Gallup ENTERED March 2011

monthly benzene report

VanHorn, Kristen, NMENV

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Thursday, March 03, 2011 2:52 PM
To: VanHorn, Kristen, NMENV; Monzeglio, Hope, NMENV; Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD
Cc: Riege, Ed; Dorsey, Alvin; Johnson, Cheryl; Tso, Janice
Subject: ONTHLY BENZENE REPORT for FEBRUARY 2011
Attachments: Hall Data for February 2011.pdf

Dear Kristen, Hope, et all;

The monthly flow data for February 2011 through the (N-S) Benzene Strippers to AL-1 is summarized as follows:

	North Stripper (gpm)	South Stripper (gpm)	Total Flow (gpm)
Average (gpm)	67.22	85.25	152.47
Maximum (gpm)	276.34	246.67	523.01
Minimum (gpm)	5.07	15.08	20.15

The monthly flow data (February 2011) from AL-2 to EP-1 is summarized as follows:

	Weir Height (in)	Flow Rate (gpm)	Monthly Flow (gpd)
Average	7.48	203.77	293425.83
Maximum	7.79	226.57	326260.94
Minimum	7.33	193.89	279198.37

Benzene Stripper #3 is located in the process area. The monthly flow volume is determined as follows: The desalter effluent is routed through the Benzene stripper #3. The desalter effluent for February 2011 is 3.2% average of crude charge rate. Therefore, the monthly flow for February 2011 has an average flow of 11.9 gpm, a maximum flow of 18.2 gpm, and a minimum of 4.8 gpm.

The above attachment is the monthly benzene results from Hall Environmental Laboratory for February 2011.

Western Refining is continuing the daily benzene sampling. The diversionary tank (T-35) was put in service in January 2011.

Benzene samples were not collected on February 9, 2011 due to mechanical issues at the API. Both benzene strippers (north-south) were taken out of service in order to replace the inlet valve to the API. Water was diverted to the diversionary tank (T-35). On February 23, 2010, the analysis indicated that Western Refining (Gallup) failed on benzene with 1.10 ppm. The benzene failure was due repair work on the north and south strippers, foaming issues, and replacement of a benzene fan motor.

If you should require any additional information, please contact me at the number listed below.

Sincerely,

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Western Refining Company- Gallup Refinery
Route 3, Box 7
Gallup, NM 87301
Office:(505) 722-0258
Fax: (505) 722-0210
Cell: (505) 862-1749
Email: thurman.larsen@wnr.com

BENZENE STRIPPER - API 1 & 2 OUTLET

Date Sample Taken	Western - Lab Benzene Results (ppm)		Hall Sample ID	Hall Environmental Lab Data Benzene Results (ppm)			Results in Compliance < 0.5 ppm Yes; FAILED >0.5
	AM	PM		Sample rec'd Temp <6° C Acceptable range	Results (ppb)	> 0.5 ppm	
Tuesday, February 01, 2011	0.00	0.00	1102104	3.1	ND	0.00	Yes
Wednesday, February 02, 2011	0.00	0.00	1102104	3.1	ND	0.00	Yes
Thursday, February 03, 2011	0.10	0.09	1102104	3.1	ND	0.00	Yes
Friday, February 04, 2011	0.90	0.10	1102140	3.0	220.0	0.22	Yes
Saturday, February 05, 2011	0.11	0.14	1102140	3.0	ND	0.00	Yes
Sunday, February 06, 2011	0.22	No Data	1102140	3.0	50.0	0.05	Yes
Monday, February 07, 2011	No Data	No Data	1102140	3.0	63.0	0.06	Yes
Tuesday, February 08, 2011	No Data	No Data	1102255	**6.3**	86.0	0.09	Yes
Wednesday, February 09, 2011	0.14	0.14	1102332	No Sample Collected; Water Diverted to T-35			
Thursday, February 10, 2011	0.21	0.14	1102332	4.6	ND	0.00	Yes
Friday, February 11, 2011	0.19	0.26	1102382	1.6	55.0	0.06	Yes
Saturday, February 12, 2011	0.55	0.12	1102382	1.6	ND	0.00	Yes
Sunday, February 13, 2011	0.39	No Data	1102382	1.6	66.0	0.07	Yes
Monday, February 14, 2011	0.09	0.09	1102528	2.9	ND	0.00	Yes
Tuesday, February 15, 2011	0.09	0.12	1102528	2.9	ND	0.00	Yes
Wednesday, February 16, 2011	0.09	0.11	1102528	2.9	ND	0.00	Yes
Thursday, February 17, 2011	0.09	0.54	1102675	1.0	ND	0.00	Yes
Friday, February 18, 2011	0.20	0.09	1102675	1.0	330.0	0.33	Yes
Saturday, February 19, 2011	0.09	0.10	1102675	1.0	ND	0.00	Yes
Sunday, February 20, 2011	0.13	0.26	1102675	1.0	110.0	0.11	Yes
Monday, February 21, 2011	0.23	0.11	1102675	1.0	320.0	0.32	Yes
Tuesday, February 22, 2011	0.12	No Data	1102675	1.0	110.0	0.11	Yes
Wednesday, February 23, 2011	0.51	0.51	1102834	1.0	1100.0	**1.10**	Failed
Thursday, February 24, 2011	0.24	0.13	1102834	1.0	270.0	0.27	Yes
Friday, February 25, 2011	0.21	0.17	1102834	1.0	240.0	0.24	Yes
Saturday, February 26, 2011	0.13	0.12	1102834	1.0	110.0	0.11	Yes
Sunday, February 27, 2011	0.15	0.13	1102834	1.0	180.0	0.18	Yes
Monday, February 28, 2011	0.20	0.17	1102834	1.0	140.0	0.14	Yes

Gallup Mar 2011

HALL ENVIRONMENTAL ANALYSIS LABORATORY

benzene exceedence

COVER LETTER

Thursday, March 03, 2011

Thurman B. Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-3833
FAX (505) 722-0210

RE: Benzene Strippers

Order No.: 1102834

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 2/28/2011 for the analyses presented in the following report.

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

Reporting limits are determined by EPA methodology.

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

Sincerely,

Andy Freeman, Laboratory Manager

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

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Mar-11*

CLIENT: Western Refining Southwest, Gallup
Project: Benzene Strippers
Lab Order: 1102834

Lab ID: 1102834-01 **Collection Date:** 2/23/2011 8:00:00 PM
Client Sample ID: BZ 1-2 OUT **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: RAA
Benzene	1100	50		µg/L	50	3/1/2011 2:48:57 PM
Toluene	1300	50		µg/L	50	3/1/2011 2:48:57 PM
Ethylbenzene	67	50		µg/L	50	3/1/2011 2:48:57 PM
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	3/1/2011 2:48:57 PM
Xylenes, Total	460	100		µg/L	50	3/1/2011 2:48:57 PM
Surr: 1,2-Dichloroethane-d4	102	77.7-113		%REC	50	3/1/2011 2:48:57 PM
Surr: 4-Bromofluorobenzene	110	76.4-106	S	%REC	50	3/1/2011 2:48:57 PM
Surr: Dibromofluoromethane	91.2	91.6-125	S	%REC	50	3/1/2011 2:48:57 PM
Surr: Toluene-d8	119	92.3-107	S	%REC	50	3/1/2011 2:48:57 PM

Lab ID: 1102834-02 **Collection Date:** 2/24/2011 7:30:00 AM
Client Sample ID: BZ 1-2 OUT **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: RAA
Benzene	270	50		µg/L	50	3/1/2011 3:15:12 PM
Toluene	340	50		µg/L	50	3/1/2011 3:15:12 PM
Ethylbenzene	ND	50		µg/L	50	3/1/2011 3:15:12 PM
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	3/1/2011 3:15:12 PM
Xylenes, Total	150	100		µg/L	50	3/1/2011 3:15:12 PM
Surr: 1,2-Dichloroethane-d4	110	77.7-113		%REC	50	3/1/2011 3:15:12 PM
Surr: 4-Bromofluorobenzene	113	76.4-106	S	%REC	50	3/1/2011 3:15:12 PM
Surr: Dibromofluoromethane	89.4	91.6-125	S	%REC	50	3/1/2011 3:15:12 PM
Surr: Toluene-d8	122	92.3-107	S	%REC	50	3/1/2011 3:15:12 PM

Lab ID: 1102834-03 **Collection Date:** 2/25/2011 8:00:00 AM
Client Sample ID: BZ 1-2 OUT **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: RAA
Benzene	240	50		µg/L	50	3/1/2011 3:41:39 PM
Toluene	310	50		µg/L	50	3/1/2011 3:41:39 PM
Ethylbenzene	ND	50		µg/L	50	3/1/2011 3:41:39 PM
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	3/1/2011 3:41:39 PM
Xylenes, Total	130	100		µg/L	50	3/1/2011 3:41:39 PM
Surr: 1,2-Dichloroethane-d4	111	77.7-113		%REC	50	3/1/2011 3:41:39 PM
Surr: 4-Bromofluorobenzene	108	76.4-106	S	%REC	50	3/1/2011 3:41:39 PM
Surr: Dibromofluoromethane	87.7	91.6-125	S	%REC	50	3/1/2011 3:41:39 PM
Surr: Toluene-d8	119	92.3-107	S	%REC	50	3/1/2011 3:41:39 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.

Date: *03-Mar-11*

CLIENT: Western Refining Southwest, Gallup
Project: Benzene Strippers
Lab Order: 1102834

Lab ID: 1102834-04
Client Sample ID: BZ 1-2 OUT
Collection Date: 2/26/2011 8:00:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: RAA
Benzene	110	50		µg/L	50	3/1/2011 4:08:52 PM
Toluene	180	50		µg/L	50	3/1/2011 4:08:52 PM
Ethylbenzene	ND	50		µg/L	50	3/1/2011 4:08:52 PM
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	3/1/2011 4:08:52 PM
Xylenes, Total	110	100		µg/L	50	3/1/2011 4:08:52 PM
Surr: 1,2-Dichloroethane-d4	109	77.7-113		%REC	50	3/1/2011 4:08:52 PM
Surr: 4-Bromofluorobenzene	115	76.4-106	S	%REC	50	3/1/2011 4:08:52 PM
Surr: Dibromofluoromethane	84.8	91.6-125	S	%REC	50	3/1/2011 4:08:52 PM
Surr: Toluene-d8	121	92.3-107	S	%REC	50	3/1/2011 4:08:52 PM

Lab ID: 1102834-05
Client Sample ID: BZ 1-2 OUT
Collection Date: 2/27/2011 8:00:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: RAA
Benzene	160	50		µg/L	50	3/1/2011 4:34:49 PM
Toluene	260	50		µg/L	50	3/1/2011 4:34:49 PM
Ethylbenzene	ND	50		µg/L	50	3/1/2011 4:34:49 PM
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	3/1/2011 4:34:49 PM
Xylenes, Total	180	100		µg/L	50	3/1/2011 4:34:49 PM
Surr: 1,2-Dichloroethane-d4	115	77.7-113	S	%REC	50	3/1/2011 4:34:49 PM
Surr: 4-Bromofluorobenzene	96.5	76.4-106		%REC	50	3/1/2011 4:34:49 PM
Surr: Dibromofluoromethane	94.9	91.6-125		%REC	50	3/1/2011 4:34:49 PM
Surr: Toluene-d8	121	92.3-107	S	%REC	50	3/1/2011 4:34:49 PM

Lab ID: 1102834-06
Client Sample ID: BZ 1-2 OUT
Collection Date: 2/28/2011 8:00:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: RAA
Benzene	140	50		µg/L	50	3/1/2011 5:00:44 PM
Toluene	230	50		µg/L	50	3/1/2011 5:00:44 PM
Ethylbenzene	ND	50		µg/L	50	3/1/2011 5:00:44 PM
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	3/1/2011 5:00:44 PM
Xylenes, Total	160	100		µg/L	50	3/1/2011 5:00:44 PM
Surr: 1,2-Dichloroethane-d4	116	77.7-113	S	%REC	50	3/1/2011 5:00:44 PM
Surr: 4-Bromofluorobenzene	110	76.4-106	S	%REC	50	3/1/2011 5:00:44 PM
Surr: Dibromofluoromethane	91.8	91.6-125		%REC	50	3/1/2011 5:00:44 PM
Surr: Toluene-d8	126	92.3-107	S	%REC	50	3/1/2011 5:00:44 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, Gallup
Project: Benzene Strippers **Work Order:** 1102834

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260: Volatiles Short List											
Sample ID: b1		*MBLK*				Batch ID:	**R43913**	Analysis Date:		3/1/2011 10:59:24 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 lcs1		*LCS*				Batch ID:	**R43913**	Analysis Date:		3/1/2011 1:24:35 PM	
Benzene	20.00	µg/L	1.0	20	0	100	84.6	109			
Toluene	19.45	µg/L	1.0	20	0	97.3	81	114			
Sample ID: 100ng lcsd		*LCSD*				Batch ID:	**R43913**	Analysis Date:		3/1/2011 12:27:48 PM	
Benzene	21.14	µg/L	1.0	20	0	106	84.6	109	5.57	20	
Toluene	21.13	µg/L	1.0	20	0	106	81	114	8.29	20	

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 GALLU

Date Received: 2/28/2011

Work Order Number 1102834

Received by: AT

Sample ID labels checked by: _____ Initials

Checklist completed by: _____ Signature | 2/28/11 Date

Matrix:

Carrier name: Client drop-off

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐	Not Shipped ☑
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	1.0°	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: _____

<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining Gallup Refinery
Mailing Address: RT 3 Box 7 Gallup NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time: No charge
☐ Standard ☒ Rush
Project Name: BZ strippers
Project #: BZ APF-OUT
Project Manager: Thurman Larsen
Sampler: API OPPS
On Ice: ☒ Yes ☐ No
Sample Temperature: 10

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. ND2839	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)	8021B BTEX-MTBE				Air Bubbles (Y or N)
2-23-11	2000	H_2O	BZ 1-2 OUT	40mL-3	HCL	-1												X				
2/24/11	7:30/A	H2O	BZ 1-2 OUT	40mL-3	HCL	-2												X				
2/25/11	8:00/A	H2O	BZ 1-2 OUT	40mL-3	HCL	-3												X				
2/26/11	8:00/A	H2O	BZ 1-2 OUT	40mL-3	HCL	-4												X				
2/27/11	8/am	H2O	BZ 1-2 OUT	40mL-3	HCL	-5												X				
2-28-11	8/am	H2O	BZ 1-2 OUT	40mL-3	HCL	-6												X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
2-28-11	900am	[signature]	[signature]	2-28-11	0900
2-28-11	1310	[signature]	[signature]	02/28/11	1316

Remarks: Also CC: Hope Montoya and Kristen Vanhorn

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.