

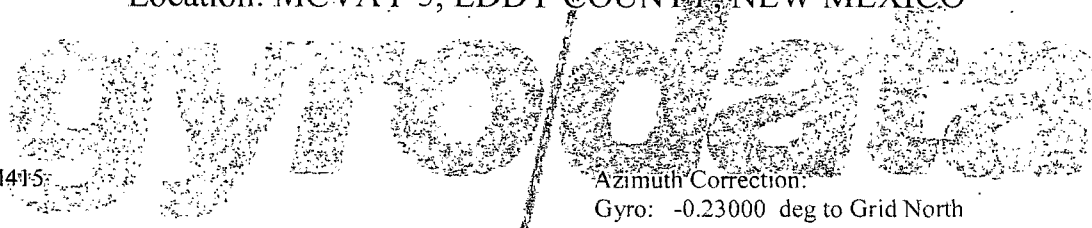
A Gyrodata Directional Survey

FINAL DEFINITIVE COPY

for

BOPCO

Lease: POKER LAKE FIELD Well: 323 - H, 4 AND 1/2 INCH DRILL PIPE
Location: MCVAY 5, EDDY COUNTY, NEW MEXICO



Job Number: MD0414GDM415

Run Date: 22 Apr 2014

Report Generated: 24 Apr 2014 02:42

Surveyor: Derek Oster

Calculation Method: MINIMUM CURVATURE

Survey surface coordinates obtained from: Well Plan/Plot

Survey Latitude: 32.239075 deg. N Longitude: 103.899994 deg. W

Azimuth Correction:

Gyro: -0.23000 deg to Grid North

Depth Reference: Rotary Table

Air Gap (RKB to Ground./ RKB to MSL): 19.50

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location

RECEIVED

OCT 03 2014

NM OIL CONSERVATION
ARTESIA DISTRICT

30 015 42009

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Location: MCVAY 5, EDDY COUNTY, NEW MEXICO

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MEASURED DEPTH	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	0.00	0.00	0.0 0.0	0.00 N 0.00 E
0 - 6670 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 19.5 FT.						
50.00	0.23	150.41	0.46	50.00	0.1 150.4	0.09 S 0.05 E
100.00	0.26	119.45	0.27	100.00	0.3 139.3	0.23 S 0.20 E
200.00	0.34	67.07	0.27	200.00	0.7 108.7	0.23 S 0.67 E
300.00	0.38	29.91	0.23	300.00	1.1 80.9	0.18 N 1.11 E
400.00	0.59	15.31	0.24	399.99	1.7 55.7	0.96 N 1.41 E
500.00	0.87	9.12	0.29	499.98	2.8 37.0	2.21 N 1.66 E
537.18	1.12	8.95	0.67	537.16	3.3 31.8	2.84 N 1.77 E
633.12	1.35	359.74	0.32	633.08	5.3 21.3	4.90 N 1.91 E
729.34	1.37	348.36	0.28	729.27	7.4 13.1	7.16 N 1.67 E
825.23	1.41	356.77	0.22	825.13	9.6 8.3	9.46 N 1.37 E
920.65	1.50	358.58	0.11	920.52	12.0 6.1	11.88 N 1.27 E
1015.40	1.59	0.37	0.11	1015.24	14.5 5.0	14.44 N 1.25 E
1110.39	1.39	5.61	0.25	1110.19	17.0 4.6	16.90 N 1.37 E
1205.42	0.69	44.00	1.00	1205.21	18.6 5.8	18.46 N 1.88 E
1300.45	0.76	74.32	0.41	1300.23	19.3 8.6	19.04 N 2.89 E
1395.53	0.78	69.84	0.07	1395.30	19.9 11.9	19.44 N 4.10 E
1490.60	0.74	59.43	0.15	1490.36	20.6 14.7	19.97 N 5.24 E
1585.75	0.70	55.65	0.07	1585.51	21.5 16.9	20.61 N 6.25 E
1680.68	0.67	54.41	0.04	1680.43	22.4 18.7	21.26 N 7.18 E

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Location: MCVAY 5, EDDY COUNTY, NEW MEXICO

Job Number: MD0414GDM415

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLE SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
1775.67	0.60	42.60	0.16	1775.41	23.4 19.9	21.95 N 7.97 E
1870.68	0.50	35.47	0.13	1870.42	24.2 20.7	22.65 N 8.54 E
1965.77	0.23	12.93	0.32	1965.51	24.8 20.8	23.18 N 8.83 E
2060.72	0.11	249.32	0.32	2060.46	24.9 20.6	23.33 N 8.78 E
2155.76	0.19	257.07	0.09	2155.50	24.8 20.2	23.26 N 8.55 E
2250.76	0.07	213.59	0.16	2250.50	24.6 19.8	23.18 N 8.36 E
2345.81	0.11	99.58	0.16	2345.55	24.6 20.0	23.12 N 8.42 E
2440.78	0.30	119.46	0.21	2440.52	24.6 20.8	22.98 N 8.72 E
2535.27	0.57	113.99	0.29	2535.00	24.5 22.5	22.67 N 9.37 E
2630.32	0.60	111.59	0.04	2630.05	24.5 24.7	22.29 N 10.26 E
2725.38	0.67	101.42	0.14	2725.10	24.7 27.1	22.00 N 11.27 E
2820.48	0.74	92.32	0.14	2820.20	25.1 29.6	21.86 N 12.43 E
2915.62	0.89	93.36	0.16	2915.33	25.8 32.3	21.80 N 13.78 E
3010.62	0.96	102.00	0.16	3010.31	26.5 35.3	21.59 N 15.30 E
3105.66	1.08	112.61	0.23	3105.34	27.0 38.7	21.08 N 16.90 E
3200.72	1.07	121.91	0.18	3200.38	27.4 42.4	20.26 N 18.48 E
3295.76	1.08	141.28	0.38	3295.41	27.5 46.0	19.10 N 19.80 E
3390.88	1.00	150.43	0.19	3390.51	27.3 49.6	17.67 N 20.77 E
3485.83	0.92	171.12	0.37	3485.45	26.8 52.7	16.20 N 21.29 E
3580.97	0.26	209.32	0.77	3580.58	26.2 54.4	15.26 N 21.30 E
3676.08	0.17	176.76	0.16	3675.69	25.9 54.9	14.93 N 21.21 E

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Location: MCVAY 5, EDDY COUNTY, NEW MEXICO

Job Number: MD0414GDM415

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	AZIMUTH deg.	HORIZONTAL COORDINATES feet
3771.08	0.18	162.73	0.05	3770.69	25.8	55.4	14.64 N 21.26 E
3865.67	0.19	156.91	0.02	3865.28	25.7	56.1	14.36 N 21.37 E
4052.29	0.21	257.90	0.17	4051.90	25.4	56.5	14.00 N 21.15 E
4144.90	0.38	247.79	0.19	4144.51	24.9	56.2	13.85 N 20.70 E
4239.67	0.47	244.03	0.10	4239.28	24.2	55.9	13.56 N 20.06 E
4333.81	0.50	257.40	0.12	4333.41	23.5	55.4	13.30 N 19.31 E
4429.17	0.46	258.69	0.04	4428.77	22.7	54.7	13.14 N 18.53 E
4523.36	0.44	240.06	0.16	4522.96	22.0	54.2	12.88 N 17.85 E
4709.69	0.41	242.86	0.02	4709.28	20.6	53.7	12.22 N 16.63 E
4803.16	0.40	251.54	0.07	4802.75	20.0	53.3	11.97 N 16.03 E
4896.92	0.41	249.88	0.02	4896.51	19.4	52.7	11.75 N 15.40 E
4990.34	0.56	275.56	0.28	4989.92	18.7	51.4	11.68 N 14.63 E
5083.62	0.82	252.05	0.41	5083.20	17.8	49.6	11.51 N 13.55 E
5177.18	1.08	258.90	0.30	5176.74	16.4	47.2	11.14 N 12.04 E
5271.67	1.25	250.02	0.26	5271.21	14.7	43.9	10.61 N 10.20 E
5366.18	1.10	253.17	0.17	5365.70	13.0	39.9	10.00 N 8.36 E
5460.77	1.07	246.79	0.13	5460.28	11.5	35.4	9.39 N 6.68 E
5554.32	1.00	246.42	0.08	5553.81	10.1	30.5	8.72 N 5.13 E
5648.50	1.05	245.79	0.05	5647.98	8.8	24.1	8.04 N 3.59 E
5742.10	1.16	227.94	0.38	5741.56	7.4	16.6	7.05 N 2.11 E
5835.43	1.11	235.10	0.16	5834.87	5.9	6.4	5.90 N 0.66 E
5929.28	1.05	228.96	0.14	5928.71	4.9	351.4	4.81 N 0.73 W

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BOPCO

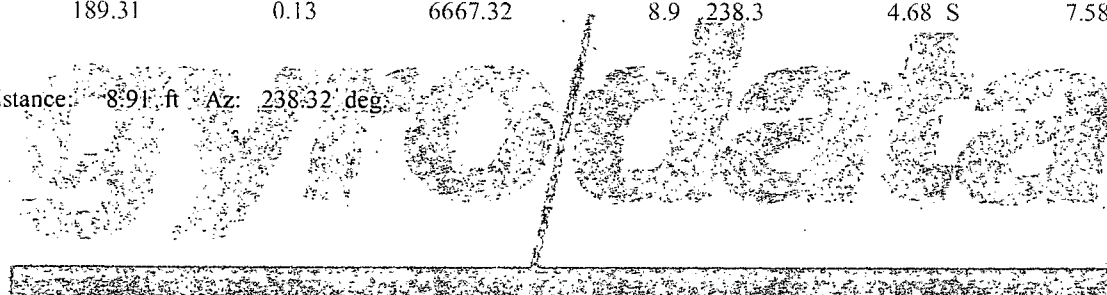
Lease: POKER LAKE FIELD Well: 323 - H, 4 AND 1/2 INCH DRILL PIPE

Location: MCVAY 5, EDDY COUNTY, NEW MEXICO

Job Number: MD0414GDM415

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
6023.39	0.91	243.09	0.30	6022.80	4.4 332.4	3.91 N 2.05 W
6118.14	1.09	232.73	0.27	6117.54	4.6 311.3	3.02 N 3.44 W
6212.39	0.93	207.74	0.49	6211.77	4.9 291.8	1.80 N 4.51 W
6305.78	1.01	218.24	0.21	6305.15	5.4 275.2	0.49 N 5.37 W
6399.58	0.88	208.40	0.22	6398.94	6.3 262.7	0.80 S 6.22 W
6494.41	0.99	204.04	0.14	6493.75	7.2 252.4	2.19 S 6.90 W
6588.00	0.84	192.05	0.26	6587.33	8.2 244.0	3.59 S 7.37 W
6668.00	0.74	189.31	0.13	6667.32	8.9 238.3	4.68 S 7.58 W

Final Station Closure: Distance: 8.91 ft Az: 238.32 deg





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: May 7, 2013

Attention: Todd Carpenter

Re: BOPCO, LP
Well: Poker Lake Unit 323H
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
Chris Hinterlach	323H	6720 MD	4/13/2014	Measurement
MWD Supervisor		16684 MD	5/6/2014	While Drilling

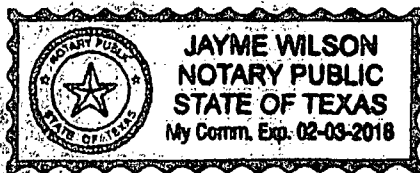
A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Jesse Aguilar
MWD Ops Coordinator

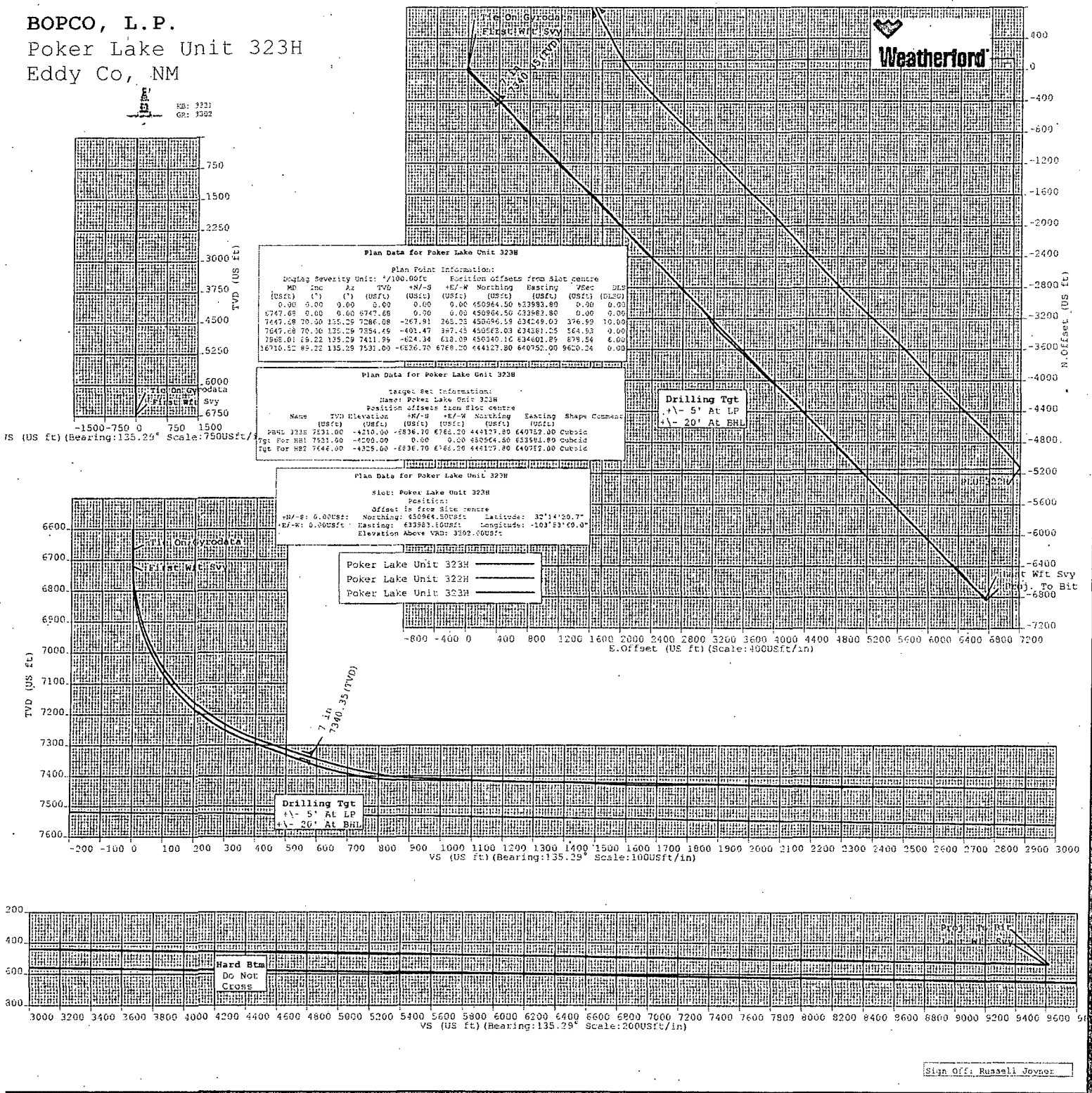
On this, the 7th day of May, 2014, before me a notary public, the undersigned officer, personally appeared Jesse Aguilar, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

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

Notary Public



100-443887-100
 100-443887-100
 100-443887-100



5D Survey Report

BOPCO, L.P.

Field Name: *Eddy Co, NM Nad27 NMEZ*

Site Name: *Poker Lake Unit 323H*

Well Name: *Poker Lake Unit 323H*

Survey: *Wft MWD Svy*

06 May 2014



Weatherford®

Poker Lake Unit 323H

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 323H	Units : US ft North Reference : Grid Convergence Angle : 0.23 Position Northing : 450964.50 US ft Latitude : 32° 14' 20.67" Easting : 633983.80 US ft Longitude : -103° 53' 59.98" Elevation above Mean Sea Level: 3302.00 US ft Comment :	
	Slot Name Poker Lake Unit 323H Position (Offsets relative to Site Centre) +N / -S : 0.00 US ft Northing : 450964.50 US ft Latitude : 32° 14' 20.67" +E / -W : 0.00 US ft Easting : 633983.80 US ft Longitude : -103° 53' 59.98" Slot TVD Reference : Ground Elevation Elevation above Mean Sea Level : 3302.00 US ft Comment :	
	Well Name Poker Lake Unit 323H Type : Main well UWI : Rig Height Drill Floor : 19.00 US ft Comment : Relative to Mean Sea Level: 3321.00 US ft Closure Distance : 9620.13 US ft Closure Azimuth : 135.244° Vertical Section (Position of Origin Relative to Slot) +N / -S : 0.00 US ft +E / -W : 0.00 US ft Az : 135.29°	

Target Set

Name : Poker Lake Unit **Number of Targets :** 3
323H

Comment :

Target Name: PBHL 323H	Position (Relative to Slot centre) +N / -S : 6836.70 US ft Northing : 444127.80 US ft Latitude : 32° 13' 12.74" +E / -W : 6768.20 US ft Easting : 640752.00 US ft Longitude : -103° 52' 41.51" TVD (Drill Floor) : 7531.00 US ft Orientation Azimuth : 0.00° Inclination : 0.00° Dimensions Length : 0.00 US ft Breadth : 0.00 US ft Height : 0.00 US ft Shape: Cuboid
Target Name: Tgt For HB1	Position (Relative to Slot centre) +N / -S : 0.00 US ft Northing : 450964.50 US ft Latitude : 32° 14' 20.67" +E / -W : 0.00 US ft Easting : 633983.80 US ft Longitude : -103° 53' 59.98" TVD (Drill Floor) : 7521.00 US ft Orientation Azimuth : 135.29° Inclination : -0.75° Dimensions Length : 8000.00 US ft Breadth : 0.00 US ft Height : 2.00 US ft Shape: Cuboid

5D Survey Report

Target Name:	Position (Relative to Slot centre)		
Tgt For HB2	+N / -S : 6836.70 US ft	Northing : 444127.80 US ft	Latitude : 32°13'12.74"
Shape:	+E / -W : 6768.20 US ft	Easting : 640752.00 US ft	Longitude : -103°52'41.51"
Cuboid	TVD (Drill Floor) : 7646.00 US ft		
Orientation		Azimuth : 135.29°	Inclination : -0.75°
Dimensions		Length : 17484.00 US ft	Breadth : 0.00 US ft Height : 2.00 US ft

Survey Name: Wft MWD Svy

Date : 23/Apr/2014 **Survey Tool** : MWD **Comment** : **Company** : Wft

Magnetic Model

Model Name: BGGM **Date**: 25/Apr/2014 **Field Strength**: 48303.3 nT **Declination**: 7.51° **Dip**: 60.06°

Tie Point

MD: 6668 **Inclination**: 0.74 **Azimuth**: 189.31 **TVD**: 6667.32 **North Offset**: -4.67795 **East Offset**: -7.5808

Casing Points (Relative to Slot centre, TVD relative to Drill Floor)

MD (US ft)	Incl (°)	Az (°)	TVD (US ft)	N Offset (US ft)	E Offset (US ft)	Northing (US ft)	Easting (US ft)	Name
7647.00	72.89	131.98	7340.35	-408.79	414.08	450555.71	634397.88	7 in

Well path created using minimum curvature**Survey Points (Relative to Slot centre, TVD relative to Drill Floor)**

MD (US ft)	Incl (°)	Az (°)	TVD (US ft)	N Offset (US ft)	E Offset (US ft)	VS (US ft)	IDS (%/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
6668.00	0.74	189.31	6667.32	-4.68	-7.58	-2.01	0.00	450959.82	633976.22	Tie On Gyrodata
6720.00	1.30	177.69	6719.32	-5.60	-7.61	-1.38	1.14	450958.90	633976.19	First Wft.Svy
6751.00	4.07	155.59	6750.28	-6.95	-7.14	-0.08	9.38	450957.55	633976.66	
6782.00	7.16	151.39	6781.13	-9.65	-5.76	2.80	10.05	450954.85	633978.04	
6814.00	10.03	144.84	6812.77	-13.68	-3.20	7.47	9.46	450950.82	633980.60	
6846.00	12.34	141.97	6844.16	-18.65	0.51	13.61	7.42	450945.85	633984.31	
6877.00	14.79	144.35	6874.29	-24.48	4.86	20.81	8.10	450940.02	633988.66	
6908.00	17.32	143.04	6904.08	-31.38	9.94	29.29	8.24	450933.12	633993.74	
6938.00	20.63	139.16	6932.44	-38.95	16.08	39.00	11.80	450925.55	633999.88	
6969.00	23.72	137.50	6961.15	-47.68	23.87	50.68	10.17	450916.82	634007.67	
7000.00	26.93	136.10	6989.17	-57.34	32.95	63.93	10.53	450907.16	634016.75	
7031.00	29.56	135.69	7016.47	-67.87	43.16	78.60	8.51	450896.63	634026.96	
7062.00	33.01	134.70	7042.96	-79.29	54.51	94.69	11.25	450885.21	634038.31	
7094.00	36.39	133.98	7069.27	-92.01	67.54	112.91	10.64	450872.49	634051.34	
7124.00	39.98	133.41	7092.84	-104.82	80.95	131.44	12.02	450859.68	634064.75	
7155.00	43.31	133.42	7116.01	-118.98	95.91	152.03	10.74	450845.52	634079.71	
7187.00	46.61	133.41	7138.65	-134.51	112.33	174.62	10.31	450829.99	634096.13	
7219.00	49.29	133.49	7160.08	-150.85	129.58	198.37	8.38	450813.65	634113.38	
7250.00	51.43	133.85	7179.85	-167.34	146.85	222.23	6.96	450797.16	634130.65	
7282.00	54.70	133.50	7199.08	-185.00	165.34	247.80	10.26	450779.50	634149.14	
7313.00	56.91	133.46	7216.50	-202.64	183.95	273.42	7.13	450761.86	634167.75	
7344.00	59.76	133.11	7232.77	-220.73	203.16	299.79	9.24	450743.77	634186.96	
7375.00	62.72	132.51	7247.69	-239.19	223.09	326.94	9.70	450725.31	634206.89	
7407.00	65.78	132.06	7261.59	-258.58	244.41	355.72	9.65	450705.92	634228.21	
7438.00	69.29	131.73	7273.43	-277.71	265.73	384.31	11.37	450686.79	634249.53	
7469.00	70.31	131.53	7284.13	-297.03	287.48	413.34	3.35	450667.47	634271.28	
7500.00	70.65	131.36	7294.49	-316.37	309.38	442.49	1.21	450648.13	634293.18	
7532.00	71.08	131.20	7304.98	-336.32	332.10	472.65	1.42	450628.18	634315.90	
7579.00	72.03	131.29	7319.85	-365.71	365.62	517.13	2.03	450598.79	634349.42	
7647.00	72.89	131.98	7340.35	-408.79	414.08	581.83	1.59	450555.71	634397.88	7 in
7697.00	73.52	132.48	7354.79	-440.96	449.53	629.63	1.59	450523.54	634433.33	
7728.00	74.75	134.74	7363.27	-461.53	471.11	659.43	8.06	450502.97	634454.91	

SD Survey Report

Survey Points (Relative to Slot centre, TVD relative to Drill Floor)										
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
7759.00	75.88	136.72	7371.13	-483.00	492.04	689.42	7.17	450481.50	634475.84	
7789.00	76.11	137.48	7378.39	-504.32	511.86	718.51	2.57	450460.18	634495.66	
7821.00	77.74	138.94	7385.63	-527.56	532.63	749.64	6.76	450436.94	634516.43	
7852.00	79.84	139.70	7391.66	-550.62	552.45	779.97	7.19	450413.88	634536.25	
7884.00	81.90	139.94	7396.73	-574.76	572.83	811.46	6.48	450389.74	634556.63	
7916.00	83.64	140.78	7400.76	-599.20	593.08	843.08	6.03	450365.30	634576.88	
7948.00	84.93	140.86	7403.95	-623.89	613.20	874.78	4.04	450340.61	634597.00	
7980.00	87.04	141.29	7406.19	-648.72	633.25	906.53	6.73	450315.78	634617.05	
8012.00	87.96	140.90	7407.58	-673.60	653.33	938.34	3.12	450290.90	634637.13	
8044.00	88.46	140.92	7408.58	-698.42	673.50	970.17	1.56	450266.08	634657.30	
8076.00	88.09	138.89	7409.55	-722.89	694.10	1002.05	6.45	450241.61	634677.90	
8171.00	87.10	132.20	7413.54	-790.60	760.53	1096.91	7.11	450173.90	634744.33	
8266.00	87.96	135.52	7417.63	-856.36	828.95	1191.78	3.61	450108.14	634812.75	
8362.00	89.63	136.06	7419.65	-925.15	895.88	1287.75	1.83	450039.35	634879.68	
8454.00	89.51	132.59	7420.34	-989.42	961.68	1379.72	3.77	449975.08	634945.48	
8550.00	87.34	134.62	7422.98	-1055.60	1031.16	1475.63	3.09	449908.90	635014.96	
8645.00	87.59	137.60	7427.18	-1123.99	1096.95	1570.52	3.14	449840.51	635080.75	
8741.00	89.32	137.21	7429.77	-1194.63	1161.90	1666.41	1.35	449769.87	635145.70	
8834.00	91.98	133.77	7428.72	-1260.93	1227.07	1759.38	4.68	449703.57	635210.87	
8929.00	90.43	133.07	7426.72	-1326.21	1296.06	1854.31	1.79	449638.29	635279.86	
9025.00	87.96	130.95	7428.07	-1390.45	1367.37	1950.13	3.39	449574.05	635351.17	
9120.00	88.33	131.02	7431.14	-1452.72	1439.05	2044.81	0.40	449511.78	635422.85	
9215.00	88.64	129.83	7433.65	-1514.30	1511.34	2139.43	1.29	449450.20	635495.14	
9311.00	89.12	131.92	7435.53	-1577.11	1583.91	2235.13	2.23	449387.39	635567.71	
9406.00	90.55	136.53	7435.80	-1643.35	1651.97	2330.08	5.08	449321.15	635635.77	
9502.00	90.55	137.15	7434.88	-1713.37	1717.63	2426.04	0.65	449251.13	635701.43	
9597.00	89.38	135.14	7434.94	-1781.87	1783.45	2521.02	2.45	449182.63	635767.25	
9692.00	89.26	135.90	7436.07	-1849.65	1850.01	2616.02	0.81	449114.85	635833.81	
9788.00	89.20	139.88	7437.36	-1920.85	1914.36	2711.89	4.15	449043.65	635898.16	
9884.00	89.57	136.77	7438.39	-1992.54	1978.18	2807.74	3.26	448971.96	635961.98	
9979.00	89.57	138.51	7439.10	-2062.73	2042.18	2902.65	1.83	448901.77	636025.98	
10072.00	89.63	138.52	7439.75	-2132.40	2103.79	2995.50	0.07	448832.10	636087.59	
10168.00	90.49	136.92	7439.65	-2203.42	2168.37	3091.41	1.89	448761.08	636152.17	
10262.00	89.38	135.76	7439.76	-2271.42	2233.26	3185.39	1.71	448693.08	636217.06	
10356.00	89.57	134.20	7440.62	-2337.86	2299.75	3279.38	1.67	448626.64	636283.55	
10452.00	89.26	132.17	7441.60	-2403.56	2369.74	3375.31	2.14	448560.94	636353.54	
10547.00	88.70	131.79	7443.29	-2467.09	2440.35	3470.13	0.71	448497.41	636424.15	
10643.00	88.64	133.35	7445.52	-2532.01	2511.03	3566.00	1.63	448432.49	636494.83	
10739.00	88.58	135.95	7447.85	-2599.45	2579.30	3661.95	2.71	448365.05	636563.10	
10834.00	89.32	137.17	7449.59	-2668.42	2644.61	3756.91	1.50	448296.08	636628.41	
10930.00	90.12	137.40	7450.06	-2738.95	2709.73	3852.85	0.87	448225.55	636693.53	
11026.00	88.34	135.82	7451.35	-2808.70	2775.66	3948.81	2.48	448155.80	636759.46	
11122.00	88.58	136.52	7453.93	-2877.93	2842.12	4044.77	0.77	448086.57	636825.92	
11217.00	88.83	133.44	7456.08	-2945.06	2909.30	4139.73	3.25	448019.44	636893.10	
11313.00	88.64	133.41	7458.20	-3011.03	2979.00	4235.65	0.20	447953.47	636962.80	
11408.00	89.57	137.18	7459.68	-3078.53	3045.81	4330.62	4.09	447885.97	637029.61	
11504.00	90.43	144.25	7459.68	-3152.79	3106.55	4426.13	7.42	447811.71	637090.35	
11600.00	91.42	147.40	7458.13	-3232.19	3160.46	4520.49	3.44	447732.31	637144.26	
11695.00	90.49	139.88	7456.54	-3308.63	3216.74	4614.40	7.97	447655.87	637200.54	
11791.00	88.76	134.32	7457.17	-3378.92	3282.06	4710.31	6.07	447585.58	637265.86	
11886.00	88.27	131.73	7459.63	-3443.71	3351.48	4805.19	2.77	447520.79	637335.28	
11982.00	89.81	132.01	7461.24	-3507.78	3422.95	4901.01	1.63	447456.72	637406.75	
12077.00	89.01	133.38	7462.22	-3572.19	3492.77	4995.90	1.67	447392.31	637476.57	
12173.00	89.08	131.70	7463.82	-3637.09	3563.49	5091.77	1.75	447327.41	637547.29	
12269.00	89.38	133.86	7465.11	-3702.28	3633.94	5187.67	2.27	447262.22	637617.74	
12364.00	88.27	133.90	7467.06	-3768.11	3702.40	5282.62	1.17	447196.39	637686.20	
12460.00	89.08	137.02	7469.28	-3836.51	3769.71	5378.58	3.36	447127.99	637753.51	
12554.00	89.26	134.58	7470.64	-3903.89	3835.23	5472.56	2.60	447060.61	637819.03	
12650.00	88.15	131.26	7472.81	-3969.23	3905.50	5568.44	3.65	446995.27	637889.30	

5D Survey Report

Survey Points (Relative to Slot centre, TVD relative to Drill Floor)										
MD (USft)	Inc (°)	TAZ (°)	TVD (USft)	N Offset (USft)	E Offset (USft)	VS (USft)	DLS (%/100USft)	Northing (USft)	Easting (USft)	Comment
12746.00	88.46	128.13	7475.65	-4030.51	3979.33	5663.93	3.27	446933.99	637963.13	
12841.00	88.77	130.49	7477.95	-4090.68	4052.81	5758.37	2.50	446873.82	638036.61	
12936.00	89.20	134.19	7479.63	-4154.64	4123.00	5853.22	3.92	446809.86	638106.80	
13030.00	90.00	135.07	7480.29	-4220.68	4189.90	5947.21	1.27	446743.82	638173.70	
13125.00	88.52	134.81	7481.52	-4287.77	4257.13	6042.19	1.58	446676.73	638240.93	
13221.00	89.26	137.57	7483.38	-4357.03	4323.57	6138.15	2.98	446607.47	638307.37	
13316.00	89.32	137.72	7484.55	-4427.23	4387.57	6233.07	0.17	446537.27	638371.37	
13411.00	89.57	135.62	7485.47	-4496.33	4452.75	6328.03	2.23	446468.17	638436.55	
13507.00	89.32	134.59	7486.40	-4564.33	4520.51	6424.02	1.10	446400.17	638504.31	
13603.00	89.51	134.55	7487.38	-4631.70	4588.89	6520.01	0.20	446332.80	638572.69	
13698.00	88.95	135.39	7488.66	-4698.83	4656.10	6615.00	1.06	446265.67	638639.90	
13793.00	89.38	135.02	7490.04	-4766.24	4723.02	6709.99	0.60	446198.26	638706.82	
13889.00	89.51	133.60	7490.97	-4833.29	4791.71	6805.97	1.49	446131.21	638775.51	
13985.00	89.51	134.57	7491.80	-4900.08	4860.67	6901.94	1.01	446064.42	638844.47	
14080.00	89.69	135.85	7492.46	-4967.50	4927.59	6996.94	1.36	445997.00	638911.39	
14176.00	89.38	136.41	7493.24	-5036.70	4994.12	7092.92	0.67	445927.80	638977.92	
14271.00	89.14	136.33	7494.46	-5105.46	5059.66	7187.90	0.27	445859.04	639043.46	
14367.00	88.70	135.90	7496.27	-5174.63	5126.20	7283.87	0.64	445789.87	639110.00	
14463.00	89.14	135.94	7498.08	-5243.59	5192.97	7379.85	0.46	445720.91	639176.77	
14557.00	89.26	137.01	7499.40	-5311.73	5257.70	7473.82	1.15	445652.77	639241.50	
14650.00	89.32	136.46	7500.55	-5379.45	5321.44	7566.78	0.59	445585.05	639305.24	
14746.00	89.12	134.39	7501.86	-5447.82	5388.80	7662.77	2.17	445516.68	639372.60	
14841.00	88.21	135.01	7504.07	-5514.63	5456.31	7757.73	1.16	445449.87	639440.11	
14936.00	90.00	136.20	7505.55	-5582.50	5522.76	7852.71	2.26	445382.00	639506.56	
15032.00	90.00	136.33	7505.55	-5651.86	5589.13	7948.70	0.14	445312.64	639572.93	
15127.00	89.14	135.93	7506.27	-5720.35	5654.96	8043.69	1.00	445244.15	639638.76	
15221.00	89.88	136.18	7507.07	-5788.02	5720.19	8137.67	0.83	445176.48	639703.99	
15315.00	88.46	134.15	7508.43	-5854.67	5786.45	8231.66	2.64	445109.83	639770.25	
15411.00	88.52	133.93	7510.96	-5921.38	5855.44	8327.60	0.24	445043.12	639839.24	
15505.00	89.38	134.57	7512.68	-5986.96	5922.76	8421.57	1.14	444977.54	639906.56	
15600.00	87.80	134.21	7515.02	-6053.40	5990.62	8516.52	1.71	444911.10	639974.42	
15695.00	88.95	133.44	7517.72	-6119.15	6059.13	8611.45	1.46	444845.35	640042.93	
15789.00	90.37	138.35	7518.27	-6186.63	6124.53	8705.41	5.44	444777.87	640108.33	
15883.00	89.38	136.29	7518.48	-6255.73	6188.25	8799.35	2.43	444708.77	640172.05	
15977.00	89.51	132.59	7519.39	-6321.53	6255.35	8893.32	3.94	444642.97	640239.15	
16071.00	89.07	129.06	7520.55	-6382.96	6326.46	8987.01	3.78	444581.54	640310.26	
16167.00	88.83	132.47	7522.31	-6445.63	6399.15	9082.68	3.56	444518.87	640382.95	
16261.00	88.21	136.73	7524.74	-6511.59	6466.04	9176.62	4.58	444452.91	640449.84	
16355.00	89.44	140.86	7526.67	-6582.28	6527.94	9270.40	4.58	444382.22	640511.74	
16450.00	88.89	135.46	7528.06	-6653.03	6591.28	9365.24	5.71	444311.47	640575.08	
16545.00	88.85	133.69	7529.93	-6719.69	6658.93	9460.21	1.86	444244.81	640642.73	
16639.00	88.93	133.25	7531.83	-6784.34	6727.14	9554.14	0.47	444180.16	640710.94	
16684.00	89.57	136.59	7532.46	-6816.11	6758.99	9599.13	7.60	444148.39	640742.79	Last Wft Svy
16705.00	89.57	136.59	7532.62	-6831.36	6773.43	9620.12	0.00	444133.14	640757.23	Proj. To Bit