



A GYRO TECHNOLOGIES INC. COMPANY

P.O. Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

30-015-41363

September 25, 2013

Devon Energy Production Co., L. P.
333 West Sheridan Ave
Oklahoma City, Oklahoma 73102-5010

Attn: Patti Riechers

Re: Cotton Draw Unit No. 219H

Please find enclosed a copy of the survey from 0.00' to 4155.00' ran on the above referenced well.

If I can be of any further service please do not hesitate to call me at 800-606-4976.

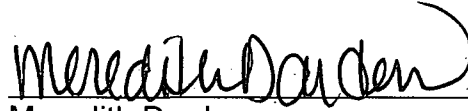
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §

COUNTY OF NUECES §

This instrument was acknowledged before me on the 25th day of September A.D., 2013, by Keith Havelka.


Meredith Darden
Notary Public, State of Texas





Company: Devon Energy Production Co.
 Lease/Well: Cotton Draw Unit/No. 219H
 Location: S2 T25s R31e
 Rig Name: HP 214
 State/County: New Mexico/Eddy
 Latitude: 32.15, Longitude: -103.74
 GRID North is 0.31 Degrees East of True North
 VS-Azi: 0.00 Degrees



RKB : 25 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ...raw unit #219h gyro survey.ut

Minimum Curvature Method

Report Date/Time: 9/25/2013 / 11:27

Vaughn Energy Services

Gardendale, TX

(432) 563-5444

Surveyor: Dustin Wedel

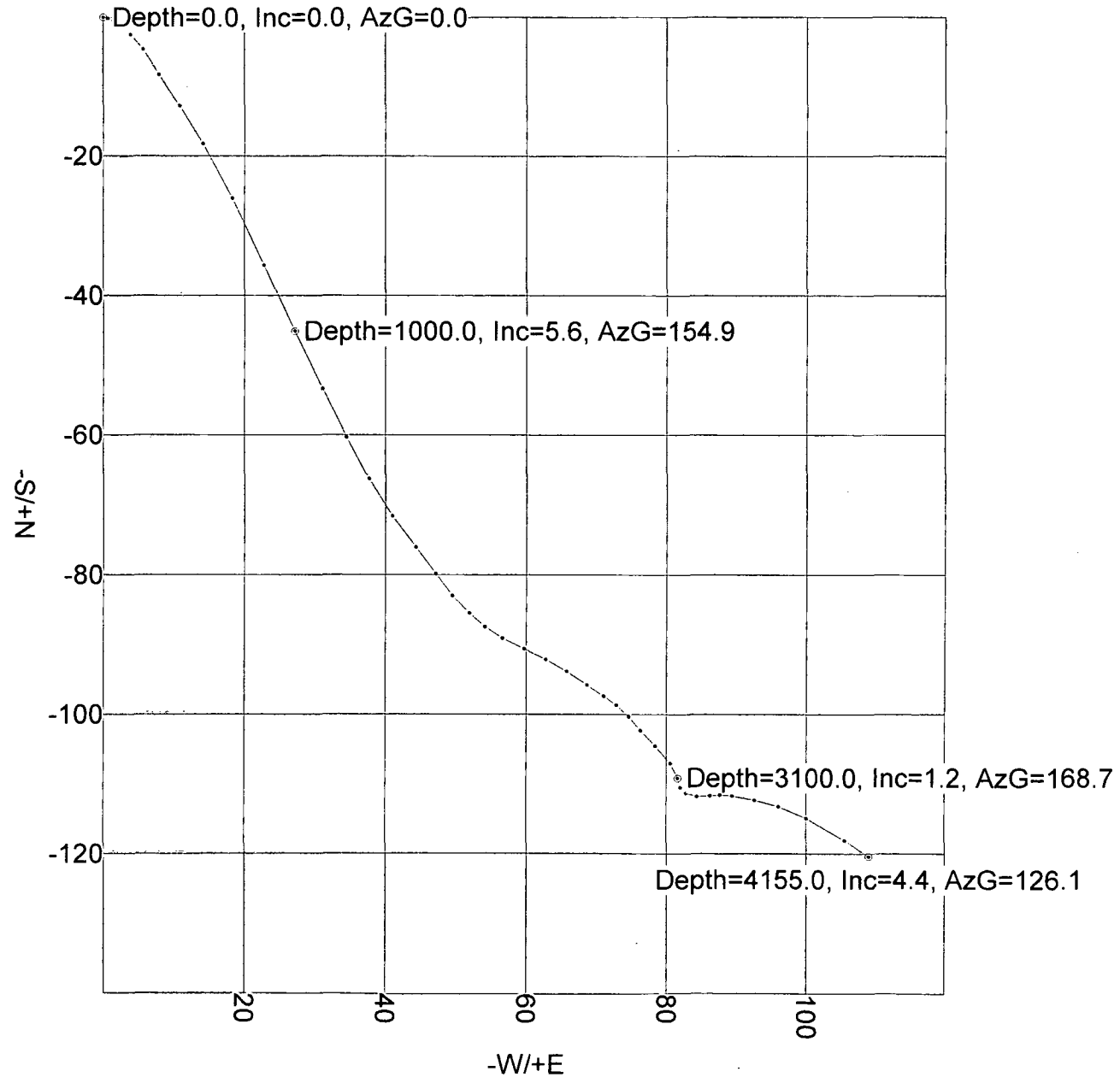
Cotton Draw Unit No. 219H / API 30-015-41363

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.78	107.70	100.00	-0.21	0.65	-0.21	0.68	107.70	0.78
200.00	1.23	128.02	199.98	-1.08	2.14	-1.08	2.40	116.69	0.57
300.00	1.37	130.77	299.96	-2.52	3.89	-2.52	4.64	122.90	0.15
400.00	1.84	146.88	399.92	-4.64	5.67	-4.64	7.33	129.29	0.65
500.00	3.07	148.22	499.82	-8.26	7.96	-8.26	11.47	136.06	1.23
600.00	3.05	147.40	599.68	-12.78	10.80	-12.78	16.73	139.78	0.05
700.00	4.27	149.78	699.48	-18.23	14.11	-18.23	23.05	142.27	1.23
800.00	5.91	153.69	799.08	-26.06	18.26	-26.06	31.82	144.98	1.67
900.00	6.30	155.38	898.51	-35.66	22.83	-35.66	42.34	147.37	0.43
1000.00	5.64	154.88	997.97	-45.10	27.20	-45.10	52.67	148.90	0.66
1100.00	4.86	154.18	1097.55	-53.36	31.13	-53.36	61.78	149.74	0.79
1200.00	3.98	153.49	1197.25	-60.28	34.53	-60.28	69.47	150.20	0.88
1300.00	3.78	150.84	1297.02	-66.26	37.68	-66.26	76.23	150.37	0.27
1400.00	3.45	145.12	1396.82	-71.61	41.01	-71.61	82.52	150.20	0.49
1500.00	2.93	140.42	1496.67	-76.05	44.36	-76.05	88.04	149.75	0.59
1600.00	2.49	147.21	1596.55	-79.84	47.16	-79.84	92.73	149.43	0.54
1700.00	2.05	138.64	1696.48	-83.01	49.52	-83.01	96.65	149.18	0.56
1800.00	1.86	132.84	1796.42	-85.45	51.88	-85.45	99.97	148.73	0.27

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	1.53	130.23	1896.37	-87.42	54.09	-87.42	102.80	148.25	0.33
2000.00	1.89	118.72	1996.33	-89.07	56.56	-89.07	105.51	147.58	0.49
2100.00	2.02	114.06	2096.27	-90.59	59.62	-90.59	108.45	146.65	0.21
2200.00	1.99	116.49	2196.21	-92.08	62.79	-92.08	111.45	145.71	0.09
2300.00	1.99	123.50	2296.15	-93.81	65.79	-93.81	114.58	144.96	0.24
2400.00	1.99	124.00	2396.09	-95.74	68.68	-95.74	117.83	144.35	0.02
2500.00	1.26	125.42	2496.05	-97.35	71.02	-97.35	120.50	143.89	0.73
2600.00	1.29	124.84	2596.02	-98.63	72.84	-98.63	122.61	143.56	0.03
2700.00	1.53	141.41	2695.99	-100.32	74.59	-100.32	125.01	143.37	0.47
2800.00	1.41	137.58	2795.96	-102.27	76.26	-102.27	127.57	143.29	0.15
2900.00	2.13	135.25	2895.91	-104.50	78.39	-104.50	130.64	143.12	0.72
3000.00	1.65	143.56	2995.86	-106.97	80.55	-106.97	133.91	143.02	0.55
3100.00	1.15	168.70	3095.83	-109.12	81.61	-109.12	136.26	143.21	0.78
3200.00	0.46	156.66	3195.82	-110.47	81.96	-110.47	137.55	143.43	0.71
3300.00	0.92	124.28	3295.81	-111.28	82.78	-111.28	138.70	143.36	0.58
3400.00	1.01	91.34	3395.80	-111.76	84.33	-111.76	140.00	142.96	0.56
3500.00	1.11	83.07	3495.78	-111.66	86.17	-111.66	141.04	142.34	0.18
3600.00	0.59	91.93	3595.77	-111.56	87.64	-111.56	141.87	141.85	0.53
3700.00	1.40	95.85	3695.75	-111.70	89.37	-111.70	143.05	141.34	0.81
3800.00	2.26	104.51	3795.70	-112.32	92.49	-112.32	145.50	140.53	0.90
3900.00	1.91	103.87	3895.64	-113.21	96.02	-113.21	148.45	139.70	0.35
4000.00	3.10	117.56	3995.54	-114.87	100.04	-114.87	152.32	138.95	1.32
4100.00	4.24	121.63	4095.33	-118.06	105.58	-118.06	158.38	138.19	1.17
4155.00	4.38	126.10	4150.18	-120.36	109.01	-120.36	162.39	137.83	0.66



Vaughn Energy Services
Gardendale, TX
(432) 563-5444
Surveyor: Dustin Wedel
Cotton Draw Unit No. 219H / API 30-015-41363



VES Survey Date: 09/21/2013



Weatherford

Wft Survey Report X Y's.



Company: Devon Energy Field: Eddy Co., NM (NAD 83) Site: Cotton Draw Unit 219H Well: CDU 219H Wellpath: 1	Date: 10/17/2013 Time: 05:20:19 Page: 1 Co-ordinate(NE) Reference: Well: CDU 219H, Grid North Vertical (TVD) Reference: SITE 3478.0 Section (VS) Reference: Well (0.00N,0.00E,0.00Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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Survey: Wft Svy	Start Date: 9/24/2013
Company: Weatherford International Ltd.	Engineer: Russell Joyner
Tool: MWD;MWD - Standard	Tied-to: User Defined

Site: Cotton Draw Unit 219H

Site Position:	Northing: 419773.89 ft	Latitude: 32 9 9.579 N
From: Map	Easting: 723818.23 ft	Longitude: 103 44 37.296 W
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 3453.00 ft		Grid Convergence: 0.31 deg

Well: CDU 219H	Slot Name:
Well Position: +N/-S 0.00 ft	Northing: 419773.89 ft
+E/-W 0.00 ft	Easting: 723818.23 ft
Position Uncertainty: 0.00 ft	Latitude: 32 9 9.579 N
	Longitude: 103 44 37.296 W

Wellpath: 1	Drilled From: Surface
Current Datum: SITE	Tie-on Depth: 0.00 ft
Magnetic Data: 10/15/2013	Above System Datum: Mean Sea Level
Field Strength: 48346 nT	Declination: 7.37 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 60.03 deg
ft	+N/-S
ft	+E/-W
ft	Direction
ft	deg
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

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
4155.00	4.38	126.10	4150.18	-120.36	109.01	0.00	-120.36	419653.53	723927.24	Tie On SDI
4240.00	3.85	126.32	4234.96	-123.96	113.93	0.62	-123.96	419649.93	723932.16	First Wft Svy
4271.00	3.97	132.62	4265.88	-125.31	115.56	1.44	-125.31	419648.58	723933.79	
4303.00	4.43	139.96	4297.80	-127.00	117.17	2.21	-127.00	419646.89	723935.40	
4334.00	4.98	150.45	4328.70	-129.09	118.60	3.29	-129.09	419644.80	723936.83	
4366.00	5.30	154.30	4360.57	-131.63	119.93	1.47	-131.63	419642.26	723938.16	
4397.00	5.44	153.28	4391.43	-134.23	121.21	0.55	-134.23	419639.66	723939.44	
4428.00	5.78	153.74	4422.28	-136.94	122.56	1.11	-136.94	419636.95	723940.79	
4459.00	6.37	156.32	4453.11	-139.92	123.94	2.10	-139.92	419633.97	723942.17	
4491.00	7.25	162.06	4484.88	-143.47	125.28	3.47	-143.47	419630.42	723943.51	
4523.00	7.32	161.62	4516.62	-147.32	126.54	0.28	-147.32	419626.57	723944.77	
4554.00	7.34	163.27	4547.37	-151.09	127.74	0.68	-151.09	419622.80	723945.97	
4585.00	7.49	168.11	4578.11	-154.97	128.72	2.07	-154.97	419618.92	723946.95	
4617.00	7.32	173.89	4609.85	-159.03	129.37	2.39	-159.03	419614.86	723947.60	
4648.00	7.01	183.90	4640.60	-162.88	129.45	4.14	-162.88	419611.01	723947.68	
4680.00	6.63	192.91	4672.38	-166.63	128.91	3.54	-166.63	419607.26	723947.14	
4712.00	6.40	199.89	4704.17	-170.11	127.89	2.58	-170.11	419603.78	723946.12	
4743.00	6.16	206.54	4734.99	-173.22	126.56	2.47	-173.22	419600.67	723944.79	
4774.00	5.83	215.44	4765.82	-175.99	124.90	3.18	-175.99	419597.90	723943.13	
4806.00	6.25	229.77	4797.64	-178.44	122.63	4.88	-178.44	419595.45	723940.86	
4837.00	6.77	237.04	4828.44	-180.53	119.81	3.14	-180.53	419593.36	723938.04	
4869.00	7.31	243.92	4860.20	-182.45	116.39	3.13	-182.45	419591.44	723934.62	
4900.00	7.96	250.36	4890.93	-184.04	112.60	3.46	-184.04	419589.85	723930.83	
4931.00	8.55	257.40	4921.61	-185.26	108.33	3.77	-185.26	419588.63	723926.56	
4963.00	8.54	262.65	4953.25	-186.08	103.65	2.44	-186.08	419587.81	723921.88	
4995.00	8.48	263.04	4984.90	-186.67	98.95	0.26	-186.67	419587.22	723917.18	
5026.00	8.27	262.76	5015.57	-187.23	94.47	0.69	-187.23	419586.66	723912.70	
5120.00	8.10	261.39	5108.61	-189.08	81.22	0.28	-189.08	419584.81	723899.45	
5215.00	8.21	265.64	5202.65	-190.59	67.84	0.64	-190.59	419583.30	723886.07	
5309.00	8.40	265.67	5295.67	-191.62	54.30	0.20	-191.62	419582.27	723872.53	



Weatherford

Wft Survey Report X Y's.



Company: Devon Energy	Date: 10/17/2013	Time: 05:20:19	Page: 2
Field: Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference: Well: CDU 219H, Grid North		
Site: Cotton Draw Unit 219H	Vertical (TVD) Reference: SITE 3478.0		
Well: CDU 219H	Section (VS) Reference: Well (0.00N,0.00E,0.00Azi)		
Wellpath: 1	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
5404.00	7.87	266.37	5389.71	-192.56	40.89	0.57	-192.56	419581.33	723859.12	
5498.00	8.89	265.75	5482.71	-193.50	27.22	1.09	-193.50	419580.39	723845.45	
5592.00	8.59	265.89	5575.61	-194.55	12.98	0.32	-194.55	419579.34	723831.21	
5687.00	8.32	264.98	5669.58	-195.66	-0.95	0.32	-195.66	419578.23	723817.28	
5781.00	9.01	267.37	5762.51	-196.59	-15.07	0.83	-196.59	419577.30	723803.16	
5876.00	8.87	268.18	5856.35	-197.16	-29.83	0.20	-197.16	419576.73	723788.40	
5971.00	9.56	262.51	5950.13	-198.42	-44.97	1.20	-198.42	419575.47	723773.26	
6065.00	9.27	261.23	6042.86	-200.59	-60.19	0.38	-200.59	419573.30	723758.04	
6160.00	8.85	260.93	6136.68	-202.91	-74.97	0.44	-202.91	419570.98	723743.26	
6254.00	9.60	262.66	6229.46	-205.05	-89.88	0.85	-205.05	419568.84	723728.35	
6348.00	9.58	264.85	6322.15	-206.76	-105.45	0.39	-206.76	419567.13	723712.78	
6443.00	9.50	265.03	6415.83	-208.15	-121.13	0.09	-208.15	419565.74	723697.10	
6538.00	9.55	259.60	6509.53	-210.25	-136.69	0.95	-210.25	419563.64	723681.54	
6632.00	9.25	259.61	6602.26	-213.02	-151.79	0.32	-213.02	419560.87	723666.44	
6726.00	9.05	260.47	6695.07	-215.61	-166.51	0.26	-215.61	419558.28	723651.72	
6821.00	8.67	260.10	6788.93	-218.07	-180.94	0.40	-218.07	419555.82	723637.29	
6915.00	9.27	263.35	6881.78	-220.17	-195.44	0.84	-220.17	419553.72	723622.79	
7010.00	10.19	265.81	6975.42	-221.67	-211.42	1.06	-221.67	419552.22	723606.81	
7104.00	9.63	265.80	7068.01	-222.85	-227.55	0.60	-222.85	419551.04	723590.68	
7199.00	10.41	268.20	7161.57	-223.70	-244.06	0.93	-223.70	419550.19	723574.17	
7293.00	11.06	267.18	7253.92	-224.41	-261.55	0.72	-224.41	419549.48	723556.68	
7388.00	10.44	267.45	7347.25	-225.25	-279.25	0.65	-225.25	419548.64	723538.98	
7483.00	10.39	261.22	7440.69	-226.94	-296.32	1.19	-226.94	419546.95	723521.91	
7577.00	10.57	260.53	7533.12	-229.65	-313.20	0.23	-229.65	419544.24	723505.03	
7671.00	10.17	260.48	7625.59	-232.44	-329.89	0.43	-232.44	419541.45	723488.34	
7763.00	9.97	260.29	7716.17	-235.13	-345.75	0.22	-235.13	419538.76	723472.48	
7858.00	10.04	261.39	7809.72	-237.75	-362.04	0.21	-237.75	419536.14	723456.19	
7953.00	9.57	258.85	7903.34	-240.52	-377.97	0.67	-240.52	419533.37	723440.26	
8047.00	9.20	257.69	7996.08	-243.63	-392.98	0.44	-243.63	419530.26	723425.25	
8141.00	9.74	257.95	8088.80	-246.89	-408.10	0.58	-246.89	419527.00	723410.13	
8236.00	11.37	259.15	8182.19	-250.34	-425.16	1.73	-250.34	419523.55	723393.07	
8330.00	10.83	261.34	8274.43	-253.41	-442.99	0.73	-253.41	419520.48	723375.24	
8424.00	9.55	261.02	8366.94	-255.96	-459.42	1.36	-255.96	419517.93	723358.81	
8519.00	9.59	261.59	8460.62	-258.34	-475.03	0.11	-258.34	419515.55	723343.20	
8614.00	9.56	266.35	8554.30	-260.00	-490.74	0.83	-260.00	419513.89	723327.49	
8708.00	9.88	262.29	8646.95	-261.58	-506.52	0.80	-261.58	419512.31	723311.71	
8802.00	10.79	263.21	8739.42	-263.70	-523.25	0.98	-263.70	419510.19	723294.98	
8897.00	9.83	265.08	8832.89	-265.45	-540.16	1.07	-265.45	419508.44	723278.07	
8991.00	9.64	266.52	8925.54	-266.62	-556.01	0.33	-266.62	419507.27	723262.22	
9086.00	9.28	265.72	9019.24	-267.67	-571.58	0.40	-267.67	419506.22	723246.65	
9181.00	9.95	266.90	9112.91	-268.69	-587.42	0.74	-268.69	419505.20	723230.81	
9275.00	10.23	265.15	9205.46	-269.83	-603.85	0.44	-269.83	419504.06	723214.38	
9370.00	9.72	261.29	9299.02	-271.76	-620.18	0.88	-271.76	419502.13	723198.05	
9465.00	10.23	257.95	9392.59	-274.74	-636.36	0.81	-274.74	419499.15	723181.87	
9559.00	12.06	261.87	9484.81	-277.87	-654.24	2.11	-277.87	419496.02	723163.99	
9654.00	11.21	263.05	9577.86	-280.39	-673.23	0.93	-280.39	419493.50	723145.00	
9748.00	10.16	263.77	9670.23	-282.39	-690.55	1.13	-282.39	419491.50	723127.68	
9852.00	9.41	260.27	9772.71	-284.83	-708.04	0.92	-284.83	419489.06	723110.19	
9883.00	10.44	274.34	9803.25	-285.04	-713.34	8.47	-285.04	419488.85	723104.89	
9915.00	11.97	288.29	9834.65	-283.78	-719.39	9.69	-283.78	419490.11	723098.84	
9946.00	13.62	292.38	9864.88	-281.38	-725.82	6.07	-281.38	419492.51	723092.41	
9977.00	15.85	298.52	9894.86	-277.97	-732.91	8.77	-277.97	419495.92	723085.32	



Weatherford

Wft Survey Report X Y's.



Company: Devon Energy Field: Eddy Co., NM (NAD 83) Site: Cotton Draw Unit 219H Well: CDU 219H Wellpath: 1	Date: 10/17/2013 Time: 05:20:19 Page: 3 Co-ordinate(NE) Reference: Well: CDU 219H, Grid North Vertical (TVD) Reference: SITE 3478.0 Section (VS) Reference: Well (0.00N,0.00E,0.00Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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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
10009.00	16.77	308.04	9925.58	-273.04	-740.39	8.82	-273.04	419500.85	723077.84	
10041.00	18.68	315.71	9956.06	-266.52	-747.60	9.42	-266.52	419507.37	723070.63	
10072.00	21.84	319.81	9985.14	-258.56	-754.79	11.17	-258.56	419515.33	723063.44	
10104.00	24.83	322.30	10014.52	-248.70	-762.75	9.84	-248.70	419525.19	723055.48	
10135.00	28.20	323.40	10042.26	-237.66	-771.10	10.99	-237.66	419536.23	723047.13	
10167.00	31.70	325.05	10069.98	-224.70	-780.42	11.24	-224.70	419549.19	723037.81	
10198.00	34.89	327.79	10095.89	-210.52	-789.82	11.37	-210.52	419563.37	723028.41	
10230.00	36.62	332.99	10121.86	-194.26	-799.03	10.92	-194.26	419579.63	723019.20	
10261.00	39.43	337.34	10146.28	-176.94	-807.03	12.52	-176.94	419596.95	723011.20	
10293.00	43.23	338.57	10170.31	-157.35	-814.95	12.14	-157.35	419616.54	723003.28	
10324.00	46.43	339.05	10192.29	-136.97	-822.85	10.38	-136.97	419636.92	722995.38	
10356.00	50.06	341.02	10213.60	-114.54	-830.98	12.24	-114.54	419659.35	722987.25	
10387.00	53.41	342.35	10232.80	-91.43	-838.63	11.32	-91.43	419682.46	722979.60	
10419.00	55.44	343.15	10251.41	-66.58	-846.34	6.66	-66.58	419707.31	722971.89	
10451.00	58.42	346.23	10268.87	-40.72	-853.41	12.32	-40.72	419733.17	722964.82	
10482.00	61.67	348.13	10284.35	-14.53	-859.36	11.75	-14.53	419759.36	722958.87	
10514.00	65.32	348.89	10298.63	13.53	-865.06	11.60	13.53	419787.42	722953.17	
10545.00	68.30	350.96	10310.84	41.58	-870.04	11.40	41.58	419815.47	722948.19	
10577.00	70.82	353.84	10322.01	71.29	-874.00	11.54	71.29	419845.18	722944.23	
10608.00	74.57	355.62	10331.23	100.76	-876.71	13.28	100.76	419874.65	722941.52	
10640.00	77.46	355.46	10338.97	131.71	-879.12	9.04	131.71	419905.60	722939.11	
10671.00	80.31	355.43	10344.94	162.03	-881.54	9.19	162.03	419935.92	722936.69	
10703.00	80.94	355.51	10350.15	193.51	-884.03	1.98	193.51	419967.40	722934.20	
10734.00	81.09	355.16	10355.00	224.02	-886.52	1.22	224.02	419997.91	722931.71	
10766.00	82.36	355.52	10359.60	255.59	-889.10	4.12	255.59	420029.48	722929.13	
10797.00	85.45	357.79	10362.89	286.35	-890.89	12.34	286.35	420060.24	722927.34	
10829.00	86.64	0.83	10365.10	318.27	-891.28	10.18	318.27	420092.16	722926.95	
10860.00	86.92	1.37	10366.84	349.22	-890.68	1.96	349.22	420123.11	722927.55	
10892.00	86.64	1.08	10368.64	381.16	-890.00	1.26	381.16	420155.05	722928.23	
10981.00	88.04	0.34	10372.77	470.05	-888.90	1.78	470.05	420243.94	722929.33	
11075.00	89.65	359.24	10374.66	564.03	-889.24	2.07	564.03	420337.92	722928.99	
11170.00	91.75	357.99	10373.50	658.99	-891.54	2.57	658.99	420432.88	722926.69	
11264.00	92.31	357.85	10370.17	752.86	-894.95	0.61	752.86	420526.75	722923.28	
11359.00	90.70	359.89	10367.68	847.80	-896.82	2.73	847.80	420621.69	722921.41	
11453.00	89.72	0.37	10367.33	941.80	-896.61	1.16	941.80	420715.69	722921.62	
11547.00	88.74	0.82	10368.60	1035.79	-895.63	1.15	1035.79	420809.68	722922.60	
11642.00	91.05	359.80	10368.77	1130.78	-895.12	2.66	1130.78	420904.67	722923.11	
11736.00	91.82	359.85	10366.42	1224.75	-895.40	0.82	1224.75	420998.64	722922.83	
11831.00	93.71	359.91	10361.83	1319.63	-895.60	1.99	1319.63	421093.52	722922.63	
11926.00	90.56	1.14	10358.30	1414.55	-894.73	3.56	1414.55	421188.44	722923.50	
12020.00	90.84	2.09	10357.15	1508.50	-892.08	1.05	1508.50	421282.39	722926.15	
12115.00	90.00	1.67	10356.45	1603.45	-888.97	0.99	1603.45	421377.34	722929.26	
12209.00	90.35	2.19	10356.16	1697.39	-885.80	0.67	1697.39	421471.28	722932.43	
12304.00	92.10	3.10	10354.13	1792.27	-881.42	2.08	1792.27	421566.16	722936.81	
12398.00	89.16	2.31	10353.10	1886.15	-876.98	3.24	1886.15	421660.04	722941.25	
12493.00	87.97	0.49	10355.48	1981.08	-874.66	2.29	1981.08	421754.97	722943.57	
12587.00	88.88	359.84	10358.06	2075.04	-874.39	1.19	2075.04	421848.93	722943.84	
12681.00	90.21	358.22	10358.81	2169.02	-875.98	2.23	2169.02	421942.91	722942.25	
12776.00	92.24	357.57	10356.78	2263.93	-879.47	2.24	2263.93	422037.82	722938.76	
12870.00	90.28	357.04	10354.71	2357.80	-883.89	2.16	2357.80	422131.69	722934.34	
12965.00	91.05	357.57	10353.61	2452.69	-888.36	0.98	2452.69	422226.58	722929.87	
13059.00	91.05	358.41	10351.89	2546.61	-891.65	0.89	2546.61	422320.50	722926.58	
13154.00	91.75	358.47	10349.56	2641.55	-894.24	0.74	2641.55	422415.44	722923.99	



Weatherford

Wft Survey Report X Y's.



Company: Devon Energy Field: Eddy Co., NM (NAD 83) Site: Cotton Draw Unit 219H Well: CDU 219H Wellpath: 1	Date: 10/17/2013 Time: 05:20:19 Page: 4 Co-ordinate(NE) Reference: Well: CDU 219H, Grid North Vertical (TVD) Reference: SITE 3478.0 Section (VS) Reference: Well (0.00N,0.00E,0.00Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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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
13249.00	94.41	359.03	10344.46	2736.38	-896.31	2.86	2736.38	422510.27	722921.92	
13343.00	95.67	359.45	10336.20	2830.01	-897.55	1.41	2830.01	422603.90	722920.68	
13438.00	95.39	359.67	10327.05	2924.56	-898.28	0.37	2924.56	422698.45	722919.95	
13532.00	93.01	357.99	10320.16	3018.28	-900.19	3.10	3018.28	422792.17	722918.04	
13626.00	90.42	359.21	10317.35	3112.20	-902.49	3.05	3112.20	422886.09	722915.74	
13721.00	89.02	0.62	10317.82	3207.19	-902.63	2.09	3207.19	422981.08	722915.60	
13815.00	89.58	0.43	10318.96	3301.18	-901.77	0.63	3301.18	423075.07	722916.46	
13910.00	89.86	0.12	10319.43	3396.18	-901.31	0.44	3396.18	423170.07	722916.92	
14004.00	89.37	0.06	10320.06	3490.18	-901.16	0.53	3490.18	423264.07	722917.07	
14098.00	90.21	0.07	10320.40	3584.18	-901.06	0.89	3584.18	423358.07	722917.17	
14193.00	91.19	359.62	10319.24	3679.17	-901.31	1.14	3679.17	423453.06	722916.92	
14287.00	90.77	359.29	10317.64	3773.15	-902.21	0.57	3773.15	423547.04	722916.02	
14382.00	89.51	359.34	10317.40	3868.14	-903.34	1.33	3868.14	423642.03	722914.89	
14476.00	89.02	0.74	10318.61	3962.13	-903.28	1.58	3962.13	423736.02	722914.95	
14571.00	87.62	0.77	10321.39	4057.08	-902.03	1.47	4057.08	423830.97	722916.20	
14665.00	88.67	0.28	10324.44	4151.02	-901.17	1.23	4151.02	423924.91	722917.06	
14760.00	89.86	359.96	10325.66	4246.01	-900.97	1.30	4246.01	424019.90	722917.26	
14855.00	88.81	0.07	10326.76	4341.00	-900.94	1.11	4341.00	424114.89	722917.29	
14949.00	90.14	359.68	10327.62	4435.00	-901.15	1.47	4435.00	424208.89	722917.08	
15044.00	90.84	359.33	10326.81	4529.99	-901.97	0.82	4529.99	424303.88	722916.26	
15138.00	91.96	359.93	10324.51	4623.96	-902.57	1.35	4623.96	424397.85	722915.66	
15213.00	92.94	359.78	10321.30	4698.89	-902.76	1.32	4698.89	424472.78	722915.47	Last Wft Svy
15280.00	92.94	359.78	10317.87	4765.80	-903.02	0.00	4765.80	424539.69	722915.21	Proj. To Bit

Annotation

MD ft	TVD ft	
4155.00	4150.18	Tie On SDI
4240.00	4234.96	First Wft Svy
15213.00	10321.30	Last Wft Svy
15280.00	10317.87	Proj. To Bit