
Potassium	55.39	mg/L	1.0	50	0.0943	111	80	120			
Sodium	56.28	mg/L	1.0	50	0.4958	112	80	120			

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: 10/6/2010

Work Order Number 1010563 — Received by: MLW

Checklist completed by: Signature — 10/6/10 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		
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?	2.0°	<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: Unpreserved Sample poured off & preserved w/HW03 for Cations/KT 10/12/10

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) ✓ AT 10/27/10

Accreditation ☐ NELAP ☐ Other ______

☐ EDD (Type) ______

Turn-Around Time: ☒ Standard ☐ Rush ______

Project Name: Drainage North of TK#38

Project #:

Project Manager:

Sampler: Bob

On Ice: Yes No

Sample Temperature: 2.0

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. 1010563	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)	Major Cations/Anions	Carbonates	Gen. Chemistry Alk		Air Bubbles (Y or N)
10-6-10	8:45	H_2O	East Fork	3-VOA	HCl	-1										X						
″	″	″	″	1-500ml	—	-1												X	X	X		
″	″	″	″	1-250	H_2SO_4	-1												X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10-6-10	3:00	Robert Krakow	Melissa Walters	10/7/10	1400
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: Gen Chem - per CH
~~pH, EC, Cations, Anions~~
Alk AT 10/12/10
per CH Requested level 4 QC K 10/27/10

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, November 17, 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

Order No.: 1011023

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 10/28/2010 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: *17-Nov-10*

CLIENT: Western Refining Southwest, Inc.
Project: Drainage North of TK#38
Lab Order: 1011023

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
1011023-01A	East Fork	R41901	EPA Method 8260B: VOLATILES	10/27/2010 1:50:00 AM
1011023-02A	East Fork	R42078	EPA Method 300.0: Anions	11/1/2010 1:15:00 PM
1011023-02A	East Fork	R42058	EPA Method 300.0: Anions	11/1/2010 1:15:00 PM
1011023-02A	East Fork	R42058	EPA Method 300.0: Anions	11/1/2010 1:15:00 PM
1011023-02A	East Fork	R42014	SM 2320B: Alkalinity	11/1/2010 1:15:00 PM
1011023-02A	East Fork	24359	SM2540C MOD: Total Dissolved Solids	11/1/2010 1:15:00 PM
1011023-02A	East Fork	R41917	EPA Method 300.0: Anions	11/1/2010 1:15:00 PM
1011023-02A	East Fork	R41917	EPA Method 300.0: Anions	11/1/2010 1:15:00 PM
1011023-02B	East Fork	24431	EPA 6010B: Total Recoverable Metals	11/1/2010 1:15:00 PM

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Nov-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	East Fork
Lab Order:	1011023	**Collection Date:**	10/27/2010 1:50:00 AM
Project:	Drainage North of TK#38	**Date Received:**	10/28/2010
Lab ID:	1011023-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
Toluene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
Ethylbenzene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
Naphthalene	ND	2.0		µg/L	1	11/2/2010 5:41:36 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	11/2/2010 5:41:36 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	11/2/2010 5:41:36 AM
Acetone	ND	10		µg/L	1	11/2/2010 5:41:36 AM
Bromobenzene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
Bromodichloromethane	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
Bromoform	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
Bromomethane	ND	3.0		µg/L	1	11/2/2010 5:41:36 AM
2-Butanone	ND	10		µg/L	1	11/2/2010 5:41:36 AM
Carbon disulfide	ND	10		µg/L	1	11/2/2010 5:41:36 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
Chlorobenzene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
Chloroethane	ND	2.0		µg/L	1	11/2/2010 5:41:36 AM
Chloroform	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
Chloromethane	ND	3.0		µg/L	1	11/2/2010 5:41:36 AM
2-Chlorotoluene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
4-Chlorotoluene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
cis-1,2-DCE	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/2/2010 5:41:36 AM
Dibromochloromethane	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
Dibromomethane	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	11/2/2010 5:41:36 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	11/2/2010 5:41:36 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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Nov-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	East Fork
Lab Order:	1011023	**Collection Date:**	10/27/2010 1:50:00 AM
Project:	Drainage North of TK#38	**Date Received:**	10/28/2010
Lab ID:	1011023-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
2-Hexanone	ND	10		µg/L	1	11/2/2010 5:41:36 AM
Isopropylbenzene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/2/2010 5:41:36 AM
Methylene Chloride	ND	3.0		µg/L	1	11/2/2010 5:41:36 AM
n-Butylbenzene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
n-Propylbenzene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
sec-Butylbenzene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
Styrene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
tert-Butylbenzene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/2/2010 5:41:36 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
trans-1,2-DCE	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/2/2010 5:41:36 AM
Vinyl chloride	ND	1.0		µg/L	1	11/2/2010 5:41:36 AM
Xylenes, Total	ND	1.5		µg/L	1	11/2/2010 5:41:36 AM
Surr: 1,2-Dichloroethane-d4	98.5	77.7-113		%REC	1	11/2/2010 5:41:36 AM
Surr: 4-Bromofluorobenzene	105	76.4-106		%REC	1	11/2/2010 5:41:36 AM
Surr: Dibromofluoromethane	103	91.6-125		%REC	1	11/2/2010 5:41:36 AM
Surr: Toluene-d8	91.9	92.3-107	S	%REC	1	11/2/2010 5:41:36 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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Nov-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	East Fork
Lab Order:	1011023	**Collection Date:**	11/1/2010 1:15:00 PM
Project:	Drainage North of TK#38	**Date Received:**	10/28/2010
Lab ID:	1011023-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.45	0.10		mg/L	1	11/10/2010 2:53:41 AM
Chloride	12	0.50		mg/L	1	11/10/2010 2:53:41 AM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	11/11/2010 8:21:24 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/10/2010 2:53:41 AM
Sulfate	90	10		mg/L	20	11/10/2010 3:11:06 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **RAGS**
Calcium	69	1.0		mg/L	1	11/9/2010 11:25:39 AM
Magnesium	18	1.0		mg/L	1	11/9/2010 11:25:39 AM
Potassium	1.9	1.0		mg/L	1	11/9/2010 11:25:39 AM
Sodium	55	1.0		mg/L	1	11/9/2010 11:25:39 AM
SM 2320B: ALKALINITY						Analyst: **IC**
Alkalinity, Total (As CaCO3)	250	20		mg/L CaCO3	1	11/5/2010 6:45:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	11/5/2010 6:45:00 PM
Bicarbonate	250	20		mg/L CaCO3	1	11/5/2010 6:45:00 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

Hall Environmental Analysis Laboratory, Inc.

Lab Order: 1011023
Client: Western Refining Southwest, Inc.
Project: Drainage North of TK#38

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Instrument Run ID	QC Batch ID	Prep Date	Analysis Date
1011023-01A	East Fork	10/27/2010 1:50:00 AM	Aqueous	EPA Method 8260B: VOLATILES	NEPTUNE_101101/	R41901		11/2/2010
1011023-02A		11/1/2010 1:15:00 PM		EPA Method 300.0: Anions	ORION_101110A	R42078		11/11/2010
				EPA Method 300.0: Anions	TRITON_101109B	R42058		11/10/2010
				EPA Method 300.0: Anions	TRITON_101109B	R42058		11/10/2010
				SM 2320B: Alkalinity	OSEIDON_101105.	R42014		11/5/2010
1011023-02B				EPA 6010B: Total Recoverable Metals	ISIS_101109A	24431	11/8/2010	11/9/2010

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK#38 **Work Order:** 1011023

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: R42058**		**Analysis Date: 11/9/2010 9:05:29 PM**			
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
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: R42078**		**Analysis Date: 11/10/2010 1:46:57 PM**			
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
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: R42078**		**Analysis Date: 11/11/2010 5:27:15 AM**			
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
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: R42058**		**Analysis Date: 11/9/2010 9:22:53 PM**			
Fluoride	0.5225	mg/L	0.10	0.5	0	105	90	110			
Chloride	4.863	mg/L	0.50	5	0	97.3	90	110			
Nitrate (As N)+Nitrite (As N)	3.472	mg/L	0.20	3.5	0	99.2	90	110			
Phosphorus, Orthophosphate (As P)	4.956	mg/L	0.50	5	0	99.1	90	110			
Sulfate	9.815	mg/L	0.50	10	0	98.2	90	110			
Sample ID: LCS		*LCS*				**Batch ID: R42078**		**Analysis Date: 11/10/2010 2:04:21 PM**			
Fluoride	0.5167	mg/L	0.10	0.5	0	103	90	110			
Chloride	4.999	mg/L	0.50	5	0	100	90	110			
Nitrate (As N)+Nitrite (As N)	3.606	mg/L	0.20	3.5	0	103	90	110			
Phosphorus, Orthophosphate (As P)	5.056	mg/L	0.50	5	0	101	90	110			
Sulfate	10.06	mg/L	0.50	10	0	101	90	110			
Sample ID: LCS		*LCS*				**Batch ID: R42078**		**Analysis Date: 11/11/2010 5:44:40 AM**			
Fluoride	0.4941	mg/L	0.10	0.5	0	98.8	90	110			
Chloride	4.921	mg/L	0.50	5	0	98.4	90	110			
Nitrate (As N)+Nitrite (As N)	3.550	mg/L	0.20	3.5	0	101	90	110			
Phosphorus, Orthophosphate (As P)	5.045	mg/L	0.50	5	0	101	90	110			
Sulfate	10.25	mg/L	0.50	10	0	103	90	110			
Method: SM 2320B: Alkalinity											
Sample ID: MB		*MBLK*				**Batch ID: R42014**		**Analysis Date: 11/5/2010 4:50:00 PM**			
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: LCS		*LCS*				**Batch ID: R42014**		**Analysis Date: 11/5/2010 4:56:00 PM**			
Alkalinity, Total (As CaCO3)	79.48	mg/L Ca	20	80	0	99.4	96.5	104			

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK#38 **Work Order:** 1011023

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b6		*MBLK*				**Batch ID: R41901**		**Analysis Date:**		**11/1/2010 4:26:32 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								
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	3.0								
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	3.0								
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	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK#38 **Work Order:** 1011023

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b6		*MBLK*				Batch ID:	**R41901**	Analysis Date:		11/1/2010 4:25:32 PM	
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								
Surr: 1,2-Dichloroethane-d4	9.787	µg/L	0	10	0	97.9	77.7	113			
Surr: 4-Bromofluorobenzene	10.94	µg/L	0	10	0	109	76.4	106			S
Surr: Dibromofluoromethane	10.07	µg/L	0	10	0	101	91.6	125			
Surr: Toluene-d8	9.991	µg/L	0	10	0	99.9	92.3	107			
Sample ID: 100ng lcs		*LCS*				Batch ID:	**R41901**	Analysis Date:		11/1/2010 3:58:01 PM	
Benzene	18.85	µg/L	1.0	20	0	94.2	84.6	109			
Toluene	21.15	µg/L	1.0	20	0	106	81	114			
Chlorobenzene	20.01	µg/L	1.0	20	0	100	85.2	113			
1,1-Dichloroethene	21.46	µg/L	1.0	20	0	107	79.6	124			
Trichloroethene (TCE)	16.38	µg/L	1.0	20	0	81.9	78.3	102			
Surr: 1,2-Dichloroethane-d4	9.645	µg/L	0	10	0	96.5	77.7	113			
Surr: 4-Bromofluorobenzene	11.27	µg/L	0	10	0	113	76.4	106			S
Surr: Dibromofluoromethane	10.05	µg/L	0	10	0	101	91.6	125			
Surr: Toluene-d8	9.349	µg/L	0	10	0	93.5	92.3	107			

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK#38 **Work Order:** 1011023

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: **EPA 6010B: Total Recoverable Metals**											
Sample ID: **MB-24431**		*MBLK*				**Batch ID:**	**24431**	**Analysis Date:**		11/9/2010 11:16:06 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-24431**		*LCS*				**Batch ID:**	**24431**	**Analysis Date:**		11/9/2010 11:19:20 AM	
Calcium	51.48	mg/L	1.0	50	0	103	80	120			
Magnesium	52.09	mg/L	1.0	50	0	104	80	120			
Potassium	54.75	mg/L	1.0	50	0	110	80	120			
Sodium	54.83	mg/L	1.0	50	0.0359	110	80	120			

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: 10/28/2010

Work Order Number 1011023 — Received by: LNM

Checklist completed by: _____ Signature — Date 11/1/10 — Sample ID labels checked by: MG 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 ☐		
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?	5.7°	<6° C Acceptable If given sufficient time to cool.		

Number of preserved bottles checked for pH: N/A

(2) <2 >12 unless noted below.

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: 10-27-10
Drainage North of TK#38

Project #:

Project Manager:

Sampler: Bob

On Ice: Yes

Sample Temperature: <1

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. 1011423	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)	Major Cations/Anions	Carbonates	Alkalinity AT		Air Bubbles (Y or N)
10-27-10	1:50	H_2O	East Fork	3-VOA	HCl	1										X						
/		/	/	1-250ml	H_2SO_4													X	X	X		

Date:	Time:	Relinquished by:	Received by:	Date	Time
10-28-10	3:00	Robert Krakow	[signature]	10/29	430A
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:
10/29/10 per CH Sending more Volume for Cations/Alk/Anions
AT

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.

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

Project #:

Project Manager:

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 6.1

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. 1011023	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)	Major Cations/Anions	Carbonates	Alkalinity		Air Bubbles (Y or N)
11-1-10	1:15	H2O	EAST FORK	1-500ml		-2												X	X	X		
11-1-10	1:15	H2O	" "	1-500ml	HNO3													X	X	X		

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
11-11-10	3:00	Robert Krakow		11/2/10	1030
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

Monday, January 03, 2011

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

Order No.: 1011933

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 11/23/2010 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: *03-Jan-11*

CLIENT: Western Refining Southwest, Inc.
Project: Drainage North of TK #38
Lab Order: 1011933

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
1011933-01A	East Fork	R42411	EPA Method 8015B: Gasoline Range	11/22/2010 1:30:00 PM
1011933-01A	East Fork	R42386	EPA Method 8260: Volatiles Short List	11/22/2010 1:30:00 PM
1011933-01B	East Fork	24676	EPA Method 8015B: Diesel Range	11/22/2010 1:30:00 PM
1011933-01C	East Fork	24685	EPA 6010B: Total Recoverable Metals	11/22/2010 1:30:00 PM
1011933-01D	East Fork	R42368	SM 2320B: Alkalinity	11/22/2010 1:30:00 PM
1011933-01D	East Fork	R42328	EPA Method 300.0: Anions	11/22/2010 1:30:00 PM
1011933-01D	East Fork	R42328	EPA Method 300.0: Anions	11/22/2010 1:30:00 PM

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Jan-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	East Fork
Lab Order:	1011933	**Collection Date:**	11/22/2010 1:30:00 PM
Project:	Drainage North of TK #38	**Date Received:**	11/23/2010
Lab ID:	1011933-01	**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	11/30/2010 6:33:22 PM
Motor Oil Range Organics (MRO)	ND	2.5		mg/L	1	11/30/2010 6:33:22 PM
Surr: DNOP	128	82-162		%REC	1	11/30/2010 6:33:22 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/30/2010 1:17:37 PM
Surr: BFB	101	84.5-118		%REC	1	11/30/2010 1:17:37 PM
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	0.44	0.10		mg/L	1	11/23/2010 9:03:27 PM
Chloride	12	0.50		mg/L	1	11/23/2010 9:03:27 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	11/23/2010 9:03:27 PM
Bromide	0.14	0.10		mg/L	1	11/23/2010 9:03:27 PM
Nitrogen, Nitrate (As N)	0.14	0.10		mg/L	1	11/23/2010 9:03:27 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/23/2010 9:03:27 PM
Sulfate	75	10		mg/L	20	11/23/2010 9:20:52 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **RAGS**
Calcium	65	1.0		mg/L	1	12/7/2010 5:51:24 PM
Magnesium	17	1.0		mg/L	1	12/7/2010 5:51:24 PM
Potassium	1.4	1.0		mg/L	1	12/7/2010 5:51:24 PM
Sodium	53	1.0		mg/L	1	12/7/2010 5:51:24 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	11/29/2010 5:55:56 PM
Toluene	ND	1.0		µg/L	1	11/29/2010 5:55:56 PM
Ethylbenzene	ND	1.0		µg/L	1	11/29/2010 5:55:56 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/29/2010 5:55:56 PM
Xylenes, Total	ND	2.0		µg/L	1	11/29/2010 5:55:56 PM
Surr: 1,2-Dichloroethane-d4	101	77.7-113		%REC	1	11/29/2010 5:55:56 PM
Surr: 4-Bromofluorobenzene	94.1	76.4-106		%REC	1	11/29/2010 5:55:56 PM
Surr: Dibromofluoromethane	99.0	91.6-125		%REC	1	11/29/2010 5:55:56 PM
Surr: Toluene-d8	96.6	92.3-107		%REC	1	11/29/2010 5:55:56 PM
SM 2320B: ALKALINITY						Analyst: **IC**
Alkalinity, Total (As CaCO3)	250	20		mg/L CaCO3	1	11/24/2010 9:33:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	11/24/2010 9:33:00 PM
Bicarbonate	250	20		mg/L CaCO3	1	11/24/2010 9:33:00 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

Lab Order: 1011933
Client: Western Refining Southwest, Inc.
Project: Drainage North of TK #38

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Instrument Run ID	QC Batch ID	Prep Date	Analysis Date
1011933-01A	East Fork	11/22/2010 1:30:00 PM	Aqueous	EPA Method 8015B: Gasoline Range	APOLLO_101130A	R42411		11/30/2010
				EPA Method 8260: Volatiles Short List	THOR_101129A	R42386		11/29/2010
1011933-01B				EPA Method 8015B: Diesel Range	ID(17A) 2_101130/	24676	11/29/2010	11/30/2010
1011933-01C				EPA 6010B: Total Recoverable Metals	ISIS_101207B	24685	11/29/2010	12/7/2010
1011933-01D				EPA Method 300.0: Anions	ORION_101123A	R42328		11/23/2010
				EPA Method 300.0: Anions	ORION_101123A	R42328		11/23/2010
				SM 2320B: Alkalinity	OSEIDON_101124.	R42368		11/24/2010

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK #38 **Work Order:** 1011933

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: R42328**		**Analysis Date: 11/23/2010 1:42:56 PM**			
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
Nitrogen, Nitrite (As N)	ND	mg/L	0.10								
Bromide	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: R42328**		**Analysis Date: 11/23/2010 2:00:21 PM**			
Fluoride	0.5250	mg/L	0.10	0.5	0	105	90	110			
Chloride	4.906	mg/L	0.50	5	0	98.1	90	110			
Nitrogen, Nitrite (As N)	1.000	mg/L	0.10	1	0	100	90	110			
Bromide	2.452	mg/L	0.10	2.5	0	98.1	90	110			
Nitrogen, Nitrate (As N)	2.528	mg/L	0.10	2.5	0.0167	100	90	110			
Phosphorus, Orthophosphate (As P)	4.861	mg/L	0.50	5	0	97.2	90	110			
Sulfate	10.02	mg/L	0.50	10	0	100	90	110			
Method: SM 2320B: Alkalinity											
Sample ID: MB-1		*MBLK*				**Batch ID: R42368**		**Analysis Date: 11/24/2010 3:14:00 PM**			
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: MB-2		*MBLK*				**Batch ID: R42368**		**Analysis Date: 11/24/2010 7:30:00 PM**			
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: LCS-1		*LCS*				**Batch ID: R42368**		**Analysis Date: 11/24/2010 3:20:00 PM**			
Alkalinity, Total (As CaCO3)	80.04	mg/L Ca	20	80	0	100	96.5	104			
Sample ID: LCS-2		*LCS*				**Batch ID: R42368**		**Analysis Date: 11/24/2010 7:36:00 PM**			
Alkalinity, Total (As CaCO3)	80.56	mg/L Ca	20	80	0	101	96.5	104			
Method: EPA Method 8015B: Diesel Range											
Sample ID: 1011933-01BMSD		*MSD*				**Batch ID: 24676**		**Analysis Date: 11/30/2010 7:40:33 PM**			
Diesel Range Organics (DRO)	2.452	mg/L	0.20	2.5	0.107	93.8	71	161	15.5	23	
Sample ID: MB-24676		*MBLK*				**Batch ID: 24676**		**Analysis Date: 11/30/2010 4:51:29 PM**			
Diesel Range Organics (DRO)	ND	mg/L	0.20								
Motor Oil Range Organics (MRO)	ND	mg/L	2.5								
Sample ID: LCS-24676		*LCS*				**Batch ID: 24676**		**Analysis Date: 11/30/2010 5:25:35 PM**			
Diesel Range Organics (DRO)	2.822	mg/L	0.20	2.5	0.1265	108	74	157			
Sample ID: LCSD-24676		*LCSD*				**Batch ID: 24676**		**Analysis Date: 11/30/2010 5:59:30 PM**			
Diesel Range Organics (DRO)	2.833	mg/L	0.20	2.5	0.1265	108	74	157	0.386	23	
Sample ID: 1011933-01BMS		*MS*				**Batch ID: 24676**		**Analysis Date: 11/30/2010 7:06:57 PM**			
Diesel Range Organics (DRO)	2.865	mg/L	0.20	2.5	0.107	110	71	161			

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK #38 **Work Order:** 1011933

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 5ML RB		*MBLK*				Batch ID: **R42411**		Analysis Date: 11/30/2010 8:39:20 AM			
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 2.5UG GRO LCS		*LCS*				Batch ID: **R42411**		Analysis Date: 11/30/2010 5:08:50 PM			
Gasoline Range Organics (GRO)	0.5788	mg/L	0.050	0.5	0	116	83.7	124			
Sample ID: 2.5UG GRO LCSD		*LCSD*				Batch ID: **R42411**		Analysis Date: 11/30/2010 5:37:42 PM			
Gasoline Range Organics (GRO)	0.5414	mg/L	0.050	0.5	0	108	83.7	124	6.68	12	
Method: EPA Method 8260: Volatiles Short List											
Sample ID: 5mL rb		*MBLK*				Batch ID: **R42386**		Analysis Date: 11/29/2010 8:17:42 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: **R42386**		Analysis Date: 11/29/2010 7:41:01 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: **R42386**		Analysis Date: 11/29/2010 9:10:07 AM			
Benzene	18.11	µg/L	1.0	20	0	90.6	84.6	109			
Toluene	19.31	µg/L	1.0	20	0	96.6	81	114			
Sample ID: 100ng lcs		*LCS*				Batch ID: **R42386**		Analysis Date: 11/29/2010 8:33:29 PM			
Benzene	19.11	µg/L	1.0	20	0	95.6	84.6	109			
Toluene	17.63	µg/L	1.0	20	0	88.1	81	114			
Method: EPA 6010B: Total Recoverable Metals											
Sample ID: MB-24685		*MBLK*				Batch ID: **24685**		Analysis Date: 12/7/2010 11:19:43 AM			
Calcium	ND	mg/L	1.0								
Magnesium	ND	mg/L	1.0								
Sample ID: MB-24685		*MBLK*				Batch ID: **24685**		Analysis Date: 12/7/2010 5:05:43 PM			
Potassium	ND	mg/L	1.0								
Sodium	ND	mg/L	1.0								
Sample ID: LCS-24685		*LCS*				Batch ID: **24685**		Analysis Date: 12/7/2010 11:22:50 AM			
Calcium	53.44	mg/L	1.0	50	0.0708	107	80	120			
Magnesium	53.73	mg/L	1.0	50	0.1838	107	80	120			
Sample ID: LCS-24685		*LCS*				Batch ID: **24685**		Analysis Date: 12/7/2010 5:08:45 PM			
Potassium	53.11	mg/L	1.0	50	0	106	80	120			
Sodium	49.28	mg/L	1.0	50	0.6185	97.3	80	120			

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: 11/23/2010

Work Order Number 1011933 — Received by: AMG

Checklist completed by: Michelle Gei (Signature) 11/23/10 (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 ☐			
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?	4.7°	<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 ____

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: 11-22-10
DRAINAGE North of TK#38

Project #:

Project Manager:

Sampler: Bob

On Ice: ☒ Yes ☐ No

Sample Temperature: 4

HEAL No. 1004033

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1004033
11-22-10	1:30	H_2O	EAST FORK	3-VOA	HCl	-1
		H_2O	" "	1-500ml	amber	
		H_2O	" "	1-250ml	H_2SO_4	
		H_2O	" "	1-500ml		
		H_2O	" "	1-500ml	HNO_3	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only) MRO	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)	8015B DRO	Major Cations/Anions	Carbonates	Alkalinity	Air Bubbles (Y or N)
		X							X						
											X				
												X	X	X	
												X	X	X	
												X	X	X	

Date	Time	Relinquished by:	Received by:	Date	Time
11-22-10	3:00	Robert Krakow		11/23/10	10:35
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
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, January 06, 2011

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

Order No.: 1012812

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 12/21/2010 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: *06-Jan-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	East Fork
Lab Order:	1012812	**Collection Date:**	12/20/2010 9:20:00 AM
Project:	Drainage North of TK #38	**Date Received:**	12/21/2010
Lab ID:	1012812-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.41	0.10		mg/L	1	12/23/2010 2:55:02 PM
Chloride	12	0.50		mg/L	1	12/23/2010 3:37:03 AM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	12/27/2010 7:34:15 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	12/23/2010 3:37:03 AM
Sulfate	74	10		mg/L	20	12/23/2010 3:54:28 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Calcium	63	1.0		mg/L	1	1/4/2011 2:52:56 PM
Magnesium	17	1.0		mg/L	1	1/4/2011 2:52:56 PM
Potassium	1.8	1.0		mg/L	1	1/4/2011 2:52:56 PM
Sodium	53	1.0		mg/L	1	1/4/2011 2:52:56 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	12/23/2010 8:18:20 PM
Toluene	ND	1.0		µg/L	1	12/23/2010 8:18:20 PM
Ethylbenzene	ND	1.0		µg/L	1	12/23/2010 8:18:20 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	12/23/2010 8:18:20 PM
Xylenes, Total	ND	2.0		µg/L	1	12/23/2010 8:18:20 PM
Surr: 1,2-Dichloroethane-d4	91.6	77.7-113		%REC	1	12/23/2010 8:18:20 PM
Surr: 4-Bromofluorobenzene	113	76.4-106	S	%REC	1	12/23/2010 8:18:20 PM
Surr: Dibromofluoromethane	88.8	91.6-125	S	%REC	1	12/23/2010 8:18:20 PM
Surr: Toluene-d8	101	92.3-107		%REC	1	12/23/2010 8:18:20 PM
SM 2320B: ALKALINITY						Analyst: **IC**
Alkalinity, Total (As CaCO3)	250	20		mg/L CaCO3	1	12/27/2010 9:11:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	12/27/2010 9:11:00 PM
Bicarbonate	250	20		mg/L CaCO3	1	12/27/2010 9:11:00 PM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK #38 **Work Order:** 1012812

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB		*MBLK*				Batch ID: **R42828**		Analysis Date: 12/22/2010 10:12:30 AM			
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
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: **R42828**		Analysis Date: 12/22/2010 10:41:06 PM			
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
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: **R42855**		Analysis Date: 12/23/2010 1:27:59 PM			
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
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: **R42882**		Analysis Date: 12/27/2010 2:38:14 PM			
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
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: **R42828**		Analysis Date: 12/22/2010 10:29:55 AM			
Fluoride	0.5095	mg/L	0.10	0.5	0	102	90	110			
Chloride	5.054	mg/L	0.50	5	0	101	90	110			
Nitrate (As N)+Nitrite (As N)	3.622	mg/L	0.20	3.5	0	103	90	110			
Phosphorus, Orthophosphate (As P)	5.185	mg/L	0.50	5	0	104	90	110			
Sulfate	10.25	mg/L	0.50	10	0	102	90	110			
Sample ID: LCS		*LCS*				Batch ID: **R42828**		Analysis Date: 12/22/2010 10:58:31 PM			
Chloride	5.161	mg/L	0.50	5	0	103	90	110			
Nitrate (As N)+Nitrite (As N)	3.675	mg/L	0.20	3.5	0	105	90	110			
Phosphorus, Orthophosphate (As P)	5.151	mg/L	0.50	5	0	103	90	110			
Sulfate	10.68	mg/L	0.50	10	0	107	90	110			
Sample ID: LCS		*LCS*				Batch ID: **R42855**		Analysis Date: 12/23/2010 1:45:23 PM			
Fluoride	0.5432	mg/L	0.10	0.5	0	109	90	110			
Chloride	5.134	mg/L	0.50	5	0	103	90	110			
Nitrate (As N)+Nitrite (As N)	3.727	mg/L	0.20	3.5	0	106	90	110			
Phosphorus, Orthophosphate (As P)	5.329	mg/L	0.50	5	0	107	90	110			
Sulfate	10.80	mg/L	0.50	10	0	108	90	110			
Sample ID: LCS		*LCS*				Batch ID: **R42882**		Analysis Date: 12/27/2010 2:55:39 PM			
Fluoride	0.5040	mg/L	0.10	0.5	0	101	90	110			
Chloride	4.908	mg/L	0.50	5	0	98.2	90	110			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK #38 **Work Order:** 1012812

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: LCS		*LCS*				Batch ID:	**R42882**	Analysis Date:		12/27/2010 2:55:39 PM	
Nitrate (As N)+Nitrite (As N)	3.546	mg/L	0.20	3.5	0	101	90	110			
Phosphorus, Orthophosphate (As P)	4.818	mg/L	0.50	5	0	96.4	90	110			
Sulfate	9.990	mg/L	0.50	10	0	99.9	90	110			
Method: SM 2320B: Alkalinity											
Sample ID: MB-1		*MBLK*				Batch ID:	**R42931**	Analysis Date:		12/27/2010 7:08:00 PM	
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: MB-2		*MBLK*				Batch ID:	**R42931**	Analysis Date:		12/28/2010 3:23:00 AM	
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: LCS-1		*LCS*				Batch ID:	**R42931**	Analysis Date:		12/27/2010 7:14:00 PM	
Alkalinity, Total (As CaCO3)	80.47	mg/L Ca	20	80	0	101	96.5	104			
Sample ID: LCS-2		*LCS*				Batch ID:	**R42931**	Analysis Date:		12/28/2010 3:29:00 AM	
Alkalinity, Total (As CaCO3)	80.12	mg/L Ca	20	80	0	100	96.5	104			
Method: EPA Method 8260: Volatiles Short List											
Sample ID: 1012812-01a msd		*MSD*				Batch ID:	**R42858**	Analysis Date:		12/23/2010 9:13:22 PM	
Benzene	17.40	µg/L	1.0	20	0	87.0	73.1	117	1.04	11.3	
Toluene	19.70	µg/L	1.0	20	0	98.5	82.9	109	5.03	11.6	
Sample ID: b2		*MBLK*				Batch ID:	**R42858**	Analysis Date:		12/23/2010 10:09:21 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:	**R42858**	Analysis Date:		12/23/2010 11:25:51 AM	
Benzene	18.68	µg/L	1.0	20	0	93.4	84.6	109			
Toluene	21.98	µg/L	1.0	20	0	110	81	114			
Sample ID: 1012812-01a ms		*MS*				Batch ID:	**R42858**	Analysis Date:		12/23/2010 8:45:51 PM	
Benzene	17.22	µg/L	1.0	20	0	86.1	73.1	117			
Toluene	20.72	µg/L	1.0	20	0	104	82.9	109			

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Drainage North of TK #38 **Work Order:** 1012812

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals											
Sample ID: MB-25069		*MBLK*				Batch ID:	**25069**	Analysis Date:		**1/4/2011 2:12:47 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: LCS-25069		*LCS*				Batch ID:	**25069**	Analysis Date:		**1/4/2011 2:16:09 PM**	
Calcium	51.00	mg/L	1.0	50	0	102	80	120			
Magnesium	53.49	mg/L	1.0	50	0	107	80	120			
Potassium	54.76	mg/L	1.0	50	0	110	80	120			
Sodium	51.56	mg/L	1.0	50	0	103	80	120			

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: **12/21/2010**

Work Order Number **1012812** Received by: **MMG**

Checklist completed by: Signature 12/21/10 Date Sample ID labels checked by: YG 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 ☐		
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?	**2.5°**	*<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 _____

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

Project #:

Project Manager:

Sampler: Bob

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.5

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. #1012512	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)	Major Cations/Anions	Carbonates	Alkalinity		Air Bubbles (Y or N)
12-20-10	9:20	H_2O	East Fork	3-VOA	HCl											X						
		"	" "	1-250ml	H_2SO_4													X	X	X		
		"	" "	1-500ml	—													X	X	X		
		"	" "	1-500ml	HNO_3													X	X	X		
																	X	X	X			

Remarks:

Date	Time	Relinquished by:	Received by:	Date	Time
12-20-10	3:00	Robert Krakow	Michelle Gee	12/21/10	1220
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.

SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
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

DAVE MARTIN
Secretary

RAJ SOLOMON, P.E.
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

March 2, 2011

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

RE: RESPONSE TO NEWLY SURFACED GROUNDWATER DATA SUMMARY
WESTERN REFINING SOUTHWEST INC., BLOOMFIELD REFINERY
EPA ID# NMD089416416
HWB-WRB-MISC

Dear Mr. Schmaltz:

The New Mexico Environment Department (NMED) has reviewed Western Refining Southwest, Inc., Bloomfield Refinery (Western) *Newly Surfaced Groundwater Data Summary* letter dated February 11, 2011. The letter summarizes the discovery of surface water containing concentrations of benzene at a location designated East Fork, north of the Raw Water Ponds, and the results of water sampling required by NMED's July 30, 2010 letter.

As water is still present in the East Fork, Western proposes to "collect one surface water sample from the East Fork and flow measurements from Outfall#3 and the East Fork one week before water is let into Hammond Ditch and a follow up sample and flow measurements six weeks after ditch operations commence. Samples will be analyzed for [benzene, toluene, ethylbenzene, xylenes] BTEX and [methyl tert-Butyl Ether] MTBE using EPA Method 8260 and for gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) using EPA Method 8015."

Within 30 days after collection of the six-week sampling event Western must submit the analytical results, present any additional findings, and propose future monitoring activities for the East Fork. The findings and proposed monitoring activities must also be submitted to the Oil Conservation Division (OCD).

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

Sincerely,

John E. Kieling
Program Manager
Permits Management Program
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
H. Petrie, NMED HWB
C. Chavez, OCD
A. Hains, Western
File: HWB-WRB-MISC and Reading File 2011

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

November 8, 2010

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

RE: NOTICE OF DISAPPROVAL
INVESTIFATION WORK PLAN GROUP 6 (AOC NO. 19 SEEP NORTH OF MW-45, AOC NO. 20 SEEP NORTH OF MW-46, AND AOC NO. 21 SEEP NORTH OF MW-47)
WESTERN REFINING SOUTHWEST, INC., BLOOMFIELD REFINERY
EPA ID # NMD089416416
WRB-10-002

Dear Mr. Schmaltz:

The New Mexico Environment Department (NMED) has reviewed Western Refining Southwest, Inc., Bloomfield Refinery (Western) *Investigation Work Plan Group 6 (AOC No. 19 Seep North of MW-45, AOC No. 20 Seep North of MW-46, and AOC No. 21 Seep North of MW-47)* (Work Plan) dated December, 2009. NMED hereby issues this Notice of Disapproval. Western must address the following comments before NMED can take final action on the Work Plan.

Comment 1
Western discusses the facility's surface and subsurface conditions in Sections 3.1 (Surface Conditions) and Section 3.2 (Subsurface Conditions). However, these Sections do not address the conditions for subject AOCs. Western must revise these Sections to address the surface and subsurface conditions for AOCs 19, 20, and 21.

Comment 2
In Sections 4.1 (Anticipated Activities) and 5.2 (Soil Sampling), Western proposes to advance hand augured soil borings to a depth of two feet or more based on field screening at the seeps and drainage pathways leading toward the San Juan River. Western proposes to submit soil samples collected from each boring at depths of 0-0.5 feet and 1.5 to 2 feet below ground surface (bgs), and from the intervals where field screening evidence of contamination is observed for laboratory analysis. In order to determine the vertical extent of contamination, the soil sample collected from the bottom of all samples locations must be submitted for laboratory analysis. Western must revise the Work Plan accordingly.

Comment 3
In Section 4.2 (Background Information Research), page 9, Western states "[d]ocuments containing the results of previous investigations and subsequent routine groundwater monitoring data from monitoring wells and the seeps were reviewed to facilitate development of this work plan. The previously collected data provide detailed information on the overall subsurface conditions, including hydrogeology and contaminant distribution within groundwater on a site-wide basis. The data collected under this scope of services will supplement the existing soil and groundwater information and provide specific information regarding contaminant occurrence and distribution within soils near the seeps." It is unclear where the previously collected data is located within this document. Western must identify where within the Work Plan the data are located, or revise the Work Plan to include the data.

Comment 4
In Section 5.2 (Soil Sampling), page 11, Western states "[s]urface soil samples (0-6") collected from the sides of the steep slopes along the drainage pathways and at the edge of catchment liners will be used to define the horizontal extent of any impacts identified in the seep faces and bottom of the drainage pathways." Western must also determine the vertical extent of contamination. Western must revise the Work Plan to include the details for determining the vertical extent of contamination. See also Comment 2.

Comment 6
In Section 6 (Monitoring and Sampling Program), page 20, Western states "[g]roundwater is removed from any seep where analytical results exceed any of the standards set by the Water Quality Control Commission (WQCC), the EPA Maximum Contaminant Level (MCL), or the EPA Region VI Human Health Medium Specific Screening Levels (Tap Water) in the absence of a WQCC standard or MCL (NMED, 2008)." The Tap Water Screening Levels have been replaced with the EPA Regional Screening Levels (as updated). Western must revise the Work Plan to reference the EPA Regional Screening Levels (as updated) instead of the Tap Water Screening Levels.

Comment 6
In Appendix A (Photographs), the first photograph from Google maps does not contain any cardinal directions on it. Western must revise the Work Plan to include a reference compass direction for this photograph.

Western must address all comments contained in this NOD and submit a revised Work Plan to NMED on or before February 8, 2011. The revised Work Plan must be submitted with a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments. In addition, an electronic version of the revised work plan must be submitted that identifies where all changes have been made in redline strikeout format.

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

Sincerely,

James P. Bearzi
Chief
Hazardous Waste Bureau

JPB:hm

cc: J. Kieling, NMED HWB
D. Cobrain, NMED HWB
C. Chavez, OCD
A. Hains, Western
File: WRB-10-002 and Reading 2010