

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

State of New Mexico
Energy, Minerals & Natural Resources

Form C-101
May 27, 2004

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

DEC 1 2004 Submit to appropriate District Office
OCD-ARTESIA
☐ 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		² OGRID Number 14021
		³ API Number 30- 30-015-28384
⁴ Property Code 6411	⁵ Property Name NORTH INDIAN BASIN UNIT	⁶ Well No. 20
⁹ Proposed Pool 1 Indian Basin Morrow		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
K	2	21-S	23-E		1650	SOUTH	2310	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
K	2	21-S	23-E		1650'	South	2000'	West	Eddy

Additional Well Location

¹¹ Work Type Code N	¹² Well Type Code G	¹³ Cable/Rotary ROTARY	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3736'
¹⁶ Multiple S	¹⁷ Proposed Depth 9,600'	¹⁸ Formation Morrow	¹⁹ Contractor UNKNOWN	²⁰ Spud Date ASAP
Depth to ground water		Distance from nearest fresh water well		Distance from nearest surface water
Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12 mil mils thick Clay <input type="checkbox"/> Pit Volume 2,000 bbls Drilling Method: Closed-Loop System <input type="checkbox"/> Fresh Water <input checked="" 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
20"	16"	CONDUCTOR	60'	REDI-MIX	SURF
14 3/4"	9 5/8"	36#	1250'	1400	SURF
8 3/4"	7"	23#, 26#	8000'	1100	SURF
6.125"	4.5"	10.5	9,600'	150 sks.	7700'

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.

BOP EQUIP: 7 1/16" 3M DUAL RAM, ANNULAR AND CHOKE MANIFOLD. ALL BOP EQUIP SHALL BE INSTALLED AND OPERATED IN ACCORDANCE TO RULES #109 & #114. Marathon intends to directional drill a 6.125" hole to 9,600'. TL target- 2,000' FWL and 1,650' FSL, approx. 310' W of current TL location) A 4.5" liner will be cemented in place from 7,700' to 9,600' w/ 150 sks of cement.
WELL PROPOSED target is the Indian Basin Morrow. The NIBU #23 located in the NW quarter is completed in the Morrow.

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 ☒ a general permit ☐, or an (attached) alternative OCD-approved plan ☐.
Signature: *mfmick*

Printed name: **Mike Mick**

Title: **Adv. Sr. Eng. Tech.**

E-mail Address: **mfmick@marathonoil.com**

Date: **11-16-04**

Phone: **713-296-3254**

BEJ OIL CONSERVATION DIVISION

Approved by:

TIM W. GUM

Title: **DISTRICT II SUPERVISOR**

Approval Date: **DEC 02 2004** Expiration Date: **DEC 02 2005**

Conditions of Approval:

Attached ☐

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Energy Minerals and Natural Resources

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

Form C-144
June 1, 2004

For drilling and production facilities, submit to
appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: <u>Marathon Oil Company</u> Telephone: <u>713 296-3254</u> e-mail address: <u>mfmick@marathonoil.com</u>		
Address: <u>P.O. Box 3487</u> <u>Houston, Texas 77253</u>		
Facility or well name: <u>North Indian Basin Unit # 20</u> <u>API# 30-015-28384</u> U/L or Qtr/Qtr <u>K</u> Sec <u>2</u> T <u>21S</u> R <u>23E</u>		
County: <u>Eddy</u> Latitude _____ Longitude _____ NAD: 1927 <input type="checkbox"/> 1983 <input type="checkbox"/>		
Surface Owner: Federal <input type="checkbox"/> State <input type="checkbox"/> Private <input checked="" type="checkbox"/> Indian <input type="checkbox"/>		
Pit Type: Drilling <input type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input checked="" type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input checked="" type="checkbox"/> Thickness <u>12</u> mil Clay <input type="checkbox"/> Pit Volume <u>2,000</u> bbl.	Below-grade tank Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not. _____	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more <input checked="" type="checkbox"/>	(20 points) (10 points) (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No <input checked="" type="checkbox"/>	(20 points) (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more <input checked="" type="checkbox"/>	(20 points) (10 points) (0 points)
Ranking Score (Total Points)		<u>10</u>

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☒ offsite ☐ If offsite, name of facility _____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results.
(5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments: Marathon intends to construct a 100' x 100' workover pit. The pit will be constructed in the area of the original reserve pit, and will not require any new surface disturbance. The top soil will be removed and stockpiled; the contents dug out of old pit area will be placed on a liner. The pit will be lined with a 12 mil liner, additional padding will be used to prevent puncture if necessary. Pit area will be fenced. When workover is completed, all liquids will be removed and contents allowed to dehydrate. Contents removed during construction will be replaced, pit liner will be folded, 20 mil liner cap installed. A minimum of 3' of cover placed on top of cap, stockpiled top soil then placed on area. Area will be seeded to promote vegetation growth.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 11-15-2004

Printed Name/Title Mike Mick

Signature M. Mick

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Printed Name/Title Field Rep

Signature [Signature]

Date: DEC 1 2004

RECEIVED

DEC .. 1 2004

State of New Mexico
Energy, Minerals & Natural Resources

RECEIVED

Form C-102
Revised June 10, 2003OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505DEC 1 2004
Submit to Appropriate District Office
OCD-ARTESIA State Lease - 4 Copies
Fee Lease - 3 CopiesDistrict I
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WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-28384		² Pool Code 078960	³ Pool Name Indian Basin Morrow
⁴ Property Code 6411	⁵ Property Name North Indian Basin Unit		⁶ Well Number 20
⁷ OGRID No. 014021	⁸ Operator Name Marathon Oil Company		⁹ Elevation GL:3736

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	2	21-S	23-E		1650	South	2310	West	Eddy

¹¹ Bottom Hole Location If Different From Surface

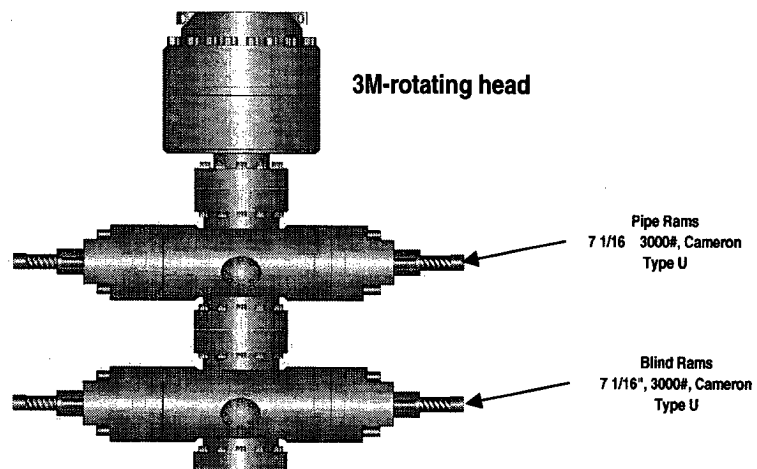
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	2	21-S	23-E		1650'	South	2000'	West	Eddy

¹² Dedicated Acres 640	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A
NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <u>Mike Mick</u> Signature <u>Mike Mick</u> Printed Name <u>Adm. Sn. Eng. Tech</u> Title <u>11-30-04</u> Date
	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. JANUARY 18, 1995 Date Surveyed <u>[Signature]</u> Signature & Seal of Professional Surveyor <u>[Signature]</u> 3-2-95 V.O. Num. 94-11-2022 SCN
	Certificate No. JOHN W. WEST, 676 RONALD J. EDSON, 3239

7 1/16" BOP stack



MARATHON OIL COMPANY

H2S DRILLING OPERATIONS PLAN

• HYDROGEN SULFIDE TRAINING

All contractors and subcontractors employed by Marathon Oil Company will receive or have received training from a qualified instructor within the last twelve months in the following areas prior to commencing drilling operations on this well.

- 1. The hazards and characteristics of hydrogen sulfide (H₂S)**
- 2. Safety precautions**
- 3. Operations of safety equipment and life support systems**

In addition, contractor supervisory personnel will be trained or prepared in the following areas:

- 1. The effect of H₂S on metal components in the system. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.**
- 2. Corrective action and shut-down procedures when drilling or reworking a well, blowout prevention and well control procedures, if the nature of work performed involves these items.**
- 3. The contents and requirements of the contingency plan when such plan is required.**

All personnel will be required to carry documentation of the above training on their person.

II. H2S EQUIPMENT AND SYSTEMS

1. Safety Equipment

The following safety equipment will be on location.

A. Wind direction indicators.

B. Automatic H₂S detection alarm equipment (both audio and visual).

C. Clearly visible warning signs. Signs will use the words "POISON GAS" and "CAUTION" with a strong color contrast.

D. Protective breathing equipment will be located in the dog house and at briefing areas.

2. WELL CONTROL SYSTEMS

A. Blowout Prevention Equipment

Equipment includes but is not limited to:

- a. pipe rams to accommodate all pipe sizes**
- b. blind rams**
- c. choke manifold**
- d. closing unit**

Auxiliary equipment added as appropriate includes:

- a. annular preventor**
- b. rotating head**
- c. mud- gas separator**
- d. flare line and means of ignition _____**
- e. remote operated choke**

B. Communication

The rig contractor will be required to have two-way communication capability. Marathon Oil Company will have either land-line or mobile telephone capabilities.

C. Mud Program

The mud program has been designed to minimize the volume of H₂S circulated to surface. Proper mud weight, safe drilling practices, and the use of H₂S scavengers when appropriate will minimize hazards when penetrating H₂S bearing zones.

Exhibit "I"

Marathon Oil Company

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN (SPCC PLAN)

Marathon Oil Company has pollution prevention, good housekeeping, safety and fire prevention policies that are to be followed at all times. All company employees, contractors and subcontract personnel are to observe safe working practices and prevent pollution to the maximum extent possible.

In the event of an emergency, spill, fire, explosion or blowout, personal injuries, property or equipment damage, call **MARATHON OIL COMPANY @ 1-800-351-1417**

Prior to drilling, certain measures should be taken:

1. Use impervious materials to build the location and the reserve pit.
2. Ditch the outline of the rig toward the reserve pit.
3. Place sumps on each end of the rig to catch any free oil or debris from entering the reserve pit.
4. Keep materials on location to contain or clean up spills (absorbent pads, shovels, etc).
5. Make known to Drilling Supervisors a list of spill response contractors available.
6. BOP testing shall be performed each time a casing string is set.
7. The Drilling contractor is required to have a certified SPCC plan for the Drilling rig.
8. Routine inspections of the operations shall be performed to ensure SPCC guidelines are followed.
9. Ensure all Marathon personnel are HAZWOPER trained in methods for stopping, controlling, and cleaning up any spills.

Spill control measures to be taken:

1. Shut down activities underway, as deemed necessary by the person in charge.
2. Determine the source of pollution and stop the discharge, if possible.
3. Isolate and contain the discharged materials, if possible.
4. Seek guidance from the Southern Region Emergency Action Plan.

Additional Information- North Indian Basin Unit # 20

General

The North Indian Basin Unit # 20 is located on New Mexico State lands. No new surface damages for pit area utilized . Approx. size 100'x 100' x 4'.

- Topsoil will be stripped and stockpiled for use as the final cover of fill at the time of closure.
- Contents removed from old pit will be stockpiled on a liner to prevent soil contamination.
- A 12 mil. Liner will be installed. Padding will be added if necessary. Liner will be anchored per OCD's guidelines. OCD will be contacted 24 hrs. prior to liner installation.
- All necessary steps will be taken to prevent liner damage.
- Marathon will use a combination of produced and freshwater during drilling, anticipated chloride content of drilling fluids - 10,000 ppm.
- Pit Area will be fenced, work access will remain open during operations, closed once rig operations cease.
- All fluids will be removed from pit in a timely manner after operations cease.
- OCD will be contacted when pit closure commences.
- Closure of pit will be performed as per current OCD guidelines for onsite encapsulation. The liner edges shall be folded over the contents and a 20 mil liner shall be installed on top. A min. of 3 feet of clean soil shall be spread over encapsulated pit contents. Stockpiled top soil shall be spread and contoured. Pit area will be re-seeded and re-vegetation promoted.