



Job Number: 091117505677
 Company: Yates Petroleum
 Lease/Well: Haracz "AMO" Federal, Well #9H
 Location: Eddy County, New Mexico
 Rig Name: Silver Oak #10
 RKB: 20'
 G.L. or M.S.L.: GL

State/Country: New Mexico / USA
 Declination: 7.55°
 Grid: East To Grid
 File name: F:\SURVEY\2009SU-1\YATESP-1\HARACZ9H.SVY
 Date/Time: 24-Aug-09 / 08:21
 Curve Name: Surface - 7740' M.D. (gyroscopic)

We hereby certify that our survey data from
 Surface MD to 7,740' MD is, to the best of
 our knowledge a true and accurate account of the
 well bore.

Alvin Little 8/24/09
 MS Energy Services Date

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 359.62
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
200.00	.25	280.40	200.00	.08	-.43	.08	.44	280.40	.12
400.00	.25	313.26	400.00	.46	-1.18	.46	1.26	291.22	.07
600.00	.25	308.13	600.00	1.02	-1.84	1.04	2.10	299.16	.01
800.00	.50	303.99	799.99	1.78	-2.90	1.80	3.41	301.54	.13
1000.00	.50	312.86	999.98	2.86	-4.27	2.89	5.14	303.87	.04
1200.00	1.00	308.73	1199.97	4.55	-6.27	4.59	7.75	305.97	.25
1400.00	1.25	287.59	1399.93	6.30	-9.71	6.36	11.57	302.98	.24
1600.00	1.00	283.46	1599.89	7.37	-13.49	7.46	15.37	298.64	.13
1800.00	.75	294.32	1799.87	8.31	-16.38	8.42	18.36	296.91	.15
2000.00	1.25	336.18	1999.84	10.85	-18.45	10.97	21.40	300.45	.43
2200.00	1.00	328.05	2199.80	14.32	-20.25	14.46	24.81	305.27	.15

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	
2400.00	.75	352.91	2399.78	17.10	-21.34	17.24	27.35	308.71	.22
2600.00	.25	349.78	2599.77	18.83	-21.58	18.97	28.64	311.11	.25
2800.00	1.00	167.64	2799.76	17.56	-21.28	17.70	27.59	309.52	.62
3000.00	1.25	172.51	2999.72	13.69	-20.62	13.82	24.75	303.57	.13
3200.00	.75	205.37	3199.69	10.34	-20.90	10.48	23.32	296.33	.37
3400.00	.25	9.24	3399.69	9.59	-21.39	9.73	23.44	294.15	.50
3600.00	.50	285.97	3599.68	10.26	-22.16	10.41	24.42	294.84	.27
3800.00	1.00	77.16	3799.68	10.89	-21.30	11.03	23.92	297.08	.73
4000.00	2.25	81.04	3999.59	11.89	-15.72	11.99	19.71	307.10	.63
4200.00	2.25	98.91	4199.44	11.89	-7.96	11.94	14.31	326.20	.35
4400.00	.75	53.76	4399.37	12.06	-3.03	12.08	12.43	345.91	.90
4600.00	.75	21.62	4599.35	14.05	-1.49	14.06	14.13	353.95	.21
4800.00	.50	30.49	4799.34	16.02	-.56	16.02	16.03	357.98	.13
5000.00	.75	39.35	4999.33	17.78	.71	17.78	17.79	2.28	.13
5200.00	.25	22.22	5199.32	19.20	1.70	19.19	19.27	5.07	.26
5400.00	.50	11.08	5399.32	20.46	2.04	20.44	20.56	5.69	.13
5600.00	.25	343.95	5599.31	21.73	2.08	21.72	21.83	5.48	.15
5800.00	.25	342.52	5799.31	22.57	1.83	22.56	22.64	4.64	.00
6000.00	.25	337.08	5999.31	23.39	1.53	23.38	23.44	3.75	.01
6200.00	.25	228.65	6199.31	23.50	1.03	23.49	23.52	2.52	.20
6400.00	.50	246.21	6399.30	22.86	-.09	22.86	22.86	359.77	.14
6600.00	.25	272.78	6599.30	22.53	-1.33	22.54	22.57	356.63	.15
6800.00	.25	291.34	6799.30	22.71	-2.17	22.72	22.81	354.54	.04
7000.00	.25	150.91	6999.30	22.49	-2.36	22.50	22.61	354.00	.24
7200.00	.75	220.47	7199.29	21.11	-3.00	21.13	21.32	351.91	.35
7400.00	.50	229.04	7399.28	19.54	-4.51	19.57	20.06	347.01	.13
7600.00	.50	204.60	7599.27	18.18	-5.53	18.21	19.00	343.07	.11
Last Survey Depth Recorded									
7740.00	.50	206.56	7739.26	17.07	-6.06	17.11	18.12	340.46	.01