



Southern Business Unit

P. O. Box 3487
Houston, TX 77253-3487

5555 San Felipe Road
Houston, TX 77056-2799

Telephone: (713) 296-2096
FAX: (713) 499-6750

August 26, 2005

RECEIVED
AUG 29 2005
OCD-ARTESIA

New Mexico Oil Conservation Division
Attn: Mr. Tim Gum
1301 West Grand Avenue
Artesia, New Mexico 88210

RE: Indian Hills Unit No 30 abandonment SWD zone

Dear Mr. Gum

The C-101 accompanying this letter briefly outlines Marathon's proposal for abandoning the Devonian SWD zone in the Indian Hills Unit No 30. I contacted Mr. Mike Bratcher in your district office earlier this month about plugging this well. Mr. Bratcher advised that you wanted Marathon to remove the Baker permanent packer from the well and then set a cast iron bridge plug with 200 feet of cement on top of the CIBP. At the time of our discussion with Mr. Bratcher, Marathon was proposing to set a cast iron bridge plug above the packer and pump 50 feet of cement on top of the bridge plug.

Marathon has changed the proposal on our abandonment procedure in order to avoid the additional expense and possible problems of removing the Baker permanent packer, which would have to be drilled and fished or pushed to the bottom of the hole. We propose to set a cement retainer above the permanent packer and squeeze the entire open hole Devonian interval and the cased hole section of the well below the packer with 200 sacks of cement, which represents 50% excess over the calculated open hole volume. This is the approach used on Marathon's successful squeeze of the Devonian formation in the Indian Basin Gas Com No 1 (old acid gas disposal well). We would like to leave 20' of cement on top of the retainer in order to test the formations immediately above the permanent packer.

I would like to arrange a call with you to discuss these issues with Marathon's engineers for the project. If you would please contact me when you receive this letter with a time that you would be available it would be greatly appreciated. My phone number is 713-296-2096 or you can reach me through email at cekendrix@marathonoil.com

Thank You,

Charles E. Kendrix
Charles E. Kendrix
Engineering Technician
Marathon Oil Company

*As per call w/ Charles Kendrix & Ken Baker on 9-20-05 -
They will use A Packer not A Retainer - They will
Tag Cmt.*

State of New Mexico
Energy, Minerals & Natural Resources

Form C-101
May 27, 2004

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

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Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

| | | |
|--|--|--|
| ¹ Operator Name and Address Marathon Oil Company P.O. Box 3487 Houston, TX 77253-3487 | | ² OGRID Number 14021 |
| ⁴ Property Code 006409 | | ³ API Number 30- 15-31655 |
| ⁵ Property Name Indian Hills Unit | | ⁶ Well No. 30 |
| ⁹ Proposed Pool 1 Devonian SWD | | ¹⁰ Proposed Pool 2 |

⁷ Surface Location

| UL or lot no. | Section | Township | Range | Lot. Idn | Feet from the | North/South Line | Feet from the | East/West line | County |
|---------------|-----------|-------------|-------------|----------|---------------|------------------|---------------|----------------|-------------|
| L | 20 | 21-S | 24-E | | 1494 | South | 688 | West | Eddy |

⁸ Proposed Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot. Idn | Feet from the | North/South Line | Feet from the | East/West line | County |
|---------------|-----------|-------------|-------------|----------|---------------|------------------|---------------|----------------|-------------|
| F | 20 | 21-S | 24-E | | 1493 | North | 1523 | West | Eddy |

Additional Well Location

| | | | | |
|--|--|--|---|--|
| ¹¹ Work Type Code P | ¹² Well Type Code S | ¹³ Cable/Rotary | ¹⁴ Lease Type Code Federal | ¹⁵ Ground Level Elevation 3791' |
| ¹⁶ Multiple | ¹⁷ Proposed Depth | ¹⁸ Formation Devonian | ¹⁹ Contractor | ²⁰ Spud Date |
| Depth to ground water | | Distance from nearest fresh water well | | Distance from nearest surface water |
| Pit: Liner: Synthetic <input type="checkbox"/> _____ mils thick Clay <input type="checkbox"/> Pit Volume _____ bbls Drilling Method: | | | | |
| Closed-Loop System <input type="checkbox"/> Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/> | | | | |

²¹ Proposed Casing and Cement Program

| Hole Size | Casing Size | Casing weight/foot | Setting Depth | Sacks of Cement | Estimated TOC |
|----------------|----------------|--------------------|------------------------|-----------------|----------------|
| 17 1/2" | 13 3/8" | 54 # | 1205' | 1875 | Surface |
| 12 1/4" | 9 5/8" | 47 # | 8191' | 2130 | Surface |
| 8 1/2" | 7" | 26 # | 8026' - 10,748' | 350 | 8026' |
| | | | | | |
| | | | | | |

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Marathon Oil Company is proposing to plug back the Devonian SWD zone in our Indian Hills Unit No 30 well. The Devonian is currently an open hole SWD completion from 10748' to 11443' (measured depth). Marathon is seeking approval to abandon this zone by removing the split string of 7" & 4 1/2" casing that serves as tubing for the well, and setting a cement retainer above the Baker permanent packer @ 10630'. The Devonian will then be squeezed using 150% of the volume of the lower cased and open hole section of the well (apx 200 sks). Twenty feet of cement would then be pumped on top of the retainer.

| | | | |
|---|----------------------------|--|------------------|
| ²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines <input type="checkbox"/> a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> . | | OIL CONSERVATION DIVISION | |
| Signature: <i>Charles E. Kendrix</i> | | Approved by: | |
| Printed name: Charles E. Kendrix | | Title: | |
| Title: Engineering Technician | | Approval Date: | Expiration Date: |
| E-mail Address: cekendrix@marathonoil.com | | | |
| Date: 08/25/2005 | Phone: 713-296-2096 | Conditions of Approval: Attached <input type="checkbox"/> | |



Indian Hills Unit #30
Before work to plug back
Devonian SWD

GL 3791', KB 3817', TD 11443'
(Depths are Measured Depth)

7", 26 lb/ft, L-80 IPC
Tubing with 7" x 4 1/2" X-
Over at 7866'.

Liner Hanger @ 8026'

13 3/8", 54lb/ft,
J-55, set @
1205'

KOP 1400', 0°

9 5/8", 40, 43.5, & 47
lb/ft, L-80
set @ 8191'.
Circulate 50 sx.

Packer
Fluid

Morrow Perfs: 9866'-
9887', 9958'-9966'
and 9969-9982' with 6
spf power perf.
Squeezed w/ 40 sxs
cement on 08/22/02.

4 1/2", 11.6 lb/ft, L-80 IPC
Tubing

17.4° INC @ 10,634'
(TVD ~10241.8')

Baker FA-1 permanent
plastic-lined injection
packer @ 10630'. Tubing
set in Baker K-22 seal
assembly with 20K
compression.

7", 26 lb/ft, L-80 Liner
from 8026' to 10,748'.

Devonian Open Hole SWD
6 1/8" open hole from 10748'-
11443'.
TVD 10,352' @ casing point

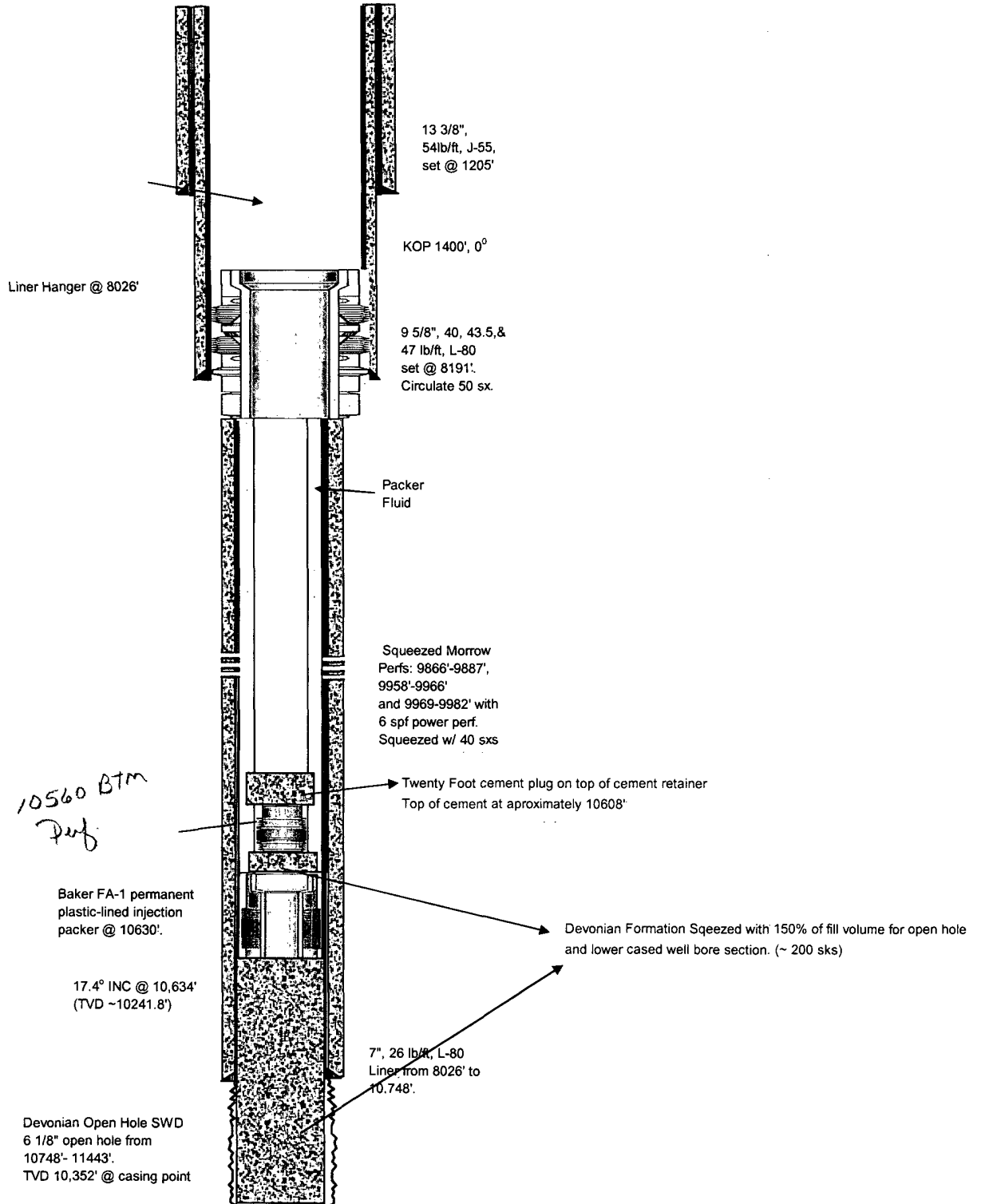
Tubing Report

| # Joints | Size | Weight | Grade | Cpig | Length | Top | Bottom |
|---|--------|--------|-------|------|---------|----------|----------|
| | | | | | -2.00 | 26 | 24 |
| 1 | 7" | 26# | L-80 | 8rd | 43.48 | 24 | 67.48 |
| | 7" | 26# | L-80 | 8rd | 10.13 | 67.48 | 77.61 |
| 179 | 7" | 26# | L-80 | 8rd | 7788.67 | 77.61 | 7866.28 |
| 4 1/2" x 7" IPC X-Over | | | L-80 | 8rd | 1.24 | 7866.28 | 7867.52 |
| 68 | 4 1/2" | 11.6# | L-80 | 8 | 2759.60 | 7867.52 | 10627.12 |
| 82FA47 Model K-22 ATSA E&IPC Seal Assy. (1.69') overall | | | | | 0.67 | 10627.12 | 10627.79 |
| 85FA47 E&IPC Retainer Prod.Packer w/ Pump-out plug | | | | | 3.35 | 10627.79 | 10631.14 |



Indian Hills Unit #30
Proposed wellbore after work
completed to plug back
Devonian

GL 3791', KB 3817', TD 11443'
(Depths are Measured Depth)



| | | | |
|--------------|-----------------|---------------------|----------|
| Prepared By: | Charles Kendrix | Last Revision Date: | 08/25/05 |
|--------------|-----------------|---------------------|----------|