

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

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 Morexco, Inc. P. O. Box 1591 Roswell, NM 88202-1591		² OGRID Number 15262
³ Property Code 36030	⁴ Property Name Kettle Hill Fee	⁵ API Number 30 - 041 - 20927
⁶ Well No. 1		⁷ Proposed Pool 1 Chavesco Lower Penn North (Gas)
⁸ Proposed Pool 2		

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	3	7S	33E		660	N	1980	E	Roosevelt

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

Additional Well Information

¹¹ Work Type Code N	¹² Well Type Code O	¹³ Cable/Rotary R	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation 4379'
¹⁶ Multiple No	¹⁷ Proposed Depth 9200'	¹⁸ Formation Miss.	¹⁹ Contractor United Drilling	²⁰ Spud Date 10-16-2006
Depth to Groundwater 100+ ft		Distance from nearest fresh water well 1+ mile		Distance from nearest surface water 1000+ ft
Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12mils thick Clay <input type="checkbox"/> Pit Volume: _____ bbls Drilling Method: _____				
Closed-Loop System <input type="checkbox"/> Fresh Water <input checked="" type="checkbox"/> Brine <input checked="" type="checkbox"/> Diesel/Oil-based <input checked="" 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 1/4	13 3/8	48#	400	400 sxs	surface
12 1/4	8 5/8	32/24#	4000	775 sxs	surface
7 7/8	5 1/2	17#	9300	1400 sxs 2 stg	4000

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.

Operator proposes to drill to a depth sufficient to test the Miss. If sufficient shows are encountered, 5 1/2 casing will be run and cemented @ TD. If no shows, the well will be plugged in a manner consistent with OCD specifications.

Permit Expires 1 Year From Approval
Date Unless Drilling Underway

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 ☐.

OIL CONSERVATION DIVISION

Approved by:

Langdon Wink

Printed name: Donald G. Becker, Jr.

Title:

Title: President

Approval Date:

Expiration Date:

E-mail Address: morexco@plateautel.net

SEP 25 2006

Date: 9-18-2006

Phone: 505-627-1290

Conditions of Approval Attached ☐

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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

¹ API Number 30-041-20927	² Pool Code 97445	³ Pool Name Chavero Lower Pen North (Gas)
⁴ Property Code 36030	⁵ Property Name Kettle Hill	⁶ Well Number 1
⁷ GRID No. 15262	⁸ Operator Name Morexco, Inc.	⁹ Elevation 4379'

¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	3	7 S	33 E		660	North	1980	East	Roosevelt

¹¹Bottom 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

¹² Dedicated Acres 320 N/2	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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

<div>16</div>	<p>¹⁷OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Signature: <i>Donald G. Becker, Jr.</i></p> <p>Printed Name: Donald G. Becker, Jr.</p> <p>Title and E-mail Address: <i>morexco@plateautel.net</i></p> <p>Date: 9-18-2006</p>	
	<p>¹⁸SURVEYOR CERTIFICATION</p> <p>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.</p> <p>Date of Survey: 08-30-2006</p> <p>Signature and Seal of Professional Surveyor: <i>Michael L. Stanford</i></p> <p>Certificate Number: 10324</p>	

**Morexco, Inc.
PO Box 1591
Roswell, NM 88202-1591**

**Hydrogen Sulfide (H₂S)
Contingency Plan**

For

**Kettle Hill Fee #1
1980 FEL, 660 FNL
Sec 3, T7S, R33E
Roosevelt County, NM**

And

United Drilling Co. Rig No. 28

Preface

An effective and viable Contingency Plan is intended to provide prior planning and guidance in responding to emergency incidents. The primary considerations in its development are protection of personnel, the public, company and public property, and the environment.

Although the plan addresses varied emergency situations which may occur, it recognizes that flexibility and the use of the organization's knowledge and experience is critical to safe resolution of emergency incidents. Response actions outlined in the plan provide a framework, which may be placed into operation without confusion. These actions should promote quick and decisive actions during the critical initial period and immediately following an emergency. As the response progresses, additional guidelines and procedures may need to be implemented as the situation dictates. In addition, all emergency incidents must be properly reported per the Morexco Incident Reporting and Notification Policy, state and federal requirements, etc.

This Contingency Plan is intended for use on Morexco projects and the operations within their area of responsibility, such as drilling, critical well work, etc.

A copy of the Plan shall be maintained in the Top Dog House, Rig Managers trailer, and Company Representative's trailer if applicable.

EMERGENCY RESPONSE ACTIVATION AND GENERAL RESPONSIBILITIES

Activation of the Emergency Action Plan

- A. In the event of any emergency situation, all personnel on location should first ensure that the following items are initiated. After that, they should refer to the appropriate Specific Emergency Guidance sections on pages ten (10) through twelve (12) in this document for further responsibilities:
 - 1. Notify the senior ranking contract representative on site.
 - 2. Notify Morexco representative in charge.
 - 3. Notify civil authorities if the Morexco Representative can not be contacted and the situation dictates.
 - 4. Perform rescue and first aid as required (without jeopardizing additional personnel).

General Responsibilities

Morexco, Inc. Personnel:

- A. Operations Specialist: The Morexco Drilling/Critical Well Servicing Operations Specialist or contract personnel serving in that capacity will serve as Operations Chief Officer for all emergency incidents. The Operations Chief Officer is responsible for:
 - 1. Notification to the Downhole Services Team Leader of the incident occurrence.
 - 2. Notification to the local RMT/PMT leader of the incident occurrence, and the need for the designated local RMT/PMT Incident Commander to act in that capacity for the response effort.
 - 3. Sole control of all tactical activities directed toward reducing the immediate hazard, establishing situational control and restoring the operations to a non-emergency state.
- B. Local RMT/PMT Designated Incident Commander: The Morexco local RMT/PMT Designated Incident Commander will serve as the overall Incident Commander for the drilling or critical well servicing emergency incident. The Incident Commander is responsible for:
 - 1. Coordinating with the Downhole Services Team Leader for notification to the Morexco Crisis Management team of the incident occurrence.
 - 2. Establishing and managing the overall incident command structure and response from inception through restoration of normal activities in the area.
- C. Downhole Services HES Tech: The Downhole Services HES Tech (or his designate) is responsible for reporting to the incident as soon as reasonably possible, to provide support to the response effort as required by the Operations Chief Officer or the Incident Commander.

Contract Drilling Personnel will immediately report to their assigned stations and perform their duties as outlined in the appropriate Specific Emergency Guidance sections on pages ten (10) through twelve (12) in this document.

Other Contractor Personnel will report to the safe briefing area to assist Morexco personnel and civil authorities as requested when it is safe to do so and if they have been adequately trained in their assigned duties.

Civil Authorities (Law Enforcement, Fire, and EMS) will be responsible for:

1. Establishing membership in the Unified Incident Command.
2. As directed by the Incident Commander and the Unified Command, control site access, re-route traffic, and provide escort services for response personnel.
3. Perform all fire control activities in coordination with the Unified Command.
4. Initiate public evacuation plans as instructed by the Incident Commander.
5. Perform rescue or recovery activities with coordination from the Unified Command.
6. Provide medical assistance as dictated by the situation at hand.

H2S RELEASE

The following procedures and responsibilities will be implemented on activation of the H2S siren and lights.

All Personnel:

1. On alarm, don escape unit (if available) and report to upwind briefing area.

Rig Manager/Tool Pusher:

1. Check that all personnel are accounted for and their condition.
2. Administer or arrange for first aid treatment, and/or call EMTs as needed.
3. Identify two people best suited to secure well and perform rescue, and instruct them to don SCBA.
4. Notify Contractor management and Morexco Representative.
5. Remain at the briefing area, assess and monitor personnel and overall situation for hazards or conditions that might warrant a change in the action plan.

Two People Responsible For Shut-in and Rescue:

1. Don SCBA and acquire tools to secure well and perform rescue, i.e., wrenches, retrieval ropes, etc.
2. Utilize the buddy system to secure well and perform rescue(s).
3. Return to the briefing area and stand by for further instructions.

All Other Personnel:

1. 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.

Morexco Representative:

1. Remain at the briefing area, assess and monitor personnel and overall situation for hazards or conditions that might warrant a change in the action plan.
2. Notify Operation Specialists or Team Leader and RMT Leader or Local Incident Commander, and Police, Fire Department, or other Local emergency services as required.

Training

There will be an initial training session prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan (Contingency Plan). This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police shall be the Incident Command of any major release.

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Morexco personnel must 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. Agencies will ask for information such as: type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. This response plan must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER).

WELL CONTROL

The following procedures will be implemented when a loss of primary control is indicated. Indicators of loss of primary control are flow from the well, an increase in pit volume, or when the drilling fluid used to fill the hole on trips is less than the calculated pipe displacement volume. The emergency signal for well control procedures will be a single long blast of the rig air horn.

Kick While Drilling – Procedures And Responsibilities

Driller:

1. Stop the rotary and hoist the Kelly above the rotary table.
2. Stop the mud pump(s).
3. Check for flow.
4. If flowing, sound the alarm immediately.
5. Ensure that all crew members fill their responsibilities to secure the well.
6. Record drill pipe and casing shut-in pressures and pit volume increase and begin kill sheet.

Derrickman:

1. Go to BOP/choke manifold area.
2. Open choke line valve on BOP.
3. Signal to Floorman #1 that the choke line is open.
4. Close chokes after annular or pipe rams are closed.
5. Record shut-in casing pressure and pit volume increases.
6. Report readings and observations to Driller.
7. Verify actual mud weight in suction pit and report to Driller.
8. Be readily available as required for additional tasks.

Floorman #1:

1. Go to accumulator control station and await signal from Derrickman.
2. Close annular preventer and HCR on signal (if available, if not then close pipe rams).
3. Record accumulator pressures and check for leaks in the BOP or accumulator system.
4. Report to Driller, and be readily available as required for additional tasks.

Floorman #2:

1. Start water on motor exhausts.
2. Notify Contractor Tool Pusher or Rig Manager of well control situation.
3. Check location for ignition sources and extinguish or turn off, and stop any welding in progress.
4. Report to Driller, and be readily available as required for additional tasks.

Floorman #3:

1. Stand-by with Driller, and be readily available as required for additional tasks.

Tool Pusher/Rig Manager:

1. Notify Morexco Representative and report to rig floor.
2. Review and verify all pertinent information.
3. Communicate information to Morexco Representative, and confer on an action plan.
4. Finalize well control worksheets, calculations and preparatory work for action plan.
5. Initiate and ensure the action plan is carried out.
6. Communicate any changes in well or site conditions, or any indications that the action plan needs to be revised to the Morexco Representative.

Morexco Representative:

1. Notify Operation Specialists or Team Leader and RMT Leader or Local Incident Commander, and Police, Fire Department, or other local emergency services as required.

Kick While Tripping – Procedures and Responsibilities

Driller:

1. Sound the alarm immediately when pipe displacement volume is less than 75% of calculated.
2. Position the upper tool joint just above rotary table and set slips.
3. Check for flow.
4. Ensure that all crew members fill their responsibilities to secure the well.
5. Record drill pipe and casing shut-in pressures and pit volume increase, and begin kill sheets.

Derrickman: (same as while drilling)

Floorman #1:

1. Install full opening valve (with help from Floorman #2) in top drill string connection.
2. Tighten valve with make up tongs.
3. Go to accumulator control station and await signal from Derrickman.
4. Close annular preventer and HCR valve on signal (if available, if not then close pipe rams).
5. Record accumulator pressures and check for leaks in the BOP and accumulator system.
6. Report to Driller, and be readily available as required for additional tasks.

Floorman #2:

1. Assist installing full opening valve in drill string.
2. Position back-up tongs for valve make-up.
3. Start water on motor exhausts.
4. Notify Contractor Tool Pusher or Rig Manager of well control situation.
5. Check location for ignition sources and extinguish or turn off, and stop any welding in progress.
6. Report to Driller, and be readily available as required for additional tasks.

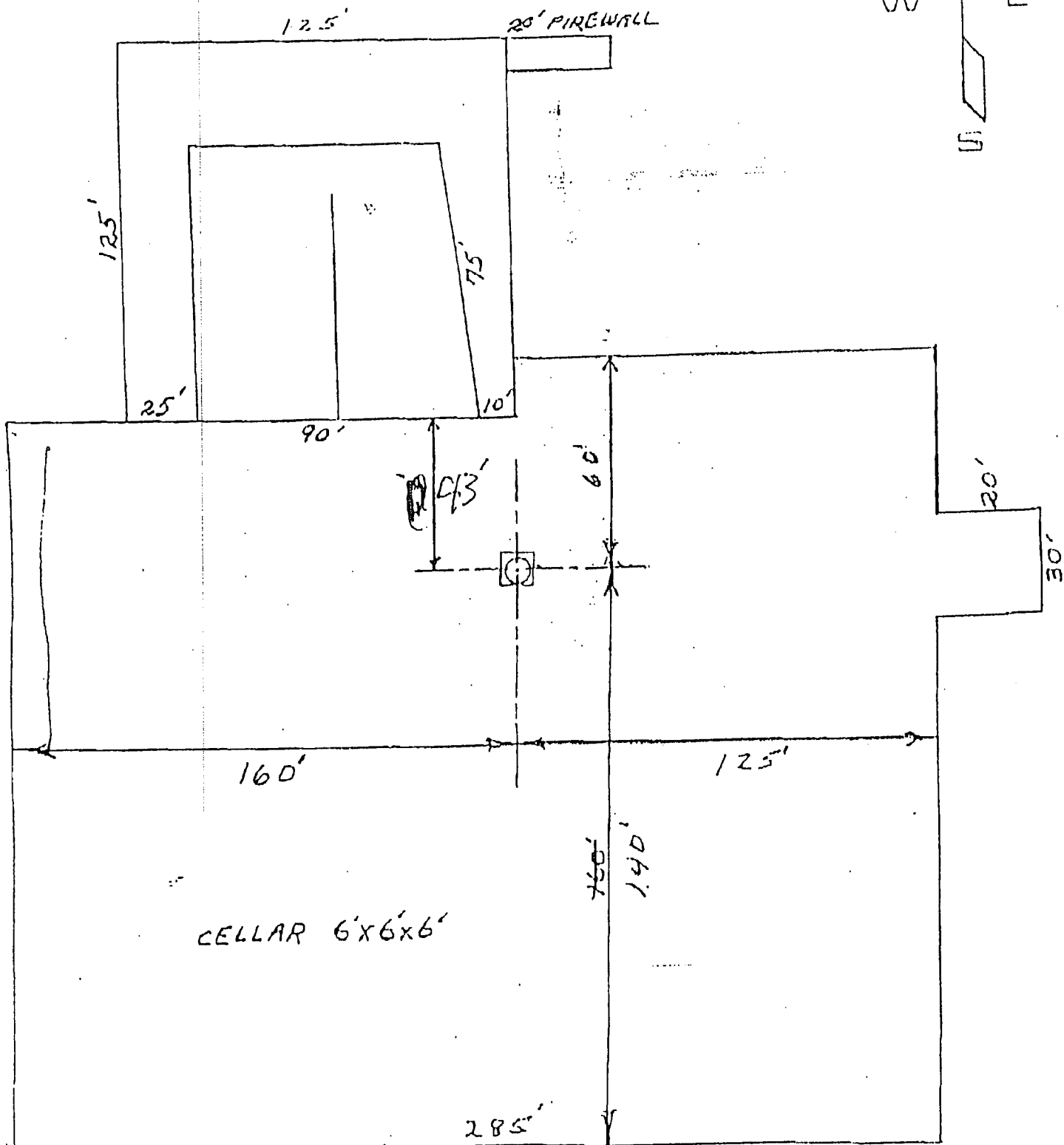
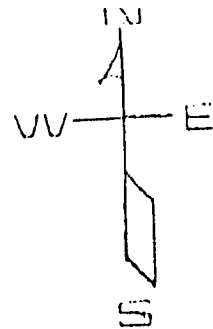
Floorman #3, Rig Manager/Tool Pusher, and Morexco Representative: (same as while drilling)

Emergency Notification Numbers

Public Authorities		
New Mexico State Police	Artesia	505/746-2704
New Mexico State Police	Carlsbad	505/885-3137
New Mexico State Police	Hobbs	505/392-5588
Eddy County Sheriff's Office	Artesia	505/746-2704
Eddy County Sheriff's Office	Carlsbad	505/887-7551
Lea County Sheriff's Office	Hobbs	505/393-2515
Local Emergency Planning Center	Eddy County	505/887-9511
Local Emergency Planning Center	Lea County	505/397-9231
New Mexico Oil & Gas Commission	Artesia	505/748-1283
New Mexico Oil & Gas Commission	Hobbs	505/393-6161
NM Emergency Response Center	Hobbs	505/827-9222

Emergency Services		
Fire Fighting, Rescue, Ambulance, Police	Artesia	911
Fire Fighting, Rescue, Ambulance, Police	Carlsbad	911
Fire Fighting, Rescue, Ambulance, Police	Hobbs	911
Flight For Life	Lubbock	806/743-9911
Aerocare	Lubbock	806/747-8923
Med Flight Air Ambulance	Albuquerque	505/842-4433

Other Emergency Services		
Boots and Coots		1/800-256-9688
Cudd Pressure Control	Midland	432/699-0139
B. J. Services	Artesia	505/746-3569



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Energy Minerals and Natural Resources

Oil Conservation Division
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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: Morexco, Inc. Telephone: 505-627-1290 e-mail address: morexco@plateautel.net
Address: P. O. Box 1591 Roswell, NM 88202-1591
Facility or well name: Kettle Hill Fee API #: 30-041-20927 U/L or Qtr/Qtr B Sec 3 T 7S R 33E
County: Roosevelt Latitude _____ Longitude _____ NAD: 1927 ☐ 1983 ☐
Surface Owner: Federal ☐ State ☐ Private ☒ Indian ☐

Pit	Below-grade tank	
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 _____ 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) 0
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) 0
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) 0
Ranking Score (Total Points)		0

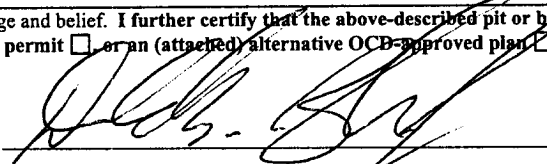
If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☐ If offsite, name of facility _____. (3) Attach a general description of remedial 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:

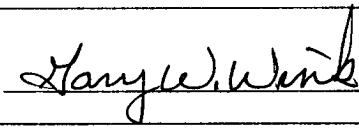
I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ a general permit ☐ or an (attached) alternative OCD-approved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

Date: 9-18-2006

Printed Name/Title Donald G. Becker, Jr. / Pres. Signature 

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 GARY W. WINK / STAFF MGR Signature  Date: 9/22/06

United Drilling Rig No. 28

