

**McVAY DRILLING COMPANY**

P.O. Box 2450
Hobbs, New Mexico 88241
(575) 397-3311
FAX: 39-DRILL

Well Name and Num: James Ranch Unit #106H
Location: Sec 36, T22S, R30E
Operator: BOPCo, LP
Drilling Contractor: McVay Drilling Company

30-015-37063

The undersigned certifies that he is an authorized representative of the drilling contractor who drilled the above described well and that he has conducted deviation tests and obtained the following results:

<u>Degrees @</u>	<u>Depth</u>	<u>Degrees @</u>	<u>Depth</u>	<u>Degrees @</u>	<u>Depth</u>
0.4	210	0.89	2,829.00	0.21	5,482.00
0.84	578	0.86	2,923.00	0.15	5,671.00
1.34	762	1.44	3,017.00	0.32	5,858.00
1.61	857	1.68	3,109.00	1.6	5,920.00
1.94	953	1.33	3,202.00	0.51	6,046.00
2.69	1,048.00	0.93	3,296.00	0.38	6,170.00
2.83	1,143.00	1.24	3,390.00	0.62	6,235.00
0.89	1,297.00	1.48	3,484.00	0.68	6,423.00
0.9	1,420.00	1.02	3,578.00	0.92	6,484.00
0.07	1,511.00	0.69	3,672.00	1.07	6,623.00
1.66	1,608.00	0.06	3,759.00	0.2	6,701.00
1.6	1,703.00	0.44	3,883.00	1.17	6,724.00
1.83	1,797.00	0.39	3,977.00	1.11	6,757.00
1.62	1,890.00	0.21	4,165.00	1.27	6,787.00
0.7	1,983.00	0.5	4,226.00	2.03	6,818.00
1.28	2,076.00	0.35	4,354.00	5.89	6,849.00
1.62	2,171.00	0.25	4,602.00	10.48	6,881.00
0.08	2,265.00	0.17	4,730.00	13.69	6,912.00
0.42	2,358.00	0.11	4,918.00	15.82	6,943.00
0.96	2,472.00	0.69	5,012.00	19.58	6,975.00
0.78	2,547.00	0.17	5,106.00	24.03	7,006.00
0.83	2,643.00	0.15	5,294.00	28.72	7,037.00
0.66	2,734.00	0.74	5,419.00	33.71	7,069.00

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38.46	7,100.00	89.52	8,073.00	89.04	11,729.00
43.38	7,132.00	89.97	8,170.00	90.31	11,825.00
47.78	7,163.00	89.66	8,363.00	88.66	11,922.00
51.65	7,195.00	90.93	8,459.00	91.34	12,019.00
55.98	7,225.00	88.31	8,555.00	89.21	12,109.00
58.22	7,257.00	89.66	8,651.00	88.28	12,213.00
60.47	7,288.00	90.17	8,747.00	91.03	12,305.00
64.72	7,320.00	90.55	8,843.00	90.21	12,404.00
69.59	7,352.00	89.76	8,992.00	91.72	12,499.00
74.36	7,384.00	90.83	9,162.00	91.62	12,596.00
76.32	7,414.00	90.24	9,350.00	92.27	12,691.00
77.46	7,446.00	92.48	9,541.00	90.41	12,787.00
78.16	7,478.00	90.03	9,732.00	92.27	12,882.00
80.15	7,509.00	90.79	9,911.00	89.76	12,977.00
84.14	7,540.00	86.8	10,104.00	90.65	13,073.00
88.87	7,572.00	86.39	10,299.00	89.28	13,234.00
88.14	7,658.00	83.31	10,460.00		
87.87	7,690.00	83.56	10,615.00		
89	7,723.00	85.6	10,811.00		
90.17	7,750.00	87.46	11,001.00		
90.41	7,782.00	88.59	11,190.00		
91.03	7,879.00	90.24	11,381.00		
90.24	7,976.00	89.83	11,574.00		

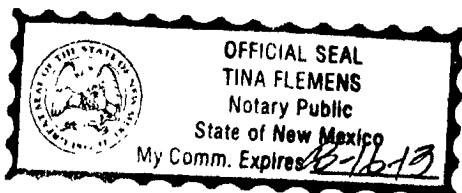
Drilling Contractor: McVay Drilling Company

By: Hubert A. [Signature]

Subscribed and sworn to before me this 4th day of November, 2009

Tina Flemens
Notary Public

My Commission Expires: 12-16-13 Lea County, New Mexico



[Signature]



Bass James Ranch Unit 106H MWD Surveys 0ft to Update Survey Report

Report Date: October 1, 2009	Survey / DLS Computation Method: Minimum Curvature / Lubinski
Client: BOPCO, L.P.	Vertical Section Azimuth: 275.160°
Field: NM Eddy County (NAD 83)	Vertical Section Origin: N 0 000 ft, E 0.000 ft
Structure / Slot: Bass James Ranch Unit 106H / James Ranch Unit 106H	TVD Reference Datum: KB
Well: James Ranch Unit 106H	TVD Reference Elevation: 3315.0 ft relative to
Borehole: Original Borehole	Sea Bed / Ground Level Elevation: 3296.000 ft relative to
UWI/API#:	Magnetic Declination: 7.975°
Survey Name / Date: Bass James Ranch Unit 106H MWD Surveys 0ft to Update / September 21, 2009	Total Field Strength: 48890 125 nT
Tort / AHD / DDI / ERD ratio: 218.710° / 6256 18 ft / 6.392 / 0 851	Magnetic Dip: 60.307°
Grid Coordinate System: NAD83 New Mexico State Planes, Eastern Zone, US Feet	Declination Date: September 21, 2009
Location Lat/Long: N 32 20 44 566, W 103 50 21 819	Magnetic Declination Model: BGGM 2009
Location Grid N/E Y/X: N 489854 073 ftUS, E 693876 291 ftUS	North Reference: Grid North
Grid Convergence Angle: +0.26427537°	Total Corr Mag North -> Grid North: +7.711°
Grid Scale Factor: 0.99993574	Local Coordinates Referenced To: Well Head

Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Sub-Sea TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (deg)	DLS (deg/100 ft)	Mag / Grav Tool Face (deg)
James Ranch Unit 106H SHL	0 00	0.00	0.00	0.00	-3315 00	0 00	0 00	0.00	0.00	0 00	0 00	---
	624.00	0.00	0.00	624 00	-2691 00	0.00	0 00	0 00	0 00	0 00	0.00	175 82M
	762.00	1 34	175 82	761.99	-2553 01	-0 26	-1 61	0.12	1 61	175.82	0 97	183 07M
	857 00	1 61	183 07	856.96	-2458 04	-0 49	-4 05	0.13	4.05	178.20	0 34	189 18M
	953.00	1 94	189 18	952.91	-2362 09	-0.43	-7 00	-0 20	7 00	181.67	0 40	187 02M
	1048.00	2 69	187 02	1047 83	-2267 17	-0 24	-10 80	-0 73	10.83	183 88	0 79	190.12M
	1143.00	2.83	190 12	1142 72	-2172 28	0 03	-15 32	-1 42	15.39	185 29	0 22	187 09M
	1235 00	1 74	187 09	1234.65	-2080 35	0.28	-18.94	-1 99	19 05	185 99	1.19	168 79M
	1297 00	0 89	168.79	1296 63	-2018.37	0 17	-20.35	-2 01	20.45	185 65	1 51	141 97M
	1420 00	0 90	141 97	1419 62	-1895 38	-0 76	-22 05	-1 23	22 08	183 20	0.34	142 51M
	1511.00	1 07	142 51	1510 60	-1804 40	-1 82	-23 29	-0 27	23 29	180 67	0 19	138 80M
	1608.00	1 66	138 80	1607 57	-1707 43	-3 45	-25 06	1.20	25 09	177 25	0.61	141 16M
	1703 00	1 60	141 16	1702 54	-1612 46	-5 37	-27 13	2 94	27 29	173 81	0.09	142.21M
	1797 00	1 83	142 21	1796 49	-1518.51	-7 30	-29 34	4 68	29 71	170 93	0 25	145.43M
	1890.00	1 62	145 43	1889.45	-1425 55	-9 16	-31 59	6 34	32 22	168 65	0 25	165 37M
	1983 00	0 70	165 37	1982 43	-1332 57	-10.19	-33 23	7.23	34 00	167.73	1 07	155 89M
	2076 00	1 28	155 89	2075.42	-1239 58	-10 89	-34.72	7 80	35 59	167 34	0 65	167.80M
	2170 00	1 62	167 80	2169 39	-1145 61	-11 80	-36 98	8 51	37 95	167 05	0.48	191 58M
	2265 00	0 78	191 58	2264.37	-1050 63	-12 13	-38 93	8 66	39 88	167 46	1 01	224 82M
	2358 00	0 42	224.82	2357 36	-957 64	-11.84	-39.79	8 29	40 64	168 23	0 52	264 27M
	2452.00	0 96	264 27	2451 35	-863 65	-10 84	-40 11	7 27	40 76	169 73	0 73	254 08M
	2547 00	0 78	254 08	2546 34	-768 66	-9 46	-40 37	5 85	40 79	171 75	0 25	226 30M
	2643 00	0 83	226 30	2642 33	-672 67	-8 39	-41 03	4 72	41.30	173 43	0 41	221 23M
	2734 00	0 66	221 23	2733.33	-581 67	-7.65	-41 88	3 90	42 06	174 68	0 20	236 13M
	2829 00	0 89	236 13	2828 32	-486 68	-6 76	-42 70	2 93	42 80	176 08	0 32	213.43M
	2923 00	0 86	213 43	2922.31	-392 69	-5 85	-43 70	1.93	43 74	177 47	0 37	147 38M
	3017 00	1 44	147 38	3016 29	-298 71	-6.24	-45 28	2 18	45 33	177 24	1.43	127 89M
	3109 00	1 68	127 89	3108 26	-206 74	-8 09	-47 08	3 87	47 24	175 30	0 63	79.43M
	3202 00	1 33	79 43	3201 23	-113 77	-10 27	-47 72	6 00	48 10	172 83	1.37	90 27M
	3296.00	0 93	90 27	3295 21	-19 79	-12 08	-47 52	7.84	48 17	170 63	0 48	124 75M
	3390 00	1 24	124.75	3389 20	74 20	-13 73	-48 11	9 44	49 02	168 90	0 75	141 41M
	3484 00	1 48	141 41	3483.17	168 17	-15 45	-49 64	11 03	50 85	167 47	0 49	139 68M
	3578 00	1 02	139 68	3577 15	262.15	-16 89	-51 22	12 33	52 69	166 47	0 49	137 86M
	3672.00	0 69	137 86	3671 14	356 14	-17 90	-52 28	13.25	53 93	165 78	0 35	140.98M
	3759 00	0 60	140 98	3758 13	443 13	-18 60	-53 02	13 89	54 81	165 32	0 11	159 41M
	3883 00	0 44	159 41	3882 13	567 13	-19 26	-53 97	14 47	55 88	165 00	0 19	151 80M
	3977 00	0 39	151 80	3976 12	661 12	-19 59	-54 59	14 74	56 55	164 89	0 08	157 66M
	4165 00	0 21	157.66	4164 12	849 12	-20 10	-55 48	15 18	57 51	164 70	0 10	170 25M
	4354 00	0 35	170 25	4353 12	1038 12	-20 41	-56 36	15 41	58.43	164 71	0 08	156 80M

4542.00	0 37	156 80	4541 11	1226 11	-20.85	-57 49	15 74	59.61	164 69	0 05	156 22M
4730.00	0 17	156 22	4729 11	1414.11	-21 27	-58 30	16 09	60 48	164 57	0 11	187 22M
4918.00	0 11	187 22	4917.11	1602 11	-21 40	-58.74	16.18	60 92	164 60	0.05	185.57M
5106.00	0 17	185 57	5105 11	1790 11	-21 39	-59 19	16 13	61 35	164.75	0 03	179.70M
5294.00	0 15	179 70	5293 11	1978 11	-21 41	-59.72	16 11	61 85	164 90	0 01	194.28M
5482.00	0 21	194 28	5481.11	2166.11	-21 38	-60 30	16 02	62.39	165.12	0.04	176.01M
5671.00	0.15	176 01	5670 11	2355 11	-21 37	-60.88	15 96	62 94	165 31	0 04	170 34M
5858.00	0 32	170.34	5857.11	2542 11	-21 54	-61 64	16 06	63 70	165 39	0 09	152 13M
6046.00	0 51	152 13	6045 10	2730 10	-22.13	-62 89	16 54	65 03	165 27	0 12	148 51M
6235.00	0 62	148 51	6234 09	2919 09	-23 20	-64 51	17 47	66 83	164 85	0.06	131 05M
6423.00	0 68	131 05	6422 08	3107.08	-24 71	-66 11	18 84	68.74	164 09	0 11	148 52M
6623.00	1 07	148 52	6622 06	3307 06	-26 79	-68 48	20 71	71.55	163 17	0 23	157.41M
6724.00	1 17	157.41	6723 04	3408 04	-27 83	-70 24	21.60	73.48	162.91	0 20	161 43M
6757.00	1.11	161.43	6756.03	3441 03	-28 11	-70.85	21.83	74 14	162.88	0.30	156 42M
6787.00	1 27	156.42	6786 03	3471 03	-28 39	-71.43	22.06	74 76	162 84	0.64	254 73M
6818.00	2 03	254 73	6817 02	3502 02	-28 04	-71 89	21 66	75 09	163 23	8 21	274 34M
6849.00	5 89	274 34	6847 94	3532 94	-25 94	-71.92	19 55	74 53	164 79	13 02	0 93R
6881.00	10 48	274 75	6879.60	3564.60	-21 38	-71 55	15.01	73 11	168.15	14 34	6 20R
6912.00	13 69	276 22	6909 91	3594 91	-14 89	-70 92	8 55	71 43	173 13	10.40	13 51L
6943.00	15 82	274 35	6939.89	3624 89	-7 00	-70.20	0 69	70 21	179 44	7 04	5 51R
6975.00	19 58	275 43	6970 37	3655 37	2 73	-69.36	-9 00	69 95	187 40	11 79	11 48R
7006.00	24 03	277 64	6999 14	3684 14	14.23	-68 03	-20 44	71 04	196 72	14.59	1 29R
7037.00	28 72	277 86	7026 91	3711.91	27 99	-66.17	-34.08	74 43	207 25	15.13	3 82L
7069.00	33 71	277 26	7054 27	3739 27	44 55	-64 00	-50 51	81 53	218 28	15 62	0 68R
7100.00	38.46	277.35	7079 31	3764 31	62 79	-61 68	-68.62	92 26	228 05	15.32	5 67R
7132.00	43.38	278 06	7103 49	3788.49	83 72	-58.86	-89.38	107 02	236 63	15 44	14.76R
7163.00	47.78	279.62	7125 18	3810 18	105 81	-55 45	-111 25	124 30	243.51	14.64	6 02R
7195.00	51.65	280.14	7145 87	3830 87	130.14	-51 26	-135 29	144 68	249 25	12 16	4 27R
7225.00	55 98	280 53	7163 57	3848 57	154 24	-46 91	-159 11	165 88	253 57	14 47	HS
7257.00	58 22	280 53	7180.95	3865.95	180.99	-42 00	-185.52	190 22	257 24	7 00	1 77R
7288.00	60 47	280 61	7196 76	3881 76	207 54	-37 11	-211 74	214 96	260 06	7 26	2 32R
7320.00	64 72	280 80	7211.48	3896 48	235 81	-31 83	-239 64	241 75	262 43	13 29	4 96L
7352.00	69 59	280 35	7223 90	3908 90	265 16	-26 43	-268.62	269 92	264.38	15.27	1.04L
7384.00	74.36	280 26	7233 80	3918 80	295 46	-20 98	-298 55	299 29	265 98	14.91	25 01R
7414.00	76 32	281 20	7241 40	3926 40	324 34	-15 58	-327.07	327.44	267 27	7 20	27 21R
7446.00	77 46	281 80	7248.65	3933 65	355.32	-9.37	-357 61	357 73	268 50	4 00	57 52R
7478.00	78 16	282 92	7255 41	3940 41	386 35	-2 67	-388 16	388.17	269 61	4.06	41 47R
7509.00	80 15	284.70	7261 24	3946 24	416.44	4 60	-417 72	417 75	270 63	8 54	20 41R
7540.00	84 14	286 19	7265 48	3950 48	446 65	12.78	-447.32	447 50	271 64	13 72	13 91R
7572.00	88 87	287 36	7267.43	3952 43	477 93	21.99	-477 89	478 39	272 63	15 22	133 12L
7658.00	88 14	286 58	7269 67	3954.67	562 08	47.08	-560 11	562 09	274 81	1 24	94 71R
7690.00	87 87	289 90	7270 79	3955 79	593.23	57 09	-590 48	593 24	275 52	10.40	23 01R
7723.00	89 00	290 38	7271 69	3956 69	625 09	68 45	-621 45	625 21	276 29	3 72	42 71R
7750.00	90 17	291 46	7271 88	3956 88	651 08	78 09	-646 67	651 37	276 89	5 90	61 93L
7782.00	90 41	291 01	7271.72	3956 72	681 82	89.68	-676 50	682 42	277 55	1 59	52 90R
7879.00	91 03	291 83	7270.50	3955 50	774 93	125 10	-766 79	776 93	279 27	1 06	113 00L
7976.00	90 24	289 97	7269 43	3954 43	868.29	159 70	-857 40	872 15	280.55	2 08	105 77L
8073.00	89 52	287 42	7269 63	3954 63	962 58	190 79	-949 27	968 26	281 36	2 73	51.71L
8170.00	89 97	286 85	7270 06	3955 06	1057 47	219 37	-1041 97	1064 81	281 89	0 75	97 85L
8363.00	89 66	284 60	7270 69	3955 69	1247 19	271 67	-1227.73	1257 43	282 48	1.18	75.03L
8459.00	90 93	279 85	7270 19	3955 19	1342 43	291.99	-1321 52	1353 40	282 46	5 12	107 90L
8555.00	88 31	271 74	7270 83	3955 83	1438 33	301 68	-1416 94	1448 70	282 02	8 88	69 00L
8651.00	89 66	268 23	7272 53	3957 53	1533 91	301 65	-1512.91	1542 69	281 28	3 92	71 45L
8747.00	90 17	266 71	7272 67	3957 67	1629 04	297 42	-1608 81	1636 07	280 47	1 67	77 25L
8843.00	90 55	265 03	7272 07	3957 07	1723 78	290 50	-1704 56	1729 13	279 67	1 79	116 56L
8992.00	89 76	263 45	7271 67	3956 67	1870 07	275 55	-1852 80	1873 18	278 46	1 19	1 61R
9162.00	90 83	263 48	7270 79	3955 79	2036 54	256 20	-2021 69	2037 86	277 22	0 63	125 73R
9350.00	90 24	264 30	7269 04	3954 04	2220 90	236 19	-2208 61	2221 20	276 10	0 54	60 89R
9541.00	92 48	268 33	7264 50	3949.50	2409 53	223 92	-2399 11	2409 54	275 33	2 41	174 40L
9732.00	90 03	268 09	7260 32	3945 32	2599 06	217.96	-2589 96	2599 11	274 81	1 29	62 50R

TD →

	9911.00	90 79	269 55	7259 04	3944 04	2776 96	214 27	-2768.91	2777.19	274 42	0 92	162.75R
	10104 00	86.80	270 79	7263.10	3948.10	2969 14	214 84	-2961 82	2969 60	274.15	2.16	123.12R
	10299.00	86 39	271 42	7274.68	3959.68	3163 31	218 59	-3156 44	3164.00	273.96	0 38	173.92R
	10460 00	83.31	271 75	7289.13	3974 13	3323.33	223 03	-3316 71	3324.20	273.85	1 92	84 23L
	10615.00	83.56	269.32	7306.85	3991 85	3476.80	224.46	-3470.67	3477 93	273 70	1.57	52.52R
	10811 00	85 60	271 98	7325 37	4010 37	3671 29	226 69	-3665 76	3672 76	273 54	1.71	60 88R
	11001.00	87 46	275 31	7336 87	4021.87	3860 84	238.75	-3854.99	3862 38	273 54	2 00	50.70L
	11190 00	88 59	273.93	7343 38	4028 38	4049 71	253 96	-4043 26	4051 22	273.59	0 94	58 11L
	11381.00	90 24	271 28	7345.33	4030.33	4240 49	262 64	-4234 02	4242 16	273 55	1 63	117 13L
	11574.00	89 83	270.48	7345 22	4030 22	4432.95	265 60	-4427 00	4434 96	273 43	0.47	108 30R
	11729.00	89 04	272.87	7346 74	4031 74	4587 64	270 13	-4581 91	4589 87	273.37	1.62	35 33R
	11825.00	90.31	273 77	7347 29	4032 29	4683 59	275 69	-4677 75	4685.87	273 37	1 62	130 39L
	11922 00	88 66	271 83	7348.16	4033.16	4780 49	280 43	-4774 62	4782 85	273 36	2.63	25 01R
	12019 00	91 34	273.08	7348 16	4033 16	4877 37	284.58	-4871 52	4879 83	273 34	3.05	176.24L
	12109 00	89.21	272.94	7347.73	4032.73	4967 30	289 31	-4961 39	4969 82	273 34	2.37	122 52R
	12213 00	88 28	274.40	7350.01	4035 01	5071 24	295.96	-5065 15	5073 79	273.34	1 66	4 16R
	12305 00	91 03	274 60	7350 56	4035 56	5163 22	303 18	-5156 85	5165 76	273 36	3.00	177.90R
	12404.00	90 21	274 63	7349 49	4034 49	5262 21	311 15	-5255.53	5264.73	273 39	0.83	49 68R
	12499 00	91 72	276 41	7347.89	4032 89	5357 19	320 28	-5350.07	5359 64	273 43	2.46	93 21R
	12596 00	91 62	278.18	7345 06	4030 06	5454 08	332 59	-5446 24	5456 38	273.49	1.83	42.20R
	12691 00	92.27	278.77	7341.84	4026.84	5548 86	346 59	-5540 14	5550 97	273 58	0 92	146 30L
	12787 00	90.41	277 53	7339.59	4024.59	5644 70	360.19	-5635 14	5646 64	273 66	2 33	3 08R
	12882.00	92.27	277.63	7337.37	4022.37	5739 59	372.72	-5729 28	5741.39	273 72	1 96	151 01L
	12977 00	89.76	276 24	7335 69	4020.69	5834 51	384 19	-5823 56	5836.22	273 77	3 02	55 40L
	13073.00	90.65	274 95	7335.35	4020 35	5930 51	393 54	-5919 10	5932 17	273.80	1 63	127.74L
Final Survey	13178 00	89 28	273 18	7335 41	4020.41	6035 48	400 99	-6023 83	6037 16	273 81	2.13	---
Projection to TD	13234 00	89 28	273 18	7336 11	4021 11	6091 44	404.09	-6079 74	6093 15	273.80	0 00	---

Survey Type: Non-Def Survey

Survey Error Model: SLB ISCWSA version 24 *** 3-D 95.00% Confidence 2.7955 sigma

Surveying Prog:

MD From (ft)

0.00

19 00

13178 00

MD To (ft)

19 00

13178 00

13234.00

EOU Freq

Act-Stns SLB_MWD-STD-Depth Only

Act-Stns SLB_MWD-STD

Act-Stns SLB_BLIND+TREND

Survey Tool Type

Borehole -> Survey

Original Borehole -> Bass James Ranch Unit 106H MWD Surveys 0ft to l

Original Borehole -> Bass James Ranch Unit 106H MWD Surveys 0ft to l

Original Borehole -> Bass James Ranch Unit 106H MWD Surveys 0ft to l

**Italicized stations are NOT used in position calculations*