

Results of Directional Survey

SW LATERAL

API number:	30-025-24019		
OGRID:		Operator:	CHEVRON U S A INC
		Property:	NORTH VACUUM ABO WEST UNIT # 11H

surface	ULSTR:	P	21	T 17S	R 34E
				660 FSL	660 FEL

SW Lateral

BH Loc	ULSTR:	B	28	T 17S	R 34E
10911	MD	8819.0	TVD	1187 FNL	1865 FEL

SW Lateral

Top Perf/OH	ULSTR:	P	21	T 17S	R 34E
8505	MD	8504.2	TVD	679 FSL	657 FEL

Bot Perf/OH	ULSTR:	B	28	T 17S	R 34E
10911	MD	8819.0	TVD	1187 FNL	1865 FEL

	MD	N/S	E/W	VD
	8500	20.30	3.60	8499.4
TOP PERFS/OH	8505	19.23	3.14	8504.21
	8628	-7.20	-8.20	8622.60
	10867	-1813.40	-1175.80	8818.60
BOT PERFS/OH	10911	-1846.60	-1204.70	8819.00
	10911	-1846.60	-1204.70	8819.00

NEXT TO LAST	10867	-1813.40	-1175.80	8818.60
LAST READING	10911	-1846.60	-1204.70	8819.00
TD	10911	-1846.60	-1204.70	8819.00

Surface Location	660 FS	660 FE
Projected BHL	1187 FN	1865 FE
Location of		
Top Perfs/OH	679 FS	657 FE
Bottom Perfs/OH	1187 FN	1865 FE

SUMMARY of Subsurface Locations

Surface Location	P-21-17S-34E	660 FS	660 FE	Vert. Depth
Top Perfs/OH	P-21-17S-34E	679 FS	657 FE	8504.21
Bottom Perfs/OH	B-28-17S-34E	1187 FN	1865 FE	8819.00
Projected TD	B-28-17S-34E	1187 FN	1865 FE	8819.00



Scientific Drilling

HOBBS OCD

NOV 14 2011

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Chevron

Lea County, New Mexico

NVAWU (11)

Well #11H-ENE

SW Lateral

SW Lateral
SUR: P-21-17s-34e, 660/S & 660/E
BHL: 28-17s-34e, 1187/N & 1865/E
API # 30-025-24019

Design: Actual

Final Survey Report

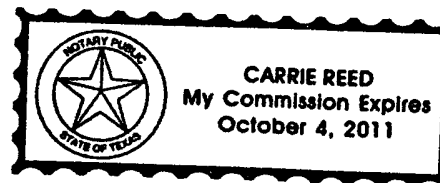
This survey is correct to the best of my knowledge and is supported by actual field data.

Richard

Notarized this date 31st of May, 2011.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Project	Lea County, New Mexico		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	NVAWU (11)		
Site Position:		Northing:	661,049.68 usft
From:	Map	Easting:	779,302.44 usft
Position Uncertainty:	0.0 usft	Slot Radius:	0 "
		Latitude:	32° 48' 53.488 N
		Longitude:	103° 33' 31.522 W
		Grid Convergence:	0.42 °

Well	Well #11H-ENE		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty		0.0 usft	Wellhead Elevation:
			usft
			Latitude:
			32° 48' 53.488 N
			Longitude:
			103° 33' 31.522 W
			Ground Level:
			4,058.0 usft

Wellbore	SW Lateral				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	3/15/2011	7.65	60.74	48,995

Design	Actual			
Audit Notes:				
Version:	1	Phase:	ACTUAL	Tie On Depth:
				8,500.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	213.12

Survey Program	Date 5/11/2011			
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
100.0	8,500.0	Survey #1 (NE Lateral)	SDI Gyro	Gyroscopic Survey
8,628.0	10,911.0	Survey #1 (SW Lateral)	MWD-SDI	MWD - Standard ISCWSA

Survey											
MD	Inc	Azi (azimuth)	TVD	N/S	E/W	DLeg	Closure Distance	Closure Azimuth	Northing	Easting	
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(usft)	(°)	(usft)	(usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0	0.00	661,049.68	779,302.44	
100.0	0.26	132.41	100.0	-0.2	0.2	0.26	0.2	132.41	661,049.52	779,302.61	
200.0	0.22	46.32	200.0	-0.2	0.5	0.33	0.5	110.10	661,049.50	779,302.92	
300.0	0.22	108.44	300.0	-0.1	0.8	0.23	0.8	97.28	661,049.58	779,303.24	
400.0	0.21	75.38	400.0	-0.1	1.2	0.12	1.2	95.74	661,049.56	779,303.60	

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
500.0	0.20	188.00	500.0	-0.2	1.3	0.34	1.3	100.51	661,049.44	779,303.75
600.0	0.54	181.94	600.0	-0.9	1.3	0.34	1.5	124.98	661,048.79	779,303.71
700.0	0.81	201.62	700.0	-2.0	1.0	0.35	2.2	153.81	661,047.66	779,303.43
800.0	0.79	217.34	800.0	-3.2	0.3	0.22	3.2	174.46	661,046.46	779,302.75
900.0	0.91	246.57	900.0	-4.1	-0.8	0.44	4.2	191.55	661,045.59	779,301.61
1,000.0	1.03	253.09	1,000.0	-4.7	-2.4	0.16	5.3	207.47	661,045.02	779,300.02
1,100.0	0.82	270.93	1,099.9	-4.9	-4.0	0.35	6.3	219.16	661,044.77	779,298.44
1,200.0	0.80	268.33	1,199.9	-4.9	-5.4	0.04	7.3	227.73	661,044.76	779,297.03
1,300.0	0.70	290.39	1,299.9	-4.7	-6.7	0.30	8.2	234.73	661,044.95	779,295.76
1,400.0	0.57	276.41	1,399.9	-4.5	-7.7	0.20	8.9	240.09	661,045.22	779,294.69
1,500.0	0.26	297.41	1,499.9	-4.3	-8.4	0.34	9.5	243.02	661,045.38	779,294.00
1,600.0	0.60	295.42	1,599.9	-4.0	-9.1	0.34	9.9	246.48	661,045.71	779,293.32
1,700.0	0.56	277.98	1,699.9	-3.7	-10.1	0.18	10.7	249.95	661,046.00	779,292.37
1,800.0	0.36	264.42	1,799.9	-3.6	-10.9	0.23	11.5	251.49	661,046.04	779,291.57
1,900.0	0.21	275.74	1,899.9	-3.7	-11.4	0.16	11.9	252.19	661,046.03	779,291.07
2,000.0	0.10	330.02	1,999.9	-3.6	-11.6	0.17	12.1	252.94	661,046.12	779,290.85
2,100.0	0.19	308.20	2,099.9	-3.4	-11.8	0.10	12.2	253.98	661,046.30	779,290.67
2,200.0	0.25	302.84	2,199.9	-3.2	-12.1	0.06	12.5	255.35	661,046.52	779,290.36
2,300.0	0.21	348.02	2,299.9	-2.9	-12.3	0.18	12.6	256.91	661,046.82	779,290.14
2,400.0	0.16	333.53	2,399.9	-2.6	-12.4	0.07	12.7	258.35	661,047.12	779,290.04
2,500.0	0.09	6.85	2,499.9	-2.4	-12.5	0.10	12.7	259.30	661,047.32	779,289.99
2,600.0	0.44	49.08	2,599.9	-2.0	-12.2	0.38	12.3	260.54	661,047.65	779,290.29
2,700.0	0.47	50.35	2,699.9	-1.5	-11.6	0.03	11.6	262.55	661,048.17	779,290.89
2,800.0	0.64	56.53	2,799.9	-0.9	-10.8	0.18	10.8	265.00	661,048.74	779,291.67
2,900.0	0.77	56.55	2,899.9	-0.3	-9.7	0.13	9.7	268.45	661,049.41	779,292.70
3,000.0	0.81	58.95	2,999.9	0.5	-8.6	0.05	8.6	273.15	661,050.15	779,293.87
3,100.0	0.84	58.48	3,099.9	1.2	-7.3	0.03	7.4	279.43	661,050.90	779,295.10
3,200.0	0.78	56.17	3,199.8	2.0	-6.2	0.07	6.5	287.85	661,051.66	779,296.29
3,300.0	0.57	39.86	3,299.8	2.7	-5.3	0.28	5.9	297.49	661,052.42	779,297.17
3,400.0	0.31	14.63	3,399.8	3.4	-4.9	0.32	5.9	304.74	661,053.06	779,297.56
3,500.0	0.25	279.39	3,499.8	3.7	-5.0	0.42	6.2	306.21	661,053.36	779,297.41
3,600.0	0.53	248.93	3,599.8	3.6	-5.7	0.34	6.7	302.04	661,053.23	779,296.76
3,700.0	0.66	237.44	3,699.8	3.1	-6.6	0.18	7.3	295.01	661,052.75	779,295.85
3,800.0	0.81	235.47	3,799.8	2.4	-7.7	0.15	8.0	287.16	661,052.04	779,294.78
3,900.0	0.92	236.17	3,899.8	1.5	-8.9	0.11	9.0	279.67	661,051.20	779,293.53

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
4,000.0	0.80	236.09	3,999.8	0.7	-10.2	0.12	10.2	273.84	661,050.36	779,292.28	
4,100.0	0.83	243.61	4,099.8	0.0	-11.4	0.11	11.4	269.85	661,049.65	779,291.06	
4,200.0	0.96	238.89	4,199.8	-0.8	-12.8	0.15	12.8	266.48	661,048.89	779,289.69	
4,300.0	1.13	226.51	4,299.8	-1.9	-14.2	0.28	14.3	262.39	661,047.78	779,288.26	
4,400.0	1.12	221.62	4,399.7	-3.3	-15.5	0.10	15.9	258.00	661,046.37	779,286.89	
4,500.0	1.16	218.24	4,499.7	-4.8	-16.8	0.08	17.5	253.98	661,044.85	779,285.62	
4,600.0	0.99	217.21	4,599.7	-6.3	-18.0	0.17	19.1	250.64	661,043.36	779,284.47	
4,700.0	0.94	224.20	4,699.7	-7.6	-19.1	0.13	20.5	248.30	661,042.09	779,283.37	
4,800.0	0.67	219.31	4,799.7	-8.6	-20.0	0.28	21.8	246.67	661,041.05	779,282.43	
4,900.0	0.46	32.48	4,899.7	-8.7	-20.2	1.13	22.0	246.56	661,040.93	779,282.28	
5,000.0	1.15	27.64	4,999.7	-7.5	-19.5	0.69	20.9	248.90	661,042.16	779,282.96	
5,100.0	1.39	29.81	5,099.6	-5.6	-18.4	0.24	19.2	253.16	661,044.10	779,284.03	
5,200.0	1.40	26.00	5,199.6	-3.4	-17.3	0.09	17.6	258.79	661,046.25	779,285.16	
5,300.0	1.50	19.65	5,299.6	-1.1	-16.3	0.19	16.3	266.16	661,048.58	779,286.14	
5,400.0	1.37	22.85	5,399.5	1.2	-15.4	0.15	15.4	274.61	661,050.92	779,287.04	
5,500.0	0.99	25.61	5,499.5	3.1	-14.6	0.38	14.9	282.10	661,052.80	779,287.88	
5,600.0	0.96	31.44	5,599.5	4.6	-13.7	0.10	14.5	288.55	661,054.29	779,288.69	
5,700.0	0.93	28.16	5,699.5	6.0	-12.9	0.06	14.3	295.06	661,055.72	779,289.51	
5,800.0	0.86	28.37	5,799.5	7.4	-12.2	0.07	14.3	301.33	661,057.10	779,290.25	
5,900.0	0.62	18.66	5,899.5	8.6	-11.7	0.27	14.5	306.39	661,058.27	779,290.78	
6,000.0	0.55	22.01	5,999.5	9.6	-11.3	0.08	14.8	310.19	661,059.23	779,291.13	
6,100.0	0.52	28.68	6,099.5	10.4	-10.9	0.07	15.1	313.62	661,060.07	779,291.53	
6,200.0	0.54	11.94	6,199.5	11.3	-10.6	0.16	15.5	316.73	661,060.93	779,291.85	
6,300.0	0.39	36.71	6,299.5	12.0	-10.3	0.25	15.8	319.35	661,061.67	779,292.15	
6,400.0	0.64	70.18	6,399.4	12.4	-9.6	0.38	15.7	322.47	661,062.13	779,292.88	
6,500.0	0.72	73.25	6,499.4	12.8	-8.4	0.09	15.3	326.65	661,062.50	779,294.00	
6,600.0	0.76	60.14	6,599.4	13.3	-7.3	0.17	15.2	331.43	661,063.01	779,295.18	
6,700.0	0.71	47.04	6,699.4	14.1	-6.2	0.17	15.4	336.13	661,063.76	779,296.21	
6,800.0	0.68	39.43	6,799.4	15.0	-5.4	0.10	15.9	340.15	661,064.64	779,297.04	
6,900.0	0.51	50.55	6,899.4	15.7	-4.7	0.20	16.4	343.40	661,065.38	779,297.76	
7,000.0	0.68	52.05	6,999.4	16.4	-3.9	0.17	16.8	346.69	661,066.03	779,298.57	
7,100.0	0.63	36.62	7,099.4	17.2	-3.1	0.18	17.4	349.85	661,066.84	779,299.37	
7,200.0	0.63	54.70	7,199.4	17.9	-2.3	0.20	18.1	352.70	661,067.60	779,300.14	
7,300.0	0.42	43.20	7,299.4	18.5	-1.6	0.23	18.6	355.07	661,068.18	779,300.84	
7,400.0	0.67	49.68	7,399.4	19.1	-0.9	0.26	19.2	357.31	661,068.83	779,301.54	

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
7,500.0	0.44	82.80	7,499.4	19.6	-0.1	0.39	19.6	359.78	661,069.25	779,302.37	
7,600.0	0.09	113.70	7,599.4	19.6	0.4	0.37	19.6	1.11	661,069.27	779,302.82	
7,700.0	0.05	84.00	7,699.4	19.6	0.5	0.05	19.6	1.45	661,069.24	779,302.94	
7,800.0	0.33	72.04	7,799.4	19.7	0.8	0.28	19.7	2.37	661,069.34	779,303.25	
7,900.0	0.12	68.62	7,899.4	19.8	1.2	0.21	19.8	3.42	661,069.46	779,303.62	
8,000.0	0.35	73.00	7,999.4	19.9	1.6	0.23	20.0	4.52	661,069.59	779,304.01	
8,100.0	0.28	43.73	8,099.4	20.2	2.0	0.17	20.3	5.76	661,069.86	779,304.48	
8,200.0	0.23	91.23	8,199.4	20.4	2.4	0.21	20.5	6.74	661,070.03	779,304.84	
8,300.0	0.19	92.17	8,299.4	20.3	2.8	0.04	20.5	7.75	661,070.02	779,305.21	
8,400.0	0.19	63.33	8,399.4	20.4	3.1	0.09	20.6	8.59	661,070.09	779,305.53	
8,500.0	0.48	117.92	8,499.4	20.3	3.6	0.40	20.6	10.07	661,069.96	779,306.04	
SDI Gyro Tie-in											
8,628.0	27.27	204.24	8,622.6	-7.2	-8.2	21.28	10.9	228.58	661,042.45	779,294.26	
8,659.0	31.07	205.17	8,649.6	-20.9	-14.5	12.34	25.5	214.71	661,028.73	779,287.93	
8,690.0	35.59	206.06	8,675.5	-36.3	-21.9	14.67	42.4	211.08	661,013.38	779,280.57	
8,722.0	38.83	209.36	8,701.0	-53.4	-30.9	11.89	61.7	210.04	660,996.27	779,271.55	
8,754.0	43.77	211.06	8,725.1	-71.6	-41.5	15.83	82.8	210.10	660,978.03	779,260.92	
8,786.0	48.99	212.35	8,747.1	-91.3	-53.7	16.57	106.0	210.45	660,958.34	779,248.74	
8,817.0	53.61	210.09	8,766.5	-112.0	-66.2	15.95	130.1	210.59	660,937.65	779,236.22	
8,849.0	60.12	205.54	8,784.0	-135.7	-78.7	23.56	156.9	210.10	660,913.95	779,223.76	
8,881.0	67.12	203.55	8,798.2	-161.8	-90.6	22.57	185.4	209.24	660,887.88	779,211.87	
8,912.0	73.17	202.78	8,808.7	-188.6	-102.0	19.66	214.4	208.41	660,861.09	779,200.41	
8,944.0	78.06	204.77	8,816.7	-216.9	-114.5	16.42	245.3	207.83	660,832.74	779,187.91	
8,975.0	82.32	209.39	8,822.0	-244.1	-128.4	20.11	275.8	207.75	660,805.56	779,174.01	
9,007.0	85.53	214.81	8,825.4	-271.1	-145.3	19.60	307.6	208.20	660,778.62	779,157.10	
9,039.0	88.55	216.76	8,827.0	-297.0	-164.0	11.23	339.3	208.91	660,752.70	779,138.42	
9,069.0	89.77	216.97	8,827.4	-321.0	-182.0	4.13	369.0	209.56	660,728.70	779,120.42	
9,100.0	90.54	215.96	8,827.4	-345.9	-200.4	4.10	399.8	210.09	660,703.77	779,102.00	
9,132.0	90.10	214.65	8,827.2	-372.0	-218.9	4.32	431.7	210.48	660,677.65	779,083.51	
9,163.0	88.96	212.24	8,827.4	-397.9	-236.0	8.60	462.6	210.68	660,651.79	779,066.42	
9,194.0	91.68	209.19	8,827.3	-424.5	-251.8	13.18	493.6	210.68	660,625.15	779,050.59	
9,226.0	93.14	209.17	8,825.9	-452.4	-267.4	4.56	525.6	210.59	660,597.23	779,035.01	
9,257.0	93.70	209.16	8,824.1	-479.5	-282.5	1.81	556.5	210.51	660,570.21	779,019.93	
9,288.0	92.28	210.29	8,822.5	-506.3	-297.9	5.85	587.5	210.47	660,543.33	779,004.58	
9,319.0	90.00	211.20	8,821.8	-533.0	-313.7	7.92	618.5	210.48	660,516.69	778,988.73	
9,351.0	90.54	210.65	8,821.7	-560.4	-330.2	2.41	650.5	210.50	660,489.24	778,972.29	

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
9,383.0	91.78	211.61	8,821.0	-587.8	-346.7	4.90	682.4	210.53	660,461.86	778,955.75
9,414.0	90.80	211.60	8,820.3	-614.2	-362.9	3.16	713.4	210.58	660,435.46	778,939.51
9,446.0	88.36	211.70	8,820.6	-641.5	-379.7	7.63	745.4	210.62	660,408.22	778,922.72
9,478.0	87.54	212.06	8,821.7	-668.6	-396.6	2.80	777.4	210.68	660,381.07	778,905.83
9,510.0	89.46	210.53	8,822.6	-695.9	-413.2	7.67	809.4	210.70	660,353.74	778,889.21
9,541.0	90.20	210.15	8,822.6	-722.7	-428.9	2.68	840.4	210.69	660,326.98	778,873.55
9,573.0	91.28	208.99	8,822.2	-750.5	-444.7	4.95	872.4	210.65	660,299.15	778,857.76
9,605.0	90.37	210.21	8,821.8	-778.3	-460.5	4.76	904.4	210.61	660,271.33	778,841.96
9,636.0	89.90	210.27	8,821.7	-805.1	-476.1	1.53	935.4	210.60	660,244.55	778,826.35
9,668.0	88.93	209.60	8,822.0	-832.9	-492.1	3.68	967.4	210.58	660,216.82	778,810.38
9,700.0	89.93	210.05	8,822.3	-860.6	-508.0	3.43	999.3	210.55	660,189.06	778,794.47
9,731.0	91.44	209.68	8,822.0	-887.5	-523.4	5.02	1,030.3	210.53	660,162.18	778,779.03
9,761.0	91.17	209.94	8,821.3	-913.5	-538.3	1.25	1,060.3	210.51	660,136.16	778,764.12
9,794.0	90.74	210.47	8,820.7	-942.0	-554.9	2.07	1,093.3	210.50	660,107.64	778,747.52
9,826.0	90.61	210.13	8,820.4	-969.7	-571.1	1.14	1,125.3	210.50	660,080.02	778,731.38
9,857.0	91.24	209.94	8,819.9	-996.5	-586.6	2.12	1,156.3	210.48	660,053.18	778,715.86
9,889.0	90.17	210.82	8,819.5	-1,024.1	-602.8	4.33	1,188.3	210.48	660,025.58	778,699.68
9,920.0	89.02	210.93	8,819.7	-1,050.7	-618.7	3.73	1,219.3	210.49	659,998.97	778,683.77
9,952.0	89.53	211.30	8,820.1	-1,078.1	-635.2	1.97	1,251.3	210.51	659,971.58	778,667.24
9,983.0	90.07	211.84	8,820.2	-1,104.5	-651.4	2.46	1,282.3	210.53	659,945.17	778,651.01
10,015.0	91.51	211.53	8,819.8	-1,131.7	-668.2	4.60	1,314.3	210.56	659,917.94	778,634.20
10,047.0	91.34	211.21	8,819.0	-1,159.0	-684.9	1.13	1,346.3	210.58	659,890.63	778,617.55
10,078.0	89.12	211.31	8,818.8	-1,185.5	-701.0	7.17	1,377.3	210.59	659,864.13	778,601.47
10,111.0	88.49	211.40	8,819.5	-1,213.7	-718.1	1.93	1,410.3	210.61	659,835.96	778,584.30
10,142.0	90.91	211.24	8,819.7	-1,240.2	-734.3	7.82	1,441.3	210.63	659,809.48	778,568.19
10,174.0	92.49	210.73	8,818.7	-1,267.6	-750.7	5.19	1,473.2	210.64	659,782.06	778,551.72
10,206.0	91.95	210.63	8,817.5	-1,295.1	-767.0	1.72	1,505.2	210.64	659,754.56	778,535.40
10,237.0	91.41	212.26	8,816.6	-1,321.6	-783.2	5.54	1,536.2	210.65	659,728.12	778,519.24
10,269.0	90.44	214.31	8,816.1	-1,348.3	-800.8	7.09	1,568.2	210.71	659,701.38	778,501.68
10,299.0	88.69	214.66	8,816.3	-1,373.0	-817.7	5.95	1,598.1	210.78	659,676.65	778,484.70
10,331.0	89.50	215.72	8,816.8	-1,399.2	-836.2	4.17	1,630.0	210.86	659,650.50	778,466.26
10,364.0	90.64	215.75	8,816.8	-1,426.0	-855.5	3.46	1,662.9	210.96	659,623.71	778,446.99
10,395.0	91.34	216.44	8,816.2	-1,451.0	-873.7	3.17	1,693.8	211.05	659,598.67	778,428.73
10,427.0	91.21	218.77	8,815.5	-1,476.4	-893.2	7.29	1,725.5	211.18	659,573.33	778,409.21
10,459.0	90.78	219.77	8,815.0	-1,501.1	-913.5	3.40	1,757.2	211.32	659,548.56	778,388.95

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
10,490.0	91.14	219.27	8,814.4	-1,525.0	-933.2	1.99	1,787.9	211.46	659,524.65	778,369.23
10,521.0	91.31	219.41	8,813.8	-1,549.0	-952.9	0.71	1,818.6	211.60	659,500.68	778,349.58
10,553.0	88.89	220.08	8,813.7	-1,573.6	-973.3	7.85	1,850.3	211.74	659,476.07	778,329.12
10,584.0	88.72	218.90	8,814.4	-1,597.5	-993.0	3.84	1,881.0	211.87	659,452.16	778,309.41
10,615.0	88.65	219.23	8,815.1	-1,621.6	-1,012.6	1.09	1,911.8	211.98	659,428.09	778,289.88
10,646.0	88.82	218.25	8,815.8	-1,645.8	-1,032.0	3.21	1,942.5	212.09	659,403.92	778,270.49
10,678.0	88.55	219.28	8,816.5	-1,670.7	-1,052.0	3.33	1,974.3	212.20	659,378.98	778,250.46
10,709.0	90.10	219.92	8,816.9	-1,694.6	-1,071.7	5.41	2,005.1	212.31	659,355.09	778,230.70
10,740.0	90.74	221.05	8,816.6	-1,718.2	-1,091.9	4.19	2,035.7	212.44	659,331.52	778,210.57
10,804.0	88.69	221.35	8,817.0	-1,766.3	-1,134.0	3.24	2,099.0	212.70	659,283.36	778,168.42
10,835.0	87.91	221.85	8,817.9	-1,789.5	-1,154.6	2.99	2,129.6	212.83	659,260.19	778,147.85
10,867.0	89.46	221.16	8,818.6	-1,813.4	-1,175.8	5.30	2,161.3	212.96	659,236.24	778,126.65
10,911.0	89.46	221.16	8,819.0	-1,846.6	-1,204.7	0.00	2,204.8	213.12	659,203.11	778,097.69
Projected Depth										



Scientific Drilling

Lea County, New Mexico
NVAWU (11)
Well #11H-ENE
SW Lateral



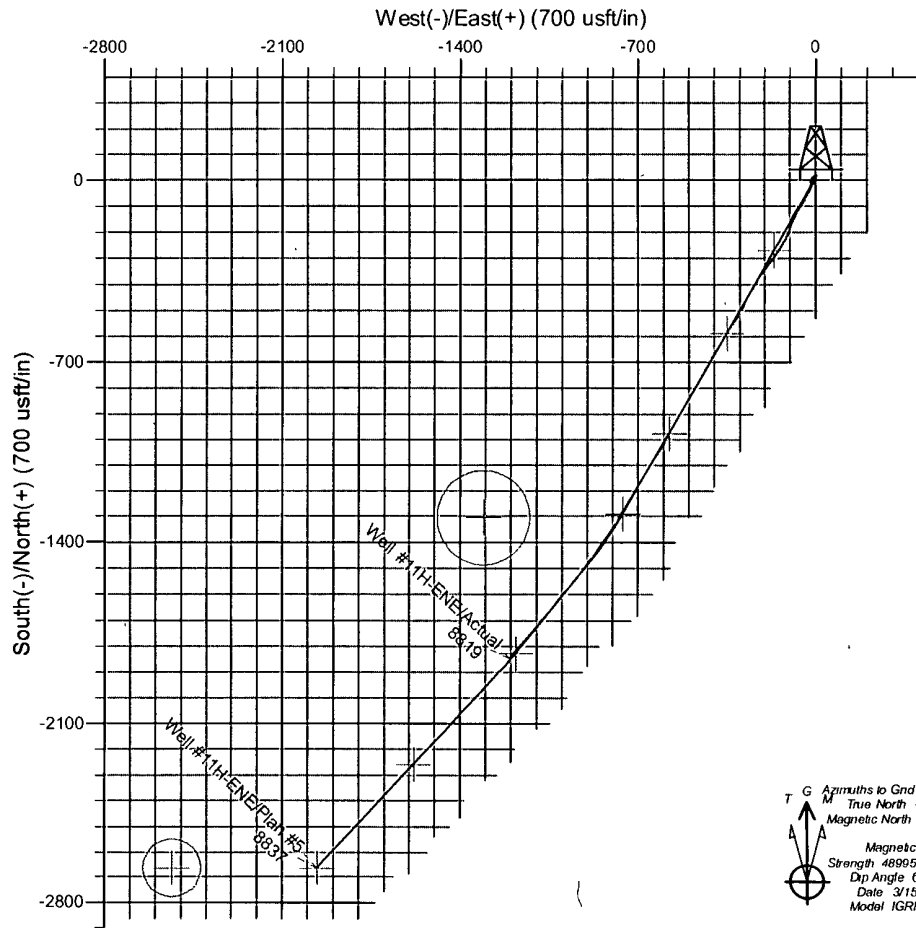
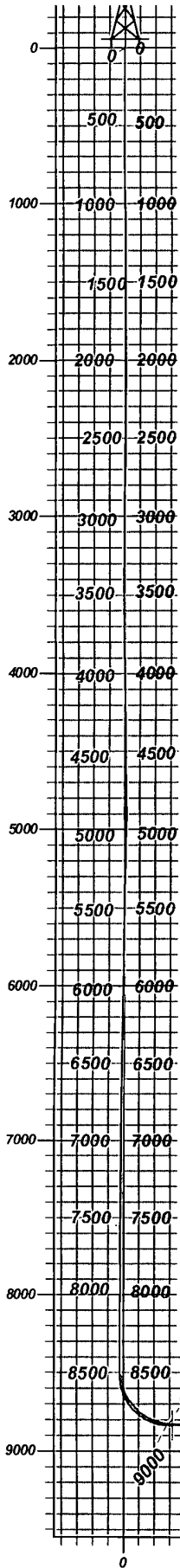
All Section View Depths shown are
Measured Depths

All Plan View Depths shown are
True Vertical depths

WELL DETAILS: Well #11H-ENE

+N/-S	+E/-W	Northing	Ground Level: Easting	4058.0 Latitude	Longitude	Slot
0.0	0.0	661049.68	779302.44	32° 48' 53.488 N	103° 33' 31.522 W	

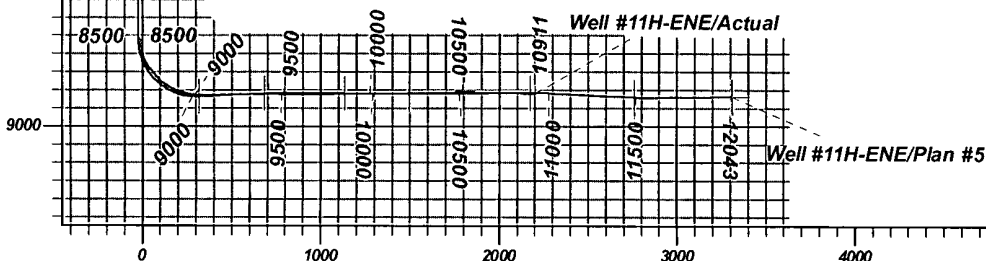
True Vertical Depth (1000 usft/in)



G Azimuths to Grd North
 T True North -0.42°
 M Magnetic North 7.24°
 Magnetic Field
 Strength 48995.2nT
 Dip Angle 60.74°
 Date 3/15/2011
 Model 1GRF2010

Bottom Hole Closure

10911.00' MD 89.46° Incl 221.16° Az 8819.0' TVD
 1846.6' South 1010.3' West of Surface Location
 2204.84' Closure Distance 213.12° Closure Azimuth



Vertical Section at 216.38° (1000 usft/in)

Scientific Drilling Houston District
 281-443-4600
 Date: 14:44, May 31 2011