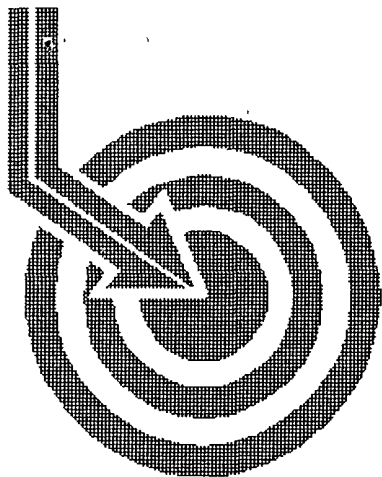




Scientific Drilling

30-015-37309

BOPCO

Field: Quahada Ridge
Site: Eddy County, NM
Well: Hudson 1 Federal #10H
Wellpath: VH - Job #32K0310201
Survey: 03/22/10

Bureau of Land Management
RECEIVED

AUG 25 2010

Carlsbad Field Office
Carlsbad, N.M.

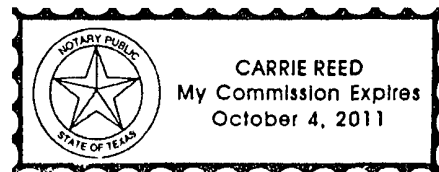
This survey is correct to the best of my knowledge and is supported by actual field data.

Richardson
Company Representative

Notarized this date 13th of April, 2010.

Carrie Reed
Notary Signature
County of Midland
State of Texas

SR
4/15/2010





Scientific Drilling International, Inc.

Survey Report

Company: BOPCO
 Field: Quahada Ridge
 Site: Eddy County, NM
 Well: Hudson 1 Federal #10H
 Wellpath: VH - Job #32K0310201

Date: 3/25/2010 Time: 15:29:18 Page: 1
 Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
 Vertical (TVD) Reference: SITE 0.0
 Section (VS) Reference: Well (0.00N,0.00E,259.09Azi)
 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 03/22/10 Start Date: 3/22/2010
 Company: Scientific Drilling Internatio Engineer: Guebara/Sutherland/Renteria
 Tool: KSRG, Keeper Gyro Tied-to: From Surface

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.0	0.00	359.73	0.0	0.0	0.0	0.0	0.00	0.0	0.00
100.0	0.75	7.73	100.0	-0.2	0.6	0.1	0.75	0.7	7.73
200.0	0.10	322.34	200.0	-0.4	1.4	0.1	0.68	1.4	5.13
300.0	0.12	327.03	300.0	-0.3	1.5	0.0	0.02	1.5	0.47
400.0	0.30	17.71	400.0	-0.4	1.9	0.0	0.24	1.9	1.08
500.0	0.18	343.67	500.0	-0.5	2.3	0.1	0.18	2.3	1.79
600.0	0.32	32.41	600.0	-0.7	2.6	0.2	0.24	2.7	3.81
700.0	0.15	335.32	700.0	-0.8	3.0	0.3	0.27	3.0	5.16
800.0	0.19	347.77	800.0	-0.8	3.3	0.2	0.05	3.3	3.16
900.0	0.25	22.55	900.0	-0.9	3.6	0.2	0.14	3.7	3.61
1000.0	0.25	36.74	1000.0	-1.2	4.0	0.4	0.06	4.0	6.30
1100.0	0.13	327.54	1100.0	-1.3	4.3	0.5	0.24	4.3	6.82
1200.0	0.34	78.86	1200.0	-1.6	4.4	0.7	0.41	4.5	9.50
1300.0	0.27	181.15	1300.0	-1.8	4.3	1.0	0.48	4.4	13.57
1400.0	0.31	88.81	1400.0	-2.0	4.0	1.3	0.42	4.2	17.79
1500.0	0.32	134.01	1500.0	-2.5	3.8	1.8	0.24	4.2	24.66
1600.0	0.20	285.05	1600.0	-2.5	3.7	1.8	0.50	4.1	25.93
1700.0	0.17	258.55	1700.0	-2.2	3.7	1.5	0.09	4.0	21.79
1800.0	0.30	200.56	1800.0	-1.9	3.4	1.2	0.25	3.7	19.93
1900.0	0.35	116.59	1900.0	-2.0	3.1	1.4	0.44	3.4	25.04
2000.0	0.38	113.48	2000.0	-2.5	2.8	2.0	0.04	3.4	35.71
2100.0	0.36	91.13	2100.0	-3.1	2.7	2.6	0.14	3.7	44.69
2200.0	0.27	205.27	2200.0	-3.2	2.4	2.8	0.53	3.7	49.39
2300.0	0.23	59.25	2300.0	-3.3	2.3	2.9	0.48	3.7	51.40
2400.0	0.12	306.71	2400.0	-3.4	2.5	3.0	0.30	3.9	50.31
2500.0	0.03	302.22	2500.0	-3.3	2.6	2.9	0.09	3.9	48.44
2600.0	0.21	333.62	2600.0	-3.3	2.7	2.8	0.19	3.9	45.48
2700.0	0.12	337.61	2700.0	-3.2	3.0	2.7	0.09	4.0	41.61
2800.0	0.23	160.62	2800.0	-3.2	2.9	2.7	0.35	4.0	42.78
2900.0	0.19	319.12	2900.0	-3.1	2.8	2.7	0.41	3.9	42.97
3000.0	0.32	66.92	3000.0	-3.3	3.1	2.8	0.42	4.2	42.26
3100.0	0.40	83.91	3100.0	-4.0	3.2	3.4	0.13	4.7	46.52
3200.0	0.62	92.50	3200.0	-4.8	3.2	4.3	0.23	5.4	52.93
3300.0	0.63	97.93	3300.0	-5.9	3.1	5.4	0.06	6.2	59.70
3400.0	0.85	88.37	3400.0	-7.1	3.1	6.7	0.25	7.3	65.13
3500.0	0.82	100.02	3499.9	-8.5	3.0	8.1	0.17	8.6	69.79
3600.0	0.86	224.53	3599.9	-8.6	2.3	8.3	1.49	8.6	74.33
3700.0	1.07	126.54	3699.9	-8.6	1.2	8.5	1.46	8.6	81.75
3800.0	0.73	67.10	3799.9	-9.8	0.9	9.8	0.94	9.9	84.63
3900.0	1.23	351.28	3899.9	-10.5	2.2	10.3	1.27	10.5	77.72
4000.0	1.29	353.39	3999.9	-10.6	4.4	10.0	0.08	10.9	66.14
4100.0	1.13	346.53	4099.9	-10.7	6.5	9.6	0.22	11.6	55.99
4200.0	1.05	348.17	4199.8	-10.6	8.3	9.2	0.09	12.4	47.80
4300.0	0.95	349.57	4299.8	-10.6	10.1	8.9	0.10	13.4	41.39
4400.0	0.74	342.22	4399.8	-10.5	11.5	8.5	0.24	14.3	36.56
4500.0	0.61	342.18	4499.8	-10.4	12.6	8.2	0.13	15.0	32.90
4600.0	0.53	335.01	4599.8	-10.2	13.5	7.8	0.11	15.6	29.95
4700.0	0.37	323.26	4699.8	-10.0	14.2	7.4	0.18	16.0	27.54
4800.0	0.35	320.80	4799.8	-9.7	14.7	7.0	0.03	16.3	25.53



Scientific
Drilling

Scientific Drilling International, Inc.

Survey Report

Company: BOPCO
Field: Quahada Ridge
Site: Eddy County, NM
Well: Hudson 1 Federal #10H
Wellpath: VH - Job #32K0310201

Date: 3/25/2010 Time: 15:29:18 Page: 2
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,259.09Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

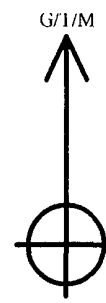
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4900.0	0.29	319.73	4899.8	-9.4	15.1	6.7	0.06	16.5	23.77
5000.0	0.27	320.65	4999.8	-9.2	15.5	6.4	0.02	16.8	22.28
5100.0	0.27	326.36	5099.8	-9.0	15.9	6.1	0.03	17.0	20.92
5200.0	0.26	313.72	5199.8	-8.8	16.2	5.8	0.06	17.2	19.59
5300.0	0.18	328.26	5299.8	-8.6	16.5	5.5	0.10	17.4	18.51
5400.0	0.18	316.78	5399.8	-8.4	16.8	5.3	0.04	17.6	17.66
5500.0	0.17	330.22	5499.8	-8.3	17.0	5.2	0.04	17.8	16.87
5600.0	0.13	277.33	5599.8	-8.1	17.2	5.0	0.14	17.9	16.17
5700.0	0.18	262.01	5699.8	-7.9	17.2	4.7	0.06	17.8	15.34
5800.0	0.23	282.68	5799.8	-7.5	17.2	4.4	0.09	17.7	14.23
5900.0	0.37	210.48	5899.8	-7.1	17.0	4.0	0.37	17.4	13.27
6000.0	0.52	193.03	5999.8	-6.7	16.2	3.7	0.20	16.7	12.95
6100.0	0.92	167.66	6099.8	-6.6	15.0	3.8	0.50	15.5	14.22
6200.0	0.80	162.34	6199.8	-6.7	13.6	4.2	0.14	14.2	17.16
6300.0	0.77	165.73	6299.8	-6.8	12.2	4.6	0.06	13.1	20.44
6400.0	0.83	144.88	6399.7	-7.1	11.0	5.1	0.30	12.1	25.07
6500.0	0.57	154.70	6499.7	-7.6	10.0	5.8	0.29	11.5	30.12
6600.0	0.67	177.71	6599.7	-7.6	8.9	6.0	0.27	10.8	33.97
6700.0	1.07	194.32	6699.7	-7.1	7.4	5.8	0.47	9.4	37.98
6800.0	0.70	197.37	6799.7	-6.4	5.9	5.4	0.37	8.0	42.20
6810.0	0.52	170.15	6809.7	-6.4	5.8	5.4	3.36	7.9	42.64



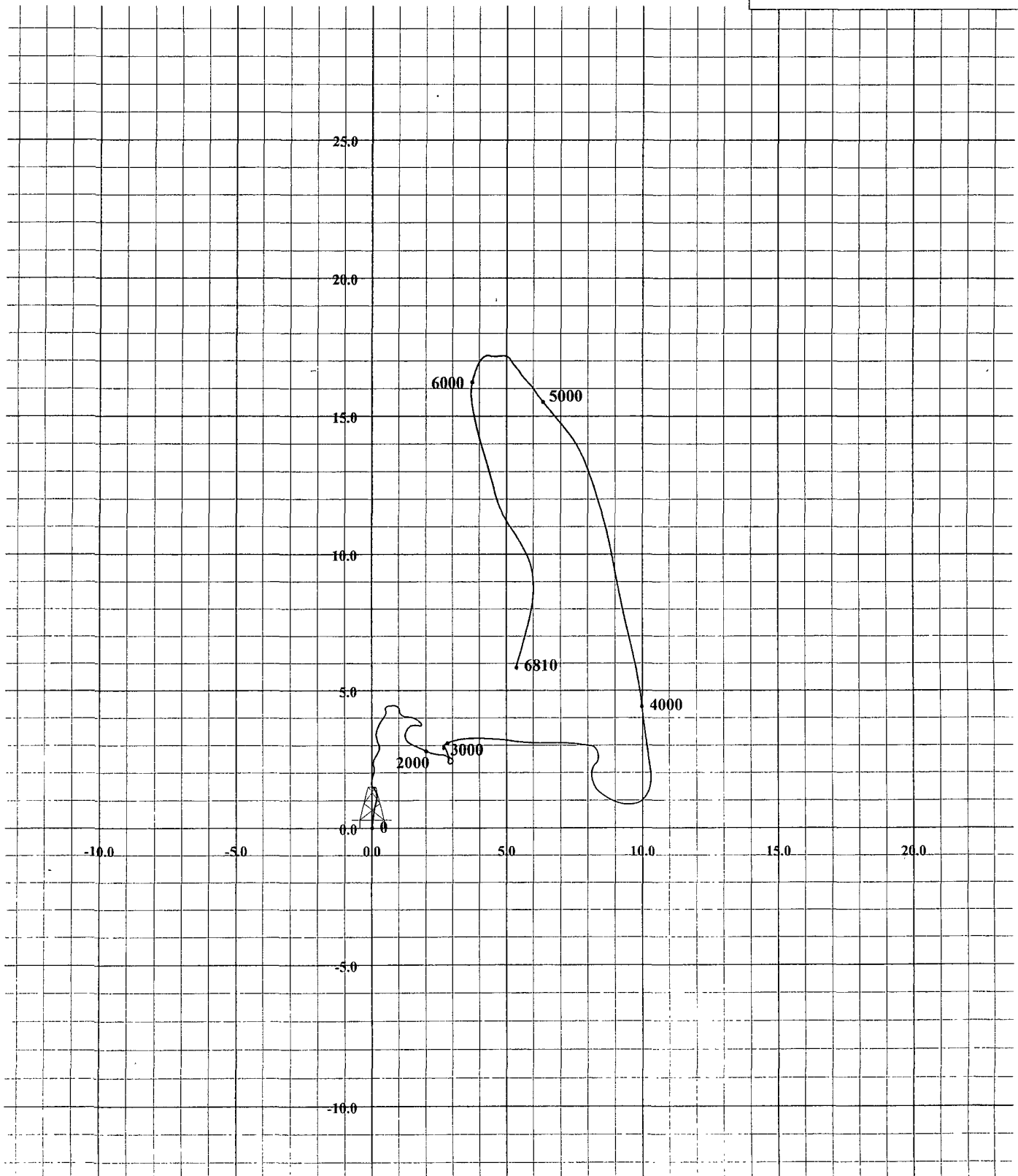
Scientific
Drilling

Field: Quahada Ridge
Site: Eddy County, NM
Well: Hudson 1 Federal #10H
Survey: 03/22/10



Azimuths to Grid North
True North: 0.00°
Magnetic North: 0.00°
Magnetic Field
Dip Angle: 0.00°
Date: 3/25/2010
Model: igrf2000

South(-)/North(+) [2ft/in]



West(-)/East(+) [2ft/in]



Actual Wellpath Report

No. 10H ST AWP

Page 1 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 10H SHL
Area	Eddy County, NM	Well	No. 10H
Field	Quahada Ridge, SE (Delaware)	Wellbore	No. 10H ST AWB
Facility	Hudson 1 Fed No. 10H	Sidetrack from	No. 10H AWB at 6810.00 MD

REPORT SETUP INFORMATION

Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Victor Hernandez
Scale	0.999937	Report Generated	5/10/2010 at 10:56:18 AM
Convergence at slot	0.27° East	Database/Source file	WA_Midland/No._10H_ST_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	696370.91	485276.08	32°19'59.150"N	103°49'52.989"W
Facility Reference Pt			696370.91	485276.08	32°19'59.150"N	103°49'52.989"W
Field Reference Pt			696371.30	485350.50	32°19'59.887"N	103°49'52.981"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 10H SHL (KB) to GL	19.00ft
Horizontal Reference Pt	SL	Rig on No. 10H SHL (KB) to Mean Sea Level	3309.00ft
Vertical Reference Pt	Rig on No. 10H SHL (KB)	GL to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 10H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	259.61°



Actual Wellpath Report

No. 10H ST AWP

Page 3 of 9



REFERENCE WELL PATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 10H SHL
Area	Eddy County, NM	Well	No. 10H
Field	Quahada Ridge, SE (Delaware)	Wellbore	No. 10H ST AWP
Facility	Hudson 1 Fed No. 10H	Sidetrack from	No. 10H AWB at 6810.00 MD

WELLPATH DATA (189 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]
3000.00	0.320	66.920	2999.97	-3.31	3.08	2.80	696373.71	485279.16	32°19'59.180"N	103°49'52.957"W	0.42
3100.00	0.400	83.910	3099.97	-3.93	3.23	3.41	696374.31	485279.31	32°19'59.182"N	103°49'52.949"W	0.13
3200.00	0.620	92.500	3199.97	-4.81	3.24	4.29	696375.20	485279.32	32°19'59.182"N	103°49'52.939"W	0.23
3300.00	0.630	97.930	3299.96	-5.86	3.14	5.38	696376.29	485279.22	32°19'59.181"N	103°49'52.926"W	0.06
3400.00	0.850	88.370	3399.95	-7.11	3.09	6.66	696377.57	485279.17	32°19'59.180"N	103°49'52.911"W	0.25
3500.00	0.820	100.020	3499.94	-8.52	2.98	8.11	696379.02	485279.06	32°19'59.179"N	103°49'52.895"W	0.17
3600.00	0.860	224.530	3599.94	-8.57	2.33	8.29	696379.20	485278.41	32°19'59.173"N	103°49'52.893"W	1.49
3700.00	1.070	126.540	3699.93	-8.60	1.23	8.51	696379.42	485277.31	32°19'59.162"N	103°49'52.890"W	1.46
3800.00	0.730	67.100	3799.92	-9.85	0.93	9.85	696380.76	485277.01	32°19'59.159"N	103°49'52.874"W	0.94
3900.00	1.230	351.280	3899.91	-10.51	2.24	10.27	696381.18	485278.32	32°19'59.172"N	103°49'52.869"W	1.27
4000.00	1.290	353.390	3999.88	-10.61	4.41	9.98	696380.89	485280.49	32°19'59.193"N	103°49'52.873"W	0.08
4100.00	1.130	346.530	4099.86	-10.63	6.49	9.62	696380.53	485282.57	32°19'59.214"N	103°49'52.877"W	0.22
4200.00	1.050	348.170	4199.84	-10.56	8.35	9.20	696380.11	485284.43	32°19'59.232"N	103°49'52.882"W	0.09
4300.00	0.950	349.570	4299.83	-10.54	10.06	8.87	696379.78	485286.14	32°19'59.249"N	103°49'52.885"W	0.10
4400.00	0.740	342.220	4399.82	-10.45	11.49	8.52	696379.43	485287.57	32°19'59.263"N	103°49'52.889"W	0.24
4500.00	0.610	342.180	4499.81	-10.30	12.61	8.16	696379.07	485288.69	32°19'59.275"N	103°49'52.894"W	0.13
4600.00	0.530	335.010	4599.80	-10.11	13.54	7.80	696378.71	485289.62	32°19'59.284"N	103°49'52.898"W	0.11
4700.00	0.370	323.260	4699.80	-9.85	14.22	7.41	696378.32	485290.29	32°19'59.290"N	103°49'52.902"W	0.18
4800.00	0.350	320.800	4799.80	-9.56	14.71	7.03	696377.94	485290.79	32°19'59.295"N	103°49'52.907"W	0.63
4900.00	0.290	319.730	4899.80	-9.29	15.14	6.67	696377.58	485291.22	32°19'59.300"N	103°49'52.911"W	0.06
5000.00	0.270	320.650	4999.80	-9.05	15.52	6.36	696377.27	485291.59	32°19'59.303"N	103°49'52.914"W	0.02
5100.00	0.270	326.360	5099.80	-8.84	15.89	6.08	696376.99	485291.97	32°19'59.307"N	103°49'52.918"W	0.03
5200.00	0.260	313.720	5199.79	-8.62	16.25	5.78	696376.69	485292.33	32°19'59.311"N	103°49'52.921"W	0.06
5300.00	0.180	328.260	5299.79	-8.43	16.54	5.54	696376.44	485292.62	32°19'59.313"N	103°49'52.924"W	0.10
5400.00	0.180	316.780	5399.79	-8.29	16.79	5.35	696376.25	485292.86	32°19'59.316"N	103°49'52.926"W	0.04
5500.00	0.170	330.220	5499.79	-8.15	17.03	5.16	696376.07	485293.11	32°19'59.318"N	103°49'52.928"W	0.04
5600.00	0.130	277.330	5599.79	-7.99	17.17	4.98	696375.89	485293.25	32°19'59.320"N	103°49'52.930"W	0.14
5700.00	0.180	262.010	5699.79	-7.73	17.16	4.71	696375.62	485293.24	32°19'59.320"N	103°49'52.933"W	0.06
5800.00	0.230	282.680	5799.79	-7.39	17.19	4.36	696375.27	485293.27	32°19'59.320"N	103°49'52.938"W	0.09
5900.00	0.370	210.480	5899.79	-6.99	16.95	4.00	696374.91	485293.03	32°19'59.318"N	103°49'52.942"W	0.37



Actual Wellpath Report

No. 10H ST AWP

Page 5 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 10H SHL
Area	Eddy County, NM	Well	No. 10H
Field	Quahada Ridge, SE (Delaware)	Wellbore	No. 10H ST AWP
Facility	Hudson 1 Fed No. 10H	Sidetrack from	No. 10H AWP at 6810.00 MD

WELLPATH DATA (189 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]
7457.00	75.200	216.100	7283.85	278.46	-258.05	-235.78	696135.15	485018.05	32°19'56.608"N	103°49'55.751"W	9.99
7488.00	76.200	216.600	7291.51	300.34	-282.24	-253.58	696117.34	484993.86	32°19'56.369"N	103°49'55.960"W	3.58
7520.00	78.400	218.200	7298.54	323.46	-307.04	-272.54	696098.38	484969.06	32°19'56.125"N	103°49'56.182"W	8.43
7552.00	80.900	217.600	7304.29	346.96	-331.88	-291.88	696079.05	484944.23	32°19'55.880"N	103°49'56.409"W	8.03
7583.00	84.400	218.900	7308.26	370.03	-356.02	-310.91	696060.02	484920.09	32°19'55.642"N	103°49'56.632"W	12.03
7615.00	87.100	218.900	7310.63	394.22	-380.85	-330.95	696039.98	484895.26	32°19'55.397"N	103°49'56.867"W	8.44
7647.00	90.000	219.000	7311.44	418.49	-405.72	-351.06	696019.88	484870.38	32°19'55.152"N	103°49'57.103"W	9.07
7678.00	91.600	218.300	7311.00	441.90	-429.93	-370.41	696000.52	484846.18	32°19'54.913"N	103°49'57.330"W	5.63
7767.00	89.600	216.800	7310.07	507.97	-500.48	-424.65	695946.29	484775.63	32°19'54.218"N	103°49'57.966"W	2.81
7862.00	89.600	215.400	7310.73	576.87	-577.24	-480.62	695890.32	484698.88	32°19'53.461"N	103°49'58.622"W	1.47
7957.00	89.500	216.400	7311.48	645.54	-654.19	-536.32	695834.62	484621.93	32°19'52.702"N	103°49'59.275"W	1.06
8052.00	89.600	216.600	7312.23	714.89	-730.55	-592.83	695778.12	484545.58	32°19'51.949"N	103°49'59.938"W	0.24
8147.00	89.600	218.300	7312.89	785.31	-805.97	-650.59	695720.36	484470.17	32°19'51.205"N	103°50'00.615"W	1.79
8245.00	89.600	218.200	7313.57	858.87	-882.93	-711.26	695659.70	484393.21	32°19'50.447"N	103°50'01.327"W	0.10
8340.00	89.700	221.900	7314.16	932.10	-955.63	-772.38	695598.58	484320.51	32°19'49.730"N	103°50'02.043"W	3.90
8435.00	89.700	223.500	7314.65	1008.06	-1025.45	-836.80	695534.16	484250.70	32°19'49.042"N	103°50'02.797"W	1.68
8531.00	89.700	232.100	7315.16	1089.56	-1089.87	-907.85	695463.12	484186.28	32°19'48.408"N	103°50'03.629"W	8.96
8626.00	89.500	236.600	7315.82	1175.46	-1145.22	-985.02	695385.95	484130.93	32°19'47.864"N	103°50'04.531"W	4.74
8720.00	89.600	238.600	7316.56	1262.60	-1195.59	-1064.38	695306.60	484080.57	32°19'47.369"N	103°50'05.459"W	2.13
8815.00	89.500	240.700	7317.30	1351.89	-1243.59	-1146.36	695224.63	484032.58	32°19'46.898"N	103°50'06.417"W	2.21
8910.00	89.500	242.900	7318.13	1442.33	-1288.47	-1230.07	695140.92	483987.69	32°19'46.458"N	103°50'07.395"W	2.32
9006.00	89.500	245.400	7318.97	1534.85	-1330.33	-1316.46	695054.54	483945.84	32°19'46.047"N	103°50'08.404"W	2.60
9101.00	89.600	249.700	7319.72	1627.73	-1366.59	-1404.23	694966.77	483909.58	32°19'45.693"N	103°50'09.429"W	4.53
9196.00	89.500	252.400	7320.46	1721.66	-1397.44	-1494.07	694876.93	483878.73	32°19'45.392"N	103°50'10.478"W	2.84
9292.00	89.500	255.600	7321.30	1817.18	-1423.90	-1586.34	694784.67	483852.28	32°19'45.134"N	103°50'11.554"W	3.33
9386.00	89.500	257.500	7322.12	1911.04	-1445.76	-1677.75	694693.27	483830.41	32°19'44.922"N	103°50'12.621"W	2.02
9482.00	89.600	260.500	7322.88	2007.02	-1464.07	-1771.98	694599.05	483812.10	32°19'44.745"N	103°50'13.720"W	3.13
9577.00	89.500	266.500	7323.62	2101.75	-1474.82	-1866.32	694504.71	483801.35	32°19'44.643"N	103°50'14.820"W	6.32
9672.00	89.600	269.200	7324.37	2195.76	-1478.39	-1961.24	694409.80	483797.79	32°19'44.612"N	103°50'15.926"W	2.84
9765.00	89.200	269.600	7325.34	2287.40	-1479.36	-2054.23	694316.81	483796.82	32°19'44.607"N	103°50'17.010"W	0.61



Actual Wellpath Report

No. 10H ST AWP

Page 7 of 9



WELL IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 10H SHL
Area	Eddy County, NM	Well	No. 10H
Field	Quahada Ridge, SE (Delaware)	Wellbore	No. 10H ST AWP
Facility	Hudson 1 Fed No. 10H	Sidetrack from	No. 10H AWP at 6810.00 MD

WELLPATH DATA (189 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]
12671.00	89.900	267.500	7330.06	5150.14	-1513.31	-4958.49	691412.75	483762.86	32°19'44.402"N	103°50'50.858"W	1.32
12766.00	89.700	267.900	7330.39	5244.19	-1517.13	-5053.41	691317.83	483759.05	32°19'44.369"N	103°50'51.964"W	0.47
12862.00	90.300	269.100	7330.39	5339.03	-1519.64	-5149.38	691221.87	483756.54	32°19'44.348"N	103°50'53.083"W	1.40
12957.00	90.300	268.600	7329.89	5432.80	-1521.55	-5244.35	691126.90	483754.63	32°19'44.334"N	103°50'54.190"W	0.53
13052.00	90.400	268.900	7329.31	5526.59	-1523.62	-5339.33	691031.93	483752.56	32°19'44.317"N	103°50'55.297"W	0.38
13148.00	90.300	269.000	7328.73	5621.31	-1525.38	-5435.31	690935.95	483750.80	32°19'44.304"N	103°50'56.416"W	0.15
13244.00	90.400	267.400	7328.14	5716.23	-1528.39	-5531.26	690840.01	483747.79	32°19'44.279"N	103°50'57.534"W	1.67
13340.00	90.300	265.800	7327.55	5811.51	-1534.09	-5627.09	690744.19	483742.09	32°19'44.227"N	103°50'58.651"W	1.67
13434.00	90.200	267.800	7327.14	5904.77	-1539.33	-5720.93	690650.35	483736.85	32°19'44.179"N	103°50'59.745"W	2.13
13529.00	90.400	270.700	7326.65	5998.41	-1540.58	-5815.91	690555.38	483735.60	32°19'44.171"N	103°51'00.852"W	3.06
13625.00	90.700	270.300	7325.72	6092.68	-1539.74	-5911.91	690459.39	483736.44	32°19'44.183"N	103°51'01.970"W	0.52
13722.00	95.400	271.400	7320.57	6187.65	-1538.30	-6008.73	690362.57	483737.88	32°19'44.202"N	103°51'03.099"W	4.98
13817.00	89.600	268.100	7316.42	6281.03	-1538.72	-6103.58	690267.72	483737.46	32°19'44.202"N	103°51'04.204"W	7.02
13912.00	89.200	268.000	7317.42	6374.99	-1541.96	-6198.52	690172.79	483734.22	32°19'44.174"N	103°51'05.311"W	0.43
14008.00	89.100	269.000	7318.84	6469.83	-1544.47	-6294.48	690076.84	483731.71	32°19'44.154"N	103°51'06.429"W	1.05
14103.00	89.200	269.400	7320.25	6563.49	-1545.80	-6389.46	689981.87	483730.39	32°19'44.145"N	103°51'07.536"W	0.43
14199.00	89.100	270.200	7321.67	6657.96	-1546.13	-6485.45	689885.89	483730.05	32°19'44.146"N	103°51'08.655"W	0.84
14294.00	89.100	270.200	7323.17	6751.33	-1545.80	-6580.44	689790.91	483730.38	32°19'44.153"N	103°51'09.762"W	0.00
14389.00	89.200	270.100	7324.58	6844.72	-1545.55	-6675.42	689695.92	483730.63	32°19'44.160"N	103°51'10.869"W	0.15
14485.00	89.300	269.900	7325.83	6939.14	-1545.55	-6771.42	689599.94	483730.63	32°19'44.164"N	103°51'11.987"W	0.23
14582.00	89.400	269.500	7326.93	7034.63	-1546.06	-6868.41	689502.95	483730.12	32°19'44.163"N	103°51'13.118"W	0.43
14676.00	89.900	269.200	7327.51	7127.27	-1547.12	-6962.40	689408.97	483729.06	32°19'44.157"N	103°51'14.213"W	0.62
14770.00	89.700	268.700	7327.84	7220.02	-1548.85	-7056.38	689314.99	483727.33	32°19'44.144"N	103°51'15.309"W	0.57
14866.00	89.600	267.100	7328.42	7315.01	-1552.37	-7152.31	689219.06	483723.82	32°19'44.114"N	103°51'16.427"W	1.67
14963.00	90.100	268.200	7328.68	7411.06	-1556.34	-7249.23	689122.15	483719.84	32°19'44.078"N	103°51'17.556"W	1.25
15059.00	90.000	269.300	7328.59	7505.84	-1558.44	-7345.21	689026.18	483717.75	32°19'44.062"N	103°51'18.675"W	1.15
15154.00	90.100	269.700	7328.51	7599.42	-1559.27	-7440.20	688931.19	483716.92	32°19'44.058"N	103°51'19.782"W	0.43
15249.00	90.100	269.700	7328.34	7692.95	-1559.76	-7535.20	688836.20	483716.42	32°19'44.057"N	103°51'20.889"W	0.00
15345.00	90.000	270.300	7328.26	7787.38	-1559.76	-7631.20	688740.21	483716.42	32°19'44.062"N	103°51'22.008"W	0.63
15441.00	90.100	269.900	7328.18	7881.77	-1559.60	-7727.20	688644.22	483716.59	32°19'44.067"N	103°51'23.127"W	0.43



Actual Wellpath Report

No. 10H ST AWP

Page 9 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 10H SHL
Area	Eddy County, NM	Well	No. 10H
Field	Quahada Ridge, SE (Delaware)	Wellbore	No. 10H ST AWP
Facility	Hudson 1 Fed No. 10H	Sidetrack from	No. 10H AWP at 6810.00 MD

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
No. 10H PBHL		7329.00	-1656.83	-8573.48	687797.99	483619.35	32°19'43.142"N	103°51'32.994"W	point
No. 10H ST PBHL		7329.00	-1489.42	-8574.02	687797.45	483786.75	32°19'44.799"N	103°51'32.992"W	point
No. 10H ST PBHL Rev2		7329.00	-1570.58	-8563.44	687808.03	483705.60	32°19'43.995"N	103°51'32.873"W	point

WELLPATH COMPOSITION

Ref Wellbore: No. 10H ST AWP

Ref Wellpath: No. 10H ST AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	6810.00	Generic gyro - continuous (Standard)	GYRO <100 - 6810>	No. 10H AWP
6810.00	16206.00	NaviTrak (Standard)	MWD <6824 - 16206>	No. 10H ST AWP
16206.00	16274.00	Blind Drilling (std)	Projection to bit	No. 10H ST AWP

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NMOC-D-ARTESIAFORM APPROVED
OMB NO 1004-0137
Expires. March 31, 2007**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other			5. Lease Serial No. NM02884B		
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr., Other _____			6. If Indian, Allottee or Tribe Name		
2. Name of Operator BOPCO, L.P.			7. Unit or CA Agreement Name and no.		
3. Address P.O. Box 2760 Midland TX 79702			8. Lease Name and Well No Hudson 1 Federal 10H		
3.a. Phone No. (Include area code) (432)683-2277			9. API Well No 30-015-37309		
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At Surface UL J, 2300' FSL, 1780' FEL At top prod. interval reported below Same At total depth UL M, 742' FSL, 364' FWL, Sec 2, T23S, R30E			10. Field and Pool, or Exploratory Quahada Ridge (Delaware)		
14. Date Spudded 03/13/2010			11. Sec., T., R., M., on Block and Survey or Area Sec 1, T23S, R30E		
15. Date T.D. Reached 05/17/2010			12. County or Parish Eddy		
16. Date Completed ☐ D & A ☒ Ready to Prod. 08/15/2010			13. State NM		
17. Elevations (DF, RKB, RT, GL)* 3290' GL					
18. Total Depth. MD 16,274' TVD 7324'			19. Plug Back T.D.: MD na TVD		
20. Depth Bridge Plug Set: MD TVD					
21. Type of Electric & Other Mechanical Logs Run (Submit copy of each) Gamma Ray/CCL Compensated Neutron Log			22. Was well cored? ☒ No ☐ Yes (Submit analysis) Was DST run? ☒ No ☐ Yes (Submit analysis) Directional Survey? ☐ No ☒ Yes (Submit copy)		

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17-1/2"	13-3/8"	54.50# *	0	572' TVD		600 sxs		0' Circ	
12-1/4"	9-5/8"	40# **	0	3913' TVD		1250 sxs	-	0' Circ	
8-3/4"	7"	26# ***	0	9727'	5022"	800 sxs Stg I		5022' DV	
						600 sxs Stg II		200' TOC	
6-1/8"	4-1/2"	11.6# *	9600'	16,270'					

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2-7/8"	6,864'							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Delaware	3880'	7,324' TVD	9,826'-16,215'	pre perf		Producing
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
9,826'-16,215'	Frac'd w/ 219,596 gals WF25 & WF30, 1,300,678 gals YF125ST & YF130S w/ 3,582,869# 16/30 Ottawa 24 stages (#7 never completed)

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
08/04/10	08/15/10	24	→	497	552	2269	39.4	.83	Gas Lift
Choice Size	Tbg Press Flwg SI	Csg. Press.	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas - Oil Ratio	Well Status	
WO	1200	250	→				1110.66	Producing	

Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg Press Flwg SI	Csg. Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas - Oil Ratio	Well Status	
			→						

(See Instructions and spaces for additional data on page 2)

RECEIVED
SEP 21 2010
NMOC-D-ARTESIA**ACCEPTED FOR RECORD**
SEP 15 2010
P. J. Hernandez
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	

29 Disposition of Gas (Sold, used for fuel, vented, etc.)

Sold

30. Summary of Porous Zones (Include Aquifers)

Show all important zones or porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
Bell Canyon	3926'	3790'	Sandstone	T/Rustler	186'
Cherry Canyon	4790'	6,052'	Sandstone	T/Salt	586'
Brushy Canyon	6,052'	not reached	Sandstone	B/Salt	3640'
				T/Lamar	3880'
				T/Bell Canyon	3926'
				T/Cherry Canyon	4,790'
				T/Lower Cherry Canyon	6,030'
				T/Brushy Canyon	6,052'

32 Additional remarks (include plugging procedure)

* 54.50# J-55 STC
 ** 40# J55 LTC
 *** 26# P110 LTC
 *11.6# HCP-110 LTC

33. Indicate which items have been attached by placing a check in the appropriate boxes.

☒ Electrical/Mechanical Logs (1 full set req'd.) ☐ Geological Report ☐ DST Report ☒ Directional Survey
☐ Sundry Notice for plugging and cement verification ☐ Core Analysis ☐ Other

34 I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Valerie Truax

Title Regulatory Clerk

Signature



Date 08/24/2010

Title 18 U.S.C. Section 101 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States and false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

DISTRICT I
1828 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Arico, NM 87410

DISTRICT IV
1220 St. Francis Dr., Santa Fe, NM 87506

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87506

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-37309	Pool Code 50470	Pool Name Quahada Ridge (Delaware)
Property Code 306408	Property Name HUDSON "1" FEDERAL	Well Number 10H
OCRID No. 260737	Operator Name BOPCO, L.P.	Elevation 3290'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	1	23 S	30 E		2300	SOUTH	1780	EAST	EDDY

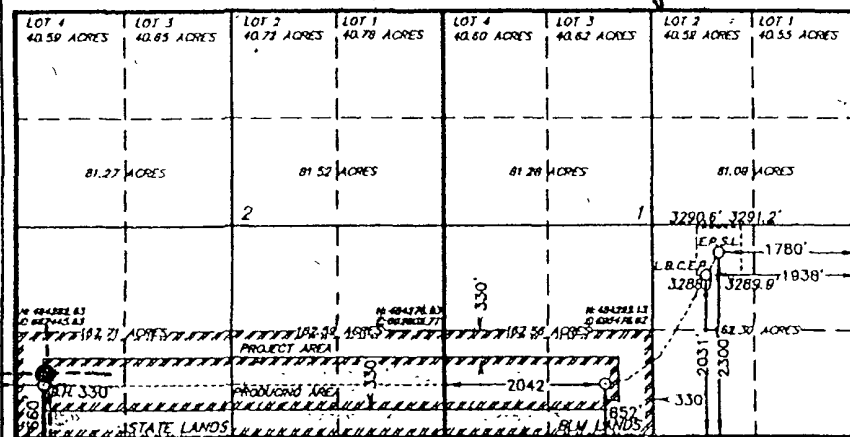
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	2	23 S	30 E		742	SOUTH	364	WEST	EDDY

Dedicated Acres 240	Joint or Infill N	Consolidation Code	Order No.
------------------------	----------------------	--------------------	-----------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

"Survey certification for
Surface location only"



PROPOSED BOTTOM HOLE LOCATION
LAT - N32°19'43.14"
LONG - W103°51'33.23"
N.: 483619.372
SPC- E.: 687777.994
(NAD-83)

PROP. LOWER BUSHY CANYON ENTRY POINT
LAT - N32°19'56.48"
LONG - W103°49'54.82"
N.: 485005.61
SPC- E.: 696214.75
(NAD-83)

SURFACE LOCATION
LAT - N32°19'59.15"
LONG - W103°49'52.99"
N.: 485278.080
SPC- E.: 696370.908
(NAD-83)

PROPOSED INTERMEDIATE TARGET
LAT - N32°19'42.82"
LONG - W103°50'10.83"
SPC- N.: 483618.79
E.: 694847.81
(NAD-83)

PROPOSED DELAWARE ENTRY POINT
LAT - N32°19'58.15"
LONG - W103°49'52.99"
SPC- N.: 485278.080
E.: 696370.908
(NAD-83)

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest in the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *Brian D. Hammit* Date: 3/3/10

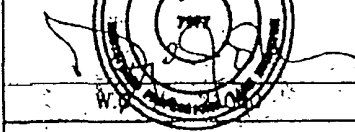
Brian D. Hammit
Printed Name

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.

JUNE 17, 2009

Date Surveyed: *June 17, 2009*
Signature: *Gary L. Jones*
Professional Surveyor



Certificate No. Gary L. Jones 7977

BASIN SURVEYS