



Directional Survey Certification

Survey Company: Native Navigation Survey Company Job #: 12030513

Well Name: McCOY 13-33 A.P.I.#: 05-123-35227 Operator: MAK-J ENERGY

Latitude: 40.266880° N Longitude: 105.016910° W County, State: WELD Co, CO

Legal Description (S,TS,R): NW 1/4 SW 1/4 SEC 33 T4N R68W 1661' FSL 219' FWL

Final Report 4/2/2012 Date of First Survey: 3/26/2012 Date of Last Survey: 4/1/2012

Datum: NAD 83 Survey MD From: 92 FT. To: 7574 FT. Tool Type: MWD

Bit to Sensor: 56 FT. Rig (Company & Number): Fort Drilling # 5 RKB Height: 12 FT.

Ground Elevation: 5054 FT. Northings: 1340433.06 FT. Eastings: 3134809.09 FT.

Surveyor: Baca Depth of Final Projection: 7630 FT.

The data and calculations for this survey have been checked by me and conform to the calibration standards and operational procedures set forth by Native Navigation. I am authorized and qualified to review the data, calculations and this report, and that the report represents a true and correct Directional Survey of this well, based on the original data corrected to True North and obtained at the well site. Wellbore coordinates are calculated using the minimum curvature method.

Frank Whitcomb
Signature

Well Planner
Title

Native Navigation
Company

6/6/12
Date

Well Name:	McCOY 13-33
Operator:	MAK-J ENERGY COLORADO
A.P.I.#:	05-123-35227
Rig (Company & Number):	Fort Drilling # 5
Directional Company:	Native Navigation
Directional Company Job #:	12030513
Survey Company:	Native Navigation
Survey Company Job #:	12030513

Ground Elevation:	5054 FT.
RKB Height:	12 FT.
Latitude:	40.266880° N
Longitude:	105.016910° W
Northings(ft):	1340433.06 FT.
Eastings(ft):	3134809.09 FT.
Datum (S,Ts,R):	NAD 83

Final Report Date:	4/2/2012
Date of First Survey:	3/26/2012
Date of Last Survey:	4/1/2012
MD of First Survey:	92 FT.
MD of Last Survey:	7574 FT.
Depth of Final Projection:	7630 FT.
Survey Tool Used:	MWD
Bit to Sensor Distance(ft):	56 FT.

No.	MD	CL	Inc.	Azi.	TVD	VS	+N/S-	+E/W-	BR	WR	DLS	Comments
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				Surface
2	92.00	92.00	0.53	168.06	92.00	-0.18	-0.42	0.09	0.58	182.67	0.58	Native Navigation EM
3	180.00	88.00	0.04	338.83	180.00	-0.35	-0.79	0.16	-0.56	194.06	0.65	Native Navigation EM
4	270.00	90.00	0.22	177.46	270.00	-0.44	-0.93	0.16	0.20	-179.30	0.29	Native Navigation EM
5	362.00	92.00	0.57	202.51	362.00	-0.94	-1.53	-0.01	0.38	27.23	0.42	Native Navigation EM
6	454.00	92.00	0.66	257.27	453.99	-1.81	-2.07	-0.70	0.10	59.52	0.62	Native Navigation EM
7	553.00	99.00	1.23	228.00	552.98	-3.39	-2.90	-2.05	0.58	-29.57	0.74	Native Navigation EM
8	648.00	95.00	1.63	271.16	647.95	-5.46	-3.56	-4.16	0.42	45.43	1.17	Native Navigation EM
9	664.00	16.00	1.54	276.25	663.94	-5.80	-3.53	-4.60	-0.56	31.81	1.04	TD Surface
10	743.00	79.00	1.71	278.89	742.91	-7.38	-3.23	-6.82	0.22	3.34	0.23	Native Navigation EM
11	838.00	95.00	0.70	98.89	837.90	-7.96	-3.10	-7.64	-1.06	-189.47	2.54	Native Navigation EM
12	932.00	94.00	2.90	64.96	931.85	-5.24	-2.19	-4.92	2.34	-36.10	2.50	Native Navigation EM
13	1026.00	94.00	4.61	47.03	1025.65	0.84	1.40	0.00	1.82	-19.07	2.19	Native Navigation EM
14	1120.00	94.00	5.49	48.35	1119.28	9.09	6.96	6.12	0.94	1.40	0.94	Native Navigation EM
15	1215.00	95.00	7.21	51.60	1213.70	19.58	13.68	14.19	1.81	3.42	1.85	Native Navigation EM
16	1309.00	94.00	7.95	52.97	1306.87	31.98	21.26	24.00	0.79	1.46	0.81	Native Navigation EM
17	1404.00	95.00	8.83	50.46	1400.86	45.84	29.86	34.87	0.93	-2.64	1.00	Native Navigation EM
18	1497.00	93.00	9.58	50.46	1492.66	60.70	39.33	46.34	0.81	0.00	0.81	Native Navigation EM
19	1591.00	94.00	9.58	52.92	1585.35	76.34	49.03	58.61	0.00	2.62	0.44	Native Navigation EM
20	1687.00	96.00	9.67	52.48	1680.00	92.39	58.75	71.38	0.09	-0.46	0.12	Native Navigation EM
21	1782.00	95.00	9.32	47.30	1773.70	108.03	68.83	83.36	-0.37	-5.45	0.97	Native Navigation EM
22	1876.00	94.00	9.23	45.72	1866.47	123.09	79.25	94.36	-0.10	-1.68	0.29	Native Navigation EM
23	1970.00	94.00	9.05	51.08	1959.28	137.97	89.16	105.51	-0.19	5.70	0.93	Native Navigation EM
24	2065.00	95.00	8.66	56.35	2053.15	152.57	97.82	117.27	-0.41	5.55	0.95	Native Navigation EM
25	2159.00	94.00	9.36	57.58	2145.99	167.25	105.84	129.62	0.74	1.31	0.77	Native Navigation EM
26	2253.00	94.00	9.05	55.18	2238.78	182.25	114.16	142.14	-0.33	-2.55	0.52	Native Navigation EM
27	2348.00	95.00	10.15	51.52	2332.44	198.09	123.63	154.83	1.16	-3.85	1.32	Native Navigation EM
28	2441.00	93.00	10.81	54.15	2423.89	215.00	133.84	168.31	0.71	2.83	0.88	Native Navigation EM
29	2536.00	95.00	11.03	53.71	2517.17	232.99	144.44	182.86	0.23	-0.46	0.25	Native Navigation EM
30	2631.00	95.00	8.92	49.49	2610.73	249.43	154.60	195.78	-2.22	-4.44	2.35	Native Navigation EM
31	2726.00	95.00	8.75	44.22	2704.61	263.93	164.57	206.42	-0.18	-5.55	0.87	Native Navigation EM
32	2820.00	94.00	9.10	44.75	2797.47	278.37	174.97	216.64	0.37	0.56	0.38	Native Navigation EM
33	2914.00	94.00	8.66	56.53	2890.35	292.79	184.15	227.78	-0.47	12.53	1.99	Native Navigation EM
34	3009.00	95.00	7.73	45.36	2984.38	306.27	192.59	238.29	-0.98	-11.76	1.94	Native Navigation EM
35	3104.00	95.00	7.51	50.11	3078.55	318.81	201.06	247.60	-0.23	5.00	0.70	Native Navigation EM
36	3198.00	94.00	8.04	60.73	3171.69	331.45	208.21	258.05	0.56	11.30	1.63	Native Navigation EM
37	3292.00	94.00	9.10	61.36	3264.64	345.31	214.99	270.31	1.13	0.67	1.13	Native Navigation EM
38	3387.00	95.00	8.13	64.23	3358.56	359.32	221.51	282.95	-1.02	3.02	1.12	Native Navigation EM
39	3481.00	94.00	8.44	69.03	3451.58	372.45	226.87	295.38	0.33	5.11	0.81	Native Navigation EM
40	3575.00	94.00	9.36	59.08	3544.46	386.66	233.27	308.38	0.98	-10.59	1.90	Native Navigation EM
41	3669.00	94.00	9.76	49.85	3637.16	402.22	242.33	321.03	0.43	-9.82	1.68	Native Navigation EM
42	3765.00	96.00	10.02	45.89	3731.73	418.64	253.39	333.24	0.27	-4.13	0.76	Native Navigation EM
43	3860.00	95.00	10.20	45.28	3825.25	435.19	265.06	345.16	0.19	-0.64	0.22	Native Navigation EM
44	3953.00	93.00	9.80	45.28	3916.84	451.20	276.43	356.63	-0.43	0.00	0.43	Native Navigation EM
45	4048.00	95.00	8.61	45.28	4010.62	466.28	287.12	367.43	-1.25	0.00	1.25	Native Navigation EM
46	4143.00	95.00	7.87	53.36	4104.64	479.83	296.00	377.70	-0.78	8.51	1.44	Native Navigation EM
47	4238.00	95.00	7.78	49.67	4198.75	492.76	304.05	387.82	-0.09	-3.88	0.54	Native Navigation EM
48	4332.00	94.00	6.86	45.45	4291.99	504.68	312.10	396.67	-0.98	-4.49	1.13	Native Navigation EM
49	4428.00	96.00	5.58	41.06	4387.42	514.94	319.65	403.82	-1.33	-4.57	1.42	Native Navigation EM
50	4523.00	95.00	4.48	39.65	4482.05	523.08	325.98	409.23	-1.16	-1.48	1.17	Native Navigation EM
51	4618.00	95.00	3.78	36.40	4576.81	529.71	331.36	413.45	-0.74	-3.42	0.78	Native Navigation EM
52	4713.00	95.00	3.43	36.31	4671.62	535.44	336.17	416.99	-0.37	-0.09	0.37	Native Navigation EM
53	4807.00	94.00	3.12	30.86	4765.47	540.51	340.63	419.97	-0.33	-5.80	0.47	Native Navigation EM
54	4902.00	95.00	2.59	28.40	4860.35	544.87	344.74	422.32	-0.56	-2.59	0.57	Native Navigation EM
55	4996.00	94.00	1.98	26.29	4954.27	548.26	348.07	424.05	-0.65	-2.24	0.66	Native Navigation EM
56	5090.00	94.00	1.41	17.68	5048.23	550.67	350.62	425.12	-0.61	-9.16	0.66	Native Navigation EM
57	5185.00	95.00	1.27	3.35	5143.21	552.31	352.79	425.53	-0.15	-15.08	0.38	Native Navigation EM
58	5278.00	93.00	0.53	332.83	5236.19	553.06	354.20	425.40	-0.80	-32.82	0.92	Native Navigation EM
59	5372.00	94.00	0.57	308.77	5330.19	553.02	354.88	424.83	0.04	-25.60	0.25	Native Navigation EM
60	5467.00	95.00	0.57	302.01	5425.18	552.74	355.43	424.07	0.00	-7.12	0.07	Native Navigation EM
61	5561.00	94.00	0.48	316.24	5519.18	552.54	355.96	423.40	-0.10	15.14	0.17	Native Navigation EM
62	5656.00	95.00	0.79	323.80	5614.17	552.50	356.78	422.73	0.33	7.96	0.34	Native Navigation EM
63	5751.00	95.00	0.48	312.11	5709.17	552.45	357.57	422.05	-0.33	-12.31	0.35	Native Navigation EM
64	5844.00	93.00	0.44	308.77	5802.17	552.29	358.06	421.49	-0.04	-3.59	0.05	Native Navigation EM
65	5940.00	96.00	0.26	306.49	5898.16	552.14	358.42	421.02	-0.19	-2.38	0.19	Native Navigation EM
66	6034.00	94.00	0.31	298.84	5992.16	551.98	358.67	420.63	0.05	-8.14	0.07	Native Navigation EM
67	6128.00	94.00	0.26	292.43	6086.16	551.77	358.87	420.21	-0.05	-6.82	0.06	Native Navigation EM
68	6223.00	95.00	0.26	296.91	6181.16	551.57	359.05	419.82	0.00	4.72	0.02	Native Navigation EM
69	6317.00	94.00	0.44	331.27	6275.16	551.53	359.46	419.45	0.19	36.55	0.29	Native Navigation EM
70	6412.00	95.00	0.18	337.37	6370.16	551.62	359.92	419.22	-0.27	6.42	0.28	Native Navigation EM
71	6507.00	95.00	0.13	350.08	6465.16	551.71	360.16	419.14	-0.05	13.38	0.06	Native Navigation EM
72	6602.00	95.00	0.00	278.89	6560.16	551.76	360.27	419.13	-0.14	-74.94	0.14	Native Navigation EM
73	6697.00	95.00	0.04	198.21	6655.16	551.73	360.24	419.12	0.04	-84.93	0.04	Native Navigation EM
74	6791.00	94.00	0.18	179.40	6749.16	551.61	360.06	419.11	0.15	-20.01	0.15	Native Navigation EM
75	6886.00	95.00	0.26	207.52	6844.16	551.33	359.72	419.01	0.08	29.60	0.14	Native Navigation EM
76	6980.00	94.00	0.53	230.90	6938.15	550.70	359.26	418.57	0.29	24.87	0.33	Native Navigation EM
77	7075.00	95.00	0.66	235.30	7033.15	549.72	358.67	417.78	0.14	4.63	0.14	Native Navigation EM
78	7171.00	96.00	0.35	175.35	7129.15	549.01	358.06	417.35	-0.32	-62.45	0.60	Native Navigation EM
79	7264.00	93.00	0.44	233.19	7222.14	548.49	357.56	417.09	0.10	62.19	0.42	Native Navigation EM
80	7358.00	94.00	0.53	257.01	7316.14	547.74	357.25	416.38	0.10	25.34	0.23	Native Navigation EM
81	7452.00	94.00	0.66	274.41	7410.14	546.94	357.19	415.41	0.14	18.51	0.24	Native Navigation EM
82	7546.00	94.00	0.83	278.89	7504.13	546.06	357.34	414.20	0.18	4.77	0.19	Native Navigation EM
83	7574.00	28.00	0.83	278.89	7532.12	545.78	357.40	413.80	0.00	0.00	0.00	Native Navigation EM
84	7630.00	56.00	0.83	278.89	7588.12	545.22	357.53	413.00	0.00	0.00	0.00	Straight Line Projection