

Results of Directional Survey

API number:	30-025-39804		
OGRID:		Operator:	CHEVRON U S A INC
		Property:	CENTRAL DRINKARD UNIT # 440H

surface	ULSTR:	N	29	T 21S	R 37E
				959 FSL	2519 FWL

BH Loc	ULSTR:	H	29	T 21S	R 37E
9228	MD	6585.4	TVD	2545 FNL	4625 FWL
				2735 FSL	

Top Perf/OH	ULSTR:	N	29	T 21S	R 37E
6411	MD	6407.2	TVD	1027 FSL	2588 FWL

Bot Perf/OH	ULSTR:	H	29	T 21S	R 37E
9228	MD	6585.4	TVD	2545 FNL	4625 FWL
				2735 FSL	

	MD	N/S	E/W	VD
	6345	59.30	54.70	6343.9
TOP PERFS/OH	6411	67.68	68.97	6407.16
	6475	75.80	82.80	6468.50
	9173	1730.60	2075.00	6587.10
BOT PERFS/OH	9228	1776.20	2105.80	6585.40
	9228	1776.20	2105.80	6585.40

NEXT TO LAST	9173	1730.60	2075.00	6587.10
LAST READING	9228	1776.20	2105.80	6585.40
TD	9228	1776.20	2105.80	6585.40

Surface Location	959 FS	2519 FW
Projected BHL	2735 FS	4625 FW
Location of		
Top Perfs/OH	1027 FS	2588 FW
Bottom Perfs/OH	2735 FS	4625 FW

SUMMARY of Subsurface Locations

Surface Location	N-29-21S-37E	959 FS	2519 FW	Vert. Depth
Top Perfs/OH	N-29-21S-37E	1027 FS	2588 FW	6407.16
Bottom Perfs/OH	H-29-21S-37E	2735 FS	4625 FW	6585.40
Projected TD	H-29-21S-37E	2735 FS	4625 FW	6585.40

SEP 20 2012



Scientific Drilling

Chevron

Lea County, New Mexico
Central Drinkard Unit (440H)
440H
Lateral

Design: Actual

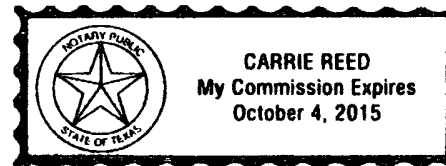
SUR: N-29-21s-37e, 959/S & 2519/W
BHL: H-29-21s-37e, 2735/S & 4625/W
API # 30-025-39804

Final Survey Report

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

Richard
Notarized this date 15th of November, 2011.

Carrie Reed
Notary Signature
County of Midland
State of Texas





SDI
Final Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well 440H
Project:	Lea County, New Mexico	TVD Reference:	RKB @ 3483 0usft (Key #555)
Site:	Central Drinkard Unit (440H)	MD Reference:	RKB @ 3483 0usft (Key #555)
Well:	440H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Houston-District

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	Central Drinkard Unit (440H)			
Site Position:	Northing:	527,549.10 usft	Latitude:	32° 26' 46.365 N
From:	Easting:	854,232.30 usft	Longitude:	103° 19' 8.530 W
Position Uncertainty:	Slot Radius:	0 "	Grid Convergence:	0 54 °

Well	440H					
Well Position	+N/-S	0.0 usft	Northing:	527,549 10 usft	Latitude:	32° 26' 46 365 N
	+E/-W	0.0 usft	Easting:	854,232 30 usft	Longitude:	103° 19' 8 530 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,467.0 usft

Wellbore	Lateral				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	10/17/2011	(°)	(°)	(nT)
			7.44	60.43	48,744

Design	Actual				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0 0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0 0	0.0	0 0	49 79	



SDI Final Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well 440H
Project:	Lea County, New Mexico	TVD Reference:	RKB @ 3483.0usft (Key #555)
Site:	Central Drnkard Unit (440H)	MD Reference:	RKB @ 3483.0usft (Key #555)
Well:	440H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Houston-District

Survey Program		Date	11/8/2011		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100 0	6,345 0	Survey #1 (Lateral)	SDI Gyro	Gyroscopic Survey	
6,475.0	9,228 0	Survey #2 (Lateral)	SDI MWD	MWD Survey	

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)	
0.0	0.00	0.00	0 0	0.0	0.0	0.00	0.0	0.00	527,549.10	854,232.30	
100.0	0.22	160.23	100.0	-0.2	0.1	0.22	0.2	160.23	527,548.92	854,232.36	
200.0	0.20	227.93	200.0	-0.5	0.0	0.23	0.5	179.96	527,548.62	854,232.30	
300.0	0.15	251.35	300.0	-0.6	-0.3	0.09	0.7	201.68	527,548.46	854,232.05	
400.0	0.10	297.37	400.0	-0.6	-0.5	0.11	0.8	215.45	527,548.46	854,231.85	
500.0	0.30	305.94	500.0	-0.4	-0.7	0.20	0.9	239.12	527,548.65	854,231.56	
600.0	0.44	305.80	600.0	-0.1	-1.3	0.14	1.3	266.98	527,549.03	854,231.03	
700.0	0.60	295.48	700.0	0.4	-2.1	0.18	2.1	280.58	527,549.48	854,230.25	
800.0	0.56	306.18	800.0	0.9	-2.9	0.12	3.1	287.08	527,550.00	854,229.38	
900.0	0.53	314.72	900.0	1.5	-3.6	0.09	3.9	292.53	527,550.61	854,228.66	
1,000.0	0.33	346.29	1,000.0	2.1	-4.0	0.30	4.6	297.65	527,551.22	854,228.26	
1,100.0	0.39	333.00	1,100.0	2.7	-4.3	0.10	5.0	302.35	527,551.80	854,228.04	
1,200.0	0.42	350.36	1,200.0	3.4	-4.5	0.13	5.6	306.91	527,552.46	854,227.82	
1,300.0	0.42	8.77	1,300.0	4.1	-4.5	0.13	6.1	312.36	527,553.19	854,227.82	
1,400.0	0.60	33.49	1,400.0	4.9	-4.1	0.28	6.4	319.74	527,553.99	854,228.16	
1,500.0	0.63	26.52	1,500.0	5.8	-3.6	0.08	6.8	328.21	527,554.91	854,228.70	
1,600.0	0.90	31.32	1,600.0	7.0	-3.0	0.28	7.6	337.08	527,556.08	854,229.35	
1,700.0	1.35	38.26	1,699.9	8.6	-1.8	0.47	8.8	348.06	527,557.67	854,230.49	
1,800.0	1.60	38.61	1,799.9	10.6	-0.2	0.25	10.6	358.85	527,559.69	854,232.09	
1,900.0	1.68	38.95	1,899.9	12.8	1.6	0.08	12.9	7.03	527,561.92	854,233.88	
2,000.0	2.30	48.83	1,999.8	15.3	4.0	0.71	15.8	14.71	527,564.38	854,236.31	



SDI Final Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well 440H
Project:	Lea County, New Mexico	TVD Reference:	RKB @ 3483 0usft (Key #555)
Site:	Central Drinkard Unit (440H)	MD Reference:	RKB @ 3483 0usft (Key #555)
Well:	440H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Houston-District

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)	
2,100.0	2.61	53.15	2,099.7	18.0	7.3	0.36	19.4	22.24	527,567.07	854,239.65	
2,200.0	2.70	53.01	2,199.6	20.8	11.0	0.09	23.5	28.03	527,569.85	854,243.35	
2,300.0	2.82	53.13	2,299.5	23.6	14.9	0.12	27.9	32.22	527,572.74	854,247.20	
2,400.0	2.91	53.14	2,399.4	26.6	18.9	0.09	32.7	35.35	527,575.74	854,251.20	
2,500.0	2.50	50.88	2,499.2	29.5	22.6	0.42	37.2	37.44	527,578.64	854,254.92	
2,600.0	2.02	50.88	2,599.2	32.0	25.7	0.48	41.1	38.72	527,581.13	854,257.98	
2,700.0	1.59	48.91	2,699.1	34.1	28.1	0.43	44.1	39.52	527,583.15	854,260.39	
2,800.0	1.25	51.38	2,799.1	35.6	30.0	0.35	46.6	40.08	527,584.75	854,262.29	
2,900.0	1.06	45.80	2,899.1	37.0	31.5	0.22	48.6	40.44	527,586.07	854,263.81	
3,000.0	0.83	44.24	2,999.1	38.1	32.7	0.23	50.2	40.59	527,587.23	854,264.97	
3,100.0	0.65	38.65	3,099.0	39.1	33.5	0.19	51.5	40.62	527,588.20	854,265.83	
3,200.0	0.48	42.49	3,199.0	39.8	34.2	0.17	52.5	40.61	527,588.95	854,266.47	
3,300.0	0.39	28.28	3,299.0	40.5	34.6	0.14	53.2	40.55	527,589.56	854,266.91	
3,400.0	0.45	34.97	3,399.0	41.1	35.0	0.08	54.0	40.43	527,590.18	854,267.30	
3,500.0	0.36	39.99	3,499.0	41.6	35.4	0.10	54.7	40.39	527,590.74	854,267.73	
3,600.0	0.33	33.55	3,599.0	42.1	35.8	0.05	55.3	40.35	527,591.22	854,268.09	
3,700.0	0.43	48.28	3,699.0	42.6	36.2	0.14	55.9	40.37	527,591.71	854,268.53	
3,800.0	0.34	45.81	3,799.0	43.1	36.7	0.09	56.6	40.45	527,592.17	854,269.02	
3,900.0	0.49	45.76	3,899.0	43.6	37.2	0.15	57.3	40.52	527,592.67	854,269.54	
4,000.0	0.50	51.63	3,999.0	44.1	37.9	0.05	58.2	40.64	527,593.24	854,270.19	
4,100.0	0.51	62.72	4,099.0	44.6	38.6	0.10	59.0	40.88	527,593.72	854,270.93	
4,200.0	0.57	51.58	4,199.0	45.1	39.4	0.12	59.9	41.13	527,594.23	854,271.71	
4,300.0	0.66	53.03	4,299.0	45.8	40.3	0.09	61.0	41.33	527,594.89	854,272.56	
4,400.0	0.41	32.58	4,399.0	46.4	40.9	0.31	61.9	41.38	527,595.53	854,273.21	
4,500.0	0.49	32.33	4,499.0	47.1	41.3	0.08	62.7	41.27	527,596.20	854,273.64	
4,600.0	0.59	34.13	4,599.0	47.9	41.9	0.10	63.6	41.16	527,596.98	854,274.15	
4,700.0	0.63	38.85	4,699.0	48.7	42.5	0.06	64.7	41.08	527,597.84	854,274.79	



SDI Final Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well 440H
Project:	Lea County, New Mexico	TVD Reference:	RKB @ 3483.0usft (Key #555)
Site:	Central Drinkard Unit (440H)	MD Reference:	RKB @ 3483.0usft (Key #555)
Well:	440H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Houston-District

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)	
4,800.0	0.56	36.71	4,799.0	49.6	43.1	0.07	65.7	41.03	527,598.66	854,275.42	
4,900.0	0.63	30.83	4,899.0	50.4	43.7	0.09	66.7	40.91	527,599.52	854,276.00	
5,000.0	0.50	38.32	4,999.0	51.2	44.3	0.15	67.7	40.82	527,600.34	854,276.55	
5,100.0	0.36	39.76	5,099.0	51.8	44.7	0.14	68.4	40.79	527,600.92	854,277.02	
5,200.0	0.24	48.83	5,199.0	52.2	45.1	0.13	69.0	40.81	527,601.30	854,277.38	
5,300.0	0.16	23.05	5,299.0	52.5	45.3	0.12	69.3	40.80	527,601.57	854,277.59	
5,400.0	0.28	61.20	5,399.0	52.7	45.6	0.18	69.7	40.84	527,601.81	854,277.86	
5,500.0	0.33	72.29	5,499.0	52.9	46.0	0.08	70.1	41.03	527,602.02	854,278.35	
5,600.0	0.52	61.87	5,599.0	53.2	46.7	0.20	70.8	41.28	527,602.32	854,279.02	
5,700.0	0.61	70.47	5,699.0	53.6	47.6	0.12	71.7	41.62	527,602.71	854,279.93	
5,800.0	0.55	69.70	5,799.0	54.0	48.6	0.06	72.6	42.00	527,603.06	854,280.88	
5,900.0	0.55	60.06	5,898.9	54.4	49.4	0.09	73.5	42.29	527,603.46	854,281.74	
6,000.0	0.73	57.77	5,998.9	54.9	50.4	0.18	74.6	42.53	527,604.04	854,282.70	
6,100.0	0.95	49.43	6,098.9	55.8	51.6	0.25	76.0	42.73	527,604.92	854,283.87	
6,200.0	1.12	39.90	6,198.9	57.1	52.8	0.24	77.8	42.77	527,606.21	854,285.12	
6,300.0	1.12	39.18	6,298.9	58.6	54.1	0.01	79.7	42.69	527,607.72	854,286.37	
6,345.0	1.19	44.74	6,343.9	59.3	54.7	0.29	80.7	42.68	527,608.39	854,286.97	
SDI Gyro tie-in											
6,475.0	28.21	60.29	6,468.5	75.8	82.8	20.82	112.3	47.55	527,624.88	854,315.14	
6,506.0	37.84	66.31	6,494.4	83.3	97.9	32.78	128.6	49.64	527,632.35	854,330.25	
6,537.0	44.10	69.07	6,517.8	90.9	116.8	21.02	148.0	52.09	527,640.04	854,349.05	
6,568.0	50.96	66.86	6,538.8	99.5	137.9	22.74	170.1	54.18	527,648.63	854,370.22	
6,597.0	56.88	63.59	6,555.8	109.4	159.2	22.35	193.1	55.51	527,658.47	854,391.48	
6,628.0	60.21	63.64	6,572.0	121.1	182.9	10.74	219.3	56.48	527,670.22	854,415.16	
6,659.0	63.39	64.06	6,586.7	133.2	207.4	10.33	246.5	57.30	527,682.26	854,439.69	
6,690.0	69.32	63.31	6,599.1	145.7	232.8	19.26	274.7	57.95	527,694.84	854,465.13	
6,721.0	80.32	62.33	6,607.2	159.4	259.4	35.61	304.5	58.43	527,708.50	854,491.70	

Company:	Chevron	Local Co-ordinate Reference:	Well 440H
Project:	Lea County, New Mexico	TVD Reference:	RKB @ 3483 0usft (Key #555)
Site:	Central Drinkard Unit (440H)	MD Reference:	RKB @ 3483 0usft (Key #555)
Well:	440H	North Reference:	Grd
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Houston-District

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)	
6,752.0	86.26	61.31	6,610.8	173.9	286.5	19.44	335.2	58.74	527,723.03	854,518.82	
6,784.0	91.11	61.89	6,611.5	189.1	314.7	15.26	367.1	58.99	527,738.24	854,546.96	
6,814.0	91.82	61.83	6,610.8	203.3	341.1	2.38	397.1	59.21	527,752.38	854,573.40	
6,845.0	92.59	61.97	6,609.6	217.9	368.4	2.52	428.0	59.40	527,766.98	854,600.73	
6,877.0	93.23	62.17	6,608.0	232.8	396.7	2.10	460.0	59.59	527,781.94	854,628.96	
6,908.0	92.32	62.06	6,606.5	247.3	424.0	2.96	490.9	59.75	527,796.43	854,656.33	
6,939.0	92.25	61.79	6,605.2	261.9	451.4	0.90	521.8	59.88	527,811.00	854,683.66	
6,970.0	90.98	60.96	6,604.4	276.7	478.6	4.89	552.8	59.96	527,825.85	854,710.86	
7,001.0	90.91	60.52	6,603.8	291.9	505.6	1.44	583.8	60.00	527,841.00	854,737.90	
7,032.0	91.41	60.34	6,603.2	307.2	532.6	1.71	614.8	60.02	527,856.29	854,764.86	
7,063.0	91.68	60.66	6,602.4	322.5	559.5	1.35	645.8	60.05	527,871.55	854,791.83	
7,094.0	92.05	60.77	6,601.4	337.6	586.6	1.25	676.8	60.08	527,886.71	854,818.85	
7,125.0	92.52	60.49	6,600.1	352.8	613.5	1.76	707.7	60.10	527,901.90	854,845.85	
7,157.0	92.69	60.10	6,598.7	368.6	641.3	1.33	739.7	60.11	527,917.74	854,873.61	
7,188.0	91.92	59.56	6,597.4	384.2	668.1	3.03	770.7	60.10	527,933.31	854,900.39	
7,219.0	91.41	58.65	6,596.5	400.1	694.7	3.36	801.7	60.06	527,949.22	854,926.98	
7,250.0	91.01	58.62	6,595.9	416.3	721.1	1.29	832.7	60.01	527,965.35	854,953.45	
7,282.0	89.87	58.56	6,595.6	432.9	748.5	3.57	864.6	59.95	527,982.03	854,980.76	
7,313.0	90.07	58.43	6,595.6	449.1	774.9	0.77	895.6	59.90	527,998.23	855,007.19	
7,344.0	90.54	58.44	6,595.5	465.4	801.3	1.52	926.6	59.85	528,014.45	855,033.60	
7,376.0	90.91	58.00	6,595.1	482.2	828.5	1.80	958.6	59.80	528,031.31	855,060.80	
7,407.0	91.41	57.88	6,594.4	498.7	854.8	1.66	989.6	59.74	528,047.76	855,087.07	
7,438.0	90.20	58.41	6,594.0	515.0	881.1	4.26	1,020.6	59.69	528,064.12	855,113.39	
7,469.0	89.50	58.77	6,594.1	531.2	907.6	2.54	1,051.6	59.66	528,080.27	855,139.85	
7,501.0	90.20	58.93	6,594.2	547.7	934.9	2.24	1,083.6	59.64	528,096.82	855,167.24	
7,532.0	90.27	60.00	6,594.1	563.5	961.6	3.46	1,114.6	59.63	528,112.57	855,193.94	
7,563.0	89.73	59.99	6,594.1	579.0	988.5	1.74	1,145.6	59.64	528,128.08	855,220.78	



SDI Final Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well 440H
Project:	Lea County, New Mexico	TVD Reference:	RKB @ 3483.0usft (Key #555)
Site:	Central Drinkard Unit (440H)	MD Reference:	RKB @ 3483.0usft (Key #555)
Well:	440H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Houston-District

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)	
7,594.0	90.24	59.41	6,594.1	594.6	1,015.2	2.49	1,176.6	59.64	528,143.72	855,247.55	
7,626.0	90.37	59.26	6,593.9	610.9	1,042.8	0.62	1,208.6	59.63	528,160.04	855,275.07	
7,656.0	91.31	59.37	6,593.4	626.2	1,068.6	3.15	1,238.6	59.63	528,175.34	855,300.87	
7,688.0	91.75	59.26	6,592.6	642.6	1,096.1	1.42	1,270.5	59.62	528,191.67	855,328.38	
7,719.0	90.34	60.17	6,592.0	658.2	1,122.8	5.41	1,301.5	59.62	528,207.30	855,355.14	
7,750.0	90.20	60.37	6,591.9	673.6	1,149.8	0.79	1,332.5	59.64	528,222.67	855,382.06	
7,781.0	89.93	60.05	6,591.8	689.0	1,176.7	1.35	1,363.5	59.65	528,238.07	855,408.96	
7,812.0	89.97	58.86	6,591.9	704.7	1,203.4	3.84	1,394.5	59.65	528,253.83	855,435.66	
7,843.0	90.30	58.73	6,591.8	720.8	1,229.9	1.14	1,425.5	59.63	528,269.89	855,462.18	
7,875.0	90.61	57.36	6,591.5	737.7	1,257.0	4.39	1,457.5	59.59	528,286.82	855,489.33	
7,906.0	90.94	56.28	6,591.1	754.7	1,283.0	3.64	1,488.5	59.53	528,303.79	855,515.27	
7,957.0	91.48	55.29	6,590.1	783.4	1,325.1	2.21	1,539.4	59.41	528,332.46	855,557.43	
7,988.0	90.70	52.25	6,589.5	801.7	1,350.1	10.12	1,570.2	59.30	528,350.77	855,582.43	
8,019.0	90.07	50.42	6,589.3	821.0	1,374.3	6.24	1,600.9	59.15	528,370.14	855,606.63	
8,050.0	89.36	48.90	6,589.4	841.1	1,398.0	5.41	1,631.5	58.97	528,390.21	855,630.26	
8,081.0	89.53	49.07	6,589.7	861.4	1,421.4	0.78	1,662.0	58.78	528,410.55	855,653.65	
8,113.0	89.56	47.36	6,590.0	882.8	1,445.2	5.34	1,693.5	58.58	528,431.87	855,677.51	
8,144.0	89.73	46.65	6,590.2	903.9	1,467.9	2.36	1,723.9	58.38	528,453.01	855,700.18	
8,175.0	90.20	45.29	6,590.2	925.5	1,490.2	4.64	1,754.2	58.16	528,474.56	855,722.47	
8,206.0	90.57	43.32	6,590.0	947.6	1,511.8	6.47	1,784.3	57.92	528,496.74	855,744.12	
8,238.0	91.41	43.03	6,589.4	971.0	1,533.7	2.78	1,815.2	57.66	528,520.07	855,766.01	
8,269.0	92.60	42.60	6,588.3	993.7	1,554.8	4.08	1,845.2	57.42	528,542.80	855,787.07	
8,300.0	93.37	42.28	6,586.7	1,016.5	1,575.7	2.69	1,875.1	57.17	528,565.64	855,807.96	
8,332.0	92.66	41.74	6,585.0	1,040.3	1,597.0	2.79	1,906.0	56.92	528,589.39	855,829.35	
8,363.0	91.82	41.10	6,583.8	1,063.5	1,617.5	3.41	1,935.8	56.68	528,612.62	855,849.84	
8,394.0	91.62	40.90	6,582.9	1,086.9	1,637.9	0.91	1,965.7	56.43	528,636.00	855,870.17	
8,425.0	91.14	39.97	6,582.1	1,110.5	1,658.0	3.38	1,995.5	56.19	528,659.59	855,890.27	



SDI
Final Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well 440H
Project:	Lea County, New Mexico	TVD Reference:	RKB @ 3483 0usft (Key #555)
Site:	Central Drinkard Unit (440H)	MD Reference:	RKB @ 3483 0usft (Key #555)
Well:	440H	North Reference:	Grd
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Houston-District

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)
8,457.0	90 67	39 42	6,581.6	1,135.1	1,678 4	2.26	2,026.2	55 93	528,684 21	855,910 70
8,472.0	90 23	39 03	6,581.5	1,146 7	1,687 9	3 92	2,040 6	55 81	528,695.83	855,920 19
8,488.0	90 30	38.95	6,581.4	1,159 2	1,698 0	0.66	2,055 9	55 68	528,708.26	855,930 26
8,519.0	90 20	38 41	6,581.3	1,183 4	1,717 3	1 77	2,085 6	55 43	528,732.46	855,949 63
8,550.0	90.24	36 04	6,581 2	1,208 0	1,736.1	7 65	2,115 0	55 17	528,757 15	855,968.38
8,581.0	89.83	34 24	6,581 2	1,233 4	1,753.9	5 96	2,144.2	54 88	528,782 50	855,986 22
8,612.0	89 93	33 39	6,581.2	1,259.2	1,771 2	2.76	2,173 1	54 59	528,808.25	856,003 48
8,643 0	90 00	32 50	6,581 3	1,285 2	1,788 0	2 88	2,202 0	54 29	528,834 27	856,020 33
8,675.0	89.46	31 98	6,581 4	1,312.2	1,805 1	2 34	2,231 7	53 98	528,861 33	856,037 41
8,706.0	88.18	32.39	6,582.0	1,338.5	1,821 6	4.34	2,260 5	53 69	528,887.56	856,053 91
8,737 0	88 29	32.52	6,583.0	1,364 6	1,838 2	0.55	2,289 4	53 41	528,913 71	856,070 54
8,768.0	88 25	32 45	6,583 9	1,390 7	1,854.9	0 26	2,318.4	53 14	528,939 85	856,087 18
8,799.0	88 19	32 68	6,584.9	1,416.9	1,871 6	0.77	2,347 4	52 87	528,965.96	856,103.86
8,830.0	88.08	33 02	6,585.9	1,442 9	1,888 4	1 15	2,376 5	52 62	528,991 99	856,120 67
8,861.0	89.02	32.83	6,586.7	1,468 9	1,905.2	3 09	2,405.7	52 37	529,018 00	856,137 51
8,893.0	89.16	32 43	6,587 2	1,495 8	1,922.5	1 32	2,435.9	52 11	529,044 95	856,154 76
8,924 0	88.59	32.45	6,587.8	1,522.0	1,939.1	1 84	2,465.1	51 87	529,071 10	856,171 39
8,955 0	89 06	32 47	6,588 4	1,548.2	1,955 7	1 52	2,494 3	51 63	529,097 25	856,188 02
8,986 0	90.10	32 70	6,588 7	1,574.3	1,972 4	3 44	2,523 6	51.41	529,123 37	856,204 72
9,017 0	90 07	32 60	6,588 6	1,600.4	1,989 1	0 34	2,553 0	51.18	529,149 48	856,221 44
9,048.0	90 07	33 00	6,588.6	1,626 4	2,005.9	1.29	2,582 5	50.96	529,175.53	856,238.24
9,080 0	90 13	32.95	6,588 5	1,653.3	2,023.4	0 24	2,612 9	50.75	529,202 38	856,255 65
9,111 0	90.44	33.69	6,588.4	1,679.2	2,040.4	2.59	2,642.5	50.55	529,228.28	856,272 68
9,142 0	91.28	33.92	6,587.9	1,704.9	2,057.6	2 81	2,672.2	50.36	529,254.04	856,289.93
9,173.0	91.78	34.09	6,587.1	1,730 6	2,075.0	1 70	2,701 9	50.17	529,279.73	856,307.26
9,228.0	91.78	34.09	6,585.4	1,776 2	2,105 8	0.00	2,754 8	49.85	529,325.25	856,338.07
Projected Depth										

Company:	Chevron	Local Co-ordinate Reference:	Well 440H
Project:	Lea County, New Mexico	TVD Reference:	RKB @ 3483 0usft (Key #555)
Site:	Central Drinkard Unit (440H)	MD Reference:	RKB @ 3483 0usft (Key #555)
Well:	440H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Houston-District

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,345.0	6,343.9	59.3	54.7	SDI Gyro tie-in
9,228.0	6,585.4	1,776.2	2,105.8	Projected Depth



Scientific Drilling

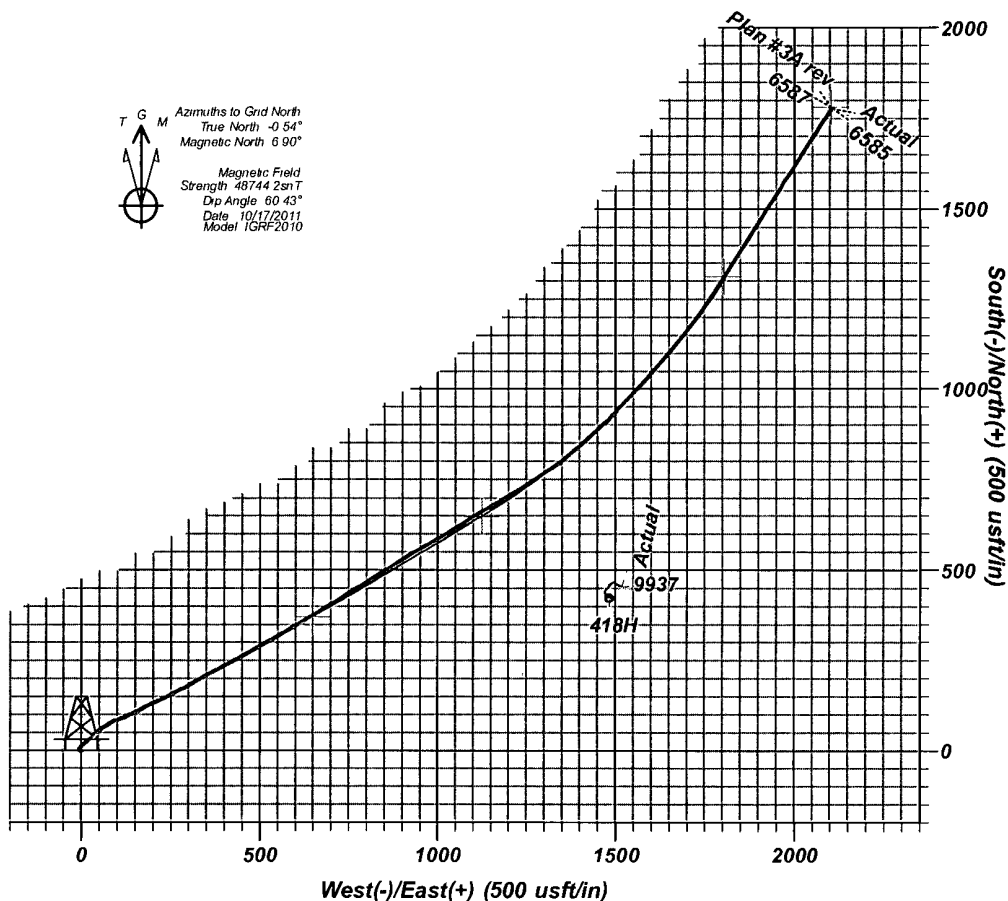
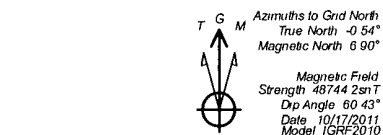
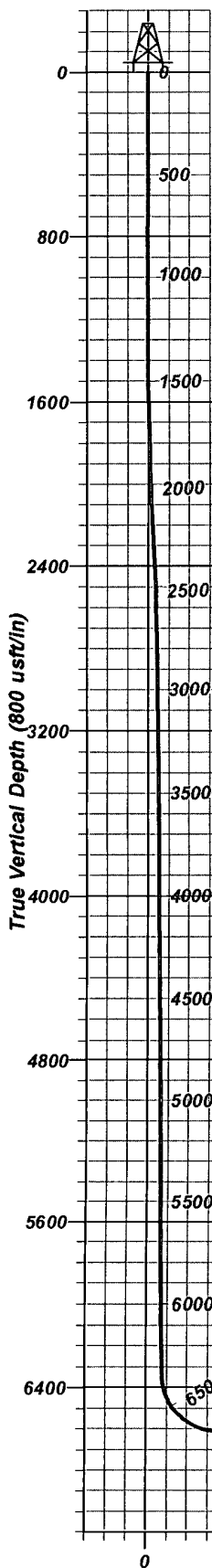
Lea County, New Mexico
Central Drinkard Unit (440H)
Actual vs Plan #3A rev
Rig: Key #555

440H



Section View Depths Shown are
Measured Depths

Plan View Depths Shown are
True Vertical Depths

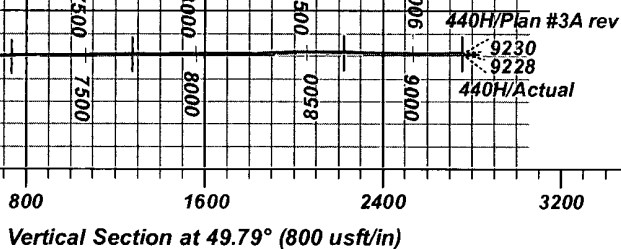


WELL DETAILS: 440H

Ground Level:	3467.0
Northing	527549.10
Easting	854232.30
Latitude	32° 26' 46.365 N
Longitude	103° 19' 8.530 W

Bottom Hole Closure

9228.0' MD 91.78° Inc 34.09° Az 6585.4' TVD
1776.2' North 2105.8' East of Surface Location
2754.8' CLosure Distance 49.85° Closure Azimuth

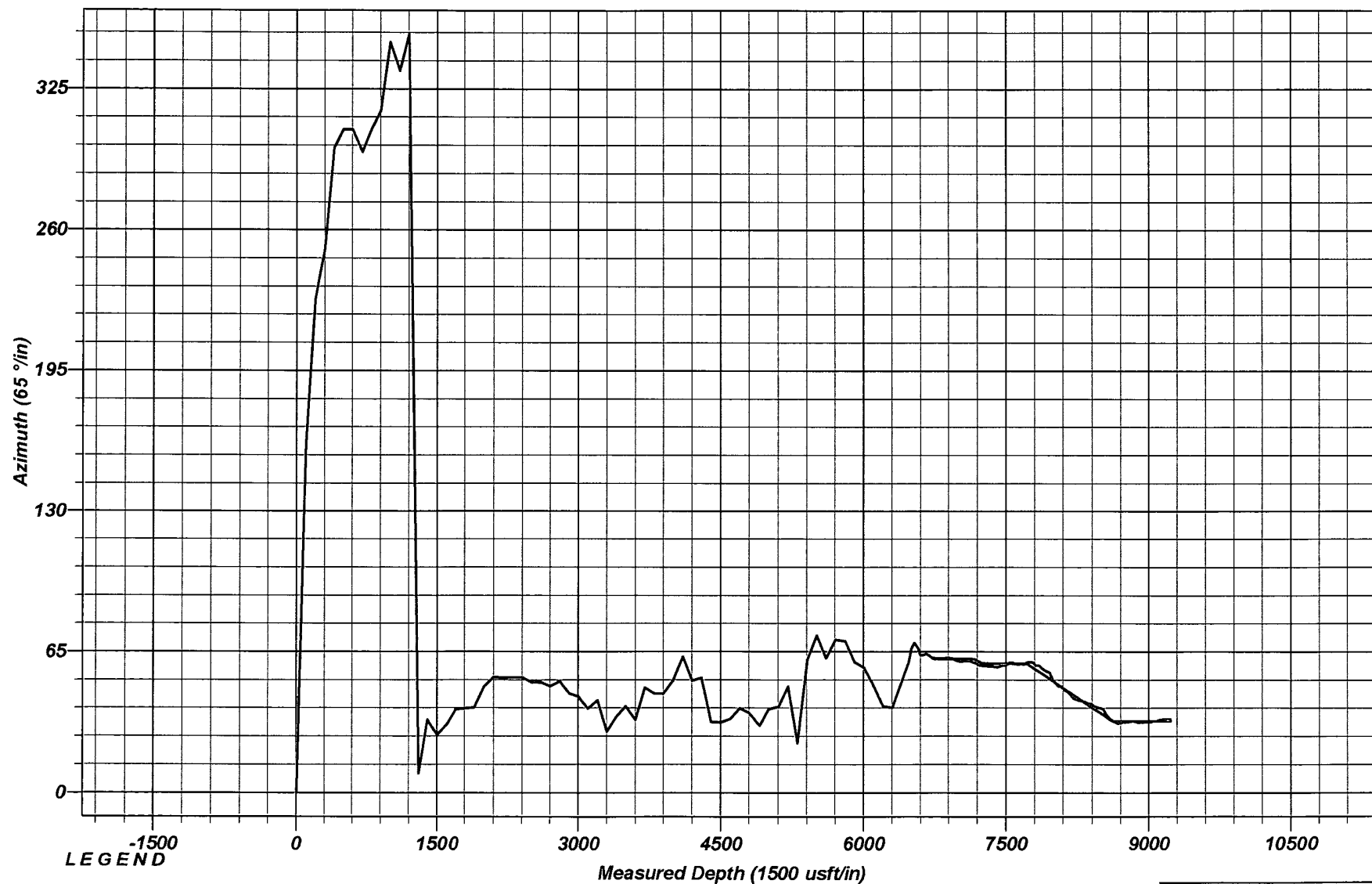




Scientific Drilling

Lea County, New Mexico
Central Drinkard Unit (440H)
Lateral
Actual vs Plan #3A rev
Rig: Key #555

440H



× 440H, Lateral, Actual V0

□ Plan #3A rev

Scientific Drilling Houston District
281-443-4600

Date: 11:52, November 08 2011

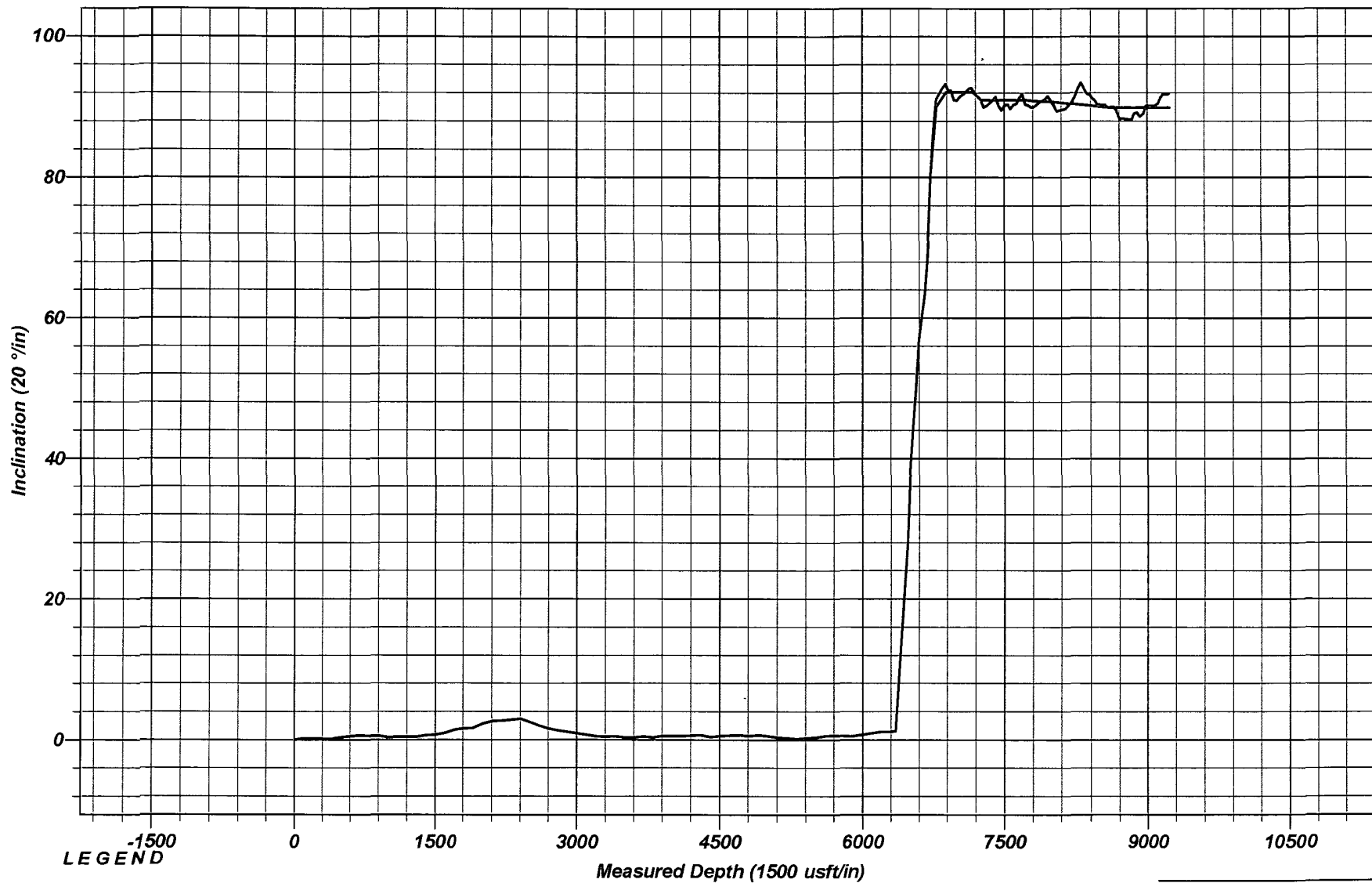


Scientific Drilling

Lea County, New Mexico
Central Drinkard Unit (440H)

440H

Lateral
Actual vs Plan #3A rev
Rig: Key #555



× 440H, Lateral, Actual V0
□ Plan #3A rev

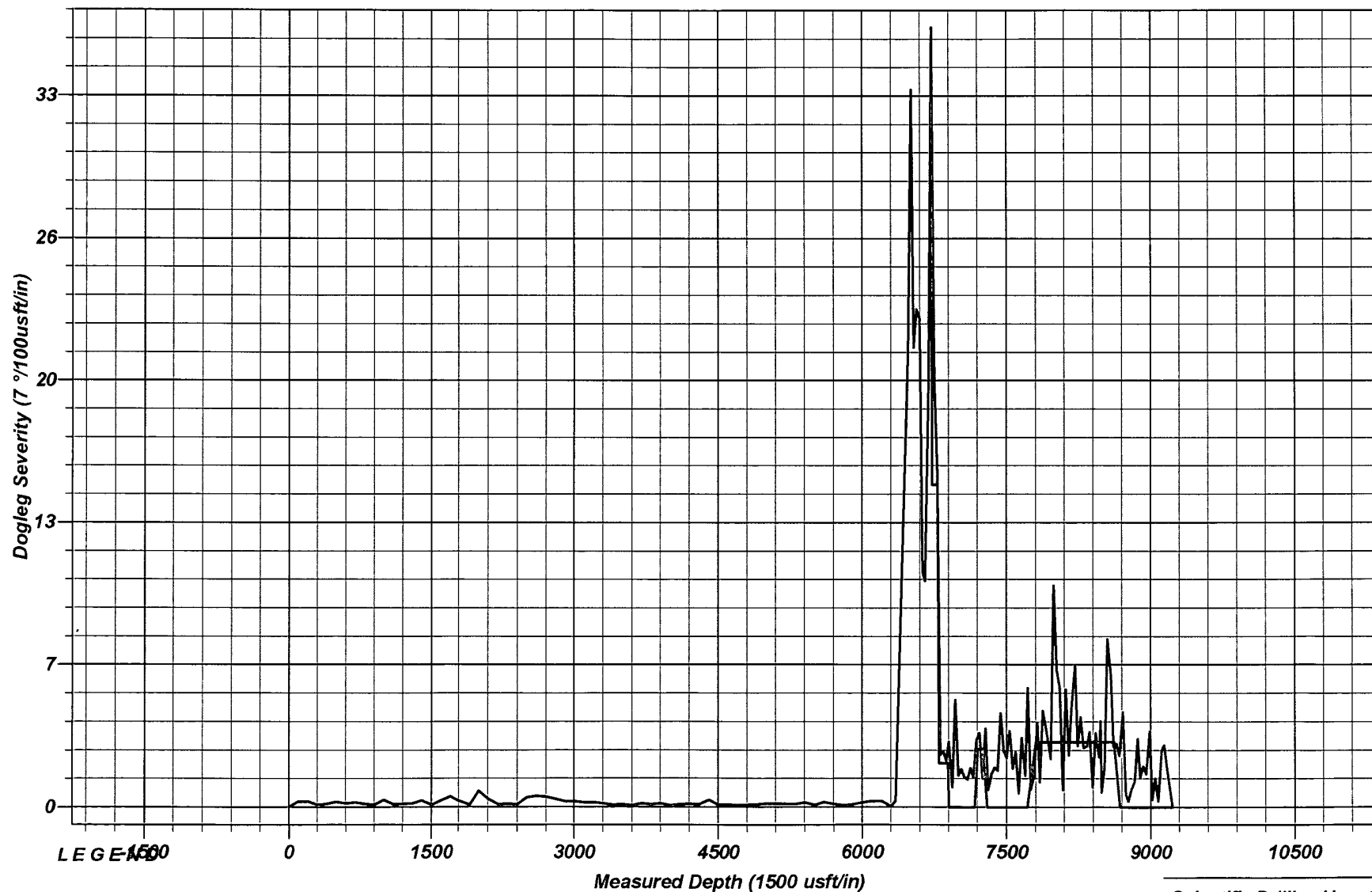
Scientific Drilling Houston District
281-443-4600
Date: 11:51, November 08 2011



Scientific Drilling

Lea County, New Mexico
Central Drinkard Unit (440H)
Lateral
Actual vs Plan #3A rev
Rig: Key #555

440H



× 440H, Lateral, Actual V0
□ Plan #3A rev

Scientific Drilling Houston District
281-443-4600
Date: 11:50, November 08 2011