

NOV 2011



Gallup Refinery
ENTERED

discharge over benzene limit

COVER LETTER

Tuesday, November 29, 2011

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

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

RE: BZ Strippers

Order No.: 1111831

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory, Inc. received 5 sample(s) on 11/21/2011 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. 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.

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

Sincerely,

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

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682

Hall Environmental Analysis Laboratory, Inc.

Date: 29-Nov-11
Analytical Report

CLIENT: Western Refining Southwest, Gallup **Client Sample ID:** BZ 1-2 OUT
Lab Order: 1111831 **Collection Date:** 11/18/2011 11:00:00 PM
Project: BZ Strippers **Date Received:** 11/21/2011
Lab ID: 1111831-01 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: NSB
Benzene	680	50		µg/L	50	11/22/2011 9:39:55 PM
Toluene	1200	50		µg/L	50	11/22/2011 9:39:55 PM
Ethylbenzene	110	50		µg/L	50	11/22/2011 9:39:55 PM
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	11/22/2011 9:39:55 PM
Xylenes, Total	890	100		µg/L	50	11/22/2011 9:39:55 PM
Surr: 1,2-Dichloroethane-d4	93.5	70-130		%REC	50	11/22/2011 9:39:55 PM
Surr: 4-Bromofluorobenzene	105	73-131		%REC	50	11/22/2011 9:39:55 PM
Surr: Dibromofluoromethane	93.0	70-130		%REC	50	11/22/2011 9:39:55 PM
Surr: Toluene-d8	96.0	70-130		%REC	50	11/22/2011 9:39:55 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

Hall Environmental Analysis Laboratory, Inc.

Date: 29-Nov-11

Analytical Report

CLIENT: Western Refining Southwest, Gallup	Client Sample ID: BZ 1-2 OUT
Lab Order: 1111831	Collection Date: 11/19/2011 8:00:00 AM
Project: BZ Strippers	Date Received: 11/21/2011
Lab ID: 1111831-02	Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: NSB
Benzene	620	50		µg/L	50	11/22/2011 10:07:52 PM
Toluene	1000	50		µg/L	50	11/22/2011 10:07:52 PM
Ethylbenzene	70	50		µg/L	50	11/22/2011 10:07:52 PM
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	11/22/2011 10:07:52 PM
Xylenes, Total	530	100		µg/L	50	11/22/2011 10:07:52 PM
Surr: 1,2-Dichloroethane-d4	99.5	70-130		%REC	50	11/22/2011 10:07:52 PM
Surr: 4-Bromofluorobenzene	103	73-131		%REC	50	11/22/2011 10:07:52 PM
Surr: Dibromofluoromethane	97.9	70-130		%REC	50	11/22/2011 10:07:52 PM
Surr: Toluene-d8	103	70-130		%REC	50	11/22/2011 10:07:52 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: 29-Nov-11
Analytical Report

CLIENT: Western Refining Southwest, Gallup **Client Sample ID:** BZ 1-2 OUT
Lab Order: 1111831 **Collection Date:** 11/20/2011 8:00:00 AM
Project: BZ Strippers **Date Received:** 11/21/2011
Lab ID: 1111831-03 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: NSB
Benzene	580	50		µg/L	50	11/22/2011 10:35:52 PM
Toluene	1600	50		µg/L	50	11/22/2011 10:35:52 PM
Ethylbenzene	260	50		µg/L	50	11/22/2011 10:35:52 PM
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	11/22/2011 10:35:52 PM
Xylenes, Total	1700	100		µg/L	50	11/22/2011 10:35:52 PM
Surr: 1,2-Dichloroethane-d4	94.0	70-130		%REC	50	11/22/2011 10:35:52 PM
Surr: 4-Bromofluorobenzene	100	73-131		%REC	50	11/22/2011 10:35:52 PM
Surr: Dibromofluoromethane	96.5	70-130		%REC	50	11/22/2011 10:35:52 PM
Surr: Toluene-d8	99.5	70-130		%REC	50	11/22/2011 10:35:52 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
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Hall Environmental Analysis Laboratory, Inc.

Date: 29-Nov-11

Analytical Report

CLIENT: Western Refining Southwest, Gallup **Client Sample ID:** BZ 1-2 OUT
Lab Order: 1111831 **Collection Date:** 11/21/2011 8:00:00 AM
Project: BZ Strippers **Date Received:** 11/21/2011
Lab ID: 1111831-04 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: NSB
Benzene	150	50		µg/L	50	11/22/2011 11:03:45 PM
Toluene	350	50		µg/L	50	11/22/2011 11:03:45 PM
Ethylbenzene	ND	50		µg/L	50	11/22/2011 11:03:45 PM
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	11/22/2011 11:03:45 PM
Xylenes, Total	340	100		µg/L	50	11/22/2011 11:03:45 PM
Surr: 1,2-Dichloroethane-d4	94.9	70-130		%REC	50	11/22/2011 11:03:45 PM
Surr: 4-Bromofluorobenzene	96.5	73-131		%REC	50	11/22/2011 11:03:45 PM
Surr: Dibromofluoromethane	95.2	70-130		%REC	50	11/22/2011 11:03:45 PM
Surr: Toluene-d8	100	70-130		%REC	50	11/22/2011 11:03:45 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
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PQL Practical Quantitation Limit
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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

Hall Environmental Analysis Laboratory, Inc.

Date: 29-Nov-11

Analytical Report

CLIENT: Western Refining Southwest, Gallup **Client Sample ID:** BZ 1-2 OUT
Lab Order: 1111831 **Collection Date:** 11/17/2011 8:00:00 PM
Project: BZ Strippers **Date Received:** 11/21/2011
Lab ID: 1111831-05 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: NSB
Benzene	1100	50		µg/L	50	11/22/2011 11:31:45 PM
Toluene	1700	50		µg/L	50	11/22/2011 11:31:45 PM
Ethylbenzene	140	50		µg/L	50	11/22/2011 11:31:45 PM
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	11/22/2011 11:31:45 PM
Xylenes, Total	1000	100		µg/L	50	11/22/2011 11:31:45 PM
Surr: 1,2-Dichloroethane-d4	93.7	70-130		%REC	50	11/22/2011 11:31:45 PM
Surr: 4-Bromofluorobenzene	103	73-131		%REC	50	11/22/2011 11:31:45 PM
Surr: Dibromofluoromethane	95.1	70-130		%REC	50	11/22/2011 11:31:45 PM
Surr: Toluene-d8	95.1	70-130		%REC	50	11/22/2011 11:31:45 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
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QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: BZ Strippers

Work Order: 1111831

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260: Volatiles Short List

Sample ID: 5ml rb MBLK Batch ID: R49238 Analysis Date: 11/22/2011 10:50:44 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 ics-c LCS Batch ID: R49238 Analysis Date: 11/22/2011 3:59:35 PM

Benzene	18.60	µg/L	1.0	20	0	93.0	81.1	130			
Toluene	21.55	µg/L	1.0	20	0	108	82.3	122			

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:

11/21/2011

Work Order Number 1111831

Received by:

MMG

Checklist completed by:

Signature

Michelle Garcia

Date

11/21/11

Sample ID labels checked by:

Initials

[Handwritten initials]

Matrix:

Carrier name: Client drop-off

- | | | | | |
|---|---|---|---|---|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | |
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | Not Shipped <input checked="" type="checkbox"/> |
| Custody seals intact on sample bottles? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> | |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Water - VOA vials have zero headspace? | No VOA vials submitted <input type="checkbox"/> | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Water - Preservation labels on bottle and cap match? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> | |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> | |

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

Container/Temp Blank temperature?

1.8°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: Per Alvin Dorsey the correct time for -01 is 11:00pm and the

sample request ID for -05 is correct on LOC. Mg. 11/21/11

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining
Gallup Refinery
Mailing Address:

Phone #: 505 722-3833
email or Fax#: 505 722-0210
QA/QC Package:
 Standard Level 4 (Full Validation)
 Other _____
 EDD (Type) _____

Turn-Around Time:
 Standard Rush
Project Name: B2 strippers
Project #: B2 API-out
Project Manager: Thurman Larsen
Sampler: API-OPS
On Ice: No
Sample Temperature: 7/10



**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	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)	8021 B-Tex - MTBE	Air Bubbles (Y or N)
11-18-11	11pm 8:30	H ₂ O	B2 1-2out	40 mL-2	HCL	1												X	
11-19-11	8:30	H ₂ O	B2 1-2out	40 mL-3	HCL	2												X	
11-20-11	8:30	H ₂ O	B2 1-2out	40 mL-3	HCL	3												X	
11-21-11	8:30	H ₂ O	B2 1-2out	40 mL-3	HCL	4												X	
11-21-11	8pm	H ₂ O	B2 1-2out	40 mL-3	HCL	5												X	

Date: 11-21-11 Time: 10:20 Relinquished by: [Signature]
Date: 11-21-11 Time: 1:30 Relinquished by: [Signature]

Received by: [Signature] Date: 11/21/11 Time: 1337
Received by: _____ Date: _____ Time: _____

Remarks: B2 1-2out WWT-5.4
Also cc: Kristen Van Horn

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.