



CARRIZO

CARRIZO OIL & GAS, INC.

Field: Niobrara CONZ'83

Site: Ohare 1-29-11-57 Pad

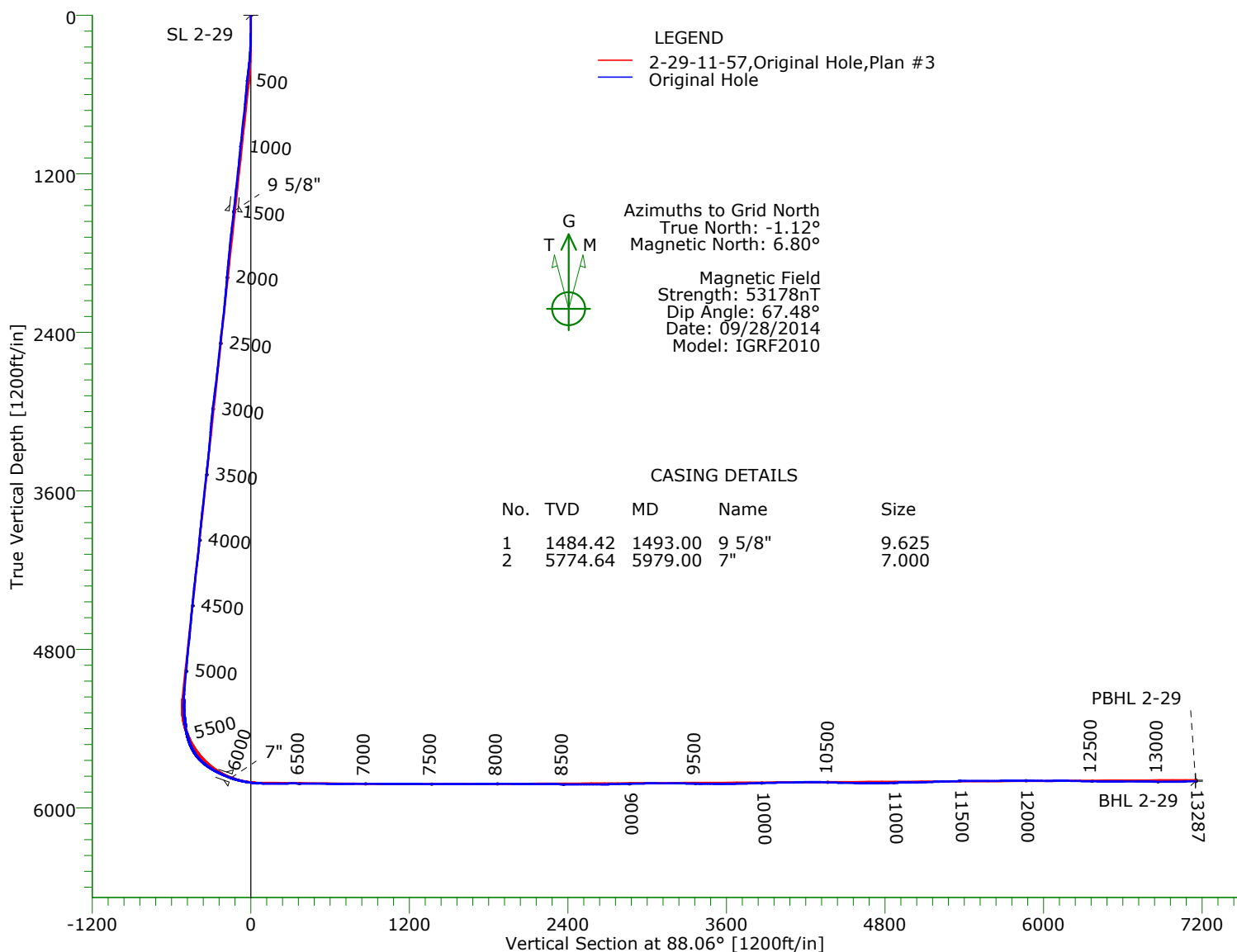
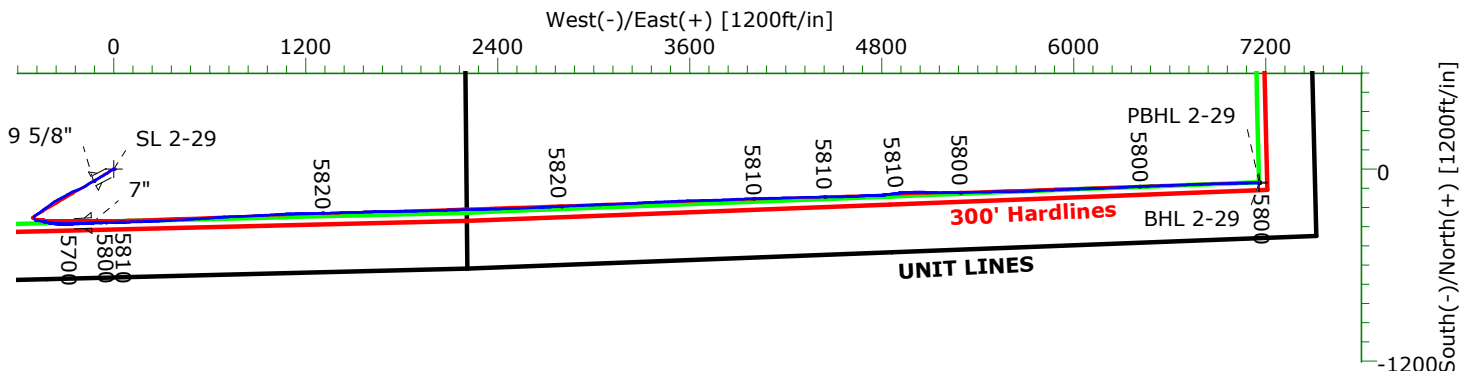
Well: 2-29-11-57

Wellpath: Original Hole



Precision

Directional Services



TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SL 2-29	0.00	0.00	0.00	1572389.14	3477205.94	40°53'30.560N	103°46'26.297W	Point
PBHL 2-29	5790.00	-82.41	7158.46	1572306.73	3484364.40	40°53'28.359N	103°44'53.131W	Point
BHL 2-29	5799.84	-87.33	7158.02	1572301.81	3484363.96	40°53'28.311N	103°44'53.138W	Point

Wellpath: (2-29-11-57/Original Hole)

Created By: Shane Nelson

Date: 10/15/2014

PRECISION DIRECTIONAL SERVICES, INC.

713.435.6250

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC. Field: Niobrara CONZ'83 Site: Ohare 1-29-11-57 Pad Well: 2-29-11-57 Wellpath: Original Hole	Date: 10/15/2014 Co-ordinate(NE) Reference: Well: 2-29-11-57, Grid North Vertical (TVD) Reference: 4927'GL+17'KB 4944.0 Section (VS) Reference: Well (0.00N,0.00E,88.06Azi) Survey Calculation Method: Minimum Curvature	Time: 10:45:44 Page: 1 Db: Adapti
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Field: Niobrara CONZ'83 Map System: US State Plane Coordinate System 1983 Geo Datum: GRS 1980 Sys Datum: Mean Sea Level	Map Zone: Colorado, Northern Zone Coordinate System: Well Centre Geomagnetic Model: IGRF2010
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Site: Ohare 1-29-11-57 Pad First plans use lats/longs (x&y) unavailable Weld County, Colorado Site Position: From: Geographic Position Uncertainty: 0.00 ft Ground Level: 4927.00 ft	Northing: 1572399.02 ft Easting: 3477200.69 ft Latitude: 40 53 30.659 N Longitude: 103 46 26.363 W North Reference: Grid Grid Convergence: 1.12 deg
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Well: 2-29-11-57 Well Position: +N/-S -9.88 ft +E/-W 5.25 ft Position Uncertainty: 0.00 ft	Slot Name: Latitude: 40 53 30.560 N Longitude: 103 46 26.297 W
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Wellpath: Original Hole Current Datum: 4927'GL+17'KB Magnetic Data: 09/28/2014 Field Strength: 53178 nT Vertical Section: Depth From (TVD) ft	Height 4944.00 ft +N/-S ft	Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 7.91 deg Mag Dip Angle: 67.48 deg +E/-W ft Direction deg
0.00	0.00	0.00 88.06

Survey Program for Definitive Wellpath					
Date: 10/15/2014	Validated: No	Version: 1			
Actual From ft	To ft	Survey	Toolcode	Tool Name	
138.00	13215.00	Survey #1 (138.00-13215.00)	MWD	Std MWD	
13287.00	13287.00	Survey #2 (13287.00-13287.00)	Project	Projection	

Survey										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIE LINE
138.00	0.20	163.80	138.00	-0.23	0.07	0.06	0.14	0.14	0.00	MWD
231.00	2.40	247.30	230.97	-1.14	-1.68	-1.72	2.57	2.37	89.78	MWD
319.00	4.90	242.50	318.79	-3.59	-6.72	-6.84	2.86	2.84	-5.45	MWD
409.00	8.20	244.10	408.19	-8.17	-15.90	-16.17	3.67	3.67	1.78	MWD
499.00	6.90	231.60	497.41	-14.33	-25.92	-26.39	2.32	-1.44	-13.89	MWD
588.00	6.50	224.90	585.80	-21.22	-33.66	-34.36	0.99	-0.45	-7.53	MWD
679.00	6.70	239.20	676.21	-27.58	-41.86	-42.77	1.81	0.22	15.71	MWD
770.00	6.90	241.30	766.57	-32.93	-51.21	-52.30	0.35	0.22	2.31	MWD
861.00	6.90	242.00	856.91	-38.12	-60.83	-62.09	0.09	0.00	0.77	MWD
953.00	6.60	241.50	948.27	-43.24	-70.36	-71.78	0.33	-0.33	-0.54	MWD
1043.00	6.30	240.40	1037.70	-48.14	-79.20	-80.78	0.36	-0.33	-1.22	MWD
1133.00	7.00	239.50	1127.09	-53.37	-88.22	-89.97	0.79	0.78	-1.00	MWD
1224.00	7.20	238.10	1217.40	-59.19	-97.84	-99.78	0.29	0.22	-1.54	MWD
1315.00	7.00	234.60	1307.70	-65.42	-107.20	-109.35	0.52	-0.22	-3.85	MWD
1406.00	6.90	242.30	1398.03	-71.17	-116.56	-118.90	1.03	-0.11	8.46	MWD
1434.00	6.90	242.20	1425.83	-72.74	-119.53	-121.93	0.04	0.00	-0.36	MWD
1479.00	6.70	242.30	1470.51	-75.22	-124.25	-126.72	0.45	-0.44	0.22	MWD
1564.00	6.90	241.50	1554.92	-79.96	-133.13	-135.76	0.26	0.24	-0.94	MWD
1649.00	7.40	242.30	1639.25	-84.94	-142.46	-145.25	0.60	0.59	0.94	MWD
1734.00	6.90	239.00	1723.59	-90.12	-151.68	-154.65	0.76	-0.59	-3.88	MWD
1819.00	6.50	236.90	1808.01	-95.37	-160.09	-163.23	0.55	-0.47	-2.47	MWD

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC.	Date: 10/15/2014	Time: 10:45:44	Page: 2
Field: Niobrara CONZ'83	Co-ordinate(NE) Reference: Well: 2-29-11-57, Grid North		
Site: Ohare 1-29-11-57 Pad	Vertical (TVD) Reference: 4927'GL+17'KB 4944.0		
Well: 2-29-11-57	Section (VS) Reference: Well (0.00N,0.00E,88.06Azi)		
Wellpath: Original Hole	Survey Calculation Method: Minimum Curvature		Db: Adapti

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1904.00	6.20	233.20	1892.49	-100.75	-167.80	-171.11	0.60	-0.35	-4.35	MWD
1988.00	5.80	236.20	1976.03	-105.83	-174.96	-178.44	0.60	-0.48	3.57	MWD
2072.00	5.40	233.60	2059.63	-110.53	-181.66	-185.30	0.56	-0.48	-3.10	MWD
2158.00	5.90	245.00	2145.22	-114.80	-188.93	-192.71	1.43	0.58	13.26	MWD
2243.00	6.40	248.50	2229.73	-118.39	-197.29	-201.19	0.74	0.59	4.12	MWD
2328.00	6.80	248.30	2314.16	-121.98	-206.38	-210.39	0.47	0.47	-0.24	MWD
2413.00	7.10	250.10	2398.54	-125.63	-215.99	-220.12	0.44	0.35	2.12	MWD
2497.00	6.50	245.30	2481.95	-129.39	-225.19	-229.44	0.98	-0.71	-5.71	MWD
2582.00	6.50	248.30	2566.40	-133.18	-234.04	-238.41	0.40	0.00	3.53	MWD
2667.00	6.20	246.00	2650.88	-136.82	-242.70	-247.19	0.46	-0.35	-2.71	MWD
2752.00	7.30	247.60	2735.29	-140.75	-251.88	-256.50	1.31	1.29	1.88	MWD
2837.00	7.60	248.10	2819.57	-144.90	-262.09	-266.85	0.36	0.35	0.59	MWD
2922.00	8.00	243.10	2903.79	-149.67	-272.58	-277.49	0.93	0.47	-5.88	MWD
3007.00	7.60	240.10	2988.00	-155.15	-282.73	-287.82	0.67	-0.47	-3.53	MWD
3092.00	6.30	236.40	3072.37	-160.53	-291.49	-296.76	1.62	-1.53	-4.35	MWD
3177.00	5.40	235.00	3156.93	-165.41	-298.65	-304.08	1.07	-1.06	-1.65	MWD
3262.00	5.50	238.70	3241.55	-169.82	-305.41	-310.98	0.43	0.12	4.35	MWD
3347.00	6.20	243.90	3326.10	-173.95	-313.01	-318.72	1.03	0.82	6.12	MWD
3432.00	6.60	247.10	3410.57	-177.88	-321.63	-327.47	0.63	0.47	3.76	MWD
3517.00	7.20	241.30	3494.96	-182.33	-330.80	-336.79	1.08	0.71	-6.82	MWD
3602.00	7.20	240.80	3579.29	-187.49	-340.13	-346.28	0.07	0.00	-0.59	MWD
3687.00	7.40	241.80	3663.60	-192.68	-349.60	-355.92	0.28	0.24	1.18	MWD
3772.00	6.90	242.00	3747.94	-197.66	-358.93	-365.42	0.59	-0.59	0.24	MWD
3858.00	6.40	238.70	3833.36	-202.58	-367.59	-374.24	0.73	-0.58	-3.84	MWD
3943.00	6.50	233.40	3917.82	-207.90	-375.50	-382.32	0.71	0.12	-6.24	MWD
4028.00	6.80	232.00	4002.25	-213.87	-383.33	-390.35	0.40	0.35	-1.65	MWD
4113.00	7.30	233.40	4086.61	-220.19	-391.63	-398.86	0.62	0.59	1.65	MWD
4198.00	8.20	235.70	4170.83	-226.83	-400.97	-408.42	1.12	1.06	2.71	MWD
4283.00	7.90	236.20	4254.99	-233.49	-410.83	-418.50	0.36	-0.35	0.59	MWD
4368.00	7.40	235.50	4339.24	-239.84	-420.20	-428.08	0.60	-0.59	-0.82	MWD
4453.00	6.70	235.80	4423.59	-245.73	-428.81	-436.88	0.82	-0.82	0.35	MWD
4537.00	7.00	234.30	4506.99	-251.47	-437.02	-445.28	0.42	0.36	-1.79	MWD
4621.00	6.20	227.60	4590.44	-257.52	-444.53	-452.99	1.32	-0.95	-7.98	MWD
4706.00	6.80	228.30	4674.89	-263.96	-451.67	-460.35	0.71	0.71	0.82	MWD
4790.00	7.30	236.20	4758.26	-270.24	-459.82	-468.71	1.30	0.60	9.40	MWD
4874.00	6.90	237.80	4841.61	-275.89	-468.53	-477.60	0.53	-0.48	1.90	MWD
4959.00	5.60	236.40	4926.11	-280.91	-476.30	-485.54	1.54	-1.53	-1.65	MWD
5044.00	5.80	234.60	5010.69	-285.69	-483.26	-492.65	0.32	0.24	-2.12	MWD
5130.00	5.90	235.50	5096.24	-290.71	-490.44	-500.00	0.16	0.12	1.05	MWD
5172.00	5.50	237.80	5138.03	-293.01	-493.92	-503.56	1.10	-0.95	5.48	MWD
5215.00	5.40	219.10	5180.84	-295.68	-496.94	-506.67	4.12	-0.23	-43.49	MWD
5256.00	7.50	184.30	5221.59	-299.84	-498.36	-508.23	10.59	5.12	-84.88	MWD
5298.00	11.20	166.80	5263.04	-306.55	-497.63	-507.73	11.01	8.81	-41.67	MWD
5341.00	12.40	152.00	5305.14	-314.70	-494.51	-504.88	7.55	2.79	-34.42	MWD
5383.00	10.00	127.60	5346.36	-320.91	-489.50	-500.09	12.52	-5.71	-58.10	MWD
5426.00	8.10	88.70	5388.86	-323.12	-483.51	-494.17	14.57	-4.42	-90.47	MWD
5468.00	10.20	87.00	5430.32	-322.86	-476.84	-487.49	5.04	5.00	-4.05	MWD
5510.00	15.70	96.10	5471.24	-323.27	-467.47	-478.14	13.93	13.10	21.67	MWD
5553.00	21.10	101.50	5512.03	-325.43	-454.08	-464.84	13.16	12.56	12.56	MWD
5594.00	27.30	103.70	5549.41	-329.13	-437.70	-448.59	15.28	15.12	5.37	MWD
5637.00	33.80	101.20	5586.42	-333.79	-416.37	-427.43	15.40	15.12	-5.81	MWD
5679.00	40.80	98.90	5619.81	-338.19	-391.32	-402.54	16.99	16.67	-5.48	MWD
5722.00	47.90	95.60	5650.55	-341.93	-361.52	-372.89	17.36	16.51	-7.67	MWD

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC.	Date: 10/15/2014	Time: 10:45:44	Page: 3
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Well: 2-29-11-57	Section (VS) Reference: Well (0.00N,0.00E,88.06Azi)		
Wellpath: Original Hole	Survey Calculation Method: Minimum Curvature	Db: Adapti	

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
5763.00	52.60	91.00	5676.76	-343.70	-330.07	-341.52	14.34	11.46	-11.22	MWD
5806.00	57.70	89.40	5701.33	-343.81	-294.80	-306.27	12.25	11.86	-3.72	MWD
5848.00	61.50	88.20	5722.58	-343.04	-258.59	-270.05	9.38	9.05	-2.86	MWD
5891.00	65.00	86.80	5741.93	-341.36	-220.23	-231.66	8.64	8.14	-3.26	MWD
5935.00	68.30	87.30	5759.37	-339.28	-179.89	-191.28	7.57	7.50	1.14	MWD
6024.00	73.90	88.00	5788.19	-335.84	-95.80	-107.11	6.34	6.29	0.79	MWD
6066.00	77.90	88.50	5798.41	-334.60	-55.09	-66.39	9.59	9.52	1.19	MWD
6109.00	81.00	88.50	5806.29	-333.49	-12.84	-24.12	7.21	7.21	0.00	MWD
6151.00	83.10	88.70	5812.10	-332.47	28.74	17.47	5.02	5.00	0.48	MWD
6193.00	88.20	89.10	5815.28	-331.67	70.60	59.33	12.18	12.14	0.95	MWD
6236.00	89.10	88.50	5816.29	-330.77	113.58	102.32	2.52	2.09	-1.40	MWD
6321.00	90.20	88.40	5816.81	-328.47	198.55	187.31	1.30	1.29	-0.12	MWD
6406.00	90.70	87.00	5816.14	-325.06	283.47	272.31	1.75	0.59	-1.65	MWD
6491.00	89.40	87.10	5816.07	-320.69	368.36	357.29	1.53	-1.53	0.12	MWD
6576.00	89.70	86.80	5816.74	-316.16	453.23	442.27	0.50	0.35	-0.35	MWD
6661.00	89.30	86.40	5817.48	-311.12	538.08	527.24	0.67	-0.47	-0.47	MWD
6746.00	89.50	85.40	5818.37	-305.05	622.86	612.17	1.20	0.24	-1.18	MWD
6831.00	89.40	87.10	5819.19	-299.49	707.67	697.13	2.00	-0.12	2.00	MWD
6915.00	90.10	87.70	5819.55	-295.68	791.58	781.12	1.10	0.83	0.71	MWD
7000.00	90.00	87.70	5819.48	-292.27	876.51	866.12	0.12	-0.12	0.00	MWD
7084.00	90.00	86.30	5819.48	-287.87	960.40	950.10	1.67	0.00	-1.67	MWD
7169.00	90.70	86.60	5818.96	-282.61	1045.23	1035.06	0.90	0.82	0.35	MWD
7254.00	90.10	88.70	5818.37	-279.12	1130.15	1120.05	2.57	-0.71	2.47	MWD
7339.00	89.30	89.60	5818.81	-277.86	1215.14	1205.04	1.42	-0.94	1.06	MWD
7424.00	89.20	88.50	5819.92	-276.45	1300.12	1290.02	1.30	-0.12	-1.29	MWD
7508.00	89.60	88.00	5820.80	-273.89	1384.07	1374.01	0.76	0.48	-0.60	MWD
7594.00	90.70	89.10	5820.58	-271.71	1470.04	1460.00	1.81	1.28	1.28	MWD
7678.00	88.80	87.50	5820.94	-269.22	1554.00	1544.00	2.96	-2.26	-1.90	MWD
7764.00	90.60	89.10	5821.39	-266.67	1639.95	1629.99	2.80	2.09	1.86	MWD
7849.00	91.90	89.60	5819.54	-265.70	1724.93	1714.94	1.64	1.53	0.59	MWD
7934.00	90.10	89.10	5818.06	-264.74	1809.90	1799.91	2.20	-2.12	-0.59	MWD
8018.00	89.40	88.70	5818.42	-263.13	1893.89	1883.89	0.96	-0.83	-0.48	MWD
8103.00	89.60	88.40	5819.17	-260.98	1978.86	1968.89	0.42	0.24	-0.35	MWD
8189.00	88.50	87.30	5820.59	-257.75	2064.78	2054.87	1.81	-1.28	-1.28	MWD
8274.00	90.10	89.20	5821.63	-255.16	2149.73	2139.86	2.92	1.88	2.24	MWD
8359.00	90.70	88.70	5821.04	-253.60	2234.71	2224.85	0.92	0.71	-0.59	MWD
8444.00	88.70	88.50	5821.48	-251.52	2319.68	2309.84	2.36	-2.35	-0.24	MWD
8529.00	89.90	88.70	5822.52	-249.44	2404.65	2394.83	1.43	1.41	0.24	MWD
8614.00	90.00	88.00	5822.59	-247.00	2489.61	2479.82	0.83	0.12	-0.82	MWD
8699.00	89.80	87.70	5822.74	-243.81	2574.55	2564.82	0.42	-0.24	-0.35	MWD
8784.00	90.10	87.70	5822.82	-240.40	2659.48	2649.82	0.35	0.35	0.00	MWD
8868.00	91.80	87.00	5821.42	-236.51	2743.38	2733.80	2.19	2.02	-0.83	MWD
8953.00	91.20	87.10	5819.20	-232.14	2828.24	2818.76	0.72	-0.71	0.12	MWD
9038.00	90.90	87.70	5817.64	-228.29	2913.13	2903.74	0.79	-0.35	0.71	MWD
9123.00	91.50	88.00	5815.86	-225.10	2998.06	2988.72	0.79	0.71	0.35	MWD
9208.00	89.80	87.50	5814.90	-221.76	3082.98	3073.71	2.08	-2.00	-0.59	MWD
9294.00	90.00	87.50	5815.05	-218.01	3168.90	3159.70	0.23	0.23	0.00	MWD
9378.00	89.50	87.00	5815.41	-213.98	3252.80	3243.69	0.84	-0.60	-0.60	MWD
9463.00	88.60	86.60	5816.82	-209.24	3337.66	3328.66	1.16	-1.06	-0.47	MWD
9549.00	89.50	87.80	5818.25	-205.04	3423.54	3414.64	1.74	1.05	1.40	MWD
9634.00	89.30	87.50	5819.14	-201.55	3508.46	3499.63	0.42	-0.24	-0.35	MWD
9719.00	90.40	88.50	5819.36	-198.58	3593.41	3584.63	1.75	1.29	1.18	MWD
9804.00	91.20	88.90	5818.17	-196.66	3678.38	3669.61	1.05	0.94	0.47	MWD
9889.00	91.50	88.00	5816.17	-194.36	3763.32	3754.58	1.12	0.35	-1.06	MWD

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC. Field: Niobrara CONZ'83 Site: Ohare 1-29-11-57 Pad Well: 2-29-11-57 Wellpath: Original Hole	Date: 10/15/2014 Time: 10:45:44 Page: 4 Co-ordinate(NE) Reference: Well: 2-29-11-57, Grid North Vertical (TVD) Reference: 4927'GL+17'KB 4944.0 Section (VS) Reference: Well (0.00N,0.00E,88.06Azi) Survey Calculation Method: Minimum Curvature Db: Adapti
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Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
9974.00	92.00	87.50	5813.58	-191.02	3848.22	3839.54	0.83	0.59	-0.59	MWD
10059.00	91.40	87.70	5811.05	-187.46	3933.10	3924.50	0.74	-0.71	0.24	MWD
10144.00	90.40	88.50	5809.72	-184.65	4018.04	4009.49	1.51	-1.18	0.94	MWD
10229.00	91.10	88.90	5808.61	-182.72	4103.01	4094.48	0.95	0.82	0.47	MWD
10280.00	92.00	88.40	5807.23	-181.52	4153.98	4145.46	2.02	1.76	-0.98	MWD
10365.00	90.90	88.50	5805.08	-179.22	4238.92	4230.42	1.30	-1.29	0.12	MWD
10450.00	88.10	88.50	5805.82	-176.99	4323.88	4315.41	3.29	-3.29	0.00	MWD
10535.00	87.90	88.90	5808.78	-175.07	4408.81	4400.35	0.53	-0.24	0.47	MWD
10620.00	88.50	89.60	5811.45	-173.95	4493.76	4485.29	1.08	0.71	0.82	MWD
10705.00	88.50	88.40	5813.68	-172.47	4578.71	4570.25	1.41	0.00	-1.41	MWD
10790.00	89.90	86.40	5814.87	-168.62	4663.61	4655.23	2.87	1.65	-2.35	MWD
10875.00	91.10	89.80	5814.12	-165.80	4748.55	4740.21	4.24	1.41	4.00	MWD
10959.00	91.80	81.90	5812.00	-159.73	4832.23	4824.06	9.44	0.83	-9.40	MWD
11044.00	91.10	84.50	5809.84	-149.67	4916.60	4908.72	3.17	-0.82	3.06	MWD
11129.00	90.20	89.10	5808.88	-144.92	5001.44	4993.67	5.51	-1.06	5.41	MWD
11214.00	91.80	91.50	5807.40	-145.37	5086.42	5078.58	3.39	1.88	2.82	MWD
11299.00	92.70	91.40	5804.06	-147.52	5171.32	5163.36	1.07	1.06	-0.12	MWD
11384.00	91.40	89.10	5801.02	-147.89	5256.26	5248.24	3.11	-1.53	-2.71	MWD
11469.00	91.90	88.70	5798.57	-146.26	5341.21	5333.20	0.75	0.59	-0.47	MWD
11554.00	89.90	88.70	5797.24	-144.33	5426.17	5418.17	2.35	-2.35	0.00	MWD
11639.00	90.80	89.10	5796.72	-142.70	5511.15	5503.16	1.16	1.06	0.47	MWD
11725.00	89.90	88.70	5796.19	-141.05	5597.13	5589.15	1.15	-1.05	-0.47	MWD
11810.00	90.50	88.70	5795.89	-139.12	5682.11	5674.15	0.71	0.71	0.00	MWD
11895.00	89.60	87.30	5795.82	-136.15	5767.06	5759.14	1.96	-1.06	-1.65	MWD
11980.00	90.70	87.30	5795.60	-132.15	5851.96	5844.13	1.29	1.29	0.00	MWD
12065.00	89.60	88.00	5795.38	-128.66	5936.89	5929.13	1.53	-1.29	0.82	MWD
12150.00	89.50	87.80	5796.04	-125.55	6021.83	6014.13	0.26	-0.12	-0.24	MWD
12235.00	91.10	88.20	5795.60	-122.58	6106.77	6099.12	1.94	1.88	0.47	MWD
12320.00	88.80	87.50	5795.67	-119.39	6191.71	6184.11	2.83	-2.71	-0.82	MWD
12405.00	88.50	87.50	5797.67	-115.69	6276.60	6269.09	0.35	-0.35	0.00	MWD
12490.00	89.20	87.10	5799.38	-111.68	6361.49	6354.06	0.95	0.82	-0.47	MWD
12575.00	89.40	87.80	5800.42	-107.90	6446.40	6439.05	0.86	0.24	0.82	MWD
12660.00	90.60	88.50	5800.42	-105.16	6531.35	6524.05	1.63	1.41	0.82	MWD
12746.00	89.30	87.80	5800.49	-102.38	6617.30	6610.05	1.72	-1.51	-0.81	MWD
12831.00	89.40	87.80	5801.46	-99.12	6702.24	6695.04	0.12	0.12	0.00	MWD
12916.00	90.00	87.50	5801.90	-95.63	6787.16	6780.03	0.79	0.71	-0.35	MWD
13001.00	89.40	88.50	5802.35	-92.67	6872.11	6865.03	1.37	-0.71	1.18	MWD
13086.00	89.80	88.50	5802.94	-90.44	6957.08	6950.03	0.47	0.47	0.00	MWD
13171.00	90.70	89.10	5802.57	-88.66	7042.06	7035.02	1.27	1.06	0.71	MWD
13215.00	91.50	89.40	5801.73	-88.09	7086.04	7079.00	1.94	1.82	0.68	MWD
13287.00	91.50	89.40	5799.84	-87.33	7158.02	7150.96	0.00	0.00	0.00	PROJECTED to TD