



Weatherford®

Evaluation, Drilling & Intervention
10000 West County Rd. 116
P.O. Box 61028
Midland, TX USA 79711
Tel. (432) 561-8892 Fax (432) 561-8895

Devon Energy
333 W. Sherridan Ave
Oklahoma City, OK, 73102

Date: February 11, 2013

Attention: John Logemann

30-015-38453

Re: Devon Energy
Well: Cotton Draw Unit 122H
Eddy County, New Mexico

Enclosed, please find the original survey performed on the referenced well by Precision Energy Services, Inc. (P-5 No. 676004), a Weatherford company. Other information required by your office is as follows:

<u>Name & Title Of Surveyor</u>	<u>Well Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
John Self	122H	9879' MD	1/21/2013	Measurement
MWD Supervisor		14710' MD	2/10/2013	While Drilling

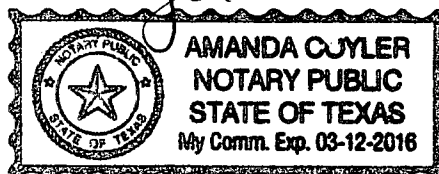
A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Jesse Aguilar
MWD Coordinator

On this, the 26th day of February, 2013, before me a notary public, the undersigned officer, personally appeared Jesse Aguilar, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.

Notary Public





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WFT Survey Report X & Y's

**Weatherford**

Company: Devon Energy Date: 2/10/2013 Time: 09:41:09 Page: 1
Field: Eddy Co., NM (NAD 83) Co-ordinate(NE) Reference: Well: CDU 122H, Grid North
Site: Cotton Draw Unit 122H Vertical (TVD) Reference: SITE 3530.0
Well: CDU 122H Section (VS) Reference: Well (0.00N,0.00E,176.24Azi)
Wellpath: Lat Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: Wft Svy Start Date: 1/28/2013
Company: Weatherford Engineer: Russell W. Joyner
Tool: MWD/MWD - Standard Tied-to: User Defined

Site: Cotton Draw Unit 122H

Site Position: Northing: 429943.93 ft Latitude: 32 10 50.372 N
From: Map Easting: 720949.11 ft Longitude: 103 45 10.031 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 3505.00 ft Grid Convergence: 0.31 deg

Well: CDU 122H Slot Name:
Well Position: +N/-S 0.00 ft Northing: 429943.93 ft Latitude: 32 10 50.372 N
+E/-W 0.00 ft Easting: 720949.11 ft Longitude: 103 45 10.031 W
Position Uncertainty: 0.00 ft

Wellpath: Lat Drilled From: Pilot
Current Datum: SITE Height 3530.00 ft Tie-on Depth: 11964.00 ft
Magnetic Data: 1/21/2013 Above System Datum: Mean Sea Level
Field Strength: 48435 nT Declination: 7.47 deg
Vertical Section: Depth From (TVD) +N/-S +E/-W Mag Dip Angle: 60.08 deg
ft ft ft Direction deg
0.00 0.00 0.00 176.24

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DES deg/100ft	VS ft	MapN ft	MapE ft	Comment
9771.61	1.32	242.73	9764.29	-159.23	-19.55	0.00	157.61	429784.70	720929.56	Tie On SDI First Wft Svy
9879.00	9.32	173.37	9871.17	-168.45	-19.65	8.32	166.80	429775.48	720929.46	
9910.00	10.50	170.10	9901.71	-173.73	-18.87	4.22	172.12	429770.20	720930.24	
9942.00	10.43	173.78	9933.18	-179.48	-18.06	2.10	177.91	429764.45	720931.05	
9973.00	10.23	171.50	9963.68	-184.99	-17.34	1.47	183.46	429758.94	720931.77	
10005.00	10.11	169.08	9995.17	-190.56	-16.39	1.39	189.08	429753.37	720932.72	
10036.00	13.42	173.54	10025.52	-196.81	-15.47	11.07	195.37	429747.12	720933.64	
10068.00	17.53	179.58	10056.35	-205.32	-15.02	13.78	203.90	429738.61	720934.09	
10099.00	21.71	183.27	10085.55	-215.72	-15.31	14.06	214.25	429728.21	720933.80	
10131.00	25.09	184.30	10114.91	-228.40	-16.16	10.64	226.85	429715.53	720932.95	
10163.00	28.65	183.75	10143.45	-242.82	-17.17	11.15	241.18	429701.11	720931.94	
10194.00	31.78	180.47	10170.24	-258.41	-17.72	11.41	256.69	429685.52	720931.39	
10226.00	35.74	178.66	10196.84	-276.18	-17.57	12.77	274.44	429667.75	720931.54	
10257.00	40.61	178.21	10221.20	-295.33	-17.05	15.74	293.58	429648.60	720932.06	
10289.00	44.23	176.73	10244.82	-316.89	-16.08	11.73	315.15	429627.04	720933.03	
10320.00	47.53	175.50	10266.40	-339.09	-14.57	11.02	337.40	429604.84	720934.54	
10352.00	49.33	174.94	10287.63	-362.95	-12.57	5.78	361.34	429580.98	720936.54	
10372.00	50.79	173.99	10300.47	-378.21	-11.09	8.16	376.67	429565.72	720938.02	
10384.00	52.10	173.66	10307.95	-387.54	-10.08	11.13	386.04	429556.39	720939.03	
10415.00	55.74	173.03	10326.20	-412.42	-7.18	11.86	411.06	429531.51	720941.93	
10447.00	58.99	174.63	10343.46	-439.21	-4.29	10.99	437.98	429504.72	720944.82	
10478.00	62.82	176.88	10358.53	-466.21	-2.29	13.89	465.06	429477.72	720946.82	
10510.00	67.74	178.32	10371.91	-495.24	-1.08	15.91	494.11	429448.69	720948.03	
10541.00	73.04	177.92	10382.31	-524.42	-0.12	17.14	523.28	429419.51	720948.99	
10570.00	78.46	176.59	10389.45	-552.48	1.23	19.21	551.38	429391.45	720950.34	
10617.00	83.20	176.13	10396.94	-598.78	4.17	10.13	597.76	429345.15	720953.28	
10649.00	82.85	176.03	10400.82	-630.47	6.34	1.14	629.52	429313.46	720955.45	
10680.00	83.90	175.58	10404.40	-661.18	8.60	3.68	660.32	429282.75	720957.71	
10712.00	85.24	174.99	10407.43	-692.92	11.22	4.57	692.17	429251.01	720960.33	
10743.00	86.43	174.78	10409.68	-723.72	13.97	3.90	723.08	429220.21	720963.08	



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WFT Survey Report X & Y's

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Cotton Draw Unit 122H
Well: CDU 122H
Wellpath: Lat

Date: 2/10/2013 Time: 09:41:09 Page: 2
Co-ordinate(NE) Reference: Well: CDU 122H, Grid North
Vertical (TVD) Reference: SITE 3530.0
Section (VS) Reference: Well (0.00N,0.00E,176.24Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
10775.00	87.90	174.70	10411.26	-755.54	16.90	4.60	755.03	429188.39	720966.01	
10806.00	89.51	174.38	10411.96	-786.39	19.85	5.30	786.00	429157.54	720968.96	
10838.00	90.56	173.94	10411.94	-818.23	23.11	3.56	817.98	429125.70	720972.22	
10932.00	89.93	173.64	10411.54	-911.67	33.27	0.74	911.89	429032.26	720982.38	
11027.00	91.12	174.25	10410.67	-1006.14	43.29	1.41	1006.81	428937.79	720992.40	
11120.00	92.31	175.85	10407.89	-1098.74	51.32	2.14	1099.75	428845.19	721000.43	
11214.00	91.96	175.28	10404.38	-1192.40	58.58	0.71	1193.67	428751.53	721007.69	
11309.00	92.73	175.97	10400.50	-1287.04	65.82	1.09	1288.59	428656.89	721014.93	
11402.00	91.54	176.56	10397.03	-1379.78	71.87	1.43	1381.52	428564.15	721020.98	
11496.00	89.30	176.84	10396.34	-1473.61	77.28	2.40	1475.51	428470.32	721026.39	
11590.00	89.37	177.06	10397.43	-1567.47	82.29	0.25	1569.49	428376.46	721031.40	
11683.00	89.65	177.20	10398.23	-1660.35	86.94	0.34	1662.48	428283.58	721036.05	
11777.00	89.23	176.79	10399.15	-1754.22	91.87	0.62	1756.47	428189.71	721040.98	
11870.00	90.49	176.57	10399.38	-1847.06	97.26	1.38	1849.46	428096.87	721046.37	
11964.00	92.59	176.07	10396.85	-1940.83	103.29	2.30	1943.42	428003.10	721052.40	
12058.00	93.43	176.26	10391.91	-2034.49	109.56	0.92	2037.29	427909.44	721058.67	
12152.00	92.17	176.06	10387.32	-2128.16	115.85	1.36	2131.18	427815.77	721064.96	
12245.00	90.49	176.41	10385.16	-2220.93	121.96	1.85	2224.15	427723.00	721071.07	
12338.00	90.91	176.57	10384.03	-2313.75	127.65	0.48	2317.14	427630.18	721076.76	
12433.00	90.14	176.27	10383.16	-2408.56	133.58	0.87	2412.14	427535.37	721082.69	
12528.00	90.63	176.67	10382.52	-2503.38	139.43	0.67	2507.13	427440.55	721088.54	
12622.00	90.70	176.43	10381.43	-2597.20	145.09	0.27	2601.12	427346.73	721094.20	
12717.00	89.58	175.90	10381.20	-2691.99	151.44	1.30	2696.12	427251.94	721100.55	
12811.00	90.21	176.24	10381.37	-2785.76	157.88	0.76	2790.12	427158.17	721106.99	
12906.00	91.82	177.58	10379.68	-2880.61	163.00	2.20	2885.09	427063.32	721112.11	
13000.00	90.63	177.05	10377.67	-2974.48	167.41	1.39	2979.05	426969.45	721116.52	
13094.00	88.74	176.94	10378.19	-3068.34	172.33	2.01	3073.04	426875.59	721121.44	
13188.00	89.51	177.04	10379.63	-3162.20	177.27	0.83	3167.02	426781.73	721126.38	
13283.00	90.28	177.61	10379.80	-3257.10	181.70	1.01	3262.00	426686.83	721130.81	
13377.00	89.37	177.99	10380.09	-3351.03	185.31	1.05	3355.97	426592.90	721134.42	
13471.00	88.39	176.57	10381.93	-3444.90	189.77	1.84	3449.93	426499.03	721138.88	
13565.00	88.95	174.91	10384.11	-3538.61	196.75	1.86	3543.90	426405.32	721145.86	
13659.00	90.98	174.08	10384.17	-3632.17	205.77	2.33	3637.85	426311.76	721154.88	
13754.00	91.54	173.92	10382.08	-3726.63	215.70	0.61	3732.75	426217.30	721164.81	
13848.00	90.84	174.13	10380.12	-3820.10	225.48	0.78	3826.66	426123.83	721174.59	
13943.00	92.31	174.22	10377.51	-3914.57	235.12	1.55	3921.56	426029.36	721184.23	
14038.00	91.75	174.02	10374.15	-4009.01	244.84	0.63	4016.43	425934.92	721193.95	
14132.00	90.91	174.04	10371.97	-4102.47	254.62	0.89	4110.34	425841.46	721203.73	
14227.00	92.38	173.35	10369.24	-4196.86	265.04	1.71	4205.20	425747.07	721214.15	
14322.00	91.68	173.69	10365.87	-4291.19	275.76	0.82	4300.04	425652.74	721224.87	
14416.00	91.19	174.65	10363.52	-4384.67	285.30	1.15	4393.94	425559.26	721234.41	
14511.00	90.49	174.74	10362.13	-4479.25	294.09	0.74	4488.90	425464.68	721243.20	
14606.00	90.14	175.15	10361.60	-4573.88	302.46	0.57	4583.87	425370.05	721251.57	
14700.00	89.16	174.45	10362.18	-4667.49	310.98	1.28	4677.84	425276.44	721260.09	
14710.00	89.16	174.15	10362.33	-4677.44	311.97	3.00	4687.83	425266.49	721261.08	Last Wft Svy
14763.00	89.16	174.15	10363.10	-4730.16	317.37	0.00	4740.79	425213.77	721266.48	Proj. To Bit



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WFT Survey Report X & Y's



Weatherford

Company: Devon Energy	Date: 2/10/2013	Time: 09:41:09	Page: 3
Field: Eddy Co., NM, (NAD 83)	Co-ordinate(NE) Reference: Well: CDU 122H; Grid North		
Site: Cotton Draw Unit 122H	Vertical (TVD) Reference: SITE 3530.0		
Well: CDU 122H	Section (VS) Reference: Well (0.00N,0.00E,176.24Azi)		
Wellpath: Lat	Survey Calculation Method: Minimum Curvature		Db: Sybase

Annotation

MD ft	TVD ft	
9771.61	9764.29	Tie On SDI
9879.00	9871.17	First Wft Svy
14710.00	10362.33	Last Wft Svy
14763.00	10363.10	Proj. To Bit

devon

Cotton Draw Unit #122H
Eddy Co., NM

KB ELEV: 3530
GL ELEV: 3505

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	11964.00	92.59	176.94	10396.85	-1940.82	103.31	0.00	0.00	1943.42	
2	12025.97	90.76	175.70	10395.04	-2002.61	107.77	3.00	-169.37	2005.37	
3	14761.88	90.76	175.70	10358.62	-4730.56	313.03	0.00	0.00	4740.91	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
CDU 122H	0.00	0.00	429943.93	720949.11	32°10'50.372N	103°45'10.031W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	10358.62	-4730.56	313.03	425213.37	721262.14	Rectangle (2797x50)

LEGEND

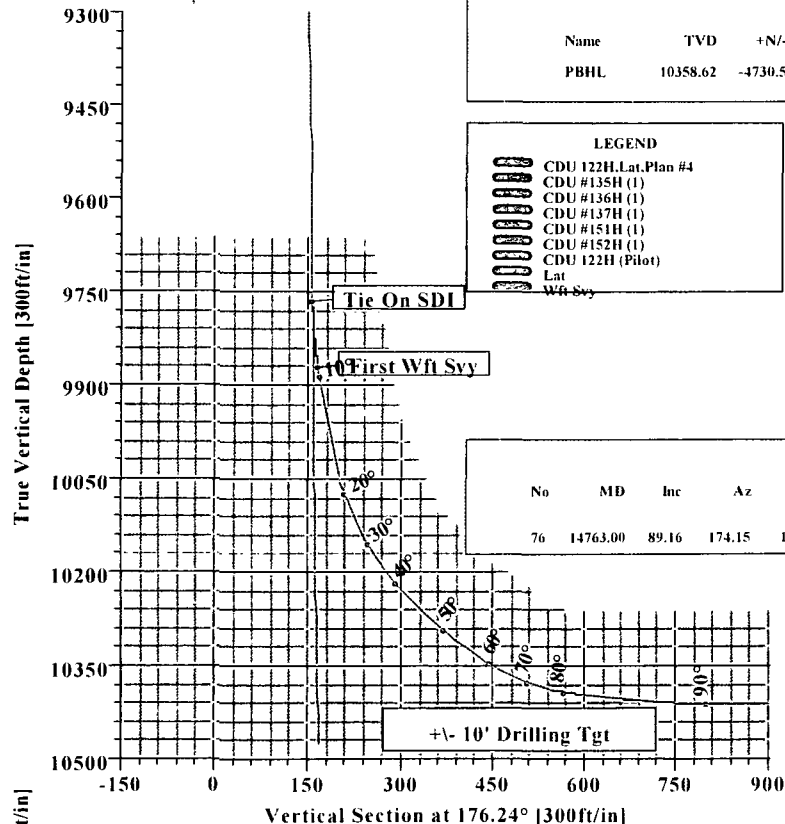
- CDU 122H, Lat, Plan #4
- CDU #135H (1)
- CDU #136H (1)
- CDU #137H (1)
- CDU #151H (1)
- CDU #152H (1)
- CDU 122H (Pilot)
- Lat
- Wft Svy

SITE DETAILS

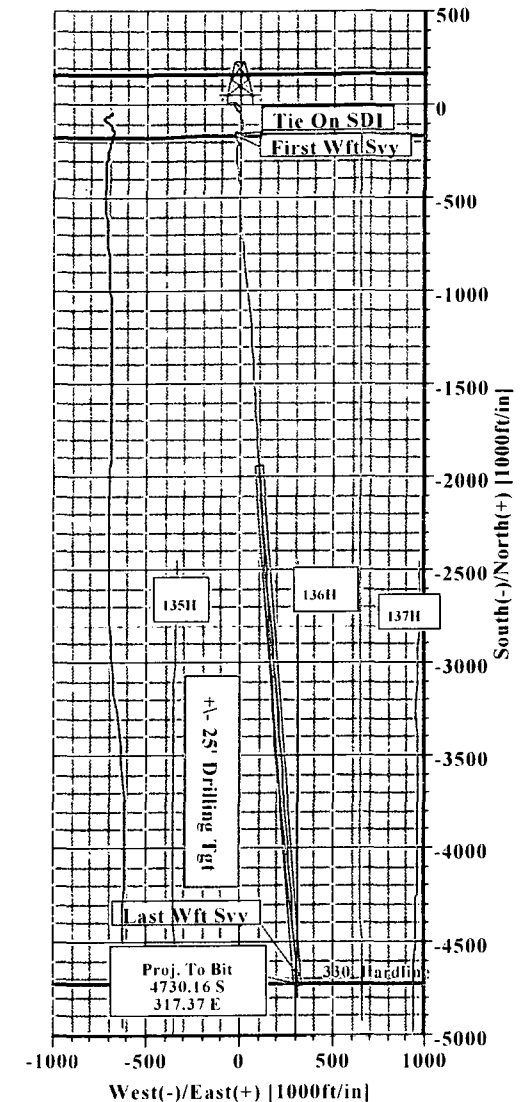
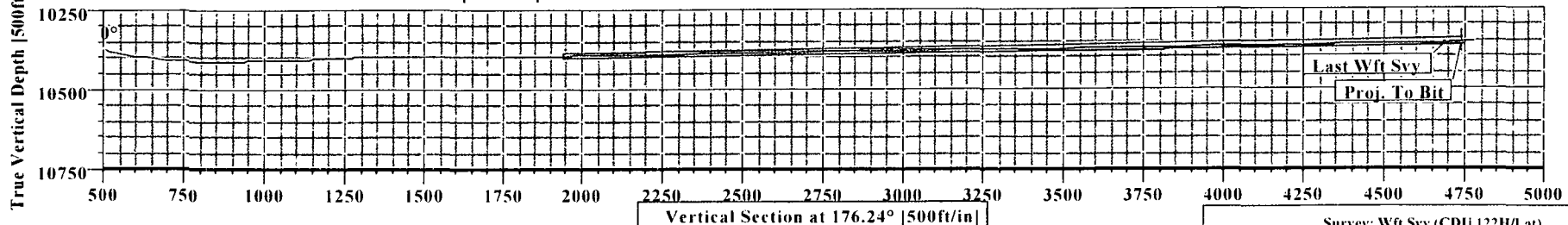
Cotton Draw Unit 122H
Site Centre Northing: 429943.93
Easting: 720949.11
Ground Level: 3505.00
Positional Uncertainty: 0.00
Convergence: 0.31

Survey: Wft Svy (CDU 122H/Lat)

No	MD	Inc	Az	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
76	14763.00	89.16	174.15	10363.10	-4730.16	317.37	0.00	0.00	4740.79



Weatherford



Survey: Wft Svy (CDU 122H/Lat)

Created By: Russell W. Joyner

Date: 2/10/2013



Scientific Drilling

Gyroscopic Survey Report
for
DEVON

Well Location	EDDY COUNTY, NEW MEXICO
Well Name	COTTON DRAW UNIT 122H
Rig Name	H&P 214
Survey Date	1/21/2013
Latitude	32.1050380°N
North Reference	Grid North
Grid Correction	-0.31 deg
Depth Reference	RKB (25.00 ft)
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 0.00Azim (deg)
Definitive Survey	FINAL GYRO SURVEY
Operator(s)	JUSTIN PERKINS, RODRIGO ESCAMILLA

Well Notes



Scientific Drilling Survey Report

Survey:		FINAL GYRO SURVEY							
Survey Date:		1/21/2013							
MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Dogleg	Closure Distance
ft	deg	deg	ft	ft	ft	ft	deg	deg	ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid	0.00
111.66	0.25	121.63	111.66	-0.13	-0.13	0.20	121.63	0.25	0.24
173.24	0.28	203.61	173.24	-0.33	-0.33	0.26	142.69	0.35	0.42
262.12	0.37	201.79	262.12	-0.80	-0.80	0.06	175.63	0.08	0.80
351.18	0.43	208.99	351.18	-1.36	-1.36	-0.21	188.64	0.08	1.37
438.38	0.76	213.61	438.37	-2.13	-2.13	-0.68	197.85	0.33	2.23
470.09	0.83	215.68	470.08	-2.49	-2.49	-0.93	200.60	0.07	2.66
560.35	0.84	220.40	560.33	-3.52	-3.52	-1.74	206.36	0.07	3.93
650.61	1.09	218.28	650.58	-4.70	-4.70	-2.71	209.94	0.26	5.43
741.98	1.04	216.46	741.93	-6.05	-6.05	-3.74	211.71	0.07	7.11
833.35	0.93	208.43	833.29	-7.37	-7.37	-4.59	211.88	0.17	8.68
923.62	0.99	228.10	923.54	-8.54	-8.54	-5.51	212.86	0.33	10.16
1013.89	0.97	237.55	1013.80	-9.47	-9.47	-6.74	215.44	0.16	11.62
1104.16	0.90	257.72	1104.06	-10.03	-10.03	-8.07	218.83	0.33	12.87
1193.00	0.89	262.41	1192.89	-10.26	-10.26	-9.43	222.57	0.07	13.94
1289.27	0.64	272.17	1289.15	-10.34	-10.34	-10.71	225.99	0.28	14.89
1385.54	0.65	306.67	1385.41	-10.00	-10.00	-11.68	229.46	0.38	15.38
1481.81	0.62	324.27	1481.68	-9.25	-9.25	-12.43	233.34	0.20	15.49
1576.17	0.73	331.89	1576.03	-8.31	-8.31	-13.01	237.44	0.14	15.43
1670.53	0.76	330.87	1670.38	-7.23	-7.23	-13.59	241.98	0.03	15.40
1764.89	1.02	338.81	1764.73	-5.91	-5.91	-14.20	247.41	0.29	15.38
1859.25	1.25	346.73	1859.07	-4.12	-4.12	-14.74	254.37	0.29	15.30
1953.61	1.29	354.48	1953.41	-2.06	-2.06	-15.08	262.22	0.18	15.22
2047.97	1.10	348.80	2047.75	-0.11	-0.11	-15.35	269.59	0.22	15.36
2142.33	1.03	344.17	2142.09	1.60	1.60	-15.76	275.79	0.11	15.84
2236.32	1.00	318.79	2236.07	3.03	3.03	-16.53	280.39	0.45	16.81
2330.31	1.48	296.85	2330.04	4.20	4.20	-18.16	283.01	0.67	18.64
2424.30	1.80	299.86	2423.99	5.48	5.48	-20.53	284.95	0.33	21.25
2519.07	2.23	303.52	2518.70	7.24	7.24	-23.36	287.23	0.44	24.45
2613.84	2.99	288.45	2613.37	9.04	9.04	-27.24	288.37	1.02	28.70
2708.61	3.76	283.97	2707.98	10.58	10.58	-32.60	287.97	0.82	34.27
2801.26	3.80	283.21	2800.43	12.01	12.01	-38.54	287.31	0.06	40.37
2895.85	2.61	276.46	2894.87	12.97	12.97	-43.73	286.52	1.24	45.61
2990.44	2.93	251.27	2989.35	12.44	12.44	-48.16	284.48	1.25	49.74
3085.03	3.30	254.63	3083.80	10.94	10.94	-53.08	281.64	0.41	54.19
3179.62	1.94	259.13	3178.29	9.91	9.91	-57.27	279.82	1.37	58.12
3274.21	0.48	105.60	3272.86	9.51	9.51	-58.46	279.24	2.37	59.23
3367.92	0.65	99.19	3366.57	9.32	9.32	-57.56	279.19	0.19	58.31
3461.63	0.66	75.32	3460.27	9.37	9.37	-56.51	279.41	0.27	57.28
3556.47	0.82	89.22	3555.10	9.52	9.52	-55.30	279.76	0.24	56.11



Scientific Drilling Survey Report

Survey: FINAL GYRO SURVEY									
Survey Date: 1/21/2013									
MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Dogleg	Closure Distance
ft	deg	deg	ft	ft	ft	ft	deg	deg	ft
3650.41	1.79	99.50	3649.02	9.28	9.28	-53.17	279.90	0.99	53.98
3744.35	3.53	117.57	3742.86	7.70	7.70	-49.16	278.91	1.90	49.76
3838.29	3.80	109.51	3836.60	5.33	5.33	-43.67	276.96	0.58	43.99
3933.03	3.46	125.59	3931.16	2.61	2.61	-38.38	273.90	1.07	38.47
4029.28	4.96	140.27	4027.15	-2.28	-2.28	-33.36	266.09	1.83	33.44
4122.88	6.86	146.09	4120.24	-10.04	-10.04	-27.65	250.05	1.99	29.42
4216.48	6.42	143.25	4213.22	-18.87	-18.87	-21.40	228.60	0.55	28.53
4310.08	5.08	144.84	4306.34	-26.45	-26.45	-15.88	210.98	1.34	30.85
4403.68	4.28	144.22	4399.63	-32.67	-32.67	-11.46	199.32	0.81	34.62
4497.34	4.00	135.59	4493.05	-37.84	-37.84	-7.13	190.67	0.68	38.50
4591.00	3.81	137.85	4586.49	-42.47	-42.47	-2.76	183.72	0.25	42.56
4685.23	3.58	224.74	4680.59	-46.88	-46.88	-2.73	183.33	5.08	46.96
4779.66	3.25	144.62	4774.90	-51.16	-51.16	-3.25	183.64	4.40	51.26
4873.27	3.06	130.96	4868.36	-54.96	-54.96	0.17	179.83	0.77	54.96
4966.88	2.77	279.67	4961.93	-56.21	-56.21	-0.18	180.18	5.61	56.21
5060.49	2.71	320.54	5055.44	-54.12	-54.12	-3.81	184.03	1.91	54.26
5154.99	2.44	119.56	5149.91	-53.39	-53.39	-3.48	183.73	5.07	53.50
5249.49	2.21	227.26	5244.36	-55.62	-55.62	-3.07	183.16	3.76	55.70
5343.00	1.76	129.69	5337.84	-57.76	-57.76	-3.29	183.26	3.00	57.85
5438.70	1.56	183.33	5433.50	-60.00	-60.00	-2.23	182.13	1.51	60.04
5523.73	1.59	139.20	5518.50	-62.04	-62.04	-1.53	181.41	1.18	62.06
5626.76	1.23	269.95	5621.52	-63.12	-63.12	-1.70	181.55	2.56	63.14
5721.55	1.16	133.40	5716.30	-63.78	-63.78	-2.02	181.82	2.21	63.81
5815.92	1.16	96.87	5810.65	-64.55	-64.55	-0.38	180.34	0.73	64.55
5910.29	1.16	126.87	5905.00	-65.24	-65.24	1.34	178.83	0.60	65.25
6004.66	1.34	267.95	5999.36	-65.85	-65.85	1.00	179.13	2.36	65.86
6099.03	1.47	196.20	6093.71	-67.05	-67.05	-0.45	180.38	1.65	67.05
6193.01	1.69	153.96	6187.66	-69.45	-69.45	-0.18	180.14	1.15	69.45
6287.21	1.66	167.11	6281.82	-72.02	-72.02	0.74	179.41	0.38	72.03
6381.41	1.96	92.00	6375.98	-73.40	-73.40	2.65	177.94	2.21	73.45
6475.61	2.17	184.49	6470.14	-75.24	-75.24	4.11	176.87	2.98	75.35
6568.16	1.95	296.86	6562.66	-76.27	-76.27	2.57	178.07	3.43	76.32
6662.53	2.16	129.77	6657.01	-76.69	-76.69	2.50	178.13	4.09	76.73
6756.90	2.36	157.70	6751.31	-79.63	-79.63	4.61	176.69	1.11	79.76
6850.25	2.38	160.88	6844.58	-83.24	-83.24	5.97	175.90	0.13	83.45
6943.60	2.69	162.60	6937.84	-87.16	-87.16	7.26	175.24	0.32	87.46
7037.29	2.05	172.92	7031.45	-90.92	-90.92	8.13	174.89	0.77	91.28
7130.98	1.88	139.42	7125.09	-93.75	-93.75	9.33	174.32	1.14	94.21
7225.56	1.88	171.10	7219.62	-96.46	-96.46	10.58	173.74	1.03	97.04
7319.17	1.74	171.15	7313.18	-99.39	-99.39	11.04	173.66	0.14	100.00



Scientific Drilling Survey Report

Survey:		FINAL GYRO SURVEY								
Survey Date:		1/21/2013								
MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Dogleg	Closure Distance	
ft	deg	deg	ft	ft	ft	ft	deg	deg	ft	
7412.78	1.59	193.25	7406.75	-102.06	-102.06	10.96	173.87	0.66	102.65	
7506.39	1.58	177.81	7500.33	-104.61	-104.61	10.71	174.15	0.43	105.16	
7600.00	1.59	173.72	7593.90	-107.19	-107.19	10.90	174.19	0.11	107.74	
7693.61	1.65	172.32	7687.47	-109.82	-109.82	11.22	174.16	0.07	110.39	
7789.12	1.64	168.64	7782.94	-112.52	-112.52	11.68	174.07	0.11	113.13	
7884.63	1.12	160.09	7878.43	-114.75	-114.75	12.27	173.90	0.56	115.40	
7978.31	1.45	177.91	7972.08	-116.80	-116.80	12.62	173.83	0.52	117.48	
8071.99	2.97	183.44	8065.69	-120.41	-120.41	12.52	174.06	1.53	121.06	
8166.95	1.94	198.10	8160.56	-124.40	-124.40	11.87	174.55	1.20	124.96	
8261.91	1.79	212.33	8255.47	-127.18	-127.18	10.58	175.24	0.49	127.62	
8355.81	1.82	201.32	8349.33	-129.81	-129.81	9.25	175.92	0.35	130.14	
8449.71	1.62	206.18	8443.18	-132.39	-132.39	8.13	176.49	0.25	132.64	
8543.61	1.70	210.04	8537.04	-134.79	-134.79	6.84	177.09	0.14	134.96	
8637.51	2.58	69.24	8630.92	-135.24	-135.24	8.12	176.56	4.04	135.49	
8703.41	2.19	222.70	8696.79	-135.64	-135.64	8.66	176.35	4.65	135.92	
8825.27	2.40	220.95	8818.56	-139.28	-139.28	5.41	177.78	0.22	139.38	
8920.13	3.23	243.75	8913.30	-141.96	-141.96	1.71	179.31	1.38	141.97	
9014.99	2.92	233.17	9008.03	-144.58	-144.58	-2.61	181.03	0.64	144.61	
9109.85	2.22	230.29	9102.79	-147.20	-147.20	-5.95	182.32	0.71	147.32	
9204.40	1.91	231.66	9197.28	-149.35	-149.35	-8.59	183.29	0.31	149.59	
9394.13	1.75	220.45	9386.92	-153.51	-153.51	-12.95	184.82	0.39	154.05	
9488.10	1.29	216.74	9480.85	-155.45	-155.45	-14.51	185.33	0.47	156.12	
9582.07	1.20	228.18	9574.80	-156.95	-156.95	-15.88	185.78	0.26	157.76	
9676.84	1.36	240.36	9669.55	-158.18	-158.18	-17.60	186.35	0.31	159.15	
9771.61	1.32	242.73	9764.29	-159.23	-159.23	-19.55	187.00	0.07	160.43	
9866.38	0.46	163.61	9859.05	-160.10	-160.10	-20.41	187.26	1.31	161.39	
9961.15	1.19	120.16	9953.81	-160.96	-160.96	-19.45	186.89	0.92	162.13	
10055.92	1.19	138.05	10048.56	-162.18	-162.18	-17.94	186.31	0.37	163.17	
10150.69	1.06	156.62	10143.31	-163.72	-163.72	-16.93	185.91	0.38	164.59	
10245.46	0.81	168.04	10238.07	-165.18	-165.18	-16.45	185.69	0.31	166.00	
10339.00	1.07	164.38	10331.60	-166.67	-166.67	-16.07	185.51	0.27	167.45	
10434.00	1.29	167.46	10426.58	-168.57	-168.57	-15.60	185.29	0.22	169.29	
10486.00	1.30	170.18	10478.56	-169.72	-169.72	-15.38	185.18	0.06	170.42	