ATS-12-399

OCD-ARTESIA

Form 3160-3
(August 2007)

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMLC-054908

6. If Indian, Allotee or Tribe Name: N/A

1a. Type of work: [✓] DRILL [ ] REENTER

7. If Unit or CA Agreement, Name and No.: N/A

1b. Type of Well: [✓] Oil Well [ ] Gas Well [ ] Other [ ] Single Zone [✓] Multiple Zone

8. Lease Name and Well No.: FAIR 18 FEDERAL #2 <38692>

2. Name of Operator: FAIR OIL, LTD. <65531>

9. API Well No.: 30-015- 40472

3a. Address: P. O. BOX 689, TYLER, TX 75710

3b. Phone No. (include area code): 903 592-3811

10. Field and Pool, or Exploratory: CEDAR LAKE; GLORIETA-YESO <96831>

4. Location of Well (Report location clearly and in accordance with any State requirements *)
At surface: 990' FNL & 330' FEL.
At proposed prod. zone: SAME

11. Sec., T. R. M. or Blk. and Survey or Area: NENE 18-17S-31E NMPM

14. Distance in miles and direction from nearest town or post office*: 3 AIR MILES ENE OF LOCO HILLS, NM

12. County or Parish: EDDY

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any): 330'

16. No. of acres in lease: 160

17. Spacing Unit dedicated to this well: NENE

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 466' (Hudson 1)

19. Proposed Depth: 6,300'

20. BLM/BIA Bond No. on file: NMB000733

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3,710' UNGRADED

22. Approximate date work will start*: 02/01/2012

23. Estimated duration: 3 WEEKS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature: Brian Wood — Name (Printed/Typed): BRIAN WOOD (505 466-8120) — Date: 01/08/2012

Title: CONSULTANT (FAX 505 466-9682)

Approved by (Signature): James A. Amos — Name (Printed/Typed): James A. Amos — Date: JUL 10 2012

Title: FIELD MANAGER — Office: CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached. APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

Roswell Controlled Water Basin

RECEIVED
JUL 12 2012
NMOCD ARTESIA

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements & Special Stipulations Attached

12. OTHER INFORMATION

The nearest hospital (Artesia General) is a ≈1/2 hour drive away in Artesia at 702 North 13th Street. Its phone number is (575) 748-3333.

An on site inspection was conducted with by Tanner Nygren (BLM) at the time of staking.

Lone Mountain Archaeological Services filed its report (122748) on January 5, 2012.

13. REPRESENTATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U. S. C. 1001 for the filing of false statements. Executed this 8th day of January, 2012.

Brian Wood, Consultant
Permits West, Inc.
37 Verano Loop, Santa Fe, NM 87508
(505) 466-8120 FAX: (505) 466-9682 Cellular: (505) 699-2276

Field representative will be:

Rodney Thomson, Production Manager
Fair Oil, Ltd.
225 South College Ave., Tyler, TX 75702
(903) 510-6527

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210
Phone (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015- 40472	96831	CEDAR LAKE; GLORIETA-YESO

Property Code	Property Name	Well Number
38692	FAIR "18" FEDERAL	2

OGRID No.	Operator Name	Elevation
~~65331~~ 165591	FAIR OIL, LTD.	3710'

Surface Location

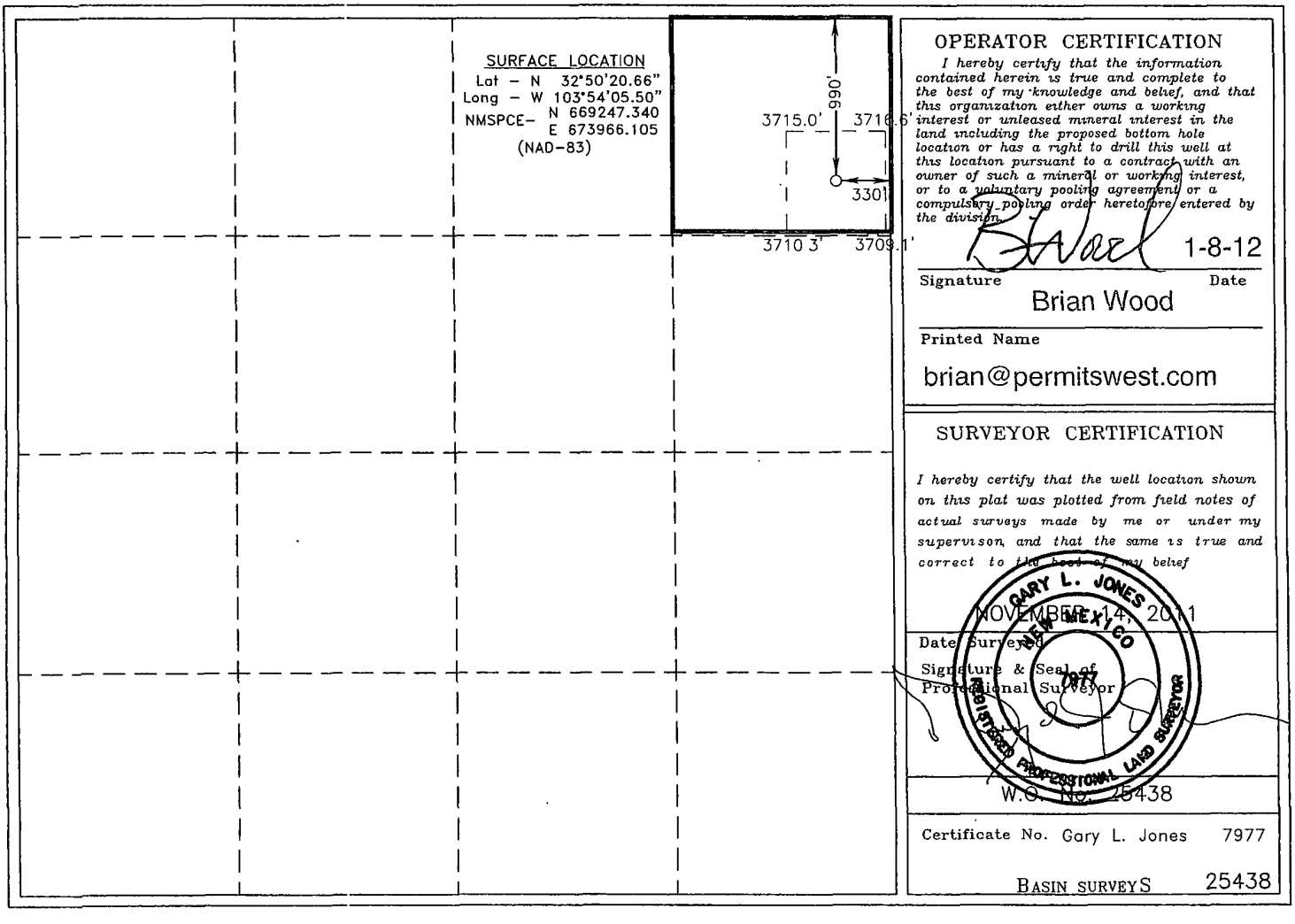
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	18	17 S	31 E		990	NORTH	330	EAST	EDDY

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.
40			7/10 6300

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 that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

1-8-12

Signature Date

Brian Wood

Printed Name

brian@permitswest.com

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 supervison, and that the same is true and correct to the best of my belief

NOVEMBER 14, 2011

Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

W.O. No. 25438

Certificate No. Gary L. Jones 7977

BASIN SURVEYS 25438

Fair Oil, Ltd.
Fair 18 Federal #2
990' FNL & 330' FEL
Sec. 18, T. 17 S., R. 31 E.
Eddy County, New Mexico

Drilling Program

1. ESTIMATED FORMATION TOPS

Formation Name	GL Depth	KB Depth	Elevation
Quaternary sand	0'	12'	+3,710'
Rustler anhydrite	300'	312'	+3,410'
Salado salt top	525'	537'	+3,185'
bottom Salado	1,275'	1,287'	+2,435'
Yates	1,430'	1,442'	+2,280'
Seven Rivers	1,740'	1,752'	+1,970'
Queen	2,355'	2,367'	+1,355'
Grayburg	2,720'	2,732'	+945'
San Andres	3,060'	3,072'	+650'
Glorieta	4,545'	4,557'	-835'
Paddock	4,650'	4,662'	-940'
Yeso dolomite & anhydrite	4,950'	4,962'	-975'
Blinebry	5,060'	5,072'	-1,350'
Tubb	6,050'	6,062'	-2,340'
Total Depth	6,300'	6,312'	-2,590'

Yeso includes Paddock Blinebry Tubb Drinkard

2. NOTABLE ZONES

Gas or Oil Zones	Water Zone	Mineral Zone
Grayburg	none	anhydrite
San Andres		salt
Paddock		
Yeso		

Water zones will be protected with casing, cement, and weighted mud. Fresh water found while drilling will be recorded.

3. PRESSURE CONTROL

Tentative drill rig will be Union 201. Its 3,000 psi equipment is shown on PAGES 3 - 5. If equipment changes or a different rig is used, then a Sundry Notice will be filed. System will meet Onshore Orders 2 (BOP) and 6 (H_2S) requirements.

BOP and choke manifold will be installed and pressure tested before drilling out of the surface casing. Subsequent pressure tests will be performed whenever the pressure seals are broken. BOP and manifold mechanical operating conditions will be checked daily. BOP will be tested at least once every 30 days.

Ram type preventers and related pressure control equipment will be pressure tested to the working pressure of the stack if a test plug is used. If a plug is not used, then the stack will be tested to the rated working pressure of the stack or 70% of the minimum internal yield of the casing, whichever is less. Annular type preventers will be pressure tested to 50% of their working pressure. All casing strings will be pressure tested to 0.22 psi/foot or 1,500 psi, whichever is greater, not to exceed 70% of the internal yield. The casing shoe will be tested by drilling 5' to 20' out from under the shoe and pressure tested to a maximum expected mud weight equivalent as shown in the mud program.

A manual locking device (e. g., hand wheels) or automatic locking devices will be installed on the BOP stack. Remote controls capable of both opening and closing all preventers will be readily accessible to the driller.

Choke manifold and accumulator will meet or exceed BLM standards. BOP equipment will be tested after any repairs. Pipe and blind rams and annular preventer will be activated on each trip. Weekly BOP drills will be conducted with each crew. All tests, maintenance, and BOP drills will recorded on the rig tower sheets.

Auxiliary equipment will include:

- upper kelly cock, lower kelly cock will be installed while drilling
- inside BOP or stabbing valve with handle available on rig floor
- safety valve(s) and subs to fit all string connections in use
- electronic/mechanical mud monitor will with a minimum pit volume totalizer; stroke counter; flow sensor

4. CASING & CEMENT (casing design specifications on next page)

Hole Size	O. D.	Weight (lb/ft)	Grade	Age	Connection	Set Depth
17.5"	13.375"	48	H-40	New	S T & C	375'
11"	8.625"	32	J-55	New	L T & C	3,600'
7.875"	5.5"	17	N-80	New	L T & C	6,300'

Surface casing will be cemented to the surface with >100% excess. Cement with ≈560 cubic feet (≈415 sacks) Class C + 1/4 pound per sack cello flake + 2% $CaCl_2$. Weight = 14.8 pounds per gallon. Yield = 1.35 cubic feet/sack. Centralizers will be installed on the middle of the shoe joint and on every fourth joint to the surface.

See COA

Intermediate casing will be cemented to the surface in two stages with >100% excess. Will set DV tool at ≈2,425' and casing packer at ≈2,450'. First stage = 1,566 cubic feet (≈900 sacks) Class C with 2% $CaCl_2$ + 1/4 pound per sack cello flake + 4% gel mixed at 13.5 pounds per gallon, 1.74 cubic feet per sack, and 9.14 gallons per sack. Second stage lead = 2,401 cubic feet (≈1,380 sacks) Class C with 2% $CaCl_2$ + 1/4 pound per sack cello flake + 4% gel mixed at 13.5 pounds per gallon, 1.74 cubic feet per sack, and 9.14 gallons per sack. Second stage tail = 726 cubic feet (≈550 sacks) Class C with 2% $CaCl_2$ mixed at 14.8 pounds per gallon, 1.32 cubic feet per sack, and 6.32 gallons per sack. Total cement = 4,693 cubic feet.

Production casing will be cemented to ≈3,400' with ≈25% excess. ECP and DV will be set at ≈4,500'. Stage 1 lead = 262 cubic feet (≈155 sacks) Class C with 2% $CaCl_2$ + 1/8 pound per sack cello flake + 4% gel mixed at 13.5 pounds per gallon, 1.75 cubic feet per sack, and 9.17 gallons per sack. First stage tail = 133 cubic feet (≈100 sacks Class C mixed at 14.8 pounds per gallon and 1.33 cubic feet per sack. Stage 2 = 230 cubic feet (135 sacks) Class C with 2% $CaCl_2$ + 1/8 pound per sack cello flake +4% gel mixed at 13.5 pounds per gallon, 1.75 cubic feet per sack, and 9.17 gallons per sack.

See COA

5. MUD PROGRAM

Will drill surface hole with fresh water and intermediate hole with 10 pound per gallon saturated brine mud. Will drill production hole with 9 pound brine water with gel sweeps. Enough mud material will be on site to maintain mud properties and control lost circulation or a kick.

6. CORES, TESTS, & LOGS See COA

No cores or drill stem tests are planned. A mud logging unit will be on location from 3,600' to TD. Spectral density and dual spaced neutron spectral gamma logs will be run from TD to ≈4,000'.

7. DOWN HOLE CONDITIONS

No abnormal pressures or temperatures are expected. Hydrogen sulfide is expected in the Grayburg. H2S monitoring equipment will be on the rig floor and air packs will be available before the Grayburg is drilled. An H2S drilling operations contingency plan is attached. Maximum expected bottom hole pressure will be ≈2,709 psi.

SURFACE CSG: 13 3/8" H-40 ST&C SET @ ± 375' IN 17 1/2" HOLE FILLED WITH FRESH WATER

INTERVAL	LENGTH	WEIGHT	GRADE	CPLG	COLLAPSE RATING (PSI)	BURST RATING (PSI)	JOINT STRENGTH (M-LBS)	ID (IN)	DRIFT (IN)	SF COLL1	SF BURST2	SF TEN3
0-375'	375'	48#	H-40	ST&C	740	1730	352	12.715	12.559	4.59	10.74	16.9

INTERMEDIATE CSG: 8 5/8" J-55 LT&C @ ± 3600' IN 11" HOLE FILLED WITH 10.0# BRINE WATER

INTERVAL	LENGTH	WEIGHT	GRADE	CPLG	COLLAPSE RATING (PSI)	BURST RATING (PSI)	JOINT STRENGTH (M-LBS)	ID (IN)	DRIFT (IN)	SF COLL1	SF BURST2	SF TEN3
0-3600'	3600'	32#	J-55	LT&C	2740	3930	393	7.921	7.796	1.65	2.37	3.41

PRODUCTION CSG: 5 1/2" N-80 LT&C SET @ ± 6300' IN 7 7/8" HOLE FILLED WITH 9.0# BRINE WATER

INTERVAL	LENGTH	WEIGHT	GRADE	CPLG	COLLAPSE RATING (PSI)	BURST RATING (PSI)	JOINT STRENGTH (M-LBS)	ID (IN)	DRIFT (IN)	SF COLL1	SF BURST2	SF TEN3
0-6300'	6300'	17#	N-80	LT&C	5890	7740	320	4.892	4.767	1.94	2.54	2.85

1COLLAPSE SF IS BASED ON EVACUATED ANNULUS AND HYDROSTATIC AT TVD.

2BURST SF IS BASED ON EVACUATED CASING AND HYDROSTATIC AT TVD.

3TENSILE SF IS BASED ON HANGING AIR WEIGHT OF CASING IN A VERTICAL HOLE AT MEASURED DEPTH.

PSI - POUNDS PER SQUARE INCH

M-LBS - THOUSANDS OF POUNDS

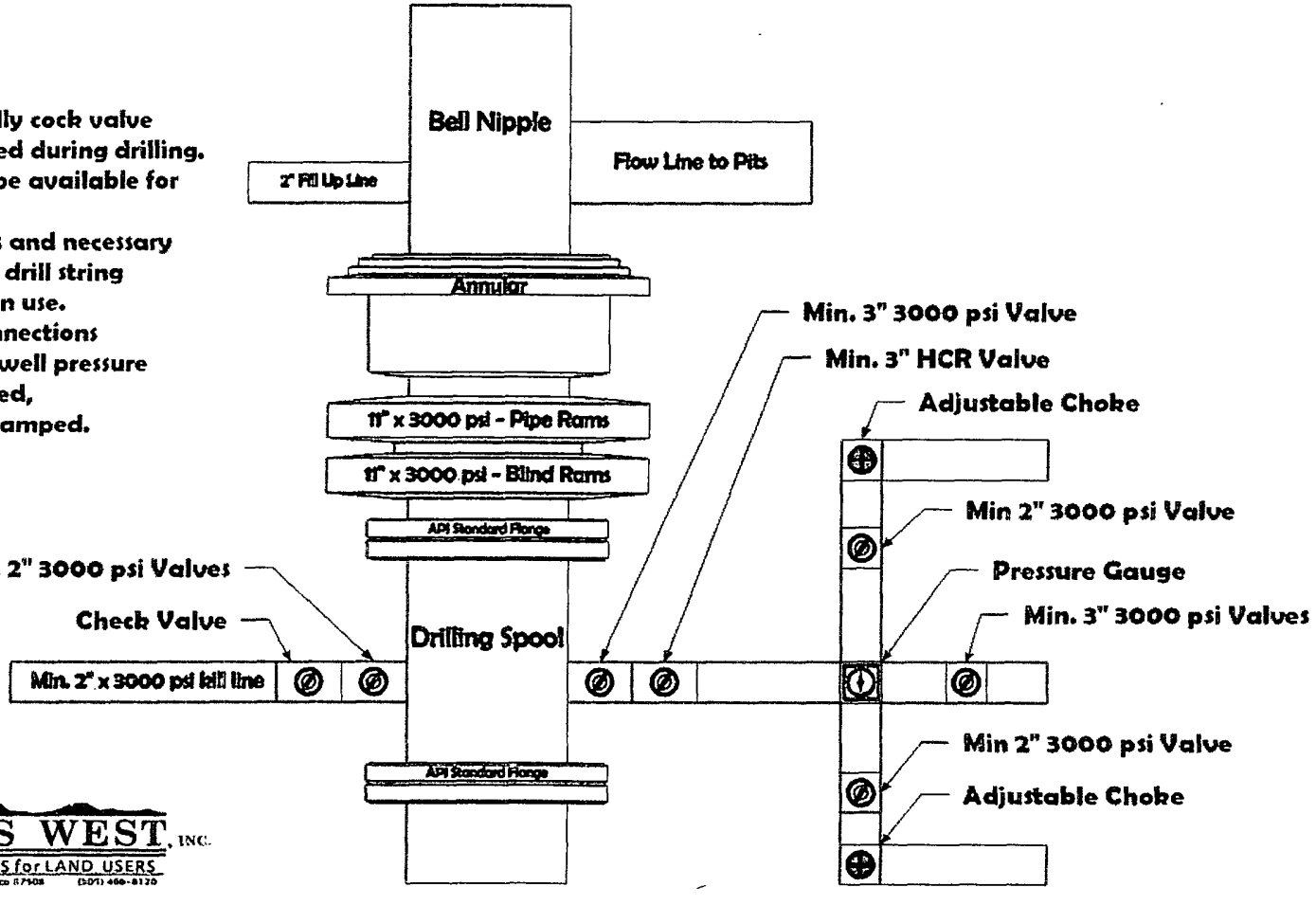
IN - INCHES

8. OTHER INFORMATION

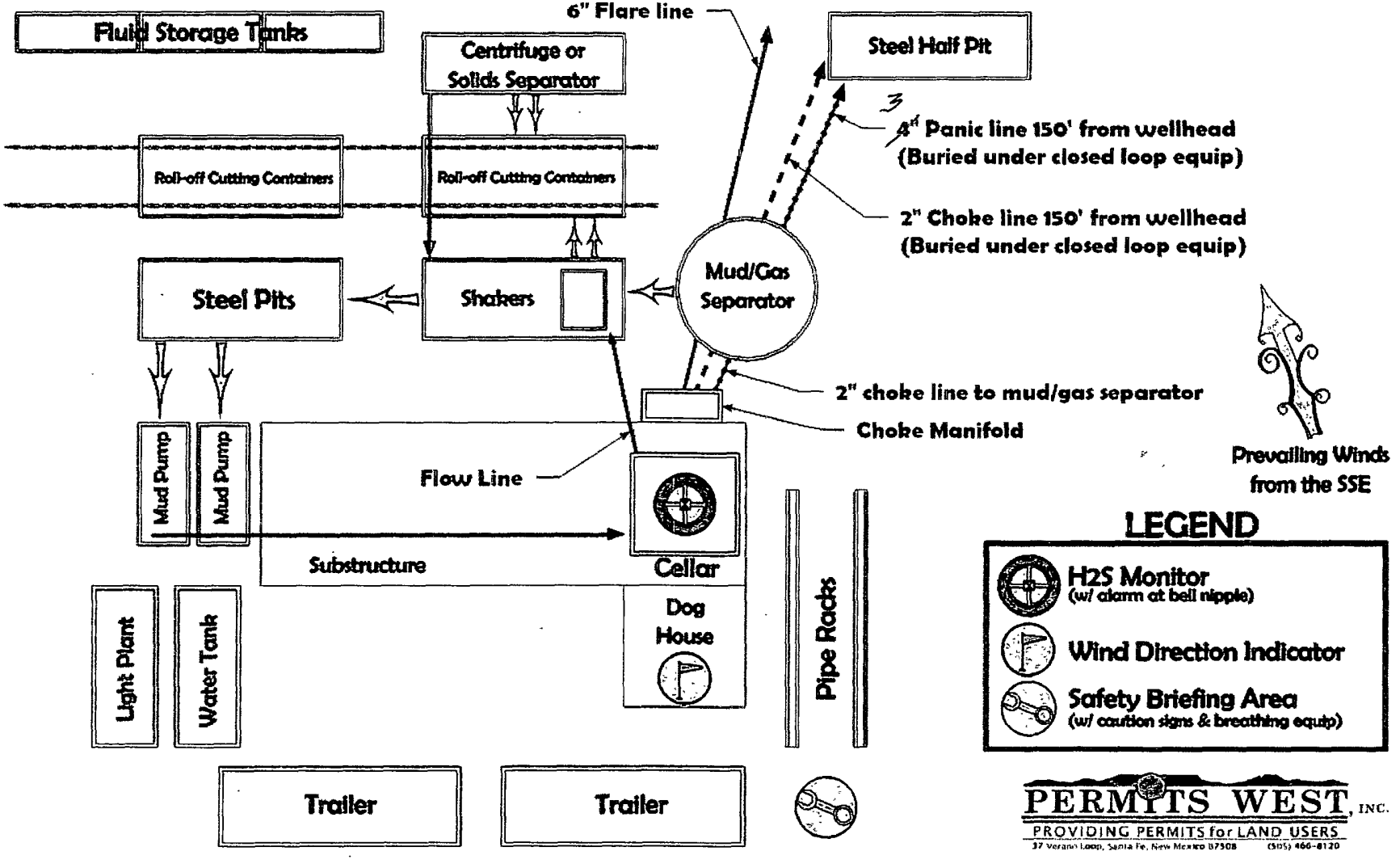
The anticipated spud date is upon approval. It is expected it will take ≈12 days to drill and 5 days to complete the well.

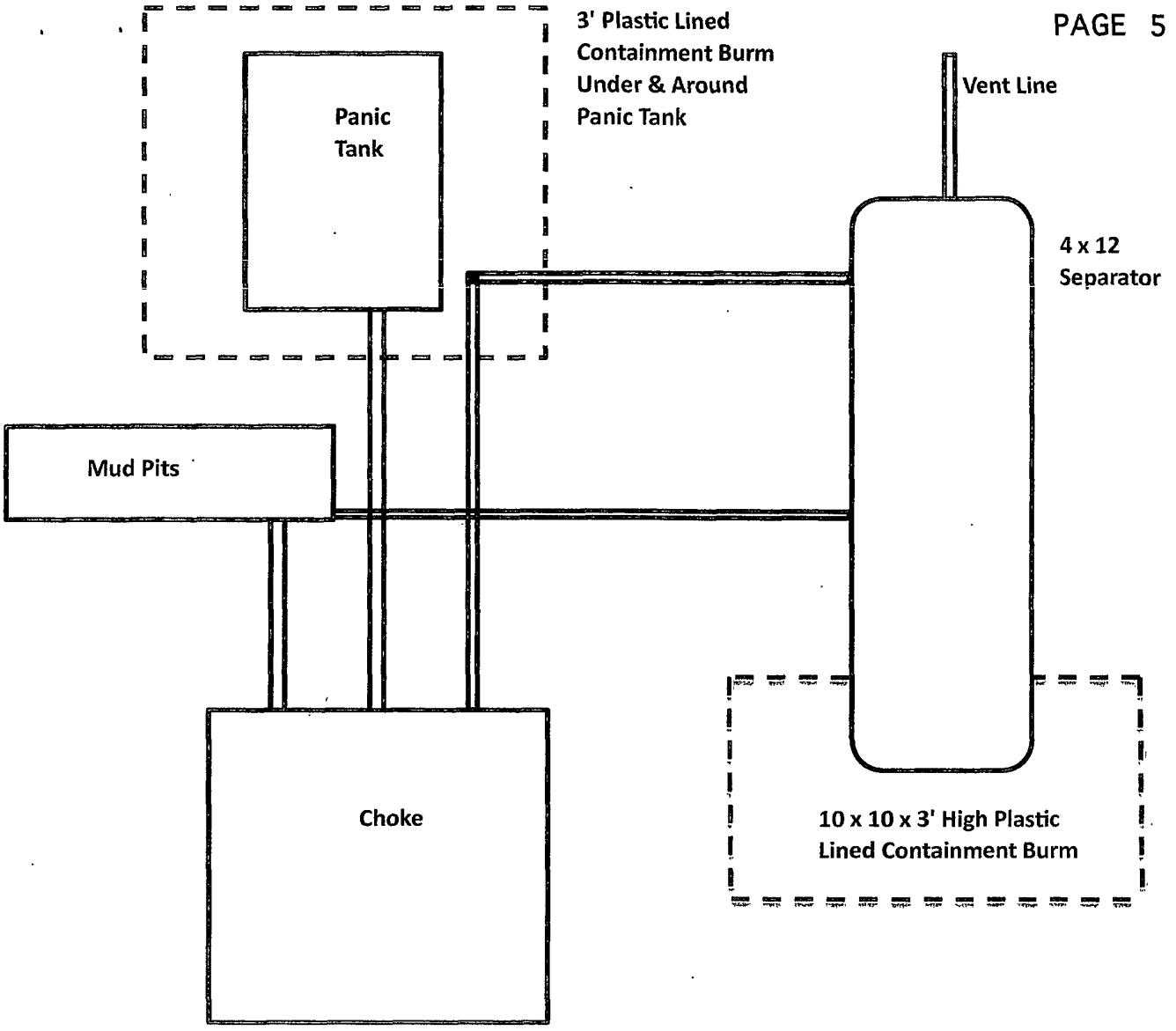
3M psi BOP Schematic

Note: 1. An upper Kelly cock valve will be utilized during drilling. Handle will be available for easy access.
2. Safety valves and necessary subs to fit all drill string connections in use.
3. All BOPE connections subjected to well pressure will be flanged, welded, or clamped.



Rig and Closed Loop System
with H2S Safety Equipment Diagram




3' Plastic Lined
Containment Burm
Under & Around
Panic Tank
Panic
Tank
Vent Line
4 x 12
Separator
Mud Pits
Choke
10 x 10 x 3' High Plastic
Lined Containment Burm

Fair Oil, Ltd.
Closed Loop System Plan
Design, Operation & Maintenance, and Closure Plan

Design

The closed loop system plan (CLSP) uses above ground steel tanks, roll off bins, and overflow-frac tanks suitable for holding the cuttings and fluids from rig operations. These containers will be sufficient in volume to maintain a safe free board between disposal of liquids and solids. There will be no drying pad, temporary pit, below grade tank, or sump. (A document showing a schematic of a typical well pad and closed loop system (CLS) is attached.)

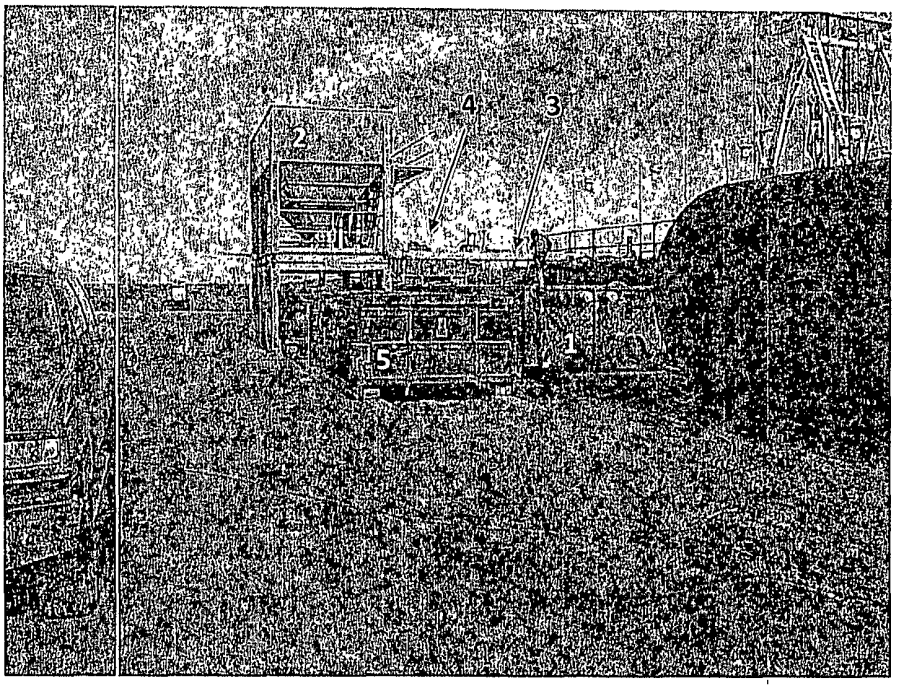
- Signage will comply with 19. 15. 3. 103. NMAC
- Frac tanks to store fresh water will be on location
- No fence is required for this above ground CLSP

Operation & Maintenance

1) The steel above ground tanks will contain liquids and solids to prevent the contamination of fresh water sources.
2) Liquids & solids will either be vacuumed out separately or hauled off in roll off bins. Disposal will occur at appropriate OCD licensed facilities on a periodic basis to prevent over topping. Solids will be trucked to Controlled Recovery's facility (NM-01-0006) in 27-20s-32e. Liquids will be trucked to the Gandy Marley facility (NM-01-0019) in 4-11s-31e.
3) No hazardous waste, miscellaneous solid waste or debris will be discharged into or placed in the tanks. Only fluids or cuttings used or generated by rig operations will be placed or stored in the tanks.
4) No waste will be disposed of or buried on location.
5) All of the operations will be inspected and a log will be signed daily during rig operations.
6) Upon discovery of a compromised closed loop tank, repairs will begin immediately. The OCD district office will be notified within 48 hours of discovery of any compromise.

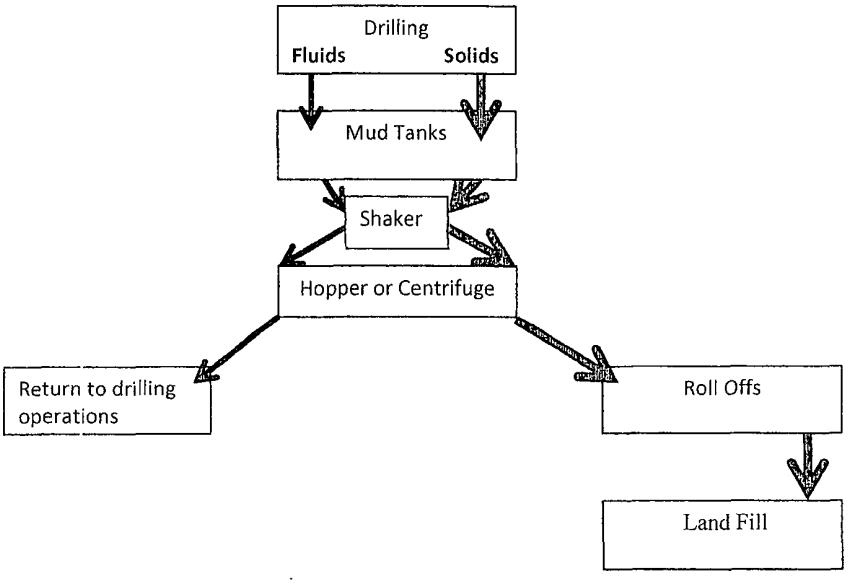
Closure

1) The closed loop tanks will be closed in accordance with 19. 15. 17. 13. NMAC.
2) Cuttings and all remaining sludge will be transported to an appropriate OCD licensed facility immediately following completion of rig operations.
3) All remaining liquids will be transported to an appropriate OCD licensed facility.
4) Tanks will be removed from the location as part of the rig move.
5) At time of well plugging & abandonment, the entire well site will be reclaimed and re-vegetated to preexisting conditions when possible.



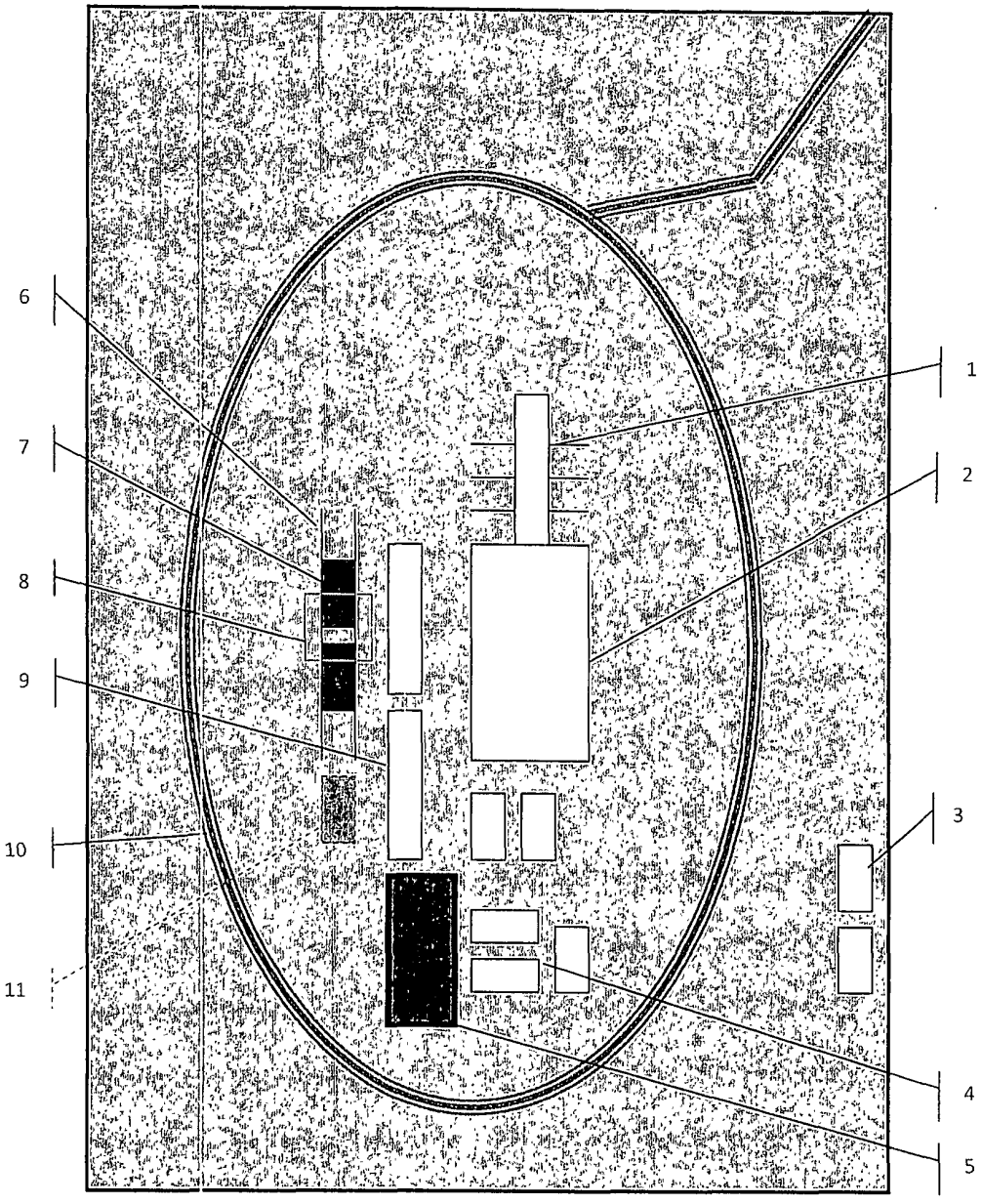
Closed Loop Drilling System: Mud tanks to right (1)
Hopper in air to settle out solids (2)
Water return pipe (3)
Shaker between hopper and mud tanks (4)
Roll offs on skids (5)

Flow Chart for Drilling Fluids and Solids



Photos Courtesy of Gandy Corporation Oil Field Service

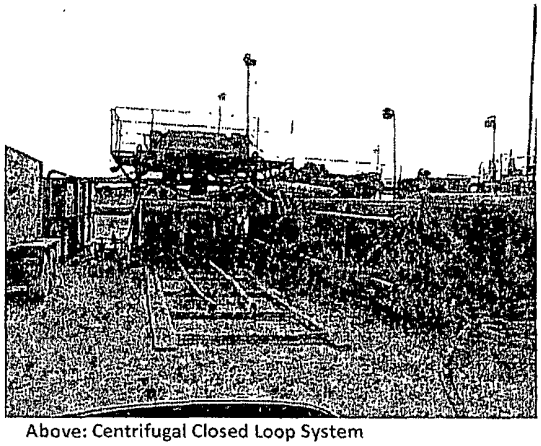
PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120



Schematic Closed Loop Drilling Rig*

1. Pipe Rack
2. Drill Rig
3. House Trailers/ Offices
4. Generator/Fuel/Storage
5. Overflow-Frac Tank
6. Skids
7. Roll Cffs
8. Hopper or Centrifuge
9. Mud Tanks
10. Loop Drive
11. Generator (only for use with centrifuge)

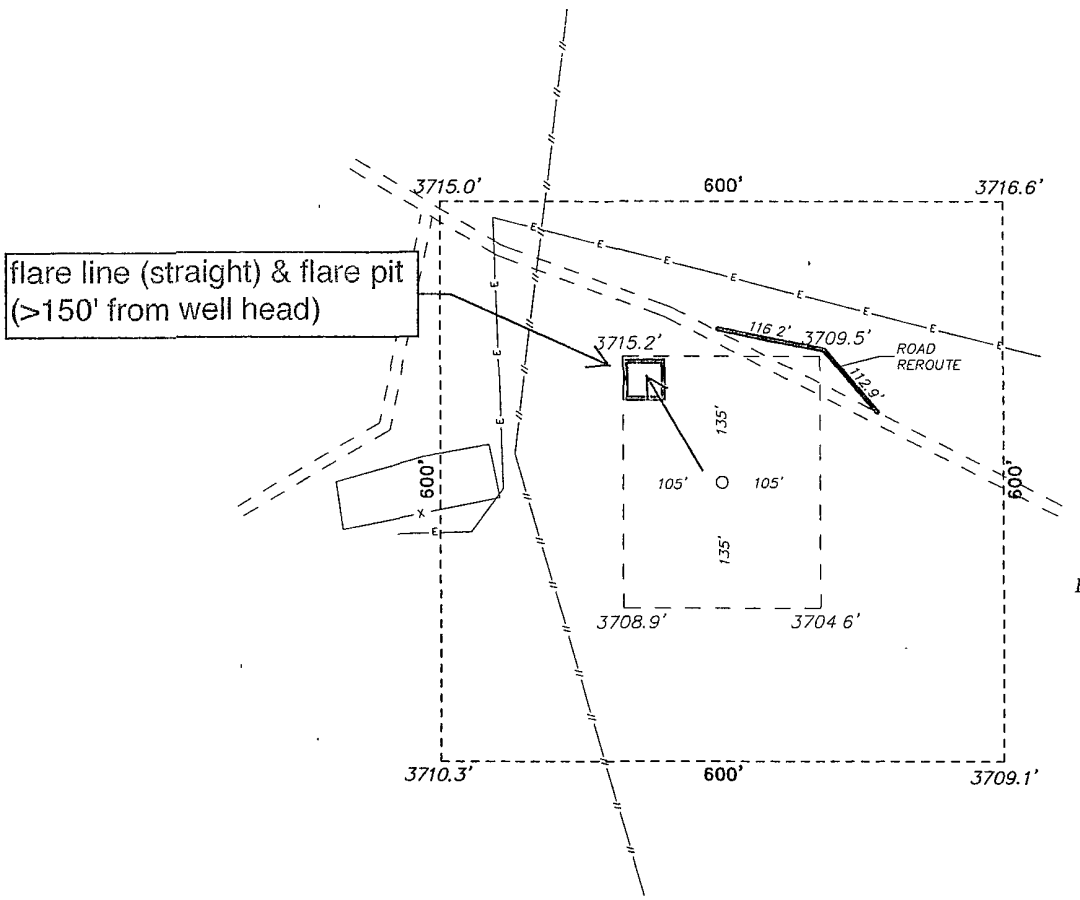
*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available



Above: Centrifugal Closed Loop System

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

SECTION 18, TOWNSHIP 17 SOUTH, RANGE 31 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



FAIR OIL, LTD.
FAIR "18" FEDERAL #2
ELEV. - 3710'

Lat - N 32°50'20.66"
Long - W 103°54'05.50"
NMSPCE- N 669247.340
E 673966.105
(NAD-83)

200 0 200 400 FEET

SCALE: 1" = 200'

Directions to Location

FROM THE JUNCTION OF HWY 82 AND SKELLY, GO NORTH ON SKELLY FOR 1 1 MILES TO LEASE ROAD, ON LEASE ROAD GO EAST 0.1 MILES TO LEASE ROAD, ON LEASE ROAD GO NORTH 0 1 MILES TO A "T", GO EASTERLY 0 6 MILES TO A "Y", GO NORTHEAST 0 1 MILES THENCE NORTH TO A "T" GO EAST 0 1 MILES TO PROPOSED WELL LOCATION.

BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

FAIR OIL, LTD.

REF FAIR "18" FEDERAL #2 / WELL PAD VACINITY

THE FAIR "18" FEDERAL #2 LOCATED 990'

FROM THE NORTH LINE AND 330' FROM THE EAST LINE OF

SECTION 18, TOWNSHIP 17 SOUTH, RANGE 31 EAST,

N.M.P.M., EDDY COUNTY, NEW MEXICO.

W.O. Number: 26072	Drawn By. J. SMALL		
Date 02-27-2009	Disk: JMS 26072	Survey Date: 11-14-2011	Sheet 2 of 5 Sheets

Hydrogen Sulfide (H_2S) Drilling Operations Plan

Fair 18 Federal 2

990' FNL & 330' FEL Section 18, T. 17 S., R. 31 E.

Eddy County, New Mexico

32° 50' 20.66" North & 103° 54' 05.50" West

Prepared for

FAIR OIL, LTD.

P.O. Box 689 • Tyler, Texas, 75710 • 225 South College • Tyler, Texas 75702 • (903) 592-3811 • FAX (903) 597-3587

Prepared by

PERMITS WEST, INC.

PROVIDING PERMITS for LAND USERS

37 Verano Loop, Santa Fe, New Mexico 87505 (505) 466-8120

Table of Contents

Checklist for Drilling, Work Over, and Maintenance in H_2S Environment

1. All personnel will receive proper H2S training in accordance with Onshore Order 6, Section III.C.3.a.
2. Two safety-briefing areas will be established at least 100 yards from the wellhead. At least one briefing area will be upwind at all times. These sites should be located uphill whenever possible. (see Appendix 3.1)
3. Identify direction of prevailing winds (see Appendix 3.1)
4. At least two wind socks will be installed at all times
5. Primary and secondary emergency escape routes (flagged trail minimum)
6. Number, types, and storage location of H_2S emergency respirators for personnel, and number of personnel to be present onsite at any one time.
7. H_2S detector locations (3 minimum to include cellar or bell nipple and mud tanks at shale shaker). Type and location of visual and audible alarms to be used.
8. H_2S evacuation and emergency training procedures and schedule (i.e. Contingency Plan)
9. List of area residents within a two-mile radius, evacuation plan, and contact list (including agencies and individuals)
10. Types and quantities of mud additives and scavengers to be available at location for H_2S operations
11. Design features and operational procedures to be used to provide safe working environment (all equipment meets standards for H_2S service)
12. Appropriate warning signs and flags on all access roads
13. Provisions for blocking and monitoring access to location during critical incident
14. Ventilation fan under rig floor
15. In event of uncontrolled blowout, designation of local official who has authority to ignite flow
16. Swabbing or drill stem fluids containing H_2S should be put through a separator to permit flaring of gas. Flare should have a continuous pilot light to ensure ignition of all such gas.

1.0 General

1.1 Description of Hydrogen Sulfide Gas

Hydrogen Sulfide (H_2S) is a colorless, transparent gas with a distinct and characteristic rotten-egg odor at low concentrations. It is not detectable by odor at high concentrations. H_2S at higher concentrations and/or over longer periods of exposure paralyzes the olfactory sense for that specific odor. The gas is extremely toxic to humans and can easily become dangerous and lethal. Extreme care and caution is needed to prevent injury and/or death. H_2S has a specific gravity of 1.192 that is heavier than air. It tends, therefore, to accumulate in low places. This collection of gas can lead to dangerous concentrations in areas such as arroyos and drainages. H_2S from "down hole" is often warmer than surface air and will therefore tend to rise and therefore affect workers above the escaping source. Hydrogen Sulfide is explosive and water soluble.

1.2 Toxicity

American National Standards Institute standard: Z37.2-1972 Acceptable Concentrations of Hydrogen Sulfide describes H_2S toxicity in this way: Hydrogen Sulfide is an extremely toxic and irritating gas. Free hydrogen sulfide in the blood reduces its oxygen-carrying capacity, thereby depressing the nervous system. Hydrogen sulfide is oxidized quite rapidly to sulfates in the body, therefore no permanent aftereffects occur in cases of recovery from acute exposures unless oxygen deprivation of the nervous system is prolonged. There is no evidence that repeated exposures to hydrogen sulfide result in accumulative or systemic poisoning. Effects such as eye irritation, respiratory tract irritation, slow pulse rate, lassitude, digestive disturbances, and cold sweats may occur but these symptoms disappear in a relatively short time after removal from the exposure. Odors become detectable in concentrations as low as .008 parts per million (ppm) (California studies), but the sense of smell is lost after 2-15 minutes at 100 ppm.

1.3 H_2S First Aid and Treatment Procedures

- Victim should be removed to fresh air immediately**
- If victim is not breathing, rescue breathing or artificial breathing should be started immediately
- Treat for shock; keep victim warm and comfortable
- Call ambulance and/or doctor, take victim immediately to emergency room or other healthcare facility

****The rescuer(s) should always wear personal protective equipment when attempting to rescue an H_2S victim. It is important to never increase the number of victims unnecessarily during an H_2S emergency.**

2.0 Hydrogen Sulfide (H_2S) Contingency Plan

2.1 Introduction

This plan provides required procedures to be followed to provide for a safe H_2S working environment. These required procedures include safety procedures, precautionary measures, and training for emergency and standard procedures. This document sets forth the responsibilities of the operator and all individuals and entities under employment or contract with the operator working in a sour oil or gas (H_2S) area.

To make this contingency plan effective and in order to provide a safe working environment, cooperation from all individuals is a necessity. Each person on site must understand normal and emergency operating procedures for this site. Each individual on site must have adequate information, training, and practice with the specific procedures described in this Contingency Plan. It is the responsibility of both the operator to provide adequate equipment, training, and procedures, as well as the individual worker's responsibility to participate fully in all H_2S procedures, to familiarize themselves with the location of all safety equipment and features, and to keep equipment and procedures in working order and up to date.

In order for Fair Oil, Ltd. to provide a safe working environment for all workers and individuals in the vicinity of the well the safeguards are put in place. **Initiative lies with each and every individual for the safety of all. To this end the drilling foreman is required to and will enforce all safety procedures, for the benefit of all involved.**

2.2 Purpose

Fair Oil, Ltd. will provide a safe working environment for all neighbors, employees, contractors, and others involved with the drilling of its well. There exists the possibility of encountering toxic H_2S gas during the drilling, completion, maintenance, and production of the well. This H_2S contingency plan will be put into effect after surface casing is drilled or when it is deemed necessary by the BLM in consultation with Fair Oil, Ltd.

Safety procedures are established for each person's safety connected with the operation and for the safety of the residents of the local area. No house is within 2 miles. However, Burnett Oil Co. (575 677-2313) has an office 2.05 miles southwest.

The Fair Oil, Ltd foreman will strictly enforce these procedures. Noncompliance may result in loss of pay or dismissal from the site, job, or employment.

2.3 Operating Procedures

Before this H_2S contingency plan is operational, all personnel that are to be involved with operation will be thoroughly trained* in the proper use of breathing apparatus (i. e. Self Contained Breathing Apparatus and Escape Units), emergency procedures, and H_2S first aid and rescue methods. Training will include means of communication when wearing breathing apparatus. An approved list of trained personnel will be supplied by the safety company and stored with the drilling foreman.**

*Required training for operation personnel will include, but not be limited to, an H_2S safety course from an approved training company, safety briefing at the drill site on all safety equipment use and locations before the start of work for each and every person onsite, safety related training in-place, on-site 1,000 feet before drilling the first H_2S formation.

**Throughout this contingency plan breathing apparatus shall be understood as

a) A Self-Contained Breathing Apparatus (SCBA) manufactured such as Scott Industrial C100 or similar.
b) Or an emergency Escape Unit such as the Scott SCRAM or Elsa (or similar) often referred to as hip packs, hoods, or pony bottles.

The two types of breathing apparatus will be differentiated as a SCBA or as an Escape Unit as required.

2.3.1 Safety Equipment

Personal H_2S & SO_4 monitors - Every person on site will be required to wear a personal H_2S & SO_4 monitor at all times while onsite. Monitors will not be worn on hard hats, but should be worn on the waist belt or preferably near the chest in-front.

Breathing Apparatus - All personnel on the drill site will be assigned an individual breathing apparatus unit. This may be either an escape unit or a SCBA unit. A minimum of two SCBA type units will be onsite. These units will be used by the team whose duty it is to serve as the onsite rescue team.

Monitoring and Recording Devices - An experienced safety company (such as Total Safety U. S., Inc., Artesia, NM) will responsible for the installation and monitoring of H_2S detectors placed on site. These units will be tested and recalibrated as the safety company requires. If H_2S is detected, the monitors will be tested and recalibrated at least every 12 hours. This monitoring system may or may not be integral to the required 2-stage alarm system on site. This 2-stage system (visual and audio) will have a minimum

of three H_2S detector locations. Monitors will be located: 1) in the cellar or on the bell nipple, 2), at the mud tanks' shale shaker, and 3), to be determined by the safety company. Visual (light) and audio (siren) alarms will activate when H_2S concentrations reach 10 ppm.

First-Aid and rescue equipment - Stored on-site, but ideally uphill and upwind from H_2S sources a minimum of one "rescue pack" will contain at least:

- 1 backboard, straps, head blocks
- a set of cervical collars (s-xl)
- 1 bag valve mask
- 1 bottle of oxygen
- gauze and other standard first-aid items

suggest - 1 AED (automatic external defibrillator)

Gas Monitor - An appropriate monitor should be on-site that can measure for LLE, VOC, and other explosive or hazardous gasses.

2.3.2 Safety Procedures

Cascade System - Every person required to perform duties within "safety zones" (see list below) will be provided with breathing equipment attached to a cascade air system. These areas are as follows

- rig floor
- mud pit
- derrick
- shale shaker
- mud hopper and bulk hopper
- all hazardous locations will be accessible by hose and work pack (SCBA)

Escape Routes - Two escape routes will be at a minimum flagged and kept clear at all times.

Safety Briefing Areas - Two safety-briefing areas will be located at the end of escape routes (see above). The briefing areas will be clearly marked, at least one up-hill, and located so that one site is always up wind. Please see attached site map for safety briefing areas in Appendix 3.1.

Safety, first-aid, and rescue equipment - Will be stored on site using best practices. This will include proper maintenance and scheduled testing, inspection, and training/practice.

Service companies - All service companies will be briefed regarding potential hazards of the well site including the presence (or potential for) H_2S. These companies will be required to provide breathing apparatus and training to their employees. No service company personnel will be allowed onsite without meeting these requirements. In addition a safety briefing under the direction of the drill foreman regarding site specific H_2S procedures will be provided to each new personnel member reporting on-site.

Drills and practice - Drills reviewing all and any safety procedures including evacuation, rescue, and proper procedures to shut-in a well, and identify source of H_2S in instance of a leak will be practiced under the supervision of the safety company representative and company foreman. Proper use of breathing apparatus will be instructed during such drills. Drill schedule will be designed to familiarize new personnel with all safety procedures. Each crew should also be familiar with all operations. Drills should include a short work period in safety equipment.

Warning Signs - Warning signs will be posted on all access roads. "No smoking" signs will be posted at access points as well. Signs will be posted at least 200 feet and no more that 500 from well pad. When H_2S is present at 10 ppm or greater a red flag shall be displayed on the warning sign. Gates, road barricades, and/or gate guards will be used if necessary to prevent access during critical or hazardous situations.

Wind Socks - A minimum of two windsocks should be installed at locations easily observable from all work areas. If more than two windsocks are needed in order to allow "workers" at all times to easily identify the wind direction; more windsock will be installed.

Vehicle Parking - Vehicles should be parked 200 feet from the well site with their fronts pointing away from the well site. Preferably vehicles will be located up hill and up wind from the well along the escape route.

Testing Fluids - Swabbing and testing fluids containing H_2S will be pass through a separator to permit flaring of the gas. There will be a pilot light in such instances.

Bug Blowers - Circulation will be provided by explosion proof electric fans at all critical locations when necessary.

Drills - Reviewing any and all safety procedures including evacuation, rescue, proper procedures to shut-in a well, and how to identify the source of H_2S if a leak occurs

will be practiced under the supervision of the safety company representative and company foreman. Proper use of breathing apparatus will be taught during such drills. The drill schedule will be designed to familiarize new personnel with all safety procedures. Each crewmember will be familiar with all operations. Drills should include a short work period in safety equipment.

2.3.3 Working Conditions

Occupational Safety and Health Administration (OSHA) has set guidelines for Permissible Exposure Limits (PEL). The standard is to be considered the threshold **never to be exceeded** for the health and safety of all workers on this site. Ideally, exposure would never be this high.

2.3.3.1 Exposure Limits

OSHA Permissible Exposure Limit (PEL) for General Industry: 29 CFR 1910.1000 Z-2 Table -- Exposures shall not exceed 20 ppm (ceiling) with the following exception: if no other measurable exposure occurs during the 8-hour work shift, exposures may exceed 20 ppm, but not more than 50 ppm (peak), for a single time period up to 10 minutes.

OSHA Permissible Exposure Limit (PEL) for Construction Industry: 29 CFR 1926.55 Appendix A -- 10 ppm, 15 mg/m^3 TWA (accessed via the internet at: http://www.osha.gov/dts/chemicalsampling/data/CH_246800.html#exposure on 19 July 2007)

The maximum exposure limit for an 8 hour day is less than 10 ppm.

2.4 H_2S Emergency Procedures

2.4.1 Incident

H_2S alarm system activation. Light and siren warnings or personal H_2S monitor activation for any one "worker."

2.4.2 Primary Emergency Procedure

i. All rig crew personnel and all auxiliary personnel must **DON BREATHING APPARATUS IMMEDIATELY.**

ii. Rig crew should mask up with SCBA type work packs preferentially

iii. All auxiliary crew should move to safety briefing area, uphill and upwind.

iv. All non-essential personal should continue to evacuate site.

2.4.3 Secondary Emergency Procedure

I. Supervisory Personnel

i. Company Foreman

a. Proceed to cascade trailer and check for safe operation of the cascade system.

b. Proceed to active safety briefing areas and account for all personnel. If all personnel are not accounted, then initiate an appropriate search.

c. Return to the drilling floor and supervise operations.

ii. Tool Pusher

a. Proceed to cascade trailer and check if Company Foreman is operating cascade system safely. If NOT ensure safe operations of the cascade system.

b. Proceed to drilling floor and supervise operations. Make sure all crewmembers are accounted for and institute buddy system. If all personnel are not accounted for, initiate appropriate search.

II. Rig Crew

i. Driller

a. if drilling

1. after donning breathing apparatus proceed to console and raise kelly to slip set position

2. shut down mud pumps

3. monitor well flow, remain at console

4. use hand signals to verify all personnel are at stations, verify company man and toolpusher's position, initiate search if well is not flowing

b. If tripping

1. after donning breathing apparatus put pipe in the slip-set position

2. stab safety valve, close safety valve

3. monitor well flow-remain at console

4. watch derrick man descend from derrick, verify all personnel locations, verify company man and tool pusher's position, initiate search if well is not flowing

c. if well is flowing

1. after donning breathing apparatus, shut well in HARD

2. verify all personnel locations, verify company man and tool pusher's position, initiate search if necessary

3. obtain necessary pressures for well control

4. proceed to safety briefing area with crew, plan well control operations with all personnel

ii. Derrick Man

a. after donning breathing apparatus, go to pit side window on the floor whether drilling or tripping (descend derrick)

b. maintain visual contact with driller and monitor flow

c. if mud properties are needed, then proceed to the shaker with "buddy"

d. monitor other hands on pit side of rig visually

e. proceed to open manual well-head if necessary (with "buddy")

iii. Motorman

a. after donning breathing apparatus, go to the cascade system and ensure safe operation

b. maintain visual contact with chain hand on doghouse side of floor

iv. Chain Hand

a. after donning breathing apparatus, stab safety valve if tripping

b. go to doghouse/pipe-rack and maintain visual contact with driller and motorman

v. Floor man

a. after donning breathing apparatus, stab safety valve if tripping

b. aid driller while maintaining visual contact with driller, derrick man, and chain hand

III. Auxiliary Personnel

i. Mud engineer and Company man or geologist are to act as wardens. Wardens must account for all other auxiliary crew.

ii. All auxiliary crew are to remain in safety briefing area unless evacuated by wardens.

iii. Wardens organize search with notification from company. All searches are to be done with "buddy". Geologist warden should remain in safety briefing area.

2.4.4 Igniting the Well

I. Decision

i. The Company Foreman is responsible for the decision to ignite a well. If he is incapacitated or absent, then authority passes to the tool pusher, and then the contract driller

ii. the decision to ignite the well is only to be made as a last resort safety measure if:

a. there is threat human life and grave threat to public safety and equipment

b. there is no alternative way of containing the well given the emergency faced.

c. an attempt was made to contact area office (circumstances permitting)*

***When human life is threatened, there can be no delay in making a decision.**

I. Instructions for Igniting the Well

i. Two individuals are required for ignition

ii. Both individuals will wear SCBAs & have 200-foot retrieval ropes tied to their waists

iii. One individual will measure the atmosphere for explosive gasses with appropriate meter.

iv. The other individual will remain in the safety briefing area

v. Others in the briefing area are to remain aware of both individuals and aid as able. If either tethered individual is overcome by gas, he should be pulled to safety.

vi. The well should be lit with a 25 mm meteor type flare gun when well conditions allow. The safest method of igniting the well should always be used.

vii. Burning H_2S will produce sulfur dioxide which is poisonous. The area therefore is not safe once the well has ignited. Continue to observe all emergency procedures and follow orders from supervisors and the area office. Notice of incident must be reported to all appropriate authorities.

3.0 Appendices

3.1 Check List for Safety Equipment (designed for a maximum of 11 people)

- ☐ Safety Trailer housing cascade system at least ten 300 cu. ft. bottles of compressed air
- ☐ 7 SCBA type breathing apparatus with 45 cu. ft. bottles
- ☐ 5 breathing masks connected to the cascade system with 7 cu. ft. pony bottles
- ☐ 2 extra 300 cu. ft. bottles able to refill SCBA bottles will be placed at the safety briefing areas
- ☐ 2 Wind socks
- ☐ 1 Flare gun and flares
- ☐ 1 rescue pack (as described in section 2.3.1)
- ☐ Warning signs for access (flags for marking conditions)
- ☐ "Safety Briefing Area" signs, evacuation route flags
- ☐ H_2S monitors (personnel and stationary)
- ☐ Alarm system (audio and visual—explosion proof)
- ☐ Gas Monitor

3.2 Emergency Phone Numbers

Fair Oil, Ltd. Personnel to be Notified

Rodney Thompson, Production Manager	Office: (903) 510-6527
or	
Jay Bynum	Office: (903) 510-6525

Safety Company Personnel

(Name)	(Position)	(Number work)
		(Number home)
(Name)	(Position)	(Number work)
		(Number home)

Local & County Agencies

Loco Hills Fire Department	911 or (575) 677-2349
Maljamar Fire Department	911 or (575) 676-4100
Eddy County Sheriff (Artesia)	911 (575) 748-2323
Eddy County Emergency Management (Carlsbad)	(575) 887-9511
Eddy County Emergency Management (Artesia)	(575) 746-9540
Eddy County Health Services (Carlsbad)	(575) 887-9511
Artesia Hospital 702 North 13th Street, Artesia	(575) 748-3333

State Agencies

NM State Police (Artesia)	(575) 748-9718
NM Oil Conservation (Artesia)	(575) 748-1283
NM Oil Conservation (Santa Fe)	(505) 476-3440
NM Dept. of Transportation (Roswell)	(575) 637-7201

Federal Agencies

BLM Carlsbad Field Office	(575) 234-5972
National Response Center	(800) 424-8802
US EPA Region 6 (Dallas)	(800) 887-6063 or (214) 665-6444

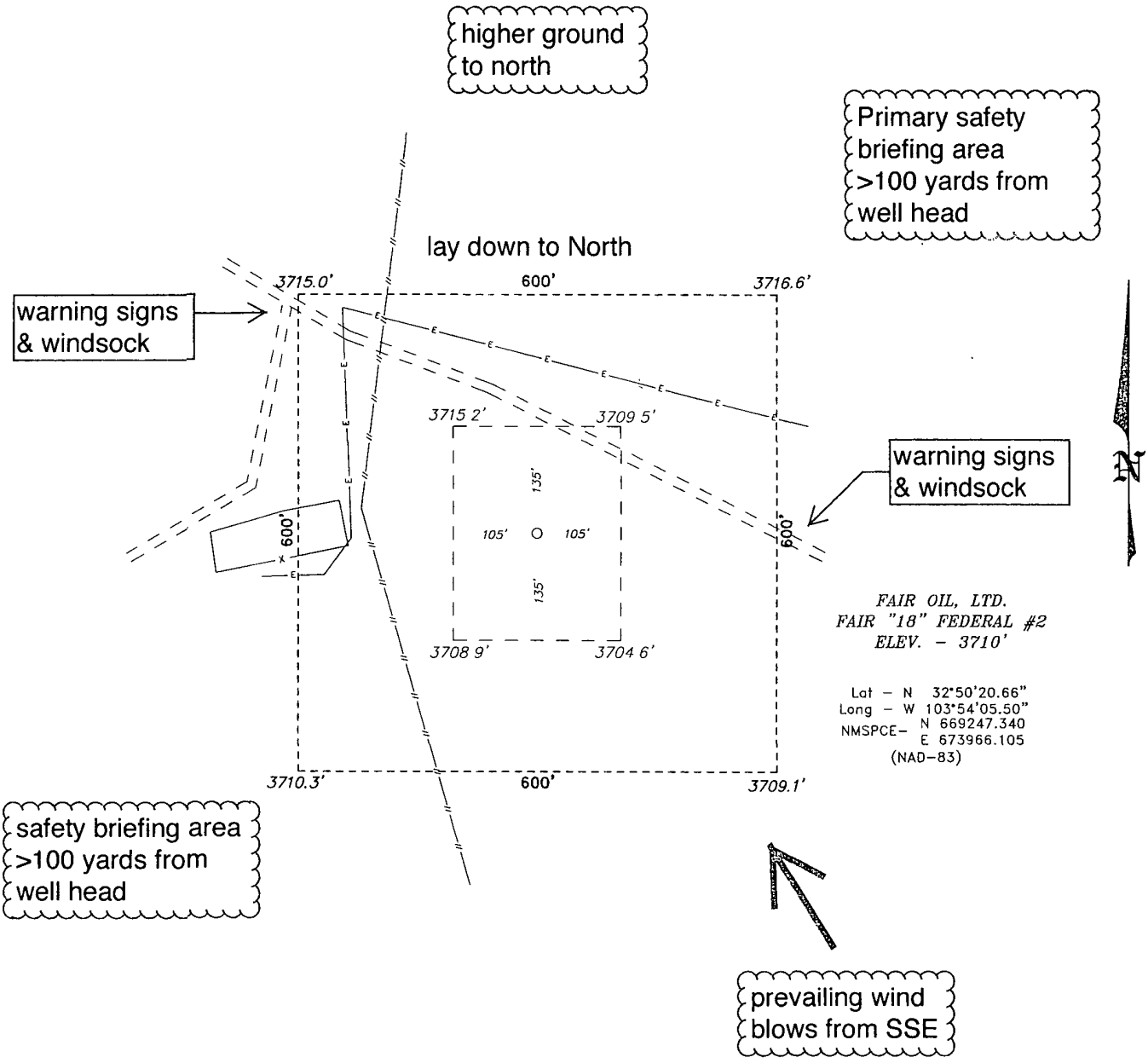
Other Contacts

Veterinarian	Artesia Animal Clinic	(575) 748-2042

Residents within 2 miles

There are no homes within 2 miles. However, Burnett Oil Co. has an office 2.05 miles southwest. Their phone number is (575) 677-2313. The office is on County Road 220.

SECTION 18, TOWNSHIP 17 SOUTH, RANGE 31 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



200 0 200 400 FEET

SCALE: 1" = 200'

Directions to Location

FROM THE JUNCTION OF HWY 82 AND SKELLY, GO NORTH ON SKELLY FOR 1 1 MILES TO LEASE ROAD, ON LEASE ROAD GO EAST 0 1 MILES TO LEASE ROAD, ON LEASE ROAD GO NORTH 0 1 MILES TO A "T", GO EASTERLY 0 6 MILES TO A "Y", GO NORTHEAST 0 1 MILES THENCE NORTH TO A "T" GO EAST 0 1 MILES TO PROPOSED WELL LOCATION

BASIN SURVEYS P.O. BOX 1786 – HOBBS, NEW MEXICO

FAIR OIL, LTD.

REF FAIR "18" FEDERAL #2 / WELL PAD VACINITY

THE FAIR "18" FEDERAL #2 LOCATED 990'

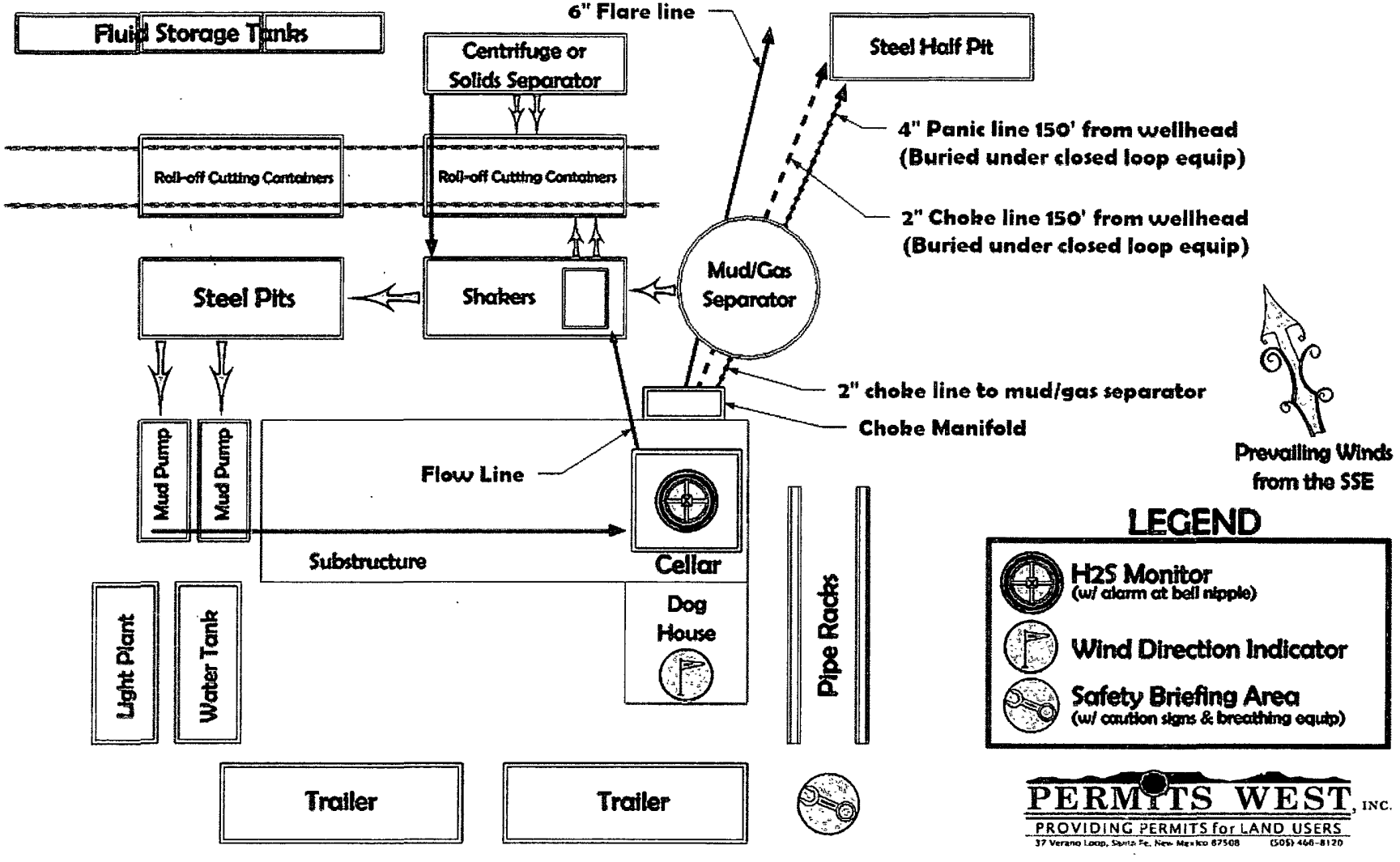
FROM THE NORTH LINE AND 330' FROM THE EAST LINE OF

SECTION 18, TOWNSHIP 17 SOUTH, RANGE 31 EAST,

N.M.P.M., EDDY COUNTY, NEW MEXICO.

W O Number. 25438	Drawn By: J. SMALL		
Date: 02-27-2009	Disk: JMS 25438	Survey Date 11-14-2011	Sheet 2 of 5 Sheets

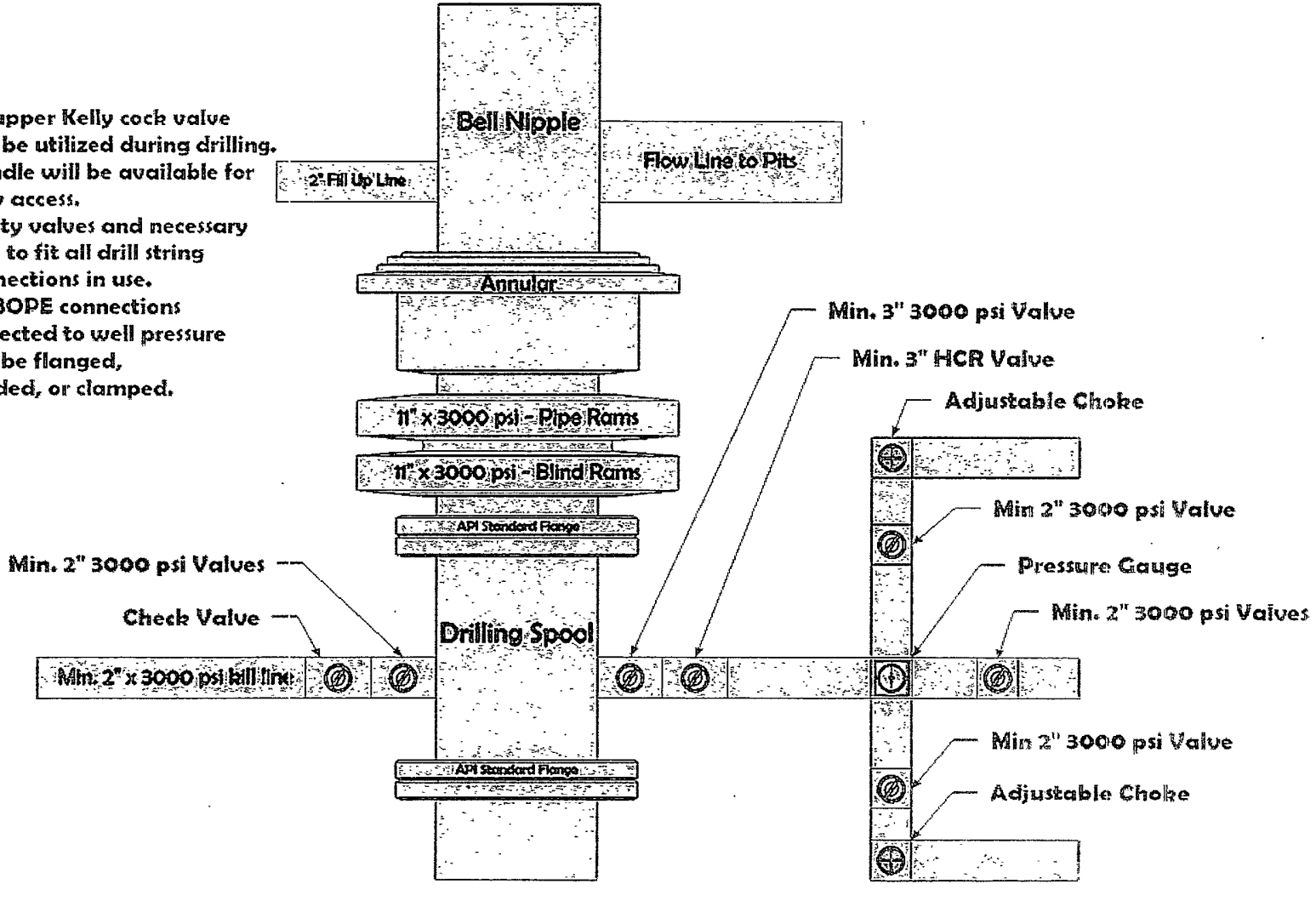
Rig and Closed Loop System
with H2S Safety Equipment Diagram



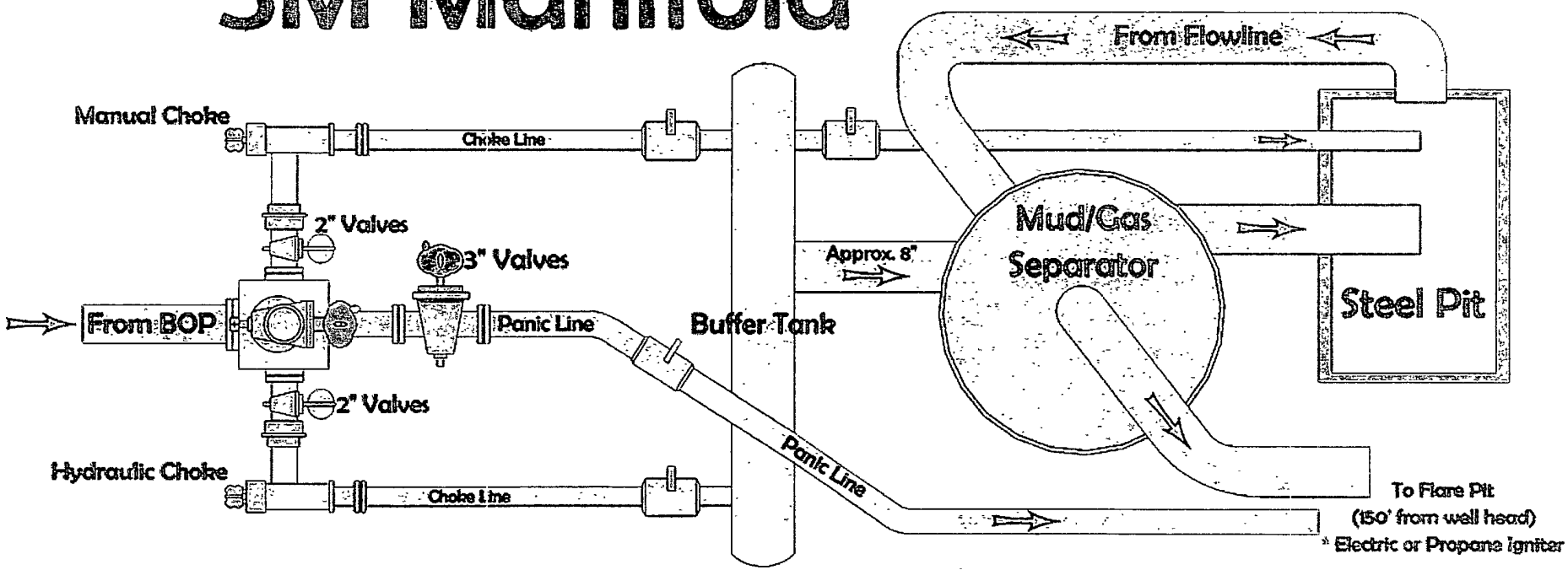
PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

3M BOP Schematic

Note: 1. An upper Kelly cock valve will be utilized during drilling. Handle will be available for easy access.
2. Safety valves and necessary subs to fit all drill string connections in use.
3. All BOPE connections subjected to well pressure will be flanged, welded, or clamped.



3M Manifold


From Flowline
Manual Choke
Choke Line
2" Valves
3" Valves
Approx. 8'
Mud/Gas
Separator
Steel Pit
From BOP
Panic Line
Buffer Tank
2" Valves
Panic Line
Hydraulic Choke
Choke Line
To Flare Pit
(150' from well head)
* Electric or Propane Igniter

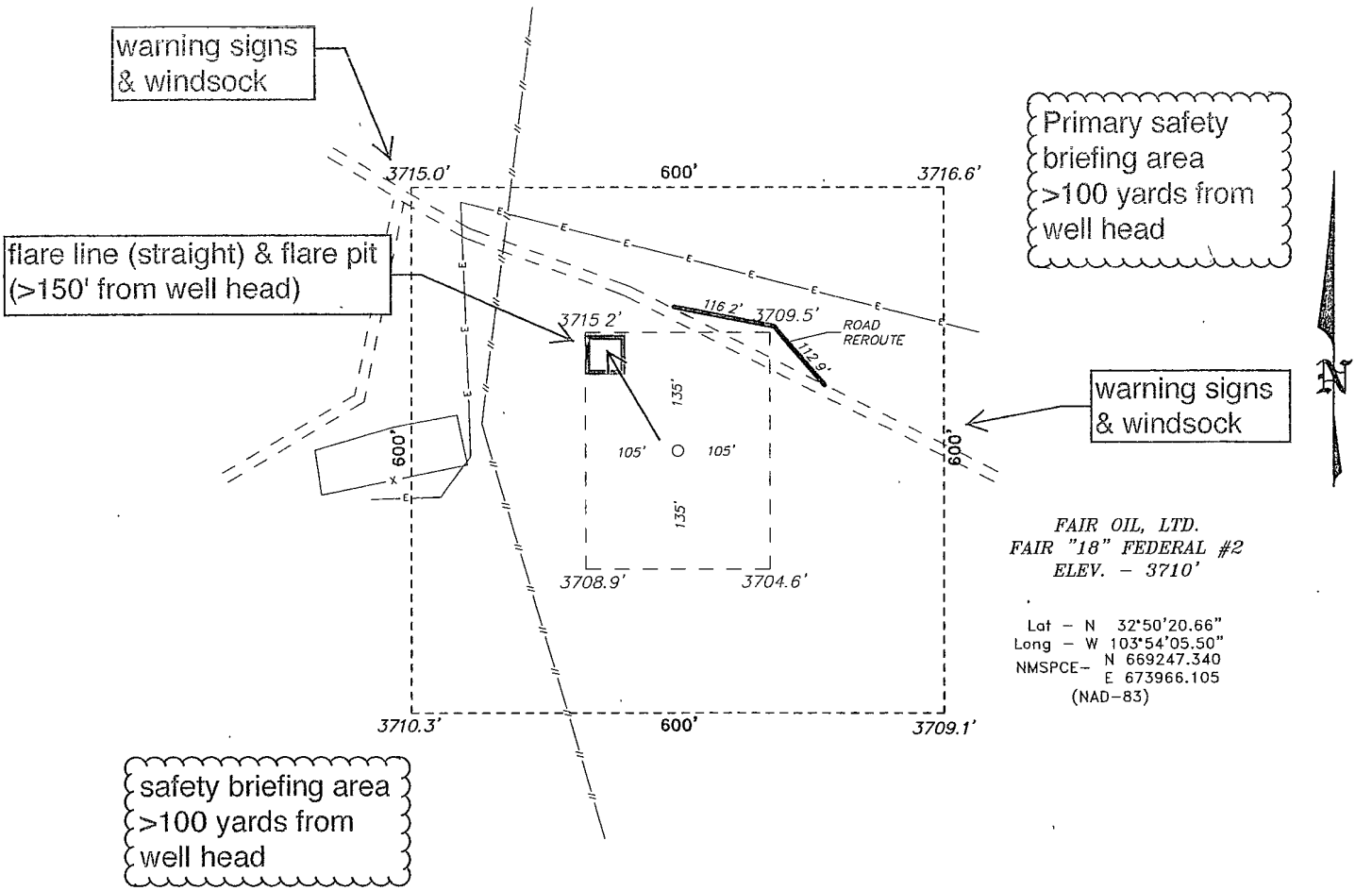
SECTION 18, TOWNSHIP 17 SOUTH, RANGE 31 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO.

H2S PAGE 15

lay down (V-door) to north

higher ground to north



FAIR OIL, LTD.
FAIR "18" FEDERAL #2
ELEV. – 3710'

Lat – N 32°50'20.66"
Long – W 103°54'05.50"
NMSPCE– N 669247.340
E 673966.105
(NAD–83)

prevailing wind blows from SSE

200 0 200 400 FEET

SCALE: 1" = 200'

Directions to Location

FROM THE JUNCTION OF HWY 82 AND SKELLY, GO NORTH ON SKELLY FOR 1.1 MILES TO LEASE ROAD, ON LEASE ROAD GO EAST 0.1 MILES TO LEASE ROAD, ON LEASE ROAD GO NORTH 0.1 MILES TO A "T", GO EASTERLY 0 6 MILES TO A "Y", GO NORTHEAST 0 1 MILES THENCE NORTH TO A "T" GO EAST 0.1 MILES TO PROPOSED WELL LOCATION.

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REF. FAIR "18" FEDERAL #2 / WELL PAD VACINITY

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FROM THE NORTH LINE AND 330' FROM THE EAST LINE OF

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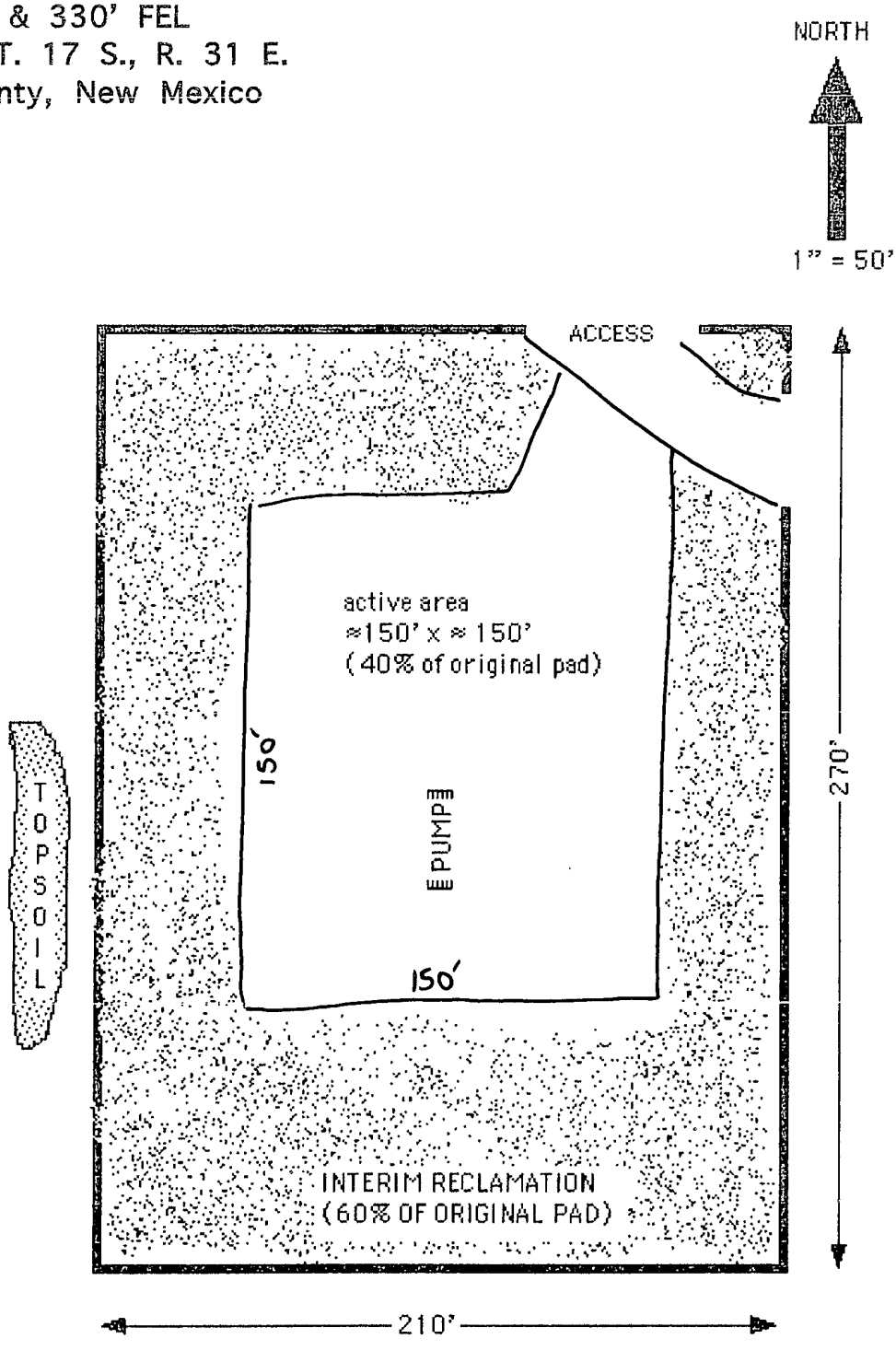
BASIN SURVEYS P.O. BOX 1786–HOBBS, NEW MEXICO

W.O. Number: 26072	Drawn By. J. SMALL	Survey Date. 11–14–2011	Sheet 2 of 5 Sheets
Date: 02–27–2009	Disk: JMS 26072		

Fair Oil, Ltd.
Fair 18 Federal #2
990' FNL & 330' FEL
Sec. 18, T. 17 S., R. 31 E.
Eddy County, New Mexico



PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Fair Oil LTD
LEASE NO.:	LC054908
WELL NAME & NO.:	2-Fair 18 Federal
SURFACE HOLE FOOTAGE:	990' FNL & 330' FEL
BOTTOM HOLE FOOTAGE	' FL &' FL
LOCATION:	Section 18, T.17 S., R.31 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.