

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: November 30, 2000

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry Other b. Type of Completion: ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr., Other _____		5. Lease Serial No. NM06293
2. Name of Operator Marathon Oil Company		6. If Indian, Allottee or Tribe Name
3. Address P.O. Box 552 Midland, TX 79702		7. Unit or CA Agreement Name and No. 70964A INDIAN HILLS UNIT
3a. Phone No. (include area code) 800-351-1417		8. Lease Name and Well No. INDIAN HILLS UNIT #49
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface UL "A", 705' FNL & 855' FEL At top prod. interval reported below UL "H", 1464' FNL & 746' FEL At total depth UL "H", 1594' FNL & 726' FEL		9. API Well No. 30-015-32723
14. Date Spudded 4/27/03 15. Date T.D. Reached 5/9/03 16. Date Completed ☐ D & A ☒ Ready to Prod. 5/24/03		10. Field and Pool, or Exploratory INDIAN BASIN UPPER PENN ASSOC.
17. Elevations (DF, RKB, RT, GL)* GL-3649; KB-3666		11. Sec., T., R., M., or Block and Survey or Area SECTION 28, T-21-S, R-24-E
18. Total Depth: MD 8180 19. Plug Back T.D.: MD 8155 TVD 8090 TVD 8045		12. County or Parish EDDY 13. State NM
20. Depth Bridge Plug Set: MD 8096 TVD 8045		21. Type Electric & Other Mechanical Logs Run (Submit copy of each) SPECTRAL DENSITY DUAL SPACED NEUTRON - DOWNLOG

22. Was well cored? ☒ No ☐ Yes (Submit analysis) Was DST run ☒ No ☐ Yes (Submit report) Directional Survey? ☐ No ☒ Yes (Submit copy)	
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Hole Size	Size/Grade	Wt.(#ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12.25	9.625K55	36	0	1814		1325		0	
8.75	7 K55	23/26	0	8178		1245			CIRC. 180 SX

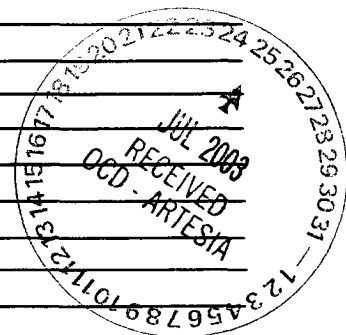
Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	8096	RBP-8096						

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) UPPER PENN	7518	TD	7526-7816			OPEN
B)						
C)						
D)						

Depth Interval	Amount and Type of Material
7526-7816	13,000 GALS 17% CCA SOUR ACID

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity	Gas Gravity	Production Method
5/24/03	7/12/03	24	→	416	308	1601			PUMPING
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. →	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
	300	200	→				740	PRODUCING	

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. →	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
			→						



8b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. →	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	

28c. Production-Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. →	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

Sold

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
CISCO CANYON	7518	7654	DOLOMITE CAPPED W/LIMESTONE	BONE SPRING LIME	5154
	7654	TD	DOLOMITE W/SHALE INTERBEDS	TUBE	6712
				WOLFCAMP	6851
				CISCO	7518
				CANYON	7654

32. Additional remarks (include plugging procedure):

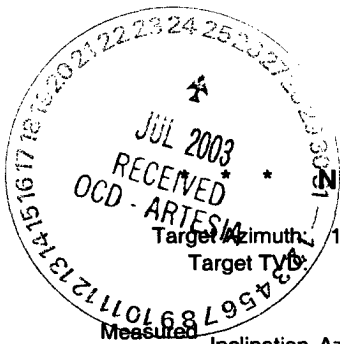
33. Circle enclosed attachments:

- ☒ 1. Electrical/Mechanical Logs (1 full set req'd)
 ☐ 2. Geologic Report
 ☐ 3. DST Report
 ☒ 4. Directional Survey
☐ 5. Sundry Notice for plugging and cement verification
 ☐ 6. Core Analysis
 ☒ 7. Other *Inclination Survey*

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Ginny LarkeTitle Engineer TechnicianSignature *Ginny Larke*Date 7/24/03

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



NAUTICAL (Version 4.01) * * *

Well: Indian Hills Unit 49

Closure Direction: 172

Target Azimuth: 171.54
Target Type: 8100

Calculation Method - Minimum Curvature

Measured Depth (ft)	Inclination (deg.)	Azimuth (deg.)	True Vertical Depth (ft)	Vertical Section (ft)	North/South (ft)	East/West (ft)	Closure (ft)	Build Rate (deg/ft)	Walk Rate (deg/ft)	Dogleg Severity (d/100')	Tool Face (deg)
0	0.00	0.00	0.00	0.00	0.00	0.00	<==== Tie-in Data				
100	0.16	240.10	100.00	0.05	-0.07	-0.12	0.14	0.002	2.401	0.16	gyro
200	0.16	240.04	200.00	0.15	-0.21	-0.36	0.42	0.000	-0.001	0.00	gyro
300	0.03	180.97	300.00	0.23	-0.30	-0.48	0.57	-0.001	-0.591	0.15	gyro
400	0.01	52.83	400.00	0.25	-0.33	-0.48	0.58	0.000	-1.281	0.04	gyro
500	0.18	307.11	500.00	0.14	-0.23	-0.60	0.64	0.002	-1.057	0.18	gyro
600	0.22	71.40	600.00	-0.01	-0.07	-0.54	0.54	0.000	1.243	0.35	gyro
700	0.37	78.06	700.00	-0.06	0.06	-0.04	0.07	0.002	0.067	0.15	gyro
800	0.52	93.75	799.99	0.01	0.10	0.73	0.73	0.002	0.157	0.19	gyro
900	0.63	97.98	899.99	0.26	-0.01	1.72	1.72	0.001	0.042	0.12	gyro
1,000	0.52	92.34	999.98	0.50	-0.11	2.72	2.72	-0.001	-0.056	0.12	gyro
1,100	0.49	100.30	1,099.98	0.73	-0.20	3.60	3.60	0.000	0.080	0.08	gyro
1,200	0.58	119.06	1,199.98	1.17	-0.52	4.46	4.49	0.001	0.188	0.20	gyro
1,300	0.64	140.56	1,299.97	1.96	-1.20	5.26	5.39	0.001	0.215	0.24	gyro
1,400	0.67	157.08	1,399.96	3.01	-2.17	5.84	6.23	0.000	0.165	0.19	gyro
1,500	0.73	172.41	1,499.96	4.21	-3.34	6.15	7.00	0.001	0.153	0.20	gyro
1,600	0.80	161.02	1,599.95	5.53	-4.63	6.46	7.95	0.001	-0.114	0.17	gyro
1,700	0.71	160.74	1,699.94	6.83	-5.88	6.89	9.06	-0.001	-0.003	0.09	gyro
1,800	0.42	137.44	1,799.93	7.74	-6.73	7.35	9.96	-0.003	-0.233	0.36	gyro
1,900	0.31	88.53	1,899.93	8.08	-6.99	7.86	10.52	-0.001	-0.489	0.32	gyro
2,000	0.27	314.42	1,999.93	7.92	-6.82	7.97	10.49	0.000	-1.341	0.53	gyro
2,100	0.38	95.59	2,099.93	7.81	-6.69	8.13	10.53	0.001	-2.188	0.61	gyro
2,200	0.44	139.40	2,199.93	8.22	-7.01	8.71	11.18	0.001	0.438	0.31	gyro
2,300	0.59	141.46	2,299.93	8.99	-7.71	9.28	12.06	0.002	0.021	0.15	gyro
2,400	0.38	148.88	2,399.92	9.74	-8.39	9.77	12.88	-0.002	0.074	0.22	gyro
2,500	0.47	175.99	2,499.92	10.46	-9.09	9.97	13.49	0.001	0.271	0.22	gyro
2,600	0.77	217.62	2,599.91	11.33	-10.03	9.59	13.88	0.003	0.416	0.52	gyro
2,700	0.76	217.31	2,699.90	12.26	-11.09	8.78	14.14	0.000	-0.003	0.01	gyro
2,800	0.86	217.79	2,799.89	13.24	-12.21	7.92	14.55	0.001	0.005	0.10	gyro
2,900	0.90	212.27	2,899.88	14.35	-13.47	7.04	15.19	0.000	-0.055	0.09	gyro
3,000	1.00	214.28	2,999.87	15.59	-14.85	6.13	16.06	0.001	0.020	0.11	gyro
3,100	0.93	207.88	3,099.85	16.89	-16.29	5.25	17.12	-0.001	-0.064	0.13	gyro
3,200	1.20	208.55	3,199.84	18.38	-17.93	4.37	18.45	0.003	0.007	0.27	gyro
3,300	1.60	207.08	3,299.81	20.35	-20.09	3.24	20.35	0.004	-0.015	0.40	gyro
3,330	1.46	200.16	3,329.80	21.02	-20.82	2.92	21.02	-0.005	-0.231	0.77	gyro
3,458	1.76	218.60	3,457.75	23.79	-23.89	1.13	23.91	0.002	0.144	0.46	mwd
3,521	2.00	213.70	3,520.71	25.27	-25.56	-0.09	25.56	0.004	-0.078	0.46	mwd
3,583	2.90	203.40	3,582.66	27.40	-27.90	-1.31	27.93	0.015	-0.166	1.61	mwd
3,647	3.50	200.60	3,646.56	30.49	-31.21	-2.64	31.32	0.009	-0.044	0.97	mwd
3,710	3.00	203.50	3,709.45	33.56	-34.52	-3.97	34.75	-0.008	0.046	0.84	mwd
3,774	4.40	200.30	3,773.32	37.14	-38.36	-5.49	38.75	0.022	-0.050	2.21	mwd
3,837	6.50	200.30	3,836.03	42.38	-43.98	-7.57	44.62	0.033	0.000	3.33	mwd
3,901	7.70	198.60	3,899.54	49.38	-51.44	-10.19	52.44	0.019	-0.027	1.90	mwd
3,963	8.90	200.30	3,960.89	57.28	-59.87	-13.18	61.31	0.019	0.027	1.98	mwd
4,026	10.40	203.10	4,023.00	66.40	-69.67	-17.10	71.74	0.024	0.044	2.49	mwd
4,089	11.80	204.90	4,084.82	76.62	-80.75	-22.05	83.70	0.022	0.029	2.29	mwd
4,153	11.60	204.90	4,147.49	87.46	-92.52	-27.51	96.52	-0.003	0.000	0.31	mwd
4,216	12.00	204.50	4,209.15	98.25	-104.22	-32.89	109.29	0.006	-0.006	0.65	mwd
4,280	11.90	201.10	4,271.77	109.57	-116.43	-38.03	122.49	-0.002	-0.053	1.11	mwd
4,342	12.00	193.60	4,332.43	121.11	-128.66	-41.85	135.30	0.002	-0.121	2.51	mwd
4,404	12.10	183.40	4,393.07	133.44	-141.42	-43.75	148.03	0.002	-0.165	3.43	mwd
4,468	12.70	179.60	4,455.58	146.97	-155.15	-44.10	161.29	0.009	-0.059	1.58	mwd
4,531	12.50	173.60	4,517.06	160.64	-168.85	-43.29	174.31	-0.003	-0.095	2.10	mwd
4,594	13.30	170.40	4,578.47	174.70	-182.77	-41.32	187.38	0.013	-0.051	1.70	mwd

* * * N A U T I C A L (V e r s i o n 4 . 0 1) * * *

Well: Indian Hills Unit 49

Target Azimuth: 171.54

Closure Direction: 172

Target TVD: 8100

Calculation Method - Minimum Curvature

Measured Depth (ft)	Inclination (deg.)	Azimuth (deg.)	True Vertical Depth (ft)	Vertical Section (ft)	North/South (ft)	East/West (ft)	Closure (ft)	Build Rate (deg/ft)	Walk Rate (deg/ft)	Dogleg Severity (d/100')	Tool Face (deg)
4,658	12.00	165.50	4,640.92	188.68	-196.47	-38.43	200.19	-0.020	-0.077	2.63	mwd
4,721	10.80	164.80	4,702.68	201.05	-208.51	-35.24	211.46	-0.019	-0.011	1.92	mwd
4,785	11.10	166.20	4,765.51	213.14	-220.28	-32.20	222.62	0.005	0.022	0.63	mwd
4,848	11.30	167.20	4,827.31	225.34	-232.18	-29.38	234.04	0.003	0.016	0.44	mwd
4,912	12.00	165.90	4,889.99	238.21	-244.75	-26.37	246.17	0.011	-0.020	1.17	mwd
4,976	12.00	165.50	4,952.59	251.45	-257.65	-23.09	258.68	0.000	-0.006	0.13	mwd
5,039	11.80	165.90	5,014.24	264.37	-270.23	-19.88	270.96	-0.003	0.006	0.34	mwd
5,103	11.80	165.50	5,076.89	277.39	-282.92	-16.64	283.41	0.000	-0.006	0.13	mwd
5,167	12.30	165.50	5,139.48	290.68	-295.85	-13.30	296.15	0.008	0.000	0.78	mwd
5,230	11.90	166.20	5,201.08	303.82	-308.66	-10.07	308.82	-0.006	0.011	0.68	mwd
5,294	11.90	164.40	5,263.70	316.93	-321.42	-6.72	321.49	0.000	-0.028	0.58	mwd
5,357	12.10	163.70	5,325.33	329.92	-334.01	-3.12	334.03	0.003	-0.011	0.39	mwd
5,420	12.50	163.40	5,386.88	343.21	-346.89	0.68	346.89	0.006	-0.005	0.64	mwd
5,483	12.60	161.90	5,448.37	356.73	-359.95	4.76	359.98	0.002	-0.024	0.54	mwd
5,546	12.30	162.70	5,509.89	370.14	-372.89	8.89	372.99	-0.005	0.013	0.55	mwd
5,610	12.00	162.00	5,572.46	383.44	-385.72	12.98	385.94	-0.005	-0.011	0.52	mwd
5,672	12.20	162.30	5,633.08	396.26	-398.10	16.96	398.46	0.003	0.005	0.34	mwd
5,735	12.20	163.80	5,694.66	409.43	-410.83	20.84	411.36	0.000	0.024	0.50	mwd
5,798	12.00	165.50	5,756.26	422.53	-423.56	24.34	424.26	-0.003	0.027	0.65	mwd
5,859	12.00	164.80	5,815.93	435.14	-435.82	27.59	436.69	0.000	-0.011	0.24	mwd
5,922	13.20	162.70	5,877.41	448.75	-449.01	31.44	450.11	0.019	-0.033	2.04	mwd
5,985	13.10	162.70	5,938.76	462.91	-462.69	35.71	464.07	-0.002	0.000	0.16	mwd
6,049	12.5	162.7	6,001.17	476.92	-476.23	39.92	477.90	-0.009	0.000	0.94	mwd
6,114	12.3	164.1	6,064.65	490.74	-489.61	43.91	491.57	-0.003	0.022	0.56	mwd
6,178	12.60	164.50	6,127.14	504.43	-502.89	47.65	505.14	0.005	0.006	0.49	mwd
6,241	12.40	165.20	6,188.65	517.97	-516.05	51.21	518.59	-0.003	0.011	0.40	mwd
6,303	11.40	166.20	6,249.32	530.69	-528.44	54.37	531.23	-0.016	0.016	1.65	mwd
6,367	11.40	165.20	6,312.05	543.27	-540.70	57.50	543.74	0.000	-0.016	0.31	mwd
6,430	11.70	163.40	6,373.78	555.78	-552.84	60.91	556.18	0.005	-0.029	0.74	mwd
6,493	11.80	163.40	6,435.46	568.48	-565.13	64.58	568.81	0.002	0.000	0.16	mwd
6,556	10.90	164.4	6,497.23	580.77	-577.04	68.02	581.04	-0.014	0.016	1.46	mwd
6,620	10.90	167.9	6,560.07	592.81	-588.79	70.91	593.04	0.000	0.055	1.03	mwd
6,682	11.60	169.7	6,620.88	604.89	-600.65	73.26	605.10	0.011	0.029	1.26	mwd
6,746	12.10	170.10	6,683.52	618.03	-613.59	75.56	618.23	0.008	0.006	0.79	mwd
6,809	12.70	169.00	6,745.05	631.55	-626.89	78.02	631.73	0.010	-0.017	1.02	mwd
6,873	12.10	163.00	6,807.56	645.21	-640.21	81.32	645.36	-0.009	-0.094	2.22	mwd
6,936	11.20	158.50	6,869.26	657.70	-652.22	85.50	657.80	-0.014	-0.071	2.03	mwd
6,999	9.90	159.50	6,931.19	668.96	-662.99	89.63	669.02	-0.021	0.016	2.08	mwd
7,062	9.20	165.90	6,993.32	679.27	-672.95	92.76	679.31	-0.011	0.102	2.02	mwd
7,125	9.20	170.10	7,055.51	689.32	-682.79	94.85	689.35	0.000	0.067	1.07	mwd
7,188	9.90	167.60	7,117.64	699.75	-693.04	96.88	699.78	0.011	-0.040	1.29	mwd
7,251	11.10	168.30	7,179.58	711.21	-704.27	99.27	711.23	0.019	0.011	1.92	mwd
7,315	11.80	169.00	7,242.31	723.90	-716.73	101.77	723.92	0.011	0.011	1.12	mwd
7,379	11.90	169.00	7,304.94	737.03	-729.63	104.28	737.04	0.002	0.000	0.16	mwd
7,442	12.00	171.10	7,366.58	750.07	-742.47	106.53	750.08	0.002	0.033	0.71	mwd
7,506	11.30	172.20	7,429.26	762.99	-755.26	108.41	763.00	-0.011	0.017	1.15	mwd
7,570	11.20	171.50	7,492.03	775.48	-767.62	110.18	775.49	-0.002	-0.011	0.26	mwd
7,633	12.50	170.10	7,553.69	788.41	-780.39	112.26	788.42	0.021	-0.022	2.11	mwd
7,696	12.20	170.40	7,615.23	801.88	-793.67	114.54	801.89	-0.005	0.005	0.49	mwd
7,760	12.00	171.80	7,677.81	815.30	-806.92	116.62	815.30	-0.003	0.022	0.55	mwd
7,822	11.90	171.80	7,738.46	828.13	-819.63	118.45	828.14	-0.002	0.000	0.16	mwd
7,886	11.80	171.10	7,801.10	841.28	-832.62	120.40	841.28	-0.002	-0.011	0.27	mwd
7,948	11.60	172.50	7,861.81	853.85	-845.07	122.20	853.85	-0.003	0.023	0.56	mwd
8,011	11.30	171.50	7,923.56	866.35	-857.45	123.93	866.36	-0.005	-0.016	0.57	mwd

* * * N A U T I C A L (V e r s i o n 4 . 0 1) * * *

Well: Indian Hills Unit 49

Target Azimuth: 171.54

Closure Direction: 172

Target TVD: 8100

Calculation Method - Minimum Curvature

Measured Depth (ft)	Inclination (deg.)	Azimuth (deg.)	True Vertical Depth (ft)	Vertical Section (ft)	North/ South (ft)	East/ West (ft)	Closure (ft)	Build Rate (deg/ft)	Walk Rate (deg/ft)	Dogleg Severity (d/100')	Tool Face (deg)
8,075	10.80	170.40	7,986.37	878.62	-869.56	125.86	878.63	-0.008	-0.017	0.85 mwd	
8,120	10.70	170.80	8,030.58	887.01	-877.84	127.23	887.02	-0.002	0.009	0.28 mwd	
8,180	10.70	170.80	8,089.54	898.15	-888.84	129.01	898.16	0.000	0.000	0.00 proj	

889'S 129'E



McVAY DRILLING COMPANY
Post Office Box 924
Hobbs, New Mexico 88241
(505) 397-3311
FAX: 39-DRILL

Well Name and Number: Indian Hills #49

Location: Sec. 28, T21S, R24E, Eddy County, NM

Operator: Marathon

Drilling Contractor: McVay Drilling Company

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:

Degrees @ Depth		Degrees @ Depth		Degrees @ Depth	
3/4	218	12	4658	11.8	7315
1/2	645	11 1/4	4848	11.9	7822
1/2	1143	12	4976	10.7	8138
1/2	1490	12 1/4	5167		
3/4	1871	12	5294		
3/4	2315	12	5798		
1	2816	13	5983		
1 1/4	3260	12 1/4	6114		
2 3/4	3583	11 1/2	6302		
4 1/2	3774	11 3/4	6493		
10 1/2	4026	12.5	6746		
11 1/4	4280	11.2	6935		
12	4531	9.2	7062		



Drilling Contractor: McVay Drilling Company

By: Jira Flenner

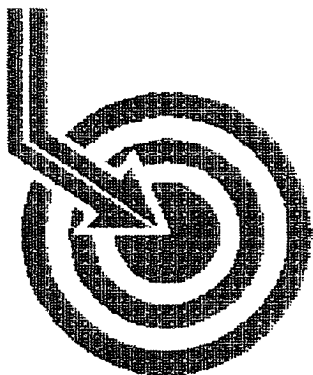
Subscribed and sworn to before me this 17th day of May, 2003

Jira Flenner

Notary Public

My Commission Expires: 8-16-05

Lea County, New Mexico



Scientific Drilling

MARATHON OIL COMPANY

Field: Indian Basin
Site: Eddy County, NM
Well: Indian Hills #49
Wellpath: VH - Job #32K0503211
Survey: 05/01/03



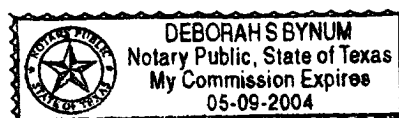
This survey is correct to the best of my knowledge
and is supported by actual field data.

Scott Moody Company Representative

Notorized this date 27th of May, 2003.

Deborah S. Bynum

Notary Signature
County of Midland
State of Texas



Scientific Drilling Survey Report

Company: MARATHON OIL COMPANY
Field: Indian Basin
Site: Eddy County, NM
Well: Indian Hills #49
Wellpath: VH - Job #32K0503211

Date: 5/27/2003 **Time:** 10:12:45 **Page:** 1
Co-ordinate(NE) Reference: Site: Eddy County, NM, True North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,171.99Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

Survey: 05/01/03 **Start Date:** 5/1/2003
Company: KSRG 0'-3330'
Tool: Scientific Drilling **Engineer:** Cary Coffee
 Keeper, Keeper Gyro **Tied-to:** From Surface

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.00
100.0	0.16	240.10	100.0	0.1	-0.1	-0.1	0.16	0.1	240.10
200.0	0.16	240.04	200.0	0.2	-0.2	-0.4	0.00	0.4	240.08
300.0	0.03	180.97	300.0	0.2	-0.3	-0.5	0.15	0.6	237.79
400.0	0.01	52.83	400.0	0.3	-0.3	-0.5	0.04	0.6	235.67
500.0	0.18	307.11	500.0	0.1	-0.2	-0.6	0.18	0.6	249.13
600.0	0.22	71.40	600.0	0.0	-0.1	-0.5	0.35	0.5	262.39
700.0	0.37	78.06	700.0	-0.1	0.1	0.0	0.15	0.1	322.12
800.0	0.52	93.75	800.0	0.0	0.1	0.7	0.19	0.7	82.73
900.0	0.63	97.98	900.0	0.3	0.0	1.7	0.12	1.7	90.45
1000.0	0.52	92.34	1000.0	0.5	-0.1	2.7	0.12	2.7	92.28
1100.0	0.49	100.30	1100.0	0.7	-0.2	3.6	0.08	3.6	93.23
1200.0	0.58	119.06	1200.0	1.1	-0.5	4.5	0.20	4.5	96.72
1300.0	0.64	140.56	1300.0	1.9	-1.2	5.3	0.23	5.4	102.88
1400.0	0.67	157.08	1400.0	3.0	-2.2	5.8	0.19	6.2	110.40
1500.0	0.73	172.41	1500.0	4.2	-3.3	6.1	0.20	7.0	118.51
1600.0	0.80	161.02	1599.9	5.5	-4.6	6.5	0.17	7.9	125.63
1700.0	0.71	160.74	1699.9	6.8	-5.9	6.9	0.09	9.1	130.45
1800.0	0.42	137.44	1799.9	7.7	-6.7	7.3	0.36	10.0	132.51
1900.0	0.31	88.53	1899.9	8.0	-7.0	7.9	0.32	10.5	131.66
2000.0	0.27	314.42	1999.9	7.9	-6.8	8.0	0.53	10.5	130.59
2100.0	0.38	95.59	2099.9	7.8	-6.7	8.1	0.61	10.5	129.46
2200.0	0.44	139.40	2199.9	8.2	-7.0	8.7	0.31	11.2	128.85
2300.0	0.59	141.46	2299.9	8.9	-7.7	9.3	0.15	12.1	129.71
2400.0	0.38	148.88	2399.9	9.7	-8.4	9.8	0.22	12.9	130.67
2500.0	0.47	175.99	2499.9	10.4	-9.1	10.0	0.22	13.5	132.34
2600.0	0.77	217.62	2599.9	11.3	-10.0	9.6	0.52	13.9	136.26
2700.0	0.76	217.31	2699.9	12.2	-11.1	8.8	0.01	14.1	141.60
2800.0	0.86	217.79	2799.9	13.2	-12.2	7.9	0.10	14.6	147.01
2900.0	0.90	212.27	2899.9	14.3	-13.5	7.0	0.09	15.2	152.37
3000.0	1.00	214.28	2999.9	15.6	-14.9	6.1	0.11	16.1	157.54
3100.0	0.93	207.88	3099.9	16.9	-16.3	5.3	0.13	17.1	162.08
3200.0	1.20	208.55	3199.8	18.4	-17.9	4.4	0.27	18.5	166.25
3300.0	1.60	207.08	3299.8	20.3	-20.1	3.3	0.40	20.3	170.80
3330.0	1.46	200.16	3329.8	21.0	-20.8	2.9	0.77	21.0	171.99



Scientific
Drilling

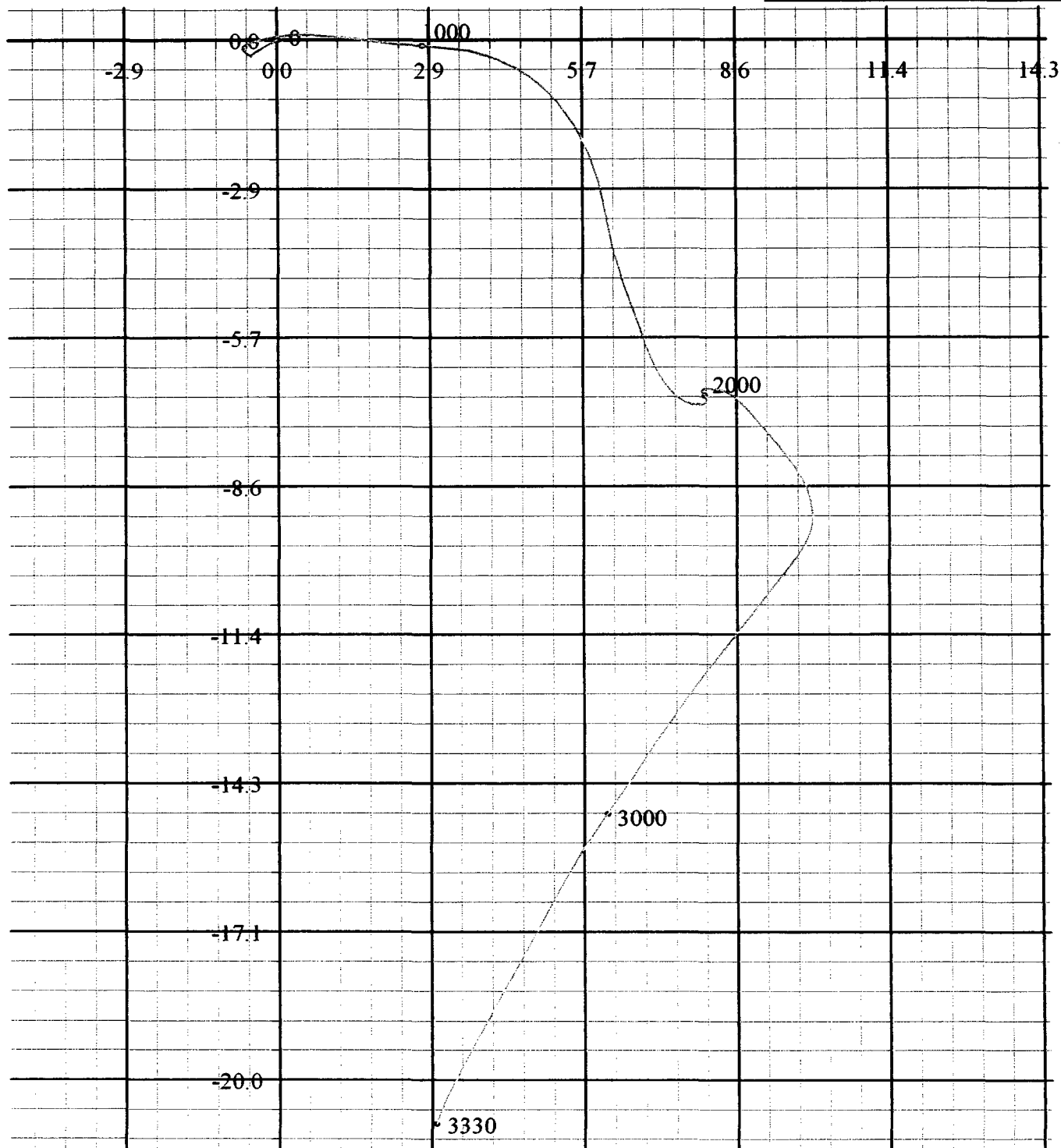
Field: Indian Basin
Site: Eddy County, NM
Well: Indian Hills #49
Wellpath: VH - Job #32K0503211
Survey: 05/01/03



Azimuths to True North
Magnetic North: -6.99°

Magnetic Field
Strength: 31348nT
Dip Angle: -28.58°
Date: 5/27 2003
Model: WMM_95

South(-)/North(+) [ft]



West(-)/East(+) [ft]