

F-4-235-34e
1980/N4 1980/W 30-025-34515

Job Number: 0317509671

State/Country: New Mexico/USA

Company: EGL Resources, Inc.

Declination: 8.49°

Lease/Well: Rio Blanco-4-Federal, Well #1

Grid: East to Grid

Location: Lea County

File name: H:\2003SU-1\EGLRES-1\RIOBL4-1.SVY

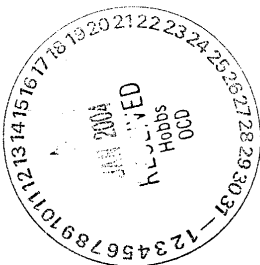
Rig Name: Patterson 74

Date/Time: 22-Jul-03 / 13:30

RKB:

Curve Name: Surface - 10,862' M.D.

G.L. or M.S.L.:



WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane .00
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
0' MD to 10,862' MD is, to the best of
our knowledge a true and accurate account of
the well bore.

[Signature] 7/22/03
Multi-Shot Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
200.00	.47	197.29	200.00	-.78	-.24	-.78	.82	197.29	.24
400.00	1.00	86.13	399.99	-1.45	1.25	-1.45	1.92	139.13	.62
600.00	1.69	99.00	599.93	-1.79	5.91	-1.79	6.17	106.88	.37
800.00	.83	69.06	799.88	-1.74	10.17	-1.74	10.32	99.68	.53
1000.00	.57	86.27	999.87	-1.15	12.52	-1.15	12.57	95.26	.17
1200.00	.78	114.61	1199.85	-1.66	14.75	-1.66	14.84	96.40	.19
1400.00	.77	84.34	1399.84	-2.09	17.32	-2.09	17.45	96.88	.20
1600.00	.85	147.00	1599.82	-3.20	19.47	-3.20	19.73	99.34	.42
1800.00	.58	186.12	1799.81	-5.45	20.17	-5.45	20.89	105.13	.27

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
2000.00	1.33	205.25	1999.78	-8.56	19.07	-8.56	20.90	114.17	.40
2200.00	1.63	217.65	2199.71	-12.91	16.34	-12.91	20.83	128.30	.22
2400.00	1.80	211.89	2399.62	-17.83	12.95	-17.83	22.03	144.01	.12
2600.00	2.02	226.45	2599.51	-22.92	8.73	-22.92	24.53	159.14	.27
2800.00	1.83	219.47	2799.40	-27.82	4.15	-27.82	28.13	171.52	.15
3000.00	1.80	212.02	2999.30	-32.95	.45	-32.95	32.95	179.21	.12
3200.00	1.21	241.31	3199.23	-36.62	-3.06	-36.62	36.75	184.78	.48
3400.00	.78	188.44	3399.20	-38.98	-5.12	-38.98	39.32	187.48	.48
3600.00	.18	114.89	3599.20	-40.46	-5.03	-40.46	40.77	187.09	.37
3800.00	.23	343.92	3799.20	-40.21	-4.86	-40.21	40.50	186.89	.19
4000.00	.65	248.13	3999.19	-40.25	-6.02	-40.25	40.69	188.51	.36
4200.00	.83	259.22	4199.18	-40.94	-8.50	-40.94	41.81	191.73	.11
4400.00	.85	262.70	4399.15	-41.40	-11.39	-41.40	42.94	195.39	.03
4600.00	1.12	270.63	4599.12	-41.57	-14.82	-41.57	44.13	199.62	.15
4800.00	.91	245.17	4799.09	-42.21	-18.21	-42.21	45.97	203.34	.25
5000.00	1.62	267.82	4999.05	-42.99	-22.48	-42.99	48.51	207.61	.43
5200.00	.88	233.32	5199.00	-44.01	-26.54	-44.01	51.39	211.09	.51
5400.00	1.57	263.06	5398.95	-45.26	-30.49	-45.26	54.57	213.97	.46
5600.00	1.24	229.02	5598.90	-47.01	-34.84	-47.01	58.51	216.54	.44
5800.00	.92	257.67	5798.86	-48.77	-38.04	-48.77	61.86	217.96	.31
6000.00	1.59	268.66	5998.81	-49.18	-42.39	-49.18	64.93	220.76	.35
6200.00	.97	262.97	6198.76	-49.45	-46.84	-49.45	68.11	223.45	.32
6400.00	1.81	243.74	6398.70	-51.06	-51.35	-51.06	72.42	225.17	.47
6600.00	1.00	247.81	6598.64	-53.11	-55.80	-53.11	77.04	226.41	.41
6800.00	1.56	272.28	6798.59	-53.66	-60.14	-53.66	80.60	228.26	.39
7000.00	1.17	242.42	6998.54	-54.50	-64.67	-54.50	84.57	229.88	.40
7200.00	1.20	276.41	7198.50	-55.21	-68.56	-55.21	88.03	231.16	.35
7400.00	.93	247.96	7398.46	-55.59	-72.15	-55.59	91.08	232.39	.29
7600.00	.96	248.49	7598.44	-56.81	-75.21	-56.81	94.25	232.93	.02

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
7800.00	1.92	249.87	7798.37	-58.58	-79.91	-58.58	99.08	233.76	.48
8000.00	1.71	261.79	7998.27	-60.16	-86.01	-60.16	104.96	235.03	.22
8200.00	1.88	255.36	8198.17	-61.41	-92.14	-61.41	110.73	236.32	.13
8400.00	1.91	245.16	8398.06	-63.64	-98.34	-63.64	117.14	237.09	.17
8600.00	1.06	248.04	8598.00	-65.73	-103.08	-65.73	122.26	237.47	.43
8800.00	1.20	233.17	8797.96	-67.68	-106.47	-67.68	126.16	237.56	.16
9000.00	1.30	236.19	8997.91	-70.20	-110.03	-70.20	130.52	237.46	.06
9200.00	1.51	236.40	9197.85	-72.92	-114.11	-72.92	135.42	237.42	.11
9400.00	1.76	231.33	9397.77	-76.30	-118.71	-76.30	141.11	237.27	.14
9600.00	1.70	230.08	9597.68	-80.12	-123.38	-80.12	147.11	237.00	.04
9800.00	1.59	232.34	9797.59	-83.72	-127.85	-83.72	152.82	236.78	.06
10000.00	1.68	230.63	9997.51	-87.27	-132.31	-87.27	158.50	236.59	.05
10200.00	1.42	224.04	10197.44	-90.92	-136.30	-90.92	163.84	236.30	.16
10400.00	1.00	209.24	10397.39	-94.22	-138.88	-94.22	167.82	235.85	.26
10600.00	.69	277.46	10597.38	-95.59	-140.93	-95.59	170.28	235.85	.49
10800.00	1.33	245.68	10797.35	-96.39	-144.23	-96.39	173.48	236.25	.41
Last Survey Depth Recorded									
10862.00	1.68	278.00	10859.33	-96.56	-145.79	-96.56	174.86	236.48	1.46