Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

Oil Cons.
N.M. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

5. Lease Serial No.
NM-27260

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA/Agreement, Name and/or No.
Indian Hills Unit

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
Indian Hills Unit # 35

2. Name of Operator
Marathon Oil Company

9. API Well No.
30-015-32199

3a. Address
P.O. Box 552 Midland, TX 79702

3b. Phone No. *(include area code)*
915-687-8557

10. Field and Pool, or Exploratory Area
Indian Basin U. P. Assoc.

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec. 33, T-21-S, R-24-E Eddy Co. N.M.
1087' FNL & 2037' FEL

11. County or Parish, State
Eddy N.M.

RECEIVED
OCD - ARTESIA

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

Please see attachments to form 3160-5 for subsequent report.

ACCEPTED FOR RECORD
JUL 24 2002
ALEXIS C. SWOBODA
PETROLEUM ENGINEER

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*
Jerry Fletcher

Title
Engineer Tech.

Jerry Fletcher

Date 7/22/02

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes 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.

Marathon Oil Company

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 35
Common Well Name: INDIAN HILLS UNIT NO. 35 Spud Date: 6/21/2002
Event Name: ORIGINAL DRILLING Start: 6/18/2002 End: 7/13/2002
Contractor Name: MCVAY DRILLING Rig Release: Group:
Rig Name: MCVAY DRILLING Rig Number: 4

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
6/25/2002	07:00 - 22:00	15.00	Rig	MOB	MIRU	Location: 1087' FNL & 2037' FEL, Section 33 T-21-S,R-24-E (Surface). 685' FSL & 2310' FEL, Section 28 T-21-S, R-24-E (UP top, 7850 TVD). 902' FSL & 2344' FEL, Section 28 T-21-S, R-24-E (BHL, 8540' TVD) API #: 30-015-32199 Eddy County, New Mexico Location built by Key. Mesquite Services lined pit. Rig moved by Wilbanks 6/23/02 MIRU Rig w/ 13-5/8" Annular already set on well. Raised derrick @ 4:45 PM. Moved from IHU #43 onto small location IHU #35 w/ existing well IHU # 9 on same pad. Replaced traveling block for repairs & maintenance.
	07:00 - 18:00	11.00	Rig	MIRU	MIRU	6/24/02 Finish R/U equipment on ground & rig floor with all three rig crews. Re-fab air lines. Replaced flowline valves. Weld & re-fab flowline. Installed new fall protection devices on rig equipment. Weld & repair misc. equipment. Filled reserve pit to 3/4 full with fresh water. Presently installing faslines & equipment to pump from IHU's 20, 22, & 43. McVay was unsure how long repairs & re-fabs wold take. Hammer bit will be on location in morning. Jars & BHA will arrive today.
6/26/2002	07:00 - 09:15	2.25			MIRU	Pre-job meeting. P/U 12-1/4" hammer bit & install rotating rubber. Check air lines for leaks.
	09:15 - 13:15	4.00	Drill	AIR	DRLSUR	Spud 12-1/4" hole @ 9:15 CST w/ air.
	13:15 - 13:30	0.25	WireLn	RPTL	DRLSUR	WLS @ 332' / 0.25*
	13:30 - 18:00	4.50	Drill	AIR	DRLSUR	Drilling w/ air @ 3400 SCFM.
	18:00 - 18:30	0.50	WireLn	RPTL	DRLSUR	WLS @ 594' / 0.5*
	18:30 - 01:00	6.50	Drill	AIR	DRLSUR	Drilling
	01:00 - 01:15	0.25	WireLn	RPTL	DRLSUR	WLS @ 904' / misrun.
	01:15 - 01:45	0.50	Drill	AIR	DRLSUR	Drilling
	01:45 - 02:15	0.50	WireLn	RPTL	DRLSUR	WLS @ 934' / 0.5*
	02:15 - 03:15	1.00	Rig	RCNT	DRLSUR	Repair Redman air compressor.
	03:15 - 06:00	2.75	Drill	AIR	DRLSUR	Drilling
6/27/2002	06:00 - 08:45	2.75	Drill	HAMR	DRLSUR	Air drilling w/ hammer bit from 1110 to 1232
	08:45 - 09:00	0.25	Surv	TOTC	DRLSUR	WLS @ 1179', 1/2 deg.
	09:00 - 14:45	5.75	Drill	HAMR	DRLSUR	Air drilling w/ hammer bit from 1232 to 1514
	14:45 - 15:00	0.25	Surv	TOTC	DRLSUR	WLS @ 1461', 1/4 deg
	15:00 - 20:45	5.75	Drill	HAMR	DRLSUR	Air drilling w/ hammer from 1514 to 1706, hit water, no returns to surface
	20:45 - 22:30	1.75	Trip	BIT	DRLSUR	Blow hole, LD single DP, TOOH
	22:30 - 23:30	1.00	Trip	LDDP	DRLSUR	LD hammer, bit, PU RR, tricone bit, shock sub, roller reamer
	23:30 - 01:00	1.50	Trip	BIT	DRLSUR	TIH w/ BHA #2, install rotating head, wash 31' to btm, no fill
	01:00 - 02:15	1.25	Wait	EQIP	DRLSUR	Rocks in mist pump, wait on Redman to remove, repair
	02:15 - 05:15	3.00	Drill	AIR	DRLSUR	Drilling w/ air from 1706' to 1831'
	05:15 - 05:45	0.50	Surv	TOTC	DRLSUR	Blow hole, WLS @ 1803', 1/2 deg.
	05:45 - 06:00	0.25	Trip	BIT	DRLSUR	Start TOOH
6/28/2002	06:00 - 07:00	1.00			DRLSUR	Finish TOOH
	07:00 - 07:30	0.50	Trip	BBHD	DRLSUR	LD 8" DC, roller reamer, shock sub, bit sub, bit
	07:30 - 08:00	0.50	Safety	SMTG	CSGSUR	Safety meeting, RU Bull Rogers casing crew, tools
	08:00 - 10:00	2.00	Csg	RUN	CSGSUR	Run 41 jts of 9-5/8", 36#, K-55 casing to 1831'
	10:00 - 10:30	0.50	Circ	FILL	CSGSUR	Wash 38' to btm, pump casing capacity (137 bbls fresh water)
	10:30 - 11:15	0.75	Safety	SMTG	CSGSUR	Safety meeting, RU Halliburton
	11:15 - 12:30	1.25	Cemt	PRIM	CSGSUR	Cement surface casing as follows: pump 20 bbls gel pill, 5 bbls fresh water spacer, followed by 167 bbls of foam lead, followed by 36 bbls tail w/ no returns. Dropped plug on fly, displace w/ 134 bbls fresh water, bumped plug @ 1000 psi and final displacement of 1500 psi. Floats

Marathon Oil Company

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 35
Common Well Name: INDIAN HILLS UNIT NO. 35 Spud Date: 6/21/2002
Event Name: ORIGINAL DRILLING Start: 6/18/2002 End: 7/13/2002
Contractor Name: MCVAY DRILLING Rig Release: Group:
Rig Name: MCVAY DRILLING Rig Number: 4

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
6/28/2002	11:15 - 12:30	1.25	Cemt	PRIM	CSGSUR	held, no returns to surface.
	12:30 - 14:00	1.50	Cemt	OTHR	CSGSUR	Pumped 144 bbls (600 sx) of foam cement down backside, followed by 20 bbls (75 sx) class C slurry w/ 3% CaCl2 + Cal-seal, observed pressure increase of 200 psi
	14:00 - 17:00	3.00	Wait	CEMT	CSGSUR	RD Halliburton, WOC w/ backside shut-in
	17:00 - 18:00	1.00	BOPwhd	DBOP	CSGSUR	Cut 14" conductor, ND BOP, LD same, cut 9-5/8" casing, not able to tag cement @ 100'
	18:00 - 19:00	1.00	Cemt	TJOB	CSGSUR	PU 1" pipe, RIH and tag @ 170' RKB
	19:00 - 20:15	1.25	Wait	CEMT	CSGSUR	WOC
	20:15 - 20:30	0.25	Cemt	TJOB	CSGSUR	Cement w/ 1", 60 sx Premium + 3% CaCl2, POOH
	20:30 - 21:30	1.00	Wait	CEMT	CSGSUR	WOC, TIH w/ 1", tag TOC @ 105'
	21:30 - 22:30	1.00	Cemt	TJOB	CSGSUR	Cement w/ 1", 90 sx Premium + 2% CaCl2, TOC @ +/- 50',
	22:30 - 23:30	1.00	Cemt	TJOB	CSGSUR	Pump additional 75 sx through 2" chicksand, cement to surface, RD Halliburton
	23:30 - 01:15	1.75	BOPwhd	UWLH	CSGSUR	Weld 11", 3M X 9-5/8' SOW, test to 1000 psi
	01:15 - 06:00	4.75	BOPwhd	UBOP	CSGSUR	NU 11", 5M BOP stack, DSA, rotating head assembly
6/29/2002	06:00 - 07:00	1.00	BOPwhd	UBOP	CSGSUR	Finish NU BOP's, flowline
	07:00 - 13:00	6.00	BOPwhd	BOP	CSGSUR	Test BOP's and related equipment as follows: test pipe and blind rams to 300/3000 psi, Hydril to 300/2000 psi, and test HCR, choke manifold and kill lines, floor valves to 3000 psi. Test mudline to pumps to 2200 psi. Ran accumulator test
	13:00 - 14:30	1.50			CSGSUR	PU bit #3, BHI directional assembly, orient motor, MWD, test same
	14:30 - 16:30	2.00	Trip	MOTR	CSGSUR	TIH, tag cement @ +/- 1730'
	16:30 - 17:00	0.50	Drill	CEMT	CSGSUR	Drill cement to TOFC @ 1784', drill float collar and cement to 1816'
	17:00 - 17:30	0.50	Test	CSG	CSGSUR	Test casing to 1000 psi
	17:30 - 17:45	0.25	Drill	CEMT	CSGSUR	Drill remainder of cement, float shoe
	17:45 - 21:00	3.25	Drill	DOHR	DRLPR	Drill f/ 1831 to 1949
	21:00 - 21:30	0.50	Circ	HOLE	DRLPR	RU gyro while circulating
	21:30 - 00:00	2.50	Surv	GYRO	DRLPR	RIH w/ gyro on w/l, could get past 1455' (DC's), POOH, remove centralizers from gyro, RIH again, still cannot get past 1455'
	00:00 - 02:00	2.00	Trip	BHA	DRLPR	TOOH to check DC's, run totco tool trough DC's, RIH w/ gyro, stopping again in DC's w/ gyro
	02:00 - 03:30	1.50	Trip	LDDP	DRLPR	Found 8th DC in hole with incompleted bore approx. 2' from box end, LD same, replace DC
	03:30 - 04:00	0.50	Surv	GYRO	DRLPR	RIH w/ gyro to top MWD to check for additional obstructions, all clear
	04:00 - 05:30	1.50	Trip	BHA	DRLPR	TIH to 1902'
	05:30 - 06:00	0.50	Surv	GYRO	DRLPR	RIH and survey w/ gyro
6/30/2002	06:00 - 07:15	1.25	Surv	GYRO	DRLPR	Surveying w/ gyro, POOH, RD gyro
	07:15 - 07:45	0.50	MwdLwd	MWDD	DRLPR	PU kelly, wash 15' to bottom, orient, test MWD
	07:45 - 08:15	0.50	Drill	DOHR	DRLPR	Rotary drill f/ 1949 to 1981
	08:15 - 08:30	0.25	Surv	MWD	DRLPR	MWD survey
	08:30 - 09:30	1.00	Drill	DOHD	DRLPR	Slide f/ 1981 to 1989, rotaty drill to 2013
	09:30 - 09:45	0.25	Surv	MWD	DRLPR	MWD survey
	09:45 - 10:30	0.75	Drill	DOHD	DRLPR	Slide f/ 2013 to 2020, rotary drill to 2045
	10:30 - 10:45	0.25	Surv	MWD	DRLPR	MWD survey
	10:45 - 11:15	0.50	Drill	DOHD	DRLPR	Slide f/ 2045 to 2053, rotary drill to 2076
	11:15 - 11:30	0.25	Surv	MWD	DRLPR	MWD survey
	11:30 - 12:00	0.50	Drill	DOHD	DRLPR	Slide f/ 2076 to 2081, rotary drill to 2108
	12:00 - 12:15	0.25	Surv	MWD	DRLPR	MWD survey
	12:15 - 13:00	0.75	Drill	DOHD	DRLPR	Slide f/ 2108 to 2114, rotary drill to 2140
	13:00 - 13:15	0.25	Surv	MWD	DRLPR	MWD survey
	13:15 - 14:00	0.75	Drill	DOHD	DRLPR	Slide f/ 2140 to 2146, rotary drill to 2172

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 35
Common Well Name: INDIAN HILLS UNIT NO. 35 Spud Date: 6/21/2002
Event Name: ORIGINAL DRILLING Start: 6/18/2002 End: 7/13/2002
Contractor Name: MCVAY DRILLING Rig Release: Group:
Rig Name: MCVAY DRILLING Rig Number: 4

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
6/30/2002	14:00 - 14:15	0.25	Surv	MWD	DRLPR	MWD survey
	14:15 - 14:45	0.50	Drill	DOHD	DRLPR	Slide f/ 2172 to 2179, rotary drill to 2204
	14:45 - 15:00	0.25	Surv	MWD	DRLPR	MWD survey
	15:00 - 15:45	0.75	Drill	DOHD	DRLPR	Slide f/ 2204 to 2210, rotary drill to 2236
	15:45 - 16:00	0.25	Surv	MWD	DRLPR	MWD survey
	16:00 - 16:30	0.50	Drill	DOHD	DRLPR	Slide f/ 2236 to 2242, roatry drill to 2268
	16:30 - 16:45	0.25	Surv	MWD	DRLPR	MWD survey
	16:45 - 17:15	0.50	Drill	DOHD	DRLPR	Slide f/ 2268 to 2274, rotary drill to 2300
	17:15 - 17:30	0.25	Surv	MWD	DRLPR	MWD survey
	17:30 - 18:00	0.50	Drill	DOHD	DRLPR	Slide f/ 2300 to 2306, rotary drill to 2332
	18:00 - 18:15	0.25	Surv	MWD	DRLPR	MWD survey
	18:15 - 19:00	0.75	Drill	DOHD	DRLPR	Slide f/ 2332 to 2338, rotary drill to 2364
	19:00 - 19:15	0.25	Surv	MWD	DRLPR	MWD survey
	19:15 - 19:45	0.50	Drill	DOHD	DRLPR	Slide f/ 2364 to 2371, rotary drill to 2395
	19:45 - 20:00	0.25	Surv	MWD	DRLPR	MWD survey
	20:00 - 20:45	0.75	Drill	DOHD	DRLPR	Slide f/ 2395 to 2401, rotary drill to 2427
	20:45 - 21:00	0.25	Surv	MWD	DRLPR	MWD survey
	21:00 - 21:30	0.50	Drill	DOHD	DRLPR	Slide f/ 2427 to 2433, rotary drill to 2459
	21:30 - 21:45	0.25	Surv	MWD	DRLPR	MWD survey
	21:45 - 22:30	0.75	Drill	DOHD	DRLPR	Slide f/ 2459 to 2465, rotary drill to 2490
	22:30 - 22:45	0.25	Surv	MWD	DRLPR	MWD survey
	22:45 - 00:00	1.25	Drill	DOHD	DRLPR	Slide f/ 2490 to 2496, rotary drill to 2521
	00:00 - 00:15	0.25	Surv	MWD	DRLPR	MWD survey
	00:15 - 01:00	0.75	Drill	DOHD	DRLPR	Slide f/ 2521 to 2527, rotary drill to 2553
	01:00 - 01:15	0.25	Surv	MWD	DRLPR	MWD survey
	01:15 - 01:45	0.50	Drill	DOHD	DRLPR	Slide f/ 2553 to 2561, rotary drill to 2585
	01:45 - 02:00	0.25	Surv	MWD	DRLPR	MWD survey
	02:00 - 02:45	0.75	Drill	DOHD	DRLPR	Slide f/ 2585 to 2597, rotary drill to 2617
	02:45 - 03:00	0.25	Surv	MWD	DRLPR	MWD survey
	03:00 - 03:45	0.75	Drill	DOHD	DRLPR	Slide f/ 2617 to 2623, rotary drill to 2648
	03:45 - 04:00	0.25	Surv	MWD	DRLPR	MWD survey
	04:00 - 04:45	0.75	Drill	DOHD	DRLPR	Slide f/ 2648 to 2656, rotary drill to 2680
	04:45 - 05:00	0.25	Surv	MWD	DRLPR	MWD survey
	05:00 - 05:45	0.75	Drill	DOHD	DRLPR	Slide f/ 2680 to 2686, rotary drill to 2711
	05:45 - 06:00	0.25	Surv	MWD	DRLPR	MWD survey
7/1/2002	06:00 - 06:30	0.50	Drill	DOHD	DRLPR	Slide f/ 2711 to 2719, rotary drill to 2743
	06:30 - 06:45	0.25	Surv	MWD	DRLPR	MWD survey
	06:45 - 07:30	0.75	Drill	DOHD	DRLPR	Slide f/ 2743 to 2749, rotary drill to 2775
	07:30 - 07:45	0.25	Surv	MWD	DRLPR	MWD survey
	07:45 - 08:30	0.75	Drill	DOHD	DRLPR	Slide f/ 2775 to 2781, rotary drill to 2806
	08:30 - 08:45	0.25	Surv	MWD	DRLPR	MWD survey
	08:45 - 09:15	0.50	Drill	DOHD	DRLPR	Slide f/ 2806 to 2811, rotary drill to 2836
	09:15 - 09:30	0.25	Surv	MWD	DRLPR	MWD survey
	09:30 - 11:00	1.50	Drill	DOHR	DRLPR	Rotary drill f/ 2836 to 2900
	11:00 - 11:15	0.25	Surv	MWD	DRLPR	MWD survey
	11:15 - 11:30	0.25	Drill	DOHR	DRLPR	Rotary drill f/ 2900 to 2963
	11:30 - 11:45	0.25	Surv	MWD	DRLPR	MWD survey
	11:45 - 13:45	2.00	Drill	DOHR	DRLPR	Rotary drill f/ 2963 to 3025
	13:45 - 14:00	0.25	Surv	MWD	DRLPR	MWD survey
	14:00 - 14:45	0.75	Drill	DOHR	DRLPR	Rotary drill f/ 3025 to 3089
	14:45 - 15:00	0.25	Surv	MWD	DRLPR	MWD survey
	15:00 - 16:15	1.25	Drill	DOHD	DRLPR	Slide f/ 3089 to 3095, rotary drill to 3152
	16:15 - 16:30	0.25	Surv	MWD	DRLPR	MWD survey

Marathon Oil Company

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 35
Common Well Name: INDIAN HILLS UNIT NO. 35
Event Name: ORIGINAL DRILLING
Contractor Name: MCVAY DRILLING
Rig Name: MCVAY DRILLING

Start: 6/18/2002
Rig Release:
Rig Number: 4

Spud Date: 6/21/2002
End: 7/13/2002
Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
7/1/2002	16:30 - 17:45	1.25	Drill	DOHD	DRLPR	Slide f/ 3152 to 3158, rotary drill to 3216
	17:45 - 18:00	0.25	Surv	MWD	DRLPR	MWD survey
	18:00 - 19:00	1.00	Drill	DOHR	DRLPR	Rotary drill f/ 3216 to 3280
	19:00 - 19:15	0.25	Surv	MWD	DRLPR	MWD survey
	19:15 - 20:30	1.25	Drill	DOHR	DRLPR	Rotary drill f/ 3280 to 3343
	20:30 - 20:45	0.25	Surv	MWD	DRLPR	MWD Survey
	20:45 - 22:00	1.25	Drill	DOHR	DRLPR	Rotary drill f/ 3343 to 3405
	22:00 - 22:15	0.25	Surv	MWD	DRLPR	MWD survey
	22:15 - 23:45	1.50	Drill	DOHR	DRLPR	Rotary drill f/ 3405 to 3469
	23:45 - 00:00	0.25	Surv	MWD	DRLPR	MWD survey
	00:00 - 01:45	1.75	Drill	DOHR	DRLPR	Rotary drill f/ 3469 to 3531
	01:45 - 02:00	0.25	Surv	MWD	DRLPR	MWD survey
	02:00 - 04:00	2.00	Drill	DOHR	DRLPR	Rotary drill f/ 3531 to 3595
	04:00 - 04:15	0.25	Surv	MWD	DRLPR	MWD survey
	04:15 - 05:15	1.00	Drill	DOHR	DRLPR	Rotary drill f/ 3595 to 3608
	05:15 - 06:00	0.75	Trip	BIT	DRLPR	TOOH f/ bit
7/2/2002	06:00 - 08:00	2.00	Trip	BIT	DRLPR	Finish TOOH for bit
	08:00 - 08:30	0.50	Trip	BBHD	DRLPR	MU bit #4, BHA, MU RT under 12 jts drill pipe
	08:30 - 10:15	1.75	Trip	BIT	DRLPR	TIH to 3469, LD 4 jts drill pipe
	10:15 - 11:45	1.50	Trip	WSHR	DRLPR	Wash/Ream from 3469 to 3608
	11:45 - 13:15	1.50	Drill	DOHR	DRLPR	Rotary drill f/ 3608 to 3665
	13:15 - 13:30	0.25	Surv	MWD	DRLPR	MWD survey
	13:30 - 14:45	1.25	Drill	DOHR	DRLPR	Rotary drill f/ 3665 to 3727
	14:45 - 15:15	0.50	Surv	MWD	DRLPR	MWD survey, recycle and change pumps
	15:15 - 16:45	1.50	Drill	DOHR	DRLPR	Rotary drill f/ 3727 to 3790
	16:45 - 17:00	0.25	Surv	MWD	DRLPR	MWD survey
	17:00 - 18:45	1.75	Drill	DOHR	DRLPR	Rotary drill f/ 3790 to 3853
	18:45 - 19:45	1.00	Surv	MWD	DRLPR	MWD survey, recycle pump to get tool face
	19:45 - 21:30	1.75	Drill	DOHD	DRLPR	Slide f/ 3853 to 3862, rotary drill to 3917
	21:30 - 21:45	0.25	Surv	MWD	DRLPR	MWD survey
	21:45 - 23:30	1.75	Drill	DOHD	DRLPR	Slide f/ 3917 to 3923, rotary drill to 3980
	23:30 - 23:45	0.25	Surv	MWD	DRLPR	MWD survey
	23:45 - 01:15	1.50	Drill	DOHD	DRLPR	Slide f/ 3980 to 3986, rotary drill to 4042
	01:15 - 01:30	0.25	Surv	MWD	DRLPR	MWD survey
	01:30 - 03:00	1.50	Drill	DOHR	DRLPR	Rotary drill f/ 4042 to 4074
	03:00 - 03:15	0.25	Surv	MWD	DRLPR	MWD survey
	03:15 - 05:00	1.75	Drill	DOHR	DRLPR	Rotary drill f/ 4074 to 4169
	05:00 - 05:15	0.25	Surv	MWD	DRLPR	MWD survey
	05:15 - 06:00	0.75	Drill	DOHR	DRLPR	Rotary drill f/ 4169 to 4200
7/3/2002	06:00 - 07:00	1.00	Drill	DOHR	DRLPR	Rotary drill f/ 4200' to 4232' (in black shale)
	07:00 - 07:15	0.25	Surv	MWD	DRLPR	MWD survey
	07:15 - 08:45	1.50	Drill	DOHD	DRLPR	Slide f/ 4232 to 4238, rotary drill to 4295
	08:45 - 09:00	0.25	Surv	MWD	DRLPR	MWD survey
	09:00 - 10:45	1.75	Drill	DOHD	DRLPR	Slide f/ 4295 to 4303, rotary drill to 4358
	10:45 - 11:15	0.50	Surv	MWD	DRLPR	MWD survey
	11:15 - 13:15	2.00	Drill	DOHD	DRLPR	Slide f/ 4358 to 4370, rotary drill to 4422
	13:15 - 13:30	0.25	Surv	MWD	DRLPR	MWD survey
	13:30 - 16:00	2.50	Drill	DOHD	DRLPR	Slide f/ 4422 to 4432, rotary drill to 4486
	16:00 - 16:15	0.25	Surv	MWD	DRLPR	MWD survey
	16:15 - 17:15	1.00	Drill	DOHD	DRLPR	Slide f/ 4486 to 4498, rotary drill to 4517
	17:15 - 17:30	0.25	Surv	MWD	DRLPR	MWD survey
	17:30 - 18:30	1.00	Drill	DOHD	DRLPR	Slide f/ 4517 to 4525, rotary drill to 4549

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 35
Common Well Name: INDIAN HILLS UNIT NO. 35 Spud Date: 6/21/2002
Event Name: ORIGINAL DRILLING Start: 6/18/2002 End: 7/13/2002
Contractor Name: MCVAY DRILLING Rig Release: Group:
Rig Name: MCVAY DRILLING Rig Number: 4

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
7/3/2002	18:30 - 18:45	0.25	Surv	MWD	DRLPR	MWD survey
	18:45 - 19:30	0.75	Drill	DOHD	DRLPR	Slide f/ 4549 to 4556, rotary drill to 4580
	19:30 - 19:45	0.25	Surv	MWD	DRLPR	MWD survey
	19:45 - 20:45	1.00	Drill	DOHD	DRLPR	Slide f/ 4580 to 4588, rotary drill to 4612
	20:45 - 21:00	0.25	Surv	MWD	DRLPR	MWD survey
	21:00 - 22:00	1.00	Drill	DOHD	DRLPR	Slide f/ 4612 to 4622, rotary drill to 4644
	22:00 - 22:15	0.25	Surv	MWD	DRLPR	MWD survey
	22:15 - 23:30	1.25	Drill	DOHD	DRLPR	Slide f/ 4644 to 4652, rotary drill to 4676
	23:30 - 23:45	0.25	Surv	MWD	DRLPR	MWD survey
	23:45 - 00:45	1.00	Drill	DOHD	DRLPR	Slide f/ 4676 to 4684, rotary drill to 4706
	00:45 - 01:00	0.25	Surv	MWD	DRLPR	MWD survey
	01:00 - 02:30	1.50	Drill	DOHD	DRLPR	Slide f/ 4706 to 4716, rotary drill to 4738
	02:30 - 02:45	0.25	Surv	MWD	DRLPR	MWD survey
	02:45 - 04:00	1.25	Drill	DOHD	DRLPR	Slide f/ 4738 to 4748, rotary drill to 4769
	04:00 - 04:15	0.25	Surv	MWD	DRLPR	MWD survey
	04:15 - 06:00	1.75	Drill	DOHD	DRLPR	Slide f/ 4769 to 4777, rotary drill to 4800 Note: cuttings appear to be more of shale/dolomite mixture
7/4/2002	06:00 - 06:15	0.25	Surv	MWD	DRLPR	MWD Survey
	06:15 - 09:15	3.00	Drill	DOHD	DRLPR	Slide 4800-4815. Rotate 4815-4829. Slide 4829-4841. Rotate 4849-4860.
	09:15 - 09:30	0.25	Surv	MWD	DRLPR	MWD Survey
	09:30 - 12:45	3.25	Drill	DOHD	DRLPR	Slide 4860-4902. Rotate 4902-4924.
	12:45 - 13:00	0.25	Surv	MWD	DRLPR	MWD Survey
	13:00 - 13:30	0.50	Drill	DOHD	DRLPR	Slide 4924-4932. Decided to trip out due to angle continued to drop after multiple slides.
	13:30 - 16:30	3.00	Trip	BIT	DRLPR	TOH to check bit & motor. Found all heel row teeth broken on bit w/ bit 1/16" under gage. One jet particially plugged.
	16:30 - 20:00	3.50	Trip	BIT	DRLPR	Visually inspect motor (ok). TIH w/ new bit,same motor & same BHA, adding a second RT-tool. RT#1 is 4 stds. or 1877' above bit. RT#2 is 17 stds. or 3100' above bit.
	20:00 - 20:45	0.75	Trip	WSHR	DRLPR	Wash & ream 50' to bottom f/ 4882-4932.
	20:45 - 22:45	2.00	Drill	DOHD	DRLPR	Rotary drill 4932-4963. Slide 4963-4971. Rotate 4971-4994.
	22:45 - 23:00	0.25	Wait	WEAT	DRLPR	W/O severe thunderstorm w/ high winds to pass before making connection. Wind blew over McVay Pushers trailer.
	23:00 - 23:15	0.25	Surv	MWD	DRLPR	MWD Survey.
	23:15 - 02:15	3.00	Drill	DOHD	DRLPR	Slide 4994-5008. Rotate 5008-5026. Slide 5026-5036. Rotate 5036-5057.
	02:15 - 02:30	0.25	Surv	MWD	DRLPR	MWD Survey
	02:30 - 05:15	2.75	Drill	DOHD	DRLPR	Slide 5057-5069. Rotate 5069-5089. Slide 5089-5099. Rotate 5089-5120.
	05:15 - 05:30	0.25	Surv	MWD	DRLPR	MWD Survey
	05:30 - 06:00	0.50	Drill	DOHD	DRLPR	Slide 5120-5132
7/5/2002	06:00 - 06:15	0.25	Drill	DOHS	DRLPR	Slide
	06:15 - 07:00	0.75	Drill	DOHR	DRLPR	Rotate
	07:00 - 08:00	1.00	Drill	DOHS	DRLPR	Slide
	08:00 - 08:30	0.50	Drill	DOHR	DRLPR	Rotate
	08:30 - 08:45	0.25	Surv	MWD	DRLPR	MWD Survey
	08:45 - 09:45	1.00	Drill	DOHS	DRLPR	Slide
	09:45 - 10:15	0.50	Drill	DOHR	DRLPR	Rotate
	10:15 - 11:00	0.75	Drill	DOHS	DRLPR	Slide
	11:00 - 11:30	0.50	Drill	DOHR	DRLPR	Rotate
	11:30 - 11:45	0.25	Surv	MWD	DRLPR	Survey

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 35
Common Well Name: INDIAN HILLS UNIT NO. 35 Spud Date: 6/21/2002
Event Name: ORIGINAL DRILLING Start: 6/18/2002 End: 7/13/2002
Contractor Name: MCVAY DRILLING Rig Release: Group:
Rig Name: MCVAY DRILLING Rig Number: 4

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
7/5/2002	11:45 - 12:15	0.50	Drill	DOHS	DRLPR	Slide
	12:15 - 13:00	0.75	Drill	DOHR	DRLPR	Rotate
	13:00 - 13:15	0.25	Drill	DOHS	DRLPR	Slide
	13:15 - 14:00	0.75	Drill	DOHR	DRLPR	Rotate
	14:00 - 14:15	0.25	Surv	MWD	DRLPR	Survey
	14:15 - 14:30	0.25	Drill	DOHS	DRLPR	Slide
	14:30 - 15:30	1.00	Drill	DOHR	DRLPR	Rotate
	15:30 - 16:00	0.50	Drill	DOHS	DRLPR	Slide
	16:00 - 16:45	0.75	Drill	DOHR	DRLPR	Rotate
	16:45 - 17:00	0.25	Surv	MWD	DRLPR	Survey
	17:00 - 17:30	0.50	Drill	DOHS	DRLPR	Slide
	17:30 - 18:30	1.00	Drill	DOHR	DRLPR	Rotate
	18:30 - 19:15	0.75	Drill	DOHS	DRLPR	Slide
	19:15 - 20:00	0.75	Drill	DOHR	DRLPR	Rotate
	20:00 - 20:15	0.25	Surv	MWD	DRLPR	Survey
	20:15 - 21:00	0.75	Drill	DOHS	DRLPR	Slide
	21:00 - 21:45	0.75	Drill	DOHR	DRLPR	Rotate
	21:45 - 22:15	0.50	Drill	DOHS	DRLPR	Slide
	22:15 - 22:45	0.50	Drill	DOHR	DRLPR	Rotate
	22:45 - 23:00	0.25	Surv	MWD	DRLPR	Survey
	23:00 - 23:45	0.75	Drill	DOHS	DRLPR	Slide
	23:45 - 00:30	0.75	Drill	DOHR	DRLPR	Rotate
	00:30 - 01:15	0.75	Drill	DOHS	DRLPR	Slide
	01:15 - 02:15	1.00	Drill	DOHR	DRLPR	Rotate
	02:15 - 02:45	0.50	Drill	DOHS	DRLPR	Slide
	02:45 - 03:30	0.75	Drill	DOHR	DRLPR	Rotate
	03:30 - 04:00	0.50	Drill	DOHS	DRLPR	Slide
	04:00 - 04:45	0.75	Drill	DOHR	DRLPR	Rotate
	04:45 - 05:00	0.25	Surv	MWD	DRLPR	Survey
	05:00 - 05:30	0.50	Drill	DOHS	DRLPR	Slide
	05:30 - 06:00	0.50	Drill	DOHR	DRLPR	Rotate
7/6/2002	06:00 - 07:15	1.25	Drill	DOHD	DRLPR	Rotate 5644-5654. Slide 5654-5660. Rotate 5660-5685.
	07:15 - 07:45	0.50	Surv	MWD	DRLPR	MWD Survey & two connections @ 5654 & 5685.
	07:45 - 12:00	4.25	Drill	DOHD	DRLPR	Slide 5685-5691. Rotate 5691-5717. Slide 5717-5722. Rotate 5722-5748. Slide 5748-5756. Rotate 5756-5811.
	12:00 - 12:30	0.50	Surv	MWD	DRLPR	MWD Survey & two connections @ 5780 & 5811.
	12:30 - 13:00	0.50	Drill	DOHD	DRLPR	Slide 5811-5826. Rotate 5826-5838. Motor stalled.
	13:00 - 13:30	0.50	Circ	CLN	DRLPR	Motor stalled. Check motor . Circulate & prepare to TOH.
	13:30 - 16:45	3.25	Trip	MOTR	DRLPR	TOH to replace motor. Also found all teeth broke off heel row of one cone w/ bit in gage.
	16:45 - 18:00	1.25	Trip	MOTR	DRLPR	L/D motor & bit. P/U new motor & new bit. Replace 8" IBS.
	18:00 - 19:45	1.75	Trip	MOTR	DRLPR	TIH new bit & 1.3* motor. Left bottom RT-tool 4 stds. / 3056' above HWDP & moved top RT-tool up to 22 stds./ 3,970 above HWDP.
	19:45 - 20:15	0.50	Wait	WEAT	DRLPR	W/O hail storm to pass.
	20:15 - 22:30	2.25	Trip	MOTR	DRLPR	TIH & wash 14' to bottom 5838' w/ no fill.
	22:30 - 23:15	0.75	Drill	DOHD	DRLPR	Rotate 5838-5873.
	23:15 - 23:30	0.25	Surv	MWD	DRLPR	MWD Survey & one connection @ 5873.
	23:30 - 01:30	2.00	Drill	DOHD	DRLPR	Slide 5873-5879. Rotate-5879-5905. Slide 5905-5911. Rotate 5911-5935.
	01:30 - 02:00	0.50	Surv	MWD	DRLPR	MWD Survey & two connections @ 5905 & 5935.
	02:00 - 04:15	2.25	Drill	DOHD	DRLPR	Slide 5935-5943. Rotate 5943-5967. Slide 5967-5975. Rotate 5975-5997.
	04:15 - 04:45	0.50	Surv	MWD	DRLPR	MWD Survey & two connections @ 5967 & 5997.

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 35
Common Well Name: INDIAN HILLS UNIT NO. 35 Spud Date: 6/21/2002
Event Name: ORIGINAL DRILLING Start: 6/18/2002 End: 7/13/2002
Contractor Name: MCVAY DRILLING Rig Release: Group:
Rig Name: MCVAY DRILLING Rig Number: 4

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
7/6/2002	04:45 - 06:00	1.25	Drill	DOHD	DRLPR	Slide 5997-6007. Rotate 6007-6029.
7/7/2002	06:00 - 06:30	0.50	Drill	DOHS	DRLPR	Slide
	06:30 - 07:00	0.50	Drill	DOHR	DRLPR	Rotate
	07:00 - 07:15	0.25	Surv	MWD	DRLPR	MWD Survey
	07:15 - 07:30	0.25	Drill	DOHS	DRLPR	Slide
	07:30 - 08:15	0.75	Drill	DOHR	DRLPR	Rotate
	08:15 - 08:45	0.50	Drill	DOHS	DRLPR	Slide
	08:45 - 09:15	0.50	Drill	DOHR	DRLPR	Rotate
	09:15 - 09:45	0.50	Surv	MWD	DRLPR	MWD Survey
	09:45 - 11:00	1.25	Drill	DOHR	DRLPR	Rotate
	11:00 - 11:15	0.25	Surv	MWD	DRLPR	MWD Survey
	11:15 - 11:30	0.25	Drill	DOHS	DRLPR	Slide
	11:30 - 12:30	1.00	Drill	DOHR	DRLPR	Rotate
	12:30 - 12:45	0.25	Drill	DOHS	DRLPR	Slide
	12:45 - 13:30	0.75	Drill	DOHR	DRLPR	Rotate
	13:30 - 13:45	0.25	Surv	MWD	DRLPR	MWD Survey
	13:45 - 14:30	0.75	Drill	DOHS	DRLPR	Slide
	14:30 - 15:00	0.50	Drill	DOHR	DRLPR	Rotate
	15:00 - 15:15	0.25	Drill	DOHS	DRLPR	Slide
	15:15 - 15:45	0.50	Drill	DOHR	DRLPR	Rotate
	15:45 - 16:00	0.25	Surv	MWD	DRLPR	MWD Survey
	16:00 - 16:15	0.25	Drill	DOHS	DRLPR	Slide
	16:15 - 17:00	0.75	Drill	DOHR	DRLPR	Rotate
	17:00 - 17:15	0.25	Drill	DOHS	DRLPR	Slide
	17:15 - 18:00	0.75	Drill	DOHR	DRLPR	Rotate
	18:00 - 18:15	0.25	Surv	MWD	DRLPR	MWD Survey
	18:15 - 18:30	0.25	Drill	DOHS	DRLPR	Slide
	18:30 - 19:15	0.75	Drill	DOHR	DRLPR	Rotate
	19:15 - 19:45	0.50	Drill	DOHS	DRLPR	Slide
	19:45 - 20:30	0.75	Drill	DOHR	DRLPR	Rotate
	20:30 - 20:45	0.25	Drill	DOHS	DRLPR	Slide
	20:45 - 21:45	1.00	Drill	DOHR	DRLPR	Rotate
	21:45 - 22:00	0.25	Drill	DOHS	DRLPR	Slide
	22:00 - 22:30	0.50	Drill	DOHR	DRLPR	Rotate
	22:30 - 22:45	0.25	Drill	DOHS	DRLPR	Slide
	22:45 - 00:15	1.50	Drill	DOHR	DRLPR	Rotate
	00:15 - 00:30	0.25	Drill	DOHS	DRLPR	Slide
	00:30 - 01:00	0.50	Drill	DOHR	DRLPR	Rotate
	01:00 - 01:15	0.25	Surv	MWD	DRLPR	MWD Survey
	01:15 - 01:30	0.25	Drill	DOHS	DRLPR	Slide
	01:30 - 02:30	1.00	Drill	DOHR	DRLPR	Rotate
	02:30 - 02:45	0.25	Drill	DOHS	DRLPR	Slide
	02:45 - 03:15	0.50	Drill	DOHR	DRLPR	Rotate
	03:15 - 03:30	0.25	Surv	MWD	DRLPR	MWD Survey
	03:30 - 05:00	1.50	Drill	DOHR	DRLPR	Rotate
	05:00 - 05:15	0.25	Surv	MWD	DRLPR	MWD Survey
	05:15 - 05:30	0.25	Drill	DOHS	DRLPR	Slide
	05:30 - 06:00	0.50	Drill	DOHR	DRLPR	Rotate
7/8/2002	06:00 - 06:30	0.50	Drill	DOHS	DRLPR	Slide
	06:30 - 07:15	0.75	Drill	DOHR	DRLPR	Rotate
	07:15 - 07:45	0.50	Surv	MWD	DRLPR	Survey
	07:45 - 08:00	0.25	Drill	DOHS	DRLPR	Slide
	08:00 - 08:30	0.50	Drill	DOHR	DRLPR	Rotate

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 35
Common Well Name: INDIAN HILLS UNIT NO. 35 Spud Date: 6/21/2002
Event Name: ORIGINAL DRILLING Start: 6/18/2002 End: 7/13/2002
Contractor Name: MCVAY DRILLING Rig Release: Group:
Rig Name: MCVAY DRILLING Rig Number: 4

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
7/8/2002	08:30 - 08:45	0.25	Drill	DOHS	DRLPR	Slide
	08:45 - 09:15	0.50	Drill	DOHR	DRLPR	Rotate
	09:15 - 09:30	0.25	Surv	MWD	DRLPR	Survey
	09:30 - 09:45	0.25	Drill	DOHS	DRLPR	Slide
	09:45 - 10:30	0.75	Drill	DOHR	DRLPR	Rotate
	10:30 - 10:45	0.25	Surv	MWD	DRLPR	Survey
	10:45 - 11:00	0.25	Drill	DOHS	DRLPR	Slide
	11:00 - 11:30	0.50	Drill	DOHR	DRLPR	Rotate
	11:30 - 11:45	0.25	Surv	MWD	DRLPR	Survey
	11:45 - 12:00	0.25	Drill	DOHS	DRLPR	Slide
	12:00 - 12:45	0.75	Drill	DOHR	DRLPR	Rotate
	12:45 - 13:15	0.50	Drill	DOHS	DRLPR	Slide
	13:15 - 13:45	0.50	Drill	DOHR	DRLPR	Rotate. Lost 150# pump pressure.
	13:45 - 15:00	1.25	Check	SURF	DRLPR	Check mud pumps w/ 150#-200# loss of pressure. Pump softline. Had 100# increase w/ softline 9-10 stds. from surface, but perssure dropped back. Pumped 2nd softline w/ no pressure increase.
	15:00 - 19:00	4.00	Trip		DRLPR	TOH visually inspecting string & found no washout. Bit was in gage w/ broken teeth on heel row. Bit will be rerun later.
	19:00 - 20:00	1.00	Trip		DRLPR	Check BHA, bit, motor, & teleco. Surface test motor.
	20:00 - 00:15	4.25	Trip		DRLPR	TIH w/ new bit on same BHA, moving top RT-tool up 12 stds.to 34 stds. above HWDP, leaving bottom RT 4 stds. above HWDP. (bottom RT 1870 above bit / top RT 5096 above bit).
	00:15 - 00:30	0.25	Drill	DOHS	DRLPR	Slide
	00:30 - 01:15	0.75	Drill	DOHR	DRLPR	Rotate w/ pump press. normal to 100# low.
	01:15 - 01:45	0.50	Drill	DOHS	DRLPR	Slide
	01:45 - 02:30	0.75	Drill	DOHR	DRLPR	Rotate
	02:30 - 02:45	0.25	Surv	MWD	DRLPR	Survey
	02:45 - 03:00	0.25	Drill	DOHS	DRLPR	Slide
	03:00 - 03:45	0.75	Drill	DOHR	DRLPR	Rotate
	03:45 - 04:00	0.25	Drill	DOHS	DRLPR	Slide
	04:00 - 04:30	0.50	Drill	DOHR	DRLPR	Rotate
	04:30 - 05:00	0.50	Surv	MWD	DRLPR	Survey
	05:00 - 06:00	1.00	Drill	DOHR	DRLPR	Rotate
7/9/2002	06:00 - 06:30	0.50	Drill	DOHR	DRLPR	Rotate
	06:30 - 06:45	0.25	Surv	MWD	DRLPR	Survey
	06:45 - 07:15	0.50	Drill	DOHS	DRLPR	Slide
	07:15 - 08:00	0.75	Drill	DOHR	DRLPR	Rotate
	08:00 - 08:45	0.75	Drill	DOHS	DRLPR	Slide. Switched to #1 duplex pump to check out #2 PZ-9 triplex.
	08:45 - 09:45	1.00	Drill	DOHR	DRLPR	Rotate
	09:45 - 10:30	0.75	Drill	DOHS	DRLPR	Slide
	10:30 - 11:30	1.00	Drill	DOHR	DRLPR	Rotate. Changed back to #2 pump @ 7206. Found trash in valves (plastic banding).
	11:30 - 12:00	0.50	Drill	DOHS	DRLPR	Slide
	12:00 - 12:45	0.75	Drill	DOHR	DRLPR	Rotate
	12:45 - 13:30	0.75	Drill	DOHS	DRLPR	Slide
	13:30 - 15:30	2.00	Drill	DOHR	DRLPR	Rotate
	15:30 - 16:00	0.50	Drill	DOHS	DRLPR	Slide. Change to #1 pump to check #2 pump @ 7325.
	16:00 - 17:00	1.00	Drill	DOHR	DRLPR	Rotate
	17:00 - 17:30	0.50	Surv	MWD	DRLPR	Survey
	17:30 - 18:30	1.00	Drill	DOHR	DRLPR	Rotate. Change to #2 pump.
	18:30 - 18:45	0.25	Surv	MWD	DRLPR	Survey
	18:45 - 19:30	0.75	Rig	RCNT	DRLPR	Repair rig. After switching to #2 PZ-9 pump from compound driven #1 duplex pump, the split compound would not engage (running rig on one

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 35
Common Well Name: INDIAN HILLS UNIT NO. 35 Spud Date: 6/21/2002
Event Name: ORIGINAL DRILLING Start: 6/18/2002 End: 7/13/2002
Contractor Name: MCVAY DRILLING Rig Release: Group:
Rig Name: MCVAY DRILLING Rig Number: 4

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
7/9/2002	18:45 - 19:30	0.75	Rig	RCNT	DRLPR	motor).
	19:30 - 20:45	1.25	Drill	DOHR	DRLPR	Rotate
	20:45 - 21:15	0.50	Rig	RCNT	DRLPR	Made second unsucessful attempt to repair compound. McVay called out mechanic.
	21:15 - 22:15	1.00	Drill	DOHR	DRLPR	Rotate
	22:15 - 22:45	0.50	Surv	MWD	DRLPR	Survey
	22:45 - 00:15	1.50	Drill	DOHR	DRLPR	Rotate
	00:15 - 00:30	0.25	Surv	MWD	DRLPR	Survey
	00:30 - 00:45	0.25	Drill	DOHS	DRLPR	Slide
	00:45 - 01:30	0.75	Drill	DOHR	DRLPR	Rotate
	01:30 - 02:30	1.00	Rig	RCNT	DRLPR	Repair rig compound & connection. Now running on both engines.
	02:30 - 03:30	1.00	Drill	DOHR	DRLPR	Rotate
	03:30 - 03:45	0.25	Surv	MWD	DRLPR	Survey
	03:45 - 04:00	0.25	Drill	DOHS	DRLPR	Slide
	04:00 - 05:00	1.00	Drill	DOHR	DRLPR	Rotate
	05:00 - 05:15	0.25	Drill	DOHS	DRLPR	Slide
	05:15 - 06:00	0.75	Drill	DOHR	DRLPR	Rotate
7/10/2002	06:00 - 06:15	0.25	Surv	MWD	DRLPR	Survey
	06:15 - 06:30	0.25	Drill	DOHS	DRLPR	Slide
	06:30 - 07:15	0.75	Drill	DOHR	DRLPR	Rotate
	07:15 - 08:00	0.75	Drill	DOHS	DRLPR	Slide
	08:00 - 08:45	0.75	Drill	DOHR	DRLPR	Rotate
	08:45 - 09:15	0.50	Surv	MWD	DRLPR	Survey
	09:15 - 09:30	0.25	Drill	DOHS	DRLPR	Slide
	09:30 - 10:00	0.50	Drill	DOHR	DRLPR	Rotate
	10:00 - 10:30	0.50	Rig	SERV	DRLPR	Connection & service rig (light plant died).
	10:30 - 11:00	0.50	Drill	DOHS	DRLPR	Slide
	11:00 - 11:30	0.50	Drill	DOHR	DRLPR	Rotate
	11:30 - 12:00	0.50	Surv	MWD	DRLPR	Survey
	12:00 - 12:45	0.75	Drill	DOHR	DRLPR	Rotate
	12:45 - 13:30	0.75	Drill	DOHS	DRLPR	Slide
	13:30 - 14:00	0.50	Drill	DOHR	DRLPR	Rotate
	14:00 - 14:15	0.25	Surv	MWD	DRLPR	Survey
	14:15 - 14:30	0.25	Drill	DOHS	DRLPR	Slide
	14:30 - 15:00	0.50	Drill	DOHR	DRLPR	Rotate
	15:00 - 15:30	0.50	Drill	DOHS	DRLPR	Slide
	15:30 - 16:00	0.50	Drill	DOHR	DRLPR	Rotate
	16:00 - 16:15	0.25	Surv	MWD	DRLPR	Survey
	16:15 - 16:45	0.50	Drill	DOHS	DRLPR	Slide
	16:45 - 18:15	1.50	Drill	DOHR	DRLPR	Rotate. Pumped pre trip sweep while drilling.
	18:15 - 18:30	0.25	Surv	MWD	DRLPR	Survey
	18:30 - 18:45	0.25	Drill	DOHS	DRLPR	Slide
	18:45 - 19:30	0.75	Drill	DOHR	DRLPR	Rotate
	19:30 - 00:00	4.50	Trip	BHA	DRLPR	TOH t/ change BHA L/D 12 jt's. of HWDP & both RT-tools to reduce drag. Bit was in good condition & in gage, w/ only one broken insert on heel row.
	00:00 - 01:30	1.50	Trip	BHA	DRLPR	Surface test motor. TIH w/ same bit.
	01:30 - 02:15	0.75	Rig	SCDL	DRLPR	Cut drilling line
	02:15 - 06:00	3.75	Trip	BHA	DRLPR	TIH. Install rotating rubber & wash 47' to bottom w/ 10' of fill.
7/11/2002	06:00 - 06:30	0.50	Drill	DOHS	DRLPR	Slide
	06:30 - 07:30	1.00	Drill	DOHR	DRLPR	Rotate
	07:30 - 07:45	0.25	Surv	MWD	DRLPR	Conn. & Survey. BOP drill.
	07:45 - 08:15	0.50	Drill	DOHS	DRLPR	Slide

Marathon Oil Company

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 35
Common Well Name: INDIAN HILLS UNIT NO. 35 Spud Date: 6/21/2002
Event Name: ORIGINAL DRILLING Start: 6/18/2002 End: 7/13/2002
Contractor Name: MCVAY DRILLING Rig Release: Group:
Rig Name: MCVAY DRILLING Rig Number: 4

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
7/11/2002	08:15 - 08:45	0.50	Drill	DOHR	DRLPR	Rotate
	08:45 - 09:00	0.25	Surv	MWD	DRLPR	Conn. & Survey
	09:00 - 09:15	0.25	Drill	DOHS	DRLPR	Slide
	09:15 - 10:00	0.75	Drill	DOHR	DRLPR	Rotate
	10:00 - 10:15	0.25	Surv	MWD	DRLPR	Conn. & Survey
	10:15 - 10:30	0.25	Drill	DOHS	DRLPR	Slide
	10:30 - 11:15	0.75	Drill	DOHR	DRLPR	Rotate.
	11:15 - 11:30	0.25	Surv	MWD	DRLPR	Conn. & Survey.
	11:30 - 12:00	0.50	Drill	DOHS	DRLPR	Slide
	12:00 - 12:15	0.25	Drill	DOHR	DRLPR	Rotate
	12:15 - 12:45	0.50	Surv	MWD	DRLPR	Conn & Survey
	12:45 - 13:15	0.50	Drill	DOHS	DRLPR	Slide
	13:15 - 13:30	0.25	Drill	DOHR	DRLPR	Rotate
	13:30 - 13:45	0.25	Surv	MWD	DRLPR	Conn & Survey
	13:45 - 14:00	0.25	Drill	DOHS	DRLPR	Slide
	14:00 - 14:15	0.25	Drill	DOHR	DRLPR	Rotate
	14:15 - 14:30	0.25	Surv	MWD	DRLPR	Conn & Survey
	14:30 - 14:45	0.25	Drill	DOHS	DRLPR	Slide
	14:45 - 15:00	0.25	Drill	DOHR	DRLPR	Rotate. Motor stalling, Fractured
	15:00 - 15:15	0.25	Surv	MWD	DRLPR	Conn & Survey. BOP drill.
	15:15 - 15:30	0.25	Drill	DOHS	DRLPR	Slide
	15:30 - 15:45	0.25	Drill	DOHR	DRLPR	Rotate
	15:45 - 16:00	0.25	Surv	MWD	DRLPR	Conn & Survey
	16:00 - 17:15	1.25	Drill	DOHR	DRLPR	Rotate.Motor stalling, Fractured
	17:15 - 17:45	0.50	Surv	MWD	DRLPR	Conn & Swithed pumps.
	17:45 - 18:15	0.50	Drill	DOHR	DRLPR	Rotate
	18:15 - 18:30	0.25	Surv	MWD	DRLPR	Conn. & Survey
	18:30 - 19:00	0.50	Drill	DOHR	DRLPR	Rotate
	19:00 - 19:15	0.25	Surv	MWD	DRLPR	Conn & Survey
	19:15 - 20:15	1.00	Drill	DOHR	DRLPR	Rotate
	20:15 - 20:30	0.25	Surv	MWD	DRLPR	Conn. & Survey.
	20:30 - 21:45	1.25	Drill	DOHR	DRLPR	Rotate.
	21:45 - 22:00	0.25	Surv	MWD	DRLPR	Conn & Survey.
	22:00 - 23:00	1.00	Drill	DOHR	DRLPR	Rotate.
	23:00 - 23:15	0.25	Surv	MWD	DRLPR	Conn & Survey.
	23:15 - 23:30	0.25	Drill	DOHR	DRLPR	Rotate.
	23:30 - 00:00	0.50	Rig	RCNT	DRLPR	Worked on valve on pump.
	00:00 - 00:15	0.25	Surv	MWD	DRLPR	Conn.
	00:15 - 00:30	0.25	Drill	DOHS	DRLPR	Slide.
	00:30 - 01:00	0.50	Drill	DOHR	DRLPR	Rotate.
	01:00 - 01:15	0.25	Surv	MWD	DRLPR	Conn & Survey.
	01:15 - 01:30	0.25	Drill	DOHS	DRLPR	Slide
	01:30 - 03:00	1.50	Drill	DOHR	DRLPR	Ratate.
	03:00 - 03:15	0.25	Surv	MWD	DRLPR	Conn & Survey.
	03:15 - 03:30	0.25	Drill	DOHS	DRLPR	Slide.
	03:30 - 04:15	0.75	Drill	DOHR	DRLPR	Rotate
	04:15 - 04:30	0.25	Surv	MWD	DRLPR	Conn & Survey.
	04:30 - 05:00	0.50	Drill	DOHS	DRLPR	Slide.
	05:00 - 06:00	1.00	Drill	DOHR	DRLPR	Rotate.
7/12/2002	06:00 - 06:15	0.25	Surv	MWD	DRLPR	Conn & Surv.
	06:15 - 09:00	2.75	Drill	DOHR	DRLPR	Rotate.
	09:00 - 09:15	0.25	Surv	MWD	DRLPR	Conn & Surv.
	09:15 - 11:15	2.00	Drill	DOHR	DRLPR	Rotate. T.D. w/ 8 3/4" bit w/ motor. Had full returns.

Marathon Oil Company

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 35
Common Well Name: INDIAN HILLS UNIT NO. 35 Spud Date: 6/21/2002
Event Name: ORIGINAL DRILLING Start: 6/18/2002 End: 7/13/2002
Contractor Name: MCVAY DRILLING Rig Release: Group:
Rig Name: MCVAY DRILLING Rig Number: 4

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
7/12/2002	11:15 - 11:30	0.25	Surv	MWD	DRLPR	Survey.
	11:30 - 13:15	1.75	Circ	CLN	DRLPR	Pumped 20 bbl sweep to clean out hole.
	13:15 - 14:30	1.25	Trip	BIT	DRLPR	10 stand short trip. Tight @ 8330'
	14:30 - 17:30	3.00	Circ	HOLE	DRLPR	Spotted pill on btm. Tight @ 8854. Worked free. Cir & condition hole.
	17:30 - 22:30	5.00	Trip	BIT	DRLPR	POOH to log. Strapped out of hole.
	22:30 - 23:45	1.25	Trip	BBHD	DRLPR	L/D thruster, Monel collar, Teleco, Pony collar, Motor & bit.
	23:45 - 06:00	6.25			EVALPR	R/U Schlumbergers manifold & pack-off. Made up loggin tools. Logged f/ 8680 to surface.
7/13/2002	06:00 - 06:30	0.50	Log	OPEN	EVALPR	Finish R/D Schlumberger.

Marathon Oil Company

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 35
Common Well Name: INDIAN HILLS UNIT NO. 35 Spud Date: 6/21/2002
Event Name: ORIGINAL COMPLETION Start: 6/18/2002 End: 7/14/2002
Contractor Name: MCVAY DRILLING Rig Release: Group:
Rig Name: MCVAY DRILLING Rig Number: 4

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
7/13/2002	06:30 - 10:45	4.25	Trip	BIT	OTHER	TIH w/ bit t/ btm. Installed stripper rubber.
	10:45 - 12:15	1.50	Circ	HOLE	OTHER	Cir. & condition hole.
	12:15 - 20:30	8.25	Trip	LDDP	OTHER	POOH L/D drillstring, Broke kelley from swivel, finish L/D HWDP & collars.
	20:30 - 21:45	1.25	BOPwhd	DBOP	CSGPR	Changed out pipe rams to 7"csg rams.
	21:45 - 04:00	6.25	Csg	RUN	CSGPR	Held safety meeting. Made up float guide shoe to shoe jt. Installed flaot collar. RIH w/ 196 jt's of 26# & 23# 7" K-55 casing w/ ECP , pub sub, D.V. tool. Bottom of casing @ 8860'
	04:00 - 06:00	2.00	Circ	HOLE	CSGPR	Hooked up swedge & wash down csg. Cir well while R/D caser's & L/D machine.
7/14/2002	06:00 - 08:30	2.50	Circ	HOLE	CSGPR	Cir.longer while waiting f/ some Calcium chloride that cementers forgot to bring with them.
	08:30 - 09:00	0.50	Cemt	OTHR	CSGPR	Held safety meeting & changed out cement head for swedge.
	09:00 - 11:30	2.50	Cemt	PRIM	CSGPR	Cemented 7" csg w/ 100sks acid soluble cement w/ 620 sks nitrofied Premium, Tailed w/ 120 sks Super H. Plug down 11:30 A.M. Cir 112 sks nitrofied cement to reserve pit.
	11:30 - 12:00	0.50	Cemt	PLUG	CSGPR	Set ECP w/ 3400 PSI. Check floats O.K. Dropped bomb down csg & reset D.V tool.
	12:00 - 12:30	0.50	Cemt	TJOB	CSGPR	Capped well w/ 100 sks P+.
	12:30 - 15:30	3.00	Wait	CEMT	CSGPR	Waited 3 hours befor cut off.
	15:30 - 23:00	7.50	BOPwhd	DBOP	CSGPR	N/D bop. Set slipps & cut off 7"" csg. Pulled stack. R/U well head tbg hanger.Released rig @ 2330 Hr's.

Marathon Oil Company

Casing Report

Legal Well Name:	INDIAN HILLS UNIT NO. 35			Spud Date:	6/21/2002
Common Well Name:	INDIAN HILLS UNIT NO. 35	Report #:	1	Report Date:	6/27/2002
Event Name:	ORIGINAL DRILLING	Start:	6/18/2002	End:	7/13/2002

General Information

String Type: SURFACE CASING		Permanent Datum:	KELLY BUSHING	Hole Size:	8.750 (in)	Hole TMD:	1,831.0 (ft)
Hole TVD:	1,831.0 (ft)	KB-Datum:	4,140.00 (ft)	Water TMD:		Str Wt on Slips:	(lb)
Ground Level:	4,123.00 (ft)	CF Elevation:	(ft)	Liner Overlap:	(ft)	Max Hole Angle:	0.50 (°)
Circ Hours:	(hr)	Mud Lost:	(bbl)	KB to Cutoff:	(ft)	Days From Spud:	2 (days)

Casing Flange / Wellhead

Manufacturer:	WoodGroup	Model:	6A-PU-EE-1-2	Top Hub/Flange:	11.000 (in) / 3,000 (psi)
Hanger Model:	WG	Packoff Model:	C-22	BTM Hub/Flange:	9.625 (in) / (psi)

Actual TMD Set: 1,831.780 (ft)

Integral Casing Detail

Item	Size (in)	Weight (lb/ft)	Grade	Drift (in)	Threads	JTS	Length (ft)	Top (ft)	MU Torq. (ft-lbf)	THD	Manufacturer	Model	Cond.	Max OD (in)	Min ID (in)	Comp. Name
CASING JOINT(S)	9.625	36.0	K-55		ST&C	40	1,784.380			N						
CASING FLOAT COLLA	9.625	36.0	K-55		ST&C	1	1.200	1,784.38		Y						
CASING JOINT(S)	9.625	36.0	K-55		ST&C	1	44.750	1,785.58		Y						
CASING FLOAT SHOE	9.625		K-55		ST&C	1	1.450	1,830.33		Y						

Non-Integral Casing Accessories

Accessory	Manufacturer	Number	Spacing (ft)	Interval		How Fixed
				Top (ft)	Bottom (ft)	
CENTRALIZER	GEMCO	1	22.0	1,809.0	1,831.0	CLAMPED
CENTRALIZER	GEMCO	19	45.0		1,809.0	CLAMPED

Marathon Oil Company

Cementing Report

Legal Well Name:	INDIAN HILLS UNIT NO. 35			Spud Date:	6/21/2002
Common Well Name:	INDIAN HILLS UNIT NO. 35	Report #:	1	Report Date:	6/28/2002
Event Name:	ORIGINAL DRILLING	Start:	6/18/2002	End:	7/13/2002

Cement Job Type: Primary

Primary	Squeeze Open Hole	Squeeze Casing	Plug
Hole Size: 12.250 (in)	Hole Size:	Hole Size:	Hole Size:
TMD Set: 1,831.8 (ft)	SQ TMD: (ft)	TMD Set:	Top Set: (ft)
Date Set: 6/27/2002	SQ Date:	Date Set:	BTM set: (ft)
Csg Type: SURFACE CASING	SQ Type:	Csg Type:	Plug Date:
Csg Size: 9.625 (in)		SQ TMD:	Plug Type:
		SQ Date:	Drilled Out:
Cmtd. Csg: SURFACE CASING	Cmtd. Csg:	Cmtd. Csg:	Cmtd. Csg:

Cement Co: HALLIBURTON Cementer: Pipe Movement: NO MOVEMENT

Pipe Movement

Rot Time Start: :	Time End: :	RPM:	Init Torque: (ft-lbf)	Avg Torque: (ft-lbf)	Max Torque: (ft-lbf)	
Rec Time Start: :	Time End: :	SPM:	Stroke Length: (ft)	Drag Up: (lb)	Drag Down: (lb)	

Stage No: 1 of 3

Type: PRIM CMT 1ST STAGE	Start Mix Cmt: 11:30	Disp Avg Rate: 6.00 (bbl/min)	Returns: None
Volume Excess %: 100.00	Start Slurry Displ: :	Disp Max Rate: 7.00 (bbl/min)	Total Mud Lost: (bbl)
Meas. From:	Start Displ: :	Bump Plug: Y	Cmt Vol to Surf: (bbl)
Time Circ Prior	End Pumping: :	Press Prior: 1,000 (psi)	
To Cementing: 0.50	End Pump Date:	Press Bumped: 1,500 (psi)	Ann Flow After: N
Mud Circ Rate: 221 (gpm)	Top Plug: Y	Press Held: (min)	Mixing Method:
Mud Circ Press: (psi)	Bottom Plug: N	Float Held: Y	Density Meas By:

Mud Data

Type: FRESH WATER Density: 8.4 (ppg) Visc: 27 (s/qt) PV/YP: (cp)/ (lb/100ft²) Gels 10 sec: (lb/100ft²) Gels 10 min: (lb/100ft²)
Bottom Hole Circulating Temperature: (°F) Bottom Hole Static Temperature: (°F)
Displacement Fluid Type:FRESH WATER Density: 8.4 (ppg) Volume: 134.00 (bbl)

Stage No: 1 Slurry No: 1 of 2

Slurry Data

Fluid Type: LEAD	Description: FOAM		Class: FOAMED	Purpose: ZONAL ISOL	
Slurry Interval: (ft)	To: 1,400.00 (ft)	Cmt Vol: 700 (sk)	Density: 14.8 (ppg)	Yield: 1.34 (ft³/sk)	Mix Water: 6.36 (gal/sk)
Water Source: Fresh water tank		Slurry Vol25.0 (bbl)	Water Vol: 61.2 (bbl)	Other Vol: ()	Foam Job: Y

Test Data			**Time**	**Temp**	**Pressure**
Thickening Time:	Temperature: (°F)	Compressive Strength 1:		(°F)	(psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:		(°F)	(psi)
Fluid Loss: (cc)	Temperature: (°F)				
Fluid Loss Pressure: (°F)					

Marathon Oil Company

Cementing Report

Legal Well Name:	INDIAN HILLS UNIT NO. 35			Spud Date:	6/21/2002
Common Well Name:	INDIAN HILLS UNIT NO. 35	Report #:	1	Report Date:	6/28/2002
Event Name:	ORIGINAL DRILLING	Start:	6/18/2002	End:	7/13/2002

Stage No: 1 Slurry No: 1 of 2 - Additives

Trade Name	Type	Concentration	Units	Liquid Conc.	Units
CALC2	ACCELERATOR	2.00			% BWOC
Zonesealant	zone seal	1.50			% BWOC

Stage No: 1 Slurry No: 2 of 2

Slurry Data

Fluid Type: TAIL	Description: NEAT		Class: OTHER	Purpose: FW PROTEC	
Slurry Interval: 1,400.00 (ft)	To: 1,831.00 (ft)	Cmt Vol: 150 (sk)	Density: 14.8 (ppg)	Yield: 1.34 (ft^3/sk)	Mix Water: 6.30 (gal/sk)
Water Source: Fresh water tanks		Slurry Vol: (bbl)	Water Vol: 22.5 (bbl)	Other Vol: ()	Foam Job: N

Test Data			**Time**	**Temp**	**Pressure**
Thickening Time:	Temperature: (°F)	Compressive Strength 1:		(°F)	(psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:		(°F)	(psi)
Fluid Loss: (cc)	Temperature: (°F)				
Fluid Loss Pressure: (°F)					

Stage No: 1 Slurry No: 2 of 2 - Additives

Trade Name	Type	Concentration	Units	Liquid Conc.	Units
CALC2	ACCELERATOR	2.00			% BWOC

Stage No: 2 of 3

Type: REMDIAL CEMENT	Start Mix Cmt: 12:50	Disp Avg Rate: (bbl/min)	Returns: none
Volume Excess %:	Start Slurry Displ: :	Disp Max Rate: (bbl/min)	Total Mud Lost: (bbl)
Meas. From:	Start Displ: :	Bump Plug: N	Cmt Vol to Surf: (bbl)
Time Circ Prior	End Pumping: :	Press Prior: (psi)	
To Cementing:	End Pump Date:	Press Bumped: (psi)	Ann Flow After: N
Mud Circ Rate: (gpm)	Top Plug: N	Press Held: (min)	Mixing Method:
Mud Circ Press: (psi)	Bottom Plug: N	Float Held: N	Density Meas By:

Mud Data

Type: FRESH WATER Density: 8.4 (ppg) Visc: 27 (s/qt) PV/YP: (cp)/ ($lb/100ft^2$) Gels 10 sec: ($lb/100ft^2$) Gels 10 min: ($lb/100ft^2$)

Bottom Hole Circulating Temperature: (°F) Bottom Hole Static Temperature: (°F)

Displacement Fluid Type: Density: (ppg) Volume: (bbl)

Marathon Oil Company

Cementing Report

Legal Well Name:	INDIAN HILLS UNIT NO. 35			Spud Date:	6/21/2002
Common Well Name:	INDIAN HILLS UNIT NO. 35	Report #:	1	Report Date:	6/28/2002
Event Name:	ORIGINAL DRILLING	Start:	6/18/2002	End:	7/13/2002

Stage No: 2 Slurry No: 1 of 2

Slurry Data

Fluid Type: LOST CIRC. SLURRY Description: FOAM Class: FOAMED Purpose:
Slurry Interval: (ft) To: (ft) Cmt Vol: 600 (sk) Density: 14.8 (ppg) Yield: 1.34 (ft³/sk) Mix Water: 6.30 (gal/sk)
Water Source: Fresh water tank Slurry Vol: (bbl) Water Vol: 90.0 (bbl) Other Vol: () Foam Job: Y

Test Data			**Time**	**Temp**	**Pressure**
Thickening Time:	Temperature: (°F)	Compressive Strength 1:		(°F)	(psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:		(°F)	(psi)
Fluid Loss: (cc)	Temperature: (°F)				
Fluid Loss Pressure: (°F)					

Stage No: 2 Slurry No: 1 of 2 - Additives

Trade Name	Type	Concentration	Units	Liquid Conc.	Units
CALC2	ACCELERATOR	2.00			% BWOC
Zonesealant2000		1.50			% BWOC

Stage No: 2 Slurry No: 2 of 2

Slurry Data

Fluid Type: LOST CIRC. SLURRY Description: THIXOTROPIC Class: CAP CEMENT Purpose: FILLER CEM
Slurry Interval: 170.00 (ft) To: (ft) Cmt Vol: 75 (sk) Density: 14.8 (ppg) Yield: 1.34 (ft³/sk) Mix Water: 6.30 (gal/sk)
Water Source: Fresh water tank Slurry Vol: (bbl) Water Vol: 11.3 (bbl) Other Vol: () Foam Job: N

Test Data			**Time**	**Temp**	**Pressure**
Thickening Time:	Temperature: (°F)	Compressive Strength 1:		(°F)	(psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:		(°F)	(psi)
Fluid Loss: (cc)	Temperature: (°F)				
Fluid Loss Pressure: (°F)					

Stage No: 3 of 3

Type: SUFACE TOPOUT	Start Mix Cmt: 20:30	Disp Avg Rate: (bbl/min)	Returns:
Volume Excess %:	Start Slurry Displ: :	Disp Max Rate: (bbl/min)	Total Mud Lost: (bbl)
Meas. From:	Start Displ: :	Bump Plug: N	Cmt Vol to Surf: (bbl)
Time Circ Prior	End Pumping: :	Press Prior: (psi)	
To Cementing:	End Pump Date:	Press Bumped: (psi)	Ann Flow After: N
Mud Circ Rate: (gpm)	Top Plug: N	Press Held: (min)	Mixing Method:
Mud Circ Press: (psi)	Bottom Plug: N	Float Held: N	Density Meas By:

Mud Data

Type: FRESH WATER Density: 8.4 (ppg) Visc: 27 (s/qt) PV/YP: (cp)/ (lb/100ft²) Gels 10 sec: (lb/100ft²) Gels 10 min: (lb/100ft²)
Bottom Hole Circulating Temperature: (°F) Bottom Hole Static Temperature: (°F)
Displacement Fluid Type: Density: (ppg) Volume: (bbl)

Marathon Oil Company

Cementing Report

Legal Well Name:	INDIAN HILLS UNIT NO. 35			Spud Date:	6/21/2002
Common Well Name:	INDIAN HILLS UNIT NO. 35	Report #:	1	Report Date:	6/28/2002
Event Name:	ORIGINAL DRILLING	Start:	6/18/2002	End:	7/13/2002

Stage No: 3 Slurry No: 1 of 1

Slurry Data

Fluid Type: LOST CIRC. SLURRY	Description: LOST CIRCULATION			Class: CLASS C	Purpose: LOST CIRCU
Slurry Interval: (ft) To: 170.00 (ft)	Cmt Vol: 225 (sk)	Density: 14.8 (ppg)		Yield: 1.32 (ft³/sk)	Mix Water: 6.30 (gal/sk)
Water Source: Fresh water tanks	Slurry Vol: (bbl)	Water Vol: 33.8 (bbl)		Other Vol: ()	Foam Job: N

Test Data			**Time**	**Temp**	**Pressure**
Thickening Time:	Temperature: (°F)	Compressive Strength 1:		(°F)	(psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:		(°F)	(psi)
Fluid Loss: (cc)	Temperature: (°F)				
Fluid Loss Pressure: (°F)					

Stage No: 3 Slurry No: 1 of 1 - Additives

Trade Name	Type	Concentration	Units	Liquid Conc.	Units
CALC2	ACCELERATOR	3.00			% BWOC

Casing Test	Shoe Test	Liner Top Test
Test Press: (psi)	Pressure: (ppge)	Liner Lap:
For: (min)	Tool:	Pos Test: (ppge) Tool:
Cement Found between	Open Hole: (ft)	Neg Test: (ppge) Tool:
Shoe and Collar:	Hrs Before Test:	Hrs Before Test:
		Cement Found on Tool:

Log/Survey Evaluation	Interpretation Summary
CBL Run:	Cement Top: (ft)
Under Pressure: (psi)	How Determined:
Bond Quality:	TOC Sufficient:
Cet Run:	Job Rating:
Bond Quality:	If Unsuccessful Detection Indicator:
Temp Survey:	Remedial Cementing Required:
Hrs Prior to Log:	Number of Remedial Squeezes:

Marathon Oil Company

Casing Report

Legal Well Name: INDIAN HILLS UNIT NO. 35
Common Well Name: INDIAN HILLS UNIT NO. 35
Event Name: ORIGINAL COMPLETION

Report #: 1
Start: 6/18/2002

Spud Date: 6/21/2002
Report Date: 7/12/2002
End: 7/14/2002

General Information

String Type: PRODUCTION CASING #1
Hole TVD: 8,555.0 (ft)
Ground Level: 4,123.00 (ft)
Circ Hours: 2.00 (hr)

Permanent Datum: KELLY BUSHING
KB-Datum: 4,140.00 (ft)
CF Elevation: (ft)
Mud Lost: (bbl)

Hole Size:
Water TMD:
Liner Overlap: (ft)
KB to Cutoff: (ft)

Hole TMD: 8,875.0 (ft)
Str Wt on Slips: (lb)
Max Hole Angle: (°)
Days From Spud:

Casing Flange / Wellhead

Manufacturer: FMC
Hanger Model: tubing hang

Model: FMC C-22
Packoff Model:

Top Hub/Flange: (in) / (psi)
BTM Hub/Flange: (in) / 3,000 (psi)

Actual TMD Set: 8,865.260 (ft)

Integral Casing Detail

Item	Size (in)	Weight (lb/ft)	Grade	Drift (in)	Threads	JTS	Length (ft)	Top (ft)	MU Torq. (ft-lbf)	THD	Manufacturer	Model	Cond.	Max OD (in)	Min ID (in)	Comp. Name
CASING JOINT(S)	7.000	26.0	K-55	6.276	8rd	2	91.840									
CASING JOINT(S)	7.000	23.0	K-55	6.366	8rd	65	2,891.420	91.84								
CEMENT STAGE TOOL	7.000	26.0		6.276	8rd		2.200	2,983.26								
PUP JOINT	7.000	26.0	K-55	6.276	8rd		6.000	2,985.46								
CASING EXTERNAL PA	7.000	26.0		6.276	8rd		10.000	2,991.46								
CASING JOINT(S)	7.000	23.0	K-55	6.366	8rd	40	1,788.080	3,001.46								
CASING JOINT(S)	7.000	26.0	K-55	6.276	8rd	89	4,026.900	4,789.54								
CASING FLOAT COLLA	7.000	26.0		6.276	8rd		1.500	8,816.44								
CASING JOINT(S)	7.000	26.0	K-55	6.276	8rd	1	45.820	8,817.94								
CASING FLOAT SHOE	7.000	26.0		6.276	8rd		1.500	8,863.76								

Non-Integral Casing Accessories

Accessory	Manufacturer	Number	Spacing (ft)	Interval		How Fixed
				Top (ft)	Bottom (ft)	
CENTRALIZER	Weatherford	15	120.0			CLAMPED

Marathon Oil Company

Cementing Report

Legal Well Name:	INDIAN HILLS UNIT NO. 35			Spud Date:	6/21/2002
Common Well Name:	INDIAN HILLS UNIT NO. 35	Report #:	1	Report Date:	7/12/2002
Event Name:	ORIGINAL COMPLETION	Start:	6/18/2002	End:	7/14/2002

Cement Job Type: Primary

Primary	Squeeze Open Hole	Squeeze Casing	Plug
Hole Size: 8.750 (in)	Hole Size:	Hole Size:	Hole Size:
TMD Set: 8,865.3 (ft)	SQ TMD: (ft)	TMD Set:	Top Set: (ft)
Date Set: 7/13/2002	SQ Date:	Date Set:	BTM set: (ft)
Csg Type: PRODUCTION CASIN	SQ Type:	Csg Type:	Plug Date:
Csg Size: 7.000 (in)		SQ TMD:	Plug Type:
		SQ Date:	Drilled Out:
Cmtd. Csg: PRODUCTION CASIN	Cmtd. Csg:	Cmtd. Csg:	Cmtd. Csg:

Cement Co: HALLIBURTON Cementer: Pipe Movement: NO MOVEMENT

Pipe Movement

Rot Time Start: :	Time End: :	RPM:	Init Torque: (ft-lbf)	Avg Torque: (ft-lbf)	Max Torque: (ft-lbf)
Rec Time Start: :	Time End: :	SPM:	Stroke Length: (ft)	Drag Up: (lb)	Drag Down: (lb)

Stage No: 1 of 1

Type: PRIM CMT 1ST STAGE	Start Mix Cmt: :	Disp Avg Rate: (bbl/min)	Returns:
Volume Excess %:	Start Slurry Displ: :	Disp Max Rate: (bbl/min)	Total Mud Lost: (bbl)
Meas. From:	Start Displ: :	Bump Plug: Y	Cmt Vol to Surf: (bbl)
Time Circ Prior	End Pumping: :	Press Prior: (psi)	
To Cementing:	End Pump Date:	Press Bumped: (psi)	Ann Flow After: N
Mud Circ Rate: (gpm)	Top Plug: N	Press Held: (min)	Mixing Method:
Mud Circ Press: (psi)	Bottom Plug: N	Float Held: Y	Density Meas By:

Mud Data

Type: Density: (ppg) Visc: (s/qt) PV/YP: (cp)/ (lb/100ft²) Gels 10 sec: (lb/100ft²) Gels 10 min: (lb/100ft²)

Bottom Hole Circulating Temperature: (°F) Bottom Hole Static Temperature: (°F)

Displacement Fluid Type: Density: (ppg) Volume: (bbl)

Stage No: 1 Slurry No: 1 of 3

Slurry Data

Fluid Type: LEAD		Description: NITRIFIED		Class: CLASS C	Purpose: FILLER CEM
Slurry Interval: (ft)	To: (ft)	Cmt Vol: 100 (sk)	Density: 8.4 (ppg)	Yield: 2.55 (ft³/sk)	Mix Water: 11.07 (gal/sk
Water Source: Frac tanks.		Slurry Vol: (bbl)	Water Vol: 15.0 (bbl)	Other Vol: ()	Foam Job: Y

Test Data			**Time**	**Temp**	**Pressure**
Thickening Time:	Temperature: (°F)	Compressive Strength 1:		(°F)	(psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:		(°F)	(psi)
Fluid Loss: (cc)	Temperature: (°F)				
Fluid Loss Pressure: (°F)					

Marathon Oil Company

Cementing Report

Legal Well Name:	INDIAN HILLS UNIT NO. 35			Spud Date:	6/21/2002
Common Well Name:	INDIAN HILLS UNIT NO. 35	Report #:	1	Report Date:	7/12/2002
Event Name:	ORIGINAL COMPLETION	Start:	6/18/2002	End:	7/14/2002

Stage No: 1 Slurry No: 2 of 3

Slurry Data

Fluid Type: SPACER		Description: NITRIFIED		Class: OTHER	Purpose: FILLER CEM
Slurry Interval: (ft)	To: (ft)	Cmt Vol: 620 (sk)	Density: 8.4 (ppg)	Yield: 1.25 (ft^3/sk)	Mix Water: 7.36 (gal/sk)
Water Source:		Slurry Vol: (bbl)	Water Vol: 15.2 (bbl)	Other Vol: ()	Foam Job: Y

Test Data			**Time**	**Temp**	**Pressure**
Thickening Time:	Temperature: (°F)	Compressive Strength 1:		(°F)	(psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:		(°F)	(psi)
Fluid Loss: (cc)	Temperature: (°F)				
Fluid Loss Pressure: (°F)					

Stage No: 1 Slurry No: 3 of 3

Slurry Data

Fluid Type: TAIL		Description:		Class: CLASS H	Purpose: CORROSION
Slurry Interval: (ft)	To: (ft)	Cmt Vol: (sk)	Density: (ppg)	Yield: (ft^3/sk)	Mix Water: (gal/sk)
Water Source:		Slurry Vol: (bbl)	Water Vol: (bbl)	Other Vol: ()	Foam Job: N

Test Data			**Time**	**Temp**	**Pressure**
Thickening Time:	Temperature: (°F)	Compressive Strength 1:		(°F)	(psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:		(°F)	(psi)
Fluid Loss: (cc)	Temperature: (°F)				
Fluid Loss Pressure: (°F)					

Casing Test	**Shoe Test**	**Liner Top Test**
Test Press: (psi)	Pressure: (ppge)	Liner Lap:
For: (min)	Tool:	Pos Test: (ppge) Tool:
Cement Found between	Open Hole: (ft)	Neg Test: (ppge) Tool:
Shoe and Collar:	Hrs Before Test:	Hrs Before Test:
		Cement Found on Tool:

Log/Survey Evaluation	**Interpretation Summary**
CBL Run:	Cement Top: (ft)
Under Pressure: (psi)	How Determined:
Bond Quality:	TOC Sufficient:
Cet Run:	Job Rating:
Bond Quality:	If Unsuccessful Detection Indicator:
Temp Survey:	Remedial Cementing Required:
Hrs Prior to Log:	Number of Remedial Squeezes: