District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410

i

## RECEIVED

Energy Minerals and Natural Resources MAY 1 3 2009

Form C-141 Revised October 10, 2003

**Oil Conservation Division** 

State of New Mexico

HOBBSOCD Submit 2 Copies to appropriate District Office in accordance

/

District IV         1220           1220 S. St. Francis Dr., Santa Fe, NM 87505         Sz	with Rule 116 on back side of form					
Release Notific		and Co	orrective A	ction		·····
		OPERA'	TOR		] Initia	al Report 🕅 Final Report
Name of Company Plains Pipeline, LP		Contact	Daniel Brya	nt L_	1 11111	in Report
Address P.O. Box 3119 – Midland, Tx 79702	2	Telephone l	No. (432) 557-5	865		······
Facility Name         Dollarhide to Jal 8"		Facility Typ	e Pipeline			
Surface Owner George Willis Mineral O	Owner		· · · · · · · · · · · · · · · · · · ·		Lease N	lo.
LOCA	ATIO	N OF RE	LEASE			
Unit LetterSectionTownshipRangeFeet from theI3425S37E	North/	South Line	Feet from the	East/Wes	t Line	County Lea
Latitude N32	2.08428	° Longitud	• <b>W</b> 103.14507°			
NAT	<b>URE</b>	OF REL	EASE			
Type of Release Crude Oil		Volume of	Release 620 bb	ls V	olume F	Recovered 570 bbls
Source of Release 8" steel pipeline		Date and H	lour of Occurrenc	e D	ate and $6/06/20$	Hour of Discovery
Was Immediate Notice Given?	equired	If YES, To Larry John	Whom?		0/00/20	
By Whom? Daniel Bryant	· —	Date and H	Iour 06/06/200	8 16:30		
Was a Watercourse Reached?		If YES, Vo	blume Impacting t	he Waterco	ourse.	
If a Watercourse was Impacted, Describe Fully.*	<u>.</u>					
Describe Cause of Problem and Remedial Action Taken.* Internal corrosion of an 8" pipeline caused a release of crude oil. and the gravity of the crude oil is 41.4. Depth of the pipeline is 2 the line was increased on the day of the spill/ An average volume to 120,000 bbls per month.	Pipeline 0" and the for the	e was remove he pressure o line was 8,00	d replaced and bro the line at the tin 0 bbls per month	ought back ne of the re prior to 6/6	into ser elease w 5/08. V	vice. H <sub>2</sub> S content is <10 ppm as 35-40 psi. The throughput of olumes are expected to increase
Describe Area Affected and Cleanup Action Taken.* Please refer to the Remediation Summary and Site Closure Reque	est for cl	osure data.				
I hereby certify that the information given above is true and comp regulations all operators are required to report and/or file certain r public health or the environment. The acceptance of a C-141 repu should their operations have failed to adequately investigate and r or the environment. In addition, NMOCD acceptance of a C-141 federal, state, or local laws and/or regulations.	olete to t release n ort by th remediat report d	he best of my otifications a e NMOCD m e contaminat loes not reliev	knowledge and u nd perform correc arked as "Final R ion that pose a thr re the operator of	inderstand ctive action eport" doe: eat to grou responsibil	that purs s for release not release nd water ity for c	suant to NMOCD rules and eases which may endanger ieve the operator of liability r, surface water, human health ompliance with any other
Signature: Da-DRSat			OIL CON	SERVA	<u>TION</u>	DIVISION
Printed Name: Daniel Bryant		Approved by	District Supervis	or:	Jol.	-3 <b>~</b>
Title: Environmental R/C Specialist		Approval Da	te: 5.13.09	Ex	oiration	Date: —
E-mail Address: dmbryant@paalp.com		Conditions o	f Approval:			Attached -
Date: D/15/07 Phone: (432) 557-5865						1K1 - 1876

\* Attach Additional Sheets If Necessary

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## Basin Environmental Consulting, LLC

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ŵ Effective Solutions

## **REMEDIATION SUMMARY**

## AND

## SITE CLOSURE REQUEST

PLAINS PIPELINE, L.P. (231735) Dollarhide to Jal 8-Inch Lea County, New Mexico Plains SRS # 2008-148 UNIT "I" (NE/SE), Section 34, Township 25 South, Range 37 East Latitude 32.08428000<u>° North, Longitude 103.1</u>4507000° West NMOCD Reference # 1RP-1876

Prepared For:

Plains Pipeline, L.P. 333 Clay Street Suite 1600 Houston, Texas 77002

Prepared By: Basin Environmental Consulting, LLC 2800 Plains Highway Lovington, New Mexico 88260

**May 2009** 

**Project Manager** 

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- Appendix B Photographs
- Appendix C Release Notification and Corrective Action (Form C-141)

## **INTRODUCTION AND BACKGROUND INFORMATION**

Basin Environmental Consulting, LLC (Basin), on behalf of Plains Pipeline, L.P. (Plains), has prepared this Remediation Summary and Site Closure Request for the release site known as Dollarhide to Jal 8-Inch (SRS # 2008-148). The legal description of the release site is Unit Letter "I" (NE <sup>1</sup>/<sub>4</sub> SE <sup>1</sup>/<sub>4</sub>), Section 34, Township 25 South, Range 37 East, in Lea County, New Mexico. The property affected by the release is owned by Mr. George Willis. The release site GPS coordinates are 32.08428000° North and 103.14507000° West. Please reference Figure 1 for a Site Location Map and Figure 2 for a Site and Sample Location Map. The Release Notification and Corrective Action is provided as Appendix C.

On June 6, 2008, Plains reported a release of 620 barrels of crude oil from the Dollarhide to Jal 8-Inch pipeline. Approximately 570 barrels of crude oil were recovered during initial response activities resulting in a net loss of approximately 50 barrels of crude oil. The resulting surface stain attributed to the release measured approximately 25 feet in width and 765 feet in length along a two-track road paralleling the pipeline. The release was the attributed to internal corrosion of the 8-inch pipeline.

## NMOCD SITE CLASSIFICATION

According to data obtained from the New Mexico Office of the State Engineer (NMOSE), no water wells are recorded in Section 34 of the above referenced township. According to a depth to groundwater reference map utilized by the New Mexico Oil Conservation Division (NMOCD), groundwater should be encountered at approximately 75 feet below ground surface (bgs). This depth to groundwater results in a score of ten (10) being assigned to the site based on the New Mexico Oil Conservation Division (NMOCD) depth to groundwater criteria.

The water well database, maintained by the NMOSE, indicated there are no water wells less than 1,000 feet from the release, resulting in zero (0) points being assigned to this site as a result of this criteria.

There is no surface water body located within 1,000 feet of the site. Based on the NMOCD ranking system zero (0) points will be assigned to the site as a result of the criteria.

The *Guidelines for Remediation of Leaks, Spills and Releases* (NMOCD, 1993) indicates the Dollarhide to Jal 8-Inch release site has a ranking score of ten (10). Based on this score, the soil remediation levels for a site with a ranking score of ten (10) points are as follows:

- Benzene 10 mg/Kg (ppm)
- BTEX 50 mg/Kg (ppm)
- TPH 1,000 mg/Kg (ppm)

## **SUMMARY OF FIELD ACTIVITIES**

On June 9 through 17, 2008, hydrocarbon impacted soil was excavated at the release site. Approximately 1,700 cubic yards (cy) of impacted soil was stockpiled adjacent to the excavation

pending the analytical results of collected stockpile soil samples. The final dimensions of the excavation were approximately 25 feet in width, 765 feet in length and three (3) to eight (8) feet in depth. Site photographs are provided as Appendix B.

On June 20, 2008, three (3) stockpile soil samples (East Stockpile, West Stockpile-1 and West Stockpile-2) were collected and submitted to the laboratory to determine the potential suitability of the soil for backfill material. A stockpile soil sample was collected for each approximately 500 cy of blended soil. The analytical results indicated benzene concentrations were below the laboratory method detection limit (MDL) in the collected soil samples. Concentrations of benzene, toluene, ethylbenzene and xylene (BTEX) were below the laboratory MDL in soil samples West Stockpile-1 and West Stockpile-2 and soil sample East Stockpile exhibited a BTEX concentration of 0.0957 mg/Kg. Total petroleum hydrocarbon (TPH) concentrations ranged from 1,020 mg/Kg in soil sample West Stockpile-1 to 3,891 mg/Kg in the East Stockpile soil sample.

On June 26, 2008, ten (10) confirmation sidewall soil samples (NSW-1, SSW-1, NSW-2, SSW-2, NSW-3, SSW-3, NSW-4, SSW-4, NSW-5, and SSW-5) were collected from the excavation and submitted to the laboratory. The analytical results indicated all soil samples exhibited benzene, BTEX and TPH concentrations below the laboratory MDL, with the exception of soil samples SSW-1, NSW-2, SSW-3 and SSW-4, which exhibited TPH concentrations of 56 mg/Kg, 37 mg/Kg, 102 mg/Kg and 15.2 mg/Kg, respectively.

On June 26, 2008, five (5) confirmation floor soil samples (Floor-1, Floor-2, Floor-3. Floor-4 and Floor-5) were collected from the excavation and submitted to the laboratory. The analytical results indicated all soil samples exhibited benzene and BTEX concentrations below the laboratory MDL. The analytical results indicated TPH concentrations ranged from less than the laboratory MDL in soil sample Floor-4 to 86 mg/Kg in soil sample Floor-1.

Plains requested and received NMOCD approval to backfill the excavation with the blended soil represented by soil samples "West Stockpile-1" and "West Stockpile-2". The blended soil represented by soil sample "East Stockpile" was blended, utilizing non-impacted soil adjacent to the excavation to enhance the remediation of the soil. Following the blending activities the blended soil was placed in the treatment area in low rising windrows and allowed to bio-remediate for approximately two (2) months.

On August 15, 2008, a soil sample (West Stockpile-3) was collected from the west side of the treatment area. The stockpile soil sample represented approximately 500 cy of blended soil. The analytical results indicated the TPH concentration in the West Stockpile-3 soil sample was 923.6 mg/Kg. Based on the analytical results the soil represented by soil sample West Stockpile-3 was utilized as excavation backfill material.

On August 18, 2008, a soil sample (East Stockpile Comp) was collected from the east side of the treatment area. The stockpile soil sample represented approximately 500 cy of blended soil. The analytical results indicated the TPH concentration in the East Stockpile Comp soil sample was 5,651 mg/Kg. Based on the analytical results the soil was reblended, utilizing non-impacted soil adjacent to the excavation to enhance the remediation of the soil.

On September 22, 2008, two (2) soil samples (East Side of East Stockpile and West Side of East Stockpile) were collected from the treatment area. A soil sample was collected for each approximately 500 cy of stockpiled soil. The analytical results indicated the TPH concentrations in the East Side of East Stockpile and West Side of East Stockpile soil samples were 1,885 mg/Kg and 4,998 mg/Kg, respectively. Based on the analytical results the soil was reblended and placed in the treatment area.

On October 10, 2008, two (2) soil samples (East Stockpile and West Stockpile) were collected from the treatment area. A soil sample was collected for each approximately 500 cy of stockpiled soil. The analytical results indicated the TPH concentrations in the East Stockpile and West Stockpile soil samples were 4,902 mg/Kg and 4,449 mg/Kg, respectively. Based on the analytical results the soil was reblended and placed in the treatment area.

On December 18, 2008, two (2) soil samples (North Stockpile and South Stockpile) were collected from the treatment area. A soil sample was collected for each approximately 500 cy of stockpiled soil. The analytical results indicated the TPH concentrations in the North Stockpile and South Stockpile soil samples were 1,537.3 mg/Kg and 2,293 mg/Kg, respectively. Based on the analytical results the soil was reblended and placed in the treatment area.

On January 7, 2009, four (4) soil samples (Stockpile B-1, Stockpile B-2, Stockpile B-3 and Stockpile B-4) were collected from the north and south stockpile treatment areas, which were blended with non-impacted soil. A soil sample was collected for each approximately 500 cy of stockpile soil. The analytical results indicated the TPH concentrations in the Stockpile B-1, Stockpile B-2, Stockpile B-3 and Stockpile B-4 soil samples were 47.8 mg/Kg, 190.8 mg/Kg, less than 15.7 mg/Kg and 35 mg/Kg, respectively. Based on the analytical results, the soil was utilized as excavation backfill material.

On February 4, 2009, four (4) soil samples (B-5, B-6, B-7 and B-8) were collected from the remaining soil in the treatment area. A soil sample was collected for each approximately 500 cy of stockpiled soil. The analytical results indicated the TPH concentrations in the B-5, B-6, B-7 and B-8 soil samples were 3,113 mg/Kg, 2,320.8 mg/Kg, 2,470.9 mg/Kg and 3215.4 mg/Kg, respectively. Based on the analytical results the soil was reblended, utilizing non-impacted soil adjacent to the excavation to enhance the remediation of the soil.

On February 26, 2009, eight (8) soil samples (WSP#1, WSP#2, WSP#3, WSP#4, ESP#1, ESP#2, ESP#3 and ESP#4) were collected from the reblended soil represented by soil samples B-5 through B-8. A soil sample was collected for each approximately 500 cy of stockpiled soil. The analytical results indicated the TPH concentrations in the WSP#1, WSP#2, WSP#3, WSP#4, ESP#1, ESP#2, ESP#3 and ESP#4 soil samples were 741 mg/Kg, 969.4 mg/Kg, 1,301.4 mg/Kg, 1,668.4 mg/Kg, 2,778 mg/Kg, 3,008 mg/Kg, 2,781 mg/Kg, and 3,091 mg/Kg, respectively.

On March 25, 2009, Plains, Basin and an NMOCD representative met in the NMOCD Hobbs District Office. In the meeting, Plains requested and received NMOCD approval to backfill the excavation with the remaining blended soil represented by the WSP#1, WSP#2, WSP#3, WSP#4, ESP#1, ESP#2, ESP#3 and ESP#4 soil samples.

On March 27, 2009, backfilling of the excavation with the blended soil commenced. Following backfilling activities, areas affected by the remediation activities were contoured to fit the surrounding topography. Site remediation activities were completed on April 3, 2009.

### SITE CLOSURE REQUEST

Based on the analytical results of confirmation soil samples collected from the floor and sidewalls of the excavation, along with the analytical results of soil blending / remediation and backfilling activities, Basin recommends Plains provide the NMOCD Hobbs District Office a copy of this Remediation Summary and Site Closure Request and request the NMOCD grant site closure to the Dollarhide to Jal 8-Inch release site.

### LIMITATIONS

Basin Environmental Consulting, LLC has prepared this Remediation Summary and Site Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended.

Basin Environmental Consulting, LLC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Consulting, LLC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Basin Environmental Consulting, LLC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental Consulting, LLC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Plains Pipeline, L.P. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Consulting, LLC and/or Plains Pipeline, L.P.

## **DISTRIBUTION:**

Copy 1:	Larry Johnson New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (District 1) 1625 French Drive Hobbs, New Mexico 88240
Copy 2:	Jeff Dann Plains Pipeline, L.P. 333 Clay Street, Suite 1600 Houston, Texas 77002 jpdann@paalp.com
Copy 3:	Daniel Bryant Plains Pipeline, L.P. P. O. Box 3119 Midland, Texas 79702 dmbryant@paalp.com
Copy 5:	Curt D. Stanley Basin Environmental Consulting, LLC P.O. Box 381 Lovington, New Mexico 88260 cdstanley@basin-consulting.com

# Figures

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# Tables

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### TABLE 1

### CONCENTRATIONS OF BTEX AND TPH IN SOIL

PLAINS MARKETING, L.P. Dollarhide to Jal 8-Inch LEA COUNTY, NEW MEXICO SRS: 2008-148 1RP - 1876

					M	ETHOD: EPA SV	V 846-8021B, 50	30		N	4ETHOD: 8015		
SAMPLE LOCATION	SAMPLE DEPTH (below ground surface)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	M,P- XYLENE (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	TPH GRO C <sub>6</sub> - C <sub>12</sub> (mg/Kg)	TPH DRO C <sub>12</sub> - C <sub>28</sub> (mg/Kg)	TPH ORO C <sub>28</sub> - C <sub>35</sub> (mg/Kg)	TOTAL TPH C <sub>6</sub> - C <sub>35</sub> (mg/Kg)
East Stockpile	-	06/20/08	Blended	<0 0010	0 0037	0 0379	0 0305	0 0236	0 0957	230	3160	501	3,891
West Stockpile-2	-	06/20/08	Backfill	<0 0010	<0 0021	<0 0010	<0 0021	<0 0010	<0 0021	391	1130	204	1,373
West Stockpile-1	-	06/20/08	Backfill	<0 0051	<0 01 03	<0 0051	<0 0103	<0 0051	<0 01 03	41.9	869	109	1,020
	in the second second	. the group the	1. 4 . 1. 3. 3. 5		and the second	C 04 3 74 "." .	日本に強	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	2011	1. 6. 1. 1.	7 16 1 2 1 2 K		in the second
NSW-1	5 5 feet	06/26/08	In - Sıtu	<0 0010	<0 0020	<0 0010	<0 0020	<0 0010	<0 0020	<151	<151	<151	<151
Floor-1	6 feet	06/26/08	In - Sıtu	<0 0010	<0 0020	<0 0010	<0 0020	<0 0010	<0 0020	<151	68.8	17	86
SSW-1	5 5 feet	06/26/08	In - Sıtu	<0 0010	<0 0020	<0 0010	<0 0020	<0 0010	<0 0020	20 5	351	<151	56
NSW-2	5 5 feet	06/26/08	In - Sıtu	<0 0010	<0 0020	<0 0010	<0 0020	<0 0010	<0 0020	21 9	15.2	<151	37
Floor-2	6 feet	06/26/08	In - Sıtu	<0 0010	<0 0020	<0 0010	<0 0020	<0 0010	<0 0020	<15 3	165	<153	17
SSW-2	5 5 feet	06/26/08	In - Sıtu	<0 0010	<0 0020	<0 0010	<0 0020	<0 0010	<0 0020	<151	<151	<151	<151
NSW-3	5 5 feet	06/26/08	In - Situ	<0 0010	<0 0020	<0 0010	<0 0020	<0 0010	<0 0020	<151	<151	<151	<15.1
Floor-3	6 feet	06/26/08	In - Situ	<0.0010	<0 0021	<0 0010	<0 0021	<0 0010	<0 0021	<15 5	22.7	<15.5	23
SSW-3	5 5 feet	06/26/08	In - Sıtu	<0 0010	<0 0020	<0 0010	<0 0020	<0 0010	<0 0020	<15.2	102	<15 2	102
NSW-4	5 5 feet	06/26/08	In - Sıtu	<0 0010	<0 0020	<0.0010	<0 0020	<0 0010	<0 0020	<151	<151	<151	<151
Floor-4	6 feet	06/26/08	In - Sıtu	<0 0010	<0 0020	<0 0010	<0 0020	<0 0010	<0 0020	<15.3	<153	<153	<15.3
SSW-4	5 5 feet	06/26/08	In - Sıtu	<0 0010	<0 0020	<0 0010	<0 0020	<0 0010	<0 0020	<151	152	<151	15
NSW-5	5 5 feet	06/26/08	In - Sıtu	<0 0010	<0 0020	<0 0010	<0 0020	<0 0010	<0 0020	<15.2	<152	<15.2	<15.2
Floor-5	6 feet	06/26/08	In - Sıtu	<0 0010	<0 0021	<0 0010	<0 0021	<0 0010	<0 0021	20.8	61 3	<15.4	82
SSW-5	5 5 feet	06/26/08	In - Situ	<0 0010	<0 0020	<0 0010	<0 0020	<0 0010	<0 0020	<15.2	<152	<15.2	<15 2
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West Stockpile - 3	-	08/15/08	Backfill	-	-	-	-	-	-	32.6	783	108	923 6
Provident and a second second		S 2 1	1. 1. 1. 1. Sx	**************************************	and the second	parts in the	Presta My	· Maria in 1	12 6 1 1 2	关。 新台口		\$13 : 22.52	12232 1284
East Stockpile Comp	-	08/18/08	Blended	-	-	-	-	-	-	863	4190	598	5,651
A CARA A AND A	1. 1. 1. 1. 1.	Star is a	2 Mary	1987 - 18 2 A .	2 4 1 4 P 22	1. 1. 1. C.C.	* B.F.	and a state of the second	the second	1 61. 2	Ent to the	S. A.S.	5-12:1.
East Side of East Stockpile	-	09/22/08	Blended	-	-	-	-	-	-	122	1570	193	1,885
West Side of East Stockpile	-	09/22/08	Blended	-	-	-	-	-	-	323	4130	545	4,998
the state of the second	Server and	A	the stranger was	and the second states and a	No. 6	and the second second	1. S.	2	1. X2 1.	3. 2	3		and the second second
East Stockpile	-	10/10/08	Blended	-	-	-	-	-	-	340	3980	582	4,902
West Stockpile	-	10/10/08	Blended	-		-	-	-	-	454	3480	515	4,449
A MARTINE STATE STATE	1295 - 1	1 1 1 1 1	A 12 11 1		1	and the second second	A 17 A 2 1	and the state of the second		1 8		1997 A. 14	, Y., AF - E.
North Stockpile	-	12/18/08	Blended	-	-	-	-	-		81.3	1320	136	1,537.3
South Stockpile		12/18/08	Blended	<u>-</u>	-	-	-	-	-	113	1960	220	2,293
NUMBER OF THE REPORT	the strenger of	1.142	1.433	かざたしいため	L'ité 10 200 25 12 1 4	N 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	and the state	- At a star	100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	rser de		1	43 9 M 1 16
Stockpile B-1		01/07/09	Backfill		-	-				<15.3	47.8	<15.3	47.8
Stockpile B-2	-	01/07/09	Backfill	-	-	-	-		-	<157	167	23.8	1908
Stockpile B-3		01/07/09	Backfill	-	-	-		-		<157	<157	<157	<15 7
Stockpile B-4	-	01/07/09	Backfill	-	-	-		-	-	<160	35 1	<160	35
每次CATERON 111 111 11 11 11 11 11 11 11 11 11 11	and the state of t	A CALL STORE	12 B. Ca.	二人ではない	N. 2. 4	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Children State	1947 35	1	North Mar	1.138 (2)	1	State 62
B-5	-	02/04/09	Blended	-	-			-		91.4	2680	342	3,113
B-6	-	02/04/09	Blended	-	-			-		82.8	1970	268	2,320 8
B-7	-	02/04/09	Blended	-	-			-		92.9	2090	288	2,470 9
B-8	-	02/04/09	Blended	-	-		-	-	-	55 4	2780	380	3,215 4
- 184 44 45 MELOCI ME	1.181.69 6 "6	The first it	1	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	1. 1. 4. 4. 1.	21 8 22	and the first	I and I had with a	1.12 - 2.27.1	1 St hope	2° 54- 28	17.274 66.93	N. C. S.
WSP#1	-	02/26/09	Backfill	-	-	-	-	-	-	37.8	661	42.2	741

### TABLE 1

### CONCENTRATIONS OF BTEX AND TPH IN SOIL

PLAINS MARKETING, L.P. Dollarhide to Jal 8-Inch LEA COUNTY, NEW MEXICO SRS: 2008-148 1RP - 1876

	SAMDLE	F	1	METHOD. EPA SW 846-8021B, 5030							METHOD 8015M			
SAMPLE LOCATION	DEPTH (below ground surface)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	M,P- XYLENE (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	TPH GRO C <sub>6</sub> - C <sub>12</sub> (mg/Kg)	TPH DRO C <sub>12</sub> - C <sub>28</sub> (mg/Kg)	TPH ORO C <sub>28</sub> - C <sub>35</sub> (mg/Kg)	TOTAL TPH C <sub>6</sub> - C <sub>35</sub> (mg/Kg)	
WSP#2	-	02/26/09	Backfill	-	-	-	-	-	-	43 9	867	58 5	969 4	
WSP#3	-	02/26/09	Backfill	-	-	-	-	-	-	55 9	1160	85 5	1,301 4	
WSP#4	-	02/26/09	Backfill	-	-	-	-	-	-	67 4	1490	111	1,668 4	
ESP#1	-	02/26/09	Backfill	-	-	-	-	-	-	121	2490	177	2,778	
ESP#2	-	02/26/09	Backfill	-	-	-	-	-	-	117	2710	181	3,008	
ESP#3	-	02/26/09	Backfill	-	-	-	-	-	-	134	2470	177	2,781	
ESP#4	-	02/26/09	Backfill	-	-	-	-	-	-	173	2730	188	3,091	
E LA SEL Blann BURNING	Alt Chile		4 1 L 3 E	Torial Salta		Marine Section	Le - Sale - F	Mr. P. C. Start.	1. 18 4 6 18 3	**************************************	and the second sec	1 Y . St.	State No. A	
NMOCD REGULATORY STAL	NDARD			10					50				1,000	

# Appendices

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Appendix A Laboratory Reports

## **Analytical Report 306369**

for

## PLAINS ALL AMERICAN EH&S

**Project Manager: Daniel Bryant** 

Dollar Hide to Jal 8"

2008-148

26-JUN-08



12600 West I-20 East Odessa, Texas 79765

Texas certification numbers: Houston, TX T104704215

Florida certification numbers: Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675 Norcross(Atlanta), GA E87429

> South Carolina certification numbers: Norcross(Atlanta), GA 98015

> North Carolina certification numbers: Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America Midland - Corpus Christi - Atlanta



26-JUN-08



Project Manager: **Daniel Bryant PLAINS ALL AMERICAN EH&S** 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: 306369 Dollar Hide to Jal 8" Project Address: Jal, NM

### **Daniel Bryant**:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 306369. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 306369 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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## Sample Cross Reference 306369



## PLAINS ALL AMERICAN EH&S, Midland, TX

THE LOOK BOT STRATTER AND AD AD A THE

Dollar Hide to Jal 8"

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
East Stockpile	S	Jun-20-08 15:00		306369-001
West Stockpile-2	S	Jun-20-08 15:10		306369-002
West Stockpile-1	S	Jun-20-08 15:20		306369-003



Project Location: Jal, NM

Contact: Daniel Bryant

### Certificate of Analysis Summary 306369 PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Dollar Hide to Jal 8"

Date Received in Lab: Mon Jun-23-08 08:25 am

Report Date: 26-JUN-08

Project Manager: Brent Barron, II

	Lab Id:	306369-00	)1	306369-0	02	306369-0	003		
Analysis Passastad	Field Id:	East Stockp	nle	West Stockp	ile-2	West Stock	pile-1	1	
Anuiysis Kequesieu	Depth:								
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Jun-20-08 1:	5:00	Jun-20-08 1	5:10	Jun-20-08	15.20		
BTEX by EPA 8021B	Extracted:	Jun-23-08 1	5 00	Jun-23-08 I	5.00	Jun-24-08	12.00		
	Analyzed:	Jun-23-08 1	8 58	Jun-23-08 1	9.22	Jun-24-08	15.27		
	Units/RL:	mg/kg	RL	mg/kg	RL.	mg/kg	RL		
Benzene		ND (	0 0010	ND	0.0010	ND	0.0051		
Toluene		0 0037 (	0.0021	ND	0.0021	ND	0.0103		
Ethylbenzene		0.0379 0	0.0010	ND	0.0010	ND	0 0051	,	
m,p-Xylenes		0.0305 0	0.0021	ND	0.0021	ND	0.0103		
o-Xylene		0.0236 0	0 0010	ND	0.0010	ND	0.0051		
Total Xylenes		0.0541		ND		ND			
Total BTEX		0.0957		ND		ND			
Percent Moisture	Extracted:								
	Analyzed:	Jun-23-08 1	7.00	Jun-23-08 17.00		Jun-23-08 17.00			
	Units/RL:	%	RL	%	RL	%	RL		
Percent Moisture		3 35		2 88		2 86			
TPH by SW8015 Mod	Extracted:	Jun-24-08 0	8:48	Jun-24-08 0	8 48	Jun-24-08	08:48		
	Analyzed:	Jun-25-08 1	1.51	Jun-25-08 1	148	Jun-25-08	14 06		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		230	15.5	39.1	15.4	419	15.4		
C12-C28 Dicsel Range Hydrocarbons		3160	15.5	1130	15.4	869	15.4		
C28-C35 Oil Range Hydrocarbons		501	15.5	204	15.4	109	154		
Total TPH		3891		1373.1		1019.9			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented Our lability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

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Brent Barron

Odessa Laboratory Director



- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- \* Outside XENCO'S scope of NELAC Accreditation

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	Phone	rax
11381 Mcadowglen Lane Suite L Houston, Tx 77082-2647	(281) 589-0692	(281) 589-0695
9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, Suite 104, San Antonio, TX 78238	(210) 509-3334	(210) 509-3335
2505 N Falkenburg Rd., Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
6017 Financial Dr., Norcross, GA 30071	(770) 449-8800	(770) 449-5477



## Form 2 - Surrogate Recoveries



## Project Name: Dollar Hide to Jal 8"

/ork Order #: 306369			Project If	<b>):</b> 2008-148			
Lab Batch #: /20318	Sample: 300309-001 / 3	MP Bat	ch: Matri	X: SOIL	CTUNV	<u> </u>	
BTEX by E	PA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1.4 Difluorohenzene		0.0305	0.0300	132	80,120	**	
4-Bromofluorobenzene		0.1097	0.0300	366	80-120	**	
Lab Batch #: 726318	Sample: 306369-002 / 5	SMP Bat	tch: 1 Matri	ix: Soil	STUDY		
BTEX by E	PA 8021B vtes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1,4-Difluorobenzene		0.0342	0.0300	114	80-120	<b> </b>	
4-Bromofluorobenzene		0.0383	0.0300	128	80-120	**	
Lab Batch #: 726318 Units: mg/kg	Sample: 511084-1-BKS	S/BKS Batch: 1 Matrix: Solid SURROGATE RECOVERY STUDY					
BTEX by E	PA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Allaly	/tes	0.0206	0.0300			<b> </b>	
1,4-Difluorobenzene		0.0355	0.0300	118	80-120	<b> </b>	
	- 611004 1 DT	0.0000	0.0300		00-120	L	
Lab Batch #: 720318	Sample: 211084-1-BEN	BLK Bat	ich:   Matri	x: Solid	STUDY		
BTEX by E	PA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1 4-Difluorobenzene		0.0343	0.0300	114	80-120	l	
4-Bromofluorobenzene		0.0316	0.0300	105	80-120		
Lab Ratch #: 726318	Sample: 511084-1-BSF	D/BSD Ba	tch. 1 Matr	·ix: Solid		<u></u>	
Units: mg/kg	Uninpre.	SU	RROGATE RI	ECOVERY	STUDY		
BTEX by E Analy	PA 8021B ytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1,4-Difluorobenzene		0.0269	0.0300	90	80-120		
4-Bromofluorobenzene		0.0320	0.0300	107	80-120		

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries



## Project Name: Dollar Hide to Jal 8"

Vork Order #: 306369		Project II	<b>):</b> 2008-148						
Lab Batch #: 726328 Sample: ?	306369-003 / SMP Bat	tch: 1 Matri	ix: Soil						
Units: mg/kg	SU	RROGATE RI	ECOVERY S	STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1.4-Difluorobenzene	0.0348	0.0300	116	80-120					
4-Bromofluorobenzene	0.0391	0.0300	130	80-120	**				
Lab Ratch # 726328 Sample: '	 511084-1-BKS/BKS Ba	taht I Matr	iv Solid						
Units: mg/kg	SU	RROGATE RJ	ECOVERY f	STUDY	- <u></u>				
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1.4-Difluorobenzene	0.0270	0.0300	90	80-120	ī				
4-Bromofluorobenzene	0.0323	0.0300	108	80-120	Î				
Lah Batch #: 726328 Sample: 5	511084-1-BLK / BLK Ba	tch: 1 Matr	ix: Solid		A				
Units: mg/kg	SU	SURROGATE RECOVERY STUDY							
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
Analytes	0.0240	0.0200			t				
1,4-Difluorobenzene	0.0349	0.0300	100	80-120	r				
	0.0277	0.0300		00-120					
Lab Batch #: 726328 Sample: >	311084-1-BSD / BSD Bat	tch: 1 Matri	ix: Solid	COUDY					
BTEX by EPA 8021B	Amount Found	True Amount	Recovery	Control Limits	Flags				
Analytes	(75)	[a]	[D]	701	1				
1,4-Dıfluorobenzene	0.0282	0.0300	94	80-120	i				
4-Bromofluorobenzene	0.0318	0.0300	106	80-120					
Lab Batch #: 726418 Sample:	306369-001 / SMP Ba	tch: 1 Matr	ix: Soil						
Units: mg/kg	SU	RROGATE RI	ECOVERY !	STUDY	•				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
I-Chlorooctane	76.9	100	77	70-135	1				
o-Terphenyl	37.7	50.0	75	70-135					

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes



## Form 2 - Surrogate Recoveries



## Project Name: Dollar Hide to Jal 8"

Vork Order #: 306369			Project II	<b>):</b> 2008-148					
Lab Batch #: 726418	Sample: 306369-002 / S	SMP Ba	tch: <sup>1</sup> Matri	ix: Soil					
Units: mg/kg		SU	RROGATE RE	COVERY	STUDY				
TPH by SW80 Analyte	)15 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctanc		76.0	100	76	70-135				
o-Terphenyl	<u> </u>	45.2	50.0	90	70-135				
Lab Batch #: 726418	Sample: 306369-003 / 5	SMP Ba	tch: 1 Matri	ix: Soil	I <u></u>				
Units: mg/kg	~F	SU	RROGATE RE	ECOVERY	STUDY				
TPH by SW80 Analyte	)15 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
I-Chlorooctane		68.6	100	69	70-135	**			
o-Terphenyl		41.1	50.0	82	70-135				
Lab Batch #: 726418	Sample: 511165-1-BKS	S/BKS Ba	tch: 1 Matri	ix: Solid	L				
Units: mg/kg		SURROGATE RECOVERY STUDY							
TPH by SW80	)15 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctane		79.4	100	79	70-135				
o-Terphenyl		44.3	50.0	89	70-135				
Lab Batch #: 726418	Sample: 511165-1-BLk	C/BLK Ba	tch: 1 Matri	ix: Solid					
Units: mg/kg	0 <b>P</b>	SURROGATE RECOVERY STUDY							
TPH by SW80	)15 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctanc		73.0	100	73	70-135				
o-Terphenyl		41.3	50.0	83	70-135				
Lab Batch #: 726418	Sample: 511165-1-BSE	)/BSD Ba	tch: 1 Matri	ix: Solid		L			
Units: mg/kg	1	SU	RROGATE RE	COVERY	STUDY				
TPH by SW80	)15 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
I-Chlorooctanc		80.0	100	80	70-135				
o-Terphenyl		44.1	50.0	88	70-135				

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.





## Project Name: Dollar Hide to Jal 8"

Work Order #: 306369		<b>Project ID:</b> 2008-148										
Analyst: BRB	Da	ate Prepar	ed: 06/23/200	)8			Date A	nalyzed: (	06/23/2008			
Lab Batch ID: 726318 Sample: 51108	4-1-BKS	Batcl	1#: 1					Matrix: S	Solid			
Units: mg/kg		BLAN	K/BLANK S	SPIKE / H	BLANK S	SPIKE DUPI	LICATE	RECOVI	ERY STUI	ŊΥ		
BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag	
Benzene	ND	0 1000	0 1165	117	0.1	0.0984	98	17	70-130	35	<u> </u>	
Toluene	ND	0.1000	0.1152	115	0.1	0.0961	96	18	70-130	35		
Ethylbenzene	ND	0.1000	0.1269	127	0.1	0.1060	106	18	71-129	35		
m,p-Xylenes	ND	0.2000	0.2584	129	0.2	0.2165	108	18	70-135	35		
o-Xylene	ND	0.1000	0.1255	126	0.1	0.1044	104	18	71-133	35		
Analyst: BRB	Da	ate Prepar	ed: 06/24/200	)8			Date A	nalyzed: (	06/24/2008	•		
Lab Batch ID: 726328 Sample: 51108	4-1-BKS	Batcl	1#: 1					Matrix: S	Solid			
Units: mg/kg		BLAN	K/BLANK S	SPIKE / E	BLANK S	SPIKE DUPI	LICATE	RECOVI	ERY STUD	Y		
BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag	
Benzene	ND	0.1000	0.0998	100	0.1	0.1047	105	5	70-130	35	<u> </u>	
Tolucne	ND	0.1000	0 0987	99	0.1	0.1035	104	5	70-130	35		
Ethylbenzene	ND	0 1000	0.1111	111	0.1	0.1166	117	5	71-129	35	[	
	1 1											
m,p-Xylenes	ND	0.2000	0.2237	112	0.2	0.2348	117	5	70-135	35	<u>†                                    </u>	

Relative Percent Difference RPD = 200\*[(D-F)/(D+F)] Blank Spike Recovery [D] = 100\*(C)/[B] Blank Spike Duplicate Recovery [G] = 100\*(F)/[E] All results are based on MDL and Validated for QC Purposes



## **BS / BSD Recoveries**



## Project Name: Dollar Hide to Jal 8"

Work Order #: 306369 Analyst: ASA Lab Batch ID: 726418 Sample:	Da 511165-1-BKS	nte Preparo Batch	ed: 06/24/200	08			Pro Date A	ject ID: 2 nalyzed: ( Matrix: S	2008-148 06/25/2008 Solid		
Units: mg/kg	kg BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVER									Control	
TPH by SW8015 Mod Analytes	Biank Sample Result [A]	Added	Blank Spike Result [C]	Spike %R [D]	Added	Blank Spike Duplicate Result [F]	ык. эрк Dup. %R [G]	RPD %	Limits %R	Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	840	84	1000	838	84	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	838	84	1000	832	83	1	70-135	35	

Relative Percent Difference RPD = 200\*|(D-F)/(D+F)| Blank Spike Recovery [D] = 100\*(C)/[B] Blank Spike Duplicate Recovery [G] = 100\*(F)/[E] All results are based on MDL and Validated for QC Purposes





.

Project Name: Dollar Hide to Jal 8"

Work Order #: 306369

Lab Batch #: 726229 Date Analyzed: 06/23/2008 OC- Sample ID: 306371-001 D	Date Prepared: 06/2 Batch #: 1	23/2008	Project I Analy Matr	D: <sup>2008-143</sup> st: JLG ix: Soil	3
Reporting Units: %	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture Analyte	Parent Sample Result {A}	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	15.9	16.2	2	20	

Spike Relative Difference RPD 200 \* | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.

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### Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client	Bosin	Plan	<u>ns</u>
Date/ Time	6130	)8	8:25
Lab ID # ·	30	ester	
Initials		<u>م</u> ل	

### Sample Receipt Checklist

	Sample Receipt	onconnoc			
		_		Client Initia	ls
#1	Temperature of container/ cooler?	Yes	No	0.0 °C	
#2	Shipping container in good condition?	Res	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present)	
#4	Custody Seals intact on sample bottles/ container?	(Ce)	No	NotPresent	
#5	Chain of Custody present?	Ves	No		7
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		٦
#8	Chain of Custody agrees with sample label(s)?	(es)	No	ID written on Cont / Lid	٦
#9	Container label(s) legible and intact?	Yeg	No	Not Applicable	7
#10	Sample matrix/ properties agree with Chain of Custody?	Xer	No		٦
#11	Containers supplied by ELOT?	(es)	No		٦
#12	Samples in proper container/ bottle?	Ve9	No	Sec Below	٦
#13	Samples properly preserved?	Kes	No	See Below	٦
#14	Sample bottles intact?	Ves	No		٦
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	¥es	No		
#17	Sufficient sample amount for indicated test(s)?	*ee	No	See Below	٦
#18	All samples received within sufficient hold time?	Yes	No	See Below	٦
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	_
#20	VOC samples have zero headspace?	(res)	No	Not Applicable	_

### Variance Documentation

Date/ Time

Contact

Contacted by:

Regarding

Corrective Action Taken

Check all that Apply

See attached e-mail/ fax

Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event

## **Analytical Report 306745**

for

## PLAINS ALL AMERICAN EH&S

**Project Manager: Daniel Bryant** 

Dollarhide to Jal 8"

2008-148

03-JUL-08



12600 West I-20 East Odessa, Texas 79765

Texas certification numbers: Houston, TX T104704215

Florida certification numbers: Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675 Norcross(Atlanta), GA E87429

> South Carolina certification numbers: Norcross(Atlanta), GA 98015

> North Carolina certification numbers: Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America Midland - Corpus Christi - Atlanta



03-JUL-08



Project Manager: **Daniel Bryant PLAINS ALL AMERICAN EH&S** 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: **306745 Dollarhide to Jal 8''** Project Address: Lea County, NM

### **Daniel Bryant**:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 306745. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 306745 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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## Sample Cross Reference 306745

## PLAINS ALL AMERICAN EH&S, Midland, TX

Dollarhide to Jal 8"

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NSW-1	S	Jun-26-08 13:00		306745-001
Floor-1	S	Jun-26-08 13:05		306745-002
SSW-1	S	Jun-26-08 13:10		306745-003
NSW-2	S	Jun-26-08 13:15		306745-004
Floor-2	S	Jun-26-08 13:20		306745-005
SSW-2	S	Jun-26-08 13:25		306745-006
NSW-3	S	Jun-26-08 13:30		306745-007
Floor-3	S	Jun-26-08 13:35		306745-008
SSW-3	S	Jun-26-08 13:40		306745-009
NSW-4	S	Jun-26-08 13:45		306745-010
Floor-4	S	Jun-26-08 13:50		306745-011
SSW-4	S	Jun-26-08 13:55		306745-012
NSW-5	S	Jun-26-08 14:00		306745-013
Floor-5	S	Jun-26-08 14:05		306745-014
SSW-5	S	Jun-26-08 14:10		306745-015



Contact: Daniel Bryant

### Certificate of Analysis Summary 306745 PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Dollarhide to Jal 8"

Report Date: 03-JUL-08 Project Location: Lea County, NM Project Manager: Brent Barron, Il Lab Id: 306745-001 306745-002 306745-003 306745-004 306745-005 306745-006 Field Id: NSW-1 Floor-1 SSW-1 NSW-2 Floor-2 SSW-2 Analysis Requested Depth: SOIL SOIL SOIL SOIL SOIL SOIL Matrix: Jun-26-08 13:25 Sampled: Jun-26-08 13.00 Jun-26-08 13.05 Jun-26-08 13 10 Jun-26-08 13.15 Jun-26-08 13.20 Jun-27-08 10:00 Jun-27-08 10.00 Jun-27-08 10:00 Jun-27-08 10.00 Jun-27-08 10:00 Extracted: Jun-27-08 10.00 BTEX by EPA 8021B Jun-29-08 09.53 Jun-29-08 10:17 Jun-29-08 10.41 Jun-29-08 11:04 Jun-29-08 11.28 Analyzed: Jun-29-08 09 28 Units/RL: RL RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg mg/kg ND 0 0010 ND 0.0010 ND 0.0010 ND 0 0010 0.0010 Benzene ND 0.0010 ND Toluene ND 0 0020 ND 0.0020 0.0020 ND 0.0020 ND 0.0020 ND 0.0020 ND Ethylbenzene ND 0.0010 ND 0 0010 ND 0 0010 ND 0.0010 ND 0.0010 ND 0.0010 m,p-Xylenes ND 0.0020 ND 0 0020 ND 0 0020 ND 0.0020 ND ND 0.0020 0 0020 o-Xylene ND 0 0010 ND 0.0010 ND 0 0010 ND 0 0010 ND 0.0010 ND 0.0010 ND ND Total Xylenes ND ND ND ND Total BTEX ND ND ND ND ND ND Extracted: **Percent Moisture** Analyzed: Jun-27-08 17:00 Jun-27-08 17:00 Jun-27-08 17 00 Jun-27-08 17:00 Jun-27-08 17.00 Jun-27-08 17 00 Units/RL: % RL % RL % RL % RL % RL % RL. 759 .84 547 392 1.74 867 Percent Moisture Jul-01-08 15:10 Jul-01-08 15 10 Jul-01-08 15:10 Jul-01-08 15.10 Jul-01-08 15.10 Jul-01-08 15:10 Extracted: TPH by SW8015 Mod Analyzed: Jul-02-08 15:03 Jul-02-08 15.30 Jul-02-08 15.56 Jul-02-08 16.26 Jul-02-08 16.52 Jul-02-08 17.19 Units/RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL C6-C12 Gasoline Range Hydrocarbons ND 15.1 ND 15.1 205 151 21.9 151 ND 15.3 ND 151 C12-C28 Diesel Range Hydrocarbons 688 15.1 351 151 15.2 15.1 165 15.3 ND 15.1 ND 151 C28-C35 Oil Range Hydrocarbons ND 151 17.0 15.1 ND 151 ND 151 ND 153 ND 15.1 Total TPH ND 85.8 55.6 37.1 165 ND

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Brent Barron

Date Received in Lab: Fri Jun-27-08 09:03 am

Odessa Laboratory Director



Contact: Daniel Bryant

### Certificate of Analysis Summary 306745 PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Dollarhide to Jal 8"

Report Date: 03-JUL-08 Project Location: Lea County, NM Project Manager: Brent Barron, Il Lab Id: 306745-007 306745-008 306745-009 306745-010 306745-011 306745-012 Field Id: NSW-3 Floor-3 SSW-3 NSW-4 Floor-4 SSW-4 Analysis Requested Depth: Matrix: SOL SOIL SOIL SOIL SOIL SOIL Sampled: Jun-26-08 13:30 Jun-26-08 13 35 Jun-26-08 13.40 Jun-26-08 13:45 Jun-26-08 13.50 Jun-26-08 13.55 Jun-27-08 10.00 Jun-27-08 09 25 Jun-27-08 09.25 Jun-27-08 09.25 Jun-27-08 09:25 Extracted: Jun-27-08 10 00 BTEX by EPA 8021B Jun-29-08 12 16 Jun-29-08 15:03 Jun-29-08 16.15 Jun-29-08 16.39 Jun-29-08 17:03 Analyzed: Jun-29-08 11 52 Units/RL: mg/kg mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL RL ND 0.0010 ND 0 0010 ND 0 0010 ND 0.0010 ND 0.0010 ND 0.0010 Benzene ND 0 0020 0.0020 Toluene ND 0 0021 ND 0.0020 ND 0.0020 ND 0 0020 ND Ethylbenzene ND 0.0010 ND 0 0010 ND 0.0010 ND 0.0010 ND 0.0010 ND 0.0010 m,p-Xylenes ND 0.0020 ND 0.0021 ND 0.0020 ND 0.0020 ND 0 0020 ND 0 0020 o-Xylene ND 0 0010 ND 0 0010 ND 0.0010 ND 0.0010 ND 0 0010 ND 0 0010 ND ND ND Total Xylenes ND ND ND Total BTEX ND ND ND ND ND ND Extracted: **Percent Moisture** Analyzed: Jun-27-08 17.00 Jun-27-08 17:00 Jun-27-08 17:00 Jun-27-08 17 00 Jun-27-08 17 00 Jun-27-08 17.00 Units/RL: % RL % RL % RL % RL % RL % RL Percent Moisture 933 3 48 1 37 .487 2 06 534 Jul-01-08 15.10 Jul-01-08 15 10 Jul-01-08 15 10 Jul-01-08 15.10 Jul-01-08 15.10 Jul-01-08 15.10 Extracted: TPH by SW8015 Mod Jul-02-08 18 43 Jul-02-08 19.10 Analyzed: Jul-02-08 17.48 Jul-02-08 18 15 Jul-02-08 20.05 Jul-02-08 20.35 Units/RL: mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL C6-C12 Gasoline Range Hydrocarbons 152 15.1 15.3 151 ND 151 ND 155 ND ND ND ND C12-C28 Diesel Range Hydrocarbons 151 22.7 155 102 152 ND 15.1 ND 153 152 151 ND 15.2 15.1 C28-C35 Oil Range Hydrocarbons ND 151 ND 155 ND ND 151 ND 15.3 ND 102 15.2 Total TPH ND 227 ND ND

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Brent Barron

Date Received in Lab: Fri Jun-27-08 09:03 am

Odessa Laboratory Director



Contact: Daniel Bryant

### Certificate of Analysis Summary 306745 PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Dollarhide to Jal 8"

Date Received in Lab: Fri Jun-27-08 09:03 am

Report Date: 03-JUL-08

Project Location: Lea County, NM								Report Date:	03-JUL-08	
								<b>Project Manager:</b>	Brent Barron, II	
	Lab Id:	306745-0	13	306745-0	014	306745-	015			
Analysis Dogwood	Field Id:	NSW-5	i	Floor-	5	SSW-	5			
Anulysis Requested	Depth:									
	Matrix:	SOIL	SOIL			SOIL				
	Sampled:	Jun-26-08 1	4.00	Jun-26-08 14:05		Jun-26-08	14.10			
BTEX by EPA 8021B	Extracted:	Jun-27-08 (	09:25	Jun-27-08	09.25	Jun-27-08	09.25			
	Analyzed:	Jun-29-08	7.26	Jun-29-08	17.50	Jun-29-08	18.14			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Benzene		ND	0 00 10	ND	0 0010	0 0045	0.0010			
Toluene		ND	0 0020	ND	0.0021	0 0097	0.0020			
Ethylbenzene		ND	0.0010	ND	0 0010	0 0034	0 0010			
m,p-Xylenes		0.0021	0.0020	ND	0.0021	0.0067	0.0020			
o-Xylene		0.0012	0.0010	ND	0.0010	0.0043	0.0010			
Total Xylenes		0 0033		ND		0.011				
Total BTEX		0.0033		ND		0.0286				
Percent Moisture	Extracted:									
	Analyzed:	Jun-27-08	7.00	Jun-27-08	17.00	Jun-27-08	17 00			
	Units/RL:	%	RL	%	RL	%	RL			
Percent Moisture		1 28		2 72		1.07				
TPH by SW8015 Mod	Extracted:	Jul-01-08 1	510	Jul-01-08	510	Jul-01-08	15.10			
	Analyzed:	Jul-02-08 2	21:04	Jul-02-08 2	21.34	Jul-03-08	10.06			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
C6-C12 Gasoline Range Hydrocarbons		ND	15.2	20.8	15.4	ND	152			
C12-C28 Diesel Range Hydrocarbons		ND	15.2	61.3	15.4	ND	15.2			
C28-C35 Oil Range Hydrocarbons		ND	15.2	ND	15.4	ND	15.2			
Total TPH		ND		82.1		ND				

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Brent Barron Odessa Laboratory Director



- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- \* Outside XENCO'S scope of NELAC Accreditation

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(770) 449-8800	(770) 449-5477
	Phone (281) 589-0692 (214) 902 0300 (210) 509-3334 (813) 620-2000 (305) 823-8500 (770) 449-8800




## Project Name: Dollarhide to Jal 8"

'ork Order #: 306745			Project ID	<b>:</b> 2008-148			
Lab Batch #: /26689 Samp	le: 306699-011 S7 MS	Bat	ich: 1 Matrix	X: Soil	CTUNY		
BTEX by EPA 80211	3	Amount Found	True Amount	Recovery	Control Limits	Flags	
Analytes			(B)	%к [D]	70 R	1	
1,4-Dıfluorobenzene		0.0322	0.0300	107	80-120	<u> </u>	
4-Bromofluorobenzene		0.0294	0 0300	98	80-120	I	
Lab Batch #: 726689 Samp	le: 306699-011 SD / MSI	) Baf	tch: 1 Matriy	x: Soil	OTUDV		
		ອບ: 	KKUGALE NE			<del>;</del>	
BTEX by EPA 8021E Analytes	\$	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1,4-Difluorobenzene		0 0318	0.0300	106	80-120	<b> </b>	
4-Bromofluorobenzene		0.0281	0.0300	94	80-120	[	
Lab Batch #: 726689 Samr	Je: 306745-001 / SMP	Ba	tch: 1 Matri	x: Soil	·		
Units: mg/kg	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B		Amount Found	True Amount [R]	Recovery %R	Control Limits %R	Flags	
Analytes						1	
1,4-Dıfluorobenzene		0.0347	0.0300	116	80-120		
4-Bromofluorobenzene		0.0315	0.0300	105	80-120		
Lab Batch #: 726689 Samp	le: 306745-002 / SMP	Ba	tch: 1 Matri	x: Soil			
Units: mg/kg		SU	<b>RROGATE RE</b>	COVERY S	STUDY		
BTEX by EPA 8021E Analytes	\$	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1.4-Difluorobenzenc		0.0342	0 0300	114	80-120		
4-Bromofluorobenzene		0.0316	0.0300	105	80-120	[	
Lab Batch #: 726689 Samr	Jle: 306745-003 / SMP	Ba	tch: 1 Matri	x: Soil	<u> </u>		
Units: mg/kg		SU	<b>RROGATE RF</b>	COVERY	STUDY		
BTEX by EPA 8021F	3	Amount Found	True Amount [R]	Recovery %R	Control Limits %R	Flags	
Analytes		1051		[D]		1	
1,4-Difluorobenzene		0.0351	0.0300	117	80-120		
4-Bromofluorobenzene		0.0317	0.0300	106	80-120	1	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B





## Project Name: Dollarhide to Jal 8"

Vork Order #: 306745		Project IJ	<b>D:</b> 2008-148								
Lab Batch #: 726689 Sample: 306745-004	, / SMP Bat	tch: 1 Matr	ix: Soil								
Units: mg/kg	SU'	RROGATE RJ	ECOVERY f	STUDY							
BTEX by EPA 8021B	Amount Found [A]	True Amount {B]	Recovery %R [D]	Control Limits %R	Flags						
Anaryics		0.0200	1 10		t						
1,4-Difluorobenzene	0.0320	0.0300	118	80-120	t						
	0,0320	0.0300		00-120							
Lab Batch #: 726689 Sample: 306745-005	/ SMP Bat	SMP Batch: 1 Matrix: Soil									
Units: mg/kg	SU/	RROGATE RE	ECOVERY :	STUDY							
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
1,4-Dıfluorobenzene	0.0333	0.0300	111	80-120	[						
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	[						
Lah Batch #: 726689 Sample: 306745-006	 SMP Ba <sup>r</sup> ک	tch: 1 Matr	rix: Soil	·							
Units: mg/kg	SU'	RROGATE RI	ECOVERY	STUDY							
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags						
Analytes			101	<u> </u> !	<b> </b>						
1,4-Difluorobenzene	0.0348	0.0300	116	80-120	<b> </b>						
4-Bromofluorobenzene	0.0319	0.0300	106	80-120	L						
Lab Batch #: 726689 Sample: 306745-007	/ SMP Bat	MP Batch: 1 Matrix: Soil									
Units: mg/kg	SU/	RROGATE RI	ECOVERY S	STUDY							
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
1,4-Difluorobenzene	0.0350	0.0300	117	80-120	[						
4-Bromofluorobenzene	0.0311	0.0300	104	80-120							
Lab Batch #: 726689 Sample: 306745-008	3 / SMP Ba'	tch:   Matr	rix: Soil	<u></u>							
Units: mg/kg	SU	RROGATE RI	ECOVERY	STUDY_							
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
1,4-Dıfluorobenzene	0.0324	0.0300	108	80-120	[						
4-Bromofluorobenzene	0 0309	0.0300	103	80-120							

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B





## Project Name: Dollarhide to Jal 8"

Work Order #: 306745	<b>Project ID:</b> 2008-148								
Lab Batch #: 726689 Sample: 511309-1-BKS	BKS Bat	tch: 1 Matri	x: Solid						
Units: mg/kg	SU	RROGATE RE	COVERY S	STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
Analytes			191						
1,4-Difluorobenzene	0.0292	0.0300	97	80-120					
4-Bromofluorobenzene	0.0329	0 0300	110	80-120					
Lab Batch #: 726689 Sample: 511309-1-BLK	BLK Bar	tch:   Matri	x: Solid						
	50	KKUGATE NO							
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1,4-Dıfluorobenzene	0.0342	0.0300	114	80-120					
4-Bromofluorobenzene	0.0300	0.0300	100	80-120					
Lab Batch #: 726689 Sample: 511309-1-BSD / BSD Batch: 1 Matrix: Solid									
Units: mg/kg	SU	RROGATE RE	ECOVERY S	STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1,4-Dıfluorobenzene	0.0279	0.0300	93	80-120					
4-Bromofluorobenzene	0.0323	0.0300	108	80-120					
Lab Batch #: 726690 Sample: 306745-009 / St	MP Ba	tch: 1 Matri	x: Soil						
Units: mg/kg	SU	RROGATE RE	<b>COVERY</b> S	STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
I,4-Difluorobenzene	0.0348	0.0300	116	80-120					
4-Bromofluorobenzene	0.0310	0.0300	103	80-120					
Lab Batch #: 726690 Sample: 306745-009 S /	MS Ba	tch: <sup>1</sup> Matri	ix: Soil	•					
Units: mg/kg	SU	RROGATE RI	ECOVERY	STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1,4-Difluorobenzene	0.0295	0.0300	98	80-120					
4-Bromofluorobenzene	0.0338	0.0300	113	80-120					

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B





Project Name: Dollarhide to Jal 8"

<b>Vork Order #:</b> 306745		Project II	<b>D:</b> 2008-148		
Lab Batch #: 726690 Sample:	, 306745-009 SD / MSD B:	atch:   Matri	ix: Soil		
Units: mg/kg	SU	JRROGATE RF	ECOVERY S	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 4 Diffuorabanzana	0.0310	0.0300	103	0 120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	l
Lab Ratch #. 726690 Sample	- 306745-010 / SMP B	 (ataby 1 Matr	see Soil	<u> </u>	
Units: mg/kg	S00/45-010 / Sint	URROGATE RJ	ECOVERY	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0342	0.0300	114	80-120	(
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	
Lab Batch #: 726690 Sample:	: 306745-011 / SMP B	atch: 1 Matr'	ix: Soil	<u>L</u>	
Units: mg/kg	S	URROGATE RI	ECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		'	0		<b>└──</b> ─
1,4-Difluorobenzene	0.0345	0.0300	115	80-120	i
4-Bromofluorobenzene	0.0303	0.0300	101	80-120	L
Lab Batch #: 726690 Sample:	; 306745-012 / SMP Br	atch:   Matri	íx: Soil		
Units: mg/kg		JRROGATE RF	COVERY S	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Dıfluorobenzene	0 0342	0.0300	114	80-120	I
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	
Lab Batch #: 726690 Sample:	: 306745-013 / SMP B	atch: 1 Matri	ix: Soil		
Units: mg/kg	SI	JRROGATE RE	ECOVERY	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0330	0.0300	110	80-120	[
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	(

\*\* Surrogates outside limits, data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B





## Project Name: Dollarhide to Jal 8"

ork Order #: 306745		Project II	<b>D:</b> 2008-148					
Lab Batch #: 726690 Sample:	306745-014 / SMP Ba	itch: 1 Matri	ix: Soil					
Units: mg/kg	SU	JRROGATE RI	ECOVERY S	STUDY				
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount {B}	Recovery %R [D]	Control Limits %R	Flags			
1.4-Difluorohenzene	0.0349	0.0300	116	80-120				
4-Bromofluorobenzene	0.0331	0.0300	110	80-120				
Lab Batch #: 726690 Sample:	306745-015 / SMP B	tch: 1 Matri	ix: Soil					
Units: mg/kg	SU	RROGATE RI	ECOVERY	STUDY				
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1,4-Difluorobenzene	0.0364	0.0300	121	80-120	**			
4-Bromofluorobenzene	0.0336	0.0300	112	80-120				
Lab Batch #: 726690 Sample:	511311-1-BKS / BKS Ba	itch: 1 Matr	ix: Solid					
Units: mg/kg	SU	JRROGATE RI	ECOVERY	STUDY				
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1,4-Difluorobenzene	0.0283	0.0300	94	80-120				
4-Bromofluorobenzene	0.0326	0.0300	109	80-120				
Lab Batch #: 726690 Sample:	511311-1-BLK / BLK B:	itch: 1 Matri	ix: Solid					
Units: mg/kg	SU	Amount Found [A]         True Amount [B]         Recovery %R [D]         Cont Lim %R [D]           0.0364         0.0300         121         80-1           0.0364         0.0300         112         80-1           0.0336         0.0300         112         80-1           S/BKS         Batch:         1         Matrix: Solid           SURROGATE         RECOVERY STUD         Cont Lim %R [D]           Amount Found         True Amount [A]         Recovery [B]         Cont Lim %R [D]           0.0283         0.0300         94         80-1           0.0326         0.0300         109         80-1           K / BLK         Batch:         1         Matrix: Solid           SURROGATE         Recovery RECOVERY STUD         Cont Lim %R [D]           0.0326         0.0300         109         80-1           K / BLK         Batch:         1         Matrix: Solid           SURROGATE         Recovery [A]         Cont Lim %R [D]           0.0337         0.0300         99         80-1           0.0297         0.0300         99         80-1           D / BSD         Batch:         1         Matrix: Solid           SURROGATE         Recovery %R [D						
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1,4-Difluorobenzene	0.0337	0.0300	112	80-120				
4-Bromofluorobenzene	0.0297	0.0300	99	80-120				
Lab Batch #: 726690 Sample:	511311-1-BSD / BSD B	ntch: 1 Matr	ix: Solid					
Units: mg/kg	SU	JRROGATE RI	ECOVERY	STUDY				
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1,4-Difluorobenzene	0.0276	0 0300	92	80-120				
4-Bromofluorobenzene	0.0317	0 0300	106	80-120				

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / BAll results are based on MDL and validated for QC purposes.





Project Name: Dollarhide to Jal 8"

/ork Order #: 306745			Project II	<b>D:</b> 2008-148		
Lab Batch #: 727092	Sample: 306745-001 / SM	iP Bat	ch: 1 Matri	ix: Soil		
Units: mg/kg		SUI	RROGATE RI	ECOVERY	STUDY	
TPH by SW8015	Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
L Chlorooctane		77.0	100	78	70.135	<u> </u>
o-Terphenyl		42.2	50.0	84	70-135	
Lab Ratch #• 727092	Sample: 306745-001 S / N	AS Bat		iv Soil	<u></u>	
Units: mg/kg	Sample, Soor is a f	SU!	RROGATE RI	ECOVERY	STUDY	
TPH by SW8015 Analytes	Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctane		88.9	100	89	70-135	[
o-Terphenyl		47 6	50.0	95	70-135	·
Lab Batch #: 727092	Sample: 306745-001 SD /	MSD Bat	ich: 1 Matri	ix: Soil		
Units: mg/kg	•	SU	RROGATE RI	ECOVERY	STUDY	<u> </u>
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 Chlorosotano	]	00 5	100	1 20	70.135	l
o-Terphenyl		46.9	50 0	94	70-135	<u> </u>
Lab Datch #. 777097	Samala: 306745-002 / SM	ID Bat		iv. Soil		<u></u>
Units: mg/kg	Sample: Juli and Juli and	SU'	RROGATE RI	ECOVERY	STUDY	
TPH by SW8015	Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 Chlorostane		77.6	100	78	70,135	<b> </b>
o-Ternhenvl		43.0	50.0	86	70-135	t
I -L Валь 4, 707/00)		(D Bat	· ⊾ 1 Matr	Soil		<u> </u>
Lab Batten #: 121032	sample: 500-6+1000 .	P Dat	RROGATE R	ECOVERY	STUDY	
TPH by SW8015 Analytes	Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctane		71.5	100	72	70-135	
o-Terphenyl		39.2	50.0	78	70-135	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / BAll results are based on MDL and validated for QC purposes.





# Project Name: Dollarhide to Jal 8"

<b>Vork Order #:</b> 306745		Project I	<b>D:</b> 2008-148		
Lab Batch #: 727092 Sample: 306745-004 / 3	SMP Bat	ch: 1 Matr	ix: Soil		
Units: mg/kg	SUI	RROGATE R	ECOVERY f	STUDY	
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Allaryus				70.125	<b> </b>
1-Chiorooctanc	75.1	50.0	77	70-135	ł
				10-133	
Lab Batch #: 727092 Sample: 306/43-005/3 Units: mg/kg	SMP Bate	ch: 1 Matr RROGATE R	ix: Soil	STUDY	
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	78.4	100	78	70-135	
o-Terphenyl	41.9	50 0	84	70-135	i <u> </u>
Lab Batch #: 727092 Sample: 306745-006 / 3	SMP Bat	ch: 1 Matr	ix: Soil	<u> </u>	
Units: mg/kg	SUI	RROGATE R	ECOVERY f	STUDY	
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	77.1	100	77	70-135	[
o-Tcrphenyl	40.4	50 0	81	70-135	Ī
Lab Batch #: 727092 Sample: 306745-007 / :	SMP Bat	ch: 1 Matr	·ix: Soil	<u>k</u>	
Units: mg/kg	SUI	RROGATE R	ECOVERY	STUDY	
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctane	74.5	100	75	70-135	
				ى	[
o-Terphenyl	38.9	50.0	78	70-135	۱
o-Terphenyl           Lab Batch #:         727092         Sample:         306745-008 / 3	38.9 SMP Bate	50.0 ch: 1 Matr	78 ix: Soil	70-135	L
o-Terphenyl           Lab Batch #:         727092         Sample:         306745-008 / ;           Units:         mg/kg	38.9 SMP Bat	50.0 ch: 1 Matr RROGATE R	78 ix: Soil ECOVERY S	70-135	
o-Terphenyi Lab Batch #: 727092 Sample: 306745-008 / : Units: mg/kg TPH by SW8015 Mod Analytes	38.9 SMP Bat SUI Amount Found [A]	50.0 rch: 1 Matı RROGATE R True Amount [B]	78 ix: Soil ECOVERY Recovery %R [D]	70-135 STUDY Control Limits %R	Flags
o-Terphenyi Lab Batch #: 727092 Sample: 306745-008 / : Units: mg/kg TPH by SW8015 Mod Analytes 1-Chlorooctanc	38.9 SMP Bat SUI Amount Found [A] 76.5	50.0 ch: 1 Matı RROGATE R True Amount [B] 100	78 ix: Soil ECOVERY Recovery %R [D] 77	70-135 STUDY Control Limits %R 70-135	Flags

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B





Project Name: Dollarhide to Jal 8"

Work Order #: 306745		Project II	<b>):</b> 2008-148		
Lab Batch #: 727092 Sample: 306745-009 / S	SMP Bat	tch: <sup>1</sup> Matri	x: Soil		
rk Order #: 306745 Lab Batch #: 727092 Sample: 306745-009 / Si Units: mg/kg TPH by SW8015 Mod Analytes -Chlorooctane -Terphenyl Lab Batch #: 727092 Sample: 306745-010 / Si Units: mg/kg TPH by SW8015 Mod Analytes -Chlorooctane -Terphenyl Lab Batch #: 727092 Sample: 306745-011 / Si Units: mg/kg TPH by SW8015 Mod Analytes -Chlorooctane -Terphenyl Lab Batch #: 727092 Sample: 306745-012 / Si Units: mg/kg TPH by SW8015 Mod Analytes -Chlorooctane -Terphenyl Lab Batch #: 727092 Sample: 306745-012 / Si Units: mg/kg TPH by SW8015 Mod Analytes -Chlorooctane -Terphenyl Lab Batch #: 727092 Sample: 306745-012 / Si Units: mg/kg TPH by SW8015 Mod Analytes -Chlorooctane -Terphenyl Lab Batch #: 727092 Sample: 306745-013 / Si Units: mg/kg TPH by SW8015 Mod Analytes	SU	RROGATE RE	<b>ECOVERY</b>	STUDY	
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.7	100	76	70-135	
o-Terphenyl	41.8	50 0	84	70-135	
Lab Batch #: 727092 Sample: 306745-010 / S	SMP Bat	tch: 1 Matri	x: Soil	<u> </u>	
Units: mg/kg	SU	RROGATE RI	COVERY	STUDY	
rk Order #: 306745 Lab Batch #: 727092 Sample: 306745-009 / Units: mg/kg TPH by SW8015 Mod Analytes -Chlorooctane -Terphenyl Lab Batch #: 727092 Sample: 306745-010 / Units: mg/kg TPH by SW8015 Mod Analytes -Chlorooctane -Terphenyl Lab Batch #: 727092 Sample: 306745-011 / Units: mg/kg TPH by SW8015 Mod Analytes -Chlorooctane -Terphenyl Lab Batch #: 727092 Sample: 306745-012 / Units: mg/kg TPH by SW8015 Mod Analytes -Chlorooctane -Terphenyl Lab Batch #: 727092 Sample: 306745-012 / Units: mg/kg Chlorooctane -Terphenyl Lab Batch #: 727092 Sample: 306745-012 / Units: mg/kg Chlorooctane -Terphenyl Lab Batch #: 727092 Sample: 306745-012 / Units: mg/kg -Chlorooctane -Terphenyl Lab Batch #: 727092 Sample: 306745-013 /	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75 4	100	75	70-135	
o-Terphenyl	39 7	50.0	79	70-135	
Lab Batch #: 727092 Sample: 306745-011/5	SMP Bat	tch: 1 Matri	x: Soil	·	
Units: mg/kg	SU	RROGATE RE	COVERY	STUDY	
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctanc	77.0	100	77	70-135	
o-Terphenyi	41 4	50.0	83	70-135	
Lab Batch #: 727092 Sample: 306745-012 / 5	SMP Bat	tch: <sup>1</sup> Matri	x: Soil	L	
Units: mg/kg	SU	STUDY			
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	73.9	100	74	70-135	
o-Terphenyl	39.1	50.0	78	70-135	
Lab Batch #: 727092 Sample: 306745-013 / S	SMP Bat	tch: 1 Matri	x: Soil	•	
Units: mg/kg	SU	RROGATE RI	COVERY	STUDY	
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.0	100	76	70-135	
o-Terpheny]	40.2	50.0	80	70-135	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B



,

# Form 2 - Surrogate Recoveries



## Project Name: Dollarhide to Jal 8"

/ork Order #: 306745		Project II	<b>D:</b> 2008-148			
Lab Batch #: 727092 Sample: 3	06745-014 / SMP Ba	tch: 1 Matri	ix: Soil			
Units: mg/kg	SU	RROGATE RI	ECOVERY S	STUDY		
rk Order #: 306745 Lab Batch #: 727092 Sample: 306745-014 / Si Units: mg/kg TPH by SW8015 Mod Analytes Chlorooctane Terphenyl Lab Batch #: 727092 Sample: 306745-015 / Si Units: mg/kg TPH by SW8015 Mod Analytes Chlorooctane Terphenyl Lab Batch #: 727092 Sample: 511555-1-BKS Units: mg/kg TPH by SW8015 Mod Analytes Chlorooctane Terphenyl Lab Batch #: 727092 Sample: 511555-1-BKS Units: mg/kg Chlorooctane Terphenyl Lab Batch #: 727092 Sample: 511555-1-BKS Units: mg/kg TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	ControlRecoveryLimits%R%R[D]		
1-Chlorooctanc	75.2	100	75	70-135		
o-Terphenyl	41.4	50.0	83	70-135		
Lab Batch #: 727092 Sample: 3	06745-015 / SMP Ba	tch: 1 Matri	ix: Soil			
Units: mg/kg	SU	<b>RROGATE R</b>	ECOVERY	STUDY		
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
I-Chlorooctane	84.5	100	85	70-135	• •	
o-Terphenyl	44.1	50.0	88	70-135		
Lab Batch #: 727092 Sample: 5	11555-1-BKS / BKS Ba	tch: 1 Matri	ix: Solid			
Units: mg/kg	SU	RROGATE R	ECOVERY S	STUDY		
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctanc	93.3	100	93	70-135		
o-Terphenyl	50.4	50.0	101	70-135		
Lab Batch #: 727092 Sample: 5	11555-1-BLK / BLK Ba	tch: 1 Matri	ix: Solid	<u> </u>		
Units: mg/kg	SU	RROGATE RI	ECOVERY S	STUDY		
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
I-Chlorooctane	87.8	100	88	70-135		
o-Terphenyl	46 7	50.0	93	70-135		
Lab Batch #: 727092 Sample: 5	11555-1-BSD / BSD Ba	tch: 1 Matr	ix: Solid			
Units: mg/kg	SU	RROGATE R	ECOVERY	STUDY		
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane	93.7	100	94	70-135		
o-Terphenyl	51,4	50 0	103	70-135		

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B



## **BS / BSD Recoveries**



### Project Name: Dollarhide to Jal 8"

Work Order #: 306745							Pro	ject ID: 2	2008-148		
Analyst: BRB	D	ate Prepar	ed: 06/27/200	8			Date A	nalyzed: (	6/29/2008		
Lab Batch ID: 726689 Sample: 511309-1	-BKS	Batcl	<b>1 #:</b> 1					Matrix: S	Solid		
Units: mg/kg		BLAN	K/BLANK S	SPIKE / E	BLANK S	PIKE DUPI	ICATE	RECOVI	ERY STUD	γ	
BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.0921	92	0.1	0.0992	99	7	70-130	35	
Tolucne	ND	0.1000	0.0879	88	0.1	0.0944	94	7	70-130	35	
Ethylbenzene	ND	0.1000	0.0956	96	0.1	0.1017	102	6	71-129	35	
m,p-Xylenes	ND	0.2000	0.1924	96	0.2	0 2033	102	6	70-135	35	
o-Xylene	ND	0.1000	0.0968	97	0.1	0 1020	102	5	71-133	35	
Analyst: BRB	D	ate Prepar	ed: 06/27/200	8			Date A	nalyzed: (	6/29/2008		
Lab Batch ID: 726690 Sample: 511311-1	BKS	Batcl	n#: 1			Matrix: Solid					
Units: <sup>mg/kg</sup>		BLAN	K /BLANK S	SPIKE / F	BLANK S	PIKE DUPI	ICATE	RECOVI	ERY STUD	Y	
BTEX by EPA 8021B	Blank Sample Result	Spike Added	Blank Spike	Blank Spike	Spike Added	Blank Spike	Blk. Spk Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	[A]	[ <b>B</b> ]	Result [C]	%R [D]	[E]	Duplicate Result [F]	%R [G]	%	%R	%RPD	
Analytes Benzene	[A]	[ <b>B</b> ] 0.1000	Result [C] 0.0953	%R [D] 95	[E] 0.1	Duplicate Result [F]	%R [G] 102	% 7	%R 70-130	%RPD 35	
Analytes Benzene Toluene	[A] ND ND	[ <b>B</b> ] 0.1000 0.1000	Result [C] 0.0953 0.0913	%R [D] 95 91	[E] 0.1 0.1	Duplicate Result [F] 0.1024 0.0978	%R [G] 102 98	7	70-130 70-130	35 35	
Analytes Benzene Toluene Ethylbenzene	[A] ND ND ND	[ <b>B</b> ] 0.1000 0.1000 0.1000	Result         [C]           0.0953         0.0913           0.0977         0.0977	%R [D] 95 91 98	(E) 0.1 0.1	Duplicate Result [F] 0.1024 0.0978 0.1057	%R [G] 102 98 106	7 7 7 8	70-130 70-130 71-129	35 35 35	
Analytes         Benzene         Toluene         Ethylbenzene         m,p-Xylenes	[A] ND ND ND ND	[ <b>B</b> ] 0.1000 0.1000 0.1000 0.2000	Result         [C]           0.0953         0.0913           0.0977         0.1962	%R [D] 95 91 98 98	[E] 0.1 0.1 0.1 0.2	Duplicate Result [F] 0.1024 0.0978 0.1057 0.2122	%R [G] 102 98 106 106	7 7 8 8 8	%R 70-130 70-130 71-129 70-135	35 35 35 35 35	

Relative Percent Difference RPD = 200\*|(D-F)/(D+F)| Blank Spike Recovery [D] = 100\*(C)/[B] Blank Spike Duplicate Recovery [G] = 100\*(F)/[E] All results are based on MDL and Validated for QC Purposes



ANTERNE LA LORISTA



### Project Name: Dollarhide to Jal 8"

Work Order #: 306745 Analyst: ASA Lab Batch ID: 727092	Sample: 511555-1-BKS	Date Prepa Bate	red: 07/01/200	08	Project ID: 2008-148 Date Analyzed: 07/02/2008 Matrix: Solid						
Units: mg/kg		BLAN	IK /BLANK S	SPIKE / I	BLANK S	PIKE DUPI	LICATE	RECOVE	ERY STUD	Ŷ	
TPH by SW8015	Mod Blank Sample Res [A]	Spike ult Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
							<u>                                     </u>				
C6-C12 Gasoline Range Hydrocarbo	ons ND	1000	851	85	1000	841	84	1	70-135	35	
C12-C28 Dicsel Range Hydrocarbon	ns ND	1000	815	82	1000	808	81	1	70-135	35	

Relative Percent Difference RPD = 200\*|(D-F)/(D+F)|Blank Spike Recovery [D] = 100\*(C)/[B]Blank Spike Duplicate Recovery [G] = 100\*(F)/[E]All results are based on MDL and Validated for QC Purposes



### Project Name: Dollarhide to Jal 8"



Work Order #: 306745	<b>Project ID:</b> 2008-148										
Lab Batch ID:         726689         Q           Date Analyzed:         06/29/2008         D	C- Sample ID: Date Prepared:	306699- 06/27/2	-011 S 008	Ba An:	tch #: alyst:	1 <b>Matri</b> a BRB	x: Soil				
Reporting Units: mg/kg		M	ATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY S	STUDY	···	
BTEX by EPA 8021B	Parent Sample Result	Spike Added	Spiked Sample Result	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result (F)	Spiked Dup. %B	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[ <b>B</b> ]	[0]	[D]	[E]	recourt (r )	[G]		/010	/ora D	
Benzene	ND	0.1032	0.0126	12	0.1032	0.0069	7	53	70-130	53	Х
Toluene	ND	0.1032	0.0136	13	0.1032	0,0068	7	60	70-130	60	Х
Ethylbenzene	ND	0.1032	0.0080	8	0.1032	0.0047	5	46	71-129	46	Х
m,p-Xylenes	ND	0.2063	0.0139	7	0 2063	0.0071	3	80	70-135	80	Х
o-Xylene	0.0013	0,1032	0.0105	9	0.1032	0.0058	4	77	71-133	77	Х
Lab Batch ID: 726690 Q	C- Sample ID:	306745	-009 S	Ba	tch #:	1 Matrix	c: Soil				
Date Analyzed: 06/29/2008	Date Prepared:	06/27/2	800	An	alyst:	BRB					
Reporting Units: mg/kg		Μ	ATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY S	STUDY		
BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1014	0.0645	64	0.1014	0.0286	28	78	70-130	78	Х
Toluene	ND	0.1014	0.0572	56	0.1014	0.0275	27	70	70-130	70	Х
Ethylbenzene	ND	0.1014	0.0537	_ 53	0 1014	0.0254	25	72	71-129	72	Х
m,p-Xylenes	ND	0.2028	0.1066	53	0.2028	0.0489	24	75	70-135	75	X
- Vilena											

Matrix Spike Percent Recovery [D] = 100\*(C-A)/B Relative Percent Difference RPD = 200\*(D-G)/(D+G) Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit



## Form 3 - MS / MSD Recoveries

### Project Name: Dollarhide to Jal 8"



Work Order # : 306745						Project II	<b>D:</b> 2008-1	48			
Lab Batch ID: 727092 Date Analyzed: 07/03/2008 Reporting Units: mg/kg	QC- Sample ID: Date Prepared:	306745 07/01/2	-001 S 2008	Ba An	tch #: alyst:	1 Matrix ASA	x: Soil	OVEDV	STHOV		
Work Order # : 306745         Lab Batch ID: 727092         Date Analyzed: 07/03/2008         Reporting Units: mg/kg         TPH by SW8015 Mod         Analytes         C6-C12 Gasoline Range Hydrocarbons         C12-C28 Diesel Range Hydrocarbons		19			KIA SPI	KE DUFLICA	TE REC	OVERI		1	
TPH by SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	ND	1010	795	79	1010	781	77	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1010	801	79	1010	780	77	3	70-135	35	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/B Relative Percent Difference RPD = 200\*(D-G)/(D+G) Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit





### Project Name: Dollarhide to Jal 8"

Work Order #: 306745

Lab Batch #: 726606 Date Analyzed: 06/27/2008	Date Prepa	red: 06/2	27/2008	Project I Analy	<b>D:</b> <sup>2008-148</sup> st: JLG	3
QC- Sample ID: 306718-001 D	Bate	ch #: 1		Matri	ix: Soil	
Reporting Units: %	5	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Pa	rent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Date Analyzed:       06/27/2008       Date         QC- Sample ID:       306718-001 D         Reporting Units:       %         Percent Moisture         Analyte         Cent Moisture         Lab Batch #: 726607         Date Analyzed:       06/27/2008       Date         QC- Sample ID:       306745-015 D       Reporting Units: %         Percent Moisture         Analyte         Analyte			[2]			
Percent Moisture		6.32	6.94	9	20	
Lab Batch #: 726607						
Date Analyzed: 06/27/2008	Date Prepa	red: 06/2	27/2008	Analy	st: JLG	
QC- Sample ID: 306745-015 D	Bate	c <b>h #:</b> 1		Matri	ix: Soil	
Reporting Units: %	5	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY
QC- Sample ID: 306745-015 D Reporting Units: % Percent Moisture Analyte	Pa	rent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Anaryte						
Percent Moisture		1.07	ND	NC	20	

Spike Relative Difference RPD 200 \* | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.

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	Company Address	2600 Plains	Hwy	-												-	P	rojec	1 1.00	: <u>L</u>	a Co	unty	NM						
	City/State/Zip	Lovington,	NM 88260			·····										_			PO #	: <u>P/</u>	<u>14 - 1</u>	эм	Brya	nt_	_				
	Telephone No	(505) 441-22	ו•	0			Fax No	-	(505	<u>)</u> 396	-142	•				Re	port	Form	at:	X	Sta	ndare	1	[	] TR	RP		] NF	ð
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#### Environmental Lab of Texas

#### Variance/ Corrective Action Report- Sample Log-In

Client	BAGIN ENV. / PLAINS
Date/ Time	6.1.08 9.03
Lab ID # .	306145
Initials	<u></u>

#### Sample Receipt Checklist

				Client In
#1	Temperature of container/ cooler?	<b>Kes</b>	No	<u>5,5 °C</u>
#2	Shipping container in good condition?	Yes	No	
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	NoLPresent
#4	Custody Seals intact on sample bottles/ container?	(es	No	Not Present
#5	Chain of Custody present?	Xer	No	
#6	Sample instructions complete of Chain of Custody?	Ves	No	
#7	Chain of Custody signed when relinquished/ received?	(es)	No	
#8	Chain of Custody agrees with sample label(s)?	(es	No	ID written on Cont / Lid
#9	Container label(s) legible and intact?	Kes	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	(es	No	
#11	Containers supplied by ELOT?	(es	No	
#12	Samples in proper container/ bottle?	Ces	No	See Below
#13	Samples properly preserved?	Yes	No	See Below
#14	Sample botties intact?	Yes	No	
#15	Preservations documented on Chain of Custody?	Yes	No	
#16	Containers documented on Chain of Custody?	Yes	No	
#17	Sufficient sample amount for indicated test(s)?	(es)	No	See Below
#18	All samples received within sufficient hold time?	Yes	No	See Below
#19	Subcontract of sample(s)?	Yes	No	Not Applicable
#20	VOC samples have zero headspace?	Yes.)	No	Not Applicable

#### Variance Documentation

Date/ Time

\_\_\_\_\_

Contact

Contacted by.

Regarding.

Corrective Action Taken

Check all that Apply

See attached e-mail/ fax Client understands and would like to proceed with analysis 
 See attached e-mail/ fax

 Client understands and would like to proceed with analys

 Cooling process had begun shortly after sampling event

# **Analytical Report 310476**

for

## PLAINS ALL AMERICAN EH&S

**Project Manager: Daniel Bryant** 

Dollarhide to Jal 8-Inch 2008-148

20-AUG-08





E84880

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers: Houston, TX T104704215 - Odessa/Midland, TX T104704215-08-TX

Florida certification numbers: Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675 Norcross(Atlanta), GA E87429

> South Carolina certification numbers: Norcross(Atlanta), GA 98015

> North Carolina certification numbers: Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America Midland - Corpus Christi - Atlanta Page 1 of 9



20-AUG-08



Project Manager: **Daniel Bryant PLAINS ALL AMERICAN EH&S** 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: **310476 Dollarhide to Jal 8-Inch** Project Address: Lea County, NM

#### **Daniel Bryant:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 310476. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 310476 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America





Sample Cross Reference 310476

PLAINS ALL AMERICAN EH&S, Midland, TX

Dollarhide to Jal 8-Inch

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
West Stockpile-3	S	Aug-15-08 10:45		310476-001

Project Id: 2008-148

Project Location: Lea County, NM

Contact: Daniel Bryant

### Certificate of Analysis Summary 310476 PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Dollarhide to Jal 8-Inch

Date Received in Lab: Tue Aug-19-08 08:02 am Report Date: 20-AUG-08

Project Manager: Brent Barron, II

	Lab Id:	310476-001			
Analysis Paguastad	Field Id:	West Stockpile-3			
Analysis Requested	Depth:				
	Matrix:	SOIL			
	Sampled:	Aug-15-08 10.45			
Percent Moisture	Extracted:				
	Analyzed:	Aug-20-08 08.30			
	Units/RL:	% RL			
Percent Moisture		ND			
Percent Moisture		1 41			
Percent Moisture		1.7			
TPH By SW8015 Mod	Extracted:	Aug-19-08 12 00			
	Analyzed:	Aug-19-08 14-13			
	Units/RL:	mg/kg RL			
C6-C12 Gasoline Range Hydrocarbons		32.6 15.3			
C12-C28 Diesel Range Hydrocarbons		783 153			
C28-C35 Oil Range Hydrocarbons		108 15.3			
Total TPH		923 6			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi

Brent Barron Odessa Laboratory Director



- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- \* Outside XENCO'S scope of NELAC Accreditation

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Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America

Phone	гах
(281) 589-0692	(281) 589-0695
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(770) 449-8800	(770) 449-5477
	(281) 589-0692 (214) 902 0300 (210) 509-3334 (813) 620-2000 (305) 823-8500 (770) 449-8800





### Project Name: Dollarhide to Jal 8-Inch

<b>Work Order #:</b> 310476		Project II	<b>D:</b> 2008-148		
Lab Batch #: 731594 Sample: 310476	5-001 / SMP Bat	ch: 1 Matri	ix: Soil		
Units: mg/kg	SUI	<b>RROGATE RI</b>	COVERY S	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	72.1	100	72	70-135	
o-Terpheny]	49.2	50.0	98	70-135	
Lab Batch #: 731594 Sample: 514180	)-1-BKS/BKS Bat	ch: 1 Matri	ix: Solid	. <u>L</u>	<u> </u>
Units: mg/kg	SUI	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	84.3	100	84	70-135	
o-Tcrphenyl	49.5	50.0	99	70-135	
Lab Batch #: 731594 Sample: 514180	)-1-BLK / BLK Bat	ch: 1 Matri	ix: Solid	<u></u>	
Units: mg/kg	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctane	86.5	100	87	70-135	
o-Terphenyl	49.1	50.0	98	70-135	
Lab Batch #: 731594 Sample: 514180	)-1-BSD / BSD Bat	ch: 1 Matri	ix: Solid		<u></u>
Units: mg/kg	SUI	RROGATE RE	<b>COVERY</b> S	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85 1	100	85	70-135	
o-Terphenyl	49.7	50.0	99	70-135	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / BAll results are based on MDL and validated for QC purposes.



10000 1-900 16 4.5 TE- 84 PLANY.

Participation and the second sec



### Project Name: Dollarhide to Jal 8-Inch

Work Order #: 310476 Analyst: IRO Lab Batch ID: 731594 Sample: 5141 Units: mg/kg TPH By SW8015 Mod Analytes C6-C12 Gasoline Range Hydrocarbons C12-C28 Diesel Range Hydrocarbons	Sample: 514180-1-BKS	Da	te Prepare Batch	ed: 08/19/200	8			Pro Date A	ject ID: 2 nalyzed: 0 Matrix: S	008-148 8/19/2008 Solid		
Units: mg/kg			BLAN	K /BLANK S	PIKE / B	LANK S	PIKE DUPL	ICATE	RECOVE	CRY STUD	Y	
TPH By SW801 Analytes	5 Mod <sub>Sa</sub>	Blank ample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocar	bons	ND	1000	819	82	1000	822	82	0	70-135	35	
C12-C28 Diesel Range Hydrocarb	oons	ND	1000	836	84	1000	833	83	0	70-135	35	

Relative Percent Difference RPD = 200\*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100\*(C)/[B]Blank Spike Duplicate Recovery [G] = 100\*(F)/[E]All results are based on MDL and Validated for QC Purposes

Environme	ntal Lab c	of Te	exa	S				1	260 Idea	0 We Isa, T	Ch st 1-2 'exua	A/N 0 Ea 797	0F 81 85	cus	10	DYR	EC	ORE	AN	D A	NAL Pt F	. 73: 1014 8X:	IS Ri 432 432	5QU -583	/ES 3-180 3-171	7 20 13				
Project Manage	Curt Stanley				PAGE 01 C	DF 01									-	Pr	ojec	t Nar	me <sup>.</sup> .	Doll	arhi	de	to Ja	8-	Inch					
Company Name	Basin Environm	ental Ser	vice Te	chnol	ogies, LLC										-		P	rojec	t #:_	200	8-14	8								_
Company Addr	ass: 2800 Plains Hwy	ł													-		Proj	ect L	oc j	Lea	Cour	nty, I	NM.							_
City/State/Zip	Lovington, NM (	88260													_			PC		PAA	- D.I	и. в	ryant							
Telephone No	(575) 441-2244					Fax No:	(	505)	398	-1429	)				F	Repor	t Fo	rmat	. [	X s	and	ard			TRR	P	E	] NF	PDE	s
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AB # (lab use only)	FIELD CODE		teginning Depth	inding Depth	Date Sampled	Time Sempled	loid Fatered	otal & al Containers '/o'		HEI WOW X 2)	H <sub>s</sub> so.	NeOH	Home (Party	Other (Specify)	W=Dnning Vialer SL1Su009	244 - Groundwathy B-Woulficia P-Non-Patable Symooty Other	AND I BIT HA	PH 1X 1005 TX 10	Cations (Ca. Mg. No. K)	twore (C) SO4, Australity	MARIE AS AN BE CALOR PM	/olettles.	Bernekrolizībijes	STEX #021B/5030 or BTEX	Q	10RM	PA Paurt Filter Test	Chlorides E 300	RUSH TAT (Pre-Schedule)	
(3) We	at Stockpile - 3		- 60	ш_	8/15/2008	1045	-	1)			Ē	-	+		ŝ	<u>o z</u> Soil	X	Ľ,	1	<u> </u>	-	1	┤゜	-+		1	1	f	۴	
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#### Environmental Lab of Texas Variance/ Corrective Action Report- Sample Log-In

Client	Plains / Basin
Date/ Time	02-19-08 6 0202
Lab ID #	310470
Initials	ን

#### Sample Receipt Checklist

			Client Initials
Temperature of container/ cooler?	Yes	No	2.0°C
Shipping container in good condition?	res	No	
Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)
Custody Seals intact on sample bottles/ container? / [cla/]	(es)	No	Not Present
Chain of Custody present?	(Yes)	No	
Sample instructions complete of Chain of Custody?	(Ye)	No	
Chain of Custody signed when relinquished/ received?	(Yes)	No	
Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont / Lid
Container label(s) legible and intact?	Ces	Na	Not Applicable
Sample matrix/ properties agree with Chain of Custody?	Yes	No	
Containers supplied by ELOT?	(Yes)	No	
Samples in proper container/ bottle?	(Yes)	No	See Below
Samples properly preserved?	(Yes)	No	See Below
Sample bottles intact?	(Tes)	No	
Preservations documented on Chain of Custody?	(Yes)	No	
Containers documented on Chain of Custody?	res	No	
Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below
All samples received within sufficient hold time?	res	No	See Below
Subcontract of sample(s)?	Yes	No	Not Applicable
VOC samples have zero headspace?	(Yes)	No	Not Applicable
	Temperature of container/ cooler? Shipping container in good condition? Custody Seals intact on shipping container/ cooler? Custody Seals intact on sample bottles/ container? / [, [a'] Chain of Custody present? Sample instructions complete of Chain of Custody? Chain of Custody signed when relinquished/ received? Chain of Custody signed when relinquished/ received? Chain of Custody signed when relinquished/ received? Chain of Custody agnees with sample label(s)? Container label(s) legible and intact? Sample matrix/ properties agree with Chain of Custody? Containers supplied by ELOT? Samples in proper container/ bottle? Samples properly preserved? Sample bottles intact? Preservations documented on Chain of Custody? Containers documented on Chain of Custody? Sufficient sample amount for indicated test(s)? All samples received within sufficient hold time? Subcontract of sample(s)?	Temperature of container/ cooler?       (Yes)         Shipping container in good condition?       (Yes)         Custody Seals intact on shipping container/ cooler?       Yes         Custody Seals intact on sample bottles/ container?       (Yes)         Chain of Custody present?       Yes)         Sample instructions complete of Chain of Custody?       Yes)         Chain of Custody signed when relinquished/ received?       Yes)         Chain of Custody signed when relinquished/ received?       Yes)         Container label(s) legible and intact?       Yes)         Container supplied by ELOT?       Yes)         Sample matrix/ properties agree with Chain of Custody?       Yes)         Samples properly preserved?       Yes)         Samples properly preserved?       Yes)         Sample bottles intact?       Yes)         Preservations documented on Chain of Custody?       Yes)         Containers documented on Chain of Custody?       Yes)         Sufficient sample amount for indicated test(s)?       Yes)         All samples received within sufficient hold time?       Yes)         VOC samples have zero headspace?       Yes)	Temperature of container/ cooler?       Yes       No         Shipping container in good condition?       (res)       No         Custody Seals intact on shipping container?       Yes       No         Custody Seals intact on sample bottles/ container?       Yes       No         Custody Seals intact on sample bottles/ container?       Yes       No         Chain of Custody present?       Yes       No         Chain of Custody signed when relinquished/ received?       Yes       No         Chain of Custody signed when relinquished/ received?       Yes       No         Container label(s) legible and intact?       Yes       No         Container supplied by ELOT?       Yes       No         Samples properly preserved?       Yes       No         Samples properly preserved?       Yes       No         Sample bottles intact?       Yes       No         Samples properly preserved?       Yes       No         Sample bottles intact?       Yes       No         Containers documented on Chain of Custody?       Yes       No         Sample properly preserved?       Yes       No         Sample bottles intact?       Yes       No         Containers documented on Chain of Custody?       Yes       No

#### Variance Documentation

Contact		Contacted by.		Date/ Time	·
Regarding					
Corrective Action Taken	r 				
Check all that Apply		See attached e-mai Client understands Cooling process ha	il/ fax and would like to proce d begun shortly after sa	ed with analysis ampling event	

# **Analytical Report 310699**

for

## PLAINS ALL AMERICAN EH&S

**Project Manager: Daniel Bryant** 

**Dollarhide to Jal 8-Inch** 

2008-148

25-AUG-08





E84880

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers: Houston, TX T104704215 - Odessa/Midland, TX T104704215-08-TX

Florida certification numbers: Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675 Norcross(Atlanta), GA E87429

> South Carolina certification numbers: Norcross(Atlanta), GA 98015

> North Carolina certification numbers: Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America Midland - Corpus Christi - Atlanta Page 1 of 12



25-AUG-08



Project Manager: Daniel Bryant PLAINS ALL AMERICAN EH&S 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: **310699 Dollarhide to Jal 8-Inch** Project Address: Lea County, NM

#### Daniel Bryant:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 310699. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 310699 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfu

Brent Barron, II Odessa Laboratory Manager

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Sample Cross Reference 310699

PLAINS ALL AMERICAN EH&S, Midland, TX

Dollarhide to Jal 8-Inch

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
East Stockpile Comp	S	Aug-18-08 17:00		310699-001



Project Id: 2008-148

Project Location: Lea County, NM

Contact: Daniel Bryant

### Certificate of Analysis Summary 310699 PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Dollarhide to Jal 8-Inch

Date Received in Lab: Wed Aug-20-08 05:25 pm Report Date: 25-AUG-08

Project Manager: Brent Barron, II

	Lab Id:	310699-001			
Analysis Requested	Field Id:	East Stockpile Comp			
Anulysis Requested	Depth:				
	Matrix:	SOIL			
	Sampled:	Aug-18-08 17:00			
Percent Moisture	Extracted:				
	Analyzed:	Aug-22-08 09.00			
	Units/RL:	% RL			
Percent Moisture		2 89			
TPH By S W8015 Mod	Extracted:	Aug-22-08 10.30			
	Analyzed:	Aug-22-08 13:15			
	Units/RL:	mg/kg RL			
C6-C12 Gasoline Range Hydrocarbons		863 15.4			
C12-C28 Diesel Range Hydrocarbons		4190 15.4			
C28-C35 Oil Range Hydrocarbons		598 15.4			
Total TPH		5651			

The analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented Our lability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron Odessa Laboratory Director



- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- **K** Sample analyzed outside of recommended hold time.
- \* Outside XENCO'S scope of NELAC Accreditation

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(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(770) 449-8800	(770) 449-5477
	(281) 589-0692 (214) 902 0300 (210) 509-3334 (813) 620-2000 (305) 823-8500 (770) 449-8800





.

## Project Name: Dollarhide to Jal 8-Inch

ork Order #:	310699			Project II	<b>D:</b> 2008-148		
Lab Batch #:	732039 Sample	: 310699-001 / SMP	Ba	utch: 1 Matri	x: Soil		
Units:	mg/kg		5	SURROGATE F	RECOVERY	STUDY	
	TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 Chloroostana	Analytes		0( 9	100	07	70.125	
o-Terphenyl			56.8	50.0	97 114	70-135	
Lah Batch #•	732039 Sample	• 310752-002 S / MS	B		v: Soil	L	L
Units:	mg/kg	. 510752-002 57 MB	· D2	SURROGATE F	RECOVERY	STUDY	
	TPH By SW8015 Mod Analytes		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc			91 6	100	92	70-135	-
o-Terphenyl			51.0	50.0	102	70-135	
Lab Batch #:	732039 Sample	: 310752-002 SD / M	ISD Ba	ntch: 1 Matri	x: Soil		
Units :	mg/kg	Ţ	<u> </u>	SURROGATE F	RECOVERY	STUDY	
	TPH By SW8015 Mod Analytes		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctane	****		86.1	100	86	70-135	ł
o-Terphenyl			48.4	50.0	97	70-135	
Lab Batch #: Units:	732039 Sample	: 514434-1-BKS / BH	KS Ba	ntch: 1 Matri SURROGATE F	x: Solid	STUDY	
	TPH By SW8015 Mod Analytes		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctane			864	100	86	70-135	
o-Terphenyl			47.7	50.0	95	70-135	
Lab Batch #:	732039 Sample	: 514434-1-BLK / BI	K Ba	atch: 1 Matri SURROGATE F	x: Solid	STUDY	
	TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes				[D]		
I-Chlorooctane	Analytes		85.9	100	[D] 86	70-135	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B





Project Name: Dollarhide to Jal 8-Inch

Work Order #: Lab Batch #: Units :	310699 732039 Sa mg/kg	Project ID:2008-148 Sample: 514434-1-BSD/BSD Batch:   Matrix: Solid SURROGATE RECOVERY STUDY					
	TPH By SW8015 M Analytes	Лod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane			87.8	100	88	70-135	
o-Terphenyl			48.4	50.0	97	70-135	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis \*\*\* Poor recoveries due to dilution Surrogate Recovery [D] = 100 \* A / B All results are based on MDL and validated for QC purposes.





## **BS / BSD Recoveries**

### Project Name: Dollarhide to Jal 8-Inch

Work Order #: 310699 Analyst: IRO	Ι	ate Prepar	ed: 08/22/200	)8	Project ID: 2008-148 Date Analyzed: 08/22/2008						
Lab Batch ID: 732039 Sample: 514434	1-1-BKS	KS Batch#: 1						Matrix: S	Solid		
Units: mg/kg		BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY									
TPH By SW8015 Mod	Blank Sample Result	Spike Added (B)	Blank - Spike Result (Cl	Blank Spike %R [D]	Spike Added	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	[7]	[0]				result [1]					
C6-C12 Casoline Range Hydrocarbons	ND	1000	839	84	1000	847	85	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	861	86	1000	869	87	1	70-135	35	

Relative Percent Difference RPD = 200\*|(C-F)/(C+F)| Blank Spike Recovery [D] = 100\*(C)/[B] Blank Spike Duplicate Recovery [G] = 100\*(F)/[E] All results are based on MDL and Validated for QC Purposes



### Project Name: Dollarhide to Jal 8-Inch



Work Order #: 310699		<b>Project ID: </b> 2008-148									
Lab Batch ID: 732039 Date Analyzed: 08/22/2008	QC- Sample ID: Date Prepared:	310752- 08/22/2	-002 S 008	Ba An	atch #: alyst:	1 Matr IRO	ix: Soil				
Reporting Units: mg/kg		N	MATRIX SP	IKE / MA'	FRIX SPI	KE DUPLICA	ATE REC	OVERY S	STUDY		
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample	Spiked Sample	Spike	Duplicate Spiked	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	Result [C]	%R [D]	Added [E]	Sample Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	ND	1040	897	86	1040	852	82	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	52.1	1040	966	88	1040	908	82	7	70-135	35	

Matrix Spike Percent Recovery  $[D] = 100^{*}(C-A)/B$ Relative Percent Difference  $RPD = 200^{*}|(C-F)/(C+F)|$  Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit





Project Name: Dollarhide to Jal 8-Inch

Work Order #: 310699

Lab Batch #: 731837			Project	ID: 2008-148	\$
Date Analyzed: 08/22/2008 Date	Prepared: 08/	22/2008	Analys		
QC- Sample ID: 310679-001 D	Batch #:	Matrix: Soil			
Reporting Units: %	SAMPI	LE / SAMPLI	E DUPLI	CATE RE	COVERY
Percent Moisture	Parent Sample Result	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte	[A]	101			
Percent Moisture	3.64	2,83	25	20	F

Spike Relative Difference RPD 200 \* | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.
12800 West A0 East Odess, Taxs 73763         Phone 452-63-1800           Project Manager         Cut Stanley         PACE 01 OF 01         Project Amazer         Project Amazer         Project Amazer         Project Amazer         Project Amazer         Description           Company Name         Basin Environmental Service Technologies. LLC         Project Amazer         Project Amazer         Description	Env	/ironment	al Lab of 1	еха	IS								СН	AIN (	OF (	cus	TOD	r Rt	ECO	RD	ANI	A	NAL	YSI	\$ RI	EQU	'E51	r				
Project Manager         Cut Stanty         PACE         01 /r m         Project # 2008-148           Company Name         Basin Environmental Service Technologies, LLC         Project # 2008-148         Project # 2008-148           Company Address         Issue Environmental Service Technologies, LLC         Project # 2008-148         Project # 2008-148           Company Address         Issue Environmental Service Technologies, LLC         Project # 2008-148         Project # 2008-148           Company Address         Issue Environmental Service Technologies, LLC         Project # 2008-148         Project # 2008-148           Company Address         Issue Environmental Service Technologies, LLC         Project # 2008-148         Project # 2008-148           Company Address         Issue Environmental Service Technologies, LLC         Project # 2008-148         Project # 2008-148           Company Address         Issue Environmental Service Technologies, LLC         Project # 2008-148         Project # 2008-148           Company Address         Issue Environmental Service Technologies, LLC         Project # 2008-148         Project # 2008-148           Ontern #:         Issue Environmental Service Technologies, LLC         Project # 2008-148         Project # 2008-148           Ontern #:         Issue Environmental Service Technologies, LLC         Project # 2008-148         Project # 2008-148           Onter										126 Od	100 V 8653	Wes 9, Te	t I-2 1xas	0 Ea:	st 55								Pho Fa	ne x.	432 432	-563- -563-	180 171	0 3				
Company Name         Basin Environmental Service Technologies, LLC         Project of 2008-143           Company Address:         2800 Plains Name         Project of 2008-143           Company Address:         2800 Plains Name         Project of 2008-143           City/State/Zip:         Londington, MM M220         Project of 2008-143           Telephone No.         (973) 441-224         Fax No         (903) 390-1429         Report Format:         Standard         ITRR         INPOES           Sampler Signature.         Address         Standard         ITRR         INPOES           (bb seo only)         Itra address		Project Manager	Curt Stanley			PAGE 01 (	DF 01											Pro	lect	Narr	ю: <u>D</u>	olla	srbie	de t	o Ja	1 8-11	n ch					
Company Address         2800 Plains Hay         Project Loc         Les County, NM           City/State/Zip:         Lorington, NM 8220         PO # PAA-D.M Bryant         PO # PAA-D.M Bryant           Teicphone No.         (975) 441-224         Fax No.         (553) 396-1429         Resort Format:         Image: Contract of Contract		Company Name	Basin Environmental Se	rvice T	echno	logies, LLC													Pro	yect	#· 2	008	-148	3								
City/State/Zip:       Lodration, MM 82820       PO # PAA-DA B Bryant         Teightone No.       [372] 441-224       Fax No.       [353] 398-1473       Reconformat:       Image: Standard       Image: Trans.       Image: Standard       Image: Trans.       Image: Standard		Company Address	2800 Plains Hwy															P	roje	at Lo	ж <u>ц</u>	na C	ount	ly, N	м							_
Telephone No.     (177)     41-224     Fax No     (155)     396-1420     Report Formatic     Standard     I RRP     INDES       Sampler Signature,     Analyze Formatic     Standard     I RRP     Index     Inde		City/State/Zip:	Lovington, NM 88260																	PO	# <u>P</u>	AA -	D.M	Brj	yant							
Sampler Signature. Analyze For (ub use only) ORDER #: 3100 GP1 Bit Bit Bit Bit Bit Bit Bit Bit Bit Bit		Telephone No.	(575) 441-2244				Fax No		(50	35) 39	<del>16-1</del> 4	429					Re	port	Fon	nat:	X	] s:	anda	rd		Пτ	RRP			NPC	)ES	
Bit Use only?         Analyze For           ORDER #:         Store         Reservation a - of containers' Matrix.         Matrix.         No. 2         <		Sampler Signature.	CA/-N	ļ	)		e-mail		cs	stan	ley	<u>@b</u>	as	inen	<u>v.c</u>	om				_		_									_	
ORDER #:     310 (499)     100 (499)     100 (490)     100 (4	(lab use i	onty)		Ŧ					~													TCLF	A 	naly	ze Fc	5	Т	Т			£	
Give       High	ORDER	1#: 3106°	<del>1</del> 9		_				541	Pre	serv	ation	i & J	of Co	ntair	iers	Mat	1X	£	T	7	στά Τ		F	-	-					#	
Old       East Stockpile Comp       B/18/2008       1700       1       X       Soil       X         Special Instructions:       Image: Special Instructions:<	LAB # (lab use only)	FIEI	LD CODE	Beginning Dapth	Ending Depth	Date Sampled	Time Sampled	reto Fatared	lotat# of Combaineers √ 5 o	lce	HNO,	HCI (VOA X 2)	H,SO,	NaUH Na,S,O,	None (PAH)	Other ( Specify)	DW-Drinking Water St. SNBD GW - Groundwater S-SoliSol	NP - Non Potable Specify Oth	TPH 4181 1015M 801	TPH TX 1005 TX 1008	Colions (Ca, Mg, Na, K) Amons (Cl. SO4, Alcalinity)	SARTESPIDEC	Metals As Ag Ba Cd Cr Pb Hg !	Volatios	Serrivolatiles	BTEX 80218/5030 or BTEX 82	NORM	РАН	EPA Pant Filler Test	Chlondes E 300	RUSH TAT (Pre Schedule) 24.	Standard TAT
Special Instructions:     Laboratory Comments.       Synclusting field by     Date       Time     Received by       Bate     Time       Received by     Date       Bate     Time       Received by     Date       Bate     Time       Received by     Date       Time     Received by       Bate     Time       Received by     Date       Time     Received by       Bate     Time       Relinguished by     Date       Ubate     Time       Widdows     Bate       Time     Received by ELOT       Ubate     Time       Widdows     Bate       Temperature Upon Receipt.     4,0 °C	01	East Sto	ckpile Comp			8/18/2008	1700	L.	1	x		1	1		1	H	So	ī	x		+	Ť	Ť	É			T	Ē	Ē	Ť		X
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#### Environmental Lab of Texas Variance/ Corrective Action Report- Sample Log-In

Client	Plains/Basin
Date/ Time	(8-20 of 6.1725
Lab ID #	310699
toitials	TMF

#### Sample Receipt Checklist

				Client	nitials
#1	Temperature of container/ cooler?	(Tes)	No	ч <u>.</u> с °С	
#2	Shipping container in good condition?	Yes	No	Con :	
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present (***)	
#4	Custody Seals intact on sample bottles/ container?/icbs1	(Yes	No	Not Present	
#5	Chain of Custody present?	(Tes	No		
#6	Sample instructions complete of Chain of Custody?	res	No		
#7	Chain of Custody signed when relinquished/ received?	Yes,	No		
#8	Chain of Custody agrees with sample label(s)?	Yes,	No	ID written on Cont / Lid	
#9	Container label(s) legible and intact?	Ces	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Tes	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	res,	No		
#15	Preservations documented on Chain of Custody?	Ces	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Tes	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

#### Variance Documentation

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.....

Date/ Time

Contacted by

Contact Regarding

\_\_\_\_

Corrective Action Taken

Check all that Apply

See attached e-mail/ fax Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event

# Analytical Report 313352

for

## PLAINS ALL AMERICAN EH&S

**Project Manager: Daniel Bryant** 

**Dollarhide to Jal 8-Inch** 

2008-148

01-OCT-08





E84880

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers: Houston, TX T104704215 - Odessa/Midland, TX T104704215-08-TX

Florida certification numbers: Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675 Norcross(Atlanta), GA E87429

> South Carolina certification numbers: Norcross(Atlanta), GA 98015

> North Carolina certification numbers: Norcross(Atlanta), GA 483

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01-OCT-08



Project Manager: Daniel Bryant PLAINS ALL AMERICAN EH&S 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: **313352 Dollarhide to Jal 8-Inch** Project Address: Lea County, NM

#### Daniel Bryant:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 313352. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 313352 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectf

Brent Barron, II Odessa Laboratory Manager

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### PLAINS ALL AMERICAN EH&S, Midland, TX

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Dollarhide to Jal 8-Inch

Sample Id	Matrix	Date Collected Sample Depth	Lab Sample Id
East Side of East Stockpile	S	Sep-22-08 14:10	313352-001
West Side of East Stockpile	S	Sep-22-08 14:20	313352-002



.

### Certificate of Analysis Summary 313352 PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Dollarhide to Jal 8-Inch

Date Received in Lab: Fri Sep-26-08 02:00 pm

**Contact:** Daniel Bryant **Project Location:** Lea County, NM

Project Id: 2008-148

Report Date: 01-OCT-08

						Project Manager:	Brent Barron, 11	
	Lab Id:	313352-0	01	313352-0	002			
Analysis Paguastad	Field Id:	East Side of East	Stockpile	West Side of East	t Stockpile			
Anuiysis Kequesieu	Depth:							
	Matrix:	SOIL		SOIL				
	Sampled:	Sep-22-08	14:10	Sep-22-08 1	14:20			
Percent Moisture	Extracted:							
	Analyzed:	Sep-29-08	15:28	Sep-29-08 1	15:28			
	Units/RL:	%	RL	%	RL			
Percent Moisture		10 5		8.32				
TPH By SW8015 Mod	Extracted:	Sep-30-08	11.12	Sep-30-08 1	11:12			
	Analyzed:	Sep-30-08	12.59	Sep-30-08	13:25			
	Units/RL:	mg/kg	RL	mg/kg	RL			
C6-C12 Gasoline Range Hydrocarbons		122	16.8	323	16.4			
C12-C28 Diesel Range Hydrocarbons		1570	16.8	4130	16.4			
C28-C35 Oil Range Hydrocarbons		193	16.8	545	16.4			
Total TPH		1885		4998				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented Our lability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron Odessa Laboratory Director



- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- **E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- **F** RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- \* Outside XENCO'S scope of NELAC Accreditation

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(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(770) 449-8800	(770) 449-5477
	(281) 589-0692 (214) 902 0300 (210) 509-3334 (813) 620-2000 (305) 823-8500 (770) 449-8800



# Form 2 - Surrogate Recoveries

## Project Name: Dollarhide to Jal 8-Inch

Work Orders :	313352,			Project II	<b>D:</b> 2008-148		
Lab Batch #:	735723 Sample	: 313352-001 / SMP	Ba	atch: 1 Matri	x: Soil		
Units :	mg/kg			SURROGATE R	RECOVERY	STUDY	
	TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes				[D]		
1-Chlorooctane			121	100	121	70-135	
o-Terphenyl			72.3	50.0	145	70-135	**
Lab Batch #: Units :	735723 Sample	: 313352-002 / SMP	B	atch: 1 Matri SURROGATE R	x: Soil RECOVERY	STUDY	
	TPH By SW8015 Mod Analytes		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane			125	100	125	70-135	
o-Terphenyl			55.1	50.0	110	70-135	
Lab Batch #:	735723 Sample	: 313521-001 S / MS	B	atch: I Matri	x: Soil		
Units :	mg/kg	Ī		SURROGATE F	RECOVERY	STUDY	
	TPH By SW8015 Mod Analytes		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc			128	100	128	70-135	
o-Terphenyl			62.8	50.0	126	70-135	
Lab Batch #:	735723 Sample	: 313521-001 SD / M	ISD B:	atch: 1 Matri	x: Soil	CONTRACT	
Units:	mg/kg			SURROGATE R	RECOVERY	STUDY	
	TPH By SW8015 Mod Analytes		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc			130	100	130	70-135	
o-Terphenyl			63.0	50 0	126	70-135	
Lab Batch #:	735723 Sample	: 516596-1-BKS / BI	KS B	atch:   Matri	x: Solid		
Units:	mg/kg			SURROGATE F	RECOVERY	STUDY	
	TPH By SW8015 Mod Analytes		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc			125	100	125	70-135	
o-Terphenyl			59.2	50.0	118	70-135	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

### Project Name: Dollarhide to Jal 8-Inch

Vork Orders :	313352,		Project I	<b>D:</b> 2008-148								
Lab Batch #:	735723 Sample: 516596-	1-BLK / BLK Bat	tch: 1 Matr	ix: Solid								
Units:	mg/kg	S	SURROGATE RECOVERY STUDY									
	TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags						
	Analytes			[U]	ļ	ļ						
1-Chlorooctane		115	100	115	70-135							
o-Terphenyl		57.6	50.0	115	70-135							
Lab Batch #:	735723 Sample: 516596-	1-BSD / BSD Bat	tch: 1 Matr	ix: Solid								
Units :	mg/kg	S	URROGATE I	RECOVERY	STUDY							
	TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
1-Chlorooctane	•	129	100	129	70-135							
a Tambanul			50.0	175	70.125							

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis \*\*\* Poor recoveries due to dilution Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



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### Project Name: Dollarhide to Jal 8-Inch

Work Order #: 313352 Analyst: ASA Lab Batch ID: 735723	Sample: 516596-1-BK	<b>Date Prepared:</b> 09/30/2008 S <b>Batch #:</b> 1					Project ID: 2008-148 Date Analyzed: 09/30/2008 Matrix: Solid								
Units: mg/kg		BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY													
TPH By SW80 Analytes	15 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Bik. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag			
C6-C12 Gasoline Range Hydroca	arbons	ND	1000	925	93	1000	923	92	0	70-135	35				
C12-C28 Diesel Range Hydrocar	tions	ND	1000	1020	102	1000	1020	102	0	70-135	35				

Relative Percent Difference RPD = 200\*|(C-F)/(C+F)| Blank Spike Recovery [D] = 100\*(C)/[B] Blank Spike Duplicate Recovery [G] = 100\*(F)/[E] All results are based on MDL and Validated for QC Purposes



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### Project Name: Dollarhide to Jal 8-Inch



Work Order # : 313352						Project	<b>D:</b> 2008-1	48			
Lab Batch ID: 735723 Date Analyzed: 09/30/2008 Reporting Units: pp://kg	QC- Sample ID: Date Prepared:	313521 09/30/2	-001 S 008	Ba An	atch #: alyst:	1 Matri ASA	x: Soil	OVEDV			
		1	MATRIX SPI	KE / MA	I KIA SPI	KE DUPLICA	ATE RECO	JVERYS	STUDY	**************************************	
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample	Spiked Sample	Spike	Duplicate Spiked	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	Result [C]	%R [D]	Added [E]	Sample Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	ND	1000	928	93	1000	937	94	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	44.8	1000	1030	99	1000	1040	100	1	70-135	35	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/BRelative Percent Difference RPD = 200\*[(C-F)/(C+F)]

Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit





### Project Name: Dollarhide to Jal 8-Inch

Work Order #: 313352

Lab Batch #: 735508			Project	<b>D:</b> 2008-148	3
Date Analyzed: 09/29/2008 Date	e Prepared: 09/2	29/2008	Analy	st: WRU	
QC- Sample ID: 313349-002 D	Batch #:	1	Matr	ix: Soil	
Reporting Units: %	SAMPI	E / SAMPL	E DUPLI	CATE RE	COVERY
Percent Moisture	Parent Sample Result	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte	[A]	[B]			
Percent Moisture	10.6	10.4	2	20	

Spike Relative Difference RPD 200 \* | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.

#### **Environmental Lab of Texas** CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST Phone: 432-563-1800 12600 West I-20 East Odessa, Texas 79785 Fax: 432-583-1713 Project Manager. Curt Stanley Project Name, Dollarhide to Jal 8-Inch Company Name Basin Environmental Service Technologies, LLC Project # 2008-148 Company Address 2800 Plains Hwy Project Loc. Les County, NM City/State/Zip. PO #: PAA - D M. Bryant Lovington, NM 88260 Report Format: X Standard TRRP NPDES Telephone No (575) 441-2244 Fax No (505) 395-1429 HUICEMPA <del>/</del>1 -Sampler Signature Analyze For Λ (lab use only) TCLP TOTAL 313352 ORDER #: Matrix Preservation & # of Co BTEX AB # (lab use only) ginning Depth Sempled ding Depth ŝ je je - afe FIELD CODE 01 9/22/2008 East Side of East Stockpile 1410 Soil 02 West Side of East Stockpile 9/22/2008\_ 1420 1 X Soll ĺ۲. x Special Instructions: Leboratory Comments. Semple Containers Intect? VOCs Free of Headspace? Date Labels on container(s) Custody seals on container(s) Dat Time Received by Time abja 1400 Custody seals on cooler(s) Dete eceived by Date Sample Hand Delivered Time by Sampler/Client Rep 7 by Counter? UPS DHL 2/079/455 Temperature Upon Receipt 2 Date Reinquished by Date Trine Received by ELO Time Lam •¢ andrea 9 26 48 14 00 4 $. \bigcirc$

#### Environmental Lab of Texas Variance/ Corrective Action Report- Sample Log-In

Client	Basin Env. / Plains
Date/ Time:	970.03 14'00
Lab ID #	313352
Initials	au

#### Sample Receipt Checklist

				Client Instials
#1	Temperature of container/ cooler?	Res	No	4.0 °C
#2	Shipping container in good condition?	(Tes)	No	
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present
#4	Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present
#5	Chain of Custody present?	(Tes	No	
#6	Sample Instructions complete of Chain of Custody?	Yes	No	
#7	Chain of Custody signed when relinquished/ received?	res	No	
#8	Chain of Custody agrees with sample label(s)?	des	No	ID written on Cont / Lid
#9	Container label(s) legible and intact?	Yes	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	Ves	No	
#11	Containers supplied by ELOT?	Xes'	No	
#12	Samples in proper container/ bottle?	(es'	No	See Below
#13	Samples properly preserved?	Yes	No	See Balow
#14	Sample bottles intact?	Yes	No	
#15	Preservations documented on Chain of Custody?	Yes	No	
#16	Containers documented on Chain of Custody?	Kes	No	
#17	Sufficient sample amount for indicated test(s)?	Kes	No	See Below
#18	All samples received within sufficient hold time?	(es	No	See Below
#19	Subcontract of sample(s)?	Yes	No	Not Applicable
#20	VOC samples have zero headspace?	Yes	No	Not-Applicable

#### Variance Documentation

Date/ Time

Contact

Regarding

Corrective Action Taken

Check all that Apply

#### See attached e-mail/ fax

Contacted by

Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event

# **Analytical Report 314523**

for

# PLAINS ALL AMERICAN EH&S

**Project Manager: Daniel Bryant** 

Dollarhide to Jal 8"

2008-148

15-OCT-08





E84880

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers: Houston, TX T104704215 - Odessa/Midland, TX T104704215-08-TX

Florida certification numbers: Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675 Norcross(Atlanta), GA E87429

> South Carolina certification numbers: Norcross(Atlanta), GA 98015

> North Carolina certification numbers: Norcross(Atlanta), GA 483

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Page 1 of 12



15-OCT-08



Project Manager: **Daniel Bryant PLAINS ALL AMERICAN EH&S** 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: **314523 Dollarhide to Jal 8''** Project Address: Jal, NM

#### **Daniel Bryant:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 314523. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 314523 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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# Sample Cross Reference 314523



## PLAINS ALL AMERICAN EH&S, Midland, TX

Dollarhide to Jal 8"

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
East Stockpile	S	Oct-10-08 14:25		314523-001
West Stockpile	S	Oct-10-08 14:20		314523-002



Project Id: 2008-148

Project Location: Jal, NM

Contact: Daniel Bryant

### Certificate of Analysis Summary 314523 PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Dollarhide to Jal 8"

Date Received in Lab: Fri Oct-10-08 04:50 pm

Report Date: 15-OCT-08

Project Manager: Brent Barron, II

	Lab Id:	314523-001	314523-002		
Analysis Paguastad	Field Id:	East Stockpile	West Stockpile		
Analysis Requested	Depth:				
	Matrix:	SOIL	SOIL		
	Sampled:	Oct-10-08 14·25	Oct-10-08 14:20		
Percent Moisture	Extracted:				
	Analyzed:	Oct-13-08 17:00	Oct-13-08 17:00		
	Units/RL:	% RL	% RL	`	
Percent Moisture		3.9	4.02		
TPH By SW8015 Mod	Extracted:	Oct-13-08 14:00	Oct-13-08 14:00		
	Analyzed:	Oct-14-08 20:05	Oct-14-08 20:31		
	Units/RL:	mg/kg RL	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons		340 15.6	454 15.6		
C12-C28 Diesel Range Hydrocarbons		3980 15.6	3480 15.6		
C28-C35 Oil Range Hydrocarbons		582 15.6	515 15.6		
Total TPH		4902	4449		

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Brent Barron Odessa Laboratory Director



- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- \* Outside XENCO'S scope of NELAC Accreditation

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9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, Suite 104, San Antonio, TX 78238	(210) 509-3334	(210) 509-3335
2505 N. Falkenburg Rd., Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
6017 Financial Dr., Norcross, GA 30071	(770) 449-8800	(770) 449-5477



# Form 2 - Surrogate Recoveries

Project Name: Dollarhide to Jal 8"

Work Orders : 314523,			Project II	<b>):</b> 2008-148		
Lab Batch #: 737137	Sample: 314499-009 S / N	AS Bat	ch: <sup>1</sup> Matri	x: Soil		
Units: mg/kg		SU	RROGATE RF	COVERY	STUDY	
TPH By SV Ana	W8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		99.7	100	100	70-135	
o-Terphenyl		49.7	50.0	99	70-135	
Lab Batch #: 737137	Sample: 314499-009 SD /	MSD Bat	ch: 1 Matri	x: Soil		
Units: mg/kg		SU	RROGATE RE	COVERY	STUDY	
TPH By SV Ana	W8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		103	100	103	70-135	
o-Tcrphcnyl		50.5	50.0	101	70-135	
Lab Batch #: 737137	Sample: 314523-001 / SM	IP Bat	ch: 1 Matri	x: Soil	I	
Units: mg/kg	-	SU	RROGATE RE	COVERY	STUDY	
TPH By SV	W8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Ana 1 Chloroostano		06.9	100	07	70 135	
o-Ternhenvl		90.0 42.7	50.0	85	70-135	
T + D + L //, 727127	C . 214522.002/SN	(D D.(	- 1 Motei	0-11	10-100	
Lad Batch #: 13/13/	Sample: 514325-0027 510		Ch: I Marr	X: SOIL	TUDV	
TPH By SV	W8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		103	100	103	70-135	
o-Terphenyl		47.3	50.0	95	70-135	
Lab Batch #: 737137	Sample: 517419-1-BKS /	BKS Bat	ch:   Matri	x: Solid	<u>.                                    </u>	
Units: mg/kg	-	SU	RROGATE RE	COVERY	STUDY	
TPH By SV Ana	W8015 Mod Ilytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		104	100	104	70-135	
o-Terphenyl		51.1	50.0	102	70-135	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

Project Name: Dollarhide to Jal 8"

Work Orders: 314523,		Project II	<b>D:</b> 2008-148		
Lab Batch #: 737137 Sample: 5 Units: mg/kg	517419-1-BLK / BLK Bat	ch: 1 Matri RROGATE R	ix: Solid	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctanc	84.8	100	85	70-135	
o-Terphenyl	44 1	50.0	88	70-135	
Lab Batch #: 737137 Sample:	517419-1-BSD / BSD Ba'	tch: 1 Matr	ix: Solid		•
Units: mg/kg	SU	<b>RROGATE R</b>	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]	L!	1
1-Chlorooctane	97.3	100	97	70-135	
o-Terphenyl	53.5	50.0	107	70-135	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis \*\*\* Poor recoveries due to dilution Surrogate Recovery [D] = 100 \* A / BAll results are based on MDL and validated for QC purposes.



## **BS / BSD Recoveries**



### Project Name: Dollarhide to Jal 8"

Work Order #: 314523 Analyst: ASA Lab Batch ID: 737137	Sample: 517419-1-B	Da KS	ate Prepar Batcl	red: 10/13/200 h #: 1	8			Pro Date A	ject ID: 2 nalyzed: 1 Matrix: S	2008-148 10/14/2008 Solid		
Units: mg/kg			BLAN	K /BLANK S	SPIKE / F	BLANK S	PIKE DUPI	LICATE	RECOVI	ERY STUD	Ŷ	the block of the
TPH By SW801	15 Mod	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes			[B]	[C]	[D]	[E]	Result [F]	[G]				
C6-C12 Gasoline Range Hydroca	irbons	ND	1000	823	82	1000	795	80	3	70-135	35	
C12-C28 Diesel Range Hydrocar	bons	19,4	1000	873	87	1000	882	88	1	70-135	35	

Relative Percent Difference RPD = 200\*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100\*(C)/[B]Blank Spike Duplicate Recovery [G] = 100\*(F)/[E]All results are based on MDL and Validated for QC Purposes



### Project Name: Dollarhide to Jal 8"



Work Order # : 314523						Project I	<b>D:</b> 2008-1	48			
Lab Batch ID:         737137         Q           Date Analyzed:         10/15/2008         J           Reporting Units:         mg/kg         J	C- Sample ID: Date Prepared:	314499- 10/13/20 M	-009 S 008 IATRIX SPIK	Ba An E / MAT	tch #: alyst: RIX SPI	1 Matri ASA KE DUPLICA	x: Soil	OVERY S	STUDY		
TPH By SW8015 Mod	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
		[B]	0.50	[D]	[IC]	0.55					
C6-C12 Gasoline Range Hydrocarbons	ND	1080	850	79	1080	877	81	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1080	909	84	1080	937	87	4	70-135	35	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/BRelative Percent Difference RPD = 200\*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit





Project Name: Dollarhide to Jal 8"

Work Order #: 314523

Lab Batch #:         737049           Date Analyzed:         10/13/2008         Date Pr           QC- Sample ID:         737049-1 D         H	<b>epared:</b> 10/1 <b>Batch #:</b> 1	3/2008	Project I Analy Matr	D: 2008-148 st: GAV ix: Soil	3
Reporting Units: %	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	3.22	3.22	NC	20	

Spike Relative Difference RPD 200 \* | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.

EI ^X*	nvironmental Lab of Texas	CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST 12600 West I-20 East Phone. 432-563-1800 Odesta, Texas 79765 F Fax 432 563-1713
	Project Manager	Project Name DILLAZHIDE TE: ATLE"
	Company Name BHSIN ENVIRENMENTIN	Project #: Z2008-146
	Company Address: 2800 PCAILS Her-1/	Project Loc: JFL NIM
	City/State/Zip LEUNSton, NM 4624	6 POR PAA - DANIEL BAJAN
	Telephone No: 575-441-7244 Fax No:	Report Format
	Sampler Signature: e-mail:	1
u deab) SAC	Jse only) DER# 314523	Analyzé For:
A (concentration)	Field CODE Beginning Depting Comparison of the Sample Control of C	(off of Contenent Ice IHP(D) H
	1 EAST STUXEPILE 1015 1425	
	2 LEST STOCKPILE   R/D 1422	/¥XX
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		╶╋┽┾╅┽┊┊╎╊╴╍╊┩┼╎╎╉┟╒╇┊╉╏╴
	·	┍╊╌┼╌┨╌╎╌╎╴┝╌┥╴╋╸┥╴┥
		╺╊┿╍╁╉┿┼╎┼┼╂╍╍╴╊╢╴┊┟╂┦╎╊┽┾╉╏╎┿╋╃┽╢
Specia สังหาไปเม สิชังกฤษั	al Instructions: Instructions: Instructions: Pate Tene Received by Date Time Received by Time Received by	Laboratory Comments: Simple Containing (1) and the second
Reinq.a	shed by Dote Time Received by ELOT Fam	Date Time H c L (Maria 10 10 495 10 50 Temperature Upon Receipt: (0.0

-5

#### Environmental Lab of Texas Variance/ Corrective Action Report- Sample Log-In

Client	Plances / Busin
Date/ Time	KIN IS GUSC
Lab ID #	314523
Initials.	At

\_\_\_\_\_

#### Sample Receipt Checklist

#1 Temperature of containe	r/ cooler?	(Yes	No	0 · C	
#2 Shipping container in go	od condition?	Yes	No		
#3 Custody Seals intact on	shipping container/ cooler?	Yes	No	Not Present	
#4 Custody Seals intact on	sample bottles/ container?	Yes,	No	Not Present	
#5 Chain of Custody preser	12	Tes	No		
#6 Sample instructions corr	plete of Chain of Custody?	(es	No		
#7 Chain of Custody signed	when relinquished/ received?	Yes.	No		
#8 Chain of Custody agrees	s with sample label(s)?	Yes	No	ID written on Cont / Lid	
#9 Container label(s) legible	e and intact?	Yes	No	Not Applicable	
#10 Sample matrix/ properti	es agree with Chain of Custody?	Yes;	No		
#11 Containers supplied by	ELOT?	Yes	No		
#12 Samples in proper cont	ainer/ bottle?	Yes	No	See Below	
#13 Samples properly prese	erved?	Yes	No	See Below	
#14 Sample bottles intact?		Ves	No		
#15 Preservations documer	ted on Chain of Custody?	Yes	No		_
#16 Containers documenter	on Chain of Custody?	Ves	No		
#17 Sufficient sample amou	int for indicated test(s)?	Yes	No	See Below	
#18 All samples received w	thin sufficient hold time?	Yes	No	See Below	
#19 Subcontract of sample(	s)?	Yes	No	Not Applicable	
#20 VOC samples have zer	o headspace?	Yes	No	Not Applicable	

#### Variance Documentation

Contact

Regarding

\_\_\_\_\_

Date/ Time:

Corrective Action Taken:

Check all that Apply

#### See attached e-mail/ fax

Contacted by:

Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event

# Analytical Report 321018

for

# PLAINS ALL AMERICAN EH&S

**Project Manager: Daniel Bryant** 

Dollarhide to Jal 8-Inch 2008-148

24-DEC-08





12600 West I-20 East Odessa, Texas 79765

Texas certification numbers: Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX

Florida certification numbers: Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675 Norcross(Atlanta), GA E87429

> South Carolina certification numbers: Norcross(Atlanta), GA 98015

North Carolina certification numbers: Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Tampa - Miami - Latin America Midland - Corpus Christi - Atlanta



24-DEC-08



Project Manager: **Daniel Bryant PLAINS ALL AMERICAN EH&S** 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: **321018 Dollarhide to Jal 8-Inch** Project Address: Jal, NM

#### **Daniel Bryant**:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 321018. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 321018 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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# Sample Cross Reference 321018



## PLAINS ALL AMERICAN EH&S, Midland, TX

Dollarhide to Jal 8-Inch

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
North Stockpile	S	Dec-18-08 15:00		321018-001
South Stockpile	S	Dec-18-08 15:10		321018-002



Project Id: 2008-148

Contact: Daniel Bryant

### Certificate of Analysis Summary 321018 PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Dollarhide to Jal 8-Inch

Date Received in Lab: Fri Dec-19-08 05:16 pm

Project Location: Jal, NM

Report Date: 24-DEC-08

Project Manager: Brent Barron, II

	Lab Id:	321018-0	01	321018-002			
Analysis Dogwostad Field		North Stock	kpile	South Stock	cpile	e e e e e e e e e e e e e e e e e e e	
Anulysis Kequesteu	Depth:						
	Matrix:	SOIL	SOIL				
	Sampled:	Dec-18-08 1	5:00	Dec-18-08 1	5.10		
Percent Moisture	Extracted:						
	Analyzed:	Dec-22-08 I	Dec-22-08 17:00		7:00		
	Units/RL:	%	RL	%	RL		
Percent Moisture		3.58	1.00	3.59	1.00		
TPH By SW8015 Mod	Extracted:	Dec-22-08 1	11.30	Dec-22-08 1	1:30		
	Analyzed:	Dec-23-08 (	07.57	Dec-23-08 (	08:21		
	Units/RL:	mg/kg	RL	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		81 3	15.6	113	156		
C12-C28 Diesel Range Hydrocarbons		1320	15.6	1960	15.6		
C28-C35 Oil Range Hydrocarbons		136	15.6	220	15.6		
Total TPH		15373	15.6	2293	15.6		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use The interpretations and results expressed throughout this analytical report represent the best judgment of XEVCO Laboratories XEVCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented Our lability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

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~

Odessa Laboratory Director





- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.

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	Phone	Fax
4143 Greenbriar Dr. Stafford, Tx 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



# Form 2 - Surrogate Recoveries

## Project Name: Dollarhide to Jal 8-Inch

	Project II	<b>):</b> 2008-148		
AS Ba	tch: <sup>1</sup> Matri	ix: Soil		
SU	RROGATE RI	ECOVERY S	STUDY	
Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
125	100	125	70-135	
54.5	50.0	109	70-135	
/ MSD Ba	tch: 1 Matri	x: Soil		
SU	RROGATE RI	ECOVERY	STUDY	
Amount Found [A]	True Amount , [B]	Recovery %R [D]	Control Limits %R	Flags
107	100	107	70-135	
43.8	50.0	88	70-135	
1P Ba	tch: 1 Matri	ix: Soil		
SU	RROGATE RI	ECOVERY S	STUDY	
Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
101	100	101	70-135	
55.0	50.0	110	70-135	
1P Ba	tch: 1 Matri	ix: Soil		
1P Ba	tch: 1 Matri RROGATE RI	ix: Soil ECOVERY S	STUDY	
IP Ba SU Amount Found [A]	tch: 1 Matri RROGATE RI True Amount [B]	ix: Soil ECOVERY S Recovery %R [D]	STUDY Control Limits %R	Flags
IP Ba SU Amount Found [A] 105	tch: 1 Matri RROGATE RI Amount [B] 100	ix: Soil ECOVERY S Recovery %R [D] 105	Control Limits %R 70-135	Flags
IP Ba SU Amount Found [A] 105 58.5	tch: 1 Matri RROGATE RI Amount [B] 100 50 0	x: Soil COVERY S Recovery %R [D] 105 117	Control Limits %R 70-135 70-135	Flags
IP     Ba       SU     SU       Amount     Found       [A]     105       58.5     BKS	tch: 1 Matri RROGATE RI Amount [B] 100 50 0 tch: 1 Matri	ix: Soil ECOVERY S Recovery %R [D] 105 117 ix: Solid	Control Limits %R 70-135 70-135	Flags
IP     Ba       SU     Amount       Found     [A]       105     58.5       BKS     Ba       SU	tch: 1 Matri RROGATE RI Amount [B] 100 50 0 tch: 1 Matri RROGATE RI	ix: Soil COVERY S Recovery %R [D] 105 117 ix: Solid COVERY S	Control Limits %R 70-135 70-135	Flags
IP     Ba       Amount     SU       Amount     [A]       105     58.5       BKS     Ba       SU     SU       Amount     Found       [A]     [A]	tch: 1 Matri RROGATE RI Amount [B] 100 50 0 tch: 1 Matri RROGATE RI Amount [B]	ix: Soil ECOVERY S Recovery %R [D] 105 117 ix: Solid ECOVERY S Recovery %R [D]	Control Limits %R 70-135 70-135 STUDY Control Limits %R	Flags Flags
IP   Ba     SU   Amount     Found   [A]     105   58.5     BKS   Ba     SU     Amount     Found     [A]	tch: 1 Matri RROGATE RI Amount [B] 100 50 0 tch: 1 Matri RROGATE RI True Amount [B] 100	ix: Soil ECOVERY S Recovery %R [D] 105 117 ix: Solid ECOVERY S Recovery %R [D] 120	Control Limits %R 70-135 70-135 STUDY Control Limits %R 70-135	Flags
	VIS Ba SU Amount Found [A] 125 54.5 / MSD Ba SU Amount Found [A] 107 43.8 /P Ba SU Amount Found [A] 107 43.8	Project II MS Batch: 1 Matri SURROGATE RI Amount True Found Amount [A] [B] 125 100 54.5 50.0 / MSD Batch: 1 Matri SURROGATE RI Amount True Found Amount [A] [B] 107 100 43.8 50.0 MP Batch: 1 Matri SURROGATE RI Amount I Matri SURROGATE RI Amount [A] [B] 101 100 55.0 50.0	Project ID: 2008-148MSBatch:1Matrix:SoilSURROGATE RECOVERY SAmountTrue (A)Recovery %R[A][B]%R[D]12510012554.550.0109/ MSDBatch:1Matrix:SoilSURROGATE RECOVERY SAmountTrue %RRecovery %R[A][B]%R[D]10710010743.850.088AmountTrue %RRecovery %R[A]IMatrix:SoilSURROGATE RECOVERY SSURROGATE RECOVERY SAmountTrue %RMatrix:[A][B]%R[A][B]%R[A][B]%R[D]101100101100101	Project ID: 2008-148           MS         Batch:         1         Matrix:         Soil           SURROGATE RECOVERY STUDY           Amount         True         Recovery         Control           Found         Amount         [B]         %R         %R           [A]         [B]         %R         %R         %R           125         100         125         70-135           54.5         50.0         109         70-135           /MSD         Batch:         1         Matrix:         Soil           SURROGATE RECOVERY STUDY         Control         Limits         %R           /MSD         Batch:         1         Matrix:         Soil           SURROGATE RECOVERY STUDY         Control         Limits         %R           [A]         [B]         %R         [D]         Control           Initis         %R         [D]         Control         Limits           Matrix:         Soil         Surrogate Recovery         Control           Initis         %R         [D]         %R         Matrix:           Matrix:         Soil         Surrogate Recovery         Control         Limits <t< td=""></t<>

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

## Project Name: Dollarhide to Jal 8-Inch

Work Orders : 321018,	<b>Project ID: 2008-148</b>					
Lab Batch #: 744634 Sample: 521821-1-BLK /	BLK Bat	tch: 1 Matri	x: Solid			
Units: mg/kg	SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
Analytes			[ <b>U</b> ]			
1-Chlorooctanc	102	100	102	70-135		
o-Terphenyl	57.1	50.0	114	70-135		
Lab Batch #: 744634 Sample: 521821-1-BSD /	BSD Baf	tch: 1 Matri	x: Solid			
Units: mg/kg	SU	RROGATE RF	COVERY	STUDY		
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane	119	100	119	70-135		
o-Terphenyl	50.9	50.0	102	70-135		

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / BAll results are based on MDL and validated for QC purposes.



## **BS / BSD Recoveries**



### Project Name: Dollarhide to Jal 8-Inch

Work Order #: 321018 Analyst: BHW Lab Batch ID: 744634	D Sample: 521821-1-BKS	Date Prepared:         12/22/2008           KS         Batch #:         1					Project ID: 2008-148 Date Analyzed: 12/23/2008 Matrix: Solid					
Units: mg/kg		BLANH	K /BLANK S	SPIKE / E	BLANK S	PIKE DUPL	ICATE	RECOVE	ERY STUD	ŶY		
TPH By SW8015	Mod Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag	
C6-C12 Gasoline Range Hydrocarbor	ns ND	1000	941	94	1000	947	95	1	70-135	35		
C12-C28 Diesel Range Hydrocarbons	s ND	1000	1110	111	1000	1100	110	1	70-135	35		

Relative Percent Difference RPD = 200\*|(C-F)/(C+F)| Blank Spike Recovery [D] = 100\*(C)/[B] Blank Spike Duplicate Recovery [G] = 100\*(F)/[E] All results are based on MDL and Validated for QC Purposes

Page 8 of 12



#### Project Name: Dollarhide to Jal 8-Inch



Work Order #: 321018	<b>Project ID:</b> 2008-148										
Lab Batch ID:744634QDate Analyzed:12/23/2008IBenerating Units:mg//g	C- Sample ID: Date Prepared:	320838- 12/22/20	-019 S 008	Ba An	tch #: alyst:	1 <b>Matri</b> BHW	k: Soil				
Keporting Units. mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	ND	1040	1000	96	1040	865	83	15	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1040	1150	111	1040	989	95	16	70-135	35	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/BRelative Percent Difference RPD = 200\*[(C-F)/(C+F)] Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit





### Project Name: Dollarhide to Jal 8-Inch

Work Order #: 321018

Lab Batch #: 744413		Project	t ID: <sup>2008-14</sup>	8			
Date Analyzed: 12/22/2008	Date Prepared: 12/2	2/2008 Ana	Analyst: MOV				
QC- Sample ID: 321018-001 D	Batch #: 1	Ma	Matrix: Soil				
Reporting Units: %	SAMPLE / SAMPLE DUPLICATE RECOVER'						
Percent Moisture	Parent Sample Result [A]	Sample Duplicate RPD Result	Control Limits %RPD	Flag			
Analyte		[B]					
Percent Moisture	3.58	3.46 3	20				

Spike Relative Difference RPD 200 \* | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.
Env	vironment	al Lab	of Te	) Xa	S					126 Od	100 1 ess:	( Nest 9, Te	CHA 1-20 x3 5	//// ( ) Eas 7976	OF C 11 15	us	то	DY RI	500	ORD	AN	ID A	NA Pi F	LYS 10ne Bx	15 R : 43: 43:	2-56 2-56	UES 3-18 3-17	57 100 713				
	Project Manager	Curt Stanley				PAGE 01 O	F											Pro	iject	Nar	м.	Dol	arh	ide t	o J	al 8	Inc	h	_			
	Company Name	Basin Enviror	nmental Ser	VICe T	echnol	ogies, LLC													Pr	ojec:	#:_	200	8-14	18								<u> </u>
	Company Address	P 0. Box 301																P	roje	ct L	oc	Jal,	NM									
	City/State/Zip	Lovington, N	W 88260																	PC	#	PAA	- D.	M Br	yani							
	Telephone No	(505) 441-224	4				Fax No:		(50	5) 31	96-1	429					я	lepor	For	mat	.	X,	Stan	lard			TRP	٩P	[		DES	\$
	Sampler Signature	Cutte	alas	lo	- 0	helipte	e-mail		<u>cs</u>	tan	leγ	@b	ası	nen	<u>v.c</u>	m		_													_	
(lab use	only)		2_10/	1	0-	8															_	тс	(P)	Analy	ize F	or	П		Т	Т	Ę	
ORDE	:: JUU	113		·					i	Pre	eserv	ation	8.0	Of CO	ntain	ers	M	alnx	83			TOT	ML .	-	╂	X					с: та С	L
AB \$ (lab use only)	FIEI	D CODE		seginning Depth	inding Depth	Date Sampted	Time Sampled	isid Fillered	otal # of Containers	ke	HND1	HCI	1920,	Nach Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None	Other (Specify)	W = Drinking Water 9 Sludg	dw - Groundwater 5-Sontsof VP-Non Potable Specify Oth	TPH 4181 (BO154) 601	TPH TX 1005 TX 1006	Celions (Ca. Mg. Na K)	Amons (Ci SO4, Alkalinny)	SARTESPICEC	and a contract of the second	Semvolatives	3TE × 80210/5030 or 6TE × 82	ğ	VORM			RUSH TAT (Pre Schedule) 24	Standard TAT
3	North	Stockpile		<b>—</b>	<u> </u>	12/18/2008	1500	<u> </u>	1	x		+		+	+	-	S	ion l	x		Ť			ť	ť	Ē	Ē		+	$^{+}$	Ē	x
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#### Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In



#### Sample Receipt Checklist

				Client Initi	als
#1	Temperature of container/ cooler?	Ves	No	0° CU	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	٦
#4	Custody Seals intact on sample bottles/ container?	Yês	No	Not Present	
#5	Chain of Custody present?	Yes	No		٦
#6	Sample instructions complete of Chain of Custody?	Yes'	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont / Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yês	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		_
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Ves	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	_
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

#### Variance Documentation

Contact

Contacted by:

Date/ Time.

Regarding

Corrective Action Taken

Check all that Apply:

#### See attached e-mail/ fax

Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event

# Analytical Report 322010

for

# PLAINS ALL AMERICAN EH&S

**Project Manager: Daniel Bryant** 

Dollarhide to Jal 8-Inch 2008-148

12-JAN-09





12600 West I-20 East Odessa, Texas 79765

Texas certification numbers: Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX

Florida certification numbers: Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675 Norcross(Atlanta), GA E87429

> South Carolina certification numbers: Norcross(Atlanta), GA 98015

> North Carolina certification numbers: Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Tampa - Miami - Latin America Midland - Corpus Christi - Atlanta



12-JAN-09



Project Manager: **Daniel Bryant PLAINS ALL AMERICAN EH&S** 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: **322010 Dollarhide to Jal 8-Inch** Project Address: Lea County, NM

#### **Daniel Bryant:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 322010. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise agranged with you. The samples received, and described as recorded in Report No. 322010 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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# Sample Cross Reference 322010

# PLAINS ALL AMERICAN EH&S, Midland, TX

Dollarhide to Jal 8-Inch

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Stockpile B-1	S	Jan-07-09 15:00		322010-001
Stockpile B-2	S	Jan-07-09 15:10		322010-002
Stockpile B-3	S	Jan-07-09 15:20		322010-003
Stockpile B-4	S	Jan-07-09 15:30		322010-004



Project Id: 2008-148

Contact: Daniel Bryant

#### Certificate of Analysis Summary 322010 PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Dollarhide to Jal 8-Inch

Date Received in Lab: Thu Jan-08-09 05:08 pm

Report Date: 12-JAN-09

Project Location: Lea County, NM								Report	Date:	12-JAN-09	
<b>10j001 20000</b> 000 000 000000, 1000								Project Ma	nager:	Brent Barron, II	
	Lab Id:	322010-0	001	322010-0	02	322010-0	003	322010-	004		
Analysis Descended	Field Id:	Stockpile	B-1	Stockpile	B-2	Stockpile	B-3	Stockpile	<b>B-</b> 4		
Analysis Kequestea	Depth:										
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	Jan-07-09	15.00	Jan-07-09 I	5.10	Jan-07-09	15:20	Jan-07-09	15.30		
Percent Moisture	Extracted:							1			
i ci cent monstai c	Analyzed:	Jan-09-09	13:10	Jan-09-09 1	3:10	Jan-09-09 I	13:10	Jan-09-09	13.10		
	Units/RL:	%	RL	%	RL	%	RL	%	RL		
Percent Moisture		2.28	1.00	4.74	1.00	4 57	1.00	6 04	1.00		
TPH By SW8015 Mod	Extracted:	Jan-09-09	14:30	Jan-09-09 1	4:30	Jan-09-09	14:30	Jan-09-09	14.30		
	Analyzed:	Jan-09-09	16:19	Jan-09-09 I	6:42	Jan-09-09	17:06	Jan-09-09	17:29		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		ND	15.3	ND	15.7	ND	157	ND	160		
C12-C28 Diesel Range Hydrocarbons		47 8	15.3	167	15.7	ND	15.7	351	16.0		
C28-C35 Oil Range Hydrocarbons		ND	15.3	23.8	157	ND	15.7	ND	16 0		
Total TPH		47 8	15.3	190.8	15.0	ND	15.0	351	15.0		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi

Brent Barron Odessa Laboratory Director





- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- **F** RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- \* Outside XENCO's scope of NELAC Accreditation.

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4143 Greenbriar Dr. Stafford, Tx 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd. Dallas TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd. Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St. Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



.

# Project Name: Dollarhide to Jal 8-Inch

Vork Orders : 322010,		Project I	<b>D:</b> 2008-148						
Lab Batch #: 746077         Sample: 322010-001 / SMP         Batch: 1         Matrix: Soil									
Units: mg/kg	SU	RROGATE R	ECOVERY	STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
	97.0	100	97	70-135					
o-Terphenył	48.8	50.0	98	70-135					
Lab Batch #: 746077 Sample: 322010	)-002 / SMP Bat	tch: 1 Matr	ix: Soil						
Units: mg/kg	SU	RROGATE R	ECOVERY	STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
I-Chlorooctane	98.7	100	99	70-135					
o-Terphenyl	52.2	50.0	104	70-135					
Lab Batch #: 746077 Sample: 322010	)-003 / SMP Ba	tch: 1 Mati	rix: Soil						
Units: mg/kg	SU	RROGATE R	ECOVERY	STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1-Chlorooctanc	99.0	100	99	70-135					
o-Terphenyl	49.2	50.0	98	70-135					
Lab Batch #: 746077 Sample: 322010	0-004 / SMP Ba	tch: 1 Mati	rix: Soil						
Units: mg/kg	SU	<b>RROGATE</b> R	ECOVERY	STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1-Chlorooctane	98.3	100	98	70-135					
o-Terphenyl	49.8	50.0	100	70-135					
Lab Batch #: 746077 Sample: 32209	1-001 S / MS Ba	tch: i Mati	rix: Soil						
Units: mg/kg	SU	RROGATE R	ECOVERY	STUDY	·····				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
I-Chlorooctane	113	100	113	70-135					
o-Terphenyl	55.5	50.0	111	70-135					

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / BAll results are based on MDL and validated for QC purposes.



Project Name: Dollarhide to Jal 8-Inch

York Orders : 322010,         Project ID: 2008-148           Lab Battel # 746077         222001 001 SD (MSD         Database										
SD / MSD Ba	tch: 1 Matr	ix: Soil								
SU	RROGATE RI	ECOVERY (	STUDY							
Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
117	100	117	70-135	I						
62.9	50.0	126	70-135							
KS/BKS Ba	itch: 1 Matr	ix: Solid								
SU	RROGATE R	ECOVERY	STUDY							
Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
117	100	117	70-135							
56.6	50.0	113	70-135							
LK/BLK Ba	itch: 1 Matr	ix: Solid	<u></u>							
SU	RROGATE R	ECOVERY	STUDY							
Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
97.9	100	98	70-135	<b></b>						
49.8	50.0	100	70-135	1						
SD/BSD Ba	itch: 1 Matr	ix: Solid	<u></u>							
SU	JRROGATE R	ECOVERY	STUDY							
Amount Found	True Amount	Recovery	Control Limits	Flags						
[A]	[ <b>B</b> ]	[ %R [D]	/01							
[A]	[ <b>B</b> ]	[D]	70-135							
	SD / MSD Bai SU Amount Found [A] 117 62.9 KS / BKS Ba SU Amount Found [A] 117 56.6 LK / BLK Ba SU Amount Found [A] 97.9 49.8 SD / BSD Ba SU Amount Found [A]	SD / MSD Batch: 1 Matri SURROGATE RI Amount Found [A] [B] 117 100 62.9 50.0 KS / BKS Batch: 1 Matri SURROGATE RI Amount True Amount [A] [B] 117 100 56.6 50.0 LK / BLK Batch: 1 Matri SURROGATE RI Amount [A] [B] 117 100 56.6 50.0 LK / BLK Batch: 1 Matri SURROGATE RI Amount True Amount [A] [B] 97.9 100 49.8 50.0 SD / BSD Batch: 1 Matri SURROGATE RI Amount [A] [B] 97.9 100 49.8 50.0	Project ID: 2008-148SD / MSDBatch:1Matrix:SoilSURROGATE RECOVERY SAmountTrue AmountRecovery %R [D]11710011762.950.0126KS / BKSBatch:1Matrix:SolidSURROGATE RECOVERY SAmountTrue FoundFoundAmount [B]Recovery %R [D]11710011756.650.0113LK / BLKBatch:1Matrix:SolidSURROGATE RECOVERY SAmount [A]True [B]%R %R [D]11710011756.650.0113LK / BLKBatch:1Matrix:SolidSURROGATE RECOVERY SAmount [A]True [B]%R %R [D]97.91009849.850.0100SD / BSDBatch:1Matrix:Found Found LTrue Amount (Amount Found LTrue Matrix:Recovery %R %R (D)	Project ID: 2008-148         SD / MSD       Batch:       1       Matrix: Soil         SURROGATE RECOVERY STUDY         Amount       True       Recovery       Control         [A]       [B]       %R       %R       %R         [A]       100       117       70-135         [62.9       50.0       126       70-135         KS / BKS       Batch:       1       Matrix: Solid         SURROGATE RECOVERY STUDY         Amount       True       Recovery       Control         [A]       [B]       %R       [D]       100         [A]       100       117       70-135       56.6       50.0       113       70-135         LK / BLK       Batch:       1       Matrix: Solid       SURROGATE RECOVERY STUDY       Mamount         [Amount       True       Recovery       Control       Limits       %R       %R       %R       %R       %R       %R       %R       %R       %R </td						

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B



# **BS / BSD Recoveries**



## Project Name: Dollarhide to Jal 8-Inch

Work Order #: 322010 Analyst: BHW Lab Batch ID: 746077	<b>Sample:</b> 522677-1-BKS	Date Prepared:         01/09/2009         Project ID:         2008-148           2677-1-BKS         Batch #:         1         Matrix:         Solid											
Units: mg/kg			BLAN	K /BLANK S	SPIKE / F	BLANK S	PIKE DUPI	ICATE	RECOVE	ERY STUD	PY		
TPH By SW80	15 Mod Bi Samp	lank le Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate Result (F)	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag	
Analytes			լոյ	[C]	ניין	[10]	Kesun [1]	[U]					
C6-C12 Gasoline Range Hydroca	arbons	ND	1000	951	95	1000	935	94	2	70-135	35		
C12-C28 Diesel Range Hydrocar	rbons	ND	1000	980	98	1000	965	97	2	70-135	35		

Relative Percent Difference RPD = 200\*|(C-F)/(C+F)| Blank Spike Recovery [D] = 100\*(C)/[B] Blank Spike Duplicate Recovery [G] = 100\*(F)/[E] All results are based on MDL and Validated for QC Purposes





Work Order #: 322010						Project I	<b>D:</b> 2008-1-	48			
Lab Batch ID: 746077 Date Analyzed: 01/10/2009 Reporting Units: mg/kg	QC- Sample ID: Date Prepared:	322091 01/09/2 M	-001 S 009 IATRIX SPIK	Ba An E / MAT	tch #: alyst: RIX SPI	1 Matri BHW KE DUPLICA	x: Soil	OVERY S	STUDY		
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	ND	1070	981	92	1070	981	92	0	70-135	35	_
C12-C28 Diesel Range Hydrocarbons	ND	1070	1040	97	1070	1030	96	1	70-135	35	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/BRelative Percent Difference RPD = 200\*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

 $ND = Not Detected, J \approx Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit$ 





Work Order #: 322010

Lab Batch #: 746041 Date Analyzed: 01/09/2009 QC- Sample ID: 322010-001 D	Date Prepared: 01/09/20 Batch #: 1	Project l 009 Analy Matr	D: 2008-143 /st: BEV ix: Soil	8
Reporting Units: %	SAMPLE / SA	MPLE DUPLIC	ATE REC	OVERY
Percent Moisture Analyte	Parent Sample S Result D [A] I	Sample uplicate RPD Result [B]	Control Limits %RPD	Flag
Percent Moisture	2.28	2.15 6	20	

Spike Relative Difference RPD 200 \* | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.

114			. 6/16						120 Od	300 ' ess:	Wes a, Te	exa:	20 E 3 79	ast 765			00	r Ru			, ML		P	hon Fax,	073 e' 4	132-5 132-5	563- 563-	180	5 3			
	Project Manager	Curt Stanley			PAGE 01 C	)F 01 _										_		Pro	lect	Nar	ne'	Do	llari	<u>nide</u>	to	Jal	8-ir	<u>nch</u>				
	Company Name	Basin Environmental	Service T	echno	logies, LLC											_			Pre	sjec	. #·_	200	8-1	48								
	Company Address	2800 Plains Hwy																Ρ	roje	c1 1	oc' I	Lea	Ca	inty,	NM						_	
	City/State/Zip:	Lovington, NM 88260																		PC	#.]	PA/		.M. 1	Brya	int_						
	Telephone No	(575) 441-2244				Fax No		(50:	5) 3	96-1	429					_	Re	port	For	mat	.	X	Star	darc	I	Γ	٦D	RRP			NP	DES
	Sampler Signature:	Cut Sa	h-le		Joantes	cregai		cs	tan	ley	<u>@</u> !	bas	ine	nv.	cor	n																
lab use i			10-		<b>u</b> ,																	T	ιp]	Ana	ilyze	For	$\overline{\tau}$	_			-	e
ODDED	322	010							0.0						100		11-1				-	ro	AL.	#	1	1						724
LAB # (lab use only)	FIEL	.D CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Fallered	total # of Containers	52	ItNO,	HCI (VOA X Z)	H <sub>f</sub> SO,	NaOit	Josef and	None (PAH)	Der - Orfanisco Materia El Lindo	CW - Groundwater 5 - Soltrsol	NP - Non-Potable Specify Oth	TPH 4181 (8015M) 8015	TPH TX 1005 TX 1006	Cations (Ca Mg Na K)	Amons (U. SO4, Alkalimty)	SAR JESP (CEC	Metals As Ag Ba Cd Cr Ph Hg S	Volables	BEFER 40216-5030 OF BTFX 826	Bri	NORM	РАН	EPA Paint Filter Tost	Chlondes E 300	RUSH TAT (Pre-Schedule) 24
	Stoc	kpile 8-1	_	<u> </u>	1/7/2009	1500		1	х	_			_	4	4	+	So	11	x	_	_	_	+	┿	+	╇	╇	_	╞		Н	
2_	Stoc	kpile 8-2			1/7/2009	1510		1	Х	_	_	_	_	-	-	+	<b>S</b> o	11	<u>×</u>	-		_	+	┿	╇	+	╀	╇	┢	Н	Н	$\vdash$
3	Stoc	kpile 8-3		<u> </u>	1/7/2009	1520		1	X	_	+	_	-+	-+	-	-	So		×	-+	-+	-+	+	+	+	+	┾	╇	╀	H	H	$\vdash$
ч	Stoc	kpile B-4	-+		1/7/2009	1530		1	X		-+	_	-+	+	+	╉	So		Å		+	-	-+	+	+	+	┢	+	┢	Η	Η	Н
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# Environmental Lab of Texas CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

#### Environmental Lab of Texas Variance/ Corrective Action Report- Sample Log-In

Chent	Plans/Basin Env
Date/ Time	UI-OB ON CITCY
Lab ID # :	322010
Initials	JME

#### Sample Receipt Checklist

		whicemat		
				Client initrals
#1	Temperature of container/ cooler?	(Yes)	No	35 °C
#2	Shipping container in good condition?	(Yes)	No	
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present
#4	Custody Seals intact on sample bottles/ container?	Ves-	No	Not Present
#5	Chain of Custody present?	(Yes)	No	
#6	Sample instructions complete of Chain of Custody?	(es)	No	
#7	Chain of Custody signed when relinquished/ received?	(es)	No	
#8	Chain of Custody agrees with sample label(s)?	(eg)	No	ID written on Cont / Lid
#9	Container label(s) legible and intact?	(OS)	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	tes ,	No	
#11	Containers supplied by ELOT?	res,	No	
#12	Samples in proper container/ bottle?	(es)	No	See Below
#13	Samples properly preserved?	Yes	No	See Below
#14	Sample bottles intact?	Cess)	No	
#15	Preservations documented on Chain of Custody?	(es)	No	
#16	Containers documented on Chain of Custody?	(Tes)	No	
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below
#18	All samples received within sufficient hold time?	res	No	See Belaw
#19	Subcontract of sample(s)?	Yes	No	Not Applicable
#20	VOC samples have zero headspace?	(Yes)	Ňo	Not Applicable

#### Variance Documentation

Contact.	 Contacted by:	Date/ Time:						
Regarding	 							
Corrective Action Taken	 							
Check all that Apply:	See attached e-mail/ fax Client understands and would like to proceed with a Cooling process had begun shortly after sampling e	nafysis vent						

•

# Analytical Report 324355

for

# PLAINS ALL AMERICAN EH&S

**Project Manager: Daniel Bryant** 

Dollarhide to Jal 8-Inch 2008-148

10-FEB-09





#### 12600 West I-20 East Odessa, Texas 79765

Texas certification numbers: Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX

Florida certification numbers: Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675 Norcross(Atlanta), GA E87429

> South Carolina certification numbers: Norcross(Atlanta), GA 98015

> North Carolina certification numbers: Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Tampa - Miami - Latin America Midland - Corpus Christi - Atlanta



10-FEB-09



Project Manager: **Daniel Bryant PLAINS ALL AMERICAN EH&S** 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: **324355 Dollarhide to Jal 8-Inch** Project Address: Lea County, NM

#### **Daniel Bryant**:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 324355. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 324355 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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# Sample Cross Reference 324355



# PLAINS ALL AMERICAN EH&S, Midland, TX

Dollarhide to Jal 8-Inch

Matrix	Date Collected	Sample Depth	Lab Sample Id
S	Feb-04-09 16:30		324355-001
S	Feb-04-09 16:40		324355-002
S	Feb-04-09 16:50		324355-003
S	Feb-04-09 17:00		324355-004
	Matrix S S S S	MatrixDate CollectedSFeb-04-09 16:30SFeb-04-09 16:40SFeb-04-09 16:50SFeb-04-09 17:00	Matrix         Date Collected         Sample Depth           S         Feb-04-09 16:30



Project Id: 2008-148

Contact: Daniel Bryant

#### Certificate of Analysis Summary 324355 PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Dollarhide to Jal 8-Inch

Date Received in Lab: Fri Feb-06-09 12:20 pm

Report Date: 10-FEB-09 Project Location: Lea County, NM Project Manager: Brent Barron, II 324355-001 324355-003 324355-004 Lab Id: 324355-002 Field Id: B-5 B-6 B-7 B-8 Analysis Requested Depth: Matrix: SOIL SOIL SOIL SOIL Feb-04-09 17 00 Sampled: Feb-04-09 16 30 Feb-04-09 16.40 Feb-04-09 16.50 Extracted: **Percent Moisture** Analyzed: Feb-06-09 17:45 Feb-06-09 17.45 Feb-06-09 17.45 Feb-06-09 17 45 Units/RL: % % RL % RL % RL RL Percent Moisture 1.82 2.44 12 1 04 Extracted: Feb-08-09 11.24 Feb-08-09 11.24 Feb-08-09 11.24 Feb-08-09 11:24 TPH By SW8015 Mod Feb-08-09 17.02 Feb-08-09 17:24 Feb-08-09 17:46 Feb-08-09 18:08 Analyzed: Units/RL: mg/kg RL mg/kg RL mg/kg RL mg/kg RL C6-C12 Gasoline Range Hydrocarbons 15.2 82 8 15.3 15.4 15.2 91.4 92 9 55.4 C12-C28 Diesel Range Hydrocarbons 2680 15.2 1970 15.3 2090 15.4 2780 15.2 15.4 C28-C35 Oil Range Hydrocarbons 342 15.2 268 15.3 288 380 15.2 Total TPH 31134 15.0 2320.8 15.0 2470.9 15.0 3215.4 15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout dis analytical report represent the best judgment of XEVCO Laboratories XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron Odessa Laboratory Director





- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- **F** RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- \* Outside XENCO's scope of NELAC Accreditation.

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(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116
	Phone (281) 240-4200 (214) 902 0300 (210) 509-3334 (813) 620-2000 (305) 823-8500 (432) 563-1800 (361) 884-0371



# Project Name: Dollarhide to Jal 8-Inch

/ork Orders : 324355,		Project I	<b>D:</b> 2008-148		
Lab Batch #: 748792 Sample: 32434	I4-003 S / MS Bat	tch: 1 Matr	ix: Soil		
Units: mg/kg	SU	RROGATE R	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Апатукъ	115	100	115	F0.126	ł
I-Chlorooctane	56.6	50.0	115	70-135	<b> </b>
0-1 crpnenyi	50.0	30.0	115	/0-133	<u> </u>
Lab Batch #: 748792 Sample: 32434 Units: mg/kg	4-003 SD / MSD Bat	tch: 1 Matr	ix: Soil ECOVERY (	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	[
o-Terphenyl	54.7	50.0	109	70-135	
Lab Batch #: 748792 Sample: 32435	55-001 / SMP Bat	tch: 1 Matr	rix: Soil	·	
Units: mg/kg	SU	RROGATE R	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 Chlorooctane	101	100	101	70-135	<del> </del>
o-Terphenyl	55.9	50.0	112	70-135	
Lab Ratch #• 748792 Sample: 32435	55-002 / SMP Ba	teh l Matr	riv: Soil	<u> </u>	
Units: mg/kg	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Chloroostana		100		70-135	
o-Ternhenvl	50.4	50.0	101	70-135	├───
I-L D-4-L #. 7/8792 Sample: 32434		tale 1 Mat	-ive Soil		
Lao Batten #: 170722 Sample, 22.02 Units: mg/kg	S-005 / Sivil Bu	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	96.7	100	97	70-135	
				·	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B



Project Name: Dollarhide to Jal 8-Inch

Vork Orders : 324355,		Project IE	2008-148		
Lab Batch #: 748792 Sample: 324355-004 / SM	IP Bat	ch: 1 Matri	x: Soil		
Units: mg/kg	SU	RROGATE RF	COVERY S	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	95.9	100	96	70-135	
o-Terphenyl	55.1	50 0	110	70-135	
Lab Batch #: 748792 Sample: 524290-1-BKS /	BKS Bat	tch: 1 Matri	x: Solid	L	
Units: mg/kg	SU	RROGATE RF	COVERY	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	51.0	50.0	102	70-135	
Lab Batch #: 748792 Sample: 524290-1-BLK /	BLK Bat	tch: 1 Matri	x: Solid		
Units: mg/kg	SU	RROGATE RF	COVERY	STUDY	
TDH By SW8015 Mod	Amount	True		Control	
Analytes	Found [A]	Amount [B]	Recovery %R [D]	Limits %R	Flags
Analytes	Found [A] 97.2	Amount [B]	Recovery %R [D] 97	Limits %R 70-135	Flags
Analytes  1-Chlorooctanc  o-Terphenyl	Found [A] 97.2 48.0	Amount [B] 100 50.0	Recovery %R [D] 97 96	Control         Limits         %R           70-135         70-135         70-135	Flags
Analytes  1-Chlorooctanc  o-Terphenyl  Lab Batch #: 748792 Sample: 524290-1-BSD /	Found [A] 97.2 48.0 BSD Bat	Amount [B] 100 50.0 :ch: 1 Matri	Recovery %R [D] 97 96 x: Solid	Control         Limits         %R           70-135         70-135         70-135	Flags
Analytes          I-Chlorooctanc         o-Terphenyl         Lab Batch #:       748792       Sample:       524290-1-BSD /         Units:       mg/kg	Found [A] 97.2 48.0 BSD Bat	Amount [B] 100 50.0 :ch: 1 Matri RROGATE RE	Recovery %R [D] 97 96 x: Solid COVERY S	Limits         %R           70-135         70-135           STUDY         ************************************	Flags
Analytes          Infinity Sweeting Mode         Analytes         1-Chlorooctane         o-Terphenyl         Lab Batch #: 748792       Sample: 524290-1-BSD / Units: mg/kg         TPH By SW8015 Mod         Analytes	Found [A] 97.2 48.0 BSD Bat SU Amount Found [A]	Amount [B] 100 50.0 tch: 1 Matri RROGATE RE True Amount [B]	Recovery %R [D] 97 96 x: Solid COVERY S Recovery %R [D]	Control Limits %R 70-135 70-135 STUDY Control Limits %R	Flags
Analytes          Analytes         1-Chlorooctanc         o-Terphenyl         Lab Batch #: 748792       Sample: 524290-1-BSD /         Units: mg/kg         TPH By SW8015 Mod         Analytes         1-Chlorooctanc	Found [A] 97.2 48.0 BSD Bai SU Amount Found [A] 110	Amount [B] 100 50.0 tch: 1 Matri RROGATE RE True Amount [B] 100	Recovery %R [D] 97 96 x: Solid COVERY S Recovery %R [D] 110	TO-135 70-135 70-135 STUDY Control Limits %R 70-135	Flags

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B All results are based on MDL and validated for QC purposes.





Work Order #: 324355 Analyst: BHW Lab Batch ID: 748792 Sample: 524	D: 290-1-BKS	ate Prepar Batel	ed: 02/08/200	)9		Project ID: 2008-148 Date Analyzed: 02/08/2009 Matrix: Solid										
Units: mg/kg		BLAN	K/BLANK S	SPIKE / E	BLANK S	PIKE DUPI	LICATE	RECOVE	ERY STUD	Y						
TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added (B)	Blank Spike Result	Blank Spike %R [D]	Spike Added	Blank Spike Duplicate Result (F)	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag					
Analytes		[D]			[E]	Result [1]										
C6-C12 Gasoline Range Hydrocarbons	6.50	1000	953	95	1000	958	96	1	70-135	35						
C12-C28 Diesel Range Hydrocarbons	12.3	1000	991	99	1000	995	100	0	70-135	35						

Relative Percent Difference RPD = 200\*[(C-F)/(C+F)]Blank Spike Recovery [D] = 100\*(C)/[B]Blank Spike Duplicate Recovery [G] = 100\*(F)/[E]All results are based on MDL and Validated for QC Purposes





Work Order #: 324355						Project II	<b>D:</b> 2008-1	48			
Lab Batch ID:         748792         Q           Date Analyzed:         02/08/2009         1	C- Sample ID: Date Prepared:	324344- 02/08/2	-003 S 009	Ba An	tch #: alyst:	1 <b>Matri</b> BHW	c: Soil				
Reporting Units: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	-
C6-C12 Gasoline Range Hydrocarbons	ND	1030	986	96	1030	985	96	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1030	1060	103	1030	1060	103	0	70-135	35	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/BRelative Percent Difference RPD = 200\*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit





Work Order #: 324355

Lab Batch #:         748916           Date Analyzed:         02/06/2009         Date Pr           QC- Sample ID:         324327-018 D         D	<b>epared:</b> 02/0 Batch #: 1	6/2009	Project I Analy Matr	D: 2008-148 st: BEV ix: Soil	}
Reporting Units: %	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[0]			
Percent Moisture	25.4	23.9	6	20	

Spike Relative Difference RPD 200 \* | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.

Env	vironment	al Lab of To	exa	IS					12	800	We	Cł st I-	1 <i>A  </i> 20 E	V Oi last	F C	USI	TODY	' RE	co	RD /	4 <i>NE</i>	ΑΛ	IAL Pho	YSI: one:	S Ri 432	EQU -563-	ES7 180	r a				
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	Company Name	Basin Environmental Se	rvice T	achnol	ogies, LLC											_			Pro	iert i	· 21	108.	148	1								
	Company Address	2800 Distan Librar														_		-										·		~		
	Company Address	2000 Plains Hwy										-				-		PI	ojec		. 1		ount	<u>y, N</u> a	<u> </u>					~		-
	City/State/Zip.	Lovington, NM 88260											<u> </u>							PO	<u>יין</u> : עו	1	D.M	. Влу	ant							
	Telephone No:	(575) 441-2244				Fax No.		(50	)5) 3	95-1	429						Rep	iort	Form	nai.	( <u>×</u>	( Sta	Inda	rd		וד	RP		Π	NPC	DES	)
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LAB # (lab use only)	FIEL	LD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Falered	Total # of Contamens	lte	HNO	HCI (VOA X 2)	H.SO,	HOHN	NB <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Noire (PAH)	Other ( Sphorty)	DW + Drinking Water S + Sudgi GW + Groundwater S≈ Soli/Soli	NP-Non Potable Specify Othe	TPH 4181 (2015M) 501	TPH 1X 1005 1X 1006 Cateoris (Ca Mo Na K)	Aniones (CI SO4 Alkalimity)	AR/ESP/CEC	Metals As Ag Ba Cd Cr Pb Hg 3	Volutiles	Semivolatiles	B1EX 80210/5030 or B1F X 824 RCI	NORM	РАН	EPA Paint Futer Test	Chlondes E 300	RUSH TAT (Pre-Schedule) 24,	Standard TAT
25		<b>B-</b> 5			2/4/2009	1630		1	x						7	1	Sol	1	x	T	Ĺ				1	T	T			Ī	1	X
οL		B-6			2/4/2009	1640		1	x						$\downarrow$	_	Soi	4	X													x
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# Page 11 of 12

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#### Environmental Lab of Texas

#### Variance/ Corrective Action Report- Sample Log-In



#### Sample Receipt Checklist

		_		Client Initia
#1	Temperature of container/ cooler?	Yes	No	•5 °C
#2	Shipping container in good condition?	8.96	No	<u></u>
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present
#5	Chain of Custody present?	(es	No	
#6	Sample instructions complete of Chain of Custody?	(es	No	
#7	Chain of Custody signed when relinquished/ received?	Yes	No	
#8	Chain of Custody agrees with sample label(s)?	6	No	ID written on Cont / Lid
#9	Container label(s) legible and intact?	Kes	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	1.68	No	
#11	Containers supplied by ELOT?	Yes	No	
#12	Samples in proper container/ bottle?	Yes	No	See Below
#13	Samples properly preserved?	Yes	No	See Below
#14	Sample bottles intact?	Kes	No	
#15	Preservations documented on Chain of Custody?	Xes	No	
#16	Containers documented on Chain of Custody?	Yes	No	
#17	Sufficient sample amount for indicated test(s)?	Ves	No	See Below
#18	All samples received within sufficient hold time?	Yes	No	See Below
#19	Subcontract of sample(s)?	Yes	No	HOLApplicable-
#20	VOC samples have zero headspace?	(res)	No	Not Applicable

#### Variance Documentation

\_

Date/ Time:

Contact

Regarding.

Corrective Action Taken:

Check all that Apply.

١

i.

See attached e-mail/ fax

Contacted by:

Chent understands and would like to proceed with analysis Cooling process had begun shortly after sampling event

# Analytical Report 326233

for

# PLAINS ALL AMERICAN EH&S

**Project Manager: Daniel Bryant** 

Dollarhide to Jal 8-Inch 2008-148

04-MAR-09





#### 12600 West I-20 East Odessa, Texas 79765

Texas certification numbers: Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX

Florida certification numbers: Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675 Miramar, FL E86349 Norcross(Atlanta), GA E87429

> South Carolina certification numbers: Norcross(Atlanta), GA 98015

North Carolina certification numbers: Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Tampa - Miami - Latin America Midland - Corpus Christi - Atlanta



04-MAR-09



Project Manager: **Daniel Bryant PLAINS ALL AMERICAN EH&S** 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: **326233 Dollarhide to Jal 8-Inch** Project Address: Lea County, NM

#### **Daniel Bryant**:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 326233. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 326233 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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# Sample Cross Reference 326233



## PLAINS ALL AMERICAN EH&S, Midland, TX

Dollarhide to Jal 8-Inch

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
WSP # 1	S	Feb-26-09 13:00		326233-001
WSP # 2	S	Feb-26-09 13:05		326233-002
WSP # 3	S	Feb-26-09 13:10		326233-003
WSP # 4	S	Feb-26-09 13:15		326233-004
ESP # 1	S	Feb-26-09 13:20		326233-005
ESP # 2	S	Feb-26-09 13:25		326233-006
ESP # 3	S	Feb-26-09 13:35		326233-007
ESP # 4	S	Feb-26-09 13:40		326233-008



Project Id: 2008-148

Contact: Daniel Bryant

#### Certificate of Analysis Summary 326233 PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Dollarhide to Jal 8-Inch

Date Received in Lab: Fri Feb-27-09 05:27 pm

Report Date: 04-MAR-09

Project Location: Lea County, NM								Report	Date:	04-MAR-09			
								Project Ma	nager:	Brent Barron,	II		
	Lab Id:	326233-	001	326233-0	002	326233-0	003	326233-0	004	326233-0	005	326233-	006
And December 1	Field Id:	WSP #	1	WSP #	2	WSP #	3	WSP #	4	ESP #	1	ESP #	2
Anatysis Kequestea	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-26-09 13.00 Feb-26-09 13.05		13.05	Feb-26-09	6-09 13·10 Feb-26-09 13:15		13:15	Feb-26-09 13:20		Feb-26-09 13.25		
Percent Moisture	Extracted:												
	Analyzed:	Mar-02-09	17.00	Mar-02-09	17:00	Mar-02-09	17:00	Mar-02-09	17:00	Mar-02-09	17.00	Mar-02-09	17.00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		0 014	1.00	0.680	1 00	0.020	1.00	ND	1 00	ND	1 00	ND	1.00
TPH By SW8015 Mod	Extracted:	Mar-03-09	16 <sup>.</sup> 12	Mar-03-09	16:12	Mar-03-09	16:12	Mar-03-09	16:12	Mar-03-09	16.12	Mar-03-09	16:12
	Analyzed:	Mar-03-09	19:02	Mar-03-09	19:26	Mar-03-09	19:50	Mar-03-09	20:16	Mar-03-09	20.41	Mar-03-09	21:05
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		37.8	15.0	43.9	15.1	55.9	150	67 4	151	121	150	117	151
C12-C28 Diesel Range Hydrocarbons		661	15.0	867	15.1	1160	150	1490	151	2490	150	2710	15.1
C28-C35 Oil Range Hydrocarbons		42.2	15.0	58 5	15.1	85.5	150	111	15.1	177	150	181	151
Total TPH		741	150	969.4	15.1	1301 4	15.0	1668.4	15.1	2788	150	3008	151

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

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Brent Barron

Odessa Laboratory Director



,

Project Id: 2008-148

Project Location: Lea County, NM

Contact: Daniel Bryant

#### Certificate of Analysis Summary 326233 PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Dollarhide to Jal 8-Inch

Date Received in Lab: Fri Feb-27-09 05:27 pm

Report Date: 04-MAR-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	326233-0	07	326233-0	08		
	Field Id:	ESP#3	3	ESP # 4	ļ		
Analysis Kequestea	Depth:						
	Matrix:	SOIL		SOIL			
	Sampled:	Feb-26-09	13:35	Feb-26-09 1	3 40		
Percent Moisture	Extracted:						
	Analyzed:	Mar-02-09	17:00	Mar-03-09 l	7:00		
	Units/RL:	%	RL	%	RL		
Percent Moisture		ND	1 00	1.70	1.00		
TPH By SW8015 Mod	Extracted:	Mar-03-09	16 <sup>.</sup> 12	Mar-03-09 I	6.12		
	Analyzed:	Mar-03-09	21.31	Mar-03-09 2	21.56		
	Units/RL:	mg/kg	RL	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		134	150	173	153		
C12-C28 Diesel Range Hydrocarbons		2470	150	2730	153		
C28-C35 Oil Range Hydrocarbons		177	15.0	188	153		
Total TPH		2781	15.0	3091	153		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use The interpretations and results expressed throughout this analytical report represent the best judgment of XEVCO Laboratories XEVCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented Our lability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

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Brent Barron

Odessa Laboratory Director





- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- \* Outside XENCO's scope of NELAC Accreditation.

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5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St. Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Project Name: Dollarhide to Jal 8-Inch

Work Orders : 326233	3,		Project II	<b>):</b> 2008-148				
Lab Batch #: 751446	Sample: 525787-1-BKS / B	KS Bat	ch: <sup> </sup> Matri	x: Solid				
Units: mg/kg	Date Analyzed: 03/03/09 16:59	SUI	RROGATE RE	COVERY	STUDY			
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1 Chloroostane	Analytes	105	100	105	70.125			
n-Terphenvl		45.0	50.0	90	70-135			
Lab Batch #: /51440	Sample: 525787-1-BSD7 B	SD Bate	ch:   Matri	x: Solid	OTTINY			
Units: mg/kg	Date Analyzed: 03/03/09 17:24	501	KRUGATE KE	Control				
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane	·	104	100	104	70-135			
o-Térphenyl		44.7	50.0	89	70-135			
Lab Batch #: 751446	Sample: 525787-1-BLK / B	LK Bat	ch: 1 Matri	x: Solid	·			
Units: mg/kg	Date Analyzed: 03/03/09 17:49	SUI	RROGATE RE	COVERY	STUDY			
ТРН	Amount Found {A}	True Amount {B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctane		88 1	100	88	70-135			
o-Tcrphenyl		48.4	50.0	97	70-135			
Lab Batch #: 751446	Sample: 326233-001 / SMP	' Bat	ch: <sup>1</sup> Matri	x: Soil	<u>}</u>			
Units: mg/kg	Date Analyzed: 03/03/09 19:02	SUI	RROGATE RI	COVERY	STUDY	<u></u>		
ТРН				·				
	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctanc	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D] 89	Control Limits %R	Flags		
1-Chlorooctanc	By SW8015 Mod Analytes	Amount Found [A] 88.8 48.1	True Amount [B] 100 50.0	Recovery %R [D] 89 96	Control Limits %R 70-135 70-135	Flags		
1-Chlorooctanc o-Terphenyl Lab Batch #: 751446	By SW8015 Mod Analytes Sample: 326233-002 / SMP	Amount Found [A] 88.8 48.1 Bat	True Amount [B] 100 50.0 ch: 1 Matri	Recovery %R [D] 89 96 x: Soil	Control Limits %R 70-135 70-135	Flags		
I-Chlorooctanc o-Terphenyl Lab Batch #: 751446 Units: mg/kg	By SW8015 Mod Analytes Sample: 326233-002 / SMP Date Analyzed: 03/03/09 19:26	Amount Found [A] 88.8 48.1 Bat	True Amount [B] 100 50.0 ch: 1 Matri RROGATE RE	Recovery %R [D] 89 96 x: Soil ECOVERY	Control Limits %R 70-135 70-135 STUDY	Flags		
1-Chlorooctanc       o-Terphenyl       Lab Batch #: 751446       Units: mg/kg	By SW8015 Mod Analytes Sample: 326233-002 / SMP Date Analyzed: 03/03/09 19:26 By SW8015 Mod Analytes	Amount Found [A] 88.8 48.1 Bat SUI Amount Found [A]	True Amount [B] 100 50.0 ch: 1 Matri RROGATE RE True Amount [B]	Recovery %R [D] 89 96 x: Soil COVERY Recovery %R [D]	Control Limits %R 70-135 70-135 STUDY Control Limits %R	Flags		
I-Chlorooctane o-Terphenyl Lab Batch #: 751446 Units: mg/kg TPH	By SW8015 Mod Analytes Sample: 326233-002 / SMP Date Analyzed: 03/03/09 19:26 By SW8015 Mod Analytes	Amount Found [A] 88.8 48.1 Bat SUI Amount Found [A] [A] 87.5	True Amount [B] 100 50.0 ch: 1 Matri RROGATE RE True Amount [B]	Recovery %R [D] 89 96 x: Soil ECOVERY Recovery %R [D] 88	Control Limits %R 70-135 70-135 STUDY Control Limits %R	Flags		

\*\* Surrogates outside limits, data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B



# Project Name: Dollarhide to Jal 8-Inch

Vork Orders : 326233	,		Project II	<b>D:</b> 2008-148					
Lab Batch #: 751446	Sample: 326233-003 / SMP	Batch: <sup>1</sup> Matrix: Soil							
Units: mg/kg	Date Analyzed: 03/03/09 19:50	SU	JRROGATE RI	ECOVERY	STUDY				
TPH	TPH By SW8015 Mod			Recovery %R	Control Limits %R	Flags			
	Analytes			[D]					
1-Chlorooctane		89.6	100	90	70-135				
o-Terpheny]		49.2	50.0	98	70-135				
Lab Batch #: 751446	Sample: 326233-004 / SMP	Ba	atch: 1 Matr	ix: Soil					
Units: mg/kg	Date Analyzed: 03/03/09 20:16	SU	JRROGATE RI	ECOVERY	STUDY				
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
L-Chlorooctane	Anarytes	00.6	100	01	70 135				
o-Terphenyl		50.0	50.0	100	70-135				
Lab Batch #: /51446	Sample: 326233-005 / SMP	Ba	atch: Matr	IX: SOIL	OT LIDN				
Units: mg/kg	Date Analyzed: 03/03/09 20:41	50				·			
TPH 1	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1-Chlorooctane		92.9	100	93	70-135				
o-Terphenyl		52.9	50.0	106	70-135				
Lab Batch #: 751446	Sample: 326233-006 / SMP	Ba	atch: 1 Matri	ix: Soil	<u>.</u>				
Units: mg/kg	Date Analyzed: 03/03/09 21:05	SU	JRROGATE RI	ECOVERY	STUDY				
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
	Analytes			[D]					
1-Chlorooctane		91.7	100	92	70-135				
o-Terphenyl		49.9	50.0	100	70-135				
Lab Batch #: 751446	Sample: 326233-007 / SMP	Ba	atch: 1 Matr	ix: Soil					
Units: mg/kg	Date Analyzed: 03/03/09 21:31	SU	JRROGATE RI	ECOVERY	STUDY				
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
	Analytes			[U]					
1-Chlorooctane		89.2	100	89 ·	70-135				
o-lerpheny		48.3	50.0	97	70-135				

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B



# Project Name: Dollarhide to Jal 8-Inch

Vork Orders : 326233	,		Project II	<b>):</b> 2008-148		
Lab Batch #: 751446	Sample: 326233-008 / SMP	Ba	tch: 1 Matri	ix: Soil		
Units: mg/kg	Date Analyzed: 03/03/09 21:56	SU	RROGATE RI	ECOVERY	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R {D}	Control Limits %R	Flags
1-Chlorooctane		87.4	100	87	70-135	· · · · · · · · · · · · · · · · · · ·
o-Terphenyl		46.4	50.0	93	70-135	
Lab Batch #: 751446	Sample: 326189-002 S / MS	Ba Ba	tch: 1 Matri	ix: Soil		
Units: mg/kg	Date Analyzed: 03/04/09 02:58	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	Analytes	101	100	101	70 135	
o-Terphenyl		43.5	50.0	87	70-135	
Lab Batch #: 751446	Sample: 326189-002 SD / N	1SD Ba	tch: 1 Matri	ix: Soil		
Units: mg/kg	Date Analyzed: 03/04/09 03:23	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	TPH By SW8015 Mod			Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctane		104	100	104	70-135	
o-Terphenyl		46.5	50.0	93	70-135	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

,





Work Order #: 326233 Analyst: BHW Lab Batch ID: 751446	<b>Sample:</b> 525787-1-BKS	Date Prepared:         03/03/2009           KS         Batch #:         1					Project ID: 2008-148 Date Analyzed: 03/03/2009 Matrix: Solid						
Units: mg/kg		BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH By SW8015	Mod Blank Sample Resu [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate Besult (El	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag		
Analytes		[B]		[U]	[E]	Result [F]	[G]						
C6-C12 Gasoline Range Hydrocarbo	ons ND	1000	1100	110	1000	1110	111	1	70-135	35			
C12-C28 Diesel Range Hydrocarbor	ns ND	1000	1040	104	1000	1050	105	1	70-135	35			

Relative Percent Difference RPD = 200\*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100\*(C)/[B]Blank Spike Duplicate Recovery [G] = 100\*(F)/[E]All results are based on MDL and Validated for QC Purposes


## Project Name: Dollarhide to Jal 8-Inch



Work Order #: 326233   Lab Batch ID: 751446						Project II	<b>D:</b> 2008-1	48			
Lab Batch ID: 751446 C Date Analyzed: 03/04/2009	QC- Sample ID: Date Prepared:	326189- 03/03/2	-002 S 009	Ba An	tch #: alyst:	1 Matrix BHW	k: Soil	OVEDV			
		IVI	IATRIX SPIK		KIA SPI	KE DUPLICA	TE REC	OVERY			
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	ND	1060	1220	115	1060	1260	119	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1060	1160	109	1060	1210	114	4	70-135	35	

 $\begin{array}{ll} Matrix \ Spike \ Percent \ Recovery \ \ [D] = 100*(C-A)/B \\ Relative \ Percent \ Difference \ \ RPD = 200*|(C-F)/(C+F)| \\ \end{array}$ 

ć

Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit





# Project Name: Dollarhide to Jal 8-Inch

Work Order #: 326233

Lab Batch #: 751210			Project I	<b>D:</b> 2008-148	8
Date Analyzed: 03/02/2009 Date Pr	epared: 03/0	)2/2009	Analy	st: BEV	
QC- Sample ID: 326240-001 D	Batch #: 1	•	Matr	ix: Soil	
Reporting Units: %	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		լոյ			
Percent Moisture	2.36	1.30	58	20	F
Lab Batch #: 751342					
Date Analyzed: 03/03/2009 Date Pr	epared: 03/0	)3/2009	Analy	st: BEV	
QC- Sample ID: 326305-001 D	atch #: 1		Matr	ix: Soil	
Reporting Units: %	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Parent Sample Result · [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	1.07	ND	NC	20	

Spike Relative Difference RPD 200 \* | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.

	Project Manager. Company Name	Curt Stanley							0	39321	3, 10X	35 79	105						F	ax:	432-	583-1	713		
	Company Name					PAGE 01 OF	- 01								Pr	o]ect	Name	a: <u>Do</u>	llarh	ide to	b Jal	8-In	h		
		Basin Environm	antal Scr	vico Te	chnol	oyles, LLC				****						Pro	ect #	r: 20(	08-14	8					
	Company Address:	2800 Plains Hwy	<u>.</u>													Projec	ct Loc	: Lea	Cour	nty, NI	M				
	City/State/Zip	Levington, NM 8	18260														POA	1. PAJ	4 - D.	M. Bry	rant				
	Telephone No.	(575) 441-2244	-				Fax No		(505) 3	196-14	429				Repor	t Forr	mat:	X	Stand	lard .		<b>ח</b> ד	RP	n	NPDE
	Sampler Signature	7 20	·X+	~~	li	~	e-mail.		cstar	nlev	@ba	sine	nv.c	om											
	hab use only)	1.335	<u></u>			(			) A Pr	reser.	43074	l e ci	Contair	1075	Mairix			TO TO	I.P AL	Analyz	na Fur				4 72 10
	AB # (Mb use only)	0 CODE		leginning Dapth	inding Depth	Date Samplard	Time Sampiad	ield Fritered	that a Contanera 4/1-1-0	HNOS	HCI (VOA X 2) H/30.	NSOH	Na,S,O, Nurg (PAH)	(ther ( Specify)	IVI - Orisking Ikater SI-Solfson 24 - Oroundwater 5-Solfson 81-Non-Potable Specify Orm	PIT ALB 1 COLISM BOIL	PH 1X 1005 TX 1005 Desore (un Mo Na K)	vieres (Cl. SO4. Abatimity)	MAR / CSP / CCC	(clatters	lertivolopies are reading and a strong and		LORM DAH	PA Paint Filter Test 1	Chiorides E 300 USH TAT Pre-scheddel 34
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	05 W	SP #3				2/28/2009	1310		1 X						Soil	x									
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-		********						$\square$		++	-	$\uparrow$		┼┨		++		+	+	++				++	+
	special Instructions teginguising by Carl	y 21	Date 17/09	17	na 27	Received by				<b>ل</b> مسید 		·		0a	10	Time	2000525%	aboral ample OCs F abels ( ustody Ustody	ory C Contr ree of seal Stack	Commission Convi	ents: Intad Ispace (\$) (\$) ontain polar() ered	? er(s)	160	4.000 i	N N N N N N
R	learquished by		Date ,	Tin	ne	Received by ELO Kan	Li Fit	ć.	<u>, `:</u>	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<u>1777</u>	• 122	, (5	0a 1-27	10 -09	7916 727		b(S by C emper	amp'é curté ature	Upon	l Rep. UPS Recei	7 DH	E L	1000 C	и сепа. Эг

# Page 13 of 14

#### Environmental Lab of Texas Variance/ Corrective Action Report- Sample Log-In

1.1.25

Client:	Plains / Basin
Date/ Time-	02-27-69 @ 1727
Lab ID #	326233
Initials	ĴMF

#### Sample Receipt Checklist

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	à				-Rem muan
#1	Temperature of container/ cooler?	(Yes )	No	5.O °C	,
#2	Shipping container in good condition?	Yes	No	MAD.	
#3	Custody Seals intact on shipping container/ cooler?	Yes .	No	Not Present N/A	
#4	Custody Seals intact on sample bottles/ container? Achel	(Yes)	No	Not Present	· ·
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont / Lid	
#9	Container label(s) legible and intact?	CYes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No	N	
#11	Containers supplied by ELOT?	Tes	No	· · · · ·	
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	,
#13	Samples property preserved?	Tesh	No	See Below ;	1
#14	Sample bottles intact?	Cress	No.		
#15	Preservations documented on Chain of Custody?	(Yes)	No		1
#16	Containers documented on Chain of Custody?	Tes	No		1
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	1,
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	1
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Corrective Action Taken:

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Contacted by

Check all that Apply:

Contact.

Regarding;

See attached e-mail/ fax Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event

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1

Date/ Time:

Appendix B Photographs

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Dollarhide to Jal 8-Inch Release, Excavation in Progress, facing west



Dollarhide to Jal 8-Inch Release, Excavation Complete, facing east



Dollarhide to Jal 8-Inch Release, Remediation Activities Complete



Dollarhide to Jal 8-Inch Release, Remediation Activities Complete

Appendix C Release Notification and Corrective Action (Form C-141)

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### State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe. NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

		·····	Rele	ease Notific	cation	and Co	rrective A	ction	·····			
					<u>.</u>	<b>OPERA</b>	<b>FOR</b>	$\mathcal{I}$	🛛 Initi	al Report		Final Repor
Name of Co	mpany	Plains Pipel	line, LP	11 1 1117		Contact	Daniel Bryan	nf				
Address Facility Nor	ne	P.O. Box 3	19 – Mic o Ial 8"	lland, TX 7970	12	I elephone I Facility Tyr	NO. (432) 686-1	/09	<u></u>			
					L.'	racinty ryp						
Surface Ow	ner: Georg	ge Willis		Mineral (	Owner		······································		Lease 1	No. 37-0	25 -	11891
		1		LOCA	ATIO	<b>NOF RE</b>	LEASE	1				
Unit Letter I	Section 34	Township 25S	Range 37E	Feet from the	North/	South Line	Feet from the	East/W	est Line	Lca		
			La	titude N 32.08	8428000	Longitud	e W 103.14507	7000				
		1.04		NAT	TURE	OF REL	EASE	T				
Type of Relea	ase Cru lease 8"	de Oil steel pipeline				Date and H	Release 620 bb	ls r	Volume I	Recovered Hour of Dis	570 bb	ols
						06/06/200	<u>14:00</u>		06/06/20	08 15:45		
Was Immedia	ate Notice (	Given? №	Vec [		emirad	If YES, To	Whom?					
By Whom?	Doniel Dru					Date and L	Iour 06/06/2009	9 R 16.20	· · ·			
Was a Water	course Rea	ched?				If YES, Ve	Solume Impacting 1	the Wate	rcourse.			
			Yes 🛛	No					AE		T's	
If a Watercourse was Impacted, Describe Fully.*												
								ل ال	דיוט	<u>201.3</u>		
Describe Cause of Problem and Remedial Action Taken.*												
Internal corr	rosion of a	un 8" pipeline	e caused	a release of crue	de oil. I	H <sub>2</sub> S content	is <10 ppm and	the gra	vity of th	e crude off	IS AT.	4. Depth of
the pipeline	is 20" and	the pressure	e on the l	ine at the time of	of the re	lease was 3	5 - 40 psi. The	through	put of the	line was i	ncreas	ed on the
day of the sj	pill. An av nth	verage volun	ne for the	line was 8,000	obis pe	r month prie	or to 6/6/08. Vo	olumes a	are expect	ted to incre	ase to	120,000
oois per mo	<u></u>								,	X.		
Decerity	Affantad	and Classer	Action T-1									
Describe Are	a Anecied	and Cleanup /	Scuon 18									
Released cri	ude oil flo	wed into a 2-	-track roa	d paralleling th	e pipeli	ne and impa	cted an area tha	it measu	red appro	ox. 25' X 7	65'.	
I hereby certi	fy that the i	information gi	ven above	is true and comp	olete to ti	ne best of my	knowledge and u	inderstan	d that pur	suant to NM	OCD r	ules and
public health	or the envi	ronment. The	acceptance	te of a C-141 rep	ort by the	NMOCD m	arked as "Final R	eport" de	ons for rel oes not rel	eases which ieve the ope	may e rator o	ndanger f liability
should their o	perations h	ave failed to a	adequately	investigate and i	remediate	e contaminati	on that pose a thr	eat to gr	ound wate	r, surface wa	ater, hu	man health
federal, state,	or local lav	ws and/or regu	Ilations.	tance of a C-141	report d	oes not reliev	e the operator of	responsi	bility for c	ompliance v	vith an	y other
	Δ	1				·	OIL CON	SERV	ATION	DIVISIO	DN	
Signature:	pit	act					3		hura	*		
		5				Approved hv	District Supervise					
Printed Name	: Daniel I	Bryant					ENVIRUN	IMENT	AL EN	GINEER		
Title: Enviro	onmental R	/C Specialist				Approval Da	e: 6-11.08	E	Expiration	Date: 8.1	.08	
E-mail Addre	ss: dmbrya	ant@paalp.com	n			Conditions of	Approval:			A	<b>—</b>	
Date: 6/11	108		Phone	(432) 686-1769			FINK C.141 P.		/	Vallached	10	76
Attach Addit	ional Shee	ets If Necess	ary	(15%) 000-1703		- BIRIT					10	•
			-f	COHO	816	4335	51	-				