State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

Follow Up to

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

API No.

Release Notification and Corrective Action

	OPERATOR	Initial Report	Final Report
Name of Company: Western Refining Southwest	Contact: Cheryl Johnson		
Address: I-40 Exit 39, Jamestown, NM 87347	Telephone No. (505) 722-3833		
Facility Name: Gallup Refinery	Facility Type: Oil Refinery		

Surface Owner: Western Refining Mineral Owner: Western Refining

LOCATION OF RELEASE

Unit LetterSectionTownshipRangeFeet from theNorth/South LineFeet from theEast/West LineCounty23 & 3315N15W15W15WMethodsNorth/South LineFeet from theEast/West LineMethods	

Latitude: 35°29'22" Longitude 108°25'24"

NATURE OF RELEASE

Type of Release: Spill	Volume of Release: < 80 BBL	Volume Recovered: 4000 gals
Source of Release: Benzene Strippers (Z-84-V5 & Z-84-V4)	Date and Hour of Occurrence:	Date and Hour of Discovery
	9-23-12, 0400 hours	9-23-12, 0400 hours
Was Immediate Notice Given?	If YES, To Whom?	
🛛 Yes 🗌 No 🗌 Not Required	Carl Chavez, NMED OCD, District	3 Supervisor, Kristen Van Horn HWB
By Whom? Cheryl Johnson and Ed Riege	Date and Hour: 9/23/12: 1330 hour	S
Was a Watercourse Reached? 🔲 Yes 🛛 No	If YES, Volume Impacting the Wat	ercourse.

* Watercourse was Impacted, Describe Fully.* Not Applicable

scribe Cause of Problem and Remedial Action Taken.* \Box On 9-23-12 at approximately 0400 hours, the benzene strippers were discovered to be overflowing through the fans and out the vent stack. Due to increased flow and foaming issues, the benzene strippers backed up causing the overflow through the fans and the vent stack. The overflow went into the concrete pad and overflowed onto the ground on all four sides of the concrete containment berm and also a portion into aeration lagoon 1. Operator decreased flow to the benzene strippers and maintenance department was called out immediately to begin vacuum and clean up procedures.

Describe Area Affected and Cleanup Action Taken.*

On the northeast side of the benzene stripper pad, waste water overflowed out of the concrete containment berm onto the ground in an area estimated to be 10 x 30 feet section was saturated and had standing water. On the west side of the concrete containment berm, an area approximately 10 x 10 feet section was also saturated with water. On the south side of the concrete berm there was also a small puddle of water. On the north side of the concrete containment berm, waste water overflowed onto the ground and flowed into aeration lagoon 1(amount unknown). All 5 aerators were on-line in both lagoons 1 and lagoon 2. Upon discovery of the overflow maintenance department was called immediately to begin vacuuming up the overflow via vacuum truck in all areas affected. A trash pump was also in service pumping out the containment area. As of 1230 hours, all the standing water had been vacuumed up by the vacuum truck. On 9-24-12 soil samples were collected from spill site and the contaminated soil will be excavated and disposed of in accordance with applicable rules and regulations.

11-28-12: Area affected was cleaned up around the benzene strippers. Approximately 25 cubic yards of stained soil was removed and placed in a roll-off for disposal offsite. A copy of the lab analysis and pictures of the clean up are also attached to this follow up report as Attachment A.

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

	OIL CONS	SERVATION D	IVISION
Signature:			
Printed Name: Ed Riege	Approved by Environmental Sp	pecialist:	
e: Environmental Manager	Approval Date:	Expiration Da	.te:
E-mail Address: <u>ed.riege@wnr.com</u>	Conditions of Approval:		Attached
Date: 11-28-12 Phone: 505-722-0217			

* Attach Additional Sheets If Necessary

ATTACHMENT A



East side of the benzene strippers

0

North-east side of the benzene strippers



West side of the benzene strippers

C

East side of the benzene strippers



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

December 20, 2012

Cheryl Johnson Western Refining Southwest, Gallup Rt. 3 Box 7 Gallup, NM 87301 TEL: (505) 722-0231 FAX (505) 722-0210

RE: BZ Strip Soil Confirmation

OrderNo.: 1212159

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/3/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Ander

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1212159 Date Reported: 12/20/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Project: BZ Strip Soil Confirmation

Client Sample ID: BZ Strip-Soil Confirmation Collection Date: 11/30/2012 12:50:00 PM Received Date: 12/3/2012 1:20:00 PM

Lab ID: 1212159-001	Matrix:	SOIL		Received E	Date: 12/3/2	012 1:20:00 PM
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE	ORGANICS					Analyst: MMD
Diesel Range Organics (DRO)	830	200		mg/Kg	20	12/6/2012 11:40:03 AM
Surr: DNOP	0	72.4-120	S	%REC	20	12/6/2012 11:40:03 AM
EPA METHOD 8015B: GASOLINE RAN	IGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/6/2012 1:48:10 PM
Surr: BFB	94.0	84-116		%REC	1	12/6/2012 1:48:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	12/6/2012 1:48:10 PM
Toluene	ND	0.048		mg/Kg	1	12/6/2012 1:48:10 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/6/2012 1:48:10 PM
Xylenes, Total	ND	0.095		mg/Kg	1	12/6/2012 1:48:10 PM
Surr: 4-Bromofluorobenzene	95.4	80-120		%REC	1	12/6/2012 1:48:10 PM
MERCURY, TCLP						Analyst: TMG
Mercury	ND	0.020		mg/L	1	12/13/2012 3:39:35 PM
EPA METHOD 6010B: TCLP METALS						Analyst: ELS
Arsenic	ND	5.0		mg/L	1	12/10/2012 10:19:34 AM
Barium	ND	100		mg/L	1	12/10/2012 10:19:34 AM
Cadmium	ND	1.0		mg/L	1	12/10/2012 10:19:34 AM
Chromium	ND	5.0		mg/L	1	12/10/2012 10:19:34 AM
Lead	ND	5.0		mg/L	1	12/10/2012 10:19:34 AM
Selenium	ND	1.0		mg/L	1	12/10/2012 10:19:34 AM
Silver	ND	5.0		mg/L	1	12/10/2012 10:19:34 AM
VOLATILES BY 8260B/1311						Analyst: RAA
Benzene	ND	0.50		mg/L.	1	12/14/2012 5:48:57 AM
2-Butanone	ND	10		mg/L	1	12/14/2012 5:48:57 AM
Carbon Tetrachloride	ND	0.50		mg/L	1	12/14/2012 5:48:57 AM
Chlorobenzene	ND	100		mg/L.	1	12/14/2012 5:48:57 AM
Chloroform	ND	6.0		mg/L	1	12/14/2012 5:48:57 AM
1,4-Dichlorobenzene	ND	7.5		mg/L	1	12/14/2012 5:48:57 AM
1,2-Dichloroethane (EDC)	. ND	0.50		mg/L	1	12/14/2012 5:48:57 AM
1,1-Dichloroethene	ND	0.70		mg/L	1	12/14/2012 5:48:57 AM
Hexachlorobutadiene	ND	0.50		mg/L	1	12/14/2012 5:48:57 AM
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	12/14/2012 5:48:57 AM
Trichloroethene (TCE)	ND	0.50		mg/L	1	12/14/2012 5:48:57 AM
Vinyl chloride	ND	0.20		mg/L	1	12/14/2012 5:48:57 AM
Surr: 1,2-Dichloroethane-d4	89.4	69.9-130		%REC	1	12/14/2012 5:48:57 AM
Surr: 4-Bromofluorobenzene	102	71.2-123		%REC	1	12/14/2012 5:48:57 AM
Surr: Dibromofluoromethane	85.9	73.9-13 4		%REC	1	12/14/2012 5:48:57 AM
Surr: Toluene-d8	96.0	81.9-122		%REC	1	12/14/2012 5:48:57 AM

Qualifiers:

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- Value exceeds Maximum Contaminant Level. Ε Value above quantitation range
- Analyte detected below quantitation limits J
- Ρ Sample pH greater than 2
- RL Reporting Detection Limit

- Analyte detected in the associated Method Blank в
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits S

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	Batch #:	121206040
Address:	4901 HAWKINS NE SUITE D	Project Name:	1212159
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number Client Sample ID Matrix Comments	121206040-001 1212159-001C / BZ ST Soil	San RIP-SOIL CON	n pling Date FIRMATION	11/30/2012	D	Date/Time Receive Sampling Time	id 12/6/2012 12:50 PM	10:45 AM	
Parameter		Result	Units	PQL	Analysis Date	e Analyst	Method	Qualifier	
Cyanide (reacti	ve)	0.378	mg/Kg	0.3	12/12/2012	CRW	SW846 CH7		
Ignitability		Negative			12/7/2012	JMC	EPA 1030		
pН		8.19	ph Units		12/7/2012	ETL	EPA 9045	÷	
Reactive sulfide	•	75.3	mg/kg	27	12/13/2012	JTT	SW846 CH7		
%moisture		8.5	Percent		12/12/2012	CRW	%moisture		

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level

ND Not Detected

PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory. The results reported relate only to the samples indicated. Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C586; MT:Cert0095

Monday, December 17, 2012

Page 1 of 1

Client:	Western I	Refining S	outhwe	est, Gallup							
Project:	BZ Strip	Soil Confi	rmatio	n							
Sample ID	MB-5122	SampT	уре: М	BLK	Tes	tCode: El	PA Method	8015B: Dies	el Range (Organics	
Client ID:	PBS	Batcl	h ID: 51	22	F	RunNo: 7	319				
Prep Date:	12/5/2012	Analysis E	Date: 1	2/6/2012	S	SeqNo: 2	12356	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	ND	10								
Surr: DNOP		9.8		10.00		98.0	72.4	120			
Sample ID	LCS-5122	SampT	ype: L	cs	Tes	tCode: El	PA Method	8015B: Dies	el Range (Organics	
Client ID:	LCSS	Batcl	h ID: 51	22	F	RunNo: 7	319				
Prep Date:	12/5/2012	Analysis D	Date: 1	2/6/2012	5	SeqNo: 2	12357	Units: mg/ł	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	47	10	50.00	0	94.2	47.4	122			
Surr: DNOP		4.2		5.000		84.5	72.4	120			
Sample ID	1212091-001AMS	Samp	уре: М	s	Tes	tCode: El	PA Method	8015B: Dies	el Range (Organics	
Client ID:	BatchQC	Batc	h ID: 51	22	F	RunNo: 7	319				
Prep Date:	12/5/2012	Analysis E	Date: 1	2/6/2012	5	SeqNo: 2	12656	Units: mg/h	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	790	10	51.98	567.8	424	12.6	148			S
Surr: DNOP		6.1		5.198		117	72.4	120			
Sample ID	1212091-001AMS	D Samp1	Гуре: М	SD	Tes	tCode: El	PA Method	8015B: Dies	el Range (Organics	
Client ID:	BatchQC	Batc	h ID: 51	22	F	RunNo: 7	319				
Prep Date:	12/5/2012	Analysis [Date: 1	2/6/2012	5	SeqNo: 2	12678	Units: mg/ł	۶g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	900	9.9	49.60	567.8	663	12.6	148	12.9	22.5	S
Surr: DNOP	1	7.0		4.960		141	72.4	120	0	0	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

WO#: 1212159

QC SUMMARY REPORT

Client: Western Project: BZ Strip	Refining Sout	hwest	t, Gallup							
De Sup										
Sample ID MB-5125	SampType	: MB	LK	Tes	tCode: El	PA Method	8015B: Gaso	oline Rang	le	
Client ID: PBS	Batch ID	: 512	5	F	RunNo: 7	329				
Prep Date: 12/5/2012	Analysis Date	: 12/	6/2012	5	SeqNo: 2	13035	Units: mg/h	٢g		
Analyte	Result P	QL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		90.7	84	116			
Sample ID LCS-5125	SampType	: LCS	3	Tes	tCode: El	PA Method	8015B: Gaso	oline Rang	e	
Client ID: LCSS	Batch ID	512	5	F	lunNo: 7	329				
Prep Date: 12/5/2012	Analysis Date	: 12/	6/2012	S	eqNo: 2	13036	Units: mg/k	٢g		
Analyte	Result P	QL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.2	74	117			
Surr: BFB	930		1000		92.5	84	116			
Sample ID 1212182-003AMS	SampType	: MS		Tes	tCode: El	PA Method	8015B: Gaso	oline Rang	e	
Client ID: BatchQC	Batch ID	512	5	F	tunNo: 7	329				
Prep Date: 12/5/2012	Analysis Date	: 12/	6/2012	5	eqNo: 2	13071	Units: mg/h	٢g		
Analyte	Result P	QL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.8	24.08	0	88.5	70	130			
'um: BFB	920		963.4		95.3	84	116			
Sample ID 1212182-003AMS	D SampType	: MSI	D	Tes	Code: El	PA Method	8015B: Gaso	line Rang	e	
Client ID: BatchQC	Batch ID	: 512	5	R	unNo: 7	329				
Prep Date: 12/5/2012	Analysis Date	: 12/	6/2012	s	eqNo: 2	13077	Units: mg/H	٢g		
Analyte	Result P	QL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.8	24.25	0	83.0	70	130	5.67	22.1	
· Surr: BFB	890		969.9		91.4	84	116	0	0	
Sample ID LCS-5125	SampType	LCS	3	Tes	Code: Ef	PA Method	8015B: Gaso	oline Rang	le	
Client ID: LCSS	Batch ID	512	5	F	unNo: 7	362				
Prep Date: 12/5/2012	Analysis Date	: 12/	7/2012	5	eqNo: 2	14058	Units: mg/F	(g		
Analyte	Result P	QL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.7	74	117			
Surr: BFB	930		1000		92.7	84	116			

Hall Environmental Analysis Laboratory, Inc.

Qualifiers:

Value exceeds Maximum Contaminant Level.

Value above quantitation range Ē

Analyte detected below quantitation limits J

Р Sample pH greater than 2

Analyte detected in the associated Method Blank В

Н Holding times for preparation or analysis exceeded

- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 3 of 8

20-Dec-12

WO#:

1212159

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Client:	Western	Refining S	Southwe	st, Gallup							
Project:	BZ Strip	o Soil Conf	irmation	1							
Sample ID	MB-5125	Samp	Туре: М	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batc	h ID: 51	25	F	RunNo: 7	329				
Prep Date:	12/5/2012	Analysis [Date: 12	2/6/2012	S	SeqNo: 2	13118	Units: mg/h	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.050								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Bron	nofluorobenzene	0.97		1.000		97.0	80	120			
Sample ID	LCS-5125	Samp	Type: LC	S	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batc	h ID: 51	25	F	RunNo: 7	329				
Prep Date:	12/5/2012	Analysis [Date: 12	2/6/2012	S	SeqNo: 2	13119	Units: mg/l	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.99	0.050	1.000	0	98.6	76.3	117			
Toluene		0.99	0.050	1.000	0	99.0	80	120			
Ethylbenzene		1.0	0.050	1.000	0	101	77	116			
Xylenes, Total		3.0	0.10	3.000	0	100	76.7	117			
Surr: 4-Bron	nofluorobenzene	1.0		1.000		101	80	120			10.01
Sample ID	1212159-001AMS	Samp	Туре: М	3	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	BZ Strip-Soil Co	nfir Batc	h ID: 51	25	F	RunNo: 7	329				
Prep Date:	12/5/2012	Analysis [Date: 12	2/6/2012	5	SeqNo: 2	13123	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.0	0.049	0.9709	0	104	67.2	113			
Toluene		1.0	0.049	0.9709	0	105	62.1	116			
Ethylbenzene		1.0	0.049	0.9709	0.004829	107	67.9	127			
Xylenes, Total		3.1	0.097	2.913	0	107	60.6	134			
Surr: 4-Bron	nofluorobenzene	0.95		0.9709		97.6	80	120			
Sample ID	1212159-001AMS	SD Samp	Туре: М	SD	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	BZ Strip-Soil Co	nfir Batc	h ID: 51	25	F	RunNo: 7	329				
Prep Date:	12/5/2012	Analysis [Date: 12	2/6/2012	S	SeqNo: 2	13124	Units: mg/ł	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.0	0.048	0.9699	0	103	67.2	113	1.58	14.3	
Toluene		1.0	0.048	0.9699	0	105	62.1	116	0.511	15.9	
Ethylbenzene		1.0	0.048	0.9699	0.004829	106	67.9	127	0.756	14.4	
Xylenes, Total		3.1	0.097	2.910	0	106	60.6	134	0.915	12.6	
Surr: 4-Bron	nofluorobenzene	0.97		0.9699		99.6	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

WO#: 1212159

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

Client: Western Refining Southwest, Gallup

Project: BZ Strip Soil Confirmation

Sample ID mb-5145	SampT	уре: МЕ	BLK	Tes	stCode: Volatiles by 8260B/1311					
Client ID: PBS	Batch	n ID: 51	45	R	unNo: 7	501				
Prep Date: 12/6/2012	Analysis D	ate: 12	2/14/2012	s	eqNo: 2	17709	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.50								
2-Butanone	ND	10								
Carbon Tetrachloride	ND	0.50								
Chlorobenzene	ND	100								
Chloroform	ND	6.0								
1,4-Dichlorobenzene	ND	7.5								
1,2-Dichloroethane (EDC)	ND	0.50								
1,1-Dichloroethene	ND	0.70								
Hexachlorobutadiene	ND	0.50								
Tetrachloroethene (PCE)	ND	0.70								
Trichloroethene (TCE)	ND	0.50								
Vinyl chloride	ND	0.20								
Surr: 1,2-Dichloroethane-d4	0.18		0.2000		89.9	69.9	130			
Surr: 4-Bromofluorobenzene	0.20		0.2000		100	71.2	123			
Surr: Dibromofluoromethane	0.17		0.2000		86.5	73.9	134			
Surr: Toluene-d8	0.20		0.2000		98.1	81.9	122			
mple ID Ics-5145	SampT	ype: LC	S	Test	Code: Ve	olatiles by 8	B260B/1311			
Client ID: LCSS	Batch	n ID: 51	45	R	unNo: 7	501				
Prep Date: 12/6/2012	Analysis D	ate: 12	2/14/2012	S	eqNo: 2	17710	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.41	0.30	0.4000	0	102	51.1	171			
Chlorobenzene	0.41	0.30	0.4000	0	104	36.1	191			
1,1-Dichloroethene	0.43	0.30	0.4000	0	107	49.1	162			
Trichloroethene (TCE)	0.33	0.30	0.4000	0	83.0	41.2	166			
Surr: 1,2-Dichloroethane-d4	0.18		0.2000		90.9	69.9	130			
Surr: 4-Bromofluorobenzene	0.21		0.2000		104	71.2	123			
Surr: Dibromofluoromethane	0.17		0.2000		83.2	73.9	134			
Surr: Toluene-d8	0.19		0.2000		96.0	81.9	122			
Sample ID 1212159-001ams	SampT	ype: MS	6	Tes	Code: Ve	olatiles by 8	8260B/1311			
Client ID: BZ Strip-Soil Cor	nfir Batch	n ID: 51	45	R	tunNo: 7	501				
Prep Date: 12/6/2012	Analysis D	ate: 12	2/14/2012	S	eqNo: 2	17713	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.40	0.30	0.4000	0	100	51.1	171			
Chlorobenzene	0.42	0.30	0.4000	0	105	36.1	191			
1,1-Dichloroethene	0.42	0.30	0.4000	0	106	49.1	162			
Trichloroethene (TCE)	0.34	0.30	0.4000	0	84.3	41.2	166			
Trichloroethene (TCE) Surr: 1,2-Dichloroethane-d4	0.34 0.18	0.30	0.4000 0.2000	0	84.3 92.0	41.2 69.9	166 130			

Oualifiers:

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

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WO#: 1212159

Client: Project:	Western I BZ Strip	Refining S Soil Confi	outhwe	st, Gallup								
Sample ID	1212159-001ams	SampT	ype: MS	5	Tes	Code: V	olatiles by l	8260B/1311				
Client ID:	BZ Strip-Soil Con	fir Batcl	h ID: 514	45	F	unNo: 7	501					
Prep Date:	12/6/2012	Analysis E	ate: 12	2/14/2012	S	eqNo: 2	17713	Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: Dibrorr	nofluoromethane	0.18		0.2000		87.7	73.9	134				
Surr: Toluen	ne-d8	0.19		0.2000		95.1	81.9	122				
Sample ID	Sample ID 1212159-001amsd SampType: MSD TestCode: Volatiles by 8260B/1311											
Client ID:	BZ Strip-Soil Con	fir Batcl	h ID: 51	45	F	unNo: 7	501					
Prep Date:	12/6/2012	Analysis E	Date: 12	2/14/2012	5	SeqNo: 217714		Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene		0.40	0.30	0.4000	0	99.3	51.1	171	1.04	0		
Chlorobenzen	e	0.43	0.30	0.4000	0	107	36.1	191	2.30	0		
1,1-Dichloroett	hene	0.40	0.30	0.4000	0	100	49.1	162	4.88	0		
Trichloroethen	e (TCE)	0.32	0.30	0.4000	0	80.7	41.2	166	4.33	0		
Surr: 1,2-Did	chloroethane-d4	0.19		0.2000		92.8	69.9	130	0	0		
Surr: 4-Bron	nofluorobenzene	0.21		0.2000		103	71.2	123	0	0		
Surr: Dibrom	nofluoromethane	0.17		0.2000		84.9	73.9	134	0	0		
Surr: Toluer	ne-d8	0.20		0.2000		98.6	81.9	122	0	0		

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

WO#: 1212159

QC SUMMARY REPORT

"all Environmental Analysis Laboratory, Inc.

Client: Project:	: Western Refining Southwest, Gallup et: BZ Strip Soil Confirmation														
Sample ID	MB-5169	Samp	Туре: М	3LK	TestCode: EPA Method 6010B: TCLP Metals										
Client ID:	PBW	Bato	h ID: 51	69	RunNo: 7401										
Prep Date:	12/9/2012	Analysis I	Date: 12	2/10/2012	S	SeqNo: 2	14402								
Analyte	Result PQL SPK val				SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Arsenic		ND	5.0												
Barium															
Cadmium		ND	1.0												
Chromium		ND	5.0												
Lead		ND	5.0												
Selenium		ND	1.0												
Silver		ND	5.0												
Sample ID	LCS-5169	Samp	Type: LC	S.	Tes	tCode: El	PA Method	6010B: TCL	P Metals						
Client ID:	LCSW	F	RunNo: 7	401											
Prep Date:	12/9/2012	12/9/2012 Analysis Date: 12/10/2012 SeqNo: 214404					Units: mg/L								
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Arsenic		ND	5.0	0.5000	0.02585	107	80	120							
Barium		ND	100	0.5000	0	100	80	120							
Cadmium		ND	1.0	0.5000	0	103	80	120							
Chromium		ND	5.0	0.5000	0	99.6	80	120							
1		ND	5.0	0.5000	0	99.0	80	120							
Selenium		ND	1.0	0.5000	0	101	80	120							
Silver		ND	5.0	0.1000	0.004430	102	80	120							
Sample ID	1212007-001AMS	Samp	Туре: М	3	Tes	tCode: El	PA Method	6010B: TCLF	P Metals						
Client ID:	BatchQC	Bato	h ID: 51	69	RunNo: 7401										
Prep Date:	12/9/2012	Analysis I	Date: 12	2/10/2012	5	SeqNo: 214408 Units: mg/L									
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Arsenic		ND	5.0	0.5000	0	114	75	125							
Cadmium		ND	1.0	0.5000	0	103	75	125							
Chromium		ND	5.0	0.5000	0.005700	95.1	75	125							
Lead		ND	5.0	0.5000	0	92.2	7 5	125							
Selenium		ND	1.0	0.5000	0	84.2	75	125							
Silver		ND	5.0	0.1000	0	106	75	125							
Sample ID	1212007-001AMS	D Samp	Туре: М	SD	Tes	tCode: El	PA Method	6010B: TCL	P Metals						
Client ID:	BatchQC	Bato	:h ID: 51	69	F	RunNo: 7	401								
Prep Date:	12/9/2012	Analysis I	Date: 12	2/10/2012	5	SeqNo: 2	14409	Units: mg/L							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Arsenic		ND	5.0	0.5000	0	112	75	125	0	20					
Cadmium		ND	1.0	0.5000	0	102	75	125	0	20					
Chromium		ND	5.0	0.5000	0.005700	93.0	75	125	0	20					
Lead		ND	5.0	0.5000	0	90.9	75	125	0	20					

Oualifiers:

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

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1212159 20-Dec-12

WO#:

Client:

Project:

Client ID:

Analyte

Selenium

Silver

Western Refining Southwest, Gallup BZ Strip Soil Confirmation TestCode: EPA Method 6010B: TCLP Metals Sample ID 1212007-001AMSD SampType: MSD RunNo: 7401 BatchQC Batch ID: 5169 Prep Date: 12/9/2012 Analysis Date: 12/10/2012 SeqNo: 214409 Units: mg/L %RPD RPDLimit %REC HighLimit Qual PQL SPK value SPK Ref Val LowLimit Result 20 ND 1.0 0.5000 0 86.7 75 125 0 75 125 0 20 ND 0.1000 0 105 5.0

Sample ID 1212007-001AMS	SampType: MS TestCode: EPA Method						6010B: TCL	P Metals		
Client ID: BatchQC	Batch	h ID: 51	69	F	RunNo: 7	401				
Prep Date: 12/9/2012	Analysis E	Date: 12	2/10/2012	5	3eqNo: 2	14427	Units: mg/L	-		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	500	0.5000	1.240	94.3	75	125			
Sample ID 1212007-001AMS	D Samp1	Гуре: МS	SD	Tes	tCode: El	PA Method	6010B: TCL	P Metals		
Sample ID 1212007-001AMS Client ID: BatchQC	D SampT Batcl	「ype: MS h ID: 51 /	3D 69	Tes F	tCode: El RunNo: 7	PA Method 401	6010B: TCL	P Metals	• #***	
Sample ID 1212007-001AMS Client ID: BatchQC Prep Date: 12/9/2012	D SampT Batcl Analysis D	Гуре: МS h ID: 51 Date: 17	3D 69 2/10/2012	Tes F	tCode: El RunNo: 7 SeqNo: 2	PA Method 401 14428	6010B: TCL	P Metals		
Sample ID 1212007-001AMS Client ID: BatchQC Prep Date: 12/9/2012 Analyte	D SampT Batch Analysis D Result	fype: MS h ID: 51 0 Date: 1 2 PQL	3D 69 2/10/2012 SPK value	Tes F S SPK Ref Val	tCode: El ≀unNo: 74 SeqNo: 2 %REC	PA Method 401 14428 LowLimit	6010B: TCL Units: mg/L HighLimit	P Metals - %RPD	RPDLimit	Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits J
- Sample pH greater than 2 р

- Analyte detected in the associated Method Blank в
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits R

WO#: 1212159

HALL ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup	Work Order Number: 1212159
Received by/date: 170 126315	
Logged By: Ashley Gallegos 12/3/2012 1:20:00	PM AFT
Completed By: Ashley Gallends. 12/4/2012 5:26:44	PM Acr
Reviewed By: D / Wate lot	3 4 - 0
Chain of Custodia	
<u>Chain of Custody</u>	Not Dropont
1 vvere seals intact?	Yes V No Not Present
2. How was the sample delivered?	
3. How was the sample delivered?	Cheff
Log In	
4. Coolers are present? (see 19. for cooler specific information)	Yes ✔ No 🛛 NA
5. Was an attempt made to cool the samples?	Yes V No i NA
	Man Mali Na
6. Were all samples received at a temperature of >0°C to 6.0°C	Yes V: NO : NO :
7 Sample(s) in proper container(s)?	Yes 🗸 No
8. Sufficient sample volume for indicated test(s)?	Yes 🗸 No
9. Are samples (except VOA and ONG) properly preserved?	Yes 🗸 No
10. Was preservative added to bottles?	Yes No 🖌 NA
11, VOA vials have zero headspace?	
12. Dees paperuork match bettle labels?	Yes No. # of preserved
(Note discrepancies on chain of custody)	bottles checked
14. Are matrices correctly identified on Chain of Custody?	Yes ✔ No (<2 or >12 unless noted)
15. Is it clear what analyses were requested?	Yes V No Adjusted?
16. Were all holding times able to be met?	Yes ✔ No
(If no, notify customer for authorization.)	Checked by:
<u>Special Handling (if applicable)</u>	
17. Was client notified of all discrepancies with this order?	Yes No NA 🖌
Person Notified: Dat	
By Whom: Via	: eMail : Phone Fax In Person
Regarding:	ny (y y y y a na shikina din kala da na shi ny nganata mwa a tanana siya na tanana sanana dan kaya.

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Not Present			

Page 1 of 1

Client: WESTERN REFINING			Turn-Around Time:				HALL ENVIRONMENTAL													
	GALLU	PREFINE	RY	Project Name:				www.hallenvironmental.com												
Mailing Address: Route 3 Box 7			BZ Strip Soil	Confirmation		4901 Hawkins NE - Albuquerque, NM 87109														
-	Gallup,	NM 8730)1	Project #:			Tel. 505-345-3975 Fax 505-345-4107													
Phone #: 50	05 - 722-	3833		Clean up - BZ	Z Strip Soil - C	Confirmation	Analysis Request													
Email or Fax	d#: 505-	863-0930		Project Mana	ger:															
QA/QC Packa	age:			Cheryl Johns	on															
K Standard			Level 4 (Full Validation)	Cheryl.johnso	on@wnr.com			l m			CLP									
Accreditation	n:			Sampler: C.	Johnson		l R	ITBE			Ĕ ,									Î
		Other		On Ice:	Yes	🗆 No 👘 🚍	Ìò	24			A 8									ğ
EDD (Typ	pe)	r		Sample Tem	perature:	9. <i>2</i>		ы Цар	ц Ц		SCR									کر د
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO 1212159	TPH 8015	2021B (BT	8260B - T(RCI	METALS F									Air Bubble
11/30/2012	1250	Soil	Bz Strip-Soil Confirmation	5-4oz jar	None	-001	x	x	X.	x	x									
							1													
	⁷ 8															\dashv		+	+-	
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											<u> </u>						_			
							Γ													
Date: 11/30/12	Time: 1400	Relinquish	ed by:	Received by:	icta.	Date Time	Remarks:													
Date:	Time:	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.

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