

30-025-40802

HOBBS OCD

MAR 19 2013

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CHEVRON

WC

Lea County, NM

Porter Brown #1H

VH - Job #32K12121526

Survey: Gyro

SDI Standard Survey Report

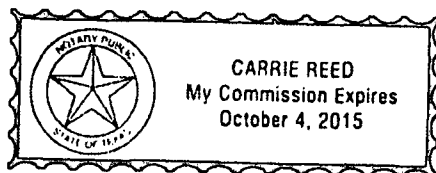
This survey is correct to the best of my knowledge and is supported by actual field data.

[Signature]

Notarized this date 8th of January, 2013.

[Signature]

Notary Signature
County of Midland
State of Texas



APR 02 2013

Scientific Drilling International, Inc.

SDI Standard Survey Report



Company:	CHEVRON	Local Co-ordinate Reference:	Well Porter Brown #1H
Project:	WC	TVD Reference:	WELL @ 0.00usft (Original Well Elev)
Site:	Lea County, NM	MD Reference:	WELL @ 0.00usft (Original Well Elev)
Well:	Porter Brown #1H	North Reference:	Grid
Wellbore:	VH - Job #32K12121526	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K12121526	Database:	EDM-Regulatory

Project	WC		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Lea County, NM				
Site Position:		Northing:	372,701.77 usft	Latitude:	32° 1' 21.256 N
From:	Lat/Long	Easting:	726,210.62 usft	Longitude:	103° 36' 12.380 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.39 °

Well	Porter Brown #1H, Directional (Pathfinder)					
Well Position	+N/-S	0.00 usft	Northing:	372,701.77 usft	Latitude:	32° 1' 21.256 N
	+E/-W	0.00 usft	Easting:	726,210.62 usft	Longitude:	103° 36' 12.380 W
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft	Ground Level:	0.00 usft	

Wellbore	VH - Job #32K12121526				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/18/12	7.40	59.96	48,366

Design	VH - Job #32K12121526				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.00	0.00	0.00	359.56	

Survey Program		Date	01/08/13		
From (usft)	To (usft)	Survey (Wellbore)	Tool/Name	Description	
170.07	12,177.84	Gyro (VH - Job #32K12121526)	Keeper	Keeper Gyro	

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170.07	0.70	45.32	170.07	0.73	0.74	45.32		1.04
261.31	0.78	38.15	261.30	1.80	1.51	43.35		2.20
352.00	0.83	27.49	351.98	2.65	2.18	39.45		3.44
442.69	0.83	12.64	442.66	3.72	2.60	34.88		4.54
539.84	0.49	16.47	539.81	4.64	2.83	31.37		5.44
633.56	0.40	20.02	633.52	5.33	3.06	29.81		6.15
727.28	0.40	21.48	727.24	5.95	3.29	28.94		6.79
821.71	0.21	11.51	821.67	6.42	3.44	28.20		7.29
915.59	0.11	340.32	915.55	6.68	3.45	27.31		7.51
978.38	0.11	325.31	978.34	6.78	3.39	26.57		7.58
1,072.52	0.10	308.03	1,072.48	6.91	3.28	25.38		7.64

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Site:	Lea County, NM	MD Reference::	WELL @ 0.00usft (Original Well Elev)
Well:	Porter Brown #1H	North Reference:	Grid
Wellbore:	VH - Job #32K12121526	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K12121526	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
1,166.66	0.09	328.48	1,166.62	7.02	3.17	24.32	7.70
1,260.58	0.16	94.48	1,260.54	7.07	3.27	24.78	7.79
1,355.18	0.13	163.00	1,355.14	6.96	3.43	26.22	7.76
1,449.51	0.16	115.41	1,449.47	6.80	3.58	27.75	7.69
1,543.84	0.14	131.44	1,543.80	6.67	3.78	29.57	7.67
1,637.65	0.05	269.39	1,637.61	6.59	3.83	30.15	7.62
1,732.21	0.09	215.96	1,732.17	6.53	3.74	29.82	7.53
1,826.11	0.17	178.38	1,826.07	6.33	3.70	30.33	7.34
1,921.09	0.07	6.75	1,921.05	6.25	3.72	30.73	7.27
2,015.33	0.05	2.52	2,015.29	6.35	3.72	30.40	7.38
2,109.18	0.06	154.01	2,109.14	6.34	3.75	30.57	7.37
2,203.03	0.14	166.77	2,202.99	6.19	3.80	31.52	7.26
2,297.58	0.18	138.34	2,297.54	5.97	3.92	33.31	7.14
2,392.03	0.24	125.61	2,391.99	5.74	4.18	36.06	7.10
2,486.60	0.14	176.00	2,486.56	5.51	4.35	38.29	7.02
2,581.17	0.24	212.08	2,581.13	5.23	4.25	39.13	6.74
2,675.74	0.23	219.51	2,675.70	4.91	4.03	39.34	6.35
2,770.25	0.26	210.82	2,770.21	4.58	3.80	39.64	5.95
2,864.76	0.19	106.26	2,864.71	4.35	3.84	41.38	5.80
2,959.38	0.23	90.06	2,959.33	4.31	4.18	44.10	6.00
3,053.95	0.01	231.05	3,053.90	4.30	4.36	45.37	6.13
3,147.88	0.30	180.50	3,147.83	4.05	4.35	47.03	5.95
3,242.20	0.02	59.96	3,242.15	3.81	4.36	48.84	5.80
3,336.68	0.25	53.34	3,336.63	3.95	4.54	49.03	6.02
3,431.16	0.73	68.38	3,431.11	4.29	5.27	50.84	6.79
3,525.71	1.03	52.02	3,525.65	5.03	6.50	52.23	8.22
3,620.26	0.81	25.72	3,620.19	6.16	7.46	50.44	9.67
3,714.81	0.56	12.88	3,714.73	7.21	7.85	47.43	10.66
3,809.25	0.21	74.19	3,809.17	7.71	8.12	46.48	11.20
3,909.84	0.25	76.45	3,909.76	7.81	8.51	47.45	11.55
4,091.79	0.43	78.45	4,091.70	8.04	9.57	49.95	12.50
4,185.76	0.99	54.29	4,185.67	8.59	10.57	50.92	13.62
4,280.19	0.44	12.67	4,280.09	9.42	11.31	50.23	14.72
4,374.49	0.32	41.53	4,374.39	9.97	11.57	49.25	15.27
4,468.79	0.55	79.86	4,468.68	10.24	12.19	48.95	15.92
4,563.48	1.03	96.47	4,563.36	10.23	13.48	52.81	16.92
4,657.80	0.48	41.96	4,657.68	10.42	14.59	54.45	17.93
4,752.29	0.17	308.77	4,752.17	10.81	14.74	53.75	18.28
4,846.89	0.20	229.31	4,846.77	10.79	14.51	53.36	18.08
4,941.34	0.27	216.85	4,941.21	10.50	14.25	53.61	17.70
5,035.79	0.24	195.63	5,035.66	10.13	14.06	54.22	17.33
5,130.83	0.20	147.15	5,130.70	9.80	14.10	55.19	17.17
5,224.72	0.31	154.23	5,224.59	9.44	14.30	56.58	17.13
5,318.61	0.27	131.85	5,318.48	9.06	14.57	58.13	17.16

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Well:	Porter Brown #1H	North Reference:	Grid
Wellbore:	VH - Job #32K12121526	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K12121526	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
5,412.50	0.26	121.42	5,412.37	8.80	14.92	59.46	17.32	
5,507.05	0.35	113.28	5,506.92	8.57	15.37	60.84	17.60	
5,601.60	0.36	120.43	5,601.47	8.31	15.89	62.39	17.93	
5,790.01	0.35	121.30	5,789.87	7.71	16.89	65.46	18.57	
5,884.40	0.32	134.66	5,884.26	7.38	17.32	66.94	18.83	
5,978.60	0.19	153.00	5,978.46	7.05	17.58	68.14	18.94	
6,073.23	0.14	187.07	6,073.09	6.80	17.64	68.92	18.90	
6,167.14	0.11	172.63	6,167.00	6.59	17.64	69.50	18.83	
6,259.74	0.15	186.74	6,259.60	6.39	17.63	70.08	18.75	
6,356.25	0.14	191.48	6,356.11	6.14	17.60	70.75	18.64	
6,450.76	0.09	185.23	6,450.62	5.96	17.57	71.26	18.55	
6,545.27	0.15	232.94	6,545.13	5.81	17.46	71.60	18.40	
6,639.59	0.20	270.74	6,639.45	5.74	17.20	71.55	18.13	
6,733.91	0.23	315.04	6,733.77	5.87	16.90	70.84	17.89	
6,827.86	0.29	333.00	6,827.72	6.22	16.66	69.53	17.78	
6,922.32	0.20	297.30	6,922.18	6.51	16.40	68.36	17.65	
7,017.08	0.20	285.76	7,016.94	6.63	16.10	67.62	17.41	
7,110.90	0.38	253.10	7,110.75	6.58	15.64	67.18	16.97	
7,205.36	0.40	268.42	7,205.21	6.48	15.01	66.65	16.35	
7,299.82	0.55	265.43	7,299.67	6.44	14.23	65.66	15.62	
7,394.14	0.42	251.12	7,393.99	6.29	13.45	64.95	14.85	
7,488.55	0.66	226.14	7,488.39	5.80	12.73	65.51	13.99	
7,582.96	0.87	218.75	7,582.79	4.86	11.89	67.75	12.85	
7,677.51	1.25	211.70	7,677.33	3.43	10.90	72.55	11.43	
7,771.94	1.23	211.21	7,771.74	1.88	9.83	80.29	9.98	
7,866.15	0.70	196.42	7,865.93	0.27	9.15	88.33	9.15	
7,960.54	0.94	198.82	7,960.31	-1.02	8.73	96.66	8.79	
8,055.40	1.87	217.31	8,055.14	-2.99	7.55	111.59	8.12	
8,150.07	2.12	223.68	8,149.76	-5.48	5.40	135.43	7.69	
8,244.74	1.77	216.43	8,244.37	-7.92	3.32	157.25	8.59	
8,339.54	1.50	205.44	8,339.13	-10.22	1.92	169.38	10.40	
8,434.49	1.20	181.90	8,434.06	-12.34	1.35	173.74	12.41	
8,528.07	1.25	148.46	8,528.62	-14.21	1.86	172.54	14.33	
8,623.65	2.58	102.66	8,623.15	-15.55	4.48	163.94	16.19	
8,718.31	1.99	107.40	8,717.73	-16.51	8.12	153.80	18.40	
8,813.20	1.99	125.53	8,812.56	-17.96	11.04	148.43	21.08	
8,907.97	1.87	91.62	8,907.28	-18.96	13.92	143.71	23.52	
9,002.74	1.38	152.35	9,002.02	-20.02	16.00	141.37	25.62	
9,097.15	0.99	170.79	9,096.41	-21.83	16.66	142.66	27.46	
9,191.36	0.81	178.12	9,190.61	-23.30	16.81	144.19	28.73	
9,285.98	1.14	213.72	9,285.22	-24.75	16.31	146.62	29.64	
9,380.08	0.65	208.91	9,379.30	-26.00	15.53	149.15	30.28	
9,474.18	0.73	149.52	9,473.40	-26.98	15.58	150.00	31.15	
9,568.28	1.00	133.93	9,567.49	-28.07	16.47	149.59	32.54	

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SDI Standard Survey Report



Company:	CHEVRON	Local Co-ordinate Reference:	Well Porter Brown #1H
Project:	WC	TVD Reference:	WELL @ 0.00usft (Original Well Elev)
Site:	Lea County, NM	MD Reference:	WELL @ 0.00usft (Original Well Elev)
Well:	Porter Brown #1H	North Reference:	Grid
Wellbore:	VH - Job #32K12121526	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K12121526	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
9,662.87	0.98	120.18	9,662.06	-29.04	17.76	148.55	34.05	
9,757.48	0.66	119.89	9,756.84	-29.72	18.94	147.50	35.24	
9,851.85	0.68	135.65	9,851.03	-30.39	19.80	146.92	36.27	
9,946.24	0.72	159.47	9,945.41	-31.35	20.40	146.95	37.40	
10,024.03	0.83	145.53	10,023.19	-32.27	20.89	147.09	38.44	
10,135.83	0.99	153.05	10,134.98	-33.80	21.78	147.20	40.21	
10,230.36	0.82	155.24	10,229.50	-35.14	22.44	147.44	41.70	
10,323.88	0.74	168.42	10,323.01	-36.34	22.84	147.85	42.92	
10,418.31	0.40	148.31	10,417.44	-37.22	23.14	148.14	43.82	
10,512.50	0.74	137.60	10,511.62	-37.95	23.72	147.99	44.75	
10,606.78	0.67	124.96	10,605.89	-38.71	24.58	147.59	45.86	
10,700.91	0.68	131.78	10,700.02	-39.40	25.45	147.14	46.91	
10,889.61	2.53	150.57	10,888.64	-43.78	28.33	147.09	52.14	
10,983.96	3.09	169.85	10,982.87	-48.09	29.80	148.22	56.58	
11,078.31	3.28	165.53	11,077.08	-53.21	30.92	149.84	61.54	
11,172.44	3.11	158.07	11,171.06	-58.19	32.55	150.78	66.67	
11,266.57	2.50	151.02	11,265.08	-62.35	34.50	151.04	71.26	
11,361.07	2.69	125.16	11,359.49	-65.43	37.31	150.31	75.32	
11,455.29	1.92	118.64	11,453.63	-67.46	40.50	149.02	78.69	
11,549.64	1.61	108.51	11,547.93	-68.64	43.15	147.85	81.07	
11,644.28	1.71	92.39	11,642.53	-69.12	45.82	146.46	82.93	
11,738.92	1.11	74.04	11,737.15	-68.93	48.11	145.08	84.06	
11,833.96	0.96	60.98	11,832.17	-68.29	49.69	143.96	84.45	
11,928.18	0.80	77.94	11,926.38	-67.77	51.03	143.02	84.83	
12,022.40	0.84	87.12	12,020.59	-67.59	52.36	142.24	85.50	
12,114.86	1.18	102.41	12,113.04	-67.77	53.97	141.47	86.63	
12,177.84	1.37	102.96	12,176.00	-68.07	55.33	140.89	87.72	

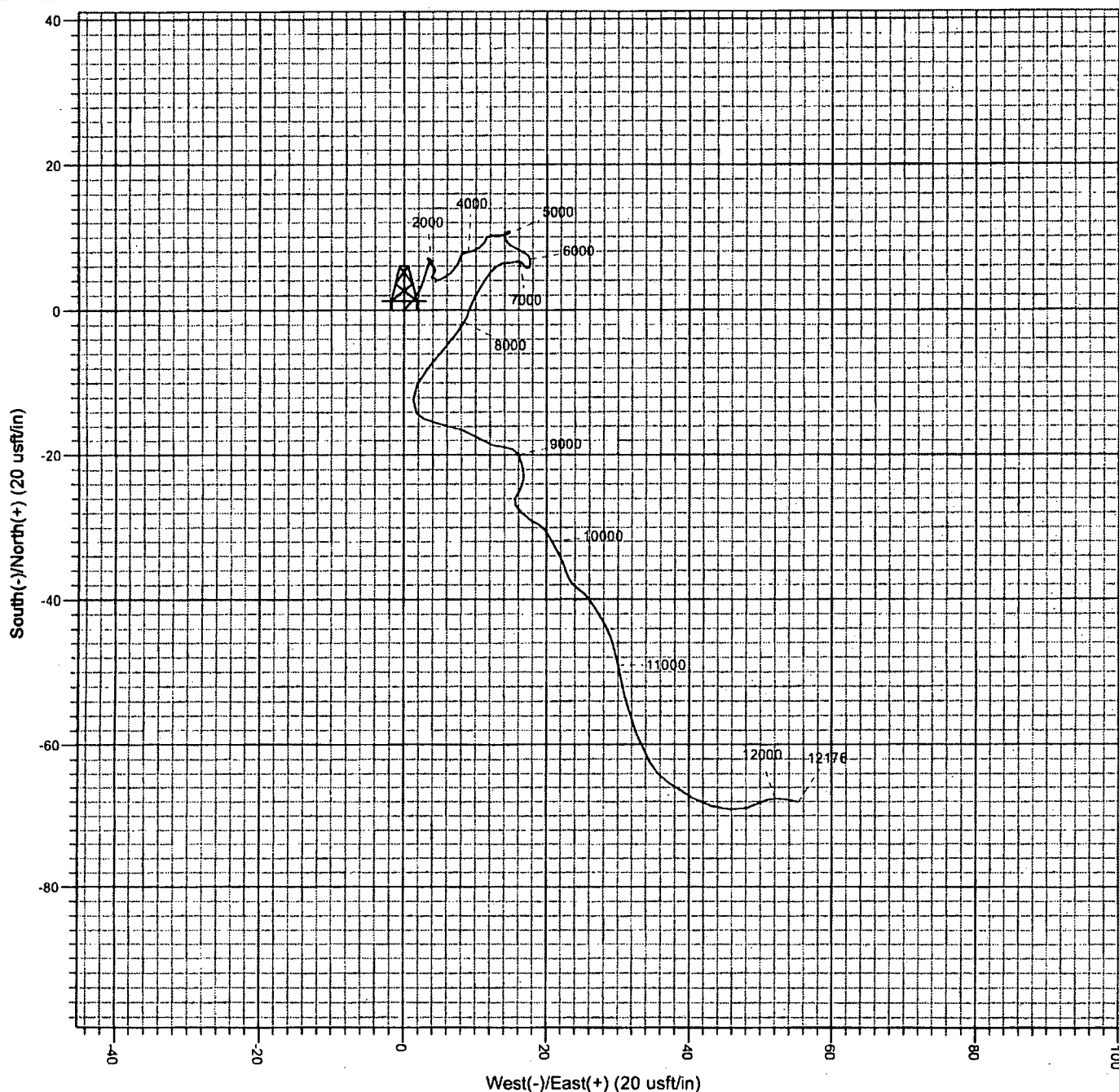


Scientific Drilling

Project: WC
Lea County, NM
Well: Porter Brown #1H
Wellbore: VH - Job #32K12121526
Design: VH - Job #32K12121526

WELL DETAILS: Porter Brown #1H
WELL @ 0.00usft (Original Well Elev)
Ground Level: 0.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	372701.77	726210.62	32° 1' 21.256 N	103° 36' 12.380 W	



PROJECT DETAILS: WC	SITE DETAILS: Lea County, NM
Geodetic System: US State Plane 1927 (Exact solution)	Site Centre Latitude: 32° 1' 21.256 N
Datum: NAD 1927 (NADCON CONUS)	Longitude: 103° 36' 12.380 W
Ellipsoid: Clarke 1866	Positional Uncertainty: 0.00
Zone: New Mexico East 3001	Convergence: 0.39
System Datum: Mean Sea Level	Local North: Grid

30-025-40802

Welcome to
productive drilling

PATHFINDER

A Schlumberger Company

HOBBS OCD

MAR 19 2013

RECEIVED

END OF WELL REPORT

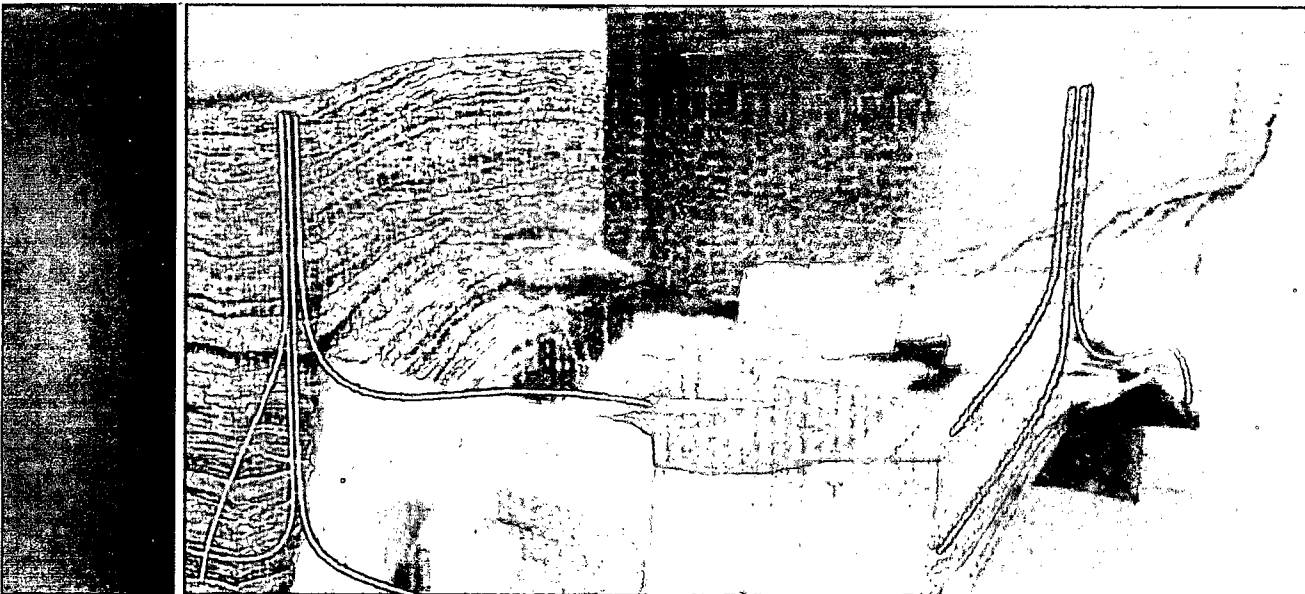
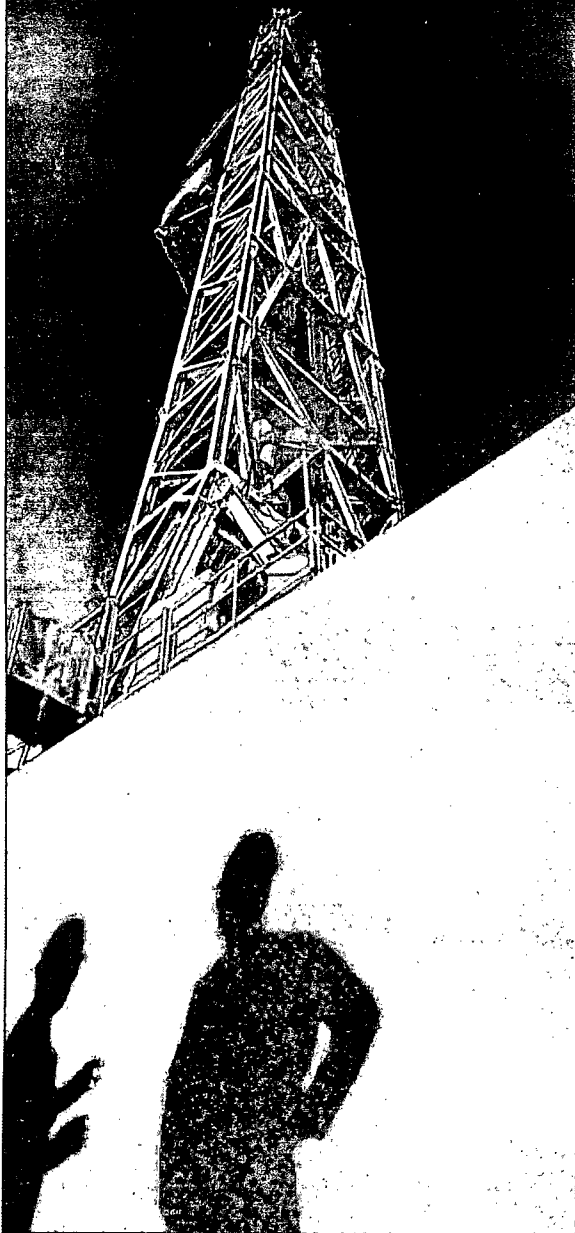
CLIENT - Chevron

RIG NAME - H&P 227

WELL NAME - Porter Brown 1H

FIELD - Lea County, NM

DATE - January 7, 2013





A Schlumberger Company

January 7, 2013

Chevron

Re: Client Chevron
Well Porter Brown 1H
Rig H&P 227
County Lea County, NM

Job# 12MLD0450

Please find enclosed, a copy of the End of Well Report (EOW) provided by our Directional Drilling Services from 12/21/2012 through 1/4/2013. This report consists of color planned vs. actual well drawings, proposed and actual surveys, morning reports, BHAs, and a Pathfinder office support personnel sheet for the above referenced well.

Should your office require further information, please feel free to contact your sales representative, Daniel Munoz or me.

Sincerely,

Matthew Sheffer
Well Planner



A Schlumberger Company

Daniel Munoz

Sales Engineer
3600 Briar Park
Houston, TX 77042
Phone 1 713 689 6026

Ben Leonard

Directional Drilling Coordinator
6213 W. Interstate 20
Midland, TX 79706
Phone 1 432 687 1647

Chad McMillan

MWD - Field Service Manager
6213 West County Road 112
Midland, TX 79706
Phone 1 432 687 1647

Matthew Sheffer

Well Planner
6213 W. Interstate 20
Midland, TX 79706
Phone 1 432 687 1647



A Schlumberger Company

TABLE OF CONTENTS

Definitive Plan and Surveys	Section 1
Plan Vs Actual	Section 2
Daily Reports	Section 3
BHA Reports	Section 4
End of Well Summary	Section 5
Drilling Parameter	Section 6
Key Performance Indicators	Section 7

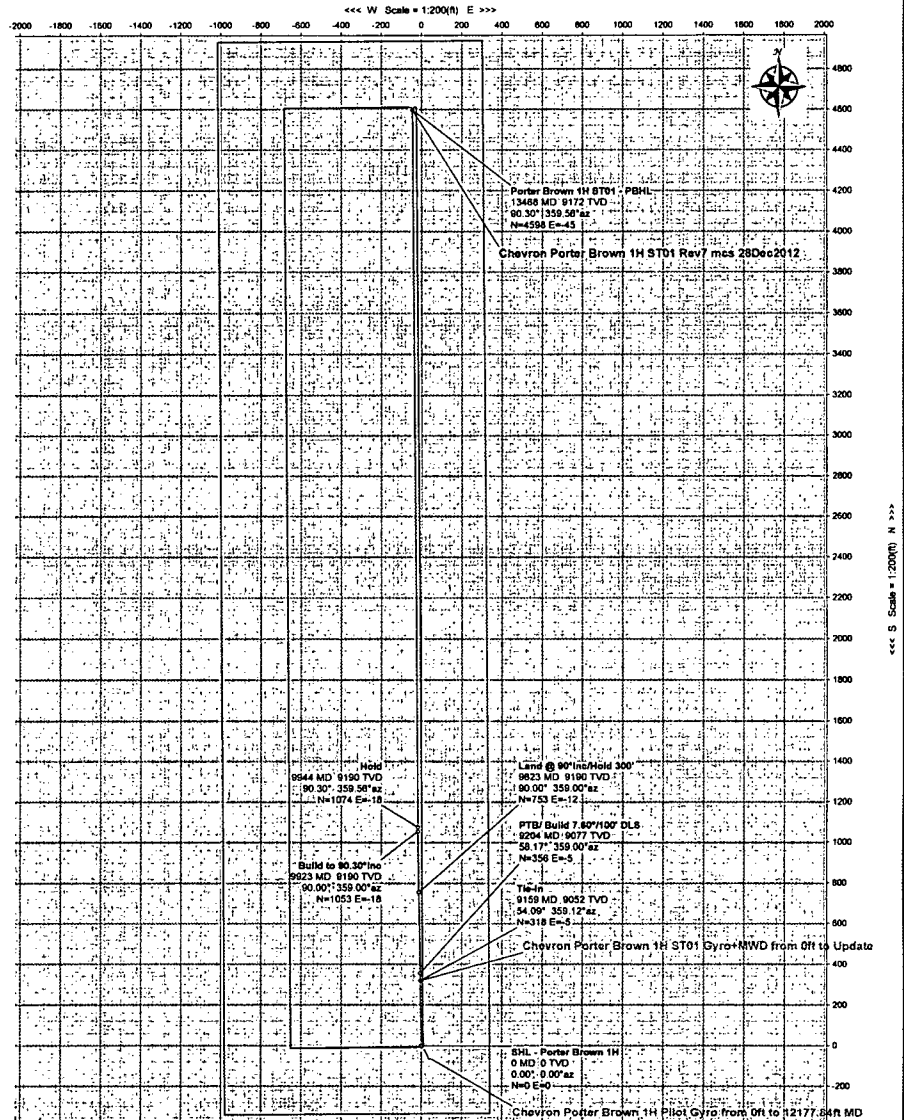
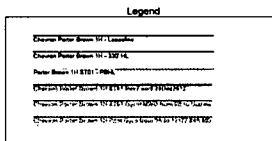
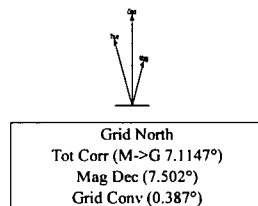


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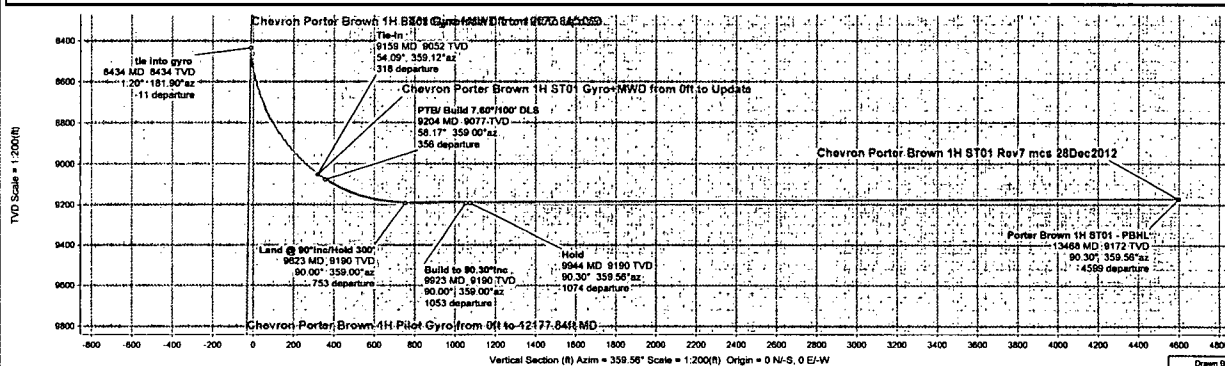
Section 1

Definitive Plan

WTLL				PORTER				FIELD				STRUCTURE			
Porter Brown 1H				Lea County, NM (NAD 27)				H&P 227							
Magnetic Parameters Model: IGRM2012 Dip: 59.913° Day: 3.5622 Date: December 19, 2012 FS: 48324 deg				Surface Location East: 41° 52' 1.21.255 Lon: W 103° 16.12.379 Northing: 724270.70 M Easting: 726210.70 M UTM Zone: 18R Gold Corner: 0.183 Scale Factor: 0.99990770				Miscellaneous Size: Porter Brown 1H Plan: 5701 Rev'n 28/12/2012 TWS Ref: R3N/3228 above 1 New Date: December 19, 2012							



Comments	Critical Points														DLS	Tool Face
	Survey MD	Inc	Azim	TVD	SSTVD	VS	NS	EW	Longitude	Latitude	Easting	Northing				
SHL	0.00	0.00	0.00	0.00	-3228.00	0.00	0.00	0.00	W 103 36 12.379	N 32 1 21.255	726210.70	372701.70		45.32		
Tie-in	9159.00	54.09	359.12	9051.57	5823.57	318.47	318.44	-4.79	W 103 36 12.410	N 32 1 24.406	726205.91	373020.13	9.11	-1.43		
PTB/ Build 7.60°/100' DLS	9204.00	58.17	359.00	9076.64	5848.64	355.82	355.79	-5.40	W 103 36 12.414	N 32 1 24.776	726205.30	373057.48	9.07	0.00		
Land @ 90°Inc/Hold 300'	9622.82	90.00	359.00	9190.01	5962.01	753.41	753.34	-12.34	W 103 36 12.464	N 32 1 28.710	726198.36	373455.01	7.60	0.00		
Build to 90.30°Inc	9922.82	90.00	359.00	9190.01	5962.01	1053.39	1053.29	-17.58	W 103 36 12.501	N 32 1 31.679	726193.12	373754.95	0.00	61.61		
Hold	9943.85	90.30	359.56	9189.96	5961.96	1074.42	1074.32	-17.84	W 103 36 12.502	N 32 1 31.887	726192.66	373775.98	3.00	87.98		
PBHL	13468.14	90.30	359.56	9171.50	5943.50	4598.67	4598.46	-45.10	W 103 36 12.542	N 32 2 6.762	726165.80	377700.00	0.00			



Drawn By	Matthew Sheffer
Date Created	December 28, 2012 02:41:02 PM
Checked By	
Checked Date	
Approved By	
Approved Date	

Chevron Porter Brown 1H ST01 Rev7 mcs 28Dec2012 Proposal Geodetic Report

(Non-Def Plan)



Report Date: December 28, 2012 - 02:39 PM
 Client: Chevron
 Field: NM Les County (NAD 27)
 Structure / Slot: Chevron Porter Brown 1H / Porter Brown 1H
 Well: Chevron Porter Brown 1H
 Borehole: ST01 Lateral
 UWI / API#: H&P 227 / Unknown
 Survey Name: Chevron Porter Brown 1H ST01 Rev7 mcs 28Dec2012
 Survey Date: December 19, 2012
 Tort / AHD / DDI / ERD Ratio: 111.437 * / 4672.315 ft / 5.883 / 0.508
 Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 1' 21.25486", W 103° 36' 12.37942"
 Location Grid N/E Y/X: N 372701.700 ftUS, E 726210.700 ftUS
 CRS Grid Convergence Angle: 0.3870 *
 Grid Scale Factor: 0.9999677

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 359.563 * (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3228.000 ft above
 Seabed / Ground Elevation: 3203.000 ft above
 Magnetic Declination: 7.502 *
 Total Gravity Field Strength: 999.1666 mgn (9.8 based)
 Total Magnetic Field Strength: 48324.622 nT
 Magnetic Dip Angle: 59.913 *
 Declination Date: December 19, 2012
 Magnetic Declination Model: BGGM 2012
 North Reference: Grid North
 Grid Convergence Used: 0.3870 *
 Total Corr Mag North->Grid North: 7.1147 *
 Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100m)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
SHL	0.00	0.00		0.00	0.00	0.00	0.00	N/A	372701.70	726210.70	N 32° 1' 21.25	W 103° 36' 12.38
	100.00	0.41	45.32	100.00	0.25	0.73	0.26	0.41	372701.95	726210.96	N 32° 1' 21.26	W 103° 36' 12.38
	170.07	0.70	45.32	170.07	0.72	0.74	0.41	0.12	372702.43	726211.44	N 32° 1' 21.26	W 103° 36' 12.37
	200.00	0.72	42.84	199.99	0.98	1.00	1.00	0.12	372702.70	726211.70	N 32° 1' 21.26	W 103° 36' 12.37
	261.31	0.76	38.15	261.30	1.59	1.60	1.51	0.12	372703.30	726212.21	N 32° 1' 21.27	W 103° 36' 12.36
	300.00	0.79	33.37	299.98	2.01	2.02	1.81	0.18	372703.72	726212.51	N 32° 1' 21.27	W 103° 36' 12.36
	352.00	0.83	27.49	351.98	2.64	2.65	2.18	0.18	372704.35	726212.88	N 32° 1' 21.28	W 103° 36' 12.35
	400.00	0.72	20.65	399.98	3.22	3.24	2.45	0.30	372704.94	726213.15	N 32° 1' 21.29	W 103° 36' 12.35
	442.69	0.63	12.64	442.66	3.70	3.72	2.60	0.30	372705.42	726213.30	N 32° 1' 21.29	W 103° 36' 12.35
	500.00	0.55	14.66	499.97	4.27	4.30	2.73	0.15	372706.00	726213.43	N 32° 1' 21.30	W 103° 36' 12.35
	539.84	0.49	16.47	539.81	4.62	4.64	2.83	0.15	372706.34	726213.53	N 32° 1' 21.30	W 103° 36' 12.35
	600.00	0.43	18.58	599.97	5.08	5.10	2.98	0.10	372706.80	726213.68	N 32° 1' 21.31	W 103° 36' 12.34
	633.56	0.40	20.02	633.52	5.31	5.33	3.06	0.10	372707.03	726213.76	N 32° 1' 21.31	W 103° 36' 12.34
	700.00	0.40	21.06	699.96	5.74	5.77	3.22	0.01	372707.47	726213.92	N 32° 1' 21.31	W 103° 36' 12.34
	727.28	0.40	21.48	727.24	5.92	5.95	3.29	0.01	372707.65	726213.99	N 32° 1' 21.31	W 103° 36' 12.34
	800.00	0.25	15.12	799.96	6.31	6.34	3.42	0.21	372708.04	726214.12	N 32° 1' 21.32	W 103° 36' 12.34
	821.71	0.21	11.51	821.67	6.40	6.42	3.44	0.21	372708.12	726214.14	N 32° 1' 21.32	W 103° 36' 12.34
	900.00	0.12	348.77	899.96	6.62	6.65	3.46	0.14	372708.35	726214.16	N 32° 1' 21.32	W 103° 36' 12.34
	915.59	0.11	340.32	915.55	6.65	6.68	3.45	0.14	372708.38	726214.15	N 32° 1' 21.32	W 103° 36' 12.34
	978.38	0.11	325.31	978.34	6.76	6.78	3.39	0.05	372708.48	726214.09	N 32° 1' 21.32	W 103° 36' 12.34
	1000.00	0.11	321.65	999.96	6.79	6.82	3.37	0.04	372708.51	726214.07	N 32° 1' 21.32	W 103° 36' 12.34
	1072.52	0.10	308.03	1072.48	6.88	6.91	3.28	0.04	372708.61	726213.98	N 32° 1' 21.32	W 103° 36' 12.34
	1100.00	0.10	313.52	1099.96	6.91	6.94	3.24	0.04	372708.64	726213.94	N 32° 1' 21.32	W 103° 36' 12.34
	1166.66	0.09	328.48	1166.62	7.00	7.02	3.17	0.04	372708.72	726213.87	N 32° 1' 21.32	W 103° 36' 12.34
	1200.00	0.05	30.25	1199.96	7.03	7.06	3.17	0.24	372708.76	726213.87	N 32° 1' 21.32	W 103° 36' 12.34
	1260.58	0.16	94.48	1260.54	7.05	7.07	3.27	0.24	372708.77	726213.97	N 32° 1' 21.32	W 103° 36' 12.34
	1300.00	0.12	118.49	1299.96	7.02	7.05	3.36	0.17	372708.75	726214.06	N 32° 1' 21.32	W 103° 36' 12.34
	1355.18	0.13	163.00	1355.14	6.93	6.96	3.43	0.17	372708.68	726214.13	N 32° 1' 21.32	W 103° 36' 12.34
	1400.00	0.13	137.84	1399.96	6.85	6.87	3.48	0.13	372708.57	726214.18	N 32° 1' 21.32	W 103° 36' 12.34
	1449.51	0.16	115.41	1449.47	6.77	6.80	3.58	0.13	372708.50	726214.28	N 32° 1' 21.32	W 103° 36' 12.34
	1500.00	0.15	123.46	1499.96	6.71	6.74	3.70	0.05	372708.44	726214.40	N 32° 1' 21.32	W 103° 36' 12.34
	1543.84	0.14	131.44	1543.80	6.64	6.67	3.78	0.05	372708.37	726214.48	N 32° 1' 21.32	W 103° 36' 12.33
	1600.00	0.04	161.99	1599.96	6.58	6.60	3.84	0.19	372708.30	726214.54	N 32° 1' 21.32	W 103° 36' 12.33
	1637.65	0.05	269.39	1637.61	6.56	6.59	3.83	0.19	372708.29	726214.53	N 32° 1' 21.32	W 103° 36' 12.33
	1700.00	0.07	227.10	1699.96	6.54	6.57	3.77	0.08	372708.27	726214.47	N 32° 1' 21.32	W 103° 36' 12.34
	1732.21	0.09	215.96	1732.17	6.50	6.53	3.74	0.08	372708.23	726214.44	N 32° 1' 21.32	W 103° 36' 12.34
	1800.00	0.14	184.49	1799.96	6.38	6.40	3.71	0.12	372708.10	726214.32	N 32° 1' 21.32	W 103° 36' 12.34
	1826.11	0.17	178.38	1826.07	6.30	6.33	3.70	0.12	372708.03	726214.40	N 32° 1' 21.32	W 103° 36' 12.34
	1900.00	0.02	24.55	1899.96	6.21	6.23	3.71	0.25	372707.93	726214.41	N 32° 1' 21.32	W 103° 36' 12.34
	1921.09	0.07	6.75	1921.05	6.22	6.25	3.72	0.25	372707.95	726214.42	N 32° 1' 21.32	W 103° 36' 12.34
	2000.00	0.05	3.42	1999.96	6.31	6.33	3.72	0.02	372708.03	726214.42	N 32° 1' 21.32	W 103° 36' 12.34
	2015.33	0.05	2.52	2015.29	6.32	6.35	3.72	0.02	372708.05	726214.42	N 32° 1' 21.32	W 103° 36' 12.34
	2100.00	0.05	151.33	2099.96	6.32	6.35	3.74	0.11	372708.05	726214.44	N 32° 1' 21.32	W 103° 36' 12.34
	2109.18	0.06	154.01	2109.14	6.32	6.34	3.75	0.11	372708.04	726214.45	N 32° 1' 21.32	W 103° 36' 12.34
	2200.00	0.14	166.59	2199.96	6.17	6.20	3.79	0.09	372707.90	726214.49	N 32° 1' 21.32	W 103° 36' 12.33
	2203.03	0.14	166.77	2202.99	6.16	6.19	3.80	0.09	372707.89	726214.49	N 32° 1' 21.32	W 103° 36' 12.33
	2297.58	0.18	138.34	2297.54	5.94	5.97	3.92	0.09	372707.67	726214.62	N 32° 1' 21.31	W 103° 36' 12.33
	2300.00	0.18	137.91	2299.96	5.93	5.96	3.93	0.08	372707.66	726214.63	N 32° 1' 21.31	W 103° 36' 12.33
	2392.03	0.24	125.61	2391.99	5.71	5.74	4.18	0.08	372707.44	726214.88	N 32° 1' 21.31	W 103° 36' 12.33
	2400.00	0.23	127.90	2399.96	5.69	5.72	4.21	0.20	372707.42	726214.91	N 32° 1' 21.31	W 103° 36' 12.33
	2486.60	0.14	176.00	2486.56	5.48	5.51	4.35	0.20	372707.21	726215.05	N 32° 1' 21.31	W 103° 36' 12.33
	2500.00	0.15	183.72	2499.96	5.44	5.48	4.35	0.16	372707.18	726215.05	N 32° 1' 21.31	W 103° 36' 12.33
	2581.17	0.24	212.08	2581.13	5.19	5.23	4.25	0.16	372706.93	726214.95	N 32° 1' 21.31	W 103° 36' 12.33
	2600.00	0.24	213.51	2599.96	5.13	5.16	4.21	0.03	372706.86	726214.91	N 32° 1' 21.31	W 103° 36' 12.33
	2675.74	0.23	219.51	2675.70	4.88	4.91	4.03	0.03	372706.61	726214.73	N 32° 1' 21.30	W 103° 36' 12.33
	2700.00	0.24	217.07	2699.96	4.80	4.83	3.96	0.05	372706.53	726214.66	N 32° 1' 21.30	W 103° 36' 12.33
	2770.25	0.26	210.82	2770.21	4.55	4.58	3.80	0.05	372706.28	726214.49	N 32° 1' 21.30	W 103° 36' 12.33
	2800.00	0.17	191.28	2799.95	4.45	4.48	3.75	0.38	372706.18	726214.45	N 32° 1' 21.30	W 103° 36' 12.34
	2864.76	0.19	106.26	2864.71	4.32	4.35	3.84	0.38	372706.05	726214.54	N 32° 1' 21.30	W 103° 36' 12.33
	2900.00	0.20	99.50	2899.95	4.30	4.33	3.95	0.08	372706.03	726214.65	N 32° 1' 21.30	W 103° 36' 12.33
	2959.38	0.23	90.06	2959.33	4.28	4.31	4.18	0.08	372706.01	726214.88	N 32° 1' 21.30	W 103° 36' 12.33
	3000.00	0.13	91.27	2999.95	4.27	4.31	4.30	0.25	372706.01	726215.00	N 32° 1' 21.30	W 103° 36' 12.33
	3053.95	0.01	231.05	3053.90	4.27	4.30	4.36	0.25	372706.00	726215.06	N 32° 1' 21.30	W 103° 36' 12.33
	3100.00	0.15	182.00	3099.95	4.21	4.24	4.35	0.31	372705.94	726215.05	N 32° 1' 21.30	W 103° 36' 12.33
	3147.88	0.30	180.50	3147.83	4.02	4.05	4.35	0.31	372705.75	726215.05	N 32° 1' 21.29	W 103° 36' 12.33

Comments	MD (ft)	Incl (°)	Azin Grad (ft)	TWD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ft)	Easting (ft)	Latitude (N+/-)	Longitude (E+/-)
	3200.00	0.13	176.27	3199.58	3.82	3.86	4.35	0.33	372705.56	726515.05	N 32	121.28 W 103.56 12.33
	3242.20	0.02	59.96	3242.15	3.78	3.87	4.36	0.33	372706.51	726515.06	N 32	121.28 W 103.56 12.33
	3300.00	0.16	53.66	3299.55	3.83	3.87	4.44	0.24	372705.57	726515.14	N 32	121.28 W 103.56 12.33
	3336.68	0.25	53.34	3336.63	3.91	3.95	4.54	0.24	372705.64	726515.14	N 32	121.28 W 103.56 12.33
	3400.00	0.57	66.23	3399.86	4.12	4.15	4.84	0.52	372705.65	726515.64	N 32	121.30 W 103.56 12.32
	3431.16	0.73	68.38	3431.11	4.25	4.29	5.27	0.52	372705.99	726515.97	N 32	121.30 W 103.56 12.32
	3500.00	0.94	55.42	3469.94	4.73	4.77	6.14	0.41	372706.47	726516.84	N 32	121.30 W 103.56 12.30
	3525.71	1.03	52.02	3525.65	4.89	5.03	6.50	0.41	372706.73	726517.42	N 32	121.31 W 103.56 12.28
	3600.00	0.84	32.41	3569.93	5.85	5.91	7.32	0.50	372707.86	726518.02	N 32	121.31 W 103.56 12.27
	3620.26	0.81	25.72	3620.19	6.10	6.16	7.46	0.50	372707.86	726518.16	N 32	121.32 W 103.56 12.28
	3700.00	0.60	15.59	3699.92	7.01	7.07	7.81	0.31	372708.77	726518.51	N 32	121.32 W 103.56 12.29
	3714.81	0.56	12.88	3714.73	7.15	7.21	7.85	0.31	372708.91	726518.55	N 32	121.33 W 103.56 12.28
	3800.00	0.22	61.62	3739.92	7.53	7.70	8.08	0.52	372709.40	726518.79	N 32	121.33 W 103.56 12.28
	3809.25	0.21	74.19	3808.17	7.55	7.71	8.52	0.52	372709.41	726518.82	N 32	121.33 W 103.56 12.28
	3800.00	0.25	76.26	3899.92	7.74	7.80	8.47	0.04	372709.50	726518.17	N 32	121.33 W 103.56 12.28
	3909.84	0.25	76.45	3909.76	7.75	7.81	8.51	0.04	372709.51	726519.21	N 32	121.33 W 103.56 12.28
	4000.00	0.34	77.71	3999.92	7.85	7.91	8.96	0.10	372709.61	726519.66	N 32	121.33 W 103.56 12.27
	4081.79	0.43	78.45	4081.70	7.97	8.04	8.97	0.10	372709.74	726520.28	N 32	121.33 W 103.56 12.27
	4100.00	0.47	74.15	4099.91	7.98	8.06	9.63	0.66	372709.76	726522.27	N 32	121.35 W 103.56 12.24
	4185.76	0.99	54.29	4185.67	8.50	8.58	10.57	0.66	372711.76	726522.38	N 32	121.35 W 103.56 12.24
	4200.00	0.89	51.46	4199.90	8.64	8.73	10.76	0.77	372710.43	726521.46	N 32	121.34 W 103.56 12.25
	4280.19	0.44	12.67	4280.09	9.33	9.42	11.31	0.77	372711.11	726522.01	N 32	121.35 W 103.56 12.25
	4300.00	0.41	17.23	4299.90	9.47	9.56	11.35	0.24	372711.11	726522.05	N 32	121.35 W 103.56 12.25
	4374.49	0.32	41.53	4374.39	9.88	9.97	11.57	0.24	372711.67	726522.27	N 32	121.35 W 103.56 12.24
	4400.00	0.36	56.29	4399.90	9.97	10.06	11.88	0.38	372711.76	726522.38	N 32	121.35 W 103.56 12.24
	4468.79	0.55	79.86	4468.68	10.15	10.24	12.19	0.38	372711.94	726522.89	N 32	121.36 W 103.56 12.24
	4500.00	0.70	87.82	4499.89	10.18	10.28	12.52	0.56	372711.86	726522.01	N 32	121.36 W 103.56 12.25
	4563.48	1.03	96.47	4563.36	10.12	10.23	13.48	0.56	372711.93	726524.18	N 32	121.36 W 103.56 12.22
	4600.00	0.75	84.90	4599.88	10.10	10.21	14.04	0.90	372711.91	726524.74	N 32	121.35 W 103.56 12.22
	4657.80	0.48	41.96	4657.68	10.31	10.42	14.59	0.90	372712.12	726525.29	N 32	121.36 W 103.56 12.21
	4700.00	0.27	25.79	4699.88	10.53	10.65	14.75	0.55	372712.35	726525.45	N 32	121.36 W 103.56 12.21
	4732.28	0.17	308.77	4732.17	10.69	10.81	14.74	0.55	372712.51	726522.01	N 32	121.36 W 103.56 12.21
	4800.00	0.14	284.78	4799.88	10.73	10.85	14.63	0.25	372712.55	726524.18	N 32	121.36 W 103.56 12.22
	4846.89	0.20	4846.77	4846.77	10.88	10.79	14.51	0.25	372712.44	726524.74	N 32	121.35 W 103.56 12.22
	4900.00	0.24	221.40	4899.88	10.53	10.64	14.36	0.09	372712.39	726525.06	N 32	121.36 W 103.56 12.21
	4941.34	0.27	216.85	4941.21	10.39	10.50	14.25	0.09	372712.20	726524.96	N 32	121.36 W 103.56 12.21
	5000.00	0.25	204.24	4999.87	10.17	10.28	14.11	0.10	372711.88	726524.61	N 32	121.36 W 103.56 12.21
	5055.79	0.24	195.63	5055.66	10.03	10.13	14.06	0.10	372711.93	726524.76	N 32	121.35 W 103.56 12.22
	5100.00	0.20	164.49	5099.87	9.79	9.90	14.05	0.19	372711.50	726524.80	N 32	121.35 W 103.56 12.21
	5130.83	0.20	147.15	5130.70	9.69	9.80	14.10	0.19	372711.50	726524.80	N 32	121.35 W 103.56 12.21
	5200.00	0.28	152.91	5199.87	9.44	9.55	14.24	0.12	372711.25	726524.94	N 32	121.35 W 103.56 12.21
	5224.72	0.37	154.23	5224.59	9.33	9.44	14.30	0.12	372711.14	726525.02	N 32	121.35 W 103.56 12.21
	5300.00	0.21	136.74	5299.87	9.01	9.12	14.51	0.13	372710.82	726525.21	N 32	121.34 W 103.56 12.21
	5318.61	0.27	131.85	5318.48	8.85	9.06	14.57	0.13	372710.76	726525.27	N 32	121.34 W 103.56 12.21
	5400.00	0.26	122.85	5399.87	8.72	8.83	14.87	0.05	372710.53	726525.57	N 32	121.34 W 103.56 12.21
	5412.50	0.26	121.42	5412.37	8.69	8.80	14.92	0.05	372710.50	726525.62	N 32	121.34 W 103.56 12.21
	5500.00	0.34	113.74	5499.87	8.59	8.70	15.33	0.11	372710.29	726526.03	N 32	121.34 W 103.56 12.20
	5507.05	0.35	113.28	5506.92	8.46	8.57	15.37	0.11	372710.27	726526.07	N 32	121.34 W 103.56 12.20
	5600.00	0.36	120.31	5599.87	8.19	8.32	15.88	0.05	372710.01	726526.59	N 32	121.34 W 103.56 12.19
	5601.60	0.36	120.43	5601.47	8.19	8.31	15.89	0.05	372710.01	726526.59	N 32	121.34 W 103.56 12.19
	5700.00	0.35	120.88	5699.87	7.87	8.00	16.42	0.01	372709.70	726527.12	N 32	121.33 W 103.56 12.19
	5790.01	0.35	121.30	5789.87	7.58	7.71	16.89	0.01	372709.41	726527.59	N 32	121.33 W 103.56 12.18
	5800.00	0.35	122.60	5799.86	7.55	7.68	16.94	0.09	372709.38	726527.64	N 32	121.33 W 103.56 12.17
	5884.40	0.32	134.66	5884.26	7.24	7.38	17.32	0.09	372709.02	726528.02	N 32	121.33 W 103.56 12.18
	5900.00	0.30	136.57	5899.86	7.18	7.32	17.38	0.16	372709.02	726528.08	N 32	121.33 W 103.56 12.18
	5978.60	0.19	153.00	5978.46	6.92	7.05	17.58	0.16	372708.75	726528.28	N 32	121.32 W 103.56 12.17
	6000.00	0.17	158.84	5999.86	6.86	6.99	17.61	0.16	372708.69	726528.31	N 32	121.32 W 103.56 12.17
	6073.23	0.14	187.07	6073.09	6.65	6.80	17.64	0.11	372708.50	726528.34	N 32	121.32 W 103.56 12.17
	6100.00	0.13	183.64	6099.86	6.80	6.73	17.63	0.05	372708.45	726528.33	N 32	121.32 W 103.56 12.17
	6167.14	0.11	172.63	6167.00	6.46	6.59	17.64	0.05	372708.29	726528.34	N 32	121.32 W 103.56 12.17
	6200.00	0.12	178.67	6199.86	6.39	6.53	17.64	0.06	372708.23	726528.34	N 32	121.32 W 103.56 12.17
	6259.74	0.15	186.74	6259.60	6.25	6.39	17.63	0.06	372708.09	726528.33	N 32	121.32 W 103.56 12.17
	6300.00	0.15	188.64	6299.86	6.15	6.28	17.62	0.02	372707.98	726528.28	N 32	121.32 W 103.56 12.17
	6356.25	0.14	191.49	6356.11	6.01	6.14	17.60	0.02	372707.84	726528.28	N 32	121.31 W 103.56 12.17
	6400.00	0.12	189.25	6399.86	5.91	6.05	17.58	0.05	372707.75	726528.28	N 32	121.31 W 103.56 12.17
	6450.75	0.09	185.23	6450.62	5.82	5.96	17.57	0.05	372707.66	726528.27	N 32	121.31 W 103.56 12.17
	6500.00	0.11	216.37	6499.86	5.75	5.88	17.53	0.12	372707.58	726528.25	N 32	121.31 W 103.56 12.18
	6545.27	0.15	232.94	6545.13	5.88	5.81	17.46	0.12	372707.51	726528.16	N 32	121.31 W 103.56 12.18
	6600.00	0.17	257.54	6599.86	5.82	5.75	17.32	0.13	372707.44	726528.16	N 32	121.31 W 103.56 12.18
	6639.59	0.20	270.74	6639.45	5.61	5.74	17.20	0.13	372707.45	726527.90	N 32	121.31 W 103.56 12.18
	6700.00	0.21	300.96	6699.86	5.66	5.79	17.00	0.17	372707.49	726527.17	N 32	121.32 W 103.56 12.19
	6733.91	0.23	315.04	6733.77	5.74	5.87	16.90	0.17	372707.57	726527.60	N 32	121.31 W 103.56 12.18
	6800.00	0.27	328.53	6799.86	5.87	6.10	16.80	0.11	372707.82	726527.42	N 32	121.31 W 103.56 12.18
	6827.86	0.29	333.00	6827.72	6.09	6.22	16.66	0.11	372707.96	726527.36	N 32	121.32 W 103.56 12.19
	6900.00	0.21	308.16	6899.86	6.34	6.46	16.47	0.18	372708.16	726527.17	N 32	121.32 W 103.56 12.19
	6922.32	0.20	287.30	6922.18	6.38	6.51	16.40	0.18	372708.21	726527.10	N 32	121.32 W 103.56 12.19
	7000.00	0.20	287.63	6999.86	6.30	6.61	16.15	0.04	372708.31	726526.85	N 32	121.32 W 103.56 12.19
	7017.08	0.20	285.76	7016.94	6.50	6.63	16.10	0.04	372708.33	726526.80	N 32	121.32 W 103.56 12.19
	7100.00	0.36	255.12	7099.86	6.46	6.60	15.71	0.25	372708.30	726526.34	N 32	121.32 W 103.56 12.20
	7110.90	0.38	253.10	7110.75	6.46	6.58	15.64	0.25	372708.28	726526.34	N 32	121.32 W 103.56 12.20
	7200.00	0.40	267.60	7199.85	6.37	6.48	15.05	0.11	372708.18	726525.75	N 32	121.32 W 103.56 12.20

Comments	MD	Incl	Azim Grid	TVD	VSEC	NS	EW	DLS	Northing	Easting	Latitude	Longitude
(ft)	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft/100ft)	(ftUS)	(ftUS)	(N/S...)	(E/W...)
le info gyro	7677.51	1.25	211.70	7697.33	3.34	3.43	10.90	0.42	372705.13	726221.60	N 32	1 21.29 W 103 36 12.25
	7700.00	1.25	211.58	7699.81	2.93	3.01	10.64	0.02	372704.71	726220.53	N 32	1 21.28 W 103 36 12.25
	7771.94	1.23	211.21	7771.74	1.61	1.68	9.83	0.02	372703.38	726220.53	N 32	1 21.27 W 103 36 12.25
	7800.00	1.07	208.35	7799.79	1.12	1.20	9.55	0.62	372702.90	726220.25	N 32	1 21.27 W 103 36 12.27
	7866.15	0.70	196.42	7865.93	0.20	0.27	9.15	0.62	372701.97	726219.85	N 32	1 21.26 W 103 36 12.27
	7900.00	0.79	197.45	7899.78	-0.22	-0.15	9.02	0.26	372701.55	726219.72	N 32	1 21.25 W 103 36 12.27
	7960.54	0.94	198.82	7960.31	-1.09	-1.02	8.73	0.45	372699.22	726218.42	N 32	1 21.24 W 103 36 12.28
	8000.00	1.31	209.67	7999.76	-1.78	-1.72	8.41	1.08	372698.98	726218.32	N 32	1 21.23 W 103 36 12.28
	8055.40	1.87	217.31	8055.14	-3.04	-2.99	7.55	1.08	372698.71	726218.25	N 32	1 21.22 W 103 36 12.29
	8100.00	1.98	220.51	8099.72	-4.20	-4.15	6.60	0.35	372697.55	726217.30	N 32	1 21.21 W 103 36 12.30
SHL	8150.07	2.12	223.68	8149.76	-5.32	-5.48	5.40	0.35	372696.22	726216.10	N 32	1 21.20 W 103 36 12.32
	8200.00	1.93	220.18	8199.66	-6.82	-6.79	4.22	0.66	372694.78	726214.32	N 32	1 21.18 W 103 36 12.33
	8244.74	1.77	216.43	8244.37	-7.95	-7.92	3.32	0.45	372693.78	726213.12	N 32	1 21.17 W 103 36 12.37
	8300.00	1.61	210.47	8299.61	-9.30	-9.28	2.42	0.44	372692.91	726212.62	N 32	1 21.16 W 103 36 12.35
	8339.54	1.50	205.44	8339.13	-10.24	-10.22	1.92	0.44	372691.48	726212.62	N 32	1 21.15 W 103 36 12.36
	8400.00	1.28	191.67	8399.57	-11.61	-11.60	1.44	0.66	372690.46	726211.51	N 32	1 21.54 W 103 36 12.37
	8434.49	1.20	181.90	8434.06	-12.35	-12.34	1.35	0.66	372689.10	726211.43	N 32	1 21.13 W 103 36 12.38
	8469.00	7.41	357.44	8468.41	-8.86	-8.85	1.14	13.34	372689.85	726211.84	N 32	1 21.17 W 103 36 12.37
	8500.00	7.53	357.47	8499.40	-8.73	-8.72	1.14	11.71	372692.98	726211.84	N 32	1 21.17 W 103 36 12.37
	8530.00	11.04	358.07	8529.01	-3.89	-3.89	0.96	11.71	372697.81	726211.66	N 32	1 21.22 W 103 36 12.37
Tie-in	8562.00	12.96	358.65	8560.30	2.76	2.76	0.77	6.01	372704.46	726211.47	N 32	1 21.28 W 103 36 12.37
	8593.00	14.91	358.38	8590.39	10.22	10.23	0.64	6.32	372711.93	726211.34	N 32	1 21.56 W 103 36 12.37
	8600.00	15.35	358.42	8597.15	12.05	12.05	0.62	6.22	372715.75	726211.32	N 32	1 21.57 W 103 36 12.37
	8625.00	16.90	359.54	8621.16	18.99	19.00	0.56	6.22	372720.70	726211.26	N 32	1 21.44 W 103 36 12.37
	8656.00	18.22	359.94	8650.72	28.34	28.35	0.63	4.56	372730.05	726211.33	N 32	1 21.54 W 103 36 12.37
	8688.00	20.17	0.58	8680.94	38.96	38.87	0.79	6.13	372740.57	726211.49	N 32	1 21.64 W 103 36 12.37
	8700.00	20.58	0.51	8692.17	43.08	43.08	0.83	6.78	372744.78	726211.53	N 32	1 21.68 W 103 36 12.37
	8719.00	22.27	0.42	8709.84	50.08	50.09	0.89	6.78	372751.78	726211.59	N 32	1 21.75 W 103 36 12.37
	8750.00	24.26	359.99	8738.31	62.32	62.33	0.93	6.44	372764.03	726211.63	N 32	1 21.87 W 103 36 12.36
	8782.00	26.79	359.06	8767.19	76.11	76.12	0.81	8.00	372777.81	726211.51	N 32	1 22.01 W 103 36 12.36
PT/B Build 7.607/100' DLS	8800.00	28.30	358.68	8783.15	84.73	84.44	0.64	8.44	372786.14	726211.34	N 32	1 22.09 W 103 36 12.37
	8813.00	29.39	358.42	8794.53	90.40	90.71	0.48	8.44	372792.14	726211.18	N 32	1 22.15 W 103 36 12.37
	8845.00	31.72	358.10	8822.09	106.96	106.97	-0.01	7.30	372808.66	726210.99	N 32	1 22.31 W 103 36 12.37
	8876.00	34.08	358.13	8848.11	123.80	123.80	-0.57	7.61	372822.09	726210.52	N 32	1 22.48 W 103 36 12.38
	8900.00	35.50	357.88	8867.82	137.49	137.48	-1.04	5.97	372839.18	726209.66	N 32	1 22.62 W 103 36 12.38
	8939.00	35.98	357.60	8874.32	142.16	142.15	-1.22	5.97	372846.85	726209.48	N 32	1 22.65 W 103 36 12.38
	8971.00	40.65	357.76	8893.06	160.82	160.81	-1.94	6.90	372862.51	726208.76	N 32	1 22.86 W 103 36 12.39
	9000.00	42.77	358.85	8923.79	181.12	181.10	-2.67	7.94	372888.80	726208.03	N 32	1 23.05 W 103 36 12.40
	9020.00	42.92	358.90	8946.90	201.77	201.75	-3.19	7.50	372902.09	726207.59	N 32	1 23.24 W 103 36 12.40
	9064.00	51.29	358.67	9032.78	293.82	293.79	-4.32	7.66	372995.48	726206.38	N 32	1 24.16 W 103 36 12.41
Land @ 90°inchoid 300'	9004.00	54.09	358.83	9012.93	270.01	269.98	-4.00	6.78	372971.67	726206.70	N 32	1 23.93 W 103 36 12.40
	9100.00	65.47	359.00	9076.64	440.38	440.34	-6.88	7.60	373144.03	726203.19	N 32	1 25.61 W 103 36 12.44
	9128.00	73.07	359.00	9121.95	533.83	533.78	-8.51	7.60	373235.46	726202.92	N 32	1 26.54 W 103 36 12.44
	9159.00	80.67	359.12	9051.57	318.47	318.44	-4.79	9.11	373020.13	726205.91	N 32	1 24.41 W 103 36 12.41
	9200.00	87.81	358.01	9074.82	352.43	352.40	-5.35	9.07	373045.01	726205.35	N 32	1 24.74 W 103 36 12.41
	9204.00	58.17	359.00	9076.64	355.82	355.79	-5.40	9.07	373057.48	726205.30	N 32	1 24.78 W 103 36 12.41
	9300.00	65.47	359.00	9121.95	440.38	440.34	-6.88	7.60	373142.03	726203.82	N 32	1 25.61 W 103 36 12.44
	9400.00	73.07	359.00	9157.32	533.83	533.78	-8.51	7.60	373235.46	726202.91	N 32	1 26.54 W 103 36 12.44
	9500.00	80.67	359.00	9180.03	631.14	631.08	-10.21	7.60	373332.76	726200.49	N 32	1 27.50 W 103 36 12.45
	9600.00	88.27	358.00	9189.67	730.60	730.53	-11.95	7.60	373433.20	726198.75	N 32	1 28.48 W 103 36 12.46
Build to 90.30°inc Head	9600.00	90.00	359.00	9190.01	753.41	753.34	-12.34	7.60	373455.01	726198.36	N 32	1 28.71 W 103 36 12.47
	9692.82	90.00	359.00	9190.01	830.59	830.51	-13.69	0.00	373532.18	726197.01	N 32	1 29.47 W 103 36 12.47
	9700.00	90.00	359.00	9190.01	930.58	930.49	-15.44	0.00	373632.16	726195.26	N 32	1 30.46 W 103 36 12.49
	9800.00	90.00	359.00	9190.01	1030.58	1030.48	-17.18	0.00	373732.14	726193.52	N 32	1 31.45 W 103 36 12.50
	9900.00	90.00	359.00	9185.47	1053.39	1053.29	-17.58	0.00	373739.15	726193.12	N 32	1 31.68 W 103 36 12.51
	9922.82	90.00	359.56	9184.96	1074.42	1074.32	-17.84	3.00	373757.88	726192.86	N 32	1 31.89 W 103 36 12.50
	9943.85	90.00	359.56	9184.43	1130.56	1130.47	-18.28	0.00	373832.13	726192.42	N 32	1 32.44 W 103 36 12.51
	10000.00	90.00	359.56	9189.66	1230.57	1230.47	-19.06	0.00	373932.12	726191.64	N 32	1 33.43 W 103 36 12.50
	10100.00	90.00	359.56	9189.14	1330.57	1330.46	-19.83	0.00	374032.12	726190.87	N 32	1 34.42 W 103 36 12.51
	10200.00	90.00	359.56	9188.62	1430.57	1430.46	-20.61	0.00	374132.11	726189.99	N 32	1 35.41 W 103 36 12.51
11700.00	10300.00	90.00	359.56	9188.09	1530.57	1530.45	-21.39	0.00	374232.10	726188.54	N 32	1 36.40 W 103 36 12.51
	10400.00	90.00	359.56	9187.57	1630.57	1630.45	-22.16	0.00	374332.09	726186.54	N 32	1 37.39 W 103 36 12.51
	10500.00	90.00	359.56	9187.05	1730.57	1730.44	-22.94	0.00	374432.08	726184.59	N 32	1 38.38 W 103 36 12.51
	10600.00	90.00	359.56	9186.52	1830.57	1830.44	-23.71	0.00	374532.08	726182.59	N 32	1 39.37 W 103 36 12.51
	10700.00	90.00	359.56	9186.00	1930.43	1930.43	-24.49	0.00	374632.07	726180.61	N 32	1 40.36 W 103 36 12.51
	10800.00	90.00	359.56	9185.47	2030.56	2030.43	-25.26	0.00	374732.06	726178.64	N 32	1 41.35 W 103 36 12.51
	10900.00	90.00	359.56	9184.95	2130.56	2130.43	-26.04	0.00	374832.05	726176.66	N 32	1 42.34 W 103 36 12.5

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS ("/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	12900.00	90.30	359.56	9174.48	4030.54	4030.34	-40.72	0.00	376731.90	726169.98	N 32 2 1.14	W 103 36 12.54
	13000.00	90.30	359.56	9173.95	4130.53	4130.34	-41.49	0.00	376831.90	726169.21	N 32 2 2.13	W 103 36 12.54
	13100.00	90.30	359.56	9173.43	4230.53	4230.33	-42.26	0.00	376931.89	726168.44	N 32 2 3.12	W 103 36 12.54
	13200.00	90.30	359.56	9172.90	4330.53	4330.33	-43.04	0.00	377031.88	726167.67	N 32 2 4.11	W 103 36 12.54
	13300.00	90.30	359.56	9172.38	4430.53	4430.33	-43.81	0.00	377131.87	726166.90	N 32 2 5.10	W 103 36 12.54
	13400.00	90.30	359.56	9171.86	4530.53	4530.32	-44.58	0.00	377231.87	726166.13	N 32 2 6.09	W 103 36 12.54
Porter Brown 1H ST01 - PBHL	13468.14	90.30	359.56	9171.50	4598.67	4598.46	-45.10	0.00	377300.00	726165.60	N 32 2 6.76	W 103 36 12.54

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	25.000	Act Stns	30.000	30.000	SLB_NSG+MSHOT-Depth Only	ST01 Lateral / Chevron Porter Brown 1H ST01 Gyro+MWD from Dlt to Update
	25.000	9159.000	Act Stns	30.000	30.000	SLB_NSG+MSHOT	ST01 Lateral / Chevron Porter Brown 1H ST01 Gyro+MWD
	9159.000	13468.140	1/100.000	30.000	30.000	SLB_NSG+MSHOT	ST01 Lateral / Chevron Porter Brown 1H ST01 Rev7 mcs



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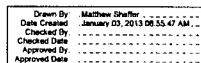
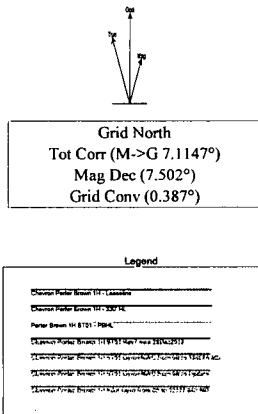
Section 2

Plan vs Actual



PATHFINDER
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Magnetic Parameters				Surface Location				NAD27 New Mexico State Plane, Tatters Zone, US Feet				Miscellaneous			
Model	BGGM 2012	Dip	59.913°	Date	December 19, 2012	Lat	N 32 1 21.255	Northing	572791.70 0L75	Grid Conv.	0.187°	Slot	Preter Brown III	TVD Ref.	KK(012280 above)
		Mag Dec.	7.502°	YS	4832.0mT	Long	W 103 36 12.170	Easting	726210.70 0L75	Scale Factor	0.99996770	Plan	ST01 Rev7.mxd 28Dec2012	Srvy Date	December 19, 2012





Chevron Porter Brown 1H ST01 Gyro+MWD from 0ft to 13468ft MD Survey
Geodetic Report
(Def Survey)



Report Date: January 03, 2013 - 08:51 AM
Client: Chevron
Field: NM Lea County (NAD 27)
Structure / Slot: Chevron Porter Brown 1H / Porter Brown 1H
Well: ST01 Lateral
Borehole: H&P 227 / Unknown
Survey Name: Chevron Porter Brown 1H ST01 Gyro+MWD from 0ft to 13468ft MD
Survey Date: December 19, 2012
Tort / AHD / DDI / ERD Ratio: 138.881 * / 4673.312 ft / 5.978 / 0.508
Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 1' 21.25486", W 103° 36' 12.37942"
Location Grid N/E Y/X: N 372701.700 RUS, E 726210.700 RUS
CRS Grid Convergence Angle: 0.3870 *
Grid Scale Factor: 0.9999677

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 359.563 * (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3228.000 ft above
Seabed / Ground Elevation: 3203.000 ft above
Magnetic Declination: 7.502 *
Total Gravity Field Strength: 999.1666 mgn (9.8 based)
Total Magnetic Field Strength: 48324.622 nT
Magnetic Dip Angle: 59.913 *
Declination Date: December 19, 2012
Magnetic Declination Model: BGGM 2012
North Reference: Grid North
Grid Convergence Used: 0.3870 *
Total Corr Mag North->Grid North: 7.1147 *
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	372701.70	726210.70	N 32	121.25 W 103 36 12.38
	170.07	0.70	45.32	170.07	0.72	0.73	0.74	0.41	372702.43	726211.44	N 32	121.26 W 103 36 12.37
	261.31	0.76	38.15	261.30	1.59	1.60	1.51	0.12	372703.30	726212.21	N 32	121.27 W 103 36 12.36
	352.00	0.83	27.49	351.98	2.64	2.65	2.18	0.18	372704.35	726212.88	N 32	121.28 W 103 36 12.35
	442.69	0.63	12.64	442.66	3.70	3.72	2.60	0.30	372705.42	726213.30	N 32	121.29 W 103 36 12.35
	539.84	0.49	16.47	539.81	4.62	4.64	2.83	0.15	372706.34	726213.53	N 32	121.30 W 103 36 12.35
	633.56	0.40	20.02	633.52	5.31	5.33	3.06	0.10	372707.03	726213.76	N 32	121.31 W 103 36 12.34
	727.28	0.40	21.48	727.24	5.92	5.95	3.29	0.01	372707.65	726213.99	N 32	121.31 W 103 36 12.34
	821.71	0.21	11.51	821.67	6.40	6.42	3.44	0.21	372708.12	726214.14	N 32	121.32 W 103 36 12.34
	915.59	0.11	340.32	915.55	6.65	6.68	3.45	0.14	372708.38	726214.15	N 32	121.32 W 103 36 12.34
	978.38	0.11	325.31	978.34	6.76	6.78	3.39	0.05	372708.48	726214.09	N 32	121.32 W 103 36 12.34
	1072.52	0.10	308.03	1072.48	6.88	6.91	3.28	0.04	372708.61	726213.98	N 32	121.32 W 103 36 12.34
	1166.66	0.09	328.48	1166.62	7.00	7.02	3.17	0.04	372708.72	726213.87	N 32	121.32 W 103 36 12.34
	1260.58	0.16	94.48	1260.54	7.05	7.07	3.27	0.24	372708.77	726213.97	N 32	121.32 W 103 36 12.34
	1355.18	0.13	163.00	1355.14	6.93	6.96	3.43	0.17	372708.66	726214.13	N 32	121.32 W 103 36 12.34
	1449.51	0.16	115.41	1449.47	6.77	6.80	3.58	0.13	372708.50	726214.28	N 32	121.32 W 103 36 12.34
	1543.84	0.14	131.44	1543.80	6.64	6.67	3.78	0.05	372708.37	726214.48	N 32	121.32 W 103 36 12.33
	1637.65	0.05	269.39	1637.61	6.56	6.59	3.83	0.19	372708.29	726214.53	N 32	121.32 W 103 36 12.33
	1732.21	0.09	215.96	1732.17	6.50	6.53	3.74	0.08	372708.23	726214.44	N 32	121.32 W 103 36 12.34
	1826.11	0.17	178.38	1826.07	6.30	6.33	3.70	0.12	372708.03	726214.40	N 32	121.32 W 103 36 12.34
	1921.09	0.07	6.75	1921.05	6.22	6.25	3.72	0.25	372707.95	726214.42	N 32	121.32 W 103 36 12.34
	2015.33	0.05	2.52	2015.29	6.32	6.35	3.72	0.02	372708.05	726214.42	N 32	121.32 W 103 36 12.34
	2109.18	0.06	154.01	2109.14	6.32	6.34	3.75	0.11	372708.04	726214.45	N 32	121.32 W 103 36 12.34
	2203.03	0.14	166.77	2202.99	6.16	6.19	3.80	0.09	372707.89	726214.49	N 32	121.32 W 103 36 12.33
	2297.58	0.18	138.34	2297.54	5.94	5.97	3.92	0.09	372707.67	726214.82	N 32	121.31 W 103 36 12.33
	2392.03	0.24	125.61	2391.99	5.71	5.74	4.18	0.08	372707.44	726214.68	N 32	121.31 W 103 36 12.33
	2486.60	0.14	176.00	2486.56	5.48	5.51	4.35	0.20	372707.21	726215.05	N 32	121.31 W 103 36 12.33
	2581.17	0.24	212.08	2581.13	5.19	5.23	4.25	0.16	372706.93	726214.95	N 32	121.31 W 103 36 12.33
	2675.74	0.23	219.51	2675.70	4.88	4.91	4.03	0.03	372706.61	726214.73	N 32	121.30 W 103 36 12.33
	2770.25	0.26	210.82	2770.21	4.55	4.58	3.80	0.05	372706.28	726214.49	N 32	121.30 W 103 36 12.33
	2864.76	0.19	106.25	2864.71	4.32	4.35	3.84	0.38	372706.05	726214.54	N 32	121.30 W 103 36 12.33
	2959.38	0.23	90.06	2959.33	4.28	4.31	4.18	0.08	372706.01	726214.88	N 32	121.30 W 103 36 12.33
	3053.95	0.01	231.05	3053.90	4.27	4.30	4.36	0.25	372706.00	726215.06	N 32	121.30 W 103 36 12.33
	3147.88	0.30	180.50	3147.83	4.02	4.05	4.35	0.31	372705.75	726215.05	N 32	121.29 W 103 36 12.33
	3242.20	0.02	59.96	3242.15	3.78	3.81	4.36	0.33	372705.51	726215.06	N 32	121.29 W 103 36 12.33
	3336.68	0.25	53.34	3336.63	3.91	3.95	4.54	0.24	372705.64	726215.24	N 32	121.29 W 103 36 12.33
	3431.16	0.73	68.38	3431.11	4.25	4.29	5.27	0.52	372705.99	726215.97	N 32	121.30 W 103 36 12.32
	3525.71	1.03	52.02	3525.65	4.99	5.03	6.50	0.41	372706.73	726217.20	N 32	121.30 W 103 36 12.30
	3620.26	0.81	25.72	3620.19	6.10	6.16	7.46	0.50	372707.86	726218.16	N 32	121.32 W 103 36 12.29
	3714.81	0.56	12.88	3714.73	7.15	7.21	7.85	0.31	372708.91	726218.55	N 32	121.33 W 103 36 12.29
	3809.25	0.21	74.19	3809.17	7.65	7.71	8.12	0.52	372709.41	726218.82	N 32	121.33 W 103 36 12.28
	3909.84	0.25	76.45	3909.76	7.75	7.81	8.51	0.04	372709.51	726219.21	N 32	121.33 W 103 36 12.28
	4091.79	0.43	78.45	4091.70	7.97	8.04	9.57	0.10	372709.74	726220.26	N 32	121.33 W 103 36 12.27
	4185.76	0.99	54.29	4185.67	8.50	8.59	10.57	0.66	372710.28	726221.27	N 32	121.34 W 103 36 12.26
	4280.19	0.44	12.67	4280.09	9.33	9.42	11.31	0.77	372711.11	726222.01	N 32	121.35 W 103 36 12.25
	4374.49	0.32	41.53	4374.39	9.88	9.97	11.57	0.24	372711.67	726222.27	N 32	121.35 W 103 36 12.24
	4468.79	0.55	79.86	4468.68	10.15	10.24	12.19	0.38	372711.94	726222.89	N 32	121.36 W 103 36 12.24
	4563.48	1.03	96.47	4563.36	10.12	10.23	13.48	0.56	372711.93	726224.18	N 32	121.36 W 103 36 12.22
	4657.80	0.48	41.96	4657.68	10.31	10.42	14.59	0.90	372712.12	726225.29	N 32	121.36 W 103 36 12.21
	4752.29	0.17	308.77	4752.17	10.69	10.81	14.74	0.55	372712.51	726225.44	N 32	121.36 W 103 36 12.21
	4846.89	0.20	229.31	4846.77	10.68	10.79	14.51	0.25	372712.49	726225.21	N 32	121.36 W 103 36 12.21
	4941.34	0.27	216.85	4941.21	10.39	10.50	14.25	0.09	372712.20	726224.95	N 32	121.36 W 103 36 12.21
	5035.79	0.24	195.63	5035.66	10.03	10.13	14.06	0.10	372711.83	726224.76	N 32	121.35 W 103 36 12.22
	5130.83	0.20	147.15	5130.70	9.69	9.80	14.10	0.19	372711.50	726224.80	N 32	121.35 W 103 36 12.21
	5224.72	0.31	154.23	5224.59	9.33	9.44	14.30	0.12	372711.14	726225.00	N 32	121.35 W 103 36 12.21
	5318.61	0.27	131.85	5318.48	8.95	9.06	14.57	0.13	372710.76	726225.27	N 32	121.34 W 103 36 12.21
	5412.50	0.26	121.42	5412.37	8.69	8.80	14.92	0.05	372710.50	726225.62	N 32	121.34 W 103 36 12.21
	5507.05	0.35	113.28	5506.92	8.46	8.57	15.37	0.11	372710.27	726226.07	N 32	121.34 W 103 36 12.20
	5601.60	0.36	120.43	5601.47	8.19	8.31	15.89	0.05	372710.01	726226.59	N 32	121.34 W 103 36 12.19
	5790.01	0.35	121.30	5789.87	7.58	7.71	16.89	0.01	372709.41	726227.59	N 32	121.33 W 103 36 12.18
	5884.40	0.32	134.66	5884.26	7.24	7.38	17.32	0.09	372709.08	726228.02	N 32	121.33 W 103 36 12.18
	5978.60	0.19	153.00	5978.46	6.92	7.05	17.58	0.16	372708.75	726228.28	N 32	121.32 W 103 36 12.17
	6073.23	0.14	187.07	6073.09	6.66	6.80	17.64	0.11	372708.50	726228.34	N 32	121.32 W 103 36 12.17
	6167.14	0.11	172.63	6167.00	6.46	6.59	17.64	0.05	372708.29	726228.34	N 32	121.32 W 103 36 12.17
	6259.74	0.15	186.74	6259.60	6.25	6.39	17.63	0.06	372708.09	726228.33	N 32	121.32 W 103 36 12.17

Comments	MD (ft)	Incl (°)	Azin Grad (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Nothing (ft/ft)	Easting (ft)	Latitude (N/S...)	Longitude (E/W...)
lie info gyro	6366.75	0.14	191.48	6366.11	6.01	6.14	17.60	0.02	372707.84	726228.29	N 32	1 21.31 W 103.36 12.17
	6460.76	0.09	185.23	6460.62	5.82	5.96	17.57	0.05	372707.66	726228.29	N 32	1 21.31 W 103.36 12.17
	6545.27	0.15	232.94	6545.13	5.68	5.81	17.46	0.12	372707.51	726228.16	N 32	1 21.31 W 103.36 12.18
	6639.69	0.20	270.74	6639.45	5.61	5.74	17.20	0.13	372707.44	726227.99	N 32	1 21.31 W 103.36 12.18
	6733.91	0.23	315.04	6733.77	5.74	5.87	16.90	0.17	372707.57	726227.60	N 32	1 21.31 W 103.36 12.18
	6827.96	0.29	333.00	6827.72	6.09	6.22	16.56	0.11	372707.92	726227.36	N 32	1 21.32 W 103.36 12.19
	6922.32	0.20	297.30	6922.18	6.38	6.51	16.40	0.18	372708.21	726227.10	N 32	1 21.32 W 103.36 12.19
	7017.90	0.38	285.76	7016.94	6.50	6.63	16.10	0.04	372708.33	726226.80	N 32	1 21.32 W 103.36 12.19
	7110.90	0.39	253.10	7110.75	6.46	6.58	15.64	0.25	372708.26	726218.25	N 32	1 21.32 W 103.36 12.20
	7205.36	0.40	268.42	7205.21	6.37	6.48	15.01	0.11	372708.18	726225.71	N 32	1 21.32 W 103.36 12.20
	7299.82	0.55	285.43	7299.67	6.33	6.44	14.23	0.16	372708.14	726224.93	N 32	1 21.32 W 103.36 12.21
	7394.14	0.42	251.12	7393.99	6.19	6.29	13.45	0.19	372707.99	726221.59	N 32	1 21.32 W 103.36 12.22
	7489.55	0.66	226.14	7488.39	5.70	5.80	12.73	0.35	372707.50	726223.43	N 32	1 21.31 W 103.36 12.23
	7582.96	0.87	218.75	7582.79	4.77	4.86	11.89	0.25	372706.56	726222.59	N 32	1 21.30 W 103.36 12.24
	7677.51	1.25	211.70	7677.33	3.34	3.43	10.90	0.42	372705.13	726221.60	N 32	1 21.29 W 103.36 12.25
	7771.94	1.23	211.21	7771.74	1.61	1.68	9.83	0.02	372703.38	726220.53	N 32	1 21.27 W 103.36 12.27
	7866.15	0.70	196.42	7865.93	0.20	0.27	9.15	0.62	372701.97	726219.85	N 32	1 21.26 W 103.36 12.27
	7960.54	0.94	198.82	7960.31	-1.09	-1.02	8.73	0.26	372700.68	726217.43	N 32	1 21.24 W 103.36 12.28
	8055.40	1.87	357.44	8055.14	-3.04	-2.99	7.55	1.08	372698.71	726218.25	N 32	1 21.22 W 103.36 12.29
	8150.07	2.12	223.68	8149.76	-5.52	-5.48	5.40	0.35	372696.22	726216.10	N 32	1 21.20 W 103.36 12.32
	8244.74	1.77	205.43	8244.37	-7.95	-7.92	3.32	0.45	372693.78	726214.02	N 32	1 21.18 W 103.36 12.34
	8339.54	1.50	205.44	8339.13	-10.24	-10.22	1.92	0.44	372691.49	726212.62	N 32	1 21.15 W 103.36 12.36
	8434.49	1.20	181.90	8434.06	-12.35	-12.34	1.35	0.66	372689.36	726211.51	N 32	1 21.14 W 103.36 12.37
	8499.00	7.41	357.44	8498.81	-8.95	-8.85	1.14	1.34	372689.65	726211.84	N 32	1 21.17 W 103.36 12.37
	8530.00	11.04	358.07	8529.01	-3.89	-3.89	0.96	11.71	372697.81	726211.66	N 32	1 21.22 W 103.36 12.37
	8622.00	12.96	358.65	8620.39	2.75	2.76	0.77	6.01	372700.46	726211.47	N 32	1 21.28 W 103.36 12.37
	8652.00	14.81	359.38	8650.30	10.22	10.23	0.64	6.32	372711.93	726211.34	N 32	1 21.26 W 103.36 12.38
	8625.00	16.80	359.54	8623.16	18.99	19.00	0.56	6.22	372720.70	726211.26	N 32	1 21.25 W 103.36 12.37
	8666.00	18.22	358.15	8660.72	28.34	28.35	0.63	4.56	372720.05	726211.58	N 32	1 21.25 W 103.36 12.39
	8688.00	20.17	0.58	8680.94	38.86	38.87	0.79	6.13	372740.57	726211.49	N 32	1 21.25 W 103.36 12.37
	8719.00	22.27	0.42	8720.84	50.08	50.09	0.89	6.78	372751.78	726211.59	N 32	1 21.75 W 103.36 12.37
	8750.00	24.26	359.99	8739.13	62.32	62.33	0.93	6.44	372764.03	726211.67	N 32	1 21.67 W 103.36 12.40
	8782.00	26.79	359.06	8757.19	76.11	76.12	0.81	8.00	372777.81	726211.51	N 32	1 22.01 W 103.36 12.36
	8813.00	29.39	358.42	8794.53	90.70	90.71	0.48	8.44	372792.41	726211.58	N 32	1 22.15 W 103.36 12.37
	8845.00	31.72	358.10	8822.08	106.96	106.97	-0.01	7.30	372808.66	726210.69	N 32	1 22.31 W 103.36 12.37
	8876.00	34.08	358.13	8848.11	123.80	123.80	-0.57	7.61	372825.49	726210.13	N 32	1 22.66 W 103.36 12.38
	8908.00	35.98	357.80	8874.32	142.16	142.15	-1.22	5.97	372834.85	726209.76	N 32	1 22.65 W 103.36 12.39
	8939.00	38.12	357.76	8899.06	160.82	160.81	-1.64	6.90	372862.51	726208.76	N 32	1 22.55 W 103.36 12.40
	8971.00	40.65	358.15	8923.79	181.12	181.10	-2.67	7.94	372882.80	726208.03	N 32	1 23.05 W 103.36 12.40
	9002.00	42.92	358.90	8946.90	201.77	201.75	-3.19	7.50	372903.45	726207.51	N 32	1 23.25 W 103.36 12.40
	9034.00	44.88	359.12	8969.96	223.96	223.94	-3.58	6.14	372925.83	726207.12	N 32	1 23.67 W 103.36 12.40
	9065.00	46.94	359.45	8991.53	246.22	246.20	-3.85	6.69	372947.69	726206.80	N 32	1 24.63 W 103.36 12.42
	9097.00	49.09	359.83	9012.93	270.01	269.99	-4.00	8.35	372971.87	726206.52	N 32	1 25.03 W 103.36 12.43
	9128.00	51.29	358.67	9032.78	293.82	293.79	-4.32	7.66	372985.48	726205.98	N 32	1 25.41 W 103.36 12.41
	9159.00	54.09	359.12	9051.57	318.47	318.44	-4.79	9.11	373020.13	726205.91	N 32	1 24.41 W 103.36 12.41
	9191.00	56.74	358.90	9069.73	344.78	344.76	-5.25	8.30	373046.47	726205.40	N 32	1 24.63 W 103.36 12.41
	9222.00	60.22	358.29	9085.93	371.23	371.19	-5.90	11.35	373072.88	726204.85	N 32	1 25.03 W 103.36 12.42
	9254.00	63.08	358.30	9101.13	399.38	399.34	-6.73	8.94	373101.03	726203.97	N 32	1 25.61 W 103.36 12.43
	9285.00	64.80	358.81	9114.74	427.22	427.18	-7.44	5.74	373128.87	726203.26	N 32	1 25.61 W 103.36 12.44
	9317.00	67.50	359.30	9127.68	456.49	456.44	-7.92	8.55	373158.12	726202.78	N 32	1 25.77 W 103.36 12.44
	9349.00	70.26	359.91	9138.95	485.40	485.35	-8.37	8.96	373187.03	726202.33	N 32	1 26.06 W 103.36 12.44
	9380.00	72.47	359.11	9149.08	515.72	515.67	-8.89	6.93	373217.35	726201.91	N 32	1 26.95 W 103.36 12.45
	9412.00	74.41	358.80	9159.20	546.39	546.33	-9.45	6.13	373248.04	726201.25	N 32	1 26.66 W 103.36 12.45
	9443.00	76.90	359.47	9165.89	576.42	576.36	-9.91	8.30	373278.04	726200.78	N 32	1 26.96 W 103.36 12.45
	9475.00	79.40	359.88	9172.45	607.74	607.68	-10.08	7.91	373308.36	726200.62	N 32	1 27.27 W 103.36 12.45
	9506.00	81.54	359.67	9177.55	638.31	638.25	-10.20	7.26	373339.93	726200.50	N 32	1 27.57 W 103.36 12.45
	9538.00	84.25	359.15	9181.48	670.05	670.01	-10.20	8.42	373373.63	726200.50	N 32	1 27.89 W 103.36 12.45
	9570.00	86.56	358.50	9184.05	701.96	701.90	-10.65	7.25	373403.58	726200.64	N 32	1 28.50 W 103.36 12.44
	9601.00	88.82	358.84	9187.96	732.85	732.80	-9.89	1.38	373434.52	726200.82	N 32	1 28.51 W 103.36 12.44
	9633.00	87.62	358.39	9187.39	764.85	764.81	-9.68	2.61	373466.48	726201.02	N 32	1 28.82 W 103.36 12.43
	9664.00	88.94	359.48	9188.32	795.84	795.79	-9.51	4.28	373497.47	726201.19	N 32	1 29.13 W 103.36 12.43
	9696.00	89.94	359.48	9188.63	827.84	827.79	-9.55	4.20	373528.46	726201.15	N 32	1 29.45 W 103.36 12.43
	9728.00	90.03	359.81	9188.54	859.79	859.74	-9.75	1.07	373561.46	726200.95	N 32	1 29.76 W 103.36 12.43
	9759.00	90.23	359.54	9188.57	889.84	889.79	-9.92	1.12	373591.46	726200.78	N 32	1 30.06 W 103.36 12.42
	9855.00	88.26	0.50	9189.00	986.83	986.79	-9.88	1.41	373686.45	726200.82	N 32	1 31.02 W 103.36 12.42
	9949.00	88.65	359.78	9190.36	1080.82	1080.78	-9.65	0.81	373782.44	726201.05	N 32	1 31.95 W 103.36 12.41
	10044.00	88.65	359.42	9192.38	1175.79	1175.74	-11.14	1.48	373878.44	726199.52	N 32	1 32.69 W 103.36 12.42
	10139.00	90.17	356.83	9193.36	1270.73	1270.65	-15.08	2.32	373972.31	726198.62	N 32	1 33.83 W 103.36 12.45
	10232.00	90.32	355.44	9192.96	1363.66	1363.43	-21.35	1.50	374065.09	726198.35	N 32	1 34.75 W 103.36 12.45
	10326.00	90.49	355.81	9192.29	1457.33	1457.16	-28.52	0.43	374158.81	726198.18	N 32	1 35.68 W 103.36 12.60
	10421.00	91.00	357.12	9191.06	1552.18	1551.97	-34.38	1.48	374253.61	726197.32	N 32	1 36.61 W 103.36 12.66
	10515.00	90.63	357.40	9189.72	1646.10	1645.85	-38.87	0.49	374247.49	726197.83	N 32	1 37.54 W 103.36 12.70
	10609.00	90.74	357.36	9188.60	1740.92	1739.74	-43.17	0.12	374241.38	726197.54	N 32	1 38.47 W 103.36 12.74
	10703.00	90.57	357.61	9187.52	1833.65	1833.65	-47.29	0.32	374243.28	726197.41	N 32	1 39.40 W 103.36 12.78
	10798.00	90.72	357.42	9186.45	1928.89	1928.55	-51.41	0.25	374260.19	726196.29	N 32	1 40.34 W 103.36 12.83
	10893.00	90.72	358.22	9184.35	2023.84	2023.48	-54.96	0.93	374728.11	726195.72	N 32	1 41.28 W 103.36 12.86

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS ("/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	12213.00	90.06	359.81	9175.94	3343.54	3343.25	-51.18	0.90	376044.84	726159.52	N 32 1 54.34	W 103 36 12.71
	12308.00	90.09	0.93	9175.82	3438.53	3438.25	-50.57	1.18	376139.83	726160.13	N 32 1 55.28	W 103 36 12.70
	12402.00	89.89	0.66	9175.83	3532.51	3532.24	-49.26	0.36	376233.82	726161.44	N 32 1 56.21	W 103 36 12.67
	12497.00	89.94	0.83	9175.97	3627.49	3627.23	-48.03	0.19	376328.81	726162.67	N 32 1 57.15	W 103 36 12.65
	12591.00	90.00	0.12	9176.02	3721.48	3721.23	-47.25	0.76	376422.80	726163.45	N 32 1 58.08	W 103 36 12.64
	12685.00	89.80	359.65	9176.19	3815.48	3815.23	-47.44	0.54	376516.80	726163.26	N 32 1 59.01	W 103 36 12.63
	12780.00	90.03	358.60	9176.33	3910.47	3910.21	-48.89	1.13	376611.78	726161.81	N 32 1 59.95	W 103 36 12.64
	12874.00	90.06	358.04	9176.25	4004.45	4004.17	-51.64	0.60	376705.74	726159.06	N 32 2 0 0.88	W 103 36 12.67
	12969.00	90.26	358.00	9175.99	4099.42	4099.12	-54.93	0.21	376800.68	726155.78	N 32 2 1 0.82	W 103 36 12.70
	13063.00	90.34	357.18	9175.50	4193.36	4193.03	-58.88	0.88	376894.59	726151.82	N 32 2 2 0.75	W 103 36 12.73
	13158.00	90.49	357.05	9174.81	4288.27	4287.91	-63.66	0.21	376989.46	726147.04	N 32 2 3 0.69	W 103 36 12.78
	13253.00	90.63	357.09	9173.88	4383.17	4382.78	-68.52	0.15	377084.33	726142.19	N 32 2 4 0.63	W 103 36 12.83
	13348.00	91.09	358.20	9172.45	4478.11	4477.69	-72.42	1.26	377179.23	726138.28	N 32 2 5 0.57	W 103 36 12.87
Final Survey	13364.00	90.83	358.42	9172.19	4494.10	4493.68	-72.89	2.13	377195.22	726137.81	N 32 2 5.73	W 103 36 12.87
<i>Proj to TD</i>	13468.00	90.83	358.42	9170.68	4598.07	4597.63	-75.76	0.00	377299.17	726134.94	N 32 2 6.76	W 103 36 12.90

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	25.000	Act Stns	30.000	30.000	SLB_NSG+MSHOT-Depth Only	ST01 Lateral / Chevron Porter Brown 1H ST01 Gyro+MWD from 0ft to 13468ft MD
	25.000	12177.840	Act Stns	30.000	30.000	SLB_NSG+MSHOT	ST01 Lateral / Chevron Porter Brown 1H ST01 Gyro+MWD
	12177.840	13364.000	Act Stns	30.000	30.000	SLB_MWD-STD	ST01 Lateral / Chevron Porter Brown 1H ST01 Gyro+MWD
	13364.000	13468.000	Act Stns	30.000	30.000	SLB_BLIND+TREND	ST01 Lateral / Chevron Porter Brown 1H ST01 Gyro+MWD



A Schlumberger Company

Section 3

Daily Reports



D R

No: 1 Date: 12/22/2012

Company: CHEVRON

Well Name & No.: PORTER BROWN 1 H

Field: Salado Draw

Rig Contractor & No.: H & P 227

County/Block/Parish: LEA, NM

BHA No(s) Today:

Depth (ft): Distance last 24 hrs (ft)

Last CSG depth (ft): 4804

Size (in): 9.62

D

Mud Type WBM

Weight: 0

Viscosity:

PV:

YP:

WL:

Gels:

% Oil:

% Solid:

% Sand:

PH: 0

CL:

D

No.	Bit Size (in)	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum (ft)	Cum. Hours	Depth Out (ft)	DULL CONDITION							
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD

R D R D

BHA No.	Size (in)	Type	Deflection		Serial Number	Avg Diff. Press.	Drill Hrs. Today	Drill Hrs. Accum.	Circ. Hrs. Today	Circ. Hrs. Accum.	Depth In (ft)	Depth Out (ft)
			Tool	Angle								

D

Pump #	Liner X Stroke	gpm	Max Allowable SPP
1	6 X 11	3.83	5000
2	6 X 11	3.83	5000

R D R D

R D

From	HRS	Code	Description
0:00	15	ONC	Other Non-circulating
			Arrive Location / Standby
15:00	0.5	ONC	Other Non-circulating
			Scribe Whipstock
15:30	8.5	TI	Tripping In (From Surface)
			T.I.H. With Whipstock

24 Hr Summary: SCRIBE W/S T.I.H. ORIENT

Proj svy at 0:00: NONE ENTERED

Proj svy at 24:00:

Bottom Hole Circulating Temp. (F):

Formation Name/Depth:

Remarks:

SDM DIRECTIONAL REP:

SDM MWD REP.:

COMPANY REP.:

DAILY COST: \$0.00

CUMMULATIVE COST: \$0.00

SDM JOB #: 12MLD0450

D ☐ ☐ ☐ ☐ DR ☐ ☐ ☐ ☐ ☐ ☐ R ☐ ☐ ☐ ☐No: 2 Date: 12/23/2012Company: CHEVRONWell Name & No.: PORTER BROWN 1 HField: Salado DrawRig Contractor & No.: H & P 227County/Block/Parish: LEA, NM

BHA No(s) Today: _____

Depth (ft): _____ Distance last 24 hrs (ft) _____

Last CSG depth (ft): 4804Size (in): 9.62☐ ☐ ☐ ☐ D ☐ ☐ ☐ ☐

Mud Type _____ Weight: 0 Viscosity: _____ PV: _____ YP: _____ WL: _____
Gels: _____ % Oil: _____ % Solid: _____ % Sand: _____ PH: 0 CL: _____

☐ ☐ ☐ ☐ D ☐ ☐ ☐ ☐

No.	Bit Size (in)	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum (ft)	Cum. Hours	Depth Out (ft)	DULL CONDITION							
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD

☐ ☐ ☐ ☐ R D ☐ ☐ ☐ ☐ ☐ ☐ R ☐ ☐ ☐ ☐ D ☐ ☐ ☐ ☐

BHA No.	Size (in)	Type	Deflection		Serial Number	Avg Diff. Press.	Drill Hrs. Today	Drill Hrs. Accum.	Circ. Hrs. Today	Circ. Hrs. Accum.	Depth In (ft)	Depth Out (ft)
			Tool	Angle								

☐ ☐ ☐ ☐ D ☐ ☐ ☐ ☐

Pump #	Liner X Stroke	gpm	Max Allowable SPP
1	6 X 11	3.83	5000
2	6 X 11	3.83	5000

☐ ☐ ☐ ☐ R ☐ ☐ ☐ ☐ D ☐ ☐ ☐ ☐ R ☐ ☐ ☐ ☐ ☐ ☐ ☐

☐ ☐ ☐ ☐ R ☐ ☐ ☐ ☐ D ☐ ☐ ☐ ☐

From	HRS	Code	Description
0:00	4	TI	Tripping In (From Surface)
			TIH w / whipstock
4:00	1.5	TO	Tripping Out (To Surface)
			POOH to set Whipstock
5:30	0.5	ONC	Other Non-circulating
			Rig Up Wireline
6:00	0.5	ONC	Other Non-circulating
			Safety Meeting
6:30	2	ONC	Other Non-circulating
			Run In Hole With Wireline
8:30	1	ONC	Other Non-circulating
			Orient Whipstock
9:30	0.5	ONC	Other Non-circulating
			Pull Wireline
10:00	2	CIRC	Circulate
			Circ. Wellbore
12:00	2	ONC	Other Non-circulating
			Drop Ball Attempt to Set Whipstock
14:00	0.5	ONC	Other Non-circulating
			Rig Down Wireline
14:30	0.5	ONC	Other Non-circulating
			Flow Check

24 Hr Summary: T.I.H. ORIENT Whipstock

Proj svy at 0:00: _____

Proj svy at 24:00: _____

Bottom Hole Circulating Temp. (F): _____

Formation Name/Depth: _____

Remarks: _____

SDM DIRECTIONAL REP: _____

SDM MWD REP.: _____

COMPANY REP.: _____

DAILY COST: \$0.00CUMMULATIVE COST: \$0.00SDM JOB #: 12MLD0450

D ☐ ☐ ☐ ☐ DR ☐ ☐ ☐ ☐ ☐ ☐ R ☐ ☐ ☐ ☐No: 2 Date: 12/23/2012Company: CHEVRONWell Name & No.: PORTER BROWN 1 HField: Salado DrawRig Contractor & No.: H & P 227

County/Block/Parish: _____

BHA No(s) Today: _____

Depth (ft): _____ Distance last 24 hrs (ft) _____

Last CSG depth (ft): 4804 Size (in): 9.62

15:00	7	TO	Tripping Out (To Surface)
			T.O.H. With Whipstock
22:00	0.5	ONC	Other Non-circulating
			L/D Whipstock
22:30	1.5	ONC	Other Non-circulating
			Slip and cut drill line

D ☐ ☐ ☐ ☐ DR ☐ ☐ ☐ ☐ ☐ ☐ R ☐ ☐ ☐ ☐No: 3 Date: 12/24/2012Company: CHEVRONWell Name & No.: PORTER BROWN 1 HField: Salado DrawRig Contractor & No.: H & P 227County/Block/Parish: LEA, NM

BHA No(s) Today: _____

Depth (ft): _____ Distance last 24 hrs (ft) _____

Last CSG depth (ft): 4804Size (in): 9.62☐ ☐ ☐ D ☐ ☐ ☐ ☐

Mud Type: _____ Weight: 0 Viscosity: _____ PV: _____ YP: _____ WL: _____
Gels: _____ % Oil: _____ % Solid: _____ % Sand: _____ PH: 0 CL: _____

☐ ☐ ☐ D ☐ ☐ ☐ ☐

No.	Bit Size (in)	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum (ft)	Cum. Hours	Depth Out (ft)	DULL CONDITION							
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD

☐ ☐ ☐ ☐ R D ☐ ☐ ☐ ☐ ☐ ☐ D ☐ ☐ ☐ ☐

BHA No.	Size (in)	Type	Deflection		Serial Number	Avg Diff. Press.	Drill Hrs. Today	Drill Hrs. Accum.	Circ. Hrs. Today	Circ. Hrs. Accum.	Depth In (ft)	Depth Out (ft)
			Tool	Angle								

☐ ☐ ☐ ☐ D ☐ ☐ ☐ ☐

Pump #	Liner X Stroke	gpm	Max Allowable SPP
1	6 X 11	3.83	5000
2	6 X 11	3.83	5000

☐ ☐ ☐ ☐ R ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

☐ ☐ ☐ ☐ R ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

From	HRS	Code	Description
0:00	0.5	ONC	Other Non-circulating
			Slip and cut drill line
0:30	1	ONC	Other Non-circulating
			P/U and scribe whipstock #2
1:30	9	TI	Tripping In (From Surface)
			TIH w/ whipstock #2
10:30	0.5	ONC	Other Non-circulating
			Safety Meeting on Wireline
11:00	1	ONC	Other Non-circulating
			Run in Hole With Gyro
12:00	0.5	ONC	Other Non-circulating
			Orient Whipstock @ 351.71 Gyro Toolface
12:30	0.5	ONC	Other Non-circulating
			Pull Gyro out of Hole
13:00	0.5	ONC	Other Non-circulating
			R/D Wireline
13:30	1	OC	Other Circulating
			Set Whipstock
14:30	0.5	OC	Other Circulating
			Circ Bottoms Up
15:00	0.5	ONC	Other Non-circulating
			Rig Up Cementers

24 Hr Summary: T.I.H. ORIENT Whipstock

Proj svy at 0:00: _____

Proj svy at 24:00: _____

Bottom Hole Circulating Temp. (F): _____

Formation Name/Depth: _____

Remarks: _____

SDM DIRECTIONAL REP: _____

SDM MWD REP.: _____

COMPANY REP.: _____

DAILY COST: \$0.00CUMMULATIVE COST: \$0.00SDM JOB #: 12MLD0450

Company: CHEVRON

Field: Salado Draw

Well Name & No.: PORTER BROWN 1 H

Rig Contractor & No.: H & P 227

County/Block/Parish: _____

BHA No(s) Today: _____

Depth (ft): _____ Distance last 24 hrs (ft) _____

Last CSG depth (ft): 4804

Size (in): 9.62

15:30	1	OC	Other Circulating
			Cement Whipstock
16:30	1.5	ONC	Other Non-circulating
			Cement operations
18:00	5	TO	Tripping Out (To Surface)
			POOH
23:00	1	ONC	Other Non-circulating
			Pull wear bushing

|

Company: CHEVRON

Well Name & No.: PORTER BROWN 1 H

Field: Salado Draw

Rig Contractor & No.: H & P 227

County/Block/Parish:

BHA No(s) Today: 1

Depth (ft): 8770

Distance last 24 hrs (ft) 324

Last CSG depth (ft): 4804

Size (in): 9.62

10:30	1	SLID	Slide Drill fr: 8575 to 8590
			SLD @ HS 30-K 480-GPM 100-DIFF
11:30	1	ROT	Rotary Drill fr: 8590 to 8607
			25-RPM 20-K 480-GPM 50-DIFF
12:30	0.25	SVC	Survey Circulating
			Survey @ 8562 Inc. 12.96 Azm. 358.65
12:45	0.75	SLID	Slide Drill fr: 8607 to 8622
			SLD @ HS 30-K 480-GPM 89-DIFF
13:30	1	ROT	Rotary Drill fr: 8622 to 8638
			25-RPM 20-K 480-GPM 38-DIFF
14:30	0.25	SVC	Survey Circulating
			Survey @ 8593 Inc. 14.91 Azm. 359.38
14:45	0.5	SLID	Slide Drill fr: 8638 to 8648
			SLD @ HS 30-K 480-GPM 66-DIFF
15:15	1	ROT	Rotary Drill fr: 8648 to 8670
			25-RPM 20-K 480-GPM 38-DIFF
16:15	0.5	RIGS	Rig Service
			Rig Service
16:45	0.25	SVC	Survey Circulating
			C/S @ 8625 Inc. 16.90 Azm. 359.54
17:00	0.25	SLID	Slide Drill fr: 8670 to 8680
			SLD @ HS 30-K 480-GPM 89-DIFF
17:15	1.5	ROT	Rotary Drill fr: 8680 to 8701
			25-RPM 25-K 480-GPM 38-DIFF
18:45	0.25	SVC	Survey Circulating
			Survey @ 8656 Inc. 18.22 Azm. 1.21
19:00	1.25	SLID	Slide Drill fr: 8701 to 8719
			SLD @ 5L 30-K 480-GPM 89-DIFF
20:15	0.75	ROT	Rotary Drill fr: 8719 to 8732
			25-RPM 25-K 480-GPM 38-DIFF
21:00	0.25	SVC	Survey Circulating
			Survey @ 8688 Inc. 20.17 Azm. 0.58
21:15	0.5	SLID	Slide Drill fr: 8732 to 8740
			SLD @ 5L 30-K 480-GPM 89-DIFF
21:45	1.25	ROT	Rotary Drill fr: 8740 to 8764
			25-RPM 25-K 480-GPM 38-DIFF
23:00	0.25	SVC	Survey Circulating
			Survey @ 8719 Inc. 22.27 Azm. 0.45
23:15	0.75	SLID	Slide Drill fr: 8764 to 8770
			SLD @ 5L 30-K 480-GPM 89-DIFF

Company: CHEVRON

Field: Salado Draw

Well Name & No.: PORTER BROWN 1 H

Rig Contractor & No.: H & P 227

County/Block/Parish: _____

BHA No(s) Today: 1

Depth (ft): 9142

Distance last 24 hrs (ft) 372

Last CSG depth (ft): 4804

Size (in): 9.62

8:45	0.25	SVC	Survey Circulating
			Survey @ 8845 Inc. 31.72 Azm. 358.10
9:00	1	SLID	Slide Drill fr: 8890 to 8908
			SLD @ HS 40-K 480-GPM 88-DIFF
10:00	0.75	ROT	Rotary Drill fr: 8908 to 8921
			25-RPM 30-K 480-GPM 59-DIFF
10:45	0.25	SVC	Survey Circulating
			Survey @ 8876 Inc. 34.08 Azm. 358.13
11:00	0.75	SLID	Slide Drill fr: 8921 to 8938
			SLD @ HS 40-K 480-GPM 77-DIFF
11:45	0.5	ROT	Rotary Drill fr: 8938 to 8953
			25-RPM 30-K 480-GPM 49-DIFF
12:15	0.5	RIGS	Rig Service
			Rig Service
12:45	0.25	SVC	Survey Circulating
			C/S @ 8908 Inc. 35.98 Azm. 357.80
13:00	0.75	SLID	Slide Drill fr: 8953 to 8975
			SLD @ 10-R 40-K 480-GPM -DIFF
13:45	0.75	ROT	Rotary Drill fr: 8975 to 8984
			25-RPM 30-K 480-GPM 45-DIFF
14:30	0.25	SVC	Survey Circulating
			Survey @ 8939 Inc. 38.12 Azm. 357.76
14:45	0.75	SLID	Slide Drill fr: 8984 to 9004
			SLD @ HS 40-K 480-GPM 72-DIFF
15:30	0.75	ROT	Rotary Drill fr: 9004 to 9016
			25-RPM 30-K 480-GPM 76--DIFF
16:15	0.25	SVC	Survey Circulating
			Survey @ 8971 Inc. 40.65 Azm. 358.15
16:30	0.5	SLID	Slide Drill fr: 9016 to 9034
			SLD @ HS 40-K 480-GPM 65-DIFF
17:00	0.5	ROT	Rotary Drill fr: 9034 to 9047
			25-RPM 30-K 480-GPM 56-DIFF
17:30	0.25	SVC	Survey Circulating
			C/S @ 9002 Inc.42.92 Azm. 358.90
17:45	1.25	SLID	Slide Drill fr: 9047 to 9069
			SLD @ HS 40-K 480-GPM 65-DIFF
19:00	0.5	ROT	Rotary Drill fr: 9069 to 9079
			25-RPM 30-K 480-GPM 56-DIFF
19:30	0.5	CIRC	Circulate
			Circulate through Choke line
20:00	0.5	SVC	Survey Circulating
			C/S @ 9034 Inc.44.88 Azm. 359.12
20:30	1.5	SLID	Slide Drill fr: 9079 to 9101
			SLD @ HS 40-K 480-GPM 65-DIFF
22:00	0.5	ROT	Rotary Drill fr: 9101 to 9110
			25-RPM 30-K 480-GPM 56-DIFF
22:30	0.25	SVC	Survey Circulating
			C/S @ 9065 Inc.46.94 Azm. 359.45
22:45	1	SLID	Slide Drill fr: 9110 to 9135
			SLD @ HS 40-K 480-GPM 65-DIFF



D □ □ □ □ DR □ □ □ □ □ R □ □ □ R □

No: 6 Date: 12/27/2012

Company: CHEVRON

Well Name & No.: PORTER BROWN 1 H

Field: Salado Draw

Rig Contractor & No.: H & P 227

County/Block/Parish: _____

BHA No(s) Today: 1

Depth (ft): 9142 Distance last 24 hrs (ft) 372

Last CSG depth (ft): 4804 Size (in): 9.62

23:45	0.25	ROT	Rotary Drill fr: 9135 to 9142
			25-RPM 30-K 480-GPM 56-DIFF



D □ □ □ □ DR □ □ □ □ □ R □ □ □ R □

No: 7 Date: 12/28/2012Company: CHEVRONWell Name & No.: PORTER BROWN 1 HField: Salado DrawRig Contractor & No.: H & P 227County/Block/Parish: LEA, NMBHA No(s) Today: 1Depth (ft): 9615 Distance last 24 hrs (ft) 465Last CSG depth (ft): 4804Size (in): 9.62

□ □ D □ □ □

Mud Type _____ Weight: 8.9 Viscosity: 29@85 PV: 1@85 YP: 2 WL: 90.0
Gels: 1/1/1 % Oil: _____ % Solid: 0.4 % Sand: _____ PH: 10.2 CL: 55,000

□ □ □ D □ □ □

No.	Bit Size (in)	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum (ft)	Cum. Hours	Depth Out (ft)	DULL CONDITION							
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD
1	8.75	STC	Fhi 37HY	PX 8788	3 X 18	.4	1161	58.50		2	4	FC	H	2		NO	BHA

□ □ □ □ R D □ □ □ □ R □ □ □ D □ □ □ □

BHA No.	Size (in)	Type	Deflection		Serial Number	Avg Diff. Press.	Drill Hrs. Today	Drill Hrs. Accum.	Circ. Hrs. Today	Circ. Hrs. Accum.	Depth In (ft)	Depth Out (ft)
			Tool	Angle								
1	6.75	0 ADJ 2.1	ADJ	2.12	785-91438	65.0	19.3	58.5	4.0	14.0	8446	

□ □ □ □ D □ □ □

Pump #	Liner X Stroke	gpm	Max Allowable SPP
1	6 X 11	3.83	5000
2	6 X 11	3.83	5000

□ □ R □ □ □ D □ □ □ R □ □ □ □ □ D □ □ □ □ □ □

□ □ □ □ □ R □ □ □ □ D □ □ □ □

From	HRS	Code	Description
0:00	0.5	SVC	Survey Circulating
			C/Svy @ 9097 inc 49.09 az 359.83
0:30	1.25	SLID	Slide Drill fr: 9142 to 9167
			SLD @ HS 40-K 480-GPM 65-DIFF
1:45	0.25	ROT	Rotary Drill fr: 9167 to 9173
			25-RPM 30-K 480-GPM 56-DIFF
2:00	0.25	SVC	Survey Circulating
			Svy@ 9128 inc 51.29 az 358.67
2:15	0.75	SLID	Slide Drill fr: 9173 to 9200
			SLD @ HS 40-K 480-GPM 65-DIFF
3:00	0.25	ROT	Rotary Drill fr: 9200 to 9204
			25-RPM 30-K 480-GPM 56-DIFF
3:15	0.25	SVC	Survey Circulating
			Svy @ 9159 inc 54.09 az 359.12
3:30	0.5	SLID	Slide Drill fr: 9204 to 9228
			SLD @ HS 40-K 480-GPM 65-DIFF
4:00	0.25	SVC	Survey Circulating
			Svy @ 9191 inc 56.74 az 359.90
4:30	0.75	SLID	Slide Drill fr: 9236 to 9260
			SLD @ HS 40-K 480-GPM 65-DIFF
5:15	0.25	ROT	Rotary Drill fr: 9260 to 9267
			25-RPM 30-K 480-GPM 56-DIFF

24 Hr Summary: Drill Curve BHA#1Proj svy at 0:00: 9097 9012 49.09 359.83Proj svy at 24:00: 9615 9186 87 0.5Bottom Hole Circulating Temp. (F): 132Formation Name/Depth: Avalon Shale 9184 TVD

Remarks:

SDM DIRECTIONAL REP: Rusty Toney, Hank HebertSDM MWD REP.: Alex Paharsingh, Hamish Snell / Neal SeprCOMPANY REP.: Pete LensingDAILY COST: \$0.00CUMMULATIVE COST: \$0.00SDM JOB #: 12MLD0450

Company: CHEVRON

Field: Salado Draw

Well Name & No.: PORTER BROWN 1 H

Rig Contractor & No.: H & P 227

County/Block/Parish: _____

BHA No(s) Today: 1

Depth (ft): 9615

Distance last 24 hrs (ft) 465

Last CSG depth (ft): 4804

Size (in): 9.62

5:30	0.25	SVC	Survey Circulating
			Svy@ 9222 inc 60.22 az 358.29
5:45	0.75	SLID	Slide Drill fr: 9267 to 9284
			SLD @ HS 40-K 480-GPM 49-DIFF
6:30	0.5	ROT	Rotary Drill fr: 9284 to 9299
			25-RPM 30-K 480-GPM 30-DIFF
7:00	0.25	SVC	Survey Circulating
			Survey @ 9254 Inc. 63.08 Azm. 358.30
7:15	0.75	SLID	Slide Drill fr: 9299 to 9321
			SLD @ HS 40-K 480-GPM 45-DIFF
8:00	0.5	ROT	Rotary Drill fr: 9321 to 9330
			25-RPM 30-K 480-GPM 30-DIFF
8:30	0.25	SVC	Survey Circulating
			C/S @ 9285 Inc. 64.80 358.81
8:45	0.75	SLID	Slide Drill fr: 9330 to 9356
			SLD @ HS 40-K 480-GPM 65-DIFF
9:30	0.5	ROT	Rotary Drill fr: 9356 to 9362
			25-RPM 30-K 480-GPM 76-DIFF
10:00	0.25	SVC	Survey Circulating
			Survey @ 9317 Inc. 67.50 Azm. 359.30
10:15	1	SLID	Slide Drill fr: 9362 to 9382
			SLD @ 5-L 40-K 480-GPM 75-DIFF
11:15	0.5	ROT	Rotary Drill fr: 9382 to 9393
			25-RPM 30-K 480-GPM 45-DIFF
11:45	0.25	SVC	Survey Circulating
			Survey @ 9348 Inc. 70.26 Azm. 358.91
12:00	0.75	SLID	Slide Drill fr: 9393 to 9411
			SLD @ 5-L 40-K 480-GPM 94-DIFF
12:45	0.25	ROT	Rotary Drill fr: 9411 to 9425
			25-RPM 30-K 480-GPM 45-DIFF
13:00	0.5	RIGS	Rig Service
			Rig Service
13:30	0.25	SVC	Survey Circulating
			C/S @ 9380 Inc. 72.47 Azm. 359.11
13:45	0.75	SLID	Slide Drill fr: 9425 to 9445
			SLD @ 5-L 40-K 480-GPM 88-DIFF
14:30	0.5	ROT	Rotary Drill fr: 9445 to 9457
			25-RPM 30-K 480-GPM 75-DIFF
15:00	0.25	SVC	Survey Circulating
			Survey @ 9412 Inc. 74.41 Azm. 358.80
15:15	1.25	SLID	Slide Drill fr: 9457 to 9479
			SLD @ 5-L 40-K 480-GPM 94-DIFF
16:30	0.5	ROT	Rotary Drill fr: 9479 to 9488
			25-RPM 30-K 480-GPM 75-DIFF
17:00	0.25	SVC	Survey Circulating
			Survey @ 9443 Inc. 76.90 Azm. 359.47
17:15	0.75	SLID	Slide Drill fr: 9488 to 9502
			SLD @ 5-L 40-K 480-GPM 94-DIFF
18:00	0.75	ROT	Rotary Drill fr: 9502 to 9520
			25-RPM 30-K 480-GPM 75-DIFF



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No: 7 Date: 12/28/2012Company: CHEVRONWell Name & No.: PORTER BROWN 1 HField: Salado DrawRig Contractor & No.: H & P 227

County/Block/Parish: _____

BHA No(s) Today: 1Depth (ft): 9615Distance last 24 hrs (ft) 465Last CSG depth (ft): 4804Size (in): 9.62

18:45	0.25	SVC	Survey Circulating
			Svy@ 9475 inc 79.40 az 359.88
19:00	1	SLID	Slide Drill fr: 9520 to 9535
			SLD @ 5-L 40-K 480-GPM 94-DIFF
20:00	0.5	ROT	Rotary Drill fr: 9535 to 9551
			25-RPM 30-K 480-GPM 75-DIFF
20:30	0.25	SVC	Survey Circulating
			Svy @ 9506 inc 81.64 az 0.15
20:45	1	ROT	Rotary Drill fr: 9551 to 9573
			25-RPM 30-K 480-GPM 75-DIFF
21:45	1	SLID	Slide Drill fr: 9573 to 9583
			SLD @ 5-L 40-K 480-GPM 94-DIFF
22:45	0.25	SVC	Survey Circulating
			Svy@ 9538 inc 84.25 az 0.49
23:00	1	ROT	Rotary Drill fr: 9583 to 9615
			25-RPM 30-K 480-GPM 75-DIFF

Company: CHEVRON

Well Name & No.: PORTER BROWN 1 H

Field: Salado Draw

Rig Contractor & No.: H & P 227

County/Block/Parish: LEA, NM

BHA No(s) Today: 1,2

Depth (ft): 9803

Distance last 24 hrs (ft) 188

Last CSG depth (ft): 4804

Size (in): 9.62

D D

Mud Type

Weight: 8.9

Viscosity: 29@85

PV: 1@85

YP: 2

WL: 90.0

Gels: 1/1/1

% Oil:

% Solid: 0.4

% Sand:

PH: 10.2

CL: 55,000

D

No.	Bit Size (in)	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum (ft)	Cum. Hours	Depth Out (ft)	DULL CONDITION							
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD
1	8.75	STC	Fhi 37HY	PX 8788	3 X 18	.4	1349	66.00	9803	2	4	FC	H	2		NO	BHA
2	8.5	STC	MSi813	JF4379	.704	.2				2	3	BT	S	X		BT	TD

R D R D

BHA No.	Size (in)	Type	Deflection		Serial Number	Avg Diff. Press.	Drill Hrs. Today	Drill Hrs. Accum.	Circ. Hrs. Today	Circ. Hrs. Accum.	Depth In (ft)	Depth Out (ft)
			Tool	Angle								
1	6.75	0 ADJ 2.1	ADJ	2.12	785-91438	65.3	7.5	66.0	5.5	19.5	8446	9803
2	6.87	5.0 .288 F	FXD	0	6958							

D

Pump #	Liner X Stroke	gpm	Max Allowable SPP
1	6 X 11	3.83	5000
2	6 X 11	3.83	5000

R D R D

R D

From	HRS	Code	Description
0:00	0.25	SVC	Survey Circulating
			Svy@ 9570 inc 86.56 az .15
0:15	0.75	ROT	Rotary Drill fr: 9615 to 9638
			25-RPM 30-K 480-GPM 75-DIFF
1:00	0.5	SLID	Slide Drill fr: 9638 to 9646
			SLD @ 10-L 40-K 480-GPM 94-DIFF
1:30	0.25	SVC	Survey Circulating
			Svy @ 9601 inc 86.82 az .49
1:45	0.25	ROT	Rotary Drill fr: 9646 to 9667
			25-RPM 30-K 480-GPM 75-DIFF
2:00	0.5	SLID	Slide Drill fr: 9667 to 9676
			SLD @ 10-L 40-K 480-GPM 94-DIFF
2:30	0.25	ROT	Rotary Drill fr: 9676 to 9678
			25-RPM 30-K 480-GPM 75-DIFF
2:45	0.25	SVC	Survey Circulating
			Svy@ 9633 inc 87.63 az 0.25
3:00	1	ROT	Rotary Drill fr: 9678 to 9709
			25-RPM 30-K 480-GPM 75-DIFF
4:00	0.25	SVC	Survey Circulating
			C/S @ 9664 inc 88.94 az 0.38
4:15	0.75	ROT	Rotary Drill fr: 9709 to 9724
			25-RPM 30-K 480-GPM 75-DIFF

24 Hr Summary: Drill Curve BHA#1 / POOH to P/U Lateral assy

Proj svy at 0:00: 9615 9186 87 0.5

Proj svy at 24:00: 9803 9188 90.2 359.54

Bottom Hole Circulating Temp. (F): 132

Formation Name/Depth: Avalon Shale 9184 TVD

Remarks:

SDM DIRECTIONAL REP: Rusty Toney, Hank Hebert

SDM MWD REP.: Alex Paharsingh, Hamish Snell / Neal Sepr

COMPANY REP.: Pete Lensing

DAILY COST: \$0.00

CUMMULATIVE COST: \$0.00

SDM JOB #: 12MLD0450

Company: CHEVRON

Field: Salado Draw

Well Name & No.: PORTER BROWN 1 H

Rig Contractor & No.: H & P 227

County/Block/Parish: _____

BHA No(s) Today: 1,2

Depth (ft): 9803 Distance last 24 hrs (ft) 188

Last CSG depth (ft): 4804 Size (in): 9.62

5:00	0.25	SLID	Slide Drill fr: 9724 to 9730
			SLD @ 10-L 40-K 480-GPM 94-DIFF
5:15	0.25	ROT	Rotary Drill fr: 9730 to 9741
			25-RPM 30-K 480-GPM 75-DIFF
5:30	0.25	SVC	Survey Circulating
			Svy @ 9696 inc 89.94 az 359.48
5:45	1	ROT	Rotary Drill fr: 9741 to 9773
			25-RPM 30-K 480-GPM 35-DIFF
6:45	0.25	SVC	Survey Circulating
			Survey @ 9728 Inc. 90.03 Azm. 359.81
7:00	2	ROT	Rotary Drill fr: 9773 to 9803
			25-RPM 30-K 480-GPM 48-DIFF
9:00	0.25	SVC	Survey Circulating
			Survey @ EOC 9758 Inc. 90.23 Azm. 359.54
9:15	3.75	CIRC	Circulate
			Circ and Cond Wellbore for T.O.H.
13:00	4	TO	Tripping Out (To Surface)
			T.O.H. BHA # 1
17:00	1	ONC	Other Non-circulating
			L/D BHA # 1
18:00	2.5	ONC	Other Non-circulating
			P/U BHA #2 Lateral Assy
20:30	0.5	ONC	Other Non-circulating
			JSA in Doghouse
21:00	2.5	ONC	Other Non-circulating
			P/U BHA #2 Lateral Assy
23:30	0.5	TI	Tripping In (From Surface)
			TIH



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No: 10 Date: 12/31/2012

Company: CHEVRON

Well Name & No.: PORTER BROWN 1 H

Field: Salado Draw

Rig Contractor & No.: H & P 227

County/Block/Parish: LEA, NM

BHA No(s) Today: 2

Depth (ft): 11146

Distance last 24 hrs (ft) 1093

Last CSG depth (ft): 4804

Size (in): 9.62

D

Mud Type WBM

Weight: 8.9

Viscosity: 29@85

PV: 2@90

YP: 3

WL: 90.0

Gels: 1/1/1

% Oil:

% Solid: 0.6

% Sand:

PH: 9.8

CL: 53000

D

No.	Bit Size (in)	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum (ft)	Cum. Hours	Depth Out (ft)	DULL CONDITION							
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD
2	8.5	STC	MSi813	JF4379	.704	.2	1343	26.50		2	3	BT	S	X		BT	TD

R D R D

BHA No.	Size (in)	Type	Deflection		Serial Number	Avg Diff. Press.	Drill Hrs. Today	Drill Hrs. Accum.	Circ. Hrs. Today	Circ. Hrs. Accum.	Depth In (ft)	Depth Out (ft)
			Tool	Angle								
2	6.87	5.0 .288 R	FXD	0	6958	307.9	19.3	26.5	4.3	10.5	9803	

D

Pump #	Liner X Stroke	gpm	Max Allowable SPP
1	6 X 11	3.83	5000
2	6 X 11	3.83	5000

R D R D D

R D

From	HRS	Code	Description
0:00	0.25	SVC	Survey Circulating
			Svy @ 9949 inc 89 az 359.78
0:15	2.25	ROT	Rotary Drill fr: 10053 to 10148
			164-B- RPM 500- GPM 215-DIFF
2:30	0.25	SVC	Survey Circulating
			Svy @ 10044 inc 88.65 az 358.42
2:45	2.25	ROT	Rotary Drill fr: 10148 to 10242
			164-B- RPM 500- GPM 330 -DIFF
5:00	0.25	SVC	Survey Circulating
			Svy @ 10139 inc 90.17 az 356.83
5:15	2.25	ROT	Rotary Drill fr: 10242 to 10336
			25-K 164-B- RPM 500- GPM 355-DIFF
7:30	0.25	SVC	Survey Circulating
			C/S # 10232 Inc. 90.32 Azm. 355.44
7:45	1.5	ROT	Rotary Drill fr: 10336 to 10430
			164-B- RPM 500- GPM 283-DIFF
9:15	1.5	SVC	Survey Circulating
			C/S @ 10326 Inc. 90.49 Azm. 355.81
10:45	1.75	ROT	Rotary Drill fr: 10430 to 10525
			22-K 164-B- RPM 500- GPM 316-DIFF
12:30	0.25	SVC	Survey Circulating
			C/S @ 10421 Inc.91.00 Azm. 357.12

24 Hr Summary: BHA #2 - Drill 8.5" hole lateral

Proj svy at 0:00: 10053 9192 89 358

Proj svy at 24:00: 11146 9183 90.4 359

Bottom Hole Circulating Temp. (F): 149

Formation Name/Depth: Avalon Shale 9184 TVD

Remarks:

SDM DIRECTIONAL REP: Rusty Toney, Hank Hebert

SDM MWD REP.: Alex Paharsingh, Hamish Snell / Neal Sepr

COMPANY REP.: Pete Lensing

DAILY COST: \$0.00

CUMMULATIVE COST: \$0.00

SDM JOB #: 12MLD0450

Company: CHEVRON

Field: Salado Draw

Well Name & No.: PORTER BROWN 1 H

Rig Contractor & No.: H & P 227

County/Block/Parish: _____

BHA No(s) Today: 2

Depth (ft): 11146

Distance last 24 hrs (ft) 1093

Last CSG depth (ft): 4804

Size (in): 9.62

12:45	1.25	ROT	Rotary Drill fr: 10525 to 10629
			164-B- RPM 500- GPM 330 -DIFF
14:00	0.5	RIGS	Rig Service
			Rig Service
14:30	0.25	SVC	Survey Circulating
			C/S @ 10515 Inc. 90.63 Azm. 357.40
14:45	1	ROT	Rotary Drill fr: 10629 to 10713
			20-K 164-B- RPM 500- GPM 380 -DIFF
15:45	0.25	SVC	Survey Circulating
			C/S @ 10609 Inc. 90.74 Azm. 357.36
16:00	1	ROT	Rotary Drill fr: 10713 to 10807
			20-K 164-B- RPM 500- GPM 330 -DIFF
17:00	0.25	SVC	Survey Circulating
			C/S @ 10703 Inc. 90.57 Azm. 357.61
17:15	1.5	ROT	Rotary Drill fr: 10807 to 10902
			22-K 164-B- RPM 500- GPM 330 -DIFF
18:45	0.25	SVC	Survey Circulating
			Svy @ 10798 inc 90.72 az 357.42
19:00	1.75	ROT	Rotary Drill fr: 10902 to 10996
			22-K 164-B- RPM 500- GPM 330 -DIFF
20:45	0.25	SVC	Survey Circulating
			10893 inc 90.72 az 358.30
21:00	1.5	ROT	Rotary Drill fr: 10996 to 11090
			22-K 164-B- RPM 500- GPM 330 -DIFF
22:30	0.25	SVC	Survey Circulating
			Svy@ 10986 inc 90.40 az 358.22
22:45	1.25	ROT	Rotary Drill fr: 11090 to 11146
			22-K 164-B- RPM 500- GPM 330 -DIFF



D ■ ■ ■ ■ DR ■ ■ ■ ■ ■ R ■ ■ ■ ■ R ■

No: 11 Date: 1/1/2013Company: CHEVRONWell Name & No.: PORTER BROWN 1 HField: Salado DrawRig Contractor & No.: H & P 227County/Block/Parish: LEA, NMBHA No(s) Today: 2Depth (ft): 12600 Distance last 24 hrs (ft) 1359Last CSG depth (ft): 4804Size (in): 9.62

■ ■ ■ D ■ ■ ■ ■

Mud Type WBMWeight: 8.9Viscosity: 29@85PV: 2@90YP: 3WL: 90.0Gels: 1/1/1% Oil: % Solid: 0.6% Sand: PH: 9.8CL: 53000

■ ■ ■ D ■ ■ ■ ■

No.	Bit Size (in)	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum (ft)	Cum. Hours	Depth Out (ft)	DULL CONDITION							
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD
2	8.5	STC	MSi813	JF4379	.704	.2	2702	46.00		2	3	BT	S	X		BT	TD

■ ■ ■ ■ R D ■ ■ ■ ■ ■ R ■ ■ ■ ■ D ■ ■ ■ ■

BHA No.	Size (in)	Type	Deflection		Serial Number	Avg Diff. Press.	Drill Hrs. Today	Drill Hrs. Accum.	Circ. Hrs. Today	Circ. Hrs. Accum.	Depth In (ft)	Depth Out (ft)
			Tool	Angle								
2	6.87	5.0 .288 R	FXD	0	6958	318.1	19.5	46.0	4.0	14.5	9803	

■ ■ ■ ■ D ■ ■ ■ ■

Pump #	Liner X Stroke	gpm	Max Allowable SPP
1	6 X 11	3.83	5000
2	6 X 11	3.83	5000

■ ■ R ■ ■ ■ D ■ ■ ■ ■ R ■ ■ ■ ■ ■ ■ D ■ ■ ■ ■ ■ ■

■ ■ ■ ■ ■ R ■ ■ ■ ■ D ■ ■ ■ ■

From	HRS	Code	Description
0:00	0.5	ROT	Rotary Drill fr: 11146 to 11185
			15-K 169-B- RPM 500- GPM 230 -DIFF
0:30	0.25	SVC	Survey Circulating
			C/S@ 11081 inc 90.43 az 358.55
0:45	2	ROT	Rotary Drill fr: 11185 to 11279
			15-K 169-B- RPM 500- GPM 230 -DIFF
2:45	0.25	SVC	Survey Circulating
			C/S@ 11175 inc 90.46 az 359.66
3:00	1.75	ROT	Rotary Drill fr: 11374 to 11374
			16-K 169-B- RPM 500- GPM 230 -DIFF
4:45	0.25	SVC	Survey Circulating
			C/S @ 11270 inc 90.4 az 359.89
5:00	1.5	ROT	Rotary Drill fr: 11374 to 11468
			16-K 169-B- RPM 500- GPM 340 -DIFF
6:30	0.25	SVC	Survey Circulating
			C/S @ 11364 Inc. 90.40 Azm. .86
6:45	1	ROT	Rotary Drill fr: 11468 to 11563
			22-K 169-B- RPM 500- GPM 450 -DIFF
7:45	0.25	SVC	Survey Circulating
			C/S @ 11459 Inc. 90.20 Azm. 1.16
8:00	1	ROT	Rotary Drill fr: 11563 to 11657
			22-K 169-B- RPM 500- GPM 340 -DIFF

24 Hr Summary: BHA #2 - Drill 8.5" hole lateralProj svy at 0:00: 11146 9183 90.4 359Proj svy at 24:00: 12600 9176 90 360Bottom Hole Circulating Temp. (F): 153Formation Name/Depth: Avalon Shale 9184 TVD

Remarks:

SDM DIRECTIONAL REP: Rusty Toney, Hank HebertSDM MWD REP.: Alex Paharsingh, Hamish Snell / Neal SeprCOMPANY REP.: Pete LensingDAILY COST: \$0.00CUMMULATIVE COST: \$0.00SDM JOB #: 12MLD0450

Company: CHEVRON

Field: Salado Draw

County/Block/Parish: _____

Depth (ft): 12600

Distance last 24 hrs (ft) 1359

Well Name & No.: PORTER BROWN 1 H

Rig Contractor & No.: H & P 227

BHA No(s) Today: 2

Last CSG depth (ft): 4804

Size (in): 9.62

9:00	0.25	SVC	Survey Circulating
			C/S @ 11553 Inc. 90.63 Azm. 0.46
9:15	1.75	ROT	Rotary Drill fr: 11657 to 11751
			16-K 169-B- RPM 500- GPM 375 -DIFF
11:00	0.25	SVC	Survey Circulating
			C/S @ 11647 Inc. 91.38 Azm. 0.65
11:15	1.5	ROT	Rotary Drill fr: 11751 to 11845
			18-K 169-B- RPM 500- GPM 360 -DIFF
12:45	0.25	SVC	Survey Circulating
			C/S @ 11741 Inc. 90.57 Azm. 1.20
13:00	1	ROT	Rotary Drill fr: 11845 to 11940
			21-K 169-B- RPM 500- GPM 299 -DIFF
14:00	0.5	RIGS	Rig Service
			Rig Service
14:30	0.25	SVC	Survey Circulating
			C/S @ 11836 Inc. 90.46 Azm. .81
14:45	0.75	ROT	Rotary Drill fr: 11940 to 12034
			17-K 169-B- RPM 500- GPM 260 -DIFF
15:30	0.25	SVC	Survey Circulating
			C/S @ 11930 Inc. 90.03 Azm. .60
15:45	1	ROT	Rotary Drill fr: 12034 to 12128
			20-K 169-B- RPM 500- GPM 340 -DIFF
16:45	0.25	SVC	Survey Circulating
			C/S @ 12024 Inc. 89.86 Azm. .50
17:00	1.25	ROT	Rotary Drill fr: 12128 to 12223
			16-K 169-B- RPM 500- GPM 340 -DIFF
18:15	0.25	SVC	Survey Circulating
			C/S @ 12119 inc 90.09 az 0.66
18:30	1	ROT	Rotary Drill fr: 12223 to 12317
			16-K 169-B- RPM 500- GPM 340 -DIFF
19:30	0.25	SVC	Survey Circulating
			C/S @ 12213 inc 90.06 az 359.81
19:45	1.25	ROT	Rotary Drill fr: 12317 to 12412
			16-K 169-B- RPM 500- GPM 340 -DIFF
21:00	0.25	SVC	Survey Circulating
			C/S @ 12308 inc 90.09 az 0.93
21:15	1	ROT	Rotary Drill fr: 12412 to 12506
			16-K 169-B- RPM 500- GPM 340 -DIFF
22:15	0.25	SVC	Survey Circulating
			C/S @ 12402 Inc 89.89 Az 0.66
22:30	1.25	ROT	Rotary Drill fr: 12506 to 12600
			16-K 169-B- RPM 500- GPM 340 -DIFF
23:45	0.25	SVC	Survey Circulating
			C/S @ 12497 Inc 89.94 Az 0.93

D ☐ ☐ ☐ ☐ DR ☐ ☐ ☐ ☐ ☐ ☐ R ☐ ☐ ☐ ☐No: 12 Date: 1/2/2013Company: CHEVRONWell Name & No.: PORTER BROWN 1 HField: Salado DrawRig Contractor & No.: H & P 227County/Block/Parish: LEA, NMBHA No(s) Today: 2Depth (ft): 13468 Distance last 24 hrs (ft) 868Last CSG depth (ft): 4804Size (in): 9.62☐ ☐ ☐ ☐ D ☐ ☐ ☐ ☐Mud Type WBMWeight: 8.9Viscosity: 29@85PV: 2@90YP: 3WL: 90.0Gels: 1/1/1% Oil: % Solid: 0.6% Sand: PH: 9.8CL: 53000☐ ☐ ☐ ☐ D ☐ ☐ ☐ ☐

No.	Bit Size (in)	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum (ft)	Cum. Hours	Depth Out (ft)	DULL CONDITION							
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD
2	8.5	STC	MSi813	JF4379	.704	.2	3615	56.25	13468	2	3	BT	S	X		BT	TD

☐ ☐ ☐ ☐ R D ☐ ☐ ☐ ☐ ☐ ☐ R ☐ ☐ ☐ ☐

BHA No.	Size (in)	Type	Deflection		Serial Number	Avg Diff. Press.	Drill Hrs. Today	Drill Hrs. Accum.	Circ. Hrs. Today	Circ. Hrs. Accum.	Depth In (ft)	Depth Out (ft)
			Tool	Angle								
2	6.87	5.0 .288 R	FXD	0	6958	327.3	10.3	56.3	11.8	26.3	9803	13468

☐ ☐ ☐ ☐ D ☐ ☐ ☐ ☐

Pump #	Liner X Stroke	gpm	Max Allowable SPP
1	6 X 11	3.83	5000
2	6 X 11	3.83	5000

☐ ☐ R ☐ ☐ ☐ D ☐ ☐ ☐ R ☐ ☐ ☐ ☐ ☐ ☐

☐ ☐ ☐ ☐ R ☐ ☐ ☐ ☐ D ☐ ☐ ☐ ☐

From	HRS	Code	Description
0:00	1.25	ROT	Rotary Drill fr: 12600 to 12695
			22-K 169-B- RPM 500- GPM 340 -DIFF
1:15	0.25	SVC	Survey Circulating
			C/S@ 12591 Inc 90.00 Az 0.12
1:30	1	ROT	Rotary Drill fr: 12695 to 12789
			23-K 169-B- RPM 500- GPM 340 -DIFF
2:30	0.25	SVC	Survey Circulating
			C/S@ 12685 Inc 89.80 Az 359.65
2:45	1.25	ROT	Rotary Drill fr: 12789 to 12884
			16-K 169-B- RPM 500- GPM 340 -DIFF
4:00	0.25	SVC	Survey Circulating
			C/S@ 12780 Inc 90.03 Az 358.60
4:15	1.25	ROT	Rotary Drill fr: 12884 to 12978
			20-K 169-B- RPM 500- GPM 360 -DIFF
5:30	0.25	SVC	Survey Circulating
			C/S @ 12874 Inc 90.06 Az 358.04
5:45	0.75	ROT	Rotary Drill fr: 12978 to 13073
			18-K 169-B- RPM 500- GPM 333 -DIFF
6:30	0.25	SVC	Survey Circulating
			C/S @ 12969 Inc. 90.26 Azm. 358.00
6:45	1.25	ROT	Rotary Drill fr: 13073 to 13167
			20-K 169-B- RPM 500- GPM 418 -DIFF

24 Hr Summary: BHA #2 - Drill 8.5" hole lateralProj svy at 0:00: 12600 9176 90 360Proj svy at 24:00: 13468 9170 90.83 358.42Bottom Hole Circulating Temp. (F): 158Formation Name/Depth: Avalon Shale 9184 TVD

Remarks:

SDM DIRECTIONAL REP: Rusty Toney, Hank HebertSDM MWD REP.: Alex Paharsingh, Hamish Snell / Neal SeprCOMPANY REP.: Pete LensingDAILY COST: \$0.00CUMMULATIVE COST: \$0.00SDM JOB #: 12MLD0450

Company: CHEVRON

Field: Salado Draw

Well Name & No.: PORTER BROWN 1 H

Rig Contractor & No.: H & P 227

County/Block/Parish:

BHA No(s) Today: 2

Depth (ft): 13468

Distance last 24 hrs (ft) 868

Last CSG depth (ft): 4804

Size (in): 9.62

8:00	0.25	SVC	Survey Circulating
			C/S @ 13063 Inc.90.34 Azm. 357.18
8:15	1	ROT	Rotary Drill fr: 13167 to 13262
			22-K 169-B- RPM 500- GPM 360 -DIFF
9:15	0.25	SVC	Survey Circulating
			C/S @ 13158 Inc. 90.49 Azm. 357.05
9:30	1	ROT	Rotary Drill fr: 13262 to 13357
			22-K 169-B- RPM 500- GPM 402 -DIFF
10:30	0.25	SVC	Survey Circulating
			C/S @ 13253 Inc. 90.63 Azm. 357.09
10:45	1.25	ROT	Rotary Drill fr: 13357 to 13452
			22-K 169-B- RPM 500- GPM 369 -DIFF
12:00	0.25	SVC	Survey Circulating
			C/S @ 13348 Inc. 91.09 Azm. 358.20
12:15	0.25	ROT	Rotary Drill fr: 13452 to 13468
			21-K 169-B- RPM 500- GPM 333 -DIFF
12:30	0.25	SVC	Survey Circulating
			Survey @ TD (13468) SD (13364) Inc. 90.83 Azm. 358.42
12:45	6.25	RMG	Reaming
			500-GPM 50-RPM WORKING PIPE@ TD
19:00	2	TO	Tripping Out (To Surface)
			POOH to log 9896
21:00	3	OC	Other Circulating
			Logging out of hole



D □ □ □ □ DR □ □ □ □ □ R □ □ □ R □

No: 13 Date: 1/3/2013Company: CHEVRONWell Name & No.: PORTER BROWN 1 HField: Salado DrawRig Contractor & No.: H & P 227County/Block/Parish: LEA, NMBHA No(s) Today: 2Depth (ft): 13468 Distance last 24 hrs (ft) Last CSG depth (ft): 4804 Size (in): 9.62

□ □ □ D □ □ □

Mud Type WBM Weight: 8.9 Viscosity: 29@85 PV: 2@90 YP: 3 WL: 90.0
Gels: 1/1/1 % Oil: % Solid: 0.6 % Sand: PH: 9.8 CL: 53000

□ □ □ D □ □ □

No.	Bit Size (in)	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum (ft)	Cum. Hours	Depth Out (ft)	DULL CONDITION							
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD
2	8.5	STC	MSi813	JF4379	.704	.2	3615	56.25	13468	2	3	BT	S	X		BT	TD

□ □ □ □ R D □ □ □ R □ □ □ D □ □ □

BHA No.	Size (in)	Type	Deflection		Serial Number	Avg Diff. Press.	Drill Hrs. Today	Drill Hrs. Accum.	Circ. Hrs. Today	Circ. Hrs. Accum.	Depth In (ft)	Depth Out (ft)
			Tool	Angle								
2	6.87	5.0 .288 R	FXD	0	6958	327.3		56.3	7.0	33.3	9803	13468

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Pump #	Liner X Stroke	gpm	Max Allowable SPP
1	6 X 11	3.83	5000
2	6 X 11	3.83	5000

□ □ R □ □ □ D □ □ □ R □ □ □ □ □ D □ □ □ □ □ □

□ □ □ □ □ R □ □ □ □ D □ □ □ □

From	HRS	Code	Description
0:00	7	OC	Other Circulating
			Logging out of hole
7:00	1	TO	Tripping Out (To Surface)
			T.O.H. BHA #2 Standing Back in Derrick
8:00	3	TO	Tripping Out (To Surface)
			T.O.H. BHA #2 Laying Down Singles
11:00	2	TO	Tripping Out (To Surface)
			T.O.H. BHA #2 Standing Back in Derrick
13:00	2.5	ONC	Other Non-circulating
			L/D BHA # 2
15:30	8.5	ONC	Other Non-circulating
			Wait on Trucks & Released from Rig

24 Hr Summary: End of well- POOH while loggingProj svy at 0:00: 13468 9170 90.83 358.42Proj svy at 24:00: Bottom Hole Circulating Temp. (F): Formation Name/Depth: Avalon Shale 9184 TVDRemarks: SDM DIRECTIONAL REP: Rusty Toney, Hank HebertSDM MWD REP.: Alex Paharsingh, Hamish Snell / Neal SeprCOMPANY REP.: Pete LensingDAILY COST: \$0.00CUMMULATIVE COST: \$0.00SDM JOB #: 12MLD0450



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Report

☐ ☐ ☒ ☐ ☐ ☐

BHA #: 1

Date In: 12/25/2012

Company: CHEVRON

Well Name & No.: PORTER BROWN 1 H

Date Out: 12/29/2012

Field: Salado Draw

Rig Contractor & No.: H & P 227

Depth In (ft): 8446

County/Block/Par.: LEA, NM

Depth Out (ft): 9803

□□□ **D** □□□

No.	Bit Size (in)	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum (ft)	Cum. Hours	Depth Out	DULL CONDITION								Comp. Lngh
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD	
1	8.75	STC	Fhi 37HY	PX 8788	3 X 18	4	1349	66	9803	2	4	FC	H	2	I	NO	BHA	1.00

DOCUMENT

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Drillpipe	Grade	OD	ID	Wt./Kft	Conn.	Lgth
Upper	S-135	5	4.27	19.5	4 1/2 IF	****
Lower	S-135	5	4.27	19.5	4 1/2 IF	1415.90

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Weight (Kib)	In Air	In Mud
Total	58000	49996
Lower	7000	6034

R

Mode	Distance (ft)	Drig Hrs	Circ Hrs	ROP	WOB	Rot RPM	Rot Tq	Flow Rate	Avg Diff	SPP
Sliding	711	35.50	*****	20.0	37			480	76	1831
Rotating	638	30.50	*****	20.9	28	25	7266	480	56	1949
Total	1349	66.00	19.50	20.4	32	25	7266	480	65	1892

Survey Sensor to Bit	42.75	Gamma Sensor to Bit:	40.63	Motor Bit to Bend	6.47	Motor Bit to Stabilizer:	2.75
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Center of Clamp-on to Center of UBHS: Mud Type: Mud Weight 8.9 Hrs in Hole: 100.75

Objective For Running BHA:

Avg Temp:	123.78	Max Temp:	132
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DRILL 8.75" CURVE SECTION

BHA Results:

BHA GAVE STEADY BUILDS MORE THAN NEEDED FOR THE WELL PLAN FOUND STATOR RUBBER IN JET

Reason for POOH:

LANDED CURVE DRILLED 200' RATHOLE T.O.H. FOR LATERAL ASSEMBLY

SDM Directional Drillers: Rusty Toney Hank Hebert

SDM Job #: 12MLD0450



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BHA #: 2

Date In: 12/29/2012

Company: CHEVRON

Well Name & No.: PORTER BROWN 1 H

Date Out: 1/3/2013

Field: Salado Draw

Rig Contractor & No.: H & P 227

Depth In (ft): 9803

County/Block/Par.: LEA, NM

Depth Out (ft): 13468

□ □ □ D □ □ □

No.	Bit Size (in)	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum (ft)	Cum. Hours	Depth Out	DULL CONDITION								Comp. Lngth
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD	
2	8.5	STC	MSi813	JF4379	.704	.2	3570	56.25	13468	2	3	BT	S	X	I	BT	TD	1.00

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Item No.	Component Description	Vendor	Serial No.	Gauge OD	OD	ID	Fishing Neck	Top Connection	Bottom Connection	Component Length	Total Length (ft)
2	PowerDrive	SDM	CC:74435		6.75	N/A	2.72	4 1/2 IF B.	4 1/2 REG B.	13.37	14.37
3	PIN X PIN SUB	SD	10395		6.87	2.75	N/A	4 1/2 IF P.	4 1/2 IF P.	2.50	16.87
4	Lower C-Link	SDM	6164		6.81	N/A		5 1/2 FH B.	4 1/2 IF B.	7.48	24.35
5	XO-SUB	SD	D67X660		6.87	3.5	N/A	4 1/2 IF B.	5 1/2 FH P.	2.97	27.32
6	FILTER SUB	NOV	0675-0087		6.75	3.25	N/A	4 1/2 IF B.	4 1/2 IF P.	3.20	30.52
7	PIN X PIN XO-SUB	NOV	106212		6.5	2.25	N/A	4 1/2 REG. P.	4 1/2 IF P.	1.86	32.38
8	M-7/8 .5.0 .288 RPG 0* (motor),	PF	6958		6.87	N/A	1.17	4 1/2 IF	4 1/2 REG.	24.70	57.08
9	8.25" Spiral Stab.	SD	SD2928	8 1/4	6.81	2.5	2.9	4 1/2 IF B.	4 1/2 IF P.	6.95	64.03
10	PIN X PIN SUB	SD	675HS1517		6.87	2.75	N/A	4 1/2 IF P.	4 1/2 IF P.	3.54	67.57
11	Upper C-Link	SDM	6163		6.81	N/A		5 1/2 FH B.	4 1/2 IF B.	7.46	75.03
12	GVR	SDM	6482	8 1/8	6.81	N/A		5 1/2 FH B.	5 1/2 FH P.	11.74	86.77
13	TeleScope	SDM	3752	8 1/8	7	N/A		5 1/2 FH B.	5 1/2 FH P.	29.61	116.38
14	EcoScope	SDM	985	8 1/4	6.87	N/A		5 1/2 FH B.	5 1/2 FH P.	26.82	143.20
15	XO-SUB	SD	D67X666		6.87	3.5	N/A	4 1/2 IF B.	5 1/2 FH P.	3.14	146.34
16	Float Sub	SD	SD111837		6.75	2.6875	NA	4 1/2 IF B.	4 1/2 IF P.	2.66	149.00
17	159-JTS 5" PushPipe	Rig	N/A		5	4.27	1.5	4 1/2 IF	4 1/2 IF	5003.07	5152.07
18	24-JTS 5" HWDP	RIG	N/A		5	3	2.5	4 1/2 IF	4 1/2 IF	749.94	5902.01

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Item #	Stabilizer Description	Spiral	Bld Lgth	Bld Wth	Gge Lgth	Gge In	Gge Out
9	8.25" Spiral Stab.	R	13	2 1/2	8	8 1/4	8 1/4
12	Density	R	10	2 1/2	6	8 1/8	8 1/8
13	Density	S	11	2 1/2	10	8 1/8	8 1/8
14	Density	S	25	4 1/4	24	8 1/4	8 1/4

DR □ □ □ □ □ □ D □ □ □

Drillpipe	Grade	OD	ID	Wt./Klt	Conn.	Lgth
Upper	S-135	5	4.27	19.5	4 1/2 IF	****
Lower	S-135	5	4.27	19.5	4 1/2 IF	5003.07

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Weight (Klb)	In Air	In Mud
Total	16728	147000
Lower	13410	11559

R □ □ □ □ □ R □

Mode	Distance (ft)	Drig Hrs	Circ Hrs	ROP	WOB	Rot RPM	Rot Tq	Flow Rate	Avg Diff	SPP
Sliding		0.00	*****							
Rotating	3570	56.25	*****	63.5	20	32	12214	500	327	3119
Total	3570	56.25	33.25	63.5	20	32	12214	500	327	3119

Survey Sensor to Bit 102.35 Gamma Sensor to Bit: 79.15 Motor Bit to Bend N/A Motor Bit to Stabilizer: N/A

Center of Clamp-on to Center of UBHS: Mud Type: Mud Weight 8.9 Hrs in Hole: 126

Objective For Running BHA: Avg Temp: 149.12 Max Temp: 158

DRILL LATER SECTION

BHA Results:

HAD INTERMINENT COMM WITH C-LINKS RESTRICTOR HOLDER FOR POWERDRIVE HAD WASHOUT ON SIDE

Reason for POOH:

TOTAL DEPTH

SDM Directional Drillers: Rusty Toney Hank Hebert

SDM Job #: 12MLD0450

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Job Number:	12MLD0450	Dir. Coordinator:	Ben Leonard	MWD Coordinator:	Chad McMillan
Well Name:	PORTER BROWN	Drilling Engineer:	Matthew Sheffer	MWD Operator 1:	Alex Paharsingh
Company:	CHEVRON	Dir. Driller 1:	Rusty Toney	MWD Operator 2:	Hamish Snell / Neal Seprodi
Field:	Salado Draw	Dir. Driller 2:	Hank Hebert	MWD Trainee:	
County/Parish/Blk:	LEA, NM	Dir. Driller Trainee:		Other:	
Job Start Date:	12/22/2012	# Motor Failures:	0	# MWD Failures:	0
Job End Date:	1/4/2013	Comments:		Comments:	

BHA No.	Depth In (ft)	Depth Out (ft)	Motor Size (in)	Motor Type	Motor Serial #	Motor Setting (Deg)	NDS Stab (in)	UBHS Stab (in)	Bit Size (in)	Bit Type	Drig Hrs	Circ Hrs	ROP (ft/sec)	WOB (Klb)	Flow (gpm)	Circ Temp (F)	Antic DLS (°/100ft)	Act. DLS (°/100ft)	Reason Pulled
1	8446	9803	6.75	5.0 ADJ 2.12	785-91438	ADJ 2.12		8 1/2	8.75	Fhi 37HY	66.00	19.50	20.4	32.3	480.0	132.0	8	13	LANDED CURVE DRILL
2	9803	13468	6.87	5.0 .288 RF	6958	FXD	8 1/4		8.5	MSi813	56.25	33.25	63.5	19.9	500.0	158.0	2	2	TOTAL DEPTH

Operational Synopsis:

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DR 111111 111R 1111R 1111RD

Company: CHEVRON Well Name & No.: PORTER BROWN 1 H
 Field: Salado Draw Rig Contractor & No.: H & P 227
 County/Block/Parish: LEA, NM

Date	Start Time	End Time	Depth From	Depth To	Drilled (ft)	Mode S/R	Drlg. Hrs.	ROP (ft/hr)	WOB (Klb)	Rot RPM (rpm)	Rot Tq Off Bot (ft-lbs)	Rot Tq On Bot (ft-lbs)	PU Wgt (Klb)	SO Wgt (Klb)	R off B Wgt (Klb)	TFO	Flow Rt (gpm)	Diff Pres (psi)	Circ Temp (F)	SPP (psi)	ECD	BHA
12/26/2012	2:00	4:00	8446	8481	35	S	2	17.5	35				237	230		50 MTR	480	100		1650		1
12/26/2012	4:15	6:00	8481	8512	31	S	1.75	17.7	35				237	230		50 MTR	480	100	113	1650		1
12/26/2012	6:15	7:30	8512	8534	22	S	1.25	17.6	35				245	230		5-L GTR	480	100	113	1650		1
12/26/2012	7:30	8:15	8534	8544	10	R	0.75	13.3	20	25		4300	245	230	235		480	50	114	1719		1
12/26/2012	8:15	10:15	8544	8575	31	R	2	15.5	20	25	2963	4300	245	230	235		480	50	114	1719		1
12/26/2012	10:30	11:30	8575	8590	15	S	1	15.0	30				245	230	235	HS	480	100	113	1650		1
12/26/2012	11:30	12:30	8590	8607	17	R	1	17.0	20	25		4253	245	230	235		480	50	114	1719		1
12/26/2012	12:45	13:30	8607	8622	15	S	0.75	20.0	30				245	230	235	HS	480	89	113	1757		1
12/26/2012	13:30	14:30	8622	8638	16	R	1	16.0	20	25		4253	245	230	235		480	38	114	1719		1
12/26/2012	14:45	15:15	8638	8648	10	S	0.5	20.0	30				245	230	235	HS	480	66	113	1766		1
12/26/2012	15:15	16:15	8648	8670	22	R	1	22.0	20	25	3405	4926	245	230	235		480	38	114	1719		1
12/26/2012	17:00	17:15	8670	8680	10	S	0.25	40.0	30				245	230	235	HS	480	66	113	1766		1
12/26/2012	17:15	18:45	8680	8701	21	R	1.5	14.0	25	25	3188	4926	245	230	235		480	38	118	1719		1
12/26/2012	19:00	20:15	8701	8719	18	S	1.25	14.4	30				245	230	235	5L	480	74	113	1766		1
12/26/2012	20:15	21:00	8719	8732	13	R	0.75	17.3	25	25	3500	4926	245	230	235		480	38	118	1719		1
12/26/2012	21:15	21:45	8732	8740	8	S	0.5	16.0	30				245	230	235	5L	480	74	113	1766		1
12/26/2012	21:45	23:00	8740	8764	24	R	1.25	19.2	25	25	3500	4926	245	230	235		480	38	118	1719		1
12/26/2012	23:15	0:00	8764	8770	6	S	0.75	8.0	30				245	230	235	5L	480	74	122	1766		1
12/27/2012	0:00	1:00	8770	8784	14	S	1	14.0	30				255	225	240	5L	480	74	122	1766		1
12/27/2012	1:00	1:45	8784	8795	11	R	0.75	14.7	25	25	3500	5400	255	225	240		480	38	118	1719		1
12/27/2012	2:00	3:45	8795	8815	20	S	1.75	11.4	30				250	230	240	5L	480	74	122	1766		1
12/27/2012	3:45	4:45	8815	8827	12	R	1	12.0	25	25	3500	5400	250	230	240		480	38	118	1719		1
12/27/2012	5:00	6:00	8827	8845	18	S	1	18.0	30				250	230	240	10L	480	74	122	1766		1
12/27/2012	6:00	6:45	8845	8858	13	R	0.75	17.3	30	25	3800	5400	250	230	240		480	38	118	1719		1
12/27/2012	7:00	8:00	8858	8876	18	S	1	18.0	30				250	232		10L	480	96	128	1766		1
12/27/2012	8:00	8:45	8876	8890	14	R	0.75	18.7	30	25	3900	5400	250	232	238		480	44	118	2000		1
12/27/2012	9:00	10:00	8890	8908	18	S	1	18.0	40				250	232	238	HS	480	88	122	1766		1
12/27/2012	10:00	10:45	8908	8921	13	R	0.75	17.3	30	25	3822	5723	250	232	238		480	59	118	2000		1
12/27/2012	11:00	11:45	8921	8938	17	S	0.75	22.7	40				250	232	238	HS	480	77	125	1766		1
12/27/2012	11:45	12:15	8938	8953	15	R	0.5	30.0	30	25	4677	5723	250	232	238		480	49	128	2000		1
12/27/2012	13:00	13:45	8953	8975	22	S	0.75	29.3	40				250	232	238	10-R	480		125	1766		1



DR□□□□□ □□R□□ □□□R□ R□□□RD

Company: CHEVRON

Well Name & No.: PORTER BROWN 1 H

Field: Salado Draw

Rig Contractor & No.: H & P 227

County/Block/Parish: LEA, NM

12/27/2012	13:45	14:30	8975	8984	9	R	0.75	12.0	30	25	4612	7120	250	232	238		480	45	128	2000		1
12/27/2012	14:45	15:30	8984	9004	20	S	0.75	26.7	40				250	232	238	10-R	480	72	125	1766		1
12/27/2012	15:30	16:15	9004	9016	12	R	0.75	16.0	30	25	4679	7120	250	232	238		480	76	128	2000		1
12/27/2012	16:30	17:00	9016	9034	18	S	0.5	36.0	40				250	232		5-R	480	65	125	1766		1
12/27/2012	17:00	17:30	9034	9047	13	R	0.5	26.0	30	25		7120	250	232	238		480	56	129	2000		1
12/27/2012	17:45	19:00	9047	9069	22	S	1.25	17.6	40				250	232	238	HS	480	65	125	1766		1
12/27/2012	19:00	19:30	9069	9079	10	R	0.5	20.0	30	25	2000	7120	250	238	232		480	56	129	2000		1
12/27/2012	20:30	22:00	9079	9101	22	S	1.5	14.7	40							HS	480	65	125	1766		1
12/27/2012	22:00	22:30	9101	9110	9	R	0.5	18.0	30	25	2000	7120	250	232	238		480	56	129	2000		1
12/27/2012	22:45	23:45	9110	9135	25	S	1	25.0	40				250	232	238	HS	480	65	125	1766		1
12/27/2012	23:45	0:00	9135	9142	7	R	0.25	28.0	30	25	2000	7120	250	232	238		480	56	129	2000		1
12/28/2012	0:30	1:45	9142	9167	25	S	1.25	20.0	40				250	232	238	HS	480	65	125	1766		1
12/28/2012	1:45	2:00	9167	9173	6	R	0.25	24.0	30	25	200	7120	250	232	238		480	56	129	2000		1
12/28/2012	2:15	3:00	9173	9200	27	S	0.75	36.0	40				250	232	238	HS	480	65	125	1766		1
12/28/2012	3:00	3:15	9200	9204	4	R	0.25	16.0	30	25	4000	9000	250	232	238		480	56	129	2000		1
12/28/2012	3:30	4:00	9204	9228	24	S	0.5	48.0	40				250	232	238	HS	480	65	125	1766		1
12/28/2012	4:30	5:15	9236	9260	24	S	0.75	32.0	40				250	232	238	HS	480	65	125	1766		1
12/28/2012	5:15	5:30	9260	9267	7	R	0.25	28.0	30	25	4000	9000	250	232	238		480	75	128	2050		1
12/28/2012	5:45	6:30	9267	9284	17	S	0.75	22.7	40				255	235		HS	480	49	125	1766		1
12/28/2012	6:30	7:00	9284	9299	15	R	0.5	30.0	30	25	6152	9000	255	235	242		480	30	128	2050		1
12/28/2012	7:15	8:00	9299	9321	22	S	0.75	29.3	40				255	235		HS	480	45	125	2012		1
12/28/2012	8:00	8:30	9321	9330	9	R	0.5	18.0	30	25	7123	9000	255	235	242		480	30	128	2050		1
12/28/2012	8:45	9:30	9330	9356	26	S	0.75	34.7	40				255	235		HS	480	65	125	2012		1
12/28/2012	9:30	10:00	9356	9362	6	R	0.5	12.0	30	25	6754	9000	255	235	242		480	76	128	2050		1
12/28/2012	10:15	11:15	9362	9382	20	S	1	20.0	40				255	235		5-L	480	75	125	2012		1
12/28/2012	11:15	11:45	9382	9393	11	R	0.5	22.0	30	25	5083	9125	255	235	242		480	45	128	2050		1
12/28/2012	12:00	12:45	9393	9411	18	S	0.75	24.0	40				255	235		5-L	480	94	125	2012		1
12/28/2012	12:45	13:00	9411	9425	14	R	0.25	56.0	30	25	5643	9125	255	235	242		480	45	128	2050		1
12/28/2012	13:45	14:30	9425	9445	20	S	0.75	26.7	40				255	235		5-L	480	88	125	2012		1
12/28/2012	14:30	15:00	9445	9457	12	R	0.5	24.0	30	25	4785	7242	255	235	242		480	75	128	2050		1
12/28/2012	15:15	16:30	9457	9479	22	S	1.25	17.6	40				255	235	242	5-L	480	88	125	2012		1
12/28/2012	16:30	17:00	9479	9488	9	R	0.5	18.0	30	25		7242	255	235	242		480	75	128	2050		1
12/28/2012	17:15	18:00	9488	9502	14	S	0.75	18.7	40				257	230	242	5-L	480	88	125	2012		1
12/28/2012	18:00	18:45	9502	9520	18	R	0.75	24.0	30	25	3000	9000	257	230	242		480	75	128	2050		1
12/28/2012	19:00	20:00	9520	9535	15	S	1	15.0	40				257	230	242	5-L	480	88	125	2012		1



Well Name & No.: PORTER BROWN 1 H

Rig Contractor & No.: H & P 227

12/28/2012	20:00	20:30	9535	9551	16	R	0.5	32.0	30	25	3000	9000	257	230	242		480	75	128	2050		1
12/28/2012	20:45	21:45	9551	9573	22	R	1	22.0	30	25	3000	9000	257	230	242	10L	480	75	128	2050		1
12/28/2012	21:45	22:45	9573	9583	10	S	1	10.0	40				257	230	242	10L	480	70	132	2025		1
12/28/2012	23:00	0:00	9583	9615	32	R	1	32.0	30	25	3000	9000	257	230	247		480	75	128	2050		1
12/29/2012	0:15	1:00	9615	9638	23	R	0.75	30.7	30	25		9000	257	230	242		480	75	128	2050		1
12/29/2012	1:00	1:30	9638	9646	8	S	0.5	16.0	40				257	230	242	10L	480	70	132	2025		1
12/29/2012	1:45	2:00	9646	9667	21	R	0.25	84.0	30	25	3000	9000	257	230	242		480	75	128	2050		1
12/29/2012	2:00	2:30	9667	9676	9	S	0.5	18.0	40				257	230	242	10L	480	70	132	2025		1
12/29/2012	2:30	2:45	9676	9678	2	R	0.25	8.0	30	25	3000	9000	257	230	242		480	75	128	2050		1
12/29/2012	3:00	4:00	9678	9709	31	R	1	31.0	30	25	300	9000	257	230	242		480	75	128	2050		1
12/29/2012	4:15	5:00	9709	9724	15	R	0.75	20.0	30	25	3000	9000	257	230	242		480	75	128	2050		1
12/29/2012	5:00	5:15	9724	9730	6	S	0.25	24.0	40				257	230	242	10L	480	70	132	2025		1
12/29/2012	5:15	5:30	9730	9741	11	R	0.25	44.0	30	25	3000	9000	257	230	242		480	75	128	2050		1
12/29/2012	5:45	6:45	9741	9773	32	R	1	32.0	30	25	5641	9000	257	230	242		480	35	128	2050		1
12/29/2012	7:00	9:00	9773	9803	30	R	2	15.0	30	25	6978	8756	257	230	242		480	48	128	2017		1

Mode	Drilled (ft)	Drig Hrs	Circ Hrs	ROP (ft/sec)	WOB (Klb)	Rot RPM (rpm)	Rot Tq. (ft-lbs)	Flow Rate (gpm)	Avg Diff (psi)	Cir Temp	SPP (psi)	ECD
Sliding	711	35.5	*****	20.0	36.8			480.0	75.7	122.9	1830.9	
Rotating	638	30.5	*****	20.9	28.2	25.0	7266.3	480.0	55.9	124.6	1949.4	
Total	1349	66.0	19.5	20.4	32.3	25.0	7266.3	480.0	65.3	123.8	1892.4	

Date	Start Time	End Time	Depth From	Depth To	Drilled (ft)	Mode S/R	Drlg. Hrs.	ROP (ft/hr)	WOB (Klb)	Rot RPM (rpm)	Rot Tq Off Bot (ft-lbs)	Rot Tq On Bot (ft-lbs)	PU Wgt (Klb)	SO Wgt (Klb)	R off B Wgt (Klb)	TFO	Flow Rt (gpm)	Diff Pres (psi)	Circ Temp (F)	SPP (psi)	ECD	BHA
12/30/2012	16:30	20:45	9803	9949	146	R	4.25	34.4	12	30	4500	6926	257	230	242		500	215	128	3030	9	2
12/30/2012	21:00	0:00	9949	10053	104	R	3	34.7	15	30	4500	8000	257	230	242		500	175	140	3030	9	2
12/31/2012	0:15	2:30	10053	10148	95	R	2.25	42.2	15	30	4000	8000	257	230	242		500	175	140	3030	9	2
12/31/2012	2:45	5:00	10148	10242	94	R	2.25	41.8	25	30	4900	10118	255	235	242		500	175	140	3030	9	2
12/31/2012	5:15	7:30	10242	10336	94	R	2.25	41.8	25	30	5100	11895	255	235	242		500	375	140	3199	9	2
12/31/2012	7:45	9:15	10336	10430	94	R	1.5	62.7	25	30	4989	10345	255	235	242		500	283	140	3199	9	2
12/31/2012	10:45	12:30	10430	10525	95	R	1.75	54.3	22	30	8263	10345	255	235	242		500	316	140	3199	9	2
12/31/2012	12:45	14:00	10525	10629	104	R	1.25	83.2	25	30		11582	255	235	242		500	316	140	3199		2
12/31/2012	14:45	15:45	10629	10713	84	R	1	84.0	20	30	8976	11582	255	235	242		500	380	144	3219	9	2



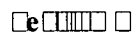
DR ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ R ☐ ☐ ☐ ☐ ☐ R ☐ ☐ ☐ ☐ RDCompany: CHEVRONWell Name & No.: PORTER BROWN 1 HField: Salado DrawRig Contractor & No.: H & P 227County/Block/Parish: LEA, NM

Mode	Drilled (ft)	Drig Hrs	Circ Hrs	ROP (ft/sec)	WOB (Klb)	Rot RPM (rpm)	Rot Tq. (ft- lbs)	Flow Rate (gpm)	Avg Diff (psi)	Cir Temp	SPP (psi)	ECD
Sliding		0.0	*****									
Rotating	3570	56.3	*****	63.5	19.9	32.4	12213.6	500.0	327.3	149.0	3119.2	9.0
Total	3570	56.3	33.3	63.5	19.9	32.4	12213.6	500.0	327.3	149.0	3119.2	9.0

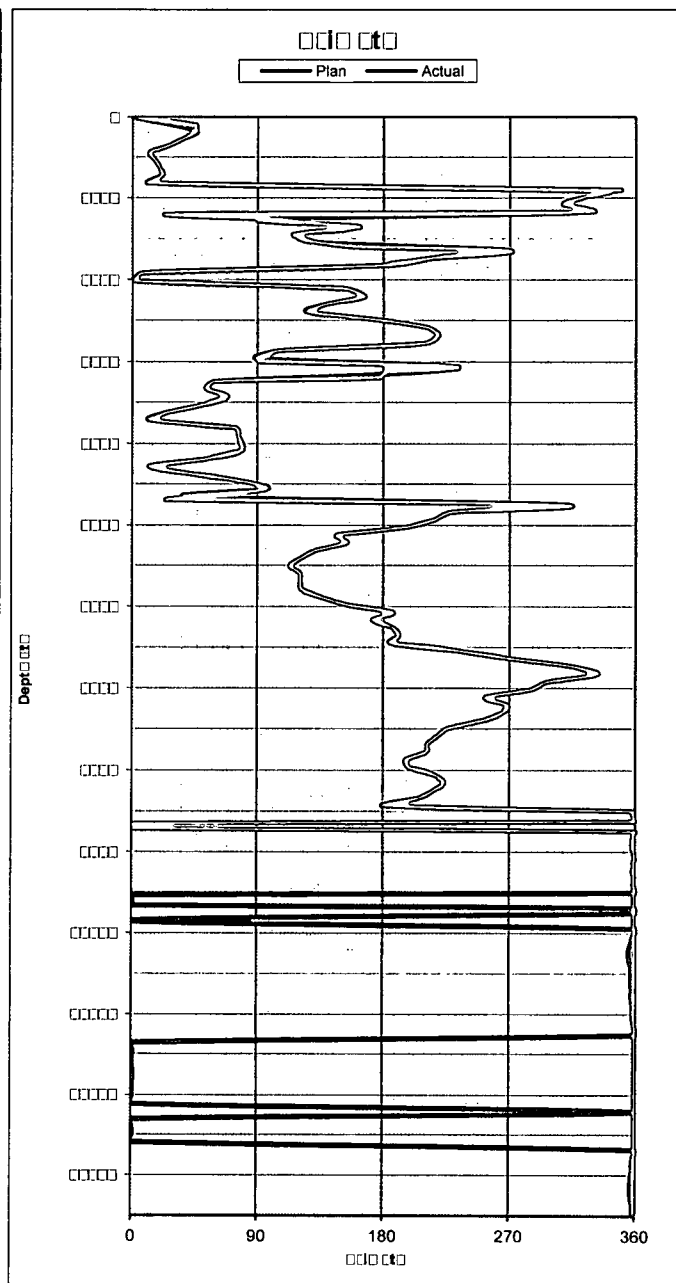
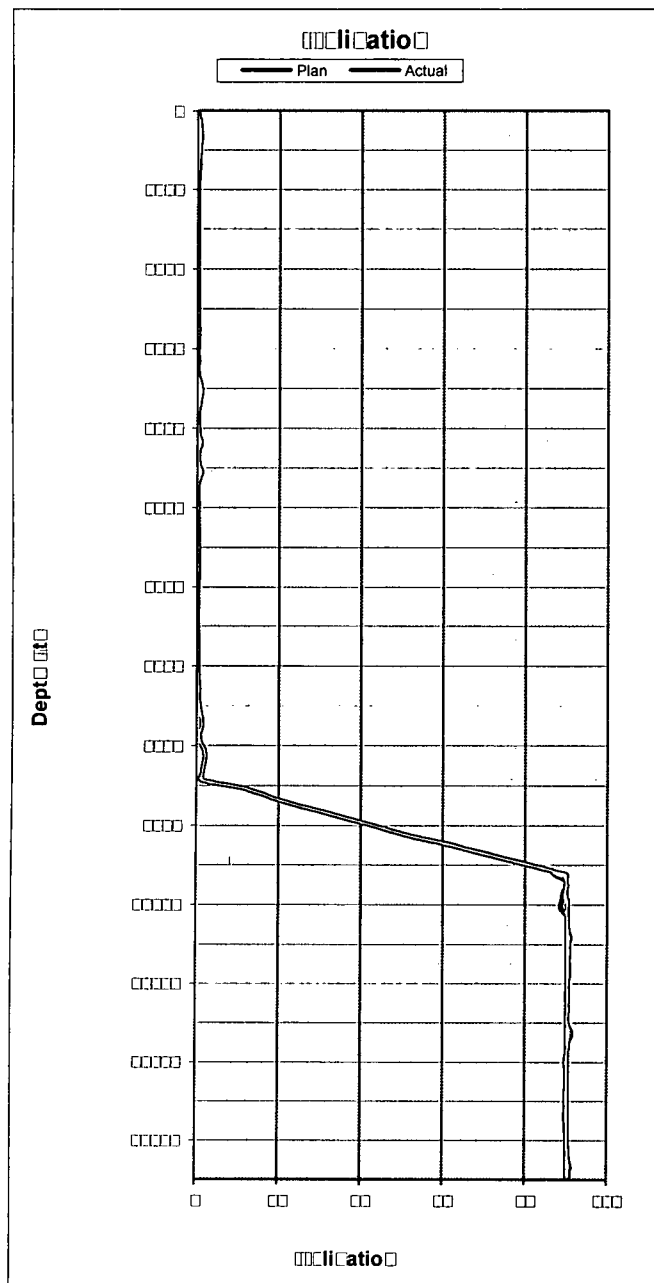
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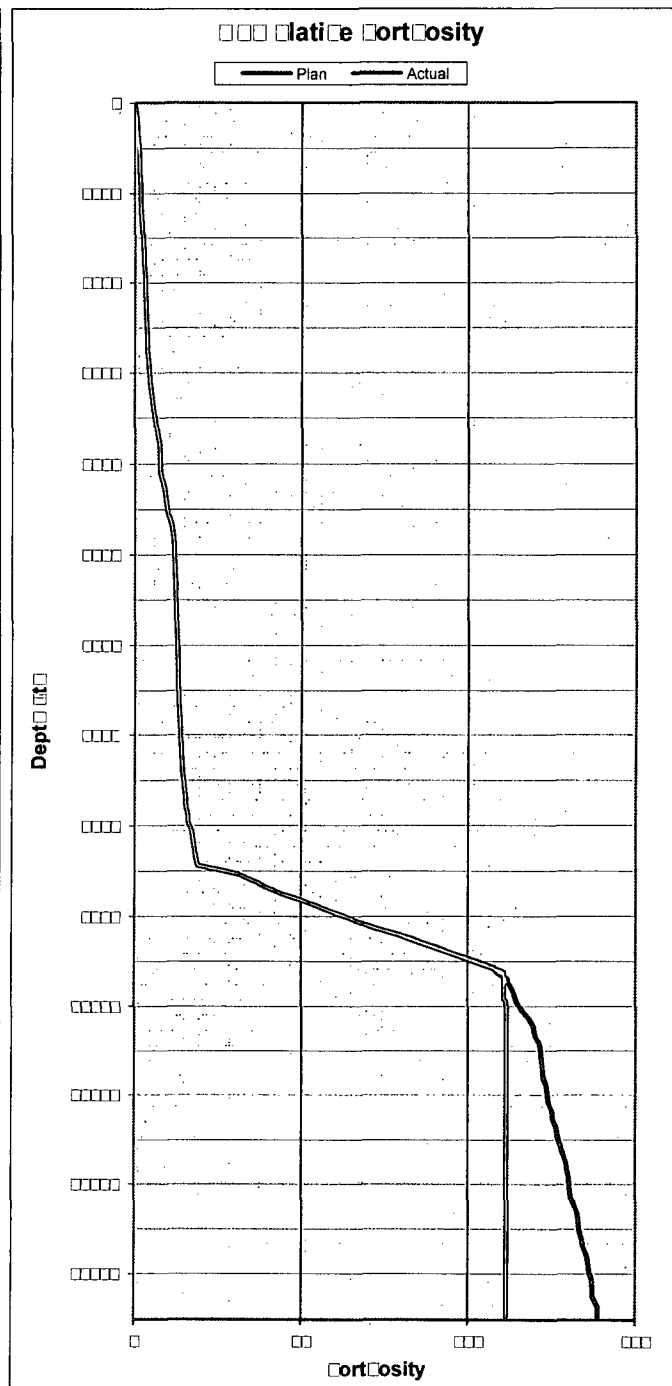
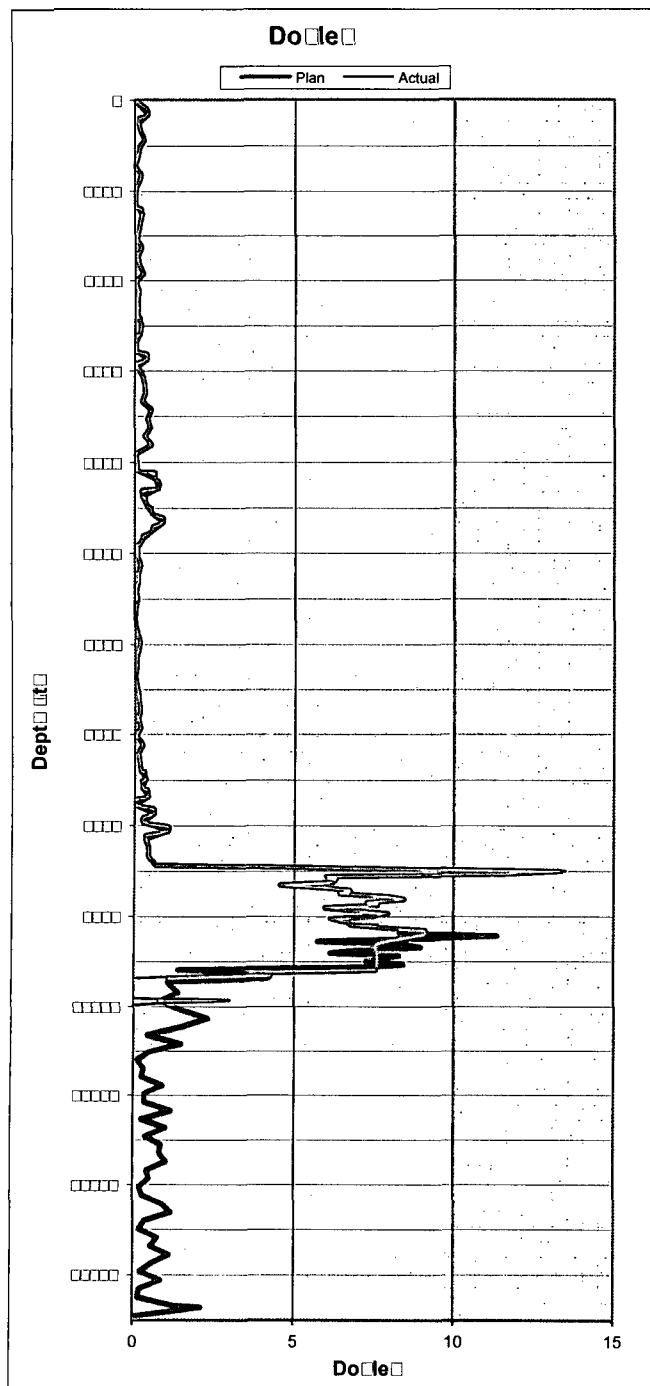


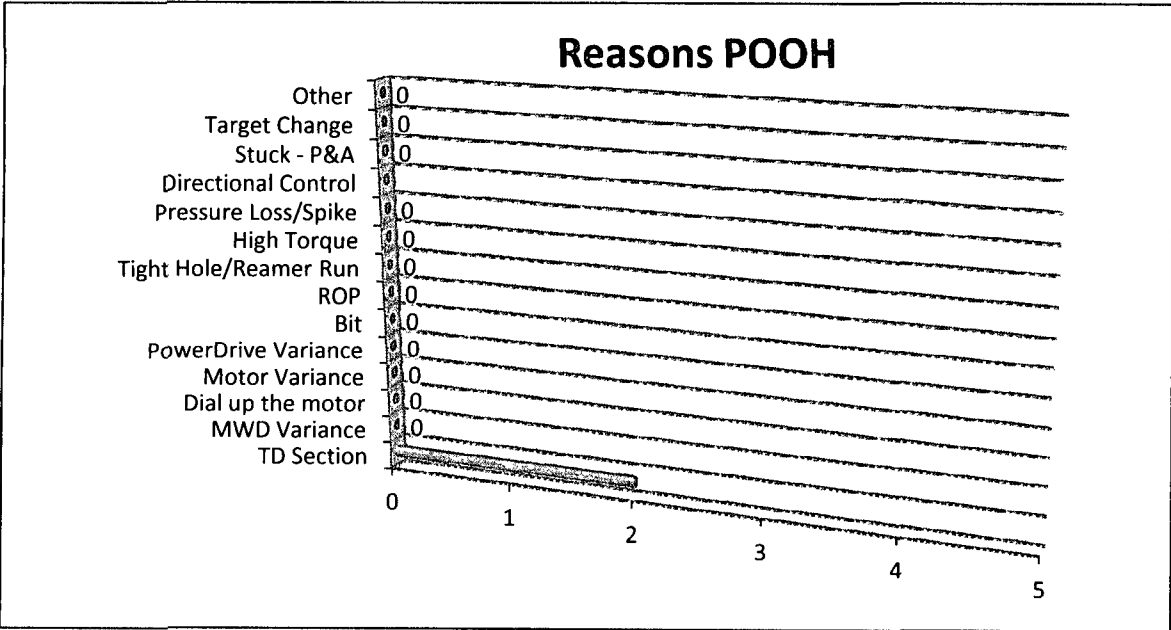
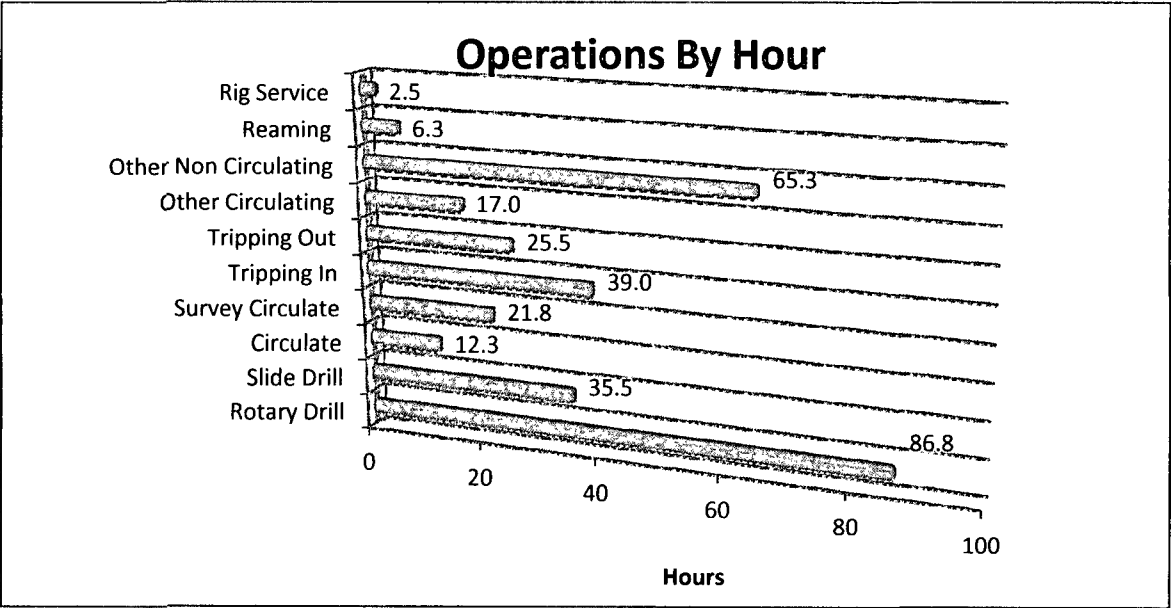
A Schlumberger Company



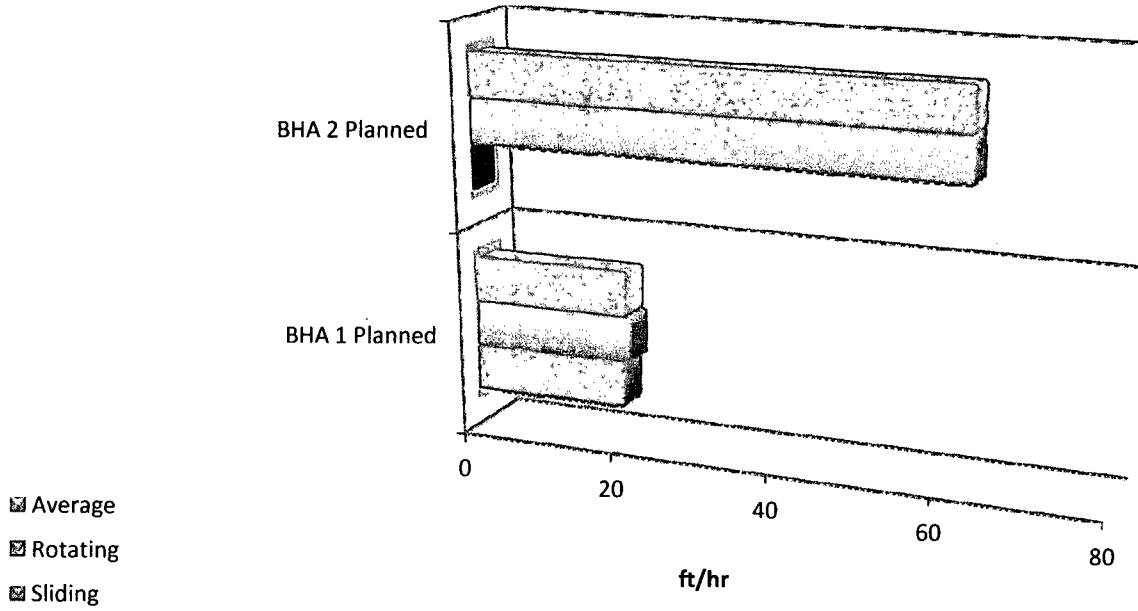
Key Error Code Indicator



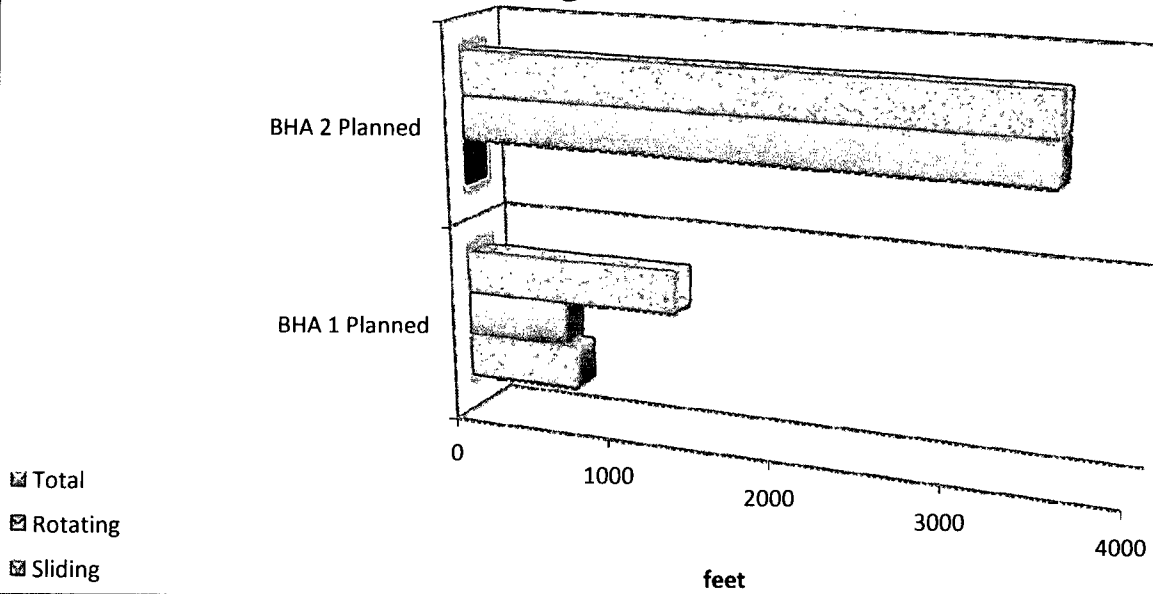


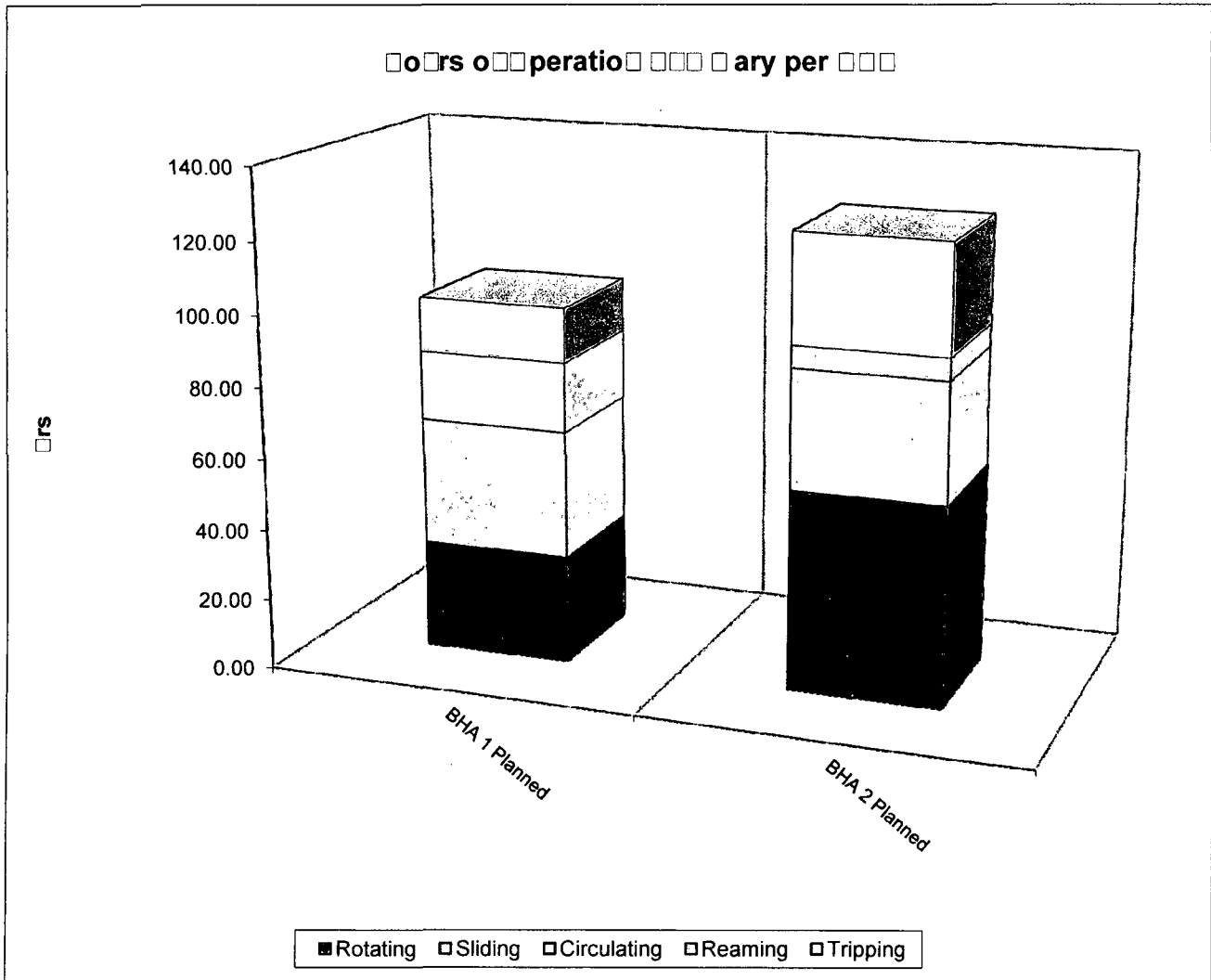


Rate of Penetration Per BHA



Footage Per BHA

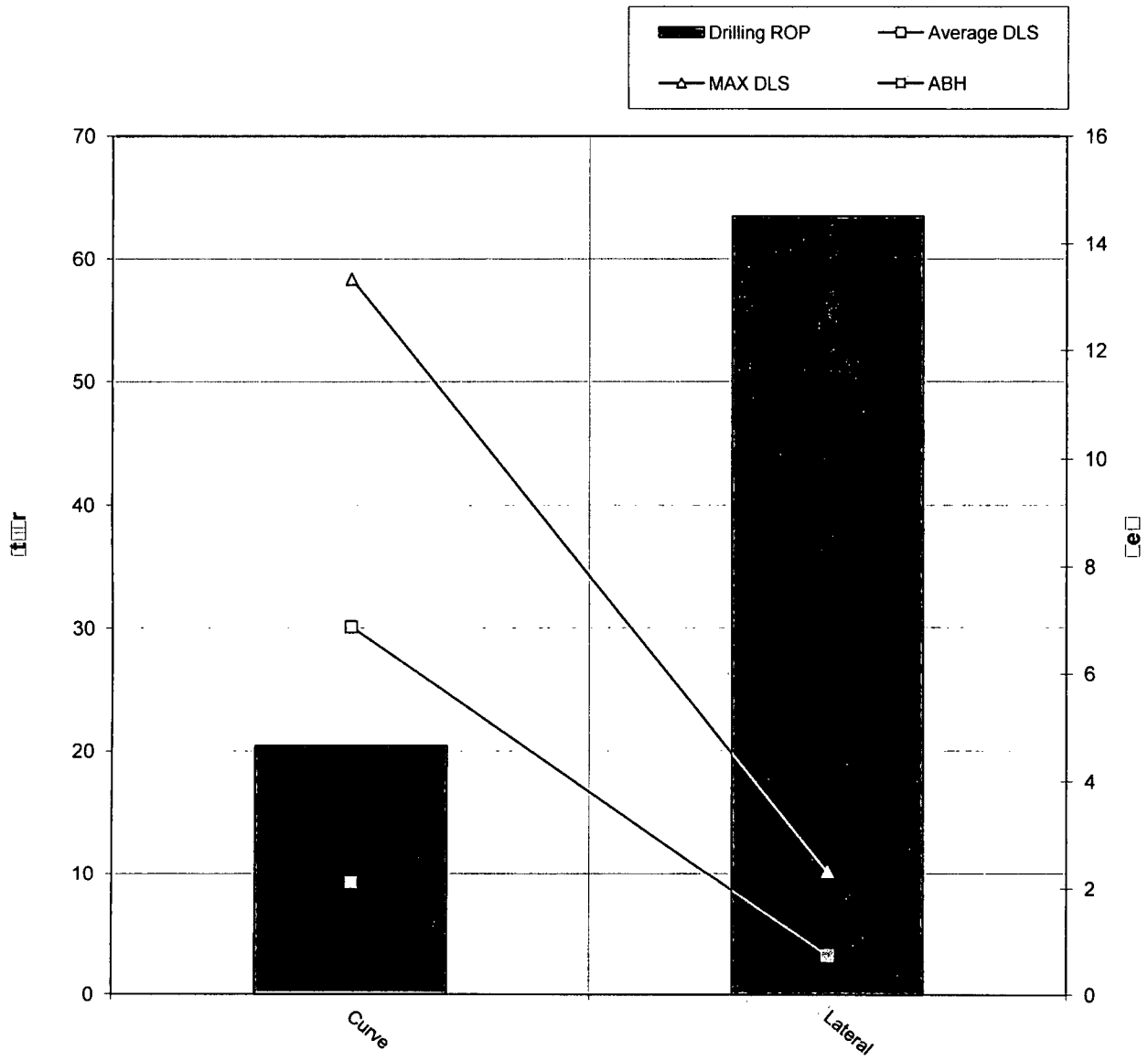


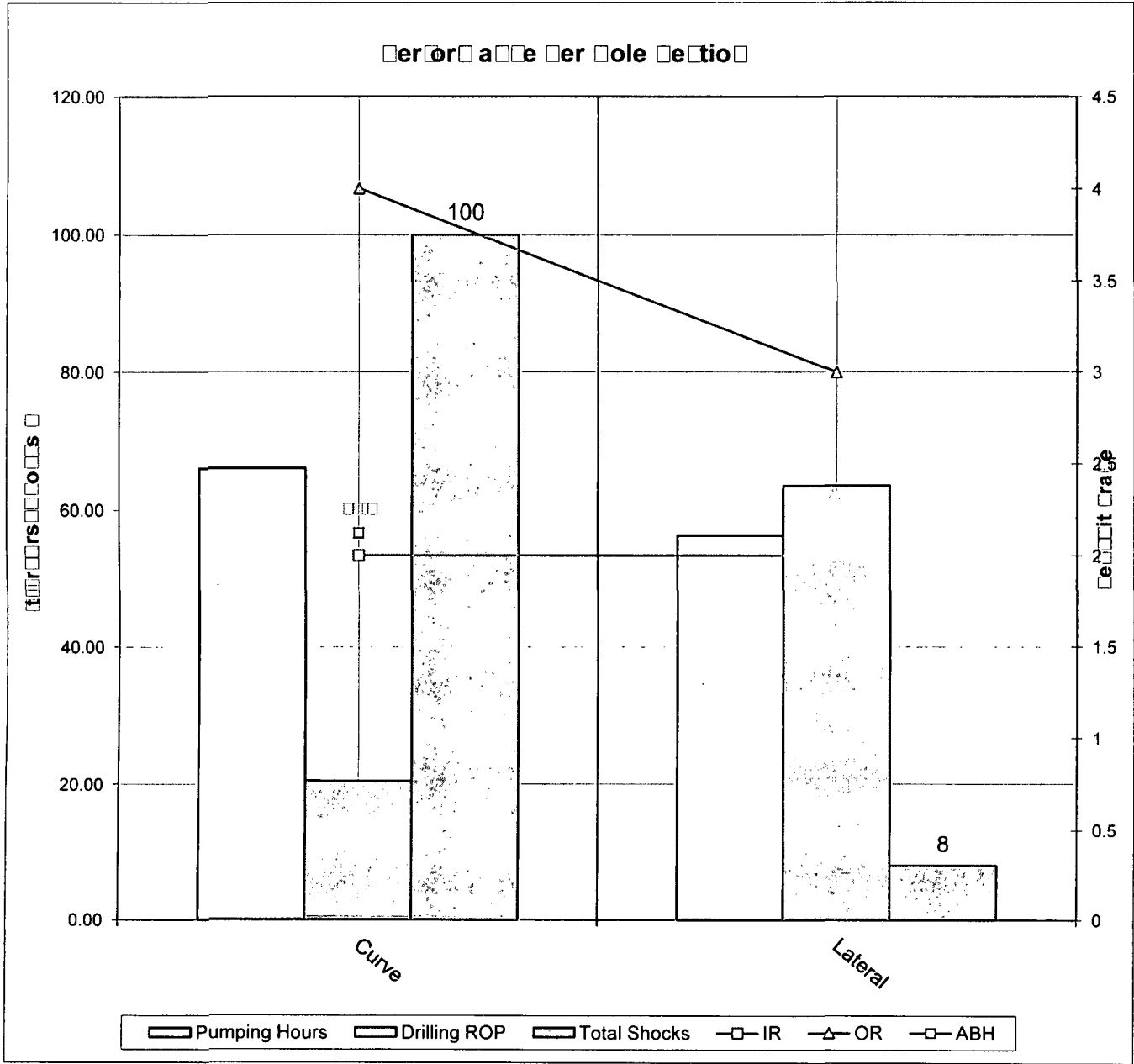


Number of trips	2
D&M Related Trips	0
Non D&M Related Trips	2

Planned BHAs	2
Unplanned BHAs	0

Drilling Rate Comparison

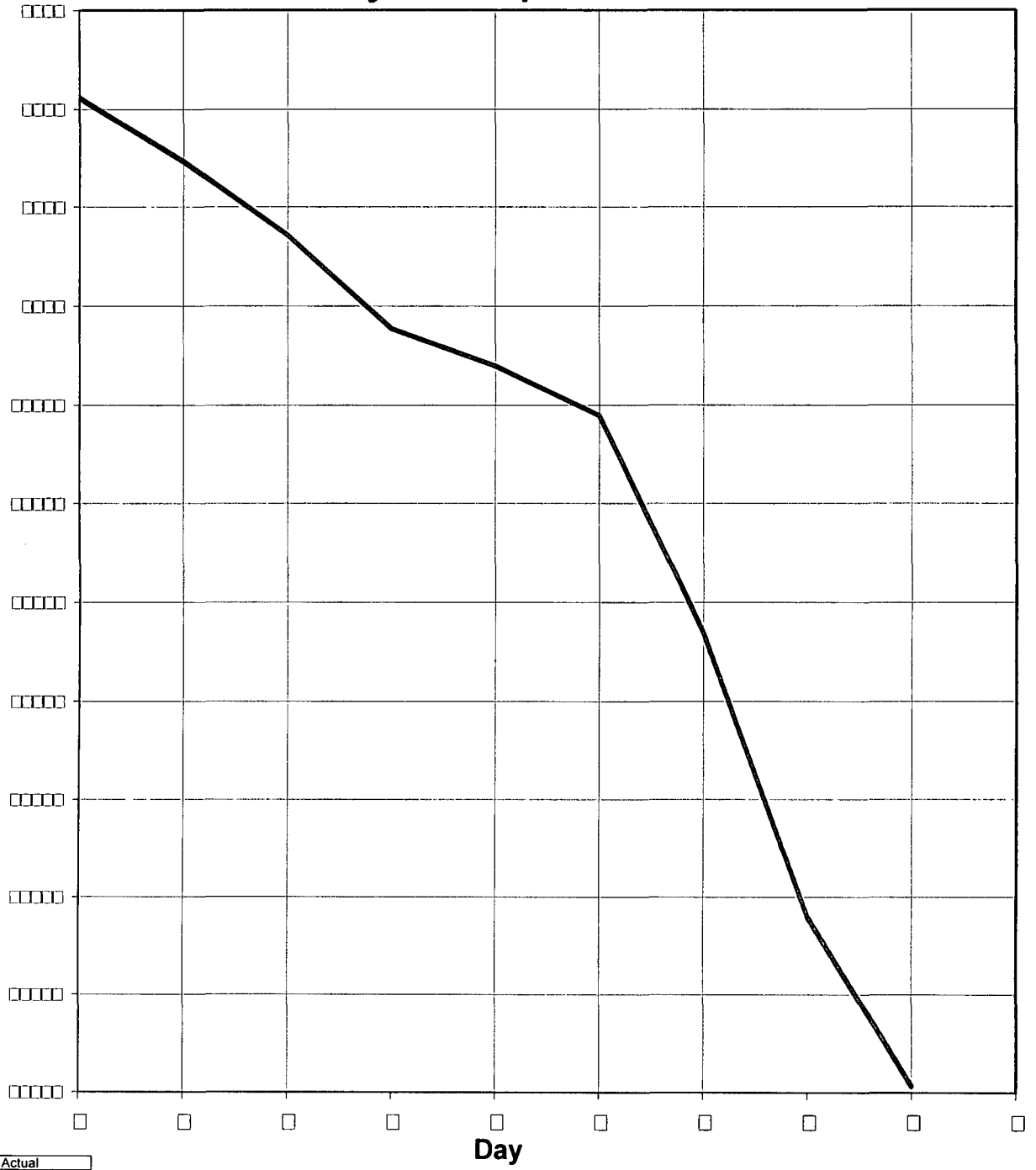




BHA	Hole Size	Section	Directional Tool	Dull Grading	Bit Type	Reason POOH
BHA 1 Planned	8.75"	Curve	Motor	FC	Insert	TD Section
BHA 2 Planned	8.5"	Lateral	PowerDrive	BT	PDC	TD Section

Days s Dept

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DAYS vs DEPTH

Schlumberger

