

30-015-42374

A Gyrodata Directional Survey

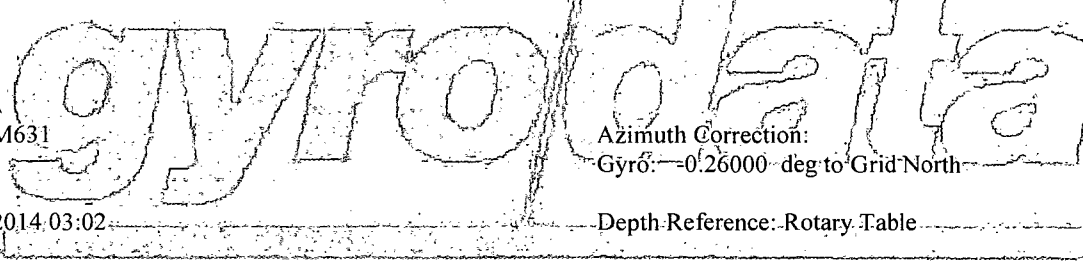
FINAL DEFINITIVE COPY

for

BOPCO

Lease: POKER LAKE UNIT Well: 430H, 4 AND 1/2 INCH DRILL PIPE

Location: MCVAY 5, EDDY COUNTY, NEW MEXICO



Job Number: MD0614GDM631

Run Date: 19 Jun 2014

Report Generated: 26 Jun 2014 03:02

Surveyor: Derek Oster

Calculation Method: MINIMUM CURVATURE

Survey surface coordinates obtained from: Well Plan/Plot

Survey Latitude: 32.211319 deg. N Longitude: 103.853972 deg. W

Azimuth Correction:

Gyro: -0.26000 deg to Grid North

Depth Reference: Rotary Table

Air Gap (RKB to Ground / RKB to MSL): 17.50

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location

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MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
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0.00	0.00	0.00	0.00	0.00	0.0 0.0	0.00 N 0.00 E
------	------	------	------	------	---------	---------------

0 - 7042 FT. RATE GYROSCOPIC MULTISHOT SURVEY RUN INSIDE 4 AND 1/2 INCH DRILL PIPE
ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO MCVAY DRILLING RIG #5 R.K.B. HEIGHT OF 17.5 FT.

66.92	0.56	149.36	0.84	66.92	0.3 149.4	0.28 S 0.17 E
166.92	0.41	141.58	0.16	166.92	1.2 147.0	0.98 S 0.64 E
266.92	0.26	117.50	0.20	266.91	1.7 142.2	1.37 S 1.06 E
366.92	0.33	67.96	0.26	366.91	2.0 131.7	1.36 S 1.53 E
466.92	0.41	55.19	0.11	466.91	2.3 116.7	1.05 S 2.09 E
566.92	0.42	36.64	0.13	566.91	2.7 102.0	0.55 S 2.60 E
666.92	0.60	35.99	0.18	666.90	3.1 87.0	0.16 N 3.13 E
766.92	1.08	52.39	0.53	766.89	4.3 74.5	1.16 N 4.18 E
866.92	1.55	66.15	0.56	866.87	6.6 69.7	2.29 N 6.17 E
966.92	1.51	65.77	0.04	966.83	9.2 68.6	3.37 N 8.61 E
1066.92	0.68	100.25	1.02	1066.81	11.1 69.9	3.81 N 10.39 E
1166.92	0.60	101.87	0.08	1166.81	12.0 72.6	3.59 N 11.49 E
1266.92	0.55	100.62	0.05	1266.80	12.9 74.8	3.40 N 12.47 E
1366.92	0.41	96.16	0.14	1366.80	13.7 76.2	3.27 N 13.30 E
1466.92	0.35	87.80	0.08	1466.80	14.3 76.9	3.25 N 13.96 E
1566.92	0.27	109.44	0.14	1566.79	14.8 77.6	3.18 N 14.49 E
1666.92	0.07	143.68	0.22	1666.79	15.1 78.3	3.05 N 14.75 E

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MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	AZIMUTH deg.	HORIZONTAL COORDINATES feet
1766.92	0.08	60.91	0.10	1766.79	15.2	78.4	3.04 N 14.84 E
1866.92	0.06	279.28	0.13	1866.79	15.2	78.3	3.08 N 14.85 E
1966.92	0.08	310.39	0.04	1966.79	15.1	78.0	3.13 N 14.75 E
2066.92	0.06	308.80	0.02	2066.79	15.0	77.6	3.21 N 14.65 E
2166.92	0.10	236.68	0.10	2166.79	14.9	77.6	3.19 N 14.54 E
2266.92	0.07	256.97	0.04	2266.79	14.7	77.7	3.13 N 14.41 E
2366.92	0.10	176.21	0.11	2366.79	14.7	78.1	3.03 N 14.35 E
2466.92	0.08	161.63	0.03	2466.79	14.7	78.7	2.88 N 14.38 E
2566.92	0.07	216.52	0.07	2566.79	14.6	79.1	2.76 N 14.37 E
2666.92	0.19	74.41	0.25	2666.79	14.8	79.2	2.76 N 14.49 E
2766.92	0.31	53.69	0.15	2766.79	15.2	78.7	2.96 N 14.87 E
2866.92	0.12	25.98	0.21	2866.79	15.5	78.0	3.22 N 15.13 E
2966.92	0.13	6.19	0.04	2966.79	15.6	77.3	3.42 N 15.19 E
3066.92	0.07	22.13	0.07	3066.79	15.6	76.7	3.59 N 15.23 E
3166.92	0.17	74.78	0.14	3166.79	15.8	76.5	3.69 N 15.39 E
3266.92	0.41	60.38	0.25	3266.79	16.3	76.2	3.91 N 15.85 E
3366.92	0.46	122.27	0.45	3366.79	16.9	76.8	3.87 N 16.50 E
3466.92	0.45	146.60	0.19	3466.78	17.4	79.0	3.33 N 17.05 E
3566.92	0.65	136.49	0.22	3566.78	17.8	81.7	2.59 N 17.66 E
3666.92	0.69	128.80	0.10	3666.77	18.6	84.5	1.80 N 18.52 E
3761.82	0.83	138.99	0.20	3761.66	19.4	87.3	0.92 N 19.41 E
3856.64	0.69	143.35	0.16	3856.48	20.2	90.2	0.06 S 20.21 E

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Location: MCVAY 5, EDDY COUNTY, NEW MEXICO

Job Number: MD0614GDM631

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	AZIMUTH deg.	HORIZONTAL COORDINATES feet
3950.04	0.33	148.64	0.39	3949.87	20.7	92.0	0.74 S 20.68 E
4138.59	0.06	51.76	0.18	4138.42	21.1	93.1	1.14 S 21.04 E
4232.52	0.10	96.51	0.08	4232.35	21.2	93.0	1.12 S 21.16 E
4326.10	0.11	60.15	0.07	4325.93	21.3	92.9	1.08 S 21.32 E
4608.91	0.17	44.14	0.03	4608.74	21.9	91.7	0.65 S 21.85 E
4702.97	0.12	5.02	0.11	4702.80	22.0	91.2	0.45 S 21.95 E
4796.01	0.11	353.24	0.03	4795.84	22.0	90.7	0.26 S 21.95 E
4887.79	0.12	332.00	0.05	4887.62	21.9	90.2	0.09 S 21.90 E
5073.48	0.19	293.83	0.07	5073.31	21.5	89.4	0.21 N 21.52 E
5166.31	0.20	313.04	0.07	5166.14	21.3	89.0	0.38 N 21.26 E
5260.75	0.26	296.69	0.09	5260.58	21.0	88.4	0.59 N 20.95 E
5355.47	0.29	301.23	0.04	5355.30	20.6	87.7	0.81 N 20.56 E
5450.17	0.26	332.05	0.16	5449.99	20.3	86.8	1.12 N 20.25 E
5543.29	0.25	301.76	0.14	5543.11	20.0	85.9	1.42 N 19.98 E
5637.47	0.30	306.57	0.06	5637.29	19.7	85.1	1.67 N 19.61 E
5730.04	0.36	286.59	0.14	5729.86	19.2	84.3	1.90 N 19.13 E
5823.14	0.47	277.58	0.14	5822.96	18.6	83.7	2.03 N 18.47 E
5916.71	0.40	271.68	0.09	5916.53	17.9	83.3	2.09 N 17.77 E
6010.83	0.37	268.48	0.04	6010.64	17.3	83.0	2.09 N 17.13 E
6103.98	0.37	245.42	0.16	6103.79	16.7	83.2	1.96 N 16.56 E
6198.00	0.32	245.95	0.05	6197.81	16.1	83.9	1.73 N 16.04 E

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6292.13	0.44	239.91	0.13	6291.94	15.6 84.7	1.44 N 15.49 E
6386.57	0.76	231.02	0.35	6386.37	14.7 86.6	0.86 N 14.69 E
6478.88	0.88	224.71	0.16	6478.67	13.7 90.1	0.02 S 13.72 E
6574.17	0.65	203.50	0.38	6573.96	13.0 94.6	1.04 S 12.99 E
6667.83	0.56	175.01	0.33	6667.61	13.0 98.8	1.98 S 12.81 E
6762.62	0.50	163.37	0.13	6762.40	13.3 102.4	2.84 S 12.97 E
6857.03	0.66	159.70	0.17	6856.80	13.8 105.8	3.75 S 13.28 E
6950.43	0.74	156.03	0.10	6950.19	14.5 109.3	4.80 S 13.71 E
7042.78	0.78	155.01	0.05	7042.54	15.4 112.6	5.92 S 14.22 E

Final Station Closure: Distance: 15.40 ft Az: 112.59 deg.

gyrodata

NM OIL CONSERVATION
ARTESIA DISTRICT
OCT 10 2014
RECEIVED

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

BOPCO, LP
PO Box 2760
Midland, TX 79702

Date: July 2, 2014

30-015-42374

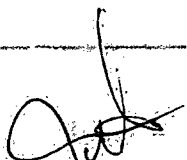
Attention: Kevin Burns

Re: BOPCO, LP
Well: Poker Lake Unit 430H
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:

Name & Title Of Surveyor:	Well Number	Surveyed: Depths	Dates Performed	Type of Survey
Ben Hernandez	430H	7118 MD	6/12/2014	Measurement
MWD Supervisor		15133 MD	7/1/2014	While Drilling

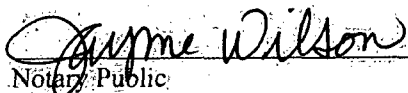
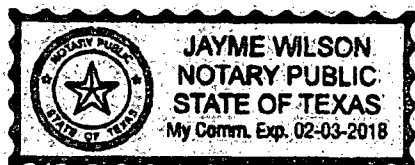
A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.



Jesse Aguilar
MWD Ops Coordinator

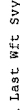
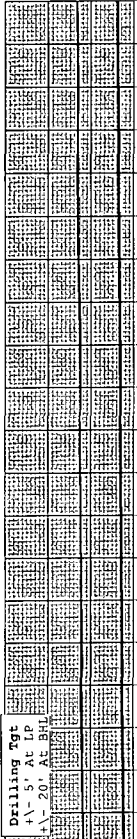
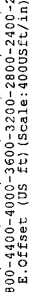
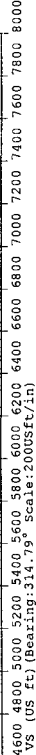
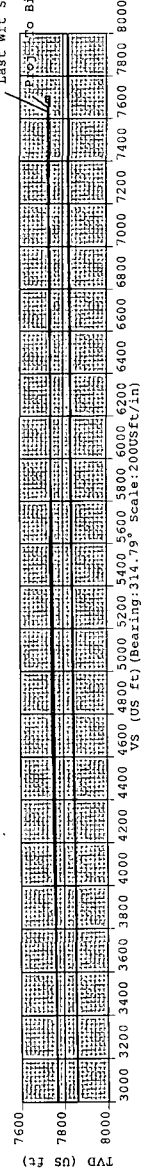
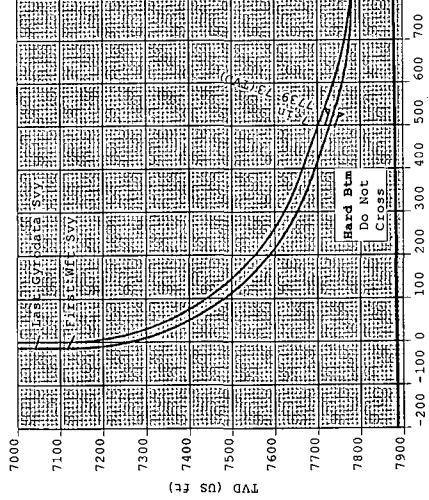
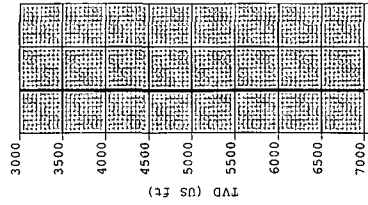
On this, the 3rd day of July, 2014, before me a notary public, the undersigned officer, personally appeared Jesse Aguilar, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

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


Notary Public



Weatherford



5D Survey Report**BOPCO, L.P.****Field Name:** *Eddy Co, NM Nad27 NMEZ***Site Name:** *Poker Lake Unit 430H***Well Name:** *Poker Lake Unit 430H***Survey:** *Wft MWD Svy*

01 July 2014



Poker Lake Unit 430H

Field Name Eddy Co. NM Nad27 NMEZ	Map Units : US ft Company Name : BOPCO, L.P. Vertical Reference Datum (VRD) : Mean Sea Level Projected Coordinate System : NAD27 / New Mexico East Comment :	
Site Name Poker Lake Unit 430H	Units : US ft North Reference : Grid Convergence Angle : 0.26 Position Northing : 440928.30 US ft Latitude : 32° 12' 40.75" Easting : 648257.90 US ft Longitude : -103° 51' 14.31" Elevation above Mean Sea Level: 3432.00 US ft Comment :	
Slot Name Poker Lake Unit 430H	Position (Offsets relative to Site Centre) +N / -S : 0.00 US ft Northing : 440928.30 US ft Latitude : 32° 12' 40.75" +E / -W : 0.00 US ft Easting : 648257.90 US ft Longitude : -103° 51' 14.31" Elevation above Mean Sea Level : 3432.00 US ft Comment :	
Well Name Poker Lake Unit 430H	Type : Main well UWI : Rig Height Well TVD Reference : 19.00 US ft Comment : Relative to Mean Sea Level: 3451.00 US ft Closure Distance : 7653.39 US ft Closure Azimuth : 314.721° Vertical Section (Position of Origin Relative to Slot) +N / -S : 0.00 US ft +E / -W : 0.00 US ft Az : 314.79°	
Target Set		
Name : Poker Lake Unit Number of Targets : 3 430H		
Comment :		
Target Name: PBHL	Position (Relative to Slot centre) +N / -S : 5420.20 US ft Northing : 446348.50 US ft Latitude : 32° 13' 34.63" +E / -W : -5460.10 US ft Easting : 642797.80 US ft Longitude : -103° 52' 17.59" Shape: TVD (Well TVD Reference) : 7731.00 US ft Cuboid Orientation Azimuth : 0.00° Inclination : 0.00° Dimensions Length : 20.00 US ft Breadth : 20.00 US ft Height : 20.00 US ft	
Target Name: Tgt For HB1	Position (Relative to Slot centre) +N / -S : 0.00 US ft Northing : 440928.30 US ft Latitude : 32° 12' 40.75" +E / -W : 0.00 US ft Easting : 648257.90 US ft Longitude : -103° 51' 14.31" Shape: TVD (Well TVD Reference) : 7886.00 US ft Cuboid Orientation Azimuth : 314.79° Inclination : 0.44° Dimensions Length : 6000.00 US ft Breadth : 0.00 US ft Height : 2.00 US ft	

5D Survey Report

Target Name:	Position (Relative to Slot centre)		
Tot For HL 2	+N / -S : 5420.20 US ft	Northing : 446348.50 US ft	Latitude : 32°13'34.63"
Shape:	+E / -W : -5460.10 US ft	Easting : 642797.80 US ft	Longitude : -103°52'17.59"
Cuboid	TVD (Well TVD Reference) : 7826.00 US ft		
Orientation Azimuth : 314.79°		Inclination : 0.44°	
Dimensions Length : 15392.00 US ft		Breadth : 0.00 US ft	Height : 2.00 US ft

Survey Name : Wft MWD Svy			
Date : 20/Jun/2014	Survey Tool : MWD	Comment :	Company :
Magnetic Model			
Model Name: BGGM	Date: 30/May/2014	Field Strength: 48281.1 nT	Declination: 7.47° Dip: 60.04°
Tie Point			
MD: 7042.78	Inclination: 0.78	Azimuth: 155.01	TVD: 7042.54 North Offset: -5.92 East Offset: 14.2187

Casing Points (Relative to Slot centre, TVD relative to Well TVD Reference)									
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	Northing (US ft)	Easting (US ft)	Name	
8023.00	72.44	316.20	7739.73	405.92	-347.08	441334.22	647910.82	7 in	

Well path created using minimum curvature

Survey Points (Relative to Slot centre, TVD relative to Well TVD Reference)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
7118.00	0.10	226.00	7117.76	-6.43	14.39	-14.74	0.00	440921.87	648272.29	First Wft Svy
7150.00	1.91	314.05	7149.75	-6.08	13.98	-14.21	5.97	440922.22	648271.88	
7182.00	4.70	315.13	7181.70	-4.78	12.68	-12.36	8.72	440923.52	648270.58	
7212.00	7.10	314.35	7211.53	-2.61	10.48	-9.28	8.00	440925.69	648268.38	
7244.00	10.32	315.73	7243.16	0.83	7.07	-4.43	10.08	440929.13	648264.97	
7275.00	13.31	314.74	7273.50	5.33	2.59	1.91	9.67	440933.63	648260.49	
7307.00	16.66	314.45	7304.41	11.13	-3.30	10.19	10.47	440939.43	648254.60	
7337.00	19.79	313.99	7332.90	17.67	-10.03	19.57	10.44	440945.97	648247.87	
7368.00	22.83	313.48	7361.78	25.46	-18.17	30.83	9.82	440953.76	648239.73	
7400.00	26.29	314.51	7390.88	34.70	-27.73	44.13	10.89	440963.00	648230.17	
7430.00	28.84	315.27	7417.47	44.50	-37.56	58.01	8.58	440972.80	648220.34	
7462.00	31.57	315.53	7445.12	55.96	-48.86	74.10	8.54	440984.26	648209.04	
7493.00	34.49	316.37	7471.11	68.11	-60.60	90.99	9.53	440996.41	648197.30	
7524.00	37.49	317.19	7496.19	81.39	-73.07	109.20	9.80	441009.69	648184.83	
7554.00	40.85	317.76	7519.44	95.35	-85.88	128.12	11.26	441023.65	648172.02	
7585.00	44.25	318.81	7542.28	111.00	-99.82	149.04	11.20	441039.30	648158.08	
7616.00	47.71	320.26	7563.82	127.96	-114.28	171.25	11.66	441056.26	648143.62	
7648.00	50.78	321.35	7584.71	146.75	-129.59	195.36	9.93	441075.05	648128.31	
7679.00	54.14	320.97	7603.59	165.89	-145.01	219.78	10.88	441094.19	648112.89	
7711.00	57.48	320.99	7621.57	186.45	-161.67	246.09	10.44	441114.75	648096.23	
7742.00	60.09	322.20	7637.64	207.23	-178.13	272.42	9.06	441135.53	648079.77	
7773.00	62.36	322.95	7652.56	228.81	-194.64	299.33	7.62	441157.11	648063.26	
7805.00	65.70	324.41	7666.57	251.99	-211.68	327.75	11.21	441180.29	648046.22	
7837.00	68.21	322.72	7679.10	275.67	-229.17	356.85	9.23	441203.97	648028.73	
7869.00	70.60	320.93	7690.35	299.21	-247.68	386.58	9.12	441227.51	648010.22	
7900.00	70.81	317.45	7700.60	321.36	-266.80	415.74	10.62	441249.66	647991.10	
7932.00	71.05	316.44	7711.05	343.45	-287.45	445.97	3.08	441271.75	647970.45	
7956.00	71.19	316.40	7718.82	359.90	-303.10	468.67	0.60	441288.20	647954.80	
8023.00	72.44	316.20	7739.73	405.92	-347.08	532.30	1.89	441334.22	647910.82	7 in
8052.00	72.98	316.12	7748.35	425.90	-366.25	559.98	1.89	441354.20	647891.65	
8084.00	76.30	315.19	7756.83	447.96	-387.82	590.83	10.75	441376.26	647870.08	
8115.00	78.54	314.85	7763.58	469.36	-409.21	621.08	7.30	441397.66	647848.69	
8146.00	80.65	314.83	7769.17	490.86	-430.82	651.57	6.81	441419.16	647827.08	

5D Survey Report

Survey Points (Relative to Slot centre, TVD relative to Well TVD Reference)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	VS (US ft)	DLS (%/100 US ft)	Northings (US ft)	Eastings (US ft)	Comment	
8178.00	82.58	314.65	7773.84	513.14	-453.31	683.22	6.06	441441.44	647804.59		
8209.00	84.81	314.32	7777.25	534.73	-475.29	714.03	7.27	441463.03	647782.61		
8240.00	86.47	313.44	7779.60	556.15	-497.57	744.94	6.06	441484.45	647760.33		
8272.00	87.41	312.95	7781.31	578.03	-520.87	776.88	3.31	441506.33	647737.03		
8303.00	88.15	313.08	7782.51	599.16	-543.52	807.84	2.42	441527.46	647714.38		
8334.00	88.89	313.05	7783.31	620.32	-566.16	838.82	2.39	441548.62	647691.74		
8365.00	89.94	313.21	7783.63	641.51	-588.78	869.80	3.43	441569.81	647669.12		
8458.00	90.62	312.84	7783.17	704.96	-656.77	962.76	0.83	441633.26	647601.13		
8552.00	90.49	312.00	7782.26	768.37	-726.15	1056.67	0.90	441696.67	647531.75		
8645.00	90.49	314.26	7781.47	831.94	-794.02	1149.62	2.43	441760.24	647463.88		
8738.00	90.86	313.84	7780.37	896.60	-860.86	1242.61	0.60	441824.90	647397.04		
8833.00	90.62	312.00	7779.15	961.28	-930.42	1337.55	1.95	441889.58	647327.48		
8926.00	90.37	311.17	7778.34	1023.01	-999.97	1430.40	0.93	441951.31	647257.93		
9020.00	89.88	313.17	7778.14	1086.11	-1069.64	1524.29	2.19	442014.41	647188.26		
9113.00	90.25	313.26	7778.03	1149.79	-1137.42	1617.26	0.41	442078.09	647120.48		
9206.00	90.49	312.11	7777.43	1212.84	-1205.78	1710.19	1.26	442141.14	647052.12		
9300.00	90.12	314.33	7776.93	1277.21	-1274.27	1804.15	2.39	442205.51	646983.63		
9393.00	90.62	311.64	7776.33	1340.61	-1342.30	1897.09	2.94	442268.91	646915.60		
9486.00	90.62	314.04	7775.32	1403.83	-1410.48	1990.02	2.58	442332.13	646847.42		
9580.00	89.08	311.24	7775.57	1467.50	-1479.62	2083.95	3.40	442395.80	646778.28		
9673.00	90.12	308.66	7776.22	1527.21	-1550.91	2176.60	2.99	442455.51	646706.99		
9767.00	91.60	309.72	7774.81	1586.60	-1623.75	2270.14	1.94	442514.90	646634.15		
9863.00	91.36	311.52	7772.33	1649.07	-1696.59	2365.85	1.89	442577.37	646561.31		
9957.00	90.93	313.56	7770.45	1712.61	-1765.83	2459.75	2.22	442640.91	646492.07		
10050.00	90.25	313.17	7769.49	1776.47	-1833.44	2552.72	0.84	442704.77	646424.46		
10142.00	89.88	314.36	7769.39	1840.10	-1899.88	2644.70	1.35	442768.40	646358.02		
10236.00	89.51	317.09	7769.89	1907.40	-1965.49	2738.68	2.93	442835.70	646292.41		
10329.00	89.94	316.34	7770.33	1975.10	-2029.26	2831.62	0.93	442903.40	646228.64		
10423.00	90.68	315.09	7769.83	2042.39	-2094.89	2925.61	1.55	442970.69	646163.01		
10517.00	90.86	317.04	7768.56	2110.07	-2160.10	3019.57	2.08	443038.37	646097.80		
10612.00	90.68	315.40	7767.29	2178.65	-2225.82	3114.53	1.74	443106.95	646032.08		
10707.00	90.00	315.60	7766.72	2246.41	-2292.40	3209.52	0.75	443174.71	645965.50		
10800.00	90.56	314.45	7766.27	2312.19	-2358.13	3302.52	1.38	443240.49	645899.77		
10894.00	90.19	315.63	7765.65	2378.71	-2424.55	3396.51	1.32	443307.01	645833.35		
10987.00	89.94	316.98	7765.55	2445.95	-2488.80	3489.48	1.48	443374.25	645769.10		
11081.00	90.37	316.21	7765.29	2514.24	-2553.39	3583.43	0.94	443442.54	645704.51		
11175.00	91.48	313.82	7763.77	2580.71	-2619.83	3677.41	2.80	443509.01	645638.07		
11268.00	91.67	315.62	7761.22	2646.12	-2685.88	3770.37	1.95	443574.42	645572.02		
11361.00	90.80	314.47	7759.21	2711.91	-2751.57	3863.34	1.55	443640.21	645506.33		
11455.00	91.36	313.42	7757.44	2777.14	-2819.24	3957.32	1.27	443705.44	645438.66		
11549.00	91.61	316.15	7755.01	2843.32	-2885.93	4051.28	2.92	443771.62	645371.97		
11644.00	89.88	315.22	7753.77	2911.29	-2952.29	4146.25	2.07	443839.59	645305.61		
11737.00	90.68	318.75	7753.32	2979.28	-3015.72	4239.17	3.89	443907.58	645242.18		
11832.00	90.19	318.06	7752.59	3050.32	-3078.78	4333.97	0.89	443978.62	645179.12		
11926.00	90.00	314.56	7752.44	3118.28	-3143.70	4427.93	3.73	444046.58	645114.20		
12020.00	90.56	317.22	7751.98	3185.76	-3209.12	4521.90	2.89	444114.06	645048.78		
12113.00	91.54	320.81	7750.27	3255.94	-3270.10	4614.61	4.00	444184.24	644987.80		
12207.00	90.93	318.92	7748.25	3327.79	-3330.67	4708.22	2.11	444256.09	644927.23		
12301.00	90.43	315.34	7747.13	3396.67	-3394.61	4802.12	3.85	444324.97	644863.29		
12394.00	90.49	313.59	7746.39	3461.80	-3460.98	4895.11	1.88	444390.10	644796.92		
12487.00	90.06	313.33	7745.94	3525.77	-3528.48	4988.08	0.54	444454.07	644729.42		
12580.00	90.00	314.91	7745.89	3590.51	-3595.24	5081.07	1.70	444518.81	644662.66		
12673.00	89.51	311.51	7746.29	3654.18	-3663.01	5174.02	3.69	444582.48	644594.89		
12767.00	91.17	315.92	7745.73	3719.12	-3730.94	5267.98	5.01	444647.42	644526.96		
12861.00	90.49	316.19	7744.37	3786.79	-3796.16	5361.95	0.78	444715.09	644461.74		
12954.00	90.93	314.14	7743.22	3852.73	-3861.72	5454.93	2.25	444781.03	644396.18		
13047.00	90.62	314.76	7741.96	3917.86	-3928.11	5547.92	0.75	444846.16	644329.79		
13140.00	88.89	308.66	7742.36	3979.70	-3997.50	5640.74	6.82	444908.00	644260.40		
13234.00	88.70	310.72	7744.33	4039.72	-4069.81	5734.34	2.20	444968.02	644188.09		

5D Survey Report

Survey Points (Relative to Slot centre; TVD relative to Well TVD Reference)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
13328.00	89.07	312.39	7746.16	4102.06	-4140.14	5828.17	1.82	445030.36	644117.76	
13420.00	90.12	315.16	7746.81	4165.70	-4206.56	5920.14	3.22	445094.00	644051.34	
13514.00	90.62	313.03	7746.21	4231.10	-4274.06	6014.13	2.33	445159.40	643983.84	
13607.00	90.68	312.84	7745.15	4294.45	-4342.14	6107.07	0.21	445222.75	643915.76	
13701.00	90.74	313.98	7743.99	4359.04	-4410.42	6201.04	1.21	445287.34	643847.48	
13795.00	90.19	315.97	7743.22	4425.47	-4476.92	6295.03	2.20	445353.77	643780.98	
13888.00	90.99	316.09	7742.26	4492.40	-4541.48	6388.00	0.87	445420.70	643716.42	
13981.00	90.99	314.87	7740.66	4558.70	-4606.68	6480.98	1.31	445487.00	643651.22	
14075.00	90.68	315.44	7739.29	4625.34	-4672.96	6574.97	0.69	445553.64	643584.94	
14169.00	90.62	315.07	7738.22	4692.10	-4739.12	6668.96	0.40	445620.40	643518.78	
14262.00	90.68	317.32	7737.17	4759.21	-4803.49	6761.92	2.42	445687.51	643454.41	
14355.00	90.00	314.62	7736.61	4826.06	-4868.12	6854.89	2.99	445754.36	643389.78	
14448.00	90.43	314.16	7736.27	4891.12	-4934.58	6947.88	0.68	445819.42	643323.32	
14541.00	89.94	311.51	7735.97	4954.34	-5002.77	7040.82	2.90	445882.64	643255.13	
14634.00	90.25	312.09	7735.81	5016.33	-5072.10	7133.69	0.71	445944.63	643185.80	
14727.00	90.68	314.89	7735.06	5080.33	-5139.56	7226.66	3.05	446008.63	643118.34	
14821.00	91.05	317.90	7733.64	5148.38	-5204.38	7320.60	3.23	446076.68	643053.52	
14914.00	90.31	317.22	7732.53	5217.00	-5267.13	7413.48	1.08	446145.30	642990.77	
15007.00	90.56	315.42	7731.83	5284.26	-5331.35	7506.44	1.95	446212.56	642926.55	
15101.00	90.12	312.44	7731.27	5349.46	-5399.04	7600.42	3.20	446277.76	642858.86	
15133.00	89.88	312.73	7731.27	5371.12	-5422.60	7632.40	1.18	446299.42	642835.30	Last Wft Svy
15154.00	89.88	312.73	7731.31	5385.37	-5438.03	7653.38	0.00	446313.67	642819.87	Proj. To Bit PLU 430H