

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

State of New Mexico  
Energy Minerals and Natural Resources

Form C-101  
May 27, 2004

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

RECEIVED

Submit to appropriate District Office

NOV 19 2004

☐ AMENDED REPORT

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

<sup>1</sup> Operator Name and Address Latigo Petroleum, Inc. 550 W. Texas, Suite 700 Midland, TX 79701		<sup>2</sup> OGRID Number 227001
<sup>3</sup> Property Code	<sup>4</sup> Property Name TWO MARKS 36 STATE	<sup>5</sup> API Number 30-015-33744
<sup>9</sup> Proposed Pool 1 INDIAN BASIN, UPPER PENN ASSOC		<sup>6</sup> Well No. 2
<sup>10</sup> Proposed Pool 2		

<sup>7</sup> Surface Location

UL or lot no. N	Section 36	Township 21S	Range 24E	Lot Idn	Feet from the 660'	North/South line South	Feet from the 1980	East/Westline West	County EDDY
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<sup>8</sup> 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/Westline	County
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Additional Well Information

<sup>11</sup> Work Type Code New Drill	<sup>12</sup> Well Type Code Oil	<sup>13</sup> Cable/Rotary R	<sup>14</sup> Lease Type Code S	<sup>15</sup> Ground Level Elevation 3825'
<sup>16</sup> Multiple	<sup>17</sup> Proposed Depth 8,700'	<sup>18</sup> Formation Cisco/Canyon	<sup>19</sup> Contractor J/W Drilling	<sup>20</sup> Spud Date 12/01/2004
Depth to Groundwater 150'		Distance from nearest fresh water well 10,000' NW		Distance from nearest surface water 9 miles NE
Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12 milst thick Clay <input type="checkbox"/> Pit Volume: 500 bbls Drilling Method: Fresh Water <input checked="" type="checkbox"/> Brine <input checked="" type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input checked="" type="checkbox"/>				
Closed-Loop System <input type="checkbox"/>				

<sup>21</sup> Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12 1/4"	9 5/8"	36# J-55	1,600'	795 sxs	Surface
8 3/4"	7"	26# L-80	8,700'	1570 sxs	Surface

<sup>22</sup> 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.  
This is an area of severe lost circulation to a depth of approx. 1600'.  
MIRT, air rig, and drill w/air to a depth of 1600' and set surface csg as shown above.  
MORT air rig and MIRT w/fluid system.  
Drill hole to TD.  
Log and possible DST of Cisco/Canyon interval.  
Set and cmt long string as shown above.

NOTIFY OCD TO WITNESS  
ALL CASING STRINGS

<sup>23</sup> 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 checked="" type="checkbox"/> a general permit <input type="checkbox"/> or an (attached) alternative OCD-approved plan <input type="checkbox"/> .		OIL CONSERVATION DIVISION	
Printed name: Donna Frazier		Approved by: TIM W. GUM	
Title: Production Analyst		Title: DISTRICT II SUPERVISOR	
E-mail Address: dfrazier@latigopetro.com		Approval Date: DEC 02 2004 Expiration Date:	
Date: 11/18/2004		DEC 02 2005	
Phone: (432)684-4293		Condition of Approval Attached <input type="checkbox"/>	

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Form C-144  
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCDD 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: Latigo Petroleum, Inc. Telephone: (432)684-4293 e-mail address: dfrazier@latigopetro.com  
Address: 550 W. Texas, Suite 700 Midland, TX 79701  
Facility or well name: TWO MARKS 36 STATE #2 API#: U/I or Qtr/Qtr N Sec 36 T 21S R 24E  
County: EDDY Latitude \_\_\_\_\_ Longitude \_\_\_\_\_ NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☐ State ☒ Private ☐ Indian ☐

<b>Pit</b>	<b>Below-grade tank</b>	
Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input 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>500</u> bbl	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	(20 points)
	50 feet or more, but less than 100 feet	(10 points)
	100 feet or more	(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	(20 points)
	No	(0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet	(20 points)
	200 feet or more, but less than 1000 feet	(10 points)
	1000 feet or more	(0 points)
<b>Ranking Score (Total Points)</b>		<b>0</b>

**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 you 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:

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 NMOCDD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 11/12/2004

Printed Name/Title Donna Frazier Production Analyst

Signature Donna Frazier

Your certification and NMOCDD 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 Sep 10

Signature [Signature]

DEC 1 2004

Date: \_\_\_\_\_

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State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102

Revised June 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number	<sup>2</sup> Pool Code	<sup>3</sup> Pool Name INDIAN BASIN, UPPER PENN, ASSOCIATED
<sup>4</sup> Property Code	<sup>5</sup> Property Name TWO MARKS 36 STATE	<sup>6</sup> Well Number #2
<sup>7</sup> OGRID No. 227001	<sup>8</sup> Operator Name LATIGO, PETROLEUM, INC.	<sup>9</sup> Elevation 3825

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	36	21-S	24-E		660	SOUTH	1980	WEST	EDDY

<sup>11</sup> 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

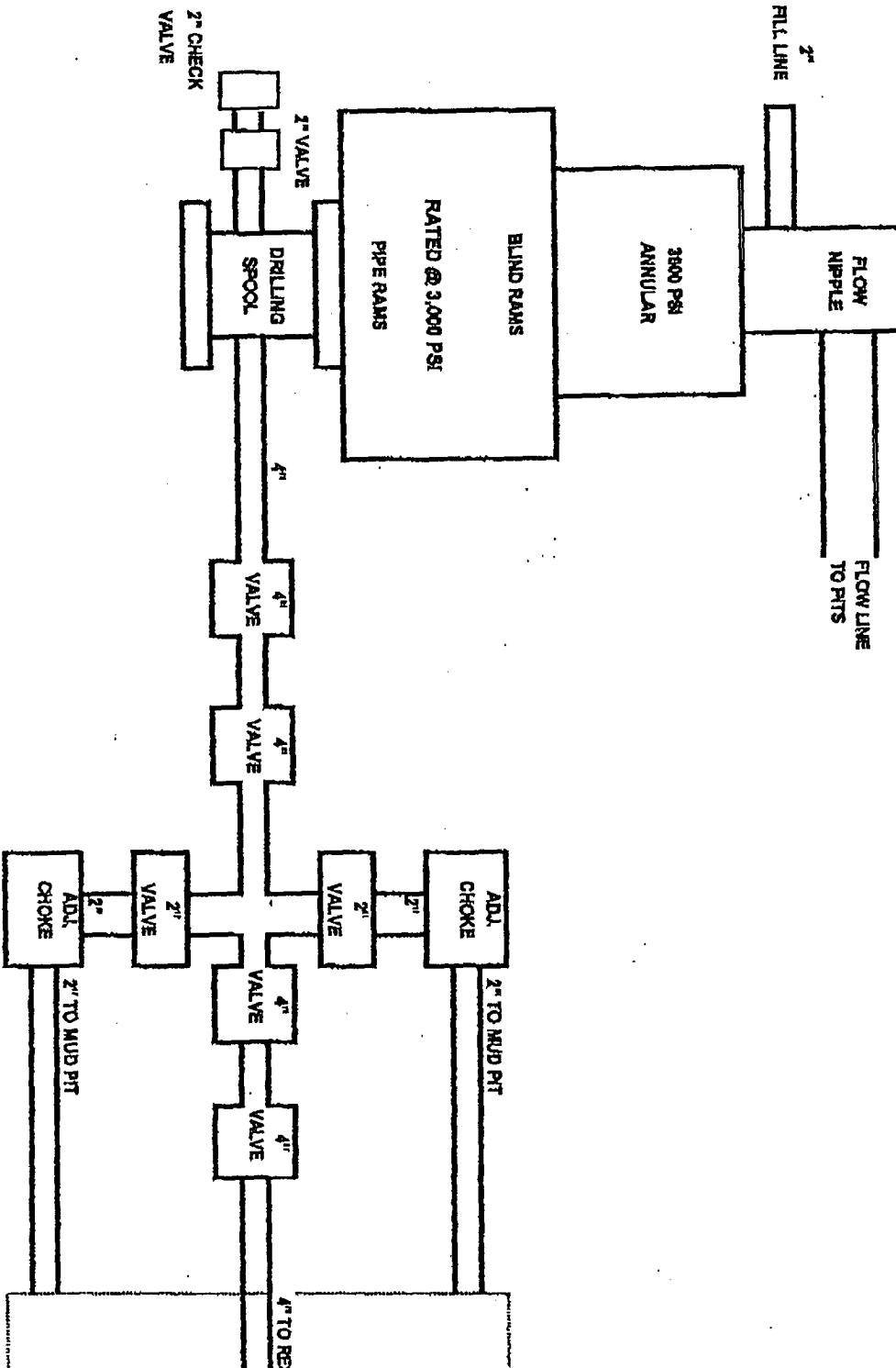
<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.

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

	<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature Donna Frazier Printed Name Production Analyst dfrazier@latigopetro.com Title and E-mail Address 11/18/04 Date
	<sup>18</sup> 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. 10/25/04 Date of Survey  Signature and Seal of Professional Surveyor.  Certificate Number

BOP STACK

JW DRILLING, INC. RIG # 4





Latigo Petroleum, Inc.  
415 West Wall Street, Suite 1900  
Midland, Texas 79701  
432-684-4293

**Hydrogen Sulfide (H<sub>2</sub>S)  
Contingency  
Plan  
for**

**Two Marks 36 State No. 2**

660 FSL and 1980 FWL

Sec 36, T21S, R24E

Eddy County, NM

Two Marks 36 State No. 2



### Description of Site

This is an open drilling site. It is located on top of a mesa with very good air flow and no blocking canyon walls.

### Monitoring Equipment

Hydrogen Sulfide monitors and emergency response equipment will be on location 500' prior to encountering any/all zones known or suspected of containing Hydrogen Sulfide. Equipment to include monitors, signs and wind flags.

### Radius of Exposure (ROE)

**The 100 ppm Radius Of Exposure (ROE) is calculated for 3000' and shown on the map.**

Escape from Area
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All personell are to escape UPWIND of escaping gas. Escape is via the lease road shown to Highway 137 shown on the map. There are NO homes or other building in or near the ROE.

**Emergency Procedures**

In the case of a release of gas containing H<sub>2</sub>S, the first responder(s) must isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

All responders must have training in the detection of H<sub>2</sub>S, measures for the protection against the gas, equipment used for protection and emergency response. Additionally, the responders must be equipped with H<sub>2</sub>S monitors and air packs in order to control the release. Use the 'Buddy System' to ensure no injuries occur during the response.

**Gas Source Ignition (Firing)**

Should control of the well be considered lost and ignition considered, care to protect against Sulfur Dioxide, SO<sub>2</sub>, must be taken by all. Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command(ers) on scene of any major release. An ignition of gas requires that all downwind be protected.

**Gas Characteristics**

Common Name	Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Conc.
Hydrogen Sulfide	H <sub>2</sub> S	1.189, Air=1	10 ppm	100 ppm/Hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21, Air=1	2 ppm	N/A	1000 ppm

**Contacting Authorities**

Latigo Petroleum, Inc. personnel must and will liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours after the occurrence of the event. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. The following call list, next page, of essential and potential responders has been prepared for use during a release. Latigo Petroleum, Inc. response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER).

## Latigo Petroleum Contacts

Name	Office	Cellular	Home
Bruce Woodard, Operations Manager	432-684-4293	432-894-2640	432-697-6243
Rodeny Long, Field Foreman	505-391-9291	432-894-2648	432-524-3822
Ronnie Pryer, Field Foreman	505-391-9291	432-894-2650	505-391-8698
Mark A. Fairchild, Engineer	432-684-4293	432-894-2558	432-684-0524

## Agency Contacts

City	Entity	Number
Artesia	State Police	505-746-2703
	City Police	505-746-2703
	Sheriff's Office	505-746-9888
	Ambulance	911
	Fire Department	505-746-2701
	Local Emergency Planning Committee	505-746-2122
Carlsbad	NMOCD	505-748-1283
	State Police	505-885-3137
	City Police	505-885-2111
	Sheriff's Office	505-887-7551
	Ambulance	911
	Fire Department	505-885-2111
Sana Fe	Local Emergency Planning Committee	505-887-3798
	US Bureau of Land Management	505-887-6544
	NM Emergency Response Commission	505-827-9126
Washington, DC	US Emergency Response Center	800-424-8802

## Other Contacts

Entity	Location	Number
Cudd Pressure Control	Midland/Odessa, TX	432-699-0139
Halliburton	New Mexico Yard	505-746-2757
Flight for Life	Lubbock, TX	806-743-9911
Med Flight Air Ambulance	Albuquerque, New Mexico	505-842-4433