



Continental Dixon 1-10-15XH ST02 Gyro+MWD 0ft to 19477ft Survey Report (Def Survey)

Report Date:	May 27, 2014 - 02:07 PM	Survey / DLS	Minimum Curvature / Lubinski
Client:	Continental	Vertical Section Azimuth:	178.300 ° (Grid North)
Field:	OK Carter County	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Continental Dixon 1-10-15XH / Continental Dixon 1-10-	TVD Reference Datum:	RKB
Well:	Continental Dixon 1-10-15XH	TVD Reference Elevation:	1191.000 ft above
Borehole:	ST02	Seabed / Ground	1161.000 ft above
UWI / API#:	Unknown / Unknown	Magnetic Declination:	4.016 °
Survey Name:	Continental Dixon 1-10-15XH ST02 Gyro+MWD 0ft to	Total Gravity Field	998.8783mgn (9.80665 Based)
Survey Date:	April 10, 2014	Total Magnetic Field	50106.879 nT
Tort / AHD / DDI / ERD Ratio:	263.338 ° / 8521.907 ft / 6.493 / 0.607	Magnetic Dip Angle:	62.834 °
Coordinate Reference System:	NAD27 Oklahoma State Plane, Southern Zone, US Feet	Declination Date:	April 10, 2014
Location Lat / Long:	N 34° 18' 59.30256", W 97° 30' 9.51383"	Magnetic Declination	BGGM 2013
Location Grid N/E Y/X:	N 358144.000 ftUS, E 2150182.000 ftUS	North Reference:	Grid North
CRS Grid Convergence Angle:	0.2823 °	Grid Convergence Used:	0.2823 °
Grid Scale Factor:	0.9999468	Total Corr Mag North->Grid North:	3.7334 °
		Local Coord Referenced	Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
Marker MudLine	30.00	0.10	285.26	30.00	-1161.00	-0.01	0.01	-0.03	0.03	285.26	0.34	50.59M
Tie in, Kick Off 5°/100ft	9760.00	4.39	50.59	9759.59	8568.59	-14.96	14.80	-5.39	15.75	339.99	N/A	59.44M
	9860.00	16.53	59.44	9857.75	8666.75	-24.20	24.50	9.87	26.42	21.95	12.21	0.11R
	9881.00	19.96	59.46	9877.69	8686.69	-27.37	27.84	15.54	31.88	29.16	16.33	42.68R
	9914.00	23.51	67.23	9908.35	8717.35	-32.46	33.26	26.46	42.50	38.51	13.83	93.09R
	9946.00	23.65	78.02	9937.69	8746.69	-35.90	37.06	38.63	53.53	46.19	13.48	87.73R
	9978.00	23.83	83.41	9966.99	8775.99	-37.59	39.13	51.33	64.55	52.68	6.80	105.46R
	10010.00	23.13	92.02	9996.35	8805.35	-37.74	39.66	64.04	75.32	58.23	10.93	95.27R
	10041.00	23.04	99.80	10024.87	8833.87	-36.13	38.41	76.10	85.25	63.22	9.84	102.7R
	10073.00	22.69	104.68	10054.36	8863.36	-33.14	35.78	88.25	95.22	67.93	6.02	98.83R
	10105.00	22.42	112.12	10083.92	8892.92	-28.94	31.92	99.87	104.85	72.28	8.95	74.3R
	10137.00	22.86	115.77	10113.45	8922.45	-23.61	26.91	111.12	114.34	76.38	4.60	13.65R
	10169.00	23.30	116.04	10142.89	8951.89	-17.79	21.43	122.41	124.27	80.07	1.41	97.45R
	10201.00	23.21	118.03	10172.29	8981.29	-11.72	15.69	133.66	134.58	83.30	2.47	79.57R
	10232.00	23.48	121.26	10200.76	9009.76	-5.33	9.62	144.33	144.65	86.19	4.22	53.09R
	10264.00	24.80	125.28	10229.96	9038.96	2.18	2.43	155.26	155.28	89.10	6.59	47.24R
	10296.00	26.82	129.94	10258.77	9067.77	11.01	-6.08	166.28	166.39	92.09	8.94	39.95R
	10328.00	29.19	133.91	10287.02	9096.02	21.39	-16.13	177.44	178.17	95.19	9.42	48.97R
	10360.00	30.60	137.01	10314.76	9123.76	33.08	-27.50	188.61	190.61	98.30	6.54	56.99R
	10391.00	32.36	141.81	10341.20	9150.20	45.68	-39.79	199.13	203.06	101.30	9.88	63.66R

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	10423.00	33.68	146.32	10368.04	9177.04	60.10	-53.91	209.34	216.17	104.44	8.72	83.86R
	10455.00	34.10	151.49	10394.61	9203.61	75.63	-69.18	218.55	229.23	107.57	9.10	81.27R
	10486.00	34.65	156.58	10420.20	9229.20	91.58	-84.91	226.20	241.61	110.57	9.44	58.75R
	10518.00	36.84	162.23	10446.18	9255.18	109.26	-102.40	232.74	254.27	113.75	12.37	52.83R
	10550.00	39.04	166.66	10471.42	9280.42	128.35	-121.35	238.00	267.15	117.01	10.94	70.3R
	10581.00	40.36	171.85	10495.28	9304.28	147.89	-140.79	241.68	279.69	120.22	11.51	29.28R
	10613.00	43.35	174.27	10519.11	9328.11	169.15	-161.98	244.24	293.07	123.55	10.62	1.75L
	10647.00	46.69	174.13	10543.14	9352.14	193.14	-185.90	246.67	308.88	127.00	9.83	1.07L
	10678.00	50.83	174.03	10563.57	9372.57	216.38	-209.08	249.08	325.20	130.01	13.36	2.52R
	10710.00	55.31	174.27	10582.79	9391.79	241.89	-234.52	251.68	344.01	132.98	14.01	2.86R
	10742.00	59.27	174.50	10600.08	9409.08	268.74	-261.31	254.32	364.64	135.78	12.39	11.14R
	10773.00	63.22	175.37	10614.99	9423.99	295.87	-288.38	256.71	386.09	138.33	12.98	5.07R
	10805.00	66.21	175.66	10628.66	9437.66	324.77	-317.22	258.97	409.51	140.77	9.38	8.11L
	10837.00	69.03	175.23	10640.84	9449.84	354.32	-346.72	261.32	434.17	142.99	8.90	40.55R
	10869.00	69.91	176.03	10652.06	9461.06	384.25	-376.60	263.61	459.69	145.01	3.61	18.36R
	10901.00	70.08	176.09	10663.01	9472.01	414.30	-406.59	265.67	485.70	146.84	0.56	32.41R
	10932.00	71.23	176.86	10673.28	9482.28	443.53	-435.79	267.47	511.32	148.46	4.39	2.84R
	10964.00	72.19	176.91	10683.32	9492.32	473.90	-466.13	269.12	538.24	150.00	3.00	17.64L
	10996.00	72.55	176.79	10693.01	9502.01	504.39	-496.58	270.80	565.61	151.40	1.18	13.37R
	11028.00	73.60	177.05	10702.33	9511.33	535.00	-527.15	272.44	593.39	152.67	3.37	4.55L
	11059.00	75.18	176.92	10710.67	9519.67	564.84	-556.96	274.01	620.71	153.80	5.11	53.62R
	11091.00	75.53	177.41	10718.76	9527.76	595.80	-587.88	275.54	649.25	154.89	1.84	49.45R
	11123.00	76.33	178.37	10726.54	9535.54	626.84	-618.90	276.68	677.93	155.91	3.84	7.4R
	11218.00	78.52	178.66	10747.22	9556.22	719.55	-711.58	279.09	764.36	158.58	2.32	151.66R
	11313.00	77.47	179.24	10766.96	9575.98	812.47	-804.49	280.79	852.08	160.76	1.26	175.04R
	11408.00	72.63	179.68	10791.48	9600.48	904.20	-896.24	281.66	939.46	162.55	5.11	111.07R
	11504.00	72.28	180.64	10820.42	9629.42	995.69	-987.77	281.40	1027.08	164.10	1.02	175.74R
	11602.00	68.41	180.95	10853.38	9662.38	1087.87	-1080.04	280.13	1115.77	165.46	3.96	179.51L
	11697.00	64.19	180.91	10891.56	9700.56	1174.75	-1167.00	278.71	1199.82	166.57	4.44	HS
	11789.00	65.42	180.91	10930.72	9739.72	1257.91	-1250.23	277.39	1280.63	167.49	1.34	43.42R
	11885.00	66.48	182.00	10969.84	9778.84	1345.44	-1337.87	275.16	1365.87	168.38	1.51	17.6R
	11980.00	67.09	182.21	11007.29	9816.29	1432.55	-1425.11	271.96	1450.83	169.20	0.67	112.14R
	12075.00	66.65	183.40	11044.61	9853.61	1519.65	-1512.37	267.68	1535.88	169.96	1.24	138.04R
	12170.00	65.69	184.35	11082.99	9891.99	1606.13	-1599.07	261.81	1620.36	170.70	1.36	76.01L
	12265.00	66.13	182.47	11121.77	9930.77	1692.51	-1685.64	256.66	1705.07	171.34	1.86	95.79L
	12361.00	65.86	179.17	11160.83	9969.83	1780.11	-1773.31	255.40	1791.61	171.80	3.15	30.47L
	12456.00	66.83	178.55	11198.95	10007.95	1867.12	-1860.31	257.13	1878.00	172.13	1.18	24.55L
	12551.00	67.62	178.16	11235.73	10044.73	1954.71	-1947.86	259.65	1965.09	172.41	0.91	48.37R
	12645.00	68.50	179.22	11270.85	10079.85	2041.90	-2035.03	261.64	2051.78	172.67	1.40	157.83R
	12740.00	67.01	179.88	11306.81	10115.81	2129.80	-2122.96	262.33	2139.10	172.96	1.70	29L
	12835.00	68.15	179.20	11343.04	10152.04	2217.60	-2210.77	263.04	2226.36	173.21	1.37	47.24L
	12930.00	69.73	177.39	11377.18	10186.18	2306.25	-2299.38	265.68	2314.68	173.41	2.43	169.61R
	13024.00	68.06	177.72	11411.03	10220.03	2393.93	-2386.99	269.43	2402.15	173.56	1.81	59.63L
	13119.00	68.41	177.08	11446.26	10255.26	2482.15	-2475.12	273.43	2490.18	173.70	0.73	50.06R
	13215.00	69.73	178.75	11480.55	10289.55	2571.80	-2564.73	276.69	2579.61	173.84	2.13	157.45R

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	13310.00	68.41	179.34	11514.49	10323.49	2660.53	-2653.44	278.17	2667.98	174.02	1.51	42.94R
	13405.00	69.47	180.39	11548.62	10357.62	2749.15	-2742.09	278.37	2756.19	174.20	1.52	35.65R
	13500.00	69.64	180.52	11581.81	10390.81	2838.10	-2831.11	277.67	2844.69	174.40	0.22	46.79R
	13596.00	70.43	181.41	11614.59	10423.59	2928.23	-2921.32	276.14	2934.34	174.60	1.20	178.64R
	13691.00	69.64	181.43	11647.03	10456.03	3017.39	-3010.59	273.93	3023.02	174.80	0.83	177.97L
	13786.00	68.85	181.40	11680.69	10489.69	3106.09	-3099.39	271.74	3111.28	174.99	0.83	16.3R
	13881.00	69.91	181.73	11714.15	10523.15	3194.86	-3188.27	269.31	3199.63	175.17	1.16	135.6L
	13977.00	69.12	180.90	11747.74	10556.74	3284.66	-3278.18	267.24	3289.05	175.34	1.15	135.21L
	14072.00	67.71	179.38	11782.69	10591.69	3372.95	-3366.51	267.02	3377.08	175.46	2.10	41.83L
	14168.00	68.24	178.87	11818.69	10627.69	3461.93	-3455.49	268.38	3465.90	175.56	0.74	164.57L
	14262.00	66.48	178.34	11854.88	10663.88	3548.68	-3542.22	270.49	3552.53	175.63	1.94	36.35L
	14356.00	66.83	178.06	11892.13	10701.13	3634.99	-3628.48	273.20	3638.75	175.69	0.46	33.42L
	14451.00	67.97	177.25	11928.63	10737.63	3722.68	-3716.11	276.79	3726.40	175.74	1.44	122.02R
	14546.00	67.09	178.79	11964.94	10773.94	3810.47	-3803.84	279.83	3814.12	175.79	1.76	28.91L
	14641.00	68.15	178.16	12001.12	10810.12	3898.31	-3891.65	282.17	3901.87	175.85	1.27	121.55R
	14736.00	67.18	179.89	12037.22	10846.22	3986.17	-3979.51	283.67	3989.60	175.92	1.97	154.78L
	14832.00	65.33	178.93	12075.87	10884.87	4074.02	-4067.37	284.57	4077.31	176.00	2.13	20.82L
	14927.00	66.83	178.31	12114.39	10923.39	4160.86	-4154.18	286.66	4164.06	176.05	1.69	8.01L
	15023.00	68.15	178.11	12151.14	10960.14	4249.54	-4242.82	289.43	4252.68	176.10	1.39	14.86L
	15118.00	69.03	177.86	12185.82	10994.82	4337.98	-4331.21	292.54	4341.08	176.14	0.96	99.22R
	15213.00	68.76	179.71	12220.03	11029.03	4426.60	-4419.81	294.42	4429.61	176.19	1.84	92.5R
	15308.00	68.68	182.08	12254.51	11063.51	4515.03	-4508.32	293.04	4517.83	176.28	2.33	110.23R
	15403.00	68.24	183.38	12289.40	11098.40	4603.13	-4596.58	288.83	4605.65	176.40	1.35	166.32R
	15492.00	67.18	183.66	12323.15	11132.15	4685.13	-4678.77	283.78	4687.37	176.53	1.23	HS
	15593.00	67.18	183.66	12362.32	11171.32	4777.82	-4771.68	277.84	4779.76	176.67	0.00	105.87L
	15688.00	66.74	181.94	12399.51	11208.51	4864.97	-4858.99	273.56	4866.69	176.78	1.73	167.56R
	15783.00	64.37	182.52	12438.82	11247.82	4951.24	-4945.40	270.20	4952.78	176.87	2.56	106.7R
	15879.00	64.02	183.84	12480.61	11289.61	5037.35	-5031.69	285.41	5038.69	176.98	1.29	47.83L
	15975.00	65.60	181.94	12521.47	11330.47	5123.94	-5118.45	281.04	5125.10	177.08	2.43	110.03L
	16070.00	65.07	180.31	12561.12	11370.12	5210.16	-5204.76	259.34	5211.21	177.15	1.66	162.67L
	16165.00	62.43	179.38	12603.13	11412.13	5295.32	-5289.95	259.57	5296.32	177.19	2.91	21.29R
	16260.00	63.14	179.69	12646.58	11455.58	5379.79	-5374.43	260.25	5380.73	177.23	0.80	64.99L
	16353.00	63.40	179.07	12688.41	11497.41	5462.83	-5457.49	261.15	5463.73	177.26	0.66	152.25L
	16449.00	62.96	178.81	12731.72	11540.72	5548.50	-5543.15	262.73	5549.37	177.29	0.52	38.24R
	16541.00	64.63	180.26	12772.35	11581.35	5631.02	-5625.68	263.40	5631.84	177.32	2.30	42.76L
	16637.00	65.25	179.63	12813.01	11622.01	5717.95	-5712.64	263.48	5718.72	177.36	0.88	100.63L
	16732.00	64.98	177.99	12852.99	11661.99	5804.12	-5798.80	265.27	5804.86	177.38	1.59	78.71L
	16827.00	65.25	176.54	12892.97	11701.97	5890.28	-5884.88	269.38	5891.04	177.38	1.41	163.7R
	16921.00	63.93	176.97	12933.30	11742.30	5975.15	-5969.65	274.19	5975.94	177.37	1.46	63.7R
	17015.00	64.37	177.95	12974.29	11783.29	6059.74	-6054.16	277.94	6060.53	177.37	1.05	77.24R
	17111.00	64.54	178.77	13015.68	11824.68	6146.35	-6140.74	280.42	6147.13	177.39	0.79	40.02R
	17206.00	65.07	179.26	13056.13	11865.13	6232.31	-6226.68	281.89	6233.06	177.41	0.73	160.67L
	17301.00	64.02	178.85	13096.96	11905.96	6318.07	-6312.45	283.31	6318.80	177.43	1.17	54.16R
	17395.00	64.63	179.78	13137.68	11946.68	6402.78	-6397.16	284.32	6403.47	177.46	1.10	85.71R
	17490.00	64.90	183.18	13178.19	11987.19	6488.56	-6483.05	282.10	6489.18	177.51	3.25	50.06R

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	17586.00	66.04	184.66	13218.05	12027.05	6575.47	-6570.17	276.12	6575.97	177.59	1.84	113.36L
	17616.00	65.42	183.06	13230.38	12039.38	6602.69	-6597.46	274.28	6603.16	177.62	5.28	140.75L
	17710.00	64.19	181.94	13270.40	12079.40	6687.52	-6682.43	270.56	6687.91	177.68	1.70	121.59L
	17805.00	63.40	180.49	13312.35	12121.35	6772.64	-6767.64	268.75	6772.98	177.73	1.60	1.1L
	17900.00	64.81	180.46	13353.84	12162.84	6858.04	-6853.10	268.05	6858.34	177.76	1.48	111.83R
	17996.00	63.84	183.23	13395.44	12204.44	6944.38	-6939.57	265.27	6944.63	177.81	2.79	144.6R
	18091.00	63.40	183.58	13437.65	12246.65	7029.15	-7024.52	260.21	7029.34	177.88	0.57	139.77L
	18186.00	61.47	181.71	13481.61	12290.61	7113.11	-7108.64	256.32	7113.26	177.93	2.68	102.39L
	18282.00	61.03	179.31	13527.79	12336.79	7197.21	-7192.79	255.56	7197.33	177.97	2.24	3.49L
	18376.00	62.78	179.19	13572.06	12381.06	7280.12	-7275.71	256.65	7280.23	177.98	1.87	81.59R
	18472.00	62.96	180.51	13615.84	12424.84	7365.52	-7361.14	256.87	7365.62	178.00	1.24	35.68R
	18567.00	63.66	181.07	13658.51	12467.51	7450.32	-7446.01	255.70	7450.40	178.03	0.91	35.44L
	18662.00	66.74	178.70	13698.36	12507.36	7536.50	-7532.23	255.90	7536.57	178.05	3.95	68.73L
	18767.00	67.36	177.00	13739.30	12548.30	7633.19	-7628.84	259.53	7633.26	178.05	1.60	106.6R
	18862.00	67.18	177.66	13776.01	12585.01	7720.79	-7716.37	263.61	7720.87	178.04	0.67	153.14R
	18957.00	65.60	178.54	13814.06	12623.06	7807.84	-7803.37	266.50	7807.92	178.04	1.87	139.47R
	19051.00	64.02	180.05	13854.06	12663.06	7892.88	-7888.41	267.55	7892.95	178.06	2.22	147.07R
	19146.00	63.14	180.69	13896.33	12705.33	7977.90	-7973.49	267.01	7977.96	178.08	1.11	168.8R
	19241.00	62.96	180.73	13939.39	12748.39	8062.51	-8058.17	265.96	8062.55	178.11	0.19	90L
	19336.00	62.96	179.41	13982.58	12791.58	8147.08	-8142.78	265.85	8147.12	178.13	1.24	61.24R
Final survey	19431.00	63.31	180.12	14025.51	12834.51	8231.80	-8227.52	266.20	8231.83	178.15	0.76	HS
Proj. to BHL	19477.00	63.31	180.12	14046.17	12855.17	8272.88	-8268.62	266.11	8272.90	178.16	0.00	

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
 Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey	
	0.000	30.000		Act Stns	30.000	30.000	SLB_MWD-STD-Depth Only	Original Borehole / Continental Dixon 1-10-15XH Gyro+MWD
	30.000	9760.000		Act Stns	30.000	30.000	SLB_MWD-STD	Original Borehole / Continental Dixon 1-10-15XH Gyro+MWD
	9760.000	19431.000		Act Stns	30.000	30.000	SLB_MWD-STD	ST02 / Continental Dixon 1-10-15XH ST02 Gyro+MWD 0ft to
	19431.000	19477.000		Act Stns	30.000	30.000	SLB_BLIND+TREND	ST02 / Continental Dixon 1-10-15XH ST02 Gyro+MWD 0ft to