

April 5, 2004

30-045-31898

NEW MEXICO OIL CONSERVATION
Oil & Gas Division
1000 Rio Brazos Road
Aztec, New Mexico 87410
attn: Dorothy Jacquez



Dear Ms. Jacquez,

Please find enclosed one copy of our certified survey results on the wells described below.

Customer : BP America
Wells : Mudge Com B-2M
Rig : Aztec #184
County : San Juan
State : New Mexico

I certify that these are the data we utilized and generated in drilling this well.

Please feel free to call me at any time should you have any questions regarding the enclosed information.

Sincerely,

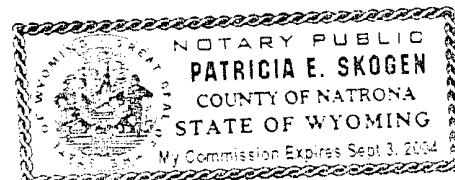
R. F. Reiner
Directional Drilling Coordinator
7197 W. Derrick Drive
Casper, Wyoming 82604
(307) 472-5757

State of Wyoming)
)ss.
County of Natrona)

The foregoing instrument was acknowledged before me by R. F. Reiner this
6 th day of April, 2004.

Witness my hand and official seal.

My commission expires Sept. 3, 2004



30-045-31898



**BP America
New Mexico
San Juan County
SEC 14-T31N-R11W
Mudge Com B-2M - MWD survey**

Sperry-Sun

Survey Report

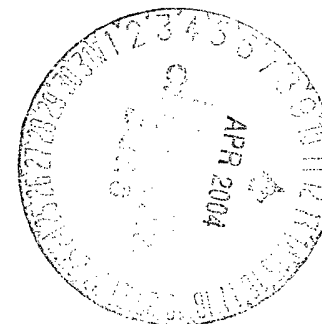
1 April, 2004

Survey Ref: svy6916

HALLIBURTON

Survey Report for SEC 14-T31N-R11W - Mudge Com B-2M - MWD survey

Measured Depth (ft)	Incl.	True Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Toolface Azimuth	Comment
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00					
230.00	0.000	0.000	230.00	0.00 N	0.00 E	0.00	0.000	0.000	0.000	359.916	
281.00	2.300	204.400	280.99	0.93 S	0.42 W	0.94	4.510	4.510	0.000	204.400	
376.00	2.200	213.200	375.91	4.19 S	2.21 W	4.45	0.378	-0.105	9.263	110.509	
631.00	2.100	195.300	630.74	12.80 S	6.12 W	13.11	0.265	-0.039	-7.020	-107.346	
885.00	1.700	191.300	884.60	20.98 S	8.09 W	20.05	0.166	-0.157	-1.575	-163.649	
1140.00	1.600	202.300	1139.49	27.98 S	10.18 W	26.30	0.130	-0.039	4.314	112.969	
1395.00	1.400	202.100	1394.40	34.16 S	12.70 W	32.31	0.078	-0.078	-0.078	-178.600	
1649.00	1.300	199.600	1648.33	39.75 S	14.84 W	37.64	0.046	-0.039	-0.984	-150.748	
1846.00	0.900	241.700	1845.30	42.59 S	16.95 W	41.10	0.444	-0.203	21.371	136.335	
1878.00	1.600	231.700	1877.29	42.99 S	17.52 W	41.79	2.283	2.188	-31.250	-22.350	
1910.00	3.500	235.200	1909.26	43.82 S	18.67 W	43.21	5.955	5.938	10.938	6.436	
1942.00	3.900	232.000	1941.19	45.05 S	20.33 W	45.26	1.406	1.250	-10.000	-28.908	
1974.00	5.200	234.000	1973.09	46.57 S	22.36 W	47.79	4.092	4.063	6.250	7.956	
2006.00	6.500	241.100	2004.92	48.30 S	25.12 W	51.00	4.642	4.063	22.188	32.667	
2037.00	7.300	240.800	2035.70	50.11 S	28.38 W	54.63	2.583	2.581	-0.968	-2.728	
2070.00	8.000	239.800	2068.41	52.29 S	32.19 W	58.92	2.159	2.121	-3.030	-11.263	
2101.00	8.800	237.500	2099.07	54.64 S	36.06 W	63.37	2.799	2.581	-7.419	-23.922	
2133.00	9.500	236.200	2130.66	57.43 S	40.32 W	68.40	2.281	2.188	-4.063	-17.096	
2165.00	10.400	235.100	2162.18	60.55 S	44.88 W	73.88	2.874	2.813	-3.438	-12.467	
2197.00	11.200	234.000	2193.62	64.03 S	49.76 W	79.83	2.582	2.500	-3.438	-14.989	
2229.00	12.000	233.200	2224.96	67.85 S	54.94 W	86.24	2.550	2.500	-2.500	-11.761	
2260.00	12.900	233.700	2255.23	71.83 S	60.31 W	92.89	2.924	2.903	1.613	7.074	
2292.00	13.800	233.200	2286.37	76.23 S	66.25 W	100.24	2.836	2.813	-1.563	-7.553	
2324.00	14.500	232.600	2317.40	80.95 S	72.48 W	108.04	2.235	2.188	-1.875	-12.126	
2356.00	14.900	231.100	2348.35	85.97 S	78.87 W	116.14	1.725	1.250	-4.688	-44.306	
2387.00	15.700	230.400	2378.25	91.14 S	85.20 W	124.31	2.648	2.581	-2.258	-13.339	
2418.00	16.500	230.600	2408.03	96.61 S	91.84 W	132.90	2.587	2.581	0.645	4.062	
2449.00	17.400	231.000	2437.69	102.32 S	98.84 W	141.92	2.927	2.903	1.290	7.574	
2513.00	17.800	231.600	2498.69	114.42 S	113.94 W	161.24	0.686	0.625	0.938	24.683	



Survey Report for SEC 14-T31N-R11W - Mudge Com B-2M - MWD survey

Measured Depth (ft)	Incl.	True Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Bulld Rate (°/100ft)	Turn Rate (°/100ft)	Toolface Azimuth	Comment
2577.00	18.400	231.000	2559.52	126.85 S	129.46 W	181.09	0.982	0.938	-0.938	-17.544	
2641.00	18.400	230.800	2620.25	139.59 S	145.14 W	201.27	0.099	0.000	-0.313	-90.095	
2705.00	19.400	230.300	2680.80	152.77 S	161.14 W	221.98	1.583	1.563	-0.781	-9.436	
2768.00	19.600	228.800	2740.19	166.41 S	177.14 W	243.00	0.856	0.317	-2.381	-68.935	
2832.00	18.300	228.300	2800.72	180.17 S	192.72 W	263.78	2.047	-2.031	-0.781	-173.117	
2863.00	17.900	228.900	2830.18	186.54 S	199.95 W	273.41	1.424	-1.290	1.935	155.299	
2895.00	17.300	228.500	2860.69	192.92 S	207.22 W	283.08	1.913	-1.875	-1.250	-168.794	
2947.00	16.600	230.600	2910.43	202.76 S	218.75 W	298.23	1.788	-1.346	4.038	139.828	
2964.00	16.600	230.600	2926.72	205.84 S	222.50 W	303.09	0.000	0.000	0.000	0.000	set 7" casing
2984.00	16.600	230.600	2945.89	209.47 S	226.91 W	308.79	0.000	0.000	0.000	0.000	released sperry-sun
2985.00	16.600	230.600	2946.84	209.65 S	227.14 W	309.08	0.000	0.000	0.000	0.000	assumed 3 degree drop to td=7282'
3000.00	16.150	230.600	2961.24	212.33 S	230.40 W	313.30	3.000	-3.000	0.000	180.000	
3100.00	13.150	230.600	3057.97	228.39 S	249.94 W	338.57	3.000	-3.000	0.000	180.000	
3200.00	10.150	230.600	3155.90	241.20 S	265.55 W	358.74	3.000	-3.000	0.000	180.000	
3300.00	7.150	230.600	3254.75	250.75 S	277.17 W	373.76	3.000	-3.000	0.000	180.000	
3400.00	4.150	230.600	3354.26	256.99 S	284.77 W	383.59	3.000	-3.000	0.000	180.000	
3500.00	1.150	230.800	3454.14	259.93 S	288.35 W	388.21	3.000	-3.000	0.000	180.000	
3538.33	0.000	0.000	3492.47	260.17 S	288.64 W	388.59	3.000	-3.000	0.000	180.000	
4000.00	0.000	0.000	3954.14	260.17 S	288.64 W	388.59	0.000	0.000	0.000	359.916	
5000.00	0.000	0.000	4954.14	260.17 S	288.64 W	388.59	0.000	0.000	0.000	359.916	
6000.00	0.000	0.000	5954.14	260.17 S	288.64 W	388.59	0.000	0.000	0.000	359.916	
7000.00	0.000	0.000	6954.14	260.17 S	288.64 W	388.59	0.000	0.000	0.000	359.916	
7282.00	0.000	0.000	7236.14	260.17 S	288.64 W	388.59	0.000	0.000	0.000	359.916	well TD

All data is in Feet (US Survey) unless otherwise stated. Directions and coordinates are relative to True North.
Vertical depths are relative to RKB. Northings and Eastings are relative to 2370° FNL, 1680° FWL.

The Dogleg Severity and Build and Turn rates are in Degrees per 100 feet (US Survey).
Vertical Section is from 2370° FNL, 1680° FWL and calculated along an Azimuth of 227.970° (True).

Based upon Minimum Curvature type calculations, at a Measured Depth of 7282.00ft.,
The Bottom Hole Displacement is 388.59ft., in the Direction of 227.970° (True).

HALLIBURTON

BP America
New Mexico
San Juan County

Survey Report for SEC 14-T31N-R11W - Mudge Com B-2M - MWD survey

Comments

Measured Depth (ft)	Station Coordinates			Comment
	TVD (ft)	Northings (ft)	Eastings (ft)	
2964.00	2926.72	205.84 S	222.50 W	set 7" casing
2984.00	2945.89	209.47 S	226.91 W	released sperry-sun
2985.00	2946.84	209.65 S	227.14 W	assumed 3 degree drop to td=7282'
7282.00	7236.14	260.17 S	288.64 W	well TD

North Reference Sheet for SEC 14-T31N-R11W - Mudge Com B-2M

Coordinate System is NAD27 New Mexico State Planes, Western Zone, US Foot
Source: Snyder, J.P., 1987, Map Projections - A Working Manual

Datum is North American Datum of 1927 (US48, AK, HI, and Canada)

Spheroid is Clarke - 1866
Equatorial Radius: 6378206.400m.
Polar Radius: 6356583.800m.
Inverse Flattening: 294.978698213901

Projection method is Transverse Mercator or Gauss Kruger Projection
Central Meridian is -107.833°
Longitude Origin: 0.000°
Latitude Origin: 31.000°
False Easting: 152400.00m
False Northing: 0.00m
Scale Reduction: 0.99991667

Grid Coordinates of Well: 2146688.34 N, 458854.20 E
Geographical Coordinates of Well: 36° 53' 57.9635" N, 107° 58' 26.5840" W
Surface Elevation of Well: 6003.00ft
Grid Convergence at Surface is -0.084°
Magnetic Declination at Surface is +10.881° (1 April, 2004)

