District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 8821(
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 875(

State of New Mexico

CEMENT TO COVER ALL OIL, GAS AND WATER BEARING ZONES

sources

on

r.

Form C-101
May 27, 2004

RECEIVED
NOV 0 9 2004
OCD-ARTESIA

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	[2] OGRID Number
KAISER-FRANCIS OIL CO. - P.O. BOX 21468 - TULSA, OK 74121-1468	012361
	[3] API Number 30 - 015 - 33720

[3] Property Code	[5] Property Name	[6] Well No.
	MESA (11) GRANDE	2

[9] Proposed Pool 1	[10] Proposed Pool 2
CARLSBAD MORROW SOUTH	HAPPY VALLEY STRAWN

[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	11	22S	26E		2661	SOUTH	660	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

Additional Well Information

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	G	R	P	3175
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
NO	11,900'	MORROW	GREYWOLF	DECEMBER 2004

Depth to Groundwater	Distance from nearest fresh water well	Distance from nearest surface water
108'	~ 900'	HACKBERRY DRAW ~ 300'

Pit: Liner: Synthetic ☒ 12 mils thick Clay ☐ Pit Volume: 42000 bbls Drilling Method:
Closed-Loop System ☐ Fresh Water ☒ Brine ☒ Diesel/Oil-based ☐ Gas/Air ☐

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17½"	13 3/8"	48.5/54.5 #	500'	545 SXS	SURFACE
12 1/4"	9 5/8"	32 #	2350'	860 SXS	SURFACE
7 7/8"	5 1/2"	17/20 #	11,500'	455 SXS	8600'

[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.

DRILL 17½" SURFACE HOLE TO 500'. SET 13 3/8" CSG. CMT. TO SURFACE WITH 545 SXS. WOC 18 HRS. NU. TEST. DRILL 12¼" HOLE TO 2350'+/-. SET 9 5/8" CSG. CUT TO SURFACE WITH 860 SXS. NU BOP TEST TO 5000#. WOC 18 HRS. DRILL 7 7/8" HOLE TO 11,500'. LOG. EVALUATE. SET CSG. CUT WITH 455 SXS. CMT. TOC AT 8600'. BOP EQUIPMENT WILL BE USED IN ACCORDANCE WITH RULE 19.15.3.109.

Additional drilling information is attached.

As a condition of approval a detailed closure plan must be filed before closure may commence.

[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 ☐.**

Printed name: DREW TYLER
Title: ENGINEER
E-mail Address: DREWT@KFOC.NET
Date: 10/29/04 Phone: 918-491-4343

OIL CONSERVATION DIVISION

Approved by: TIM W. GUM
Title: DISTRICT II SUPERVISOR
Approval Date: NOV 17 2004 Expiration Date: NOV 17 2005
Conditions of Approval Attached ☐

NSL-5133

NOTIFY OCD OF SPUD & TIME TO WITNESS CEMENTING OF SURFACE & INTERMEDIATE CASING

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

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: KAISER-FRANCIS OIL CO. Telephone: _____ e-mail address: _____
Address: P.O. BOX 21468, TULSA, OK 74121-1468
Facility or well name: MESA GRANDE ZH API #: 30-015-_____ U/L or Qtr/Qtr E Sec 11 T 22S R 26E
County: EDDY Latitude _____ Longitude _____ NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☐ State ☐ Private ☒ Indian ☐

Pit	Below-grade tank	
Type: Drilling ☒ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☒ Unlined ☐ Liner type: Synthetic ☒ Thickness 12 mil Clay ☐ Pit Volume 12000 bbl	Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes ☐ If not, explain why not.	RECEIVED OCT 18 2004 OCD-ARTESIA
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.) LESS THAN 50'	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points) — 20
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	(20 points) (0 points) — 0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.) ~500' to Hackberry Draw	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points) — 10
	Ranking Score (Total Points)	30

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:

As a condition of approval a detailed closure plan must be filed before closure may commence.

As a condition of approval if during construction water is encountered or if water seeps in pits after construction, the **OCD MUST BE CONTACTED IMMEDIATELY!**

NOTIFY O.C.D. PRIOR TO CONSTRUCTION OF PIT(S).

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: 10/12/04
Printed Name/Title DREW TYLER (ENGINEER) Signature Drew Tyler

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 II Signature _____ Date OCT 20 2004

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised August 15, 2000
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name

Property Code	Property Name	Well Number
	MESA 11 GRANDE	2

OGRID No.	Operator Name	Elevation
012361	KAISER-FRANCIS OIL COMPANY	3175'

Surface Location

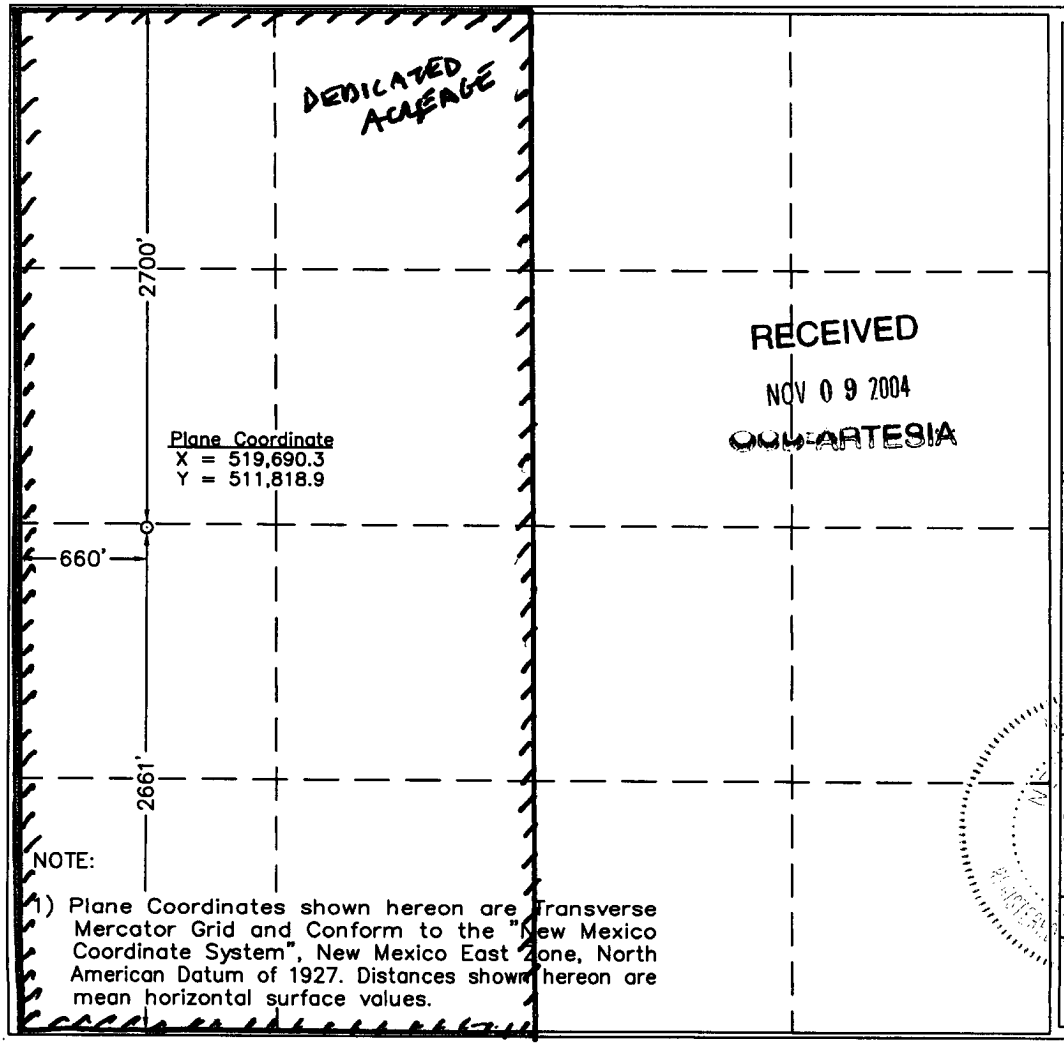
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	11	22 S	26 E		2661	SOUTH	660	WEST	EDDY

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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



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NOV 0 9 2004
OCD-ARTESIA

NOTE:
1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.

OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Signature: Drew Tyler
Printed Name: DREW TYLER
Title: ENGINEER
Date: 11/08/04

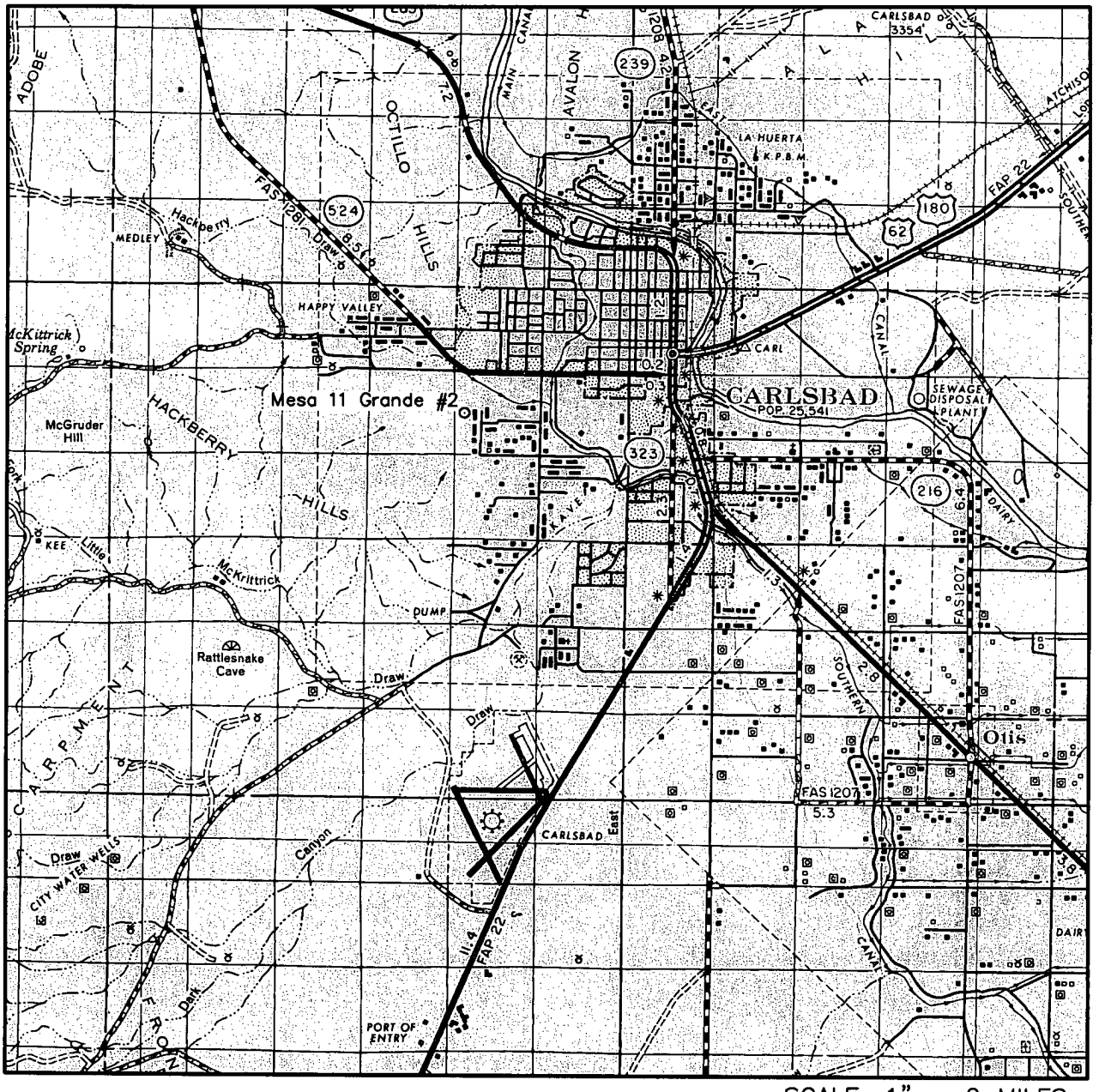
SURVEYOR CERTIFICATION

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 upervison and that the same is true and orrect to the best of my belief.

Date Surveyed: October 27, 2004 LVA
Signature & Seal of Professional Surveyor
12185

W.O. Num. 2004-0669
Certificate No. MACON McDONALD 12185

VICINITY MAP



SEC. 11 TWP. 22-S RGE. 26-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 2661' FSL & 660' FWL

ELEVATION 3175'

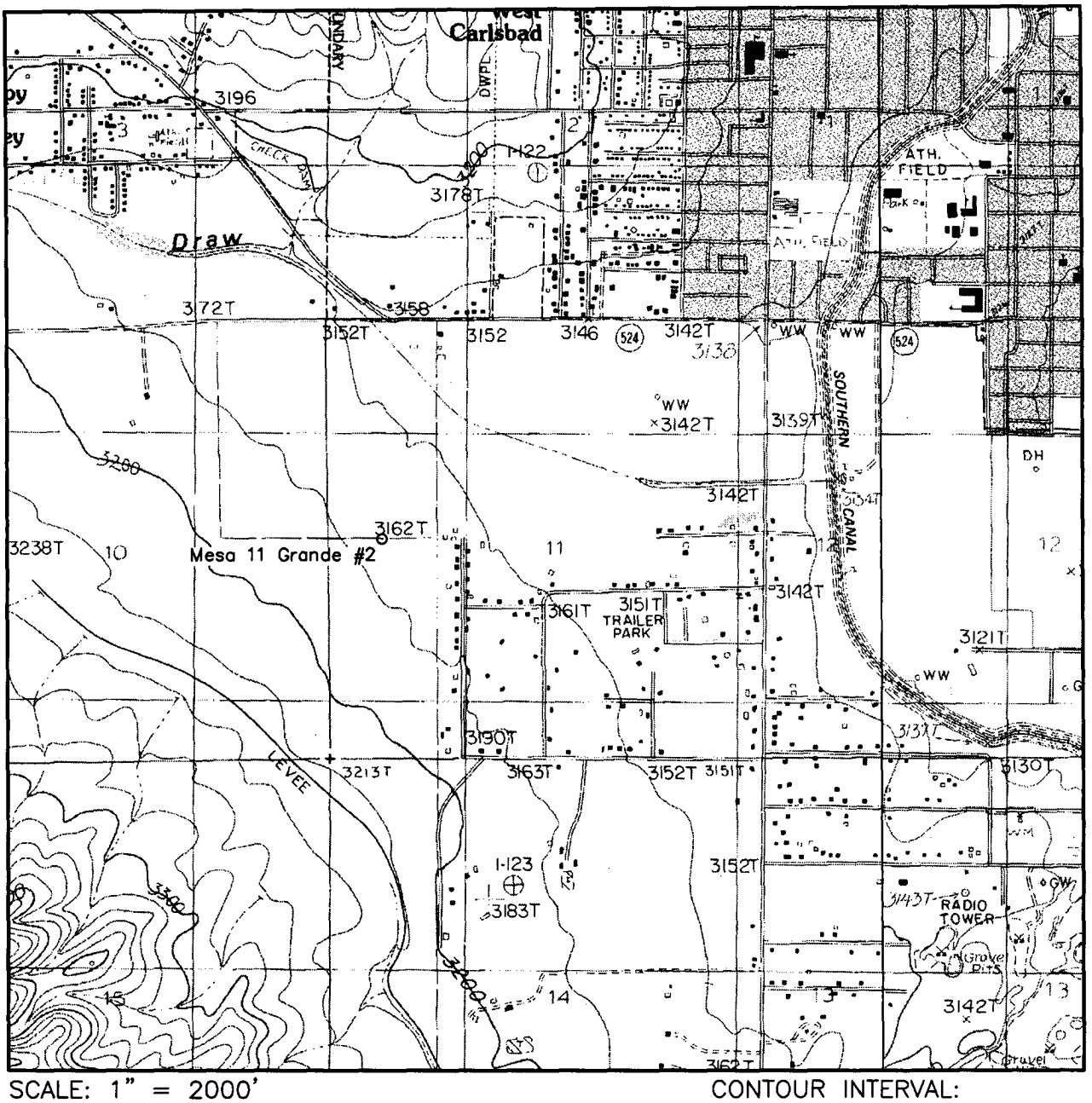
OPERATOR KAISER FRANCIS OIL COMPANY

LEASE MESA 11 GRANDE

WEST COMPANY of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
CARLSBAD WEST – 20'

SEC. 11 TWP. 22-S RGE. 26-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 2661' FSL & 660' FWL

ELEVATION 3175'

OPERATOR KAISER-FRANCIS OIL COMPANY

LEASE MESA 11 GRANDE

U.S.G.S. TOPOGRAPHIC MAP
CARLSBAD WEST, N.M.

WEST COMPANY of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 – (432) 687-0868 FAX

Kaiser-Francis Oil Company
Drilling Procedure Summary

Mesa 11 Grande 2
11-22S-26E
Eddy Co., NM.

DRILLING CONTRACTOR:

Grey Wolf – Rig 714 – See attached specifications.

ESTIMATED FORMATION TOPS:

Delaware	2355'	Lower Strawn	10056'
Cherry Canyon	2661'	Atoka	10320'
Brushy Canyon	4517'	Morrow Carbs	10683'
Bone Springs Carb.	4839'	Morrow A Sd	11013'
Bone Springs 1st sd	6064'	Morrow B Sd	11075'
Bone Springs 2nd sd	6657'	Morrow C Sd	11170'
Bone Springs 3rd sd	8129'	Lower Morrow	11255'
Wolfcamp	8525'	Mississippi	11482'
Strawn	9946'		

CASING PROGRAM:

Hole Size	Casing	Depth	Cement	TOC
17 ½"	13 3/8"	500'	545 sxs	Surface
12 ¼"	9 5/8"	2,600'	860 sxs	Surface
7 7/8"	5 ½"	11,500'	315 sxs	9500'

Proposed cementing program attached. Will use Halliburton or equivalent.

MUD PROGRAM: (SUBJECT TO CHANGES PENDING ON HOLE CONDITIONS)

Depth	Mud Type	Weight
0-500'	Fresh Water/Spud	8.4 – 9.0
500'-2600'	Fresh Water w/LCM as needed	8.4 – 9.0
2600'-8500'	Fresh Water w/LCM as needed	8.4 – 9.2
8500'- TD	Brine 35+ vis, FL 6-8 across zones of interest	9.8 – 11.0

HYDROGEN SULFIDE CONTINGENCY PLAN:

This well/facility is not expected to have hydrogen sulfide in excess of 100 PPM, but due to the sensitive location, a contingency plan has been included with this permit. See attached.

BLOWOUT PREVENTION PROGRAM:

See attached.

Kaiser-Francis Oil Company
HYDROGEN SULFIDE (H2S) CONTINGENCY PLAN
FOR DRILLING/COMPLETION WORKOVER/FACILITY

MESA 11 GRANDE 2
SECTION 11-T22S-R26E
EDDY COUNTY, NM

This well/facility is not expected to have H2S, but due to the sensitive location, the following is Submitted as requested.

TABLE OF CONTENTS

Emergency Response Activation and General Responsibilities	3
Individual Responsibilities During An H_2s Release	4
Procedure For Igniting An Uncontrollable Condition	5
Emergency Phone Numbers	6
Protection Of The General Public/Roe	7
Characteristics Of H_2S And SO_2	8
Training	8
Public Relations	8
Maps	

EMERGENCY RESPONSE ACTIVATION AND GENERAL RESPONSIBILITIES

Activation of the Emergency Action Plan

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 below for further responsibilities:

1. Notify the senior ranking contract representative on site.
2. Notify Kaiser-Francis representative in charge.
3. Notify civil authorities if the Kaiser-Francis Representative cannot be contacted and the situation dictates.
4. Perform rescue and first aid as required (without jeopardizing additional personnel).

General Responsibilities

In the event of an H_2S emergency, the following plan will be initiated.

1) All personnel will immediately evacuate to an up-wind and if possible up-hill "safe area".

2) If for any reason a person must enter the hazardous area, they must wear a SCBA (Self contained breathing apparatus).

3) Always use the "buddy system".

4) Isolate the well/problem if possible.

5) Account for all personnel

6) Display the proper colors warning all unsuspecting personnel of the danger at hand

7) Contact the Company personnel as soon as possible if not at the location. (use the enclosed call list as instructed)

At this point the company representative will evaluate the situation and coordinate the necessary duties to bring the situation under control, and if necessary, the notification of emergency response agencies and residents.

INDIVIDUAL RESPONSIBILITIES DURING AN H_2S RELEASE

The following procedures and responsibilities will be implemented on activation of the H_2S 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 Contract management and Kaiser-Francis 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.

Kaiser-Francis Oil Company 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 company management or Local Incident Commander, and Police, Fire Department, or other local emergency services as required.

PROCEDURE FOR IGNITING AN UNCONTROLLABLE CONDITION:

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). 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.

The decision to ignite a well should be a last resort and one if not both of the following pertain.

1) Human life and/or property are in danger.

2) There is no hope of bringing the situation under control with the prevailing conditions at the site.

INSTRUCTIONS FOR IGNITION:

1) Two people are required. They must be equipped with positive pressure; self contained breathing apparatus and a "D"-ring style, full body, OSHA approved safety harness. Non-flammable rope will be attached.

2) One of the people will be a qualified safety person who will test the atmosphere for H_2S, Oxygen, & LFL. The other person will be the company supervisor; he is responsible for igniting the well.

3) Ignite up-wind from a distance no closer than necessary. Make sure that where you ignite from has the maximum escape avenue available. A 25mm flare gun shall be used, with a +/-500' range to ignite the gas.

4) Prior to ignition, make a final check for combustible gases.

5) Following ignition, continue with the emergency actions & procedures as before.

CONTACTING AUTHORITIES

Kaiser-Francis 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 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).

EMERGENCY CALL LIST: (Start and continue until ONE of these people have been reached)

	OFFCE	MOBILE	HOME
Kaiser-Francis Oil Co.	918/494-0000		
David Rodawalt	432/563-2992	432/238-6969	432/520-7339
Drew Tyler	918/491-4343		
Charles Lock	918/491-4337	918/671-6510	918/250-1935
Ted Jacobson	918/491-4341		

EMERGENCY RESPONSE NUMBERS: Eddy County, New Mexico

State Police – Artesia	505/748-9718
State Police – Carlsbad	505/885-3137
State Police – Hobs	505/392-5588
Eddy County Sheriff - Carlsbad	505/887-7551
Local Emergency Planning Center – Eddy County	505/887-9511
Local Emergency Planning Center – Lea County	505/397-9231
Fire Fighting, Rescue & Ambulance – Artesia	911
Fire Fighting, Rescue & Ambulance – Carlsbad	911 or 505/885-2111
Fire Fighting, Rescue & Ambulance – Hobbs	911 or 505/397-9308
New Mexico Oil & Gas Commission – Artesia	505/748-1283
New Mexico Oil & Gas Commission – Hobbs	505/393-6161
Aerocare – Lubbock	806/725-1100
Med Flight Air Ambulance – Albuquerque	505/842-4433
American Safety	505/748-6660
Indian Fire & Safety	505/746-4660
Callaway Safety	505/392-2973
BJ Services	505/746-3569
Halliburton	505/748-2746

PROTECTION OF THE GENERAL PUBLIC/ROE:

In the event of a release with a concentration greater than 100 ppm H_2S, the ROE (Radius of Exposure) calculations will be done to determine if the following conditions have been met:

- Does the 100 ppm ROE include any public area (any place not associated with this site)
- Does the 500 ppm ROE include any public road (any road which the general public may travel)
- Is the 100 ppm ROE equal to or greater than 3000 feet

If any one of these conditions have been met then the Contingency Plan will be implemented. The following shows how to calculate the radius of exposure and an example.

Calculation for the 100 ppm ROE:

X = [(1.589)(concentration)(Q)] (0.6258)

(H2S concentrations in decimal form)
10,000 ppm +=1.+
1,000 ppm +=.1+
100 ppm +=.01+
10 ppm +=.001+

Calculation for the 500 ppm ROE:

X+[(0.4546)(concentration)(Q)] (.06258)

EXAMPLE: If a well/facility has been determined to have 150 ppm H_2S in the gas mixture and the well/facility is producing at a gas rate of 200 MCFPD then:

ROE for 100 PPM X=[(1.589)(.0150)(200)] (0.6258)
X=2.65'

ROE for 500 PPM X=[(.4546)(.0150)(200)] (0.6258)
X=1.2'

(These calculations will be forwarded to the appropriate District NMOCD office when applicable.)

PUBLIC EVACUATION PLAN:

(When the supervisor has determined that the General Public will be involved, the following plan will be implemented)

1) Notification of the emergency response agencies of the hazardous condition and Implement evacuation procedures.

2) A trained person in H_2S safety, shall monitor with detection equipment the H_2S Concentration, wind and area of exposure (ROE). This person will determine the outer perimeter of the hazardous area. The extent of the evacuation area will be determined from the data being collected. Monitoring shall continue until the situation has been resolved. **(All monitoring equipment will be UL approved, for use in class I groups A,B,C & D, Division I, hazardous locations. All monitors will have a minimum capability of measuring H_2S, oxygen, and flammable values.)**

3) Law enforcement shall be notified to set up necessary barriers and maintain such for the duration of the situation as well as aid in the evacuation procedure.

4) The company supervising personnel shall stay in communication with all agencies through out the duration of the situation and inform such agencies when the situation has been contained and the effected area(s) is safe to enter.

CHARACTERISTICS OF H_2S AND SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air = 1	10 ppm	100 ppm	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = 1	2 ppm	N/A	1000 ppm

TRAINING:

All responders must have training in the detection of H_2S measures for protection against the gas, equipment used for protection and emergency response. Weekly drills by all crews will be conducted and recorded in the IADC daily log. Additionally, responders must be equipped with H_2S monitors at all times.

PUBLIC RELATIONS

Kaiser-Francis recognizes that the news media have a legitimate interest in incidents at Kaiser-Francis facilities that could affect the public. It is to the company's benefit to cooperate with the news media when incidents occur because these media are out best liaison with the public.

Our objective is to see that all reports of any emergency are factual and represent the company's position fairly and accurately. Cooperation with news media representatives is the most reliable guarantee that this objective will be met.

All contract and Kaiser-Francis employees are instructed **NOT** to make any statement to the media concerning the emergency incident. If a media representative contacts any employee, they should refer them to the designated Emergency Command Center where they should contact the Incident Commander or his designated relief for any information concerning the incident.

Grey Wolf

RIG 714

CLASSIFICATION: Skytop Brewster N-46 Mechanical

DRILLING DEPTH CAPACITY: 12,500'

POWER SYSTEM:
Two (2) Caterpillar D3408TA engines each with Allison TC-945 torque converters driving a Two (2) engine inline compound, and Two (2) Caterpillar D3406TA engines with 210 KW AC generators

DRAWWORKS:
Skytop Brewster N-46 with Parmac 342 hydromatic brake

MAST:
Dreco 133' x 21' base, 428,000# static hook load

DRILL LINE:
1-1/8" EIPS

SUBSTRUCTURE:
Dreco Slingshot 18' high, 428,000# rotary capacity with 300,000# setback capacity, 14' clear height from rotary beam to ground level

MUD PUMPS:
Two (2) Gardner Denver PZ-9 triplex pumps rated at 1,000 HP, driven by Caterpillar D398TA diesel engines

ROTARY:
Oilwell 27-1/2"

CROWN BLOCK:
Dreco six (6) sheave

TRAVELING BLOCK AND HOOK:
Gardner Denver 300 ton block with Web Wilson 250 ton block-hook combination

SWIVEL:
Oilwell PC-300, 300 ton

DRILL PIPE:
4-1/2" OD

DRILL COLLARS:
Various sizes and configurations available upon request.

KELLY:
5-1/4" Hex x 45'

ANNULAR PREVENTER:
Hydril GK 13-5/8" x 5,000 psi WP

RAM PREVENTERS:
Cameron 13-5/8" double x 5,000 psi WP

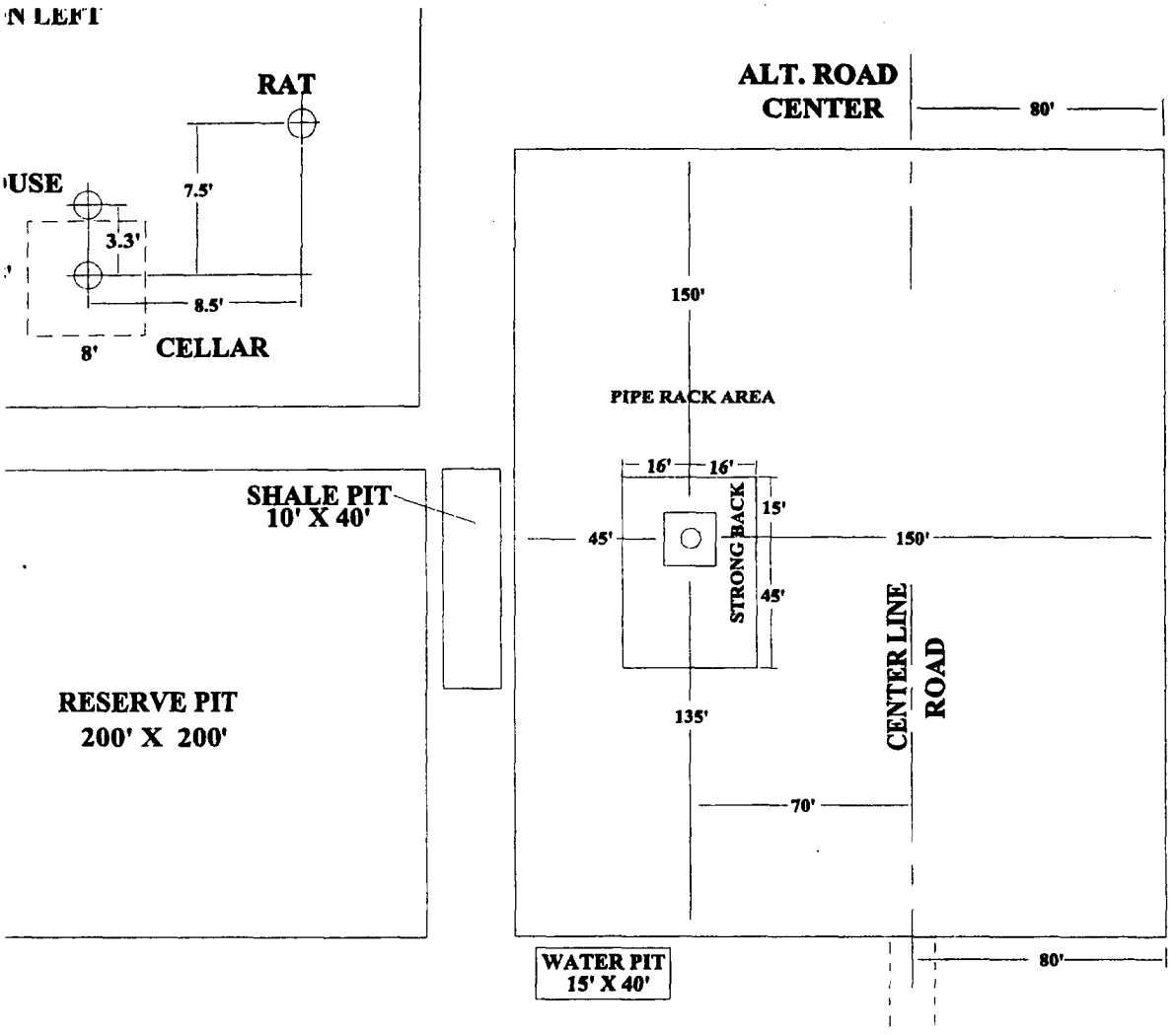
CHOKE MANIFOLD:
4-1/16" x 2-1/16" 5,000 psi WP dual choke

ACCUMULATOR SYSTEM:
Valvcon five (5) station, 130 gallon capacity with dual air pumps and one (1) electric pump

MUD TANK SYSTEM:
Two (2) tank 600 BBL total
Derrek Flowline shaker
Mud agitators
Sweco two (2) cone desander
Swaco eight (8) cone desilter

MUD MIXING PUMPS:
Two (2) 5 x 6 centrifugal pumps, each driven by 75 HP electric motors

AUXILIARY EQUIPMENT
Tool Pusher and crew quarters
One (1) 500 BBL water tank
One (1) 8,000 gal. fuel tank
Automatic driller
Kelly spinner
Pipe spinner
Two (2) air hoists
Electronic drilling recorder
0 – 7 degree drift indicator



RIG 714

REV 05/28/04

November 8, 2004

Mr. Bryan Arrant
NMOCD
Artesia, NM.

Re: BOP
Mesa 11 Grande 2
11-22S-26E
Eddy Co., NM

The BOP pipe rams will be function tested on a daily basis and the blind rams will be function tested on all trips due to the close proximity of dwellings. This of course will follow the NU and testing of the BOPE.

Sincerely,
Kaiser-Francis Oil Company

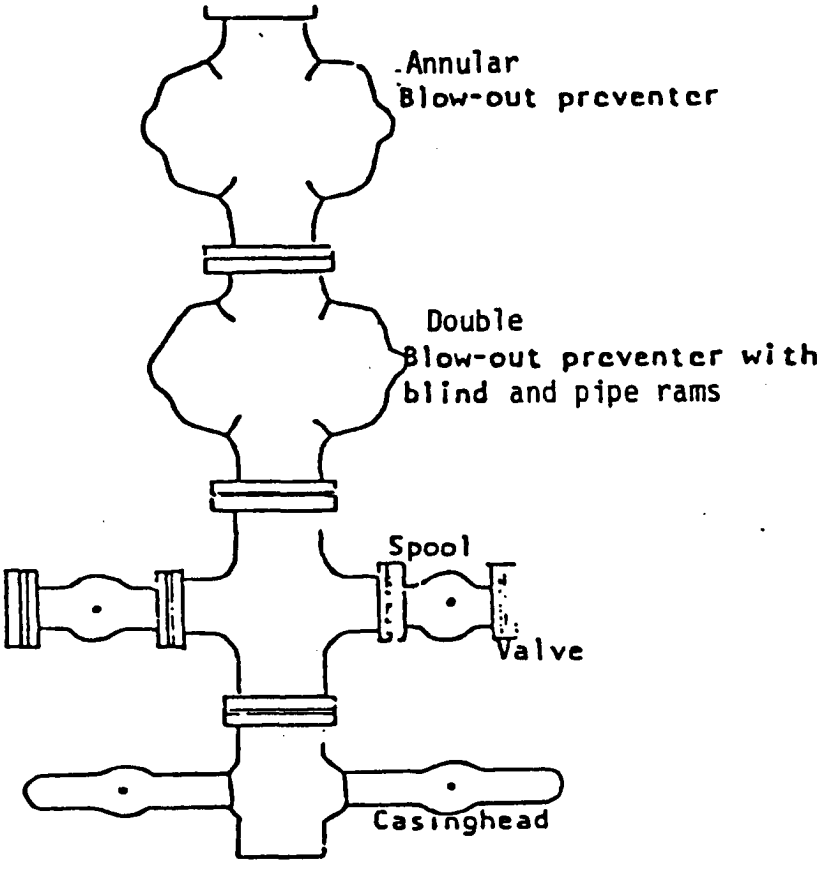
Drew Tyler
Engineer

Kaiser Francis Oil Company

MESA 11 GRANDE 2
SECTION 11-T22S-R26E
EDDY COUNTY, NM

Blowout prevention equipment:
The drilling contractor for this project is Grey Wolf Drilling and the rig utilized will be Grey Wolf Rig #714. This rig is equipped with the following BOP Equipment:

Annular Preventer	-	**Hydril GK 13 5/8" x 5000 psi WP**
Ram Preventer	-	**Cameron 13 5/8" double x 5000 psi WP**
Choke Manifold	-	**4 1/16" x 2 1/16" 5000 psi WP dual choke**
Accumulator	-	**Valvcon five station, 130 gal capacity w/dual air pumps & one electric pump**



Standard 5000 psi WP BOP stack

Kaiser-Francis Oil Co
PO Box 21468
Tulsa, Oklahoma 74121

Mesa Grande 2-11

Eddy County, New Mexico
United States of America
S:11 T:22S R:26E

Cementing Recommendation

Prepared for: Drew Tyler
October 28, 2004
Version: 2

Submitted by:
Dick Mocksfield

Halliburton Energy Services
4000 N. Big Spring, Ste. 400
Midland, Texas 79705
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HALLIBURTON

Job Information — Surface Casing

Mesa Grande	2-11
Open Hole	0 - 500 ft (MD)
Inner Diameter	17.500 in
Job Excess	100 %
Surface Casing	0 - 500 ft (MD)
Outer Diameter	13.375 in
Linear Weight	48.5 / 54.50 lbm/ft

Calculations

Cement : (500.00 ft fill)

500.00 ft * 0.6946 ft^3/ft * 100 %	= 694.64 ft^3
Lead Cement	= 694.64 ft^3
	= 123.72 bbl

Shoe Joint Volume: (40.00 ft fill)

40.00 ft * 0.868 ft^3/ft	= 34.72 ft^3
	= 6.18 bbl
Tail plus shoe joint	= 729.36 ft^3
	= 129.90 bbl
Total Tail	= 543 sks

Install floating equipment, run casing to bottom, and circulate minimum of 2-3 hole volumes prior to cementing as follows:

Fluid Instructions

Fluid 1: Precede cement with 20 bbl
Fresh Water

Fluid Volume:	20 bbl

Fluid 2: Lead with 545 sks
Premium Plus Cement

94 lbm/sk	Premium Plus Cement (Cement)	Fluid Weight	14.80 lbm/gal
2 %	Calcium Chloride (Accelerator)	Slurry Yield:	1.34 ft^3/sk
		Total Mixing Fluid:	6.34 Gal/sk
		Top of Fluid:	0 ft
		Calculated Fill:	500 ft
		Volume:	129.90 bbl
		Calculated Sacks:	543.08 sks
		Proposed Sacks:	545 sks

Job Information — Intermediate Casing

Mesa Grande	2-11
Surface Casing	0 - 500 ft (MD)
Outer Diameter	13.375 in
Linear Weight	48.5 / 54.50 lbm/ft
Open Hole	500 - 2600 ft (MD)
Inner Diameter	12.250 in
Job Excess	100 %
Intermediate Casing	0 - 2600 ft (MD)
Outer Diameter	9.625 in
Linear Weight	32 lbm/ft

Calculations

Cement : (2000.00 ft fill)	
500.00 ft * 0.3627 ft^3/ft * 10 %	= 199.48 ft^3
1500.00 ft * 0.3132 ft^3/ft * 100 %	= 939.56 ft^3
Total Lead Cement	= 1139.04 ft^3
	= 202.87 bbl
Sacks of Cement	= 561 sks
Cement : (600.00 ft fill)	
600.00 ft * 0.3132 ft^3/ft * 100 %	= 375.83 ft^3
Tail Cement	= 375.83 ft^3
	= 66.94 bbl
Shoe Joint Volume: (40.00 ft fill)	
40.00 ft * 0.4419 ft^3/ft	= 17.68 ft^3
	= 3.15 bbl
Tail plus shoe joint	= 393.50 ft^3
	= 70.09 bbl
Total Tail	= 293 sks

Install floating equipment, run casing to bottom, and circulate minimum of 2-3 hole volumes prior to cementing as follows:

Fluid Instructions

Fluid 1: Precede cement with 20 bbl
Fresh Water

Fluid Volume:	20 bbl

Fluid 2: Lead with 565 sks
Halliburton Light Premium Plus
6 lbm/sk Salt (Salt)

Fluid Weight	12.60 lbm/gal
Slurry Yield:	2.03 ft^3/sk
Total Mixing Fluid:	11.19 Gal/sk
Top of Fluid:	0 ft
Calculated Fill:	2000 ft
Volume:	202.87 bbl
Calculated Sacks:	560.83 sks
Proposed Sacks:	565 sks

Fluid 3: Tail-in with 295 sks
Premium Plus Cement
94 lbm/sk Premium Plus Cement (Cement)
2 % Calcium Chloride (Accelerator)

Fluid Weight	14.80 lbm/gal
Slurry Yield:	1.34 ft^3/sk
Total Mixing Fluid:	6.34 Gal/sk
Top of Fluid:	2000 ft
Calculated Fill:	600 ft
Volume:	70.09 bbl
Calculated Sacks:	293.00 sks
Proposed Sacks:	295 sks

Install floating equipment, run casing to bottom, and circulate minimum of 2-3 hole volumes prior to cementing as follows:

Fluid Instructions

Fluid 1: Precede cement with 20 bbl
Fresh Water

Fluid Volume:	20 bbl

Fluid 2: Mix and pump 455 sks
Super H Cement

0.5 %	Halad(R)-344 (Low Fluid Loss Control)	Fluid Weight	13 lbm/gal
0.4 %	CFR-3 (Dispersant)	Slurry Yield:	1.67 ft^3/sk
5 lbm/sk	Gilsonite (Lost Circulation Additive)	Total Mixing Fluid:	8.23 Gal/sk
1 lbm/sk	Salt (Salt)	Top of Fluid:	8600 ft
0.2 %	HR-7 (Retarder)	Calculated Fill:	2900 ft
		Volume:	135.12 bbl
		Calculated Sacks:	454.00 sks
		Proposed Sacks:	455 sks

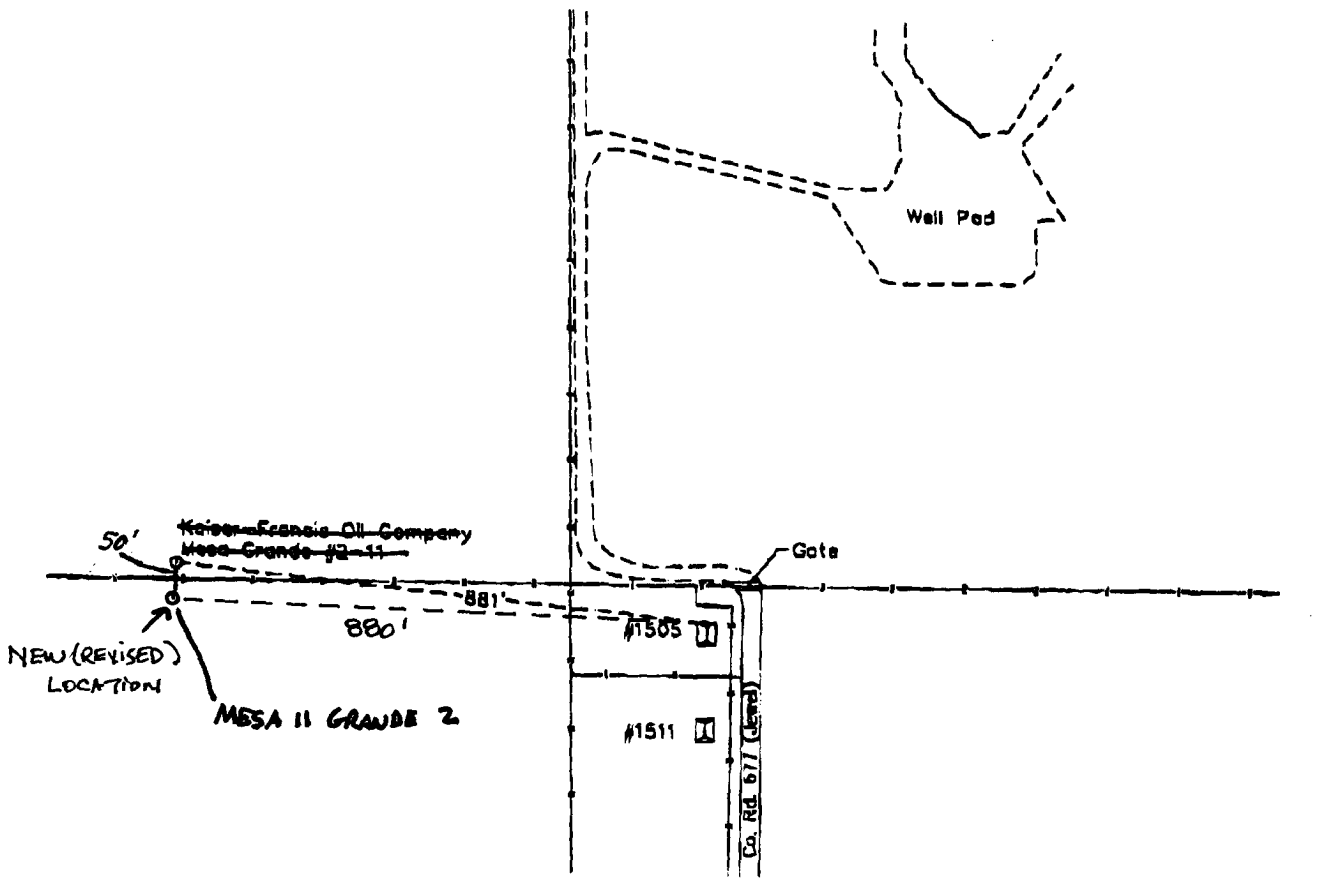
MESA (11) GRANDE #2
11-22S-26E
EDDY CO. NEW MEXICO

Gentlemen:

Per attached map, the location of this well will be approximately 880' away from the nearest house.

Sincerely,
Kaiser-Francis Oil Company

Drew Tyler
Engineer



LEGEND

- ⊙ – Denotes Proposed Well Location
- ▭ – Denotes House
- ===== – Denotes Road (Unimproved)
- ═══ – Denotes Road (Improved)

300 0 300 600

Graphic Scale In Feet

KAISER-FRANCIS OIL COMPANY

Surface Conditions Surrounding the

MESA GRANDE #2-11

Located 2660' FNL & 660' FWL
Section 11, T-22-S, R-26-E, N.M.P.M.
Eddy County, New Mexico

FAXED Drew Tyler