



Survey Report

INTEQ

MIN. CURVATURE CALCULATIONS (SPE-3382)

SUR: L-1-25s-33e, 2000/S & 900/W
BHL: L-6-25s-34e, 2272/S & 872/W
API # 30-025-37310

OPERATOR: EOG RESOURCES
WELL: RHNU 106
LOCATION: LEA COUNTY, NM

START: 9/6/2003
FINISH:
JOB #: 535362

PROPOSED DIRECTION 85.34
Mag to Grid 8.04

STATION NUMBER	SURVEY DEPTH	INC	AZMTH	TVD	N-S	E-W	VERT. SECTION	DLS/ 100
TIE-IN	11575	0.10	161.71	11586.01	-48.73	334.61	329.54	0.00
1	11677	0.20	183.80	11688.01	-48.99	334.63	329.54	0.11
2	11709	1.90	111.10	11700.00	-49.24	335.12	330.01	5.78
3	11741	6.00	104.70	11731.92	-49.85	337.23	332.07	12.87
4	11773	10.70	104.00	11763.57	-51.00	341.73	336.46	14.69
5	11804	15.90	104.40	11793.73	-52.75	348.64	343.21	16.78
6	11837	21.00	103.30	11825.02	-55.24	358.78	353.11	15.49
7	11869	26.30	101.20	11854.33	-57.94	371.33	365.39	18.77
8	11901	30.60	97.00	11882.46	-60.31	386.37	380.20	14.81
9	11933	34.00	91.40	11909.51	-61.52	403.41	397.08	14.14
10	11985	37.60	87.50	11935.46	-61.31	422.12	415.74	13.31
11	11997	41.90	84.00	11960.06	-59.77	442.51	436.19	15.14
12	12029	44.20	81.50	11983.45	-57.00	464.17	458.01	8.95
13	12061	45.40	80.10	12008.15	-53.39	486.43	480.48	4.85
14	12093	46.60	79.80	12028.38	-49.38	509.09	503.40	3.81
15	12125	48.30	79.80	12050.02	-45.20	532.29	526.86	5.31
16	12157	50.30	79.40	12070.89	-40.82	556.15	551.00	6.32
17	12189	52.20	79.40	12090.92	-36.23	580.68	575.82	5.94
18	12222	53.80	79.40	12110.77	-31.38	606.59	602.03	4.85
19	12254	55.00	79.80	12129.40	-26.69	632.18	627.92	3.89
20	12286	57.30	79.80	12147.23	-21.98	658.33	654.37	7.19
21	12318	58.50	79.80	12164.23	-17.18	685.01	681.35	3.75
22	12351	61.10	79.80	12180.83	-12.13	713.08	709.74	7.88
23	12383	62.40	79.10	12195.97	-6.97	740.79	737.78	4.50
24	12415	64.60	79.10	12210.25	-1.55	768.91	766.24	6.88
25	12447	65.70	79.40	12223.70	3.86	797.44	795.12	3.54
26	12479	68.30	79.40	12236.20	9.28	826.39	824.41	8.13
27	12511	71.40	79.10	12247.22	14.88	855.90	854.28	9.73
28	12544	74.40	79.40	12256.93	20.76	886.88	885.64	9.13
29	12576	76.70	79.80	12264.91	26.36	917.36	916.47	7.29
30	12608	78.20	80.10	12271.86	31.81	948.12	947.57	4.78
31	12639	80.20	80.50	12277.67	36.94	978.13	977.90	6.57
32	12669	82.70	80.50	12282.13	41.83	1007.39	1007.46	8.33
33	12700	84.60	80.50	12285.56	46.92	1037.77	1038.15	6.13
34	12731	87.50	80.50	12287.70	52.02	1068.27	1068.97	9.35



Survey Report

INTEQ

MIN. CURVATURE CALCULATIONS (SPE-3362)

OPERATOR: EOG RESOURCES
WELL: RHNU 108
LOCATION: LEA COUNTY, NM

START: 9/6/2003
FINISH:
JOB #: 535382

PROPOSED DIRECTION: 85.34
Mag to Grid 8.04

STATION NUMBER	SURVEY DEPTH	INC	AZMTH	TVD	N-S	E-W	VERT. SECTION	DLS/ 100
35	12785	90.20	80.50	12288.78	60.93	1121.52	1122.76	5.00
36	12817	90.50	82.90	12288.58	65.55	1153.18	1154.69	7.56
37	12849	90.80	82.20	12288.22	69.70	1184.91	1186.65	2.38
38	12880	91.10	81.90	12287.71	73.99	1215.60	1217.60	1.37
39	12912	91.30	81.90	12287.04	78.50	1247.28	1249.53	0.63
40	12944	90.20	81.90	12286.62	83.00	1278.95	1281.47	3.44
41	12975	89.70	81.90	12286.65	87.37	1309.64	1312.41	1.61
42	13007	87.90	81.50	12287.32	91.99	1341.30	1344.34	5.76
43	13039	86.70	81.50	12288.82	96.71	1372.91	1376.23	3.75
44	13070	85.80	81.90	12290.85	101.18	1403.52	1407.10	3.18
45	13102	86.00	81.90	12293.14	105.88	1435.12	1438.96	0.63
46	13134	86.00	81.90	12295.37	110.17	1466.73	1470.83	0.00
47	13166	86.00	82.20	12297.60	114.59	1498.34	1502.70	0.94
48	13197	85.50	82.90	12299.90	118.60	1529.00	1533.58	2.77
49	13229	85.90	82.90	12302.30	122.54	1560.66	1565.48	1.25
50	13261	86.10	83.30	12304.53	126.38	1592.35	1597.35	1.39
51	13292	86.60	83.30	12306.51	129.99	1623.08	1628.27	1.61
52	13324	86.80	83.30	12308.35	133.71	1654.81	1660.20	0.63
53	13356	87.10	84.00	12310.05	137.25	1686.56	1692.14	2.38
54	13388	86.40	85.00	12311.75	140.12	1716.38	1722.09	4.06
55	13418	86.50	85.00	12313.73	142.90	1748.19	1754.03	0.31
56	13450	87.00	85.40	12315.55	145.58	1780.03	1785.97	2.00
57	13500	87.80	86.80	12317.81	148.97	1829.86	1835.92	3.22
58	13521	87.80	86.80	12318.62	150.14	1850.81	1856.89	0.00
59	13552	88.20	86.80	12319.70	151.87	1881.75	1887.86	1.29
60	13584	88.90	86.80	12320.51	153.66	1913.69	1919.84	2.19
61	13616	89.70	87.20	12320.90	155.33	1945.64	1951.83	2.80
62	13647	91.10	87.20	12320.69	156.85	1976.60	1982.81	4.52
63	13679	92.20	86.80	12319.77	158.52	2008.54	2014.78	3.66
64	13710	92.30	85.70	12318.55	160.55	2039.45	2045.75	3.56
65	13742	92.50	86.10	12317.21	162.83	2071.34	2077.72	1.40
66	13774	92.70	85.70	12315.76	165.12	2103.23	2109.69	1.40
67	13806	92.70	85.40	12314.25	167.60	2135.10	2141.65	0.94
68	13838	93.00	85.70	12312.66	170.08	2166.96	2173.61	1.33
69	13869	91.70	85.70	12311.39	172.40	2197.85	2204.59	4.19



Survey Report

INTEQ

MIN. CURVATURE CALCULATIONS (SPE-3362)

OPERATOR: EOG RESOURCES
WELL: RHNU 106
LOCATION: LEA COUNTY, NM

START: 9/6/2003
FINISH:
JOB #: 535362

PROPOSED DIRECTION: 85.34
Mag to Grid 8.04

STATION NUMBER	SURVEY DEPTH	INC	AZMTH	TVD	N-S	E-W	VERT SECTION	DLS/ 100
70	13900	89.90	85.00	12310.95	174.91	2228.74	2235.58	6.23
71	13932	89.80	85.00	12311.04	177.70	2260.62	2267.58	0.31
72	13964	89.70	85.40	12311.18	180.38	2292.51	2299.58	1.29
73	13995	89.90	85.40	12311.29	182.87	2323.41	2330.58	0.65
74	14027	90.00	85.40	12311.31	185.43	2355.30	2362.58	0.31
75	14090	90.20	84.70	12311.20	190.87	2418.07	2425.58	1.16
76	14154	90.60	84.70	12310.76	196.78	2481.79	2489.57	0.63
77	14216	90.50	84.70	12310.16	202.51	2543.52	2551.57	0.16
78	14280	90.80	85.00	12309.44	208.25	2607.26	2615.56	0.66
79	14343	90.80	84.70	12308.58	213.91	2670.00	2678.55	0.48
80	14375	90.80	84.70	12308.11	216.88	2701.86	2710.55	0.00
81	14407	90.40	86.10	12307.77	219.43	2733.75	2742.54	4.55
82	14439	91.10	87.20	12307.36	221.30	2765.70	2774.53	4.07
83	14470	91.50	87.90	12306.65	222.62	2796.66	2805.50	2.60
84	14502	91.40	87.20	12305.84	223.99	2828.62	2837.47	2.21
85	14565	92.50	87.50	12303.70	226.90	2891.52	2900.39	1.81
86	14629	92.90	87.50	12300.68	229.69	2955.38	2964.27	0.63
87	14660	92.90	87.20	12299.12	231.12	2986.31	2995.22	0.97
88	14697	93.30	88.60	12297.11	232.48	3023.23	3032.12	3.93
89	14729	94.20	88.60	12295.02	233.26	3055.15	3064.00	2.81
90	14760	95.00	88.90	12292.54	233.93	3086.04	3094.85	2.76
91	14792	95.10	89.30	12289.72	234.43	3117.92	3126.66	1.28
92	14824	95.50	89.30	12286.76	234.82	3149.78	3158.44	1.25
93	14855	95.80	88.90	12283.71	235.30	3180.62	3189.23	1.61
94	14887	94.70	88.90	12280.78	235.92	3212.48	3221.03	3.44
95	14919	94.50	88.90	12278.22	236.53	3244.37	3252.86	0.63
96	14951	94.60	89.30	12275.68	237.03	3276.27	3284.69	1.28
97	14982	93.20	88.20	12273.57	237.70	3307.19	3315.57	5.74
98	15014	91.90	87.50	12272.15	238.90	3339.13	3347.50	4.61
99	15046	90.70	87.20	12271.42	240.38	3371.09	3379.48	3.87
100	15077	90.60	86.80	12271.07	242.01	3402.05	3410.46	1.33
101	15109	91.10	87.20	12270.59	243.68	3434.00	3442.44	2.00
102	15140	91.40	87.50	12269.92	245.11	3464.96	3473.42	1.37
103	15172	91.80	87.20	12269.02	246.59	3496.91	3505.38	1.56
104	15204	91.80	87.50	12268.02	248.07	3528.86	3537.35	0.94



Survey Report

INTEQ

MIN. CURVATURE CALCULATIONS (BPE-3362)

OPERATOR: EOG RESOURCES
WELL: RHNU 106
LOCATION: LEA COUNTY, NM

START: 9/8/2003
FINISH:
JOB #: 535362

PROPOSED DIRECTION: 85.34
Mag to Grid 8.04

STATION NUMBER	SURVEY DEPTH	INC	AZMTH	TVD	N-S	E-W	VERT. SECTION	DLS/ 100
105	15236	91.90	87.90	12266.99	249.35	3560.82	3569.31	1.29
106	15267	90.60	87.20	12266.31	250.68	3591.78	3600.27	4.76
107	15298	90.40	87.50	12266.04	252.11	3622.75	3631.25	1.16
108	15330	91.00	87.90	12265.65	253.40	3654.72	3663.22	2.25
109	15362	91.30	87.90	12265.01	254.57	3686.69	3695.19	0.94
110	15393	91.50	87.90	12264.25	255.70	3717.66	3726.15	0.65
111	15425	91.80	87.90	12263.38	256.88	3749.63	3758.10	0.31
112	15457	91.80	87.90	12262.43	258.05	3781.59	3790.06	0.63
113	15489	92.20	87.90	12261.32	259.22	3813.55	3822.00	1.25
114	15520	92.70	87.90	12259.99	260.36	3844.50	3852.94	1.61
115	15551	91.50	87.90	12258.86	261.49	3875.46	3883.89	3.87
116	15582	91.50	87.50	12258.04	262.73	3906.42	3914.86	1.29
117	15614	91.60	87.90	12257.18	264.02	3938.39	3946.82	1.29
118	15646	90.80	87.20	12256.51	265.39	3970.35	3978.79	3.32
119	15695	91.00	87.20	12255.74	267.78	4019.28	4027.75	0.41
120	15726	90.70	87.40	12255.28	269.24	4050.25	4058.73	1.16
121	15758	90.50	86.70	12254.94	270.89	4082.20	4090.72	2.27
122	15790	90.40	87.60	12254.69	272.48	4114.16	4122.70	2.83
123	15821	89.50	87.80	12254.72	273.72	4145.14	4153.67	2.97
124	15853	88.60	88.70	12255.25	274.70	4177.12	4185.63	3.98
125	15885	88.20	88.60	12256.14	275.45	4209.09	4217.56	1.29
126	15917	87.80	88.60	12257.26	276.23	4241.07	4249.49	1.25
127	15949	87.80	88.20	12258.49	277.13	4273.03	4281.42	1.25
128	15981	87.70	88.00	12259.74	278.19	4304.99	4313.36	0.70
129	16012	87.30	89.40	12261.10	278.89	4335.95	4344.27	4.69
130	16044	86.40	91.10	12262.86	278.75	4367.90	4376.11	6.00
131	16076	87.50	92.70	12264.56	277.69	4399.83	4407.85	6.06
132	16108	88.00	93.10	12265.81	278.07	4431.77	4439.55	2.00
133	16139	88.00	93.20	12266.90	274.37	4462.70	4470.24	0.32
134	16171	88.90	92.90	12267.76	272.67	4494.65	4501.94	2.96
135	16203	89.30	93.20	12268.28	270.97	4526.60	4533.65	1.56
136	16235	89.30	92.90	12268.66	269.26	4558.55	4565.35	0.94
137	16267	89.60	91.70	12268.96	267.98	4590.52	4597.12	3.87
138	16299	90.00	90.30	12269.07	267.42	4622.51	4628.96	4.55
139	16330	90.20	89.30	12269.02	267.53	4653.51	4659.87	3.29



Survey Report

INTEQ

MIN. CURVATURE CALCULATIONS (SPE-3382)

OPERATOR: EOG RESOURCES
WELL: RHNU 106
LOCATION: LEA COUNTY, NM

START: 9/8/2003
FINISH:
JOB #: 535362

PROPOSED DIRECTION: 85.34
Mag to Grid 8.04

STATION NUMBER	SURVEY DEPTH	INC	AZMTH	TVD	N-S	E-W	VERT. SECTION	DLS/ 100
140	16362	90.10	89.30	12268.94	267.92	4685.51	4691.79	0.31
141	16392	90.10	89.40	12268.88	268.28	4715.51	4721.72	0.33
142	16423	90.60	89.30	12268.69	268.61	4746.51	4752.64	1.64
143	16455	90.60	89.30	12268.36	269.00	4778.50	4784.56	0.00
144	16486	90.70	89.30	12268.01	269.38	4809.50	4815.48	0.32
145	16518	91.00	89.10	12267.53	269.83	4841.49	4847.41	1.13
146	16550	91.30	89.20	12266.89	270.30	4873.48	4879.33	0.99
147	16582	90.70	89.60	12266.33	270.64	4905.47	4911.25	2.25
148	16614	90.10	89.50	12266.11	270.89	4937.47	4943.16	1.90
149	16644	88.50	89.70	12266.48	271.10	4967.47	4973.07	5.37
150	16675	87.60	89.50	12267.53	271.31	4998.45	5003.97	2.97
151	16739	87.20	89.30	12270.43	271.98	5062.38	5067.74	0.70
BIT	16800	87.20	89.30	12273.41	272.73	5123.30	5128.52	0.00



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WELL: RHNU 106
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FINISH:
JOB #: 535362

PROPOSED DIRECTION: 85.34
Mag to Grid 8.04

STATION NUMBER	SURVEY DEPTH	INC	AZMTH	TVD	N-S	E-W	VERT. SECTION	DLS/ 100
146	16550	91.30	89.20	12266.89	270.30	4873.48	4879.33	0.99
147	16582	90.70	89.60	12266.33	270.64	4905.47	4911.25	2.25
148	16614	90.10	89.50	12266.11	270.89	4937.47	4943.16	1.90
149	16644	88.50	89.70	12266.48	271.10	4967.47	4973.07	5.37
150	16675	87.60	89.50	12267.53	271.31	4998.45	5003.97	2.97
151	16739	87.20	89.30	12270.43	271.98	5062.38	5067.74	0.70
152	16770	87.20	89.20	12271.95	272.39	5093.34	5098.63	0.32
153	16802	87.70	89.40	12273.37	272.78	5125.31	5130.53	1.68
154	16833	88.50	90.70	12274.40	272.75	5156.29	5161.40	4.92
155	16865	88.10	90.50	12275.35	272.42	5188.27	5193.25	1.40
BIT	16929	90.00	90.50	12276.41	271.86	5252.26	5256.98	2.97

6.4 BELOW, 156.5 RT