

BOPCO, L.P.

Poker Lake Unit 337H
Eddy Co, NM

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	15119.00	90.66	313.91	7738.29	5231.82	-5341.40	0.00	0.00	7476.76	
2	15178.90	89.93	315.55	7737.98	5273.97	-5383.95	3.00	114.08	7536.65	
3	16758.10	89.93	315.55	7740.00	6401.31	-6489.83	0.00	0.00	9115.63	Pbhl

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
PLU 337H	0.00	0.00	440545.55	650728.47	32°12'36.855N	103°50'45.569W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Pbhl	7740.00	6401.31	-6489.83	446946.86	644238.64	Point
TI	7840.00	492.69	-460.51	441038.24	650267.96	Point

FIELD DETAILS

Eddy County, NM (Nad 27)

Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010

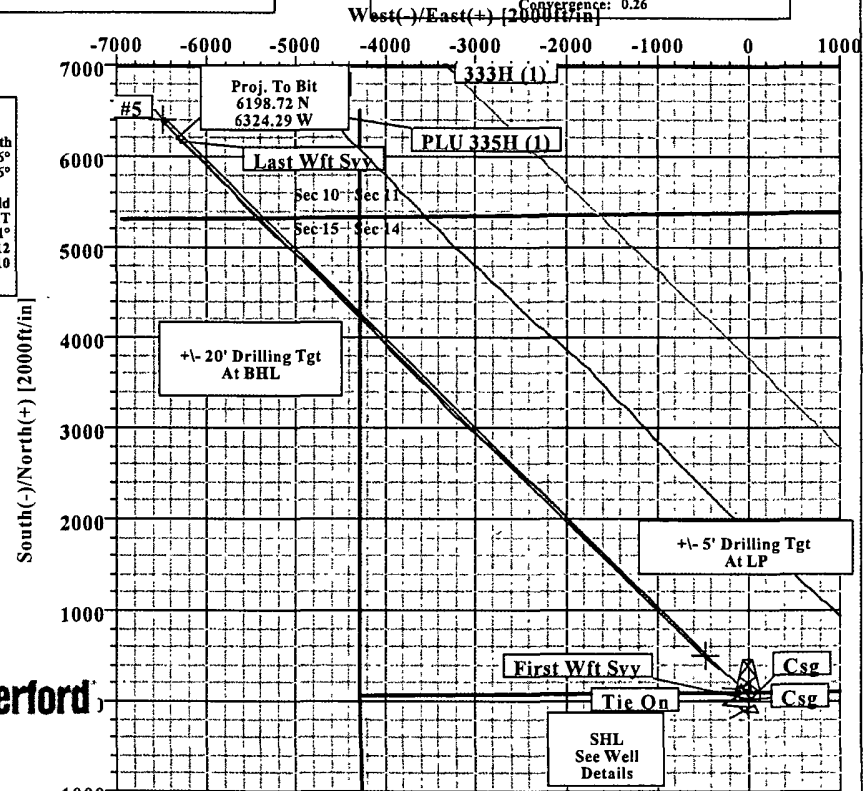
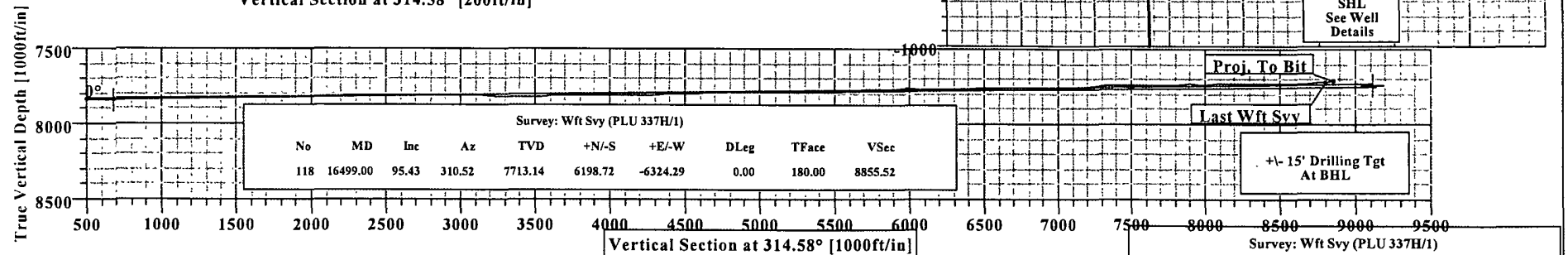
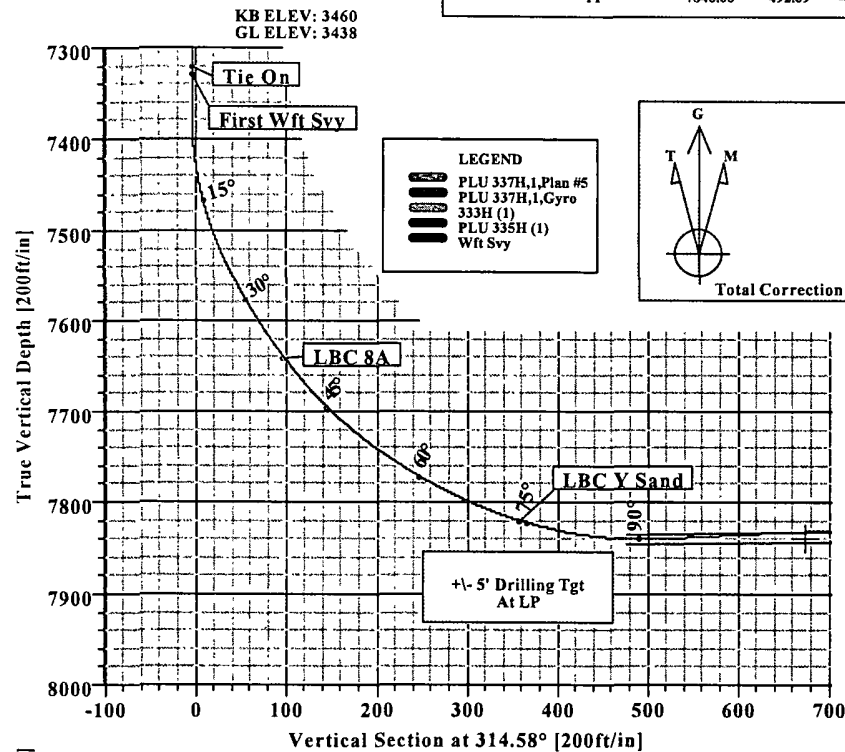
System Datum: Mean Sea Level
Local North: Grid North

SITE DETAILS

Poker Lake Unit 337H

Site Centre Northing: 440545.55
Easting: 650728.47

Ground Level: 3438.00
Positional Uncertainty: 0.00
Reference: 0.26



Created By: Russell W. Joyner

Date: 4/30/2012

30-015-39691

Weatherford International Ltd.

WFT Survey Report X & Y's



Weatherford

Company: BOPCO, L.P. Field: Eddy County, NM (Nad 27) Site: Poker Lake Unit 337H Well: PLU 337H Wellpath: 1		Date: 4/30/2012 Co-ordinate(NE) Reference: Well: PLU 337H, Grid North Vertical (TVD) Reference: SITE 3460.0 Section (VS) Reference: Well (0.00N,0.00E,314.58Azi) Survey Calculation Method: Minimum Curvature		Page: 1 Db: Sybase						
Survey: Wft Svy Company: Weatherford International Ltd. Tool: MWD,MWD - Standard		Start Date: 4/9/2012 Engineer: Russell W. Joyner Tied-to: User Defined								
Field: Eddy County, NM (Nad 27)										
Map System: US State Plane Coordinate System 1927 Geo Datum: NAD27 (Clarke 1866) Sys Datum: Mean Sea Level		Map Zone: New Mexico, Eastern Zone Coordinate System: Well Centre Geomagnetic Model: IGRF2010								
Site: Poker Lake Unit 337H										
Site Position: From: Map Position Uncertainty: 0.00 ft Ground Level: 3438.00 ft		Northing: 440545.55 ft Easting: 650728.47 ft Latitude: 32 12 36 855 N Longitude: 103 50 45.569 W North Reference: Grid Grid Convergence: 0.26 deg								
Well: PLU 337H		Slot Name:								
Well Position: +N/-S 0.00 ft +E/-W 0.00 ft Position Uncertainty: 0.00 ft		Well Position: +N/-S 0.00 ft +E/-W 0.00 ft Position Uncertainty: 0.00 ft								
Wellpath: 1		Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 7.62 deg Mag Dip Angle: 60.11 deg								
Current Datum: SITE Magnetic Data: 3/30/2012 Field Strength: 48524 nT Vertical Section: Depth From (TVD) ft		Height 3460.00 ft +N/-S ft +E/-W ft Direction deg								
0.00		0.00		314.58						
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
3231.00	0.71	61.56	3230.70	19.58	21.14	0.00	-1.31	440565.13	650749.61	Csg
4087.00	0.61	92.89	4086.65	20.51	29.60	0.04	-6.69	440566.06	650758.07	Csg
7321.71	0.82	174.33	7321.14	30.51	35.10	0.03	-3.59	440576.06	650763.57	Tie On
7330.00	1.18	152.55	7329.43	30.38	35.15	6.24	-3.71	440575.93	650763.62	First Wft Svy
7362.00	0.40	198.62	7361.43	29.98	35.26	2.96	-4.07	440575.53	650763.73	
7393.00	3.21	312.27	7392.41	30.46	34.58	10.94	-3.25	440576.01	650763.05	
7425.00	7.87	318.28	7424.25	32.70	32.46	14.66	-0.17	440578.25	650760.93	
7456.00	12.98	320.33	7454.73	36.96	28.83	16.52	5.41	440582.51	650757.30	
7488.00	17.89	319.71	7485.57	43.48	23.35	15.35	13.89	440589.03	650751.82	
7519.00	22.24	317.09	7514.68	51.42	16.27	14.33	24.50	440596.97	650744.74	
7551.00	25.62	314.86	7543.92	60.73	7.24	10.93	37.47	440606.28	650735.71	
7582.00	29.35	314.23	7571.42	70.77	-2.96	12.07	51.78	440616.32	650725.51	
7614.00	32.65	315.27	7598.85	82.37	-14.65	10.45	68.25	440627.92	650713.82	
7645.00	35.53	315.49	7624.52	94.74	-26.86	9.30	85.63	440640.29	650701.61	
7677.00	38.51	314.93	7650.06	108.41	-40.43	9.37	104.89	440653.96	650688.04	
7708.00	41.41	313.89	7673.82	122.33	-54.65	9.60	124.80	440667.88	650673.82	
7740.00	45.40	313.55	7697.07	137.53	-70.54	12.49	146.78	440683.08	650657.93	
7772.00	49.95	313.43	7718.61	153.80	-87.71	14.22	170.43	440699.35	650640.76	
7803.00	53.66	313.41	7737.77	170.55	-105.40	11.97	194.78	440716.10	650623.07	
7835.00	57.00	313.59	7755.97	188.66	-124.49	10.45	221.09	440734.21	650603.98	
7867.00	60.09	313.89	7772.67	207.53	-144.20	9.69	248.38	440753.08	650584.27	
7898.00	63.35	312.83	7787.36	226.27	-164.05	10.94	275.67	440771.82	650564.42	
7930.00	66.90	312.64	7800.81	245.97	-185.37	11.11	304.68	440791.52	650543.10	
7962.00	70.02	312.00	7812.56	266.00	-207.38	9.93	334.42	440811.55	650521.09	

Weatherford International Ltd.

WFT Survey Report X & Y's



Weatherford

Company: BOPCO, L.P.
Field: Eddy County, NM (Nad 27)
Site: Poker Lake Unit 337H
Well: PLU 337H
Wellpath: 1

Date: 4/30/2012 Time: 06:54:28 Page: 2
Co-ordinate(N/E) Reference: Well: PLU 337H, Grid North
Vertical (TVD) Reference: SITE 3460.0
Section (VS) Reference: Well (0.00N,0.00E,314.58Azi)
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
7993.00	74.77	312.15	7821.93	285.80	-229.31	15.33	363.93	440831.35	650499.16	
8025.00	77.71	312.84	7829.55	306.79	-252.22	9.42	394.99	440852.34	650476.25	
8056.00	81.83	312.90	7835.05	327.55	-274.57	13.29	425.48	440873.10	650453.90	
8088.00	84.36	313.20	7838.90	349.23	-297.79	7.96	457.23	440894.78	650430.68	
8120.00	89.83	314.14	7840.52	371.29	-320.89	17.34	489.17	440916.84	650407.58	
8151.00	93.04	314.48	7839.74	392.93	-343.07	10.41	520.16	440938.48	650385.40	
8171.00	93.40	314.68	7838.62	406.95	-357.29	2.06	540.13	440952.50	650371.18	
8257.00	92.48	313.19	7834.21	466.54	-419.14	2.03	626.00	441012.09	650309.33	
8352.00	91.71	315.75	7830.73	533.04	-486.88	2.81	720.93	441078.59	650241.59	
8448.00	90.73	315.79	7828.69	601.81	-553.83	1.02	816.89	441147.36	650174.64	
8511.00	89.13	314.96	7828.77	646.65	-598.08	2.86	879.88	441192.20	650130.39	
8606.00	90.52	316.35	7829.06	714.58	-664.48	2.07	974.86	441260.13	650063.99	
8702.00	88.98	316.16	7829.48	783.93	-730.86	1.62	1070.81	441329.48	649997.61	
8797.00	90.17	314.51	7830.18	851.49	-797.63	2.14	1165.80	441397.04	649930.84	
8892.00	90.80	313.56	7829.38	917.53	-865.92	1.20	1260.79	441463.08	649862.55	
8988.00	90.66	313.96	7828.15	983.92	-935.25	0.44	1356.77	441529.47	649793.22	
9083.00	91.64	314.30	7826.25	1050.05	-1003.43	1.09	1451.75	441595.60	649725.04	
9179.00	91.57	314.41	7823.56	1117.14	-1072.04	0.14	1547.71	441662.69	649656.43	
9274.00	89.34	314.49	7822.80	1183.66	-1139.85	2.35	1642.70	441729.21	649588.62	
9369.00	88.08	311.86	7824.94	1248.64	-1209.11	3.07	1737.64	441794.19	649519.36	
9465.00	89.97	311.08	7826.58	1312.20	-1281.03	2.13	1833.48	441857.75	649447.44	
9560.00	91.71	310.71	7825.18	1374.38	-1352.83	1.87	1928.27	441919.93	649375.64	
9655.00	91.01	310.53	7822.93	1436.21	-1424.92	0.76	2023.01	441981.76	649303.55	
9750.00	92.76	312.85	7819.80	1499.36	-1495.81	3.06	2117.83	442044.91	649232.66	
9846.00	91.78	313.59	7816.00	1565.05	-1565.71	1.28	2213.73	442110.60	649162.76	
9941.00	91.43	314.55	7813.34	1631.10	-1633.94	1.08	2308.68	442176.65	649094.53	
10036.00	90.52	315.00	7811.72	1698.00	-1701.37	1.07	2403.67	442243.55	649027.10	
10131.00	91.64	314.81	7809.93	1765.05	-1768.64	1.20	2498.65	442310.60	648959.83	
10226.00	90.10	316.32	7808.49	1832.87	-1835.14	2.27	2593.62	442378.42	648893.33	
10321.00	89.13	318.40	7809.13	1902.75	-1899.49	2.42	2688.50	442448.30	648828.98	
10403.00	91.22	318.28	7808.88	1964.01	-1953.99	2.55	2770.32	442509.56	648774.48	
10498.00	90.10	318.35	7807.78	2034.95	-2017.16	1.18	2865.11	442580.50	648711.31	
10593.00	89.20	318.71	7808.36	2106.13	-2080.07	1.02	2959.88	442651.68	648648.40	
10688.00	87.37	315.11	7811.21	2175.46	-2144.93	4.25	3054.74	442721.01	648583.54	
10783.00	86.54	315.13	7816.25	2242.68	-2211.87	0.87	3149.60	442788.23	648516.60	
10879.00	88.85	314.72	7820.12	2310.41	-2279.78	2.44	3245.51	442855.96	648448.69	
10974.00	91.36	314.58	7819.94	2377.17	-2347.36	2.65	3340.50	442922.72	648381.11	
11069.00	89.62	311.65	7819.13	2442.09	-2416.69	3.59	3435.45	442987.64	648311.78	
11164.00	91.01	311.65	7818.61	2505.22	-2487.68	1.46	3530.33	443050.77	648240.79	
11259.00	91.01	308.47	7816.93	2566.35	-2560.37	3.35	3625.00	443111.90	648168.10	
11354.00	90.38	307.78	7815.78	2624.99	-2635.09	0.98	3719.39	443170.54	648093.38	
11449.00	91.30	313.07	7814.39	2686.56	-2707.38	5.65	3814.10	443232.11	648021.09	
11544.00	90.94	311.90	7812.53	2750.71	-2777.42	1.29	3909.02	443296.26	647951.05	
11639.00	90.52	311.10	7811.32	2813.66	-2848.57	0.95	4003.87	443359.21	647879.90	
11734.00	91.36	311.51	7809.76	2876.35	-2919.92	0.98	4098.70	443421.90	647808.55	
11828.00	90.24	308.93	7808.45	2937.04	-2991.68	2.99	4192.41	443482.59	647736.79	
11922.00	91.15	307.08	7807.31	2994.91	-3065.74	2.19	4285.78	443540.46	647662.73	
12016.00	92.13	309.54	7804.62	3053.15	-3139.46	2.82	4379.17	443598.70	647589.01	
12110.00	92.27	314.01	7801.01	3115.72	-3209.50	4.75	4472.97	443661.27	647518.97	
12204.00	91.71	317.42	7797.74	3182.96	-3275.08	3.67	4566.88	443728.51	647453.39	
12298.00	91.01	319.89	7795.51	3253.50	-3337.15	2.73	4660.60	443799.05	647391.32	
12396.00	89.83	317.89	7794.79	3327.33	-3401.58	2.37	4758.32	443872.88	647326.89	

Weatherford International Ltd.

WFT Survey Report X & Y's



Weatherford

Company: BOPCO, L.P.

Field: Eddy County, NM (Nad 27)

Site: Poker Lake Unit 337H

Well: PLU 337H

Wellpath: 1

Date: 4/30/2012

Time: 06:54:28

Page: 3

Co-ordinate(NE) Reference:

Well: PLU 337H, Grid North

Vertical (TVD) Reference:

SITE 3460.0

Section (VS) Reference:

Well (0.00N,0.00E,314.58Azi)

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
12491.00	89 90	315 51	7795 01	3396.47	-3466 73	2 51	4853 25	443942.02	647261 74	
12587.00	90 94	311.70	7794.31	3462 66	-3536.23	4.11	4949.21	444008 21	647192 24	
12682.00	90 94	312.34	7792.75	3526 24	-3606 80	0 67	5044 10	444071.79	647121 67	
12777 00	88 78	312 78	7792 98	3590 49	-3676.76	2.32	5139 04	444136 04	647051 71	
12873 00	91 71	313 18	7792 57	3655.93	-3746 99	3.08	5234 99	444201 48	646981.48	
12968 00	90 31	312.96	7790 90	3720 80	-3816.38	1 49	5329 94	444266 35	646912 09	
13064 00	90 17	315 24	7790.50	3787.60	-3885 31	2.38	5425.93	444333.15	646843 16	
13159 00	94 17	321.18	7786.90	3858.33	-3948 54	7 53	5520 61	444403.88	646779 93	
13254 00	93 53	319.45	7780 52	3931 27	-4009.06	1 94	5614.91	444476 82	646719.41	
13350 00	92 97	319 04	7775.08	4003.87	-4071 63	0.72	5710 44	444549.42	646656 84	
13443 00	92 76	319 30	7770 43	4074.15	-4132.36	0.36	5803 03	444619.70	646596 11	
13537.00	91 99	318.24	7766 53	4144.79	-4194.26	1.39	5896 69	444690 34	646534 21	
13631.00	90 03	316 83	7764 87	4214.11	-4257.71	2.57	5990.55	444759.66	646470 76	
13724.00	88.50	316.07	7766 07	4281.51	-4321 78	1 84	6083.49	444827 06	646406.69	
13819 00	89 69	314.54	7767 57	4349 03	-4388 58	2 04	6178 46	444894.58	646339.89	
13914.00	91 15	315.51	7766 87	4416 23	-4455.72	1.85	6273 45	444961.78	646272 75	
14009 00	90.31	313 51	7765 66	4482 82	-4523 46	2 28	6368 44	445028 37	646205 01	
14104 00	90 38	312 25	7765.09	4547.46	-4593 07	1 33	6463 39	445093.01	646135 40	
14199 00	91 43	314 43	7763.59	4612 65	-4662 15	2.55	6558.35	445158 20	646066 32	
14295.00	90 31	312.65	7762 13	4678.77	-4731 73	2 19	6654 32	445224.32	645996 74	
14389 00	90 10	313.72	7761 79	4743.09	-4800.27	1.16	6748 29	445288 64	645928 20	
14482.00	88.85	311 66	7762.65	4806.14	-4868.62	2 59	6841 23	445351.69	645859.85	
14586 00	89.90	311 45	7763.78	4875.13	-4946.44	1 03	6945.08	445420 68	645782 03	
14681 00	92 06	312.23	7762.16	4938 48	-5017.20	2.42	7039 95	445484 03	645711.27	
14776.00	94 52	311.38	7756.71	5001.70	-5087.89	2 74	7134.67	445547.25	645640 58	
14871.00	94.52	311.08	7749 22	5064 12	-5159.12	0 31	7229.22	445609.67	645569 35	
14967.00	92 90	312 41	7743 01	5127.90	-5230.59	2 18	7324 89	445673.45	645497 88	
15062.00	91 50	313 35	7739 36	5192 49	-5300.15	1 77	7419 78	445738.04	645428 32	
15157 00	91 02	314 28	7737 27	5258 25	-5368 68	1.10	7514.74	445803.80	645359 79	
15252 00	89 69	314 32	7736.68	5324 59	-5436 67	1 40	7609 74	445870 14	645291 80	
15348.00	89 62	316 09	7737.26	5392 72	-5504 30	1.85	7705.73	445938 27	645224 17	
15442.00	92.06	315.79	7735 88	5460.25	-5569 66	2.62	7799.68	446005 80	645158 81	
15537.00	90 31	315.71	7733.92	5528.28	-5635.93	1 84	7894 64	446073 83	645092 54	
15633 00	89 13	315 66	7734.39	5596.97	-5703 00	1 23	7990 62	446142 52	645025.47	
15728 00	92.06	315.80	7733 40	5664 99	-5769 30	3.09	8085 58	446210.54	644959 17	
15823.00	90 73	315.39	7731.09	5732.83	-5835.75	1 46	8180 54	446278 38	644892.72	
15919 00	88 71	315 18	7731.56	5801.05	-5903 29	2 12	8276.53	446346 60	644825 18	
16014 00	90.59	314.53	7732 14	5868.05	-5970.63	2 09	8371.52	446413 60	644757 84	
16109 00	90 95	314.64	7730.86	5934 73	-6038 29	0.40	8466 51	446480 28	644690 18	
16204.00	90 10	314 60	7729 99	6001.45	-6105 90	0 90	8561 50	446547 00	644622.57	
16300 00	92 34	313 18	7727.95	6067.99	-6175 06	2 76	8657 47	446613.54	644553 41	
16395.00	94 24	310 70	7722 49	6131 37	-6245.60	3 29	8752.20	446676 92	644482 87	
16442 00	95 43	310 52	7718.53	6161 85	-6281.16	2.56	8798.92	446707 40	644447.31	Last Wft Svy
16499 00	95 43	310.52	7713 14	6198 72	-6324 29	0 00	8855 52	446744 27	644404 18	Proj To Bit

Annotation

MD ft	TVD ft	
7321 71	7321 14	Tie On
7330 00	7329 43	First Wft Svy
16442 00	7718 53	Last Wft Svy
16499 00	7713 14	Proj To Bit