

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Oil Cons.
N.M. Div-Dist. 2
1801 W. Grand Avenue
Artesia NM 88210

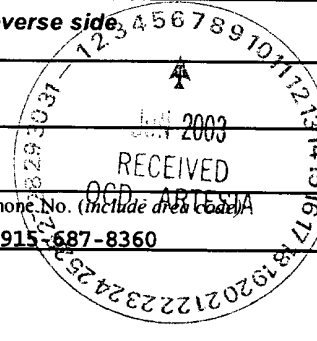
FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

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.

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. LC-064391-B	
2. Name of Operator Marathon Oil Company		6. If Indian, Allottee or Tribe Name N/A	
3a. Address P.O. Box 552 Midland, TX 79702		7. If Unit or CA/Agreement, Name and/or No. Indian Hills Unit Gas Com	
3b. Phone No. (Include area code) 915-687-8360		8. Well Name and No. Indian Hills Unit # 38 Gas Com	
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) SHL @ 2333' FSL & 2020' FEL Sec. 29, T-21-S, R-24-E BHL @ 930' FSL & 2440' FWL Sec. 29, T-21-S, R-24-E		9. API Well No. 30-015-32770	
		10. Field and Pool, or Exploratory Area Indian Basin U.P. Assoc.	
		11. County or Parish, State Eddy N.M.	

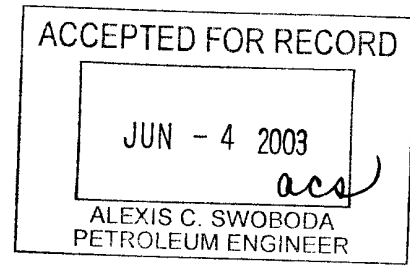


12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION				
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____	
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon		
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recomplate 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 find the attached end of well report.



14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Jerry Fletcher	Title Engineer Tech.
	Date 6/2/03

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.

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT GC NO. 38
 Common Well Name: INDIAN HILLS UNIT GC NO. 38
 Event Name: ORIGINAL DRILLING
 Contractor Name: MCVAY DRILLING
 Rig Name: MCVAY DRILLING

Start: 5/14/2003
 Rig Release: 5/29/2003
 Rig Number: 4

Spud Date: 12/15/2002
 End:
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
5/15/2003	-		LOC	LBLD	MIRU	Build Location Extended location IHU #47. Extending pit & moving hole over Location: 2333' FSL & 2020' FEL. At proposed production zone. 930' FSL & 2440' FWL. Sec.29, T-21-S, R-24-E. Eddy county, New Mexico 40' conductor pipe set f/ ground level.
	06:00 - 08:00	2.00	RIG	MIRU	MIRU	Move in / RU Rig Drilling rig & did some work on derrick. & worked on rig motor.
	08:00 - 18:00	10.00	RIG	MIRU	MIRU	R/U rig & equipment .Hooking up flow line & welded on extension to flowline @ pit.Spotted & set Air Unit's.
5/16/2003	07:00 - 07:30	0.50	SAFETY	SMTG	DRLSUR	Held safety meeting f/ start of well.
	07:30 - 08:00	0.50	RIG	SERV	DRLSUR	Started up motors & compressors.
	08:00 - 08:45	0.75	TRIP	BBHD	DRLSUR	Picked up hammer tool w/ bit on monel collar.
	08:45 - 12:30	3.75	DRILL	AIR	DRLSUR	Spudded w/ 12 3/8" hammer @ 08:45 A.M. 5/15/2003. Air Drilling
	12:30 - 13:00	0.50	RIG	RCNT	DRLSUR	Rig Repair, bull plug on goose neck started leaking. L/D kelly & broke out bullplug f/ goose neck. Taped w/ teflon tape, redoped, & tight back up.
	13:00 - 15:30	2.50	DRILL	AIR	DRLSUR	Air Drilling w/ hammer tool. Hit water @ 240'
	15:30 - 16:00	0.50	SURV	TOTC	DRLSUR	Survey with TOTCO Tools
	16:00 - 19:15	3.25	DRILL	AIR	DRLSUR	Air Drilling w/ hammer tool. Drilling slowed down.
	19:15 - 20:15	1.00	TRIP	BIT	DRLSUR	Trip out of hole to change out to bit.
	20:15 - 21:15	1.00	TRIP	BBHD	DRLSUR	L/D hammer & bit. Picked up 12 1/4" tri-comb bit, bit sub, shock sub, & reamer.
	21:15 - 22:15	1.00	TRIP	BIT	DRLSUR	Trip in w/ bit #2.
	22:15 - 22:30	0.25	DRILL	WSHR	DRLSUR	Installed rotating rubber & wash down 31' to btm. 4' fill.
	22:30 - 23:00	0.50	DRILL	AIR	DRLSUR	Air Drilling w/ 12 1/4" tri-comb bit.
	23:00 - 23:30	0.50	RIG	RCNT	DRLSUR	Rig Repair, changed out bearing on rotating head.
	23:30 - 02:30	3.00	DRILL	AIR	DRLSUR	Air Drilling w/ 12 1/4" bit.
	02:30 - 03:00	0.50	SURV	TOTC	DRLSUR	Survey with TOTCO Tools
	03:00 - 06:00	3.00	DRILL	AIR	DRLSUR	Air Drilling w/ 12 1/4" bit.
5/17/2003	06:00 - 06:45	0.75	DRILL	AIR	DRLSUR	Air Drilling w/ 12 1/4" bit.
	06:45 - 07:00	0.25	SURV	TOTC	DRLSUR	Survey with TOTCO Tools.Mis-run
	07:00 - 07:30	0.50	DRILL	AIR	DRLSUR	Air Drilling w/ 12 1/4" bit.
	07:30 - 08:00	0.50	SURV	TOTC	DRLSUR	Survey with TOTCO Tools.
	08:00 - 11:00	3.00	DRILL	AIR	DRLSUR	Air Drilling w/ 12 1/4" bit.
	11:00 - 11:30	0.50	DRILL	WSHR	DRLSUR	Ream through tight spot @ 855' to 861'.
	11:30 - 13:30	2.00	DRILL	AIR	DRLSUR	Air Drilling w/ 12 1/4" bit.
	13:30 - 14:00	0.50	SURV	TOTC	DRLSUR	Survey with TOTCO Tools. Bop drill & work annular.
	14:00 - 20:00	6.00	DRILL	AIR	DRLSUR	Air Drilling w/ 12 1/4" bit.
	20:00 - 20:30	0.50	SURV	TOTC	DRLSUR	Survey with TOTCO Tools . Service rig.
	20:30 - 23:00	2.50	DRILL	AIR	DRLSUR	Air Drilling w/ 12 1/4" bit to surface T.D.
	23:00 - 23:30	0.50	CIRC	CLN	DRLSUR	Circulate hole clean to reserve pit.
	23:30 - 23:45	0.25	SURV	TOTC	DRLSUR	Survey with TOTCO Tools. set kelly back & picked up elevators.
	23:45 - 01:30	1.75	TRIP	BIT	DRLSUR	POOH to run casing.
	01:30 - 03:30	2.00	CSG	RUN	CSGSUR	R/U caser's & held safety meeting. Ran 28 jt's of 9 5/8" 36# casing to 1210'.
	03:30 - 04:00	0.50	CIRC	WSHD	CSGSUR	Wash down last jt. w/ rig pump to bottom. Installed cementing head.
	04:00 - 06:00	2.00	WAIT	CEMT	CSGSUR	Pulled jt back up so not to get stuck while waiting on cement to arrive. Wait on Cement to get on location.Called for cementers to be on location @ midnight.Had to wait for cement that came out of Hobbs before we could get started to cement surface casing.
5/18/2003	06:00 - 08:00	2.00	WAIT	CEMT	CSGSUR	Wait on Cement to get on location.
	08:00 - 08:30	0.50	SAFETY	SMTG	CSGSUR	Safety Meeting & R/U cementer. Tested lines to 5000 PSI.

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT GC NO. 38
 Common Well Name: INDIAN HILLS UNIT GC NO. 38
 Event Name: ORIGINAL DRILLING
 Contractor Name: MCVAY DRILLING
 Rig Name: MCVAY DRILLING

Start: 5/14/2003
 Rig Release: 5/29/2003
 Rig Number: 4

Spud Date: 12/15/2002
 End:
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
5/18/2003	08:30 - 10:00	1.50	CEMT	OTHR	CSGSUR	Pumped 10000 SCF N2, followed by 10 bbl spacer, 20 bbl gel spacer, followed by 10 bbl wtr spacer, followed w/ 900sks foam cement tailed w/ 150 sks class C. Dropped plug & bumped plug @ 10 A.M 5/17/2003. Circulated no cement.
	10:00 - 11:00	1.00	CEMT	OTHR	CSGSUR	Pumped 275 sks foamed cement down back side, capped w/ 75 sks. Left well shut in.
	11:00 - 14:00	3.00	WAIT	CEMT	CSGSUR	Wait on Cement to heal.
	14:00 - 15:15	1.25	NUND	DBOP	CSGSUR	Check for pressure on stack . None. N/D surface stack & picked up & cut off 9 5/8" casing. Pulled stack.
	15:15 - 16:00	0.75	CEMT	TJOB	CSGSUR	Picked up 1" pipe & tagged bottom @ 96'. Cemented down 1" pipe w/ 75 sks C w/ 3% CaCl. Cir to surface on 1st try.
	16:00 - 16:30	0.50	CLEAN	RIG	CSGSUR	L/D 1" pipe & R/D Halliburton. Clean Rig Floor of Excess Equipment. Preparing to weld on head.
	16:30 - 18:00	1.50	WELD	WLHD	CSGSUR	Weld on Wellhead, AOP C22, 11" 3M X 9 5/8 SOW w/ 2-2" LP. Tested head to 1000 psi.
	18:00 - 21:30	3.50	NUND	UBOP	CSGSUR	N/U BOP w/ hydril. Hooked up flowline, manifold .
	21:30 - 02:30	5.00	TEST	BOP	CSGSUR	Test BOP and Well equipment, Manifold, kill lines, Kelly valves to 3000 PSI.
	02:30 - 04:30	2.00	TRIP	BBHD	CSGSUR	Picked up new 8 3/4" bit, made up to 1.3 motor, w/ 7 7/8" stabilizer, shock sub, SNMDC, teleco, NMDC. BHA #1 w/ motor
5/19/2003	04:30 - 05:30	1.00	TRIP	BIT	CSGSUR	Trip in hole tagging @ 1125' w/ bit.
	05:30 - 05:45	0.25	TEST	CSG	CSGSUR	Test Casing to 1000 psi w/ rig pump. O.K.
	05:45 - 06:00	0.25	DRILL	CEMT	CSGSUR	Drill Cement. Cement plug is high.
	06:00 - 07:30	1.50	DRILL	CEMT	CSGSUR	Drill Cement , Float collar, Cement to 1200'. Tested to 1000 PSI w/ rig pump.
	07:30 - 08:30	1.00	DRILL	CEMT	CSGSUR	Drill Cement & Drill Shoe f/ 1200' to 1210'.
	08:30 - 09:45	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	09:45 - 10:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide .220 GRID
	10:00 - 10:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	10:30 - 10:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide.220 GRID
	10:45 - 11:00	0.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	11:00 - 11:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide .220 GRID
	11:15 - 11:45	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	11:45 - 12:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide. 220 GRID
	12:00 - 12:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	12:30 - 12:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide. 220 GRID
	12:45 - 13:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	13:15 - 13:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide. 220 GRID
	13:30 - 14:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	14:00 - 14:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide. 220 GRID
	14:15 - 14:45	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
14:45 - 15:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide. 30L	
15:00 - 15:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
15:30 - 15:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide. 30L	
15:45 - 16:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
16:15 - 17:45	1.50	TRIP	BIT	DRLPR	Trip out f/ bit.	
17:45 - 18:00	0.25	TRIP	BBHD	DRLPR	Changed out bit to F47HPS	
18:00 - 19:00	1.00	TRIP	BIT	DRLPR	Trip in w/ bit. Stated taking Wt.. Tagged up @ 1430'.	
19:00 - 20:45	1.75	DRILL	WSHR	DRLPR	Ream f/ 1430' to 1570' .	
20:45 - 21:00	0.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
21:00 - 21:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 20L	
21:15 - 21:45	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
21:45 - 22:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 30L	

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT GC NO. 38
 Common Well Name: INDIAN HILLS UNIT GC NO. 38
 Event Name: ORIGINAL DRILLING
 Contractor Name: MCVAY DRILLING
 Rig Name: MCVAY DRILLING

Start: 5/14/2003
 Rig Release: 5/29/2003
 Rig Number: 4

Spud Date: 12/15/2002
 End:
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
5/19/2003	22:00 - 22:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	22:30 - 22:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 35L
	22:45 - 23:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	23:15 - 23:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 30L
	23:45 - 00:30	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	00:30 - 00:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide HS
	00:45 - 01:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	01:15 - 01:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide HS
	01:45 - 02:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	02:15 - 02:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 35L
	02:30 - 03:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	03:00 - 03:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 20L
	03:30 - 04:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	04:00 - 04:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 30L
	04:30 - 05:15	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
5/20/2003	05:15 - 05:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 15L
	05:45 - 06:00	0.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	06:00 - 06:15	0.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	06:15 - 06:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide.10L
	06:45 - 07:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	07:15 - 07:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	07:30 - 07:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	07:45 - 08:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	08:15 - 09:00	0.75	DRILL	DOHS	DRLPR	Drill Open Slide 10R
	09:00 - 09:15	0.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	09:15 - 09:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	09:30 - 09:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 30R
	09:45 - 10:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	10:15 - 11:15	1.00	RIG	RCNT	DRLPR	Rig Repair, Contractor owned. Changed out packing on swivel.
	11:15 - 11:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 30R
	11:30 - 12:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	12:00 - 12:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	12:15 - 12:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 60R
	12:30 - 13:45	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	13:45 - 14:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	14:00 - 15:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	15:00 - 15:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	15:15 - 16:15	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	16:15 - 16:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
16:30 - 17:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 175R	
17:00 - 17:45	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
17:45 - 18:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
18:00 - 18:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 140R	
18:15 - 19:15	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
19:15 - 19:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
19:30 - 19:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 155R	
19:45 - 20:30	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
20:30 - 20:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
20:45 - 21:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 125R	
21:00 - 21:45	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
21:45 - 22:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
22:00 - 22:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 95R	
22:15 - 23:00	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT GC NO. 38
 Common Well Name: INDIAN HILLS UNIT GC NO. 38
 Event Name: ORIGINAL DRILLING
 Contractor Name: MCVAY DRILLING
 Rig Name: MCVAY DRILLING

Start: 5/14/2003
 Rig Release: 5/29/2003
 Rig Number: 4

Spud Date: 12/15/2002
 End:
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
5/20/2003	23:00 - 23:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 130R
	23:15 - 00:15	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	00:15 - 00:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	00:30 - 01:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 155R
	01:00 - 02:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	02:15 - 02:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	02:30 - 03:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 180
	03:00 - 04:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	04:00 - 04:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	04:15 - 04:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 170L
	04:30 - 05:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	05:00 - 05:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	05:15 - 05:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 155L
	05:30 - 06:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
5/21/2003	06:00 - 06:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	06:30 - 06:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	06:45 - 07:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 180
	07:00 - 08:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	08:00 - 08:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	08:15 - 08:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 170R
	08:45 - 09:45	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	09:45 - 10:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	10:00 - 10:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 170R
	10:30 - 11:30	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	11:30 - 11:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	11:45 - 12:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 150R
	12:00 - 13:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	13:00 - 13:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	13:15 - 13:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 150R
	13:45 - 15:00	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	15:00 - 15:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	15:15 - 16:30	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	16:30 - 16:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	16:45 - 18:15	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	18:15 - 18:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	18:30 - 19:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 170R
	19:00 - 20:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	20:00 - 20:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	20:15 - 21:45	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	21:45 - 22:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	22:00 - 23:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	23:15 - 23:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	23:30 - 00:15	0.75	DRILL	DOHS	DRLPR	Drill Open Slide 140L
	00:15 - 01:30	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	01:30 - 01:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	01:45 - 02:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 95L
	02:15 - 03:30	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	03:30 - 03:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
03:45 - 05:15	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
05:15 - 05:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
05:30 - 06:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 30R	
5/22/2003	06:00 - 07:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	07:15 - 07:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT GC NO. 38
 Common Well Name: INDIAN HILLS UNIT GC NO. 38
 Event Name: ORIGINAL DRILLING
 Contractor Name: MCVAY DRILLING
 Rig Name: MCVAY DRILLING

Start: 5/14/2003
 Rig Release: 5/29/2003
 Rig Number: 4

Spud Date: 12/15/2002
 End:
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations	
5/22/2003	07:30 - 08:15	0.75	DRILL	DOHS	DRLPR	Drill Open Slide	
	08:15 - 09:30	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	09:30 - 09:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	09:45 - 11:15	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	11:15 - 11:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	11:30 - 13:15	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	13:15 - 13:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	13:30 - 15:15	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	15:15 - 15:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	15:30 - 17:00	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	17:00 - 17:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	17:15 - 19:00	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	19:00 - 19:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	19:15 - 20:45	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	20:45 - 21:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	21:00 - 21:45	0.75	DRILL	DOHS	DRLPR	Drill Open Slide	
	21:45 - 23:00	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	23:00 - 23:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	23:15 - 00:30	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	00:30 - 00:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	00:45 - 02:00	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	02:00 - 02:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	02:15 - 03:45	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	03:45 - 04:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	04:00 - 04:45	0.75	DRILL	DOHS	DRLPR	Drill Open Slide	
	04:45 - 06:00	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	5/23/2003	06:00 - 06:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
06:30 - 09:00		2.50	TRIP	BIT	DRLPR	Trip in / out for Bit	
09:00 - 10:00		1.00	TRIP	BBHD	DRLPR	BHA/Bit Handling	
10:00 - 12:00		2.00	RIG	RCNT	DRLPR	Rig Repair, Contractor owned. Rotary chain.	
12:00 - 14:00		2.00	TRIP	BIT	DRLPR	Trip in w/ bit. Washed 32' to bottom. No fill.	
14:00 - 16:15		2.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
16:15 - 16:30		0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
16:30 - 19:30		3.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
19:30 - 20:30		1.00	EQUIP	RSEQ	DRLPR	Repair Service equipment(Propanel) (Baker) Reload software.	
20:30 - 21:15		0.75	DRILL	DOHS	DRLPR	Drill Open Slide	
21:15 - 22:45		1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
22:45 - 23:00		0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
23:00 - 00:30		1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
00:30 - 00:45		0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
00:45 - 01:30		0.75	DRILL	DOHS	DRLPR	Drill Open Slide	
01:30 - 02:45		1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
02:45 - 03:00		0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
03:00 - 03:30		0.50	DRILL	DOHS	DRLPR	Drill Open Slide	
03:30 - 04:00		0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
04:00 - 04:45		0.75	DRILL	DOHS	DRLPR	Drill Open Slide	
04:45 - 05:15		0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
05:15 - 05:30		0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
05:30 - 06:00		0.50	DRILL	DOHS	DRLPR	Drill Open Slide	
5/24/2003		06:00 - 07:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
		07:00 - 07:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
		07:30 - 08:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
		08:00 - 08:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT GC NO. 38
 Common Well Name: INDIAN HILLS UNIT GC NO. 38
 Event Name: ORIGINAL DRILLING
 Contractor Name: MCVAY DRILLING
 Rig Name: MCVAY DRILLING

Start: 5/14/2003
 Rig Release: 5/29/2003
 Rig Number: 4

Spud Date: 12/15/2002
 End:
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
5/24/2003	08:15 - 09:00	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	09:00 - 10:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	10:15 - 10:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	10:30 - 11:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	11:00 - 12:30	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	12:30 - 12:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	12:45 - 13:30	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	13:30 - 15:15	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	15:15 - 15:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	15:30 - 16:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	16:00 - 17:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	17:15 - 18:00	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	18:00 - 18:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	18:30 - 18:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	18:45 - 19:30	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	19:30 - 20:45	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	20:45 - 21:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	21:00 - 22:30	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	22:30 - 22:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	22:45 - 23:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	23:15 - 00:30	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	00:30 - 00:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	00:45 - 01:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	01:15 - 02:30	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	02:30 - 02:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	02:45 - 03:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	03:00 - 04:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	04:15 - 04:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
04:30 - 05:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide	
05:00 - 06:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
5/25/2003	06:00 - 06:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	06:15 - 07:00	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	07:00 - 08:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	08:15 - 08:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	08:30 - 09:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	09:00 - 10:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	10:00 - 10:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	10:15 - 11:00	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	11:00 - 11:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	11:30 - 12:15	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	12:15 - 12:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	12:30 - 12:45	0.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	12:45 - 13:30	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	13:30 - 14:45	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	14:45 - 15:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	15:00 - 15:45	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	15:45 - 16:45	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	16:45 - 17:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	17:00 - 17:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	17:30 - 18:45	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
18:45 - 19:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
19:00 - 19:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide	
19:30 - 20:45	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT GC NO. 38
 Common Well Name: INDIAN HILLS UNIT GC NO. 38
 Event Name: ORIGINAL DRILLING
 Contractor Name: MCVAY DRILLING
 Rig Name: MCVAY DRILLING

Start: 5/14/2003
 Rig Release: 5/29/2003
 Rig Number: 4

Spud Date: 12/15/2002
 End:
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations	
5/25/2003	20:45 - 21:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	21:00 - 21:45	0.75	DRILL	DOHS	DRLPR	Drill Open Slide	
	21:45 - 23:00	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	23:00 - 23:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	23:15 - 00:00	0.75	DRILL	DOHS	DRLPR	Drill Open Slide	
	00:00 - 01:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	01:15 - 01:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	01:30 - 02:30	1.00	DRILL	DOHS	DRLPR	Drill Open Slide	
	02:30 - 03:45	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	03:45 - 04:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	04:00 - 04:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide	
	04:30 - 06:00	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	5/26/2003	06:00 - 06:45	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
		06:45 - 08:00	1.25	SURV	MWD	DRLPR	Survey with MWD Tools
08:00 - 08:45		0.75	DRILL	DOHS	DRLPR	Drill Open Slide	
08:45 - 10:00		1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
10:00 - 10:15		0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
10:15 - 10:45		0.50	DRILL	DOHS	DRLPR	Drill Open Slide	
10:45 - 11:00		0.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
11:00 - 11:15		0.25	CHECK	BHA	DRLPR	Perform Check of on Motor. Motor would not turn.	
11:15 - 14:15		3.00	TRIP	MOTR	DRLPR	Trip for Motor	
14:15 - 15:00		0.75	TRIP	BBHD	DRLPR	Chg out Motor. Twisted swift. Chg out bit. 4-4-I	
15:00 - 18:30		3.50	TRIP	MOTR	DRLPR	TIH w/ new bit & motor.	
18:30 - 19:00		0.50	CHECK	BHA	DRLPR	Cycle outnergauge to confirm tool was in the closed position.	
19:00 - 19:45		0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
19:45 - 20:00		0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
20:00 - 20:45		0.75	DRILL	DOHS	DRLPR	Drill Open Slide	
20:45 - 22:15		1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
22:15 - 22:30		0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
22:30 - 23:15		0.75	DRILL	DOHS	DRLPR	Drill Open Slide	
23:15 - 00:30		1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
00:30 - 00:45		0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
00:45 - 02:15		1.50	DRILL	DOHS	DRLPR	Drill Open Slide	
02:15 - 04:00		1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
04:00 - 04:15		0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
04:15 - 06:00		1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
5/27/2003	06:00 - 06:45	0.75	DRILL	DOHS	DRLPR	Drill Open Slide	
	06:45 - 07:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	07:00 - 09:30	2.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	09:30 - 09:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	09:45 - 10:30	0.75	DRILL	DOHS	DRLPR	Drill Open Slide	
	10:30 - 12:30	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	12:30 - 12:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	12:45 - 13:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide	
	13:15 - 14:00	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	14:00 - 15:15	1.25	DRILL	DOHS	DRLPR	Drill Open Slide	
	15:15 - 15:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	15:30 - 16:15	0.75	DRILL	DOHS	DRLPR	Drill Open Slide	
	16:15 - 16:45	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	16:45 - 17:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide	
	17:15 - 17:45	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary	
	17:45 - 18:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
	18:00 - 18:45	0.75	DRILL	DOHS	DRLPR	Drill Open Slide	

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT GC NO. 38
 Common Well Name: INDIAN HILLS UNIT GC NO. 38
 Event Name: ORIGINAL DRILLING
 Contractor Name: MCVAY DRILLING
 Rig Name: MCVAY DRILLING

Start: 5/14/2003
 Rig Release: 5/29/2003
 Rig Number: 4

Spud Date: 12/15/2002
 End:
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
5/27/2003	18:45 - 19:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	19:15 - 20:00	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	20:00 - 20:45	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	20:45 - 21:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	21:00 - 21:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	21:30 - 21:45	0.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	21:45 - 22:30	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	22:30 - 23:30	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	23:30 - 01:45	2.25	RIG	RCNT	DRLPR	Rig Repair, Contractor owned. Swivel packing
	01:45 - 02:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	02:00 - 02:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	02:30 - 03:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	03:00 - 03:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	03:30 - 04:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	04:00 - 04:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	04:15 - 05:00	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	5/28/2003	05:00 - 06:00	1.00	DRILL	DOHR	DRLPR
06:00 - 08:30		2.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
08:30 - 08:45		0.25	SURV	MWD	DRLPR	Survey with MWD Tools
08:45 - 09:15		0.50	DRILL	DOHS	DRLPR	Drill Open Slide
09:15 - 10:30		1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
10:30 - 10:45		0.25	SURV	MWD	DRLPR	Survey with MWD Tools
10:45 - 11:30		0.75	DRILL	DOHS	DRLPR	Drill Open Slide
11:30 - 12:30		1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
12:30 - 12:45		0.25	SURV	MWD	DRLPR	Survey with MWD Tools
12:45 - 14:00		1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
14:00 - 14:15		0.25	SURV	MWD	DRLPR	Survey with MWD Tools
14:15 - 15:00		0.75	DRILL	DOHS	DRLPR	Drill Open Slide
15:00 - 15:45		0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
15:45 - 16:00		0.25	SURV	MWD	DRLPR	Survey with MWD Tools
16:00 - 16:45		0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
16:45 - 17:00		0.25	SURV	MWD	DRLPR	Survey with MWD Tools
17:00 - 17:15		0.25	DRILL	DOHS	DRLPR	Drill Open Slide. Lost all returns @ 7698'
17:15 - 18:30		1.25	DRILL	DOHR	DRLPR	Drill Open Hole . No returns
18:30 - 18:45		0.25	SURV	MWD	DRLPR	Survey with MWD Tools
18:45 - 20:30		1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. No returns
20:30 - 20:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
20:45 - 22:30	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. No returns	
22:30 - 22:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
22:45 - 00:45	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. 20% returns	
00:45 - 01:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
01:00 - 04:15	3.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. 40% returns	
04:15 - 04:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools	
04:30 - 06:00	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. 50% returns	
5/29/2003	06:00 - 08:15	2.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	08:15 - 08:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	08:30 - 11:15	2.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	11:15 - 11:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	11:30 - 12:30	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary 60% returns. Switched over t/ Competition report.

Casing Report

Legal Well Name: INDIAN HILLS UNIT GC NO. 38
 Common Well Name: INDIAN HILLS UNIT GC NO. 38
 Event Name: ORIGINAL DRILLING

Report #: 1
 Start: 5/14/2003

Spud Date: 12/15/2002
 Report Date: 5/17/2003
 End:

General Information

String Type: SURFACE CASING	Permanent Datum: KELLY BUSHING	Hole Size:	Hole TMD: 1,210.0 (ft)
Hole TVD: 1,210.0 (ft)	KB-Datum: 0.00 (ft)	Water TMD:	Str Wt on Slips: (lb)
Ground Level: 3,775.00 (ft)	CF Elevation: (ft)	Liner Overlap: (ft)	Max Hole Angle: 1.00 (°)
Circ Hours: 0.50 (hr)	Mud Lost: (bbl)	KB to Cutoff: (ft)	Days From Spud: (days)

Casing Flange / Wellhead

Manufacturer: WOOD GROUP	Model: AOP,C22,11 3	Top Hub/Flange: (in) / 3,000 (psi)
Hanger Model: 11 3M 9 5/8	Packoff Model:	BTM Hub/Flange: (in) / (psi)

Actual TMD Set: 1,210.280 (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	J-55	8.921	8 ROUND	27	1,165.000							10.625	8.599	
CASING FLOAT COLLA	9.625				8 ROUND		1.200	1,165.00								
CASING JOINT(S)	9.625	35.0	J-55	8.921	8 ROUND	1	42.630	1,166.20						10.625	8.599	
CASING FLOAT SHOE	9.625				8 ROUND		1.450	1,208.83								

Non-Integral Casing Accessories

Accessory	Manufacturer	Number	Spacing (ft)	Interval		How Fixed
				Top (ft)	Bottom (ft)	
CENTRALIZER	Weatherford	6	86.0			CLAMPED

**Marathon Oil Company
Cementing Report**

Legal Well Name: INDIAN HILLS UNIT GC NO. 38 Spud Date: 12/15/2002
 Common Well Name: INDIAN HILLS UNIT GC NO. 38 Report #: 1 Report Date: 5/17/2003
 Event Name: ORIGINAL DRILLING Start: 5/14/2003 End:

Cement Job Type:

Primary	Squeeze Open Hole	Squeeze Casing	Plug
Hole Size:	Hole Size:	Hole Size:	Hole Size:
TMD Set: 1,210.0 (ft)	SQ TMD: (ft)	TMD Set:	Top Set: (ft)
Date Set: 5/17/2003	SQ Date:	Date Set:	BTM set: (ft)
Csg Type: SURFACE CASING	SQ Type:	Csg Type:	Plug Date:
Csg Size:		SQ TMD:	Plug Type:
		SQ Date:	Drilled Out:
Cmtd. Csg:	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: SUFACE TOPOUT	Start Mix Cmt: 08:45	Disp Avg Rate: 7.50 (bbl/min)	Returns: none
Volume Excess %: 300.00	Start Slurry Displ: :	Disp Max Rate: 3.00 (bbl/min)	Total Mud Lost: (bbl)
Meas. From: 1210	Start Displ: :	Bump Plug: Y	Cmt Vol to Surf: (bbl)
Time Circ Prior	End Pumping: :	Press Prior: 1,199 (psi)	
To Cementing:	End Pump Date:	Press Bumped: 2,200 (psi)	Ann Flow After: N
Mud Circ Rate: (gpm)	Top Plug: Y	Press Held: 5 (min)	Mixing Method:
Mud Circ Press: (psi)	Bottom Plug: N	Float Held: Y	Density Meas By:

Mud Data

Type: AIR-MIST 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: FRESH WATER Density: 8.4 (ppg) Volume: 90.50 (bbl)

Stage No: 1 Slurry No: 1 of 4

Slurry Data

Fluid Type: LEAD	Description: OTHER	Class: CLASS C	Purpose: FW PROTEC
Slurry Interval: 800.00 (ft) To: 1,210.00 (ft)	Cmt Vol: 150 (sk)	Density: 14.8 (ppg)	Yield: 1.34 (ft ³ /sk)
Water Source: frac tank	Slurry Vol: (bbl)	Water Vol: 35.7 (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)			

Marathon Oil Company
Cementing Report

Legal Well Name: INDIAN HILLS UNIT GC NO. 38	Report #: 1	Spud Date: 12/15/2002
Common Well Name: INDIAN HILLS UNIT GC NO. 38	Start: 5/14/2003	Report Date: 5/17/2003
Event Name: ORIGINAL DRILLING		End:

Stage No: 1 Slurry No: 2 of 4

Slurry Data

Fluid Type: SPACER	Description: FOAM	Class: CLASS C	Purpose: FW PROTEC
Slurry Interval: (ft) To: 240.00 (ft)	Cmt Vol: 275 (sk)	Density: 14.8 (ppg)	Yield: 1.47 (ft ³ /sk)
Water Source: frac tank	Slurry Vol: (bbl)	Water Vol: 65.6 (bbl)	Other Vol: ()
			Mix Water: 6.30 (gal/sk)
			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 4

Slurry Data

Fluid Type: WEIGHTED SPACER	Description: OTHER	Class: CLASS C	Purpose: FW PROTEC
Slurry Interval: (ft) To: 90.00 (ft)	Cmt Vol: 275 (sk)	Density: 14.8 (ppg)	Yield: 1.47 (ft ³ /sk)
Water Source: frac tank	Slurry Vol: (bbl)	Water Vol: 19.6 (bbl)	Other Vol: ()
			Mix Water: 6.30 (gal/sk)
			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: 4 of 4

Slurry Data

Fluid Type: OTHER	Description: OTHER	Class: CLASS C	Purpose: CONDUCTOR
Slurry Interval: (ft) To: 96.00 (ft)	Cmt Vol: 75 (sk)	Density: 16.0 (ppg)	Yield: 1.67 (ft ³ /sk)
Water Source: frac tank	Slurry Vol: (bbl)	Water Vol: 25.0 (bbl)	Other Vol: ()
			Mix Water: 6.30 (gal/sk)
			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)			

Marathon Oil Company
Cementing Report

Legal Well Name: INDIAN HILLS UNIT GC NO. 38	Report #: 1	Spud Date: 12/15/2002
Common Well Name: INDIAN HILLS UNIT GC NO. 38	Start: 5/14/2003	Report Date: 5/17/2003
Event Name: ORIGINAL DRILLING		End:

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

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

Remarks

Topped of to surface w/ 75 sk w/ 3% CaCl. Tagged cement 96' down.

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT GC NO. 38
 Common Well Name: INDIAN HILLS UNIT GC NO. 38
 Event Name: ORIGINAL COMPLETION
 Contractor Name: MCVAY DRILLING
 Rig Name: MCVAY DRILLING

Start: 4/2/2003
 Rig Release: 5/29/2003
 Rig Number: 4

Spud Date: 12/15/2002
 End: 5/29/2003
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
5/29/2003	12:30 - 14:00	1.50	CIRC	CLN	CSGPRO	Circulate Clean. Pumped 50 bbl sweep.
	14:00 - 16:00	2.00	TRIP	WTRP	CSGPRO	Wiper Trip 10 stds. TIH. No problems. 60K over drag.
	16:00 - 17:30	1.50	CIRC	HOLE	CSGPRO	Circulate and Condition Hole. Spotted 50 bbl pill 80 vis.
	17:30 - 01:00	7.50	TRIP	LDDP	CSGPRO	RU Laydown machine. L/D DP & DC's.
	01:00 - 06:00	5.00	CSG	RUN	CSGPRO	Safety meeting. RU csg crew. Ran FS, Shoe jt. FC, 82 jts of 7"-26#, 30 jts of 7" 23#, ECP, DV tool, Running 7" -23# @ 0600 hrs.
5/30/2003	06:00 - 09:30	3.50	CSG	RUN	CSGPRO	Ran FS, Shoe jt. FC, 82 jts of 7"-26#, 30 jts of 7" 23#, ECP, DV tool, 79 jts of 7" -23# 2- jts of 26#. Landed @ 8425'. DV tool @ 3488'.
	09:30 - 11:00	1.50	CIRC	CLN	CSGPRO	Safety meeting. RU HES Cmt Head. Circ w/ Rig pump.
	11:00 - 14:30	3.50	CEMT	PRIM	CSGPRO	Pumped 10 bbls of CaCl water, 24 bbls of Superflush, 104 bbls (350 sks) of Super "H" cmt. Disp w/ 326 bbls of water. Set ECP. Dropped bomb, opened DV tool @ 3483'. Cmt 2nd stage w/ 350 sks of Inter fill "C" tailed w/ 100 sks of Premium Plus. Est top of cmt on 1 st stage @ 4000'. Circ 68 sks on 2 nd stage. Plug down @ 1:45 PM CST. RD HES
	14:00 - 19:00	5.00			CSGPRO	NU 11" BOP. Set 7" csg slips. Cut off 7" csg. Pulled BOP. NU 11" x 7 1/16" 3M Tbg. head. Tst 1/ 2500 psi. Released Rig @ 1900 hrs. CST.

Casing Report

Legal Well Name: INDIAN HILLS UNIT GC NO. 38
 Common Well Name: INDIAN HILLS UNIT GC NO. 38
 Event Name: ORIGINAL COMPLETION

Report #: 1
 Start: 4/2/2003

Spud Date: 12/15/2002
 Report Date: 5/29/2003
 End: 5/29/2003

General Information

String Type: PRODUCTION CASING #1	Permanent Datum: KELLY BUSHING	Hole Size:	Hole TMD: 8,425.0 (ft)
Hole TVD: 8,203.0 (ft)	KB-Datum: 0.00 (ft)	Water TMD:	Str Wt on Slips: 150,000 (lb)
Ground Level: 3,775.00 (ft)	CF Elevation: (ft)	Liner Overlap: (ft)	Max Hole Angle: 20.00 (°)
Circ Hours: 1.50 (hr)	Mud Lost: (bbl)	KB to Cutoff: (ft)	Days From Spud: (days)

Casing Flange / Wellhead

Manufacturer: WOOD GROUP	Model: FMC C-22	Top Hub/Flange: 11.000 (in) / 3,000 (psi)
Hanger Model: 11"3M	Packoff Model:	BTM Hub/Flange: 9.625 (in) / 3,000 (psi)

Actual TMD Set: 8,426.950 (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	6.151	8 ROUND	2	88.670		3,410				NEW		6.276	
CASING JOINT(S)	7.000	23.0	K-55	6.241	8 ROUND	78	3,407.620	88.67	3,410				NEW		6.366	
CEMENT STAGE TOOL	7.000	23.0	K-55	6.241	8 ROUND	1	2.500	3,496.29	3,410		GEMCO		NEW		6.366	
CASING EXTERNAL PA	7.000	23.0	K-55	6.241	8 ROUND	1	10.520	3,498.79	3,410	Y	GEMCO		NEW		6.366	
CASING JOINT(S)	7.000	23.0	K-55	6.241	8 ROUND	1	7.000	3,509.31	3,410	Y	GEMCO		NEW		6.366	
CASING JOINT(S)	7.000	23.0	K-55	6.241	8 ROUND	30	1,323.070	3,516.31	3,410	Y			NEW		6.366	
CASING JOINT(S)	7.000	26.0	K-55	6.151	8 ROUND	82	3,564.570	4,839.38					NEW		6.276	
CASING FLOAT COLLA	7.000	26.0	K-55	6.151	8 ROUND	1	1.500	8,403.95			GEMCO		NEW		6.276	
CASING JOINT(S)		26.0	K-55	6.151	8 ROUND	1	20.000	8,405.45					NEW		6.272	
CASING FLOAT SHOE		26.0	K-55	6.151	8 ROUND		1.500	8,425.45			GEMCO		NEW		6.276	

Non-Integral Casing Accessories

Accessory	Manufacturer	Number	Spacing (ft)	Interval		How Fixed
				Top (ft)	Bottom (ft)	
CENTRALIZER	GEMCO	26	45.0	7,255.0	8,415.0	CLAMPED

Marathon Oil Company
Cementing Report

Legal Well Name: INDIAN HILLS UNIT GC NO. 38 Spud Date: 12/15/2002
 Common Well Name: INDIAN HILLS UNIT GC NO. 38 Report #: 1 Report Date: 5/29/2003
 Event Name: ORIGINAL COMPLETION Start: 4/2/2003 End: 5/29/2003

Cement Job Type: Primary

Primary	Squeeze Open Hole	Squeeze Casing	Plug
Hole Size: 8.750 (in)	Hole Size:	Hole Size:	Hole Size:
TMD Set: 8,425.0 (ft)	SQ TMD: (ft)	TMD Set:	Top Set: (ft)
Date Set: 5/29/2003	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: OPEN HOLE	Cmtd. Csg:	Cmtd. Csg:	Cmtd. Csg:

Cement Co: HALLIBURTON Cementer: Pipe Movement: NO MOVEMENT

Pipe Movement

Rot Time Start: 10:45 Time End: 13:45 RPM: Init Torque: (ft-lbf) Avg Torque: (ft-lbf) Max Torque: (ft-lbf)
 Rec Time Start: : Time End: : SPM: Stroke Length: (ft) Drag Up: 205 (lb) Drag Down: 180 (lb)

Stage No: 1 of 3

Type: PRIM CMT 1ST STAGE	Start Mix Cmt: 11:00	Disp Avg Rate: 5.00 (bbl/min)	Returns: 60%
Volume Excess %: 60.00	Start Slurry Displ: :	Disp Max Rate: 5.00 (bbl/min)	Total Mud Lost: (bbl)
Meas. From:	Start Displ: :	Bump Plug: Y	Cmt Vol to Surf: 225.00 (bbl)
Time Circ Prior	End Pumping: :	Press Prior: 570 (psi)	
To Cementing: 9.00	End Pump Date:	Press Bumped: 3,100 (psi)	Ann Flow After: Y
Mud Circ Rate: 388 (gpm)	Top Plug: N	Press Held: 5 (min)	Mixing Method:
Mud Circ Press: 1,500 (psi)	Bottom Plug: N	Float Held: Y	Density Meas By:

Mud Data

Type: FRESH WATER Density: 8.4 (ppg) Visc: 28 (s/qt) PV/YP: (cp)/8 (lb/100ft²) Gels 10 sec: (lb/100ft²) Gels 10 min: (lb/100ft²)
 Bottom Hole Circulating Temperature: 126 (°F) Bottom Hole Static Temperature: (°F)
 Displacement Fluid Type: FRESH WATER Density: 8.3 (ppg) Volume: 326.00 (bbl)

Stage No: 1 Slurry No: 1 of 1

Slurry Data

Fluid Type: LEAD	Description: EXTENDED	Class: CLASS H	Purpose: FILLER CEM
Slurry Interval: 4,000.00 (ft) To: 8,425.00 (ft)	Cmt Vol: 350 (sk)	Density: 13.0 (ppg)	Yield: 1.67 (ft ³ /sk)
Water Source: Corky Glenn	Slurry Vol: 10.0 (bbl)	Water Vol: 8.2 (bbl)	Other Vol: ()
			Mix Water: 11.10 (gal/sk)
			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)			

Cementing Report

Legal Well Name: INDIAN HILLS UNIT GC NO. 38 Spud Date: 12/15/2002
 Common Well Name: INDIAN HILLS UNIT GC NO. 38 Report #: 1 Report Date: 5/29/2003
 Event Name: ORIGINAL COMPLETION Start: 4/2/2003 End: 5/29/2003

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

Trade Name	Type	Concentration	Units	Liquid Conc.	Units
Halad-4-344		0.50			% BWOC
CFR-3 W/Deform		0.40			% BWOC
Gilsonite		5.00			lbs/sack
Salt		1.00			% BWOC
HR-7		0.20			% BWOC

Stage No: 2 of 3

Type: PRIM CMT 2ND STAGE	Start Mix Cmt: 06:04	Disp Avg Rate: 5.00 (bbl/min)	Returns: 100%
Volume Excess %: 60.00	Start Slurry Displ: :	Disp Max Rate: 5.00 (bbl/min)	Total Mud Lost: (bbl)
Meas. From:	Start Displ: :	Bump Plug: N	Cmt Vol to Surf: 225.00 (bbl)
Time Circ Prior	End Pumping: :	Press Prior: 200 (psi)	
To Cementing: 9.00	End Pump Date:	Press Bumped: 2,600 (psi)	Ann Flow After: Y
Mud Circ Rate: 388 (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: FRESH WATER Density: 8.7 (ppg) Visc: 45 (s/qt) PV/YP: (cp)/8 (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: 2 Slurry No: 1 of 1

Slurry Data

Fluid Type: LEAD	Description: FOAM	Class: CLASS H	Purpose: FILLER CEM
Slurry Interval: (ft)	To: 3,483.00 (ft) Cmt Vol: 350 (sk)	Density: 11.9 (ppg)	Yield: 2.49 (ft ³ /sk)
Water Source: Corky Glenn	Slurry Vol: 25.0 (bbl)	Water Vol: 117.0 (bbl)	Other Vol: ()
			Foam Job: Y

Test Data

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

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

Trade Name	Type	Concentration	Units	Liquid Conc.	Units
Flocele		0.25			% BWOC
Gilsonite		5.00			lbs/bbl

Cementing Report

Legal Well Name: INDIAN HILLS UNIT GC NO. 38 Spud Date: 12/15/2002
 Common Well Name: INDIAN HILLS UNIT GC NO. 38 Report #: 1 Report Date: 5/29/2003
 Event Name: ORIGINAL COMPLETION Start: 4/2/2003 End: 5/29/2003

Stage No: 3 of 3

Type: PRIM CMT 3RD STAGE	Start Mix Cmt: 13:22	Disp Avg Rate: 5.00 (bbl/min)	Returns: 100%
Volume Excess %: 60.00	Start Slurry Displ: :	Disp Max Rate: 4.00 (bbl/min)	Total Mud Lost: (bbl)
Meas. From:	Start Displ: :	Bump Plug: Y	Cmt Vol to Surf: 75.00 (bbl)
Time Circ Prior	End Pumping: :	Press Prior: 900 (psi)	Ann Flow After: N
To Cementing:	End Pump Date:	Press Bumped: 2,300 (psi)	Mixing Method:
Mud Circ Rate: 388 (gpm)	Top Plug: Y	Press Held: 5 (min)	Density Meas By:
Mud Circ Press: (psi)	Bottom Plug: N	Float Held: Y	

Mud Data

Type: FRESH WATER Density: 8.7 (ppg) Visc: 45 (s/qt) PV/YP: (cp)/8 (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: 8.3 (ppg) Volume: 334.00 (bbl)

Stage No: 3 Slurry No: 1 of 1

Slurry Data

Fluid Type: TAIL	Description: OTHER	Class: CLASS C	Purpose: SHOE INTEG
Slurry Interval: 3,483.00 (ft) To: 2,583.00 (ft)	Cmt Vol: 100 (sk)	Density: 13.0 (ppg)	Yield: 1.34 (ft ³ /sk)
Water Source: Corky Glenn	Slurry Vol: (bbl)	Water Vol: 24.0 (bbl)	Other Vol: ()
			Mix Water: 6.34 (gal/sk)
			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
CACL2 (LIQUID)	ACCELERATOR	2.00			% BWOC

Marathon Oil Company
Cementing Report

Legal Well Name: INDIAN HILLS UNIT GC NO. 38 Spud Date: 12/15/2002
Common Well Name: INDIAN HILLS UNIT GC NO. 38 Report #: 1 Report Date: 5/29/2003
Event Name: ORIGINAL COMPLETION Start: 4/2/2003 End: 5/29/2003

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:

Remarks

Est top of cmt @ 400' on 1 st stage. circ 68 sks on 2 nd stage.