

Anadrill Schlumberger Survey Report

Marathon Oil Co.
Indian Hills Unit Gas Com #13
Original Hole
Eddy County, New Mexico

Magnetic Declination: 9.56 DEG

Tie In Point (TIP):

Measured Depth	3400	FT.
True Vertical Depth	3397.85	FT.
Inclination	1.5	DEG
Azimuth	287.91	DEG
N/S Displacement(-ve for S)	65.18	FT.
E/W Displacement(-ve for W)	-93.27	FT.

Azim. From Rotary Table To Target 137.7 DEG

Accepted Survey Listing:

M.Depth (ft)	Int. (ft)	TVD (ft)	TargetS (ft)	Incl. (deg)	Azim (deg)	N.Disp (ft)	E.Disp (ft)	T.Disp (ft)	Clr.Ang (deg)	DLS (D/HF)
3418	18	3415.84	-111.09	1.9	208.2	64.99	-93.64	113.98	304.76	12.22
3449	31	3446.79	-109.94	4.65	176.4	63.28	-93.8	113.15	304	10.31
3481	32	3478.64	-107.45	6.3	171	60.25	-93.44	111.18	302.81	5.4
3512	31	3509.46	-104.67	6.19	173.68	56.91	-92.99	109.02	301.47	1.01
3543	31	3540.25	-101.59	7.2	164.5	53.38	-92.29	106.61	300.04	4.74
3574	31	3570.99	-98	7.7	163.9	49.51	-91.19	103.77	298.5	1.63
3606	32	3602.65	-93.71	9.13	159.57	45.07	-89.71	100.39	296.68	4.88
3638	32	3634.23	-88.85	9.53	156.76	40.26	-87.78	96.57	294.64	1.89
3669	31	3664.79	-83.92	9.72	154.42	35.54	-85.64	92.72	292.54	1.4
3701	32	3696.34	-78.74	9.59	150.46	30.78	-83.16	88.67	290.31	2.11
3732	31	3726.91	-73.72	9.5	150.85	26.3	-80.64	84.82	288.06	0.36
3763	31	3757.5	-68.79	9.24	148.39	21.95	-78.09	81.11	285.7	1.54
3824	40	3817.73	-59.16	9.09	139.11	14.48	-71.98	73.43	281.38	0
3886	62	3878.84	-48.69	10.41	131.23	7.09	-64.56	64.95	276.26	3.02
3917	31	3909.3	-43.01	10.93	129.04	3.39	-60.17	60.27	273.23	2.13
3948	31	3939.73	-37.13	11.12	130.09	-0.39	-55.6	55.6	269.6	0.89
3979	31	3970.16	-31.26	10.98	127.76	-4.12	-50.98	51.15	265.38	1.51
4010	31	4000.61	-25.49	10.73	131.2	-7.83	-46.47	47.13	260.44	2.24
4041	31	4031.08	-19.8	10.52	132.61	-11.65	-42.22	43.79	254.58	1.08
4072	31	4061.57	-14.23	10.24	135.45	-15.53	-38.2	41.24	247.88	1.88
4103	31	4092.08	-8.72	10.25	133.33	-19.39	-34.26	39.37	240.5	1.22
4134	31	4122.55	-3.05	10.89	131.78	-23.23	-30.07	38	232.31	2.26
4165	31	4152.97	2.87	11.27	130.95	-27.17	-25.6	37.33	223.3	1.33
4259	94	4245.17	21.12	11.21	136.01	-39.76	-12.32	41.63	197.21	1.05
4322	63	4306.98	33.27	11.05	135.85	-48.5	-3.86	48.65	184.55	0.26
4352	30	4336.44	38.96	10.81	135.28	-52.56	0.12	52.56	179.87	0.88
4415	63	4398.32	50.77	10.83	135.93	-61.01	8.39	61.59	172.17	0.2
4446	31	4428.78	56.54	10.62	136.52	-65.18	12.38	66.34	169.24	0.76
4508	62	4489.65	68.29	11.24	135.03	-73.6	20.58	76.42	164.38	1.1
4538	30	4519.07	74.15	11.32	134.41	-77.73	24.75	81.57	162.34	0.48
4570	32	4550.47	80.31	10.93	133.77	-82.03	29.18	87.06	160.41	1.28
4631	61	4610.32	92.03	11.36	130.03	-89.89	37.96	97.58	157.11	1.38