

New Mexico Oil Conservation Division, District 1
1625 N. French Drive
Hobbs, NM 88240

Form 3160-3
(March 2012)

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM NM 108475	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name N/A	
2. Name of Operator ICA ENERGY OPERATING, LLC		7. If Unit or CA Agreement, Name and No. N/A	
3a. Address P.O. BOX 2712 ODESSA, TX 79760-2712		8. Lease Name and Well No. ICA FEDERAL 31 # <398947>	
3b. Phone No. (include area code) (432) 580-5722		9. API Well No. 30-005-20958	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 660 FSL & 660 FEL At proposed prod. zone 660 FSL & 660 FEL		10. Field and Pool, or Exploratory CLR (SAN ANDRES) <12450>	
11. Sec., T. R. M. or Blk. and Survey or Area Sec. 31, T-8-S, R-34-E 660 FSL & 660 FEL		12. County or Parish ROOSEVELT	
13. State NM		14. Distance in miles and direction from nearest town or post office* 12 miles SW Milnesand	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 660		16. No. of acres in lease 160	
17. Spacing Unit dedicated to this well 40 Acres		18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 4,000 feet	
19. Proposed Depth 4800 feet		20. BLM/BIA Bond No. on file. NM 2850	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4309' GL		22. Approximate date work will start* 12/01/2012	
23. Estimated duration 14 Days		24. Attachments ROSWELL CONTROLLED WATER BASIN	

HOBS OCD

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

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

25. Signature <i>Vernon D. Dyer</i>	Name (Printed/Typed) Vernon D. Dyer	Date 11-26-2012
Title AGENT Please call Mr. Dyer (575) 420-0355 for necessary information re: APD.		
Approved by (Signature) <i>Angel Mayes</i>	Name (Printed/Typed) ANGEL MAYES	Date May 8, 2013
Title Assistant Field Manager,	Office ROSWELL FIELD OFFICE	APPROVED FOR 2 YEARS

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.

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)

DECLARED WATER BASIN

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS ATTACHED

CEMENT BEHIND THE 133"
CASING MUST BE CIRCULATED

WITNESS

KR 05/15/13

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NM 020

DRILLING AND OPERATIONS PLAN
ICA ENERGY OPERATING, LLC
ICA FEDERAL 31 #1
660' FSL & 660' FEL
Sec. 31, T-8-S, R-34-E
Roosevelt County, NM

1. **Geological Surface Formation:** Tertiary Alluvium. Drill with rotary tools.

2. **Tops of Important Geological Markers:**

Anhydrite	2200'
Yates	2655'
Queens	3490'
San Andres	3890'
TD	4800"

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BLM
ROSWELL, NM

3. **Estimated Depth of Anticipated Water, Oil or Gas:**

Water – 300'
Oil – 4600' & 4700'

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water will be protected by setting 13 3/8" casing at 400', and circulating cement back to surface, all other intervals will be isolated by the 5 1/2" production casing.

4. **Proposed Casing Program**

HOLE SIZE	CASING SIZE	WT./GRADE	SETTING DEPTH	TOP CEMENT
17"	13 3/8" (new)	32#	400'	Surface
7 7/8"	5 1/2" (new)	15.5#	4800'	Surface

MINIMUM SAFETY FACTORS: BURST 1.0, COLLAPSE 1.125, TENSION 1.8

CEMENT PROGRAM – ALL CEMENT BLENDS WILL BE TESTED TO BLM MINIMUM REQUIREMENTS.

A. 13 3/8"	SURFACE	CEMENT TO SURFACE 100% EXCESS OVER 400 SACKS CLASS "C" 2% CaCl ₂ + 1/8#/SK CELLO-FLAKE
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B. 5 1/2"	PRODUCTION	CEMENT TO SURFACE LEAD: 250 SACKS CLASS "C" 50:50 GEL + 5% SALT + 1/8#/SK CELLO-FLAKE TAIL: 450 SACKS CLASS "C" 10% GEL + 5% SALT + 1/8#/SK CELLO-FLAKE + 3# SACKS KOLSEAL
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5. SPECIFICATIONS FOR PRESSURE CONTROL EQUIPMENT:

A 5000# Annular will be installed after running the 13 3/8" casing. A 5000# Double Ram BOP and 5000# Annular will be installed after running the 5 1/2" casing. Pressure test will be conducted prior to drilling out under all casing strings. BOP controls will be installed prior to drilling under surface casing and will remain in use until completion of drilling operations.

6. MUD PROGRAM:

0' – 400': Spud and drill 17" surface hole with fresh water to the depth of approximately 400'. Bentonite and paper will be used to help clean hole of cuttings and provide some sealing of excess water loss. Small amounts of caustic soda may be added to enhance bentonite properties. Mud wt.: 8.4 – 8.7 ppg., 29-30 vis. No water loss control necessary.

400' – 4800': Drill 7 7/8" hole from 400' to 4800', drill out with fresh water, and cut with brine for shale inhibition, mud –up prior to Queens or San Andres formation with salt gel, possible pre-hydrated gel and starch. A polymer may be added for extra water loss protection if deemed necessary. Mud wt.: 8.9 – 9.3 ppg., 29- 32 vis. Water loss <15 cc.

All necessary mud products for weight addition and fluid loss control will be on location at all times. Mud program subject to change due to hole conditions.

7. AUXILIARY EQUIPMENT:

- A. A Kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having the appropriate connections will be on the floor at all times.
- C. Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 5/8" casing shoe until 5 1/2" casing is run at total depth and rigging down operations have begun.

8. TESTING AND LOGGING PROGRAM:

- a. Testing: No DST's will be conducted.
- b. Open hole logs are planned to TD of vertical hole.
 - 1. Dual lateral log/gamma ray.
 - 2. Neutron-Density Log
- c. Mud logging will take place from 3500' to TD.
- d. Gyro survey will be run at total depth.

9. POTENTIAL HAZARDS:

No significant hazards are expected, no abnormal pressures or temperatures are expected. Expected pressure gradient will be estimated to be 4.22 psi/ft. Lost circulation may occur, no H₂S is expected, but the operator will utilize a 3rd party H₂S monitoring package from below surface pipe TD. If H₂S is encountered the operator will comply with the provisions of onshore oil and gas order No. 6. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well.

10. Surface and Mineral Ownership:

The minerals are owned by the U.S.A. and managed by the BLM, Roswell, NM (575). The lease is NMNM 108475. The surface ownership is private and owned by: Shannon Kizer, POB 56, Pep, NM, 88216, Ph: (575) 760-9100.

ICA Energy Operating, LLC anticipates drilling operations to begin around January 1, 2013 and completed in approximately 14 days. An additional 30 days will be needed for completion activities. Road and location construction will begin after the BLM has approved the ADP.

Additional Contacts regarding the H2S Contingency and Public Protection Plan:

EMERGENCY CONTACTS FOR PUBLIC PROTECTION PLAN

ICA Energy Operating, LLC

432-580-5722

Company Personnel

Tom Becker	Drilling Consultant	432-664-6712
Debbie Curry	ICA Energy	432-580-5722
Kenny Beaty	Field Operations	432-634-9933

HOBBS, NM

Ambulance	911
State Police	575-392-5588
City Police	575-397-9265
Sheriff's Office	575-396-3611
Fire Department	575-397-9308
N.M. O.C. D	575-393-6161
Hobbs BLM	575-393-3612

TATUM, NM

Ambulance	911
City Police	575-398-4444
Sheriff's Office	575-398-4444
Fire Department	575-398-5555

PORTALES, NM

Ambulance	911
State Police	575-356-5139
City Police	575-356-4404
Sheriff's Office	575-356-4408
Fire Department	575-356-4406

Roswell BLM	575-627-0272
Flight for Life (Lubbock, TX)	806-743-9911
Aerocare (Lubbock, TX)	806-747-8923
Med flight air Ambulance (Albuq NM)	505-842-4433
SB air Med Services (Albuq NM)	505-842-4949

Wild Well Control	281-784-4700 (24 Hour Number)
Boots & Coots IWC	800-256-9688 or 281-931-8884
Cudd Pressure Control	915-699-0139 or 915-563-3356
BJ Services	(Artesia NM) 575-746-3569
	(Hobbs NM) 575-392-5556

New Mexico Emergency Response Commission (Santa Fe)	505-476-9600
24 Hour	505-827-9126

ICA ENERGY OPERATING, LLC
ICA Energy 31 # 1
Sec. 31, T-8-S, R-34-E
ROOSEVELT COUNTY, NM

Equipment & Design:

ICA Energy Operating, LLC will use a closed loop system in the drilling of a new well. The following equipment will be on location:

- Superior 700-hp Drawworks w/ Detroit diesel series 2000 engine
- Lee C. Moore 127' 350,000# triple mast
- 12' gee bee box on box substructure
- 350-ton G-175 national block – 5 sheave w/ bj hook
- 1 1/8" drilling line
- 17 1/2" Ideco (type F) rotary table
- 2 – 1000-hp Gardner-Denver PZ9 triplex mud pumps w/ 1,000 – hp Caterpillar 3508 engines
- Power Plants: 350-kw Vennet w/ 375-hp Detroit
250-kw Vennet w/ 250-hp Detroit
- Well Control: Shaffer 11" 5,000# double ram blow-out preventer
Shaffer 11" 5,000# annular blow-out preventer
Koomey 84-gal. 6-bottle accumulator
- 10,000' 4-1/2" grade S-135, 16.60# drill pipe
- 20 – 6-1/2" drill collars
- 4 – 8" drill collars
- Varco kelly and pipe spinners
- 4 pipe racks
- 2 – 350-bbl mud pits w/ shale shaker & desanders
- 125-bbl mud mixing plant/tank
- 600-bbl water storage tank
- 10,000-gal. fuel tank
- Top dog house
- Crew change house
- Tool house
- 45' cat walk
- 20,000# John Deere forklift
- Tool pusher office/ sleeping quarters trailer

Operations & Maintenance:

During each day of operation, the rig's crew will inspect and closely monitor the fluids contained within the steel tanks and visually monitor any release that may occur. Should a release, spill or leak occur, the NMOCD District 1 office in Hobbs (575) 393-6161 will be notified, as required in NMOCD's rule 19.15.29.8.

Closure:

After completion of the new drill, fluids and solids will be hauled and disposed at Gandy Marley Disposal's location, permit number NM 01-0019. Secondary site will be Sundance Disposal, permit number NM 01-0003. The NMOCD C-144 application is attached.

**PECOS DISTRICT - RFO
CONDITIONS OF APPROVAL**

ICA Federal 31 No. 1
SHL: 660' FSL & 660' FEL
Sec. 31, T. 8 S., R. 34 E., NMPM
Roosevelt County, New Mexico
ICA Energy Operating LLC.
Mineral Lease # NM-108475

V. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS:

1. Call the Roswell Field Office, 2909 West Second St., Roswell, NM 88201. During or after office hours call (575) 627-0205. Engineer on call during office hours call (575) 627-0275 or after office hours call (575) 626-5749.
2. The BLM is to be notified a minimum of 24 hours in advance for a representative to witness:
 - a. Spudding well
 - b. Setting and/or Cementing of all casing strings
 - c. BOPE Tests
3. A Hydrogen Sulfide (H₂S) Drilling Operation Contingency Plan shall be activated prior to drilling into the San Andres formation. A copy of the plan shall be posted at the drilling site.
4. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
5. Include the API Number assigned to well by NMOCD on the subsequent report of setting the first casing string.
6. The operator will accurately measure the drilling rate in feet/min to set the base of the usable water protection casing string(s) opposite competent rock. The record of the drilling rate along with the caliper-gamma ray-neutron well log run to surface will be submitted to this office as well as all other logs run on the borehole 30 days from completion. **In the case of a horizontal well the gamma ray- neutron log will include the productive interval.**
7. Air, air-mist or fresh water and nontoxic drilling mud shall be used to drill to the base of the usable water protection casing string(s). Any polymers used will be water based and non-toxic.

B. CASING:

1. Deepest depth of usable water occurs at a depth under 200 feet determined by extrapolation of water well data. The operator will run approximately 13-3/8 inch casing string from surface to an approximate depth of 400 ft. opposite competent bedding. This will help protect the water up-hole.
 - a. If cement does not circulate to the surface, the Roswell Field Office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin or 500 pounds compression strength, whichever is greater. (This is to include the lead cement).
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compression strength, whichever is greater.
 - d. If cement falls back, remedial action will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **5-1/2** inch production casing is **sufficient to tie back 500 feet above the uppermost perforation in the pay zone.** If cement does not circulate, a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
3. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
4. All casing shall be new or reconditioned and tested casing and meet API standards for new casing. The use of reconditioned and tested casing shall be subject to approval by the authorized officer. Approval will be contingent upon the wall thickness of any casing being verified to be at least 87-1/2 per cent of the nominal wall thickness of new casing.

C. PRESSURE CONTROL:

1. Before drilling below the **13-3/8** inch surface casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve.
2. Before drilling below the **13-3/8** inch surface casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **2000** psi.
3. The BOPE shall be installed before drilling below the **13-3/8** inch surface casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

- a. The BLM Roswell Field office shall be notified a minimum of 24 hours in advance for a representative to witness the tests.
- b. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
- c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test will be submitted to the BLM Roswell Field Office at 2909 West Second Street, Roswell, New Mexico 88201.
- d. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- e. Testing must be done in a safe workman like manner. Hard line connections shall be required.

ICA Energy Operating, LLC
P.O. Box 2712
Odessa, Texas 79760

November 30, 2012

UNITED STATES DEPARTMENT OF INTERIOR

Bureau of Land Management
Roswell Field Office
2909 W. Second Street
Roswell, NM 88201-2019

RE: STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land, or portion thereof, as described below:

Lease Name: ICA Federal 31 #1

Lease Number: Federal Lease NM NM – 108475

Legal Description of Land: Sec. 31, T-8-S, R-34-E

Lease Covers: NM-108475 covers 160 acres in section 31, T-8-S, R-34-E, Roosevelt County, NM

Formations: Tertiary Alluvium

Bond Coverage: Blanket Statewide

BLM Bond File Number: NM2850

Surface Ownership: Shannon Kizer

Minerals Ownership: Federal

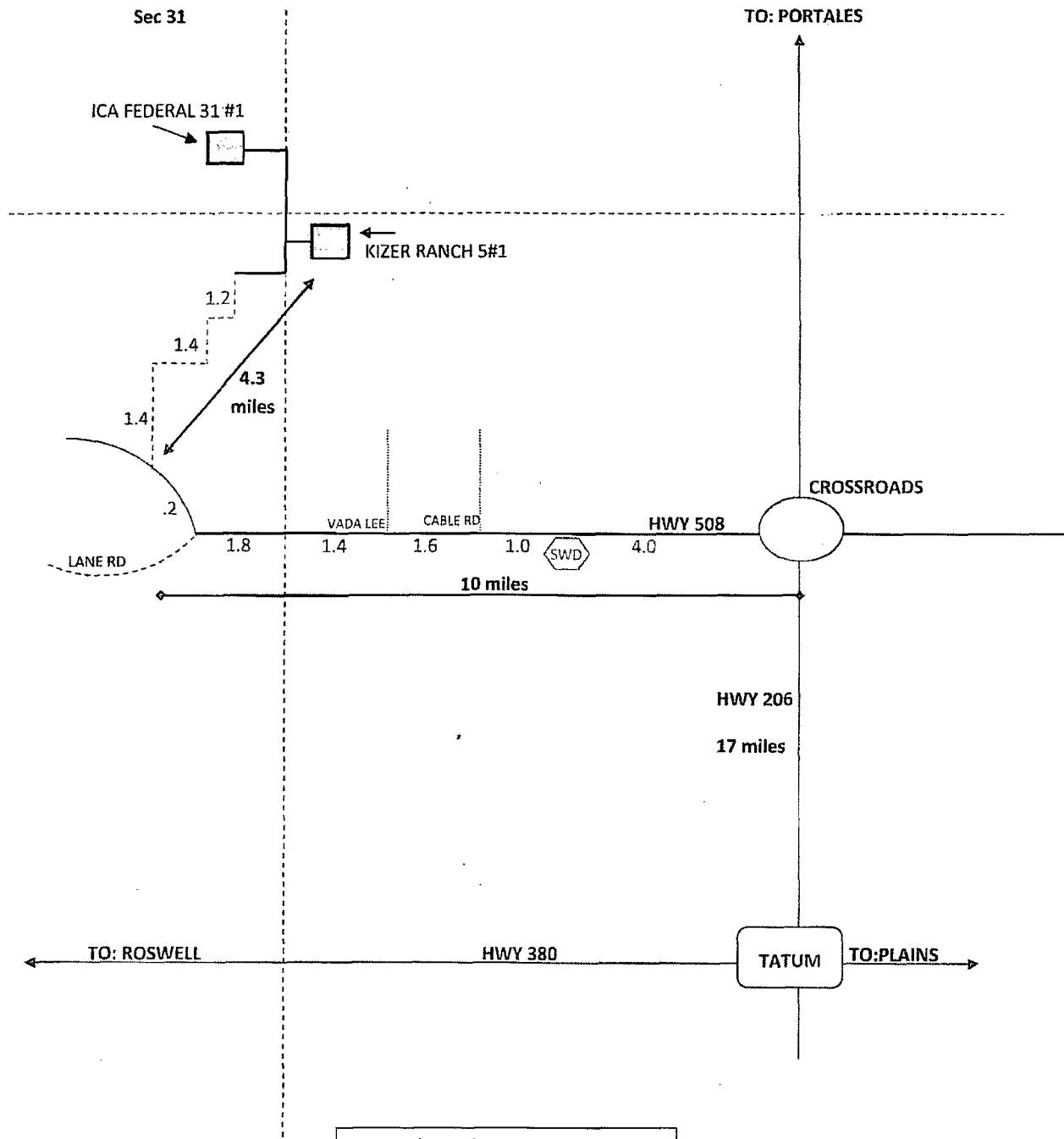


Curtis N. Leonard or Vernon D. Dyer
President/CEO Agent for ICA Energy

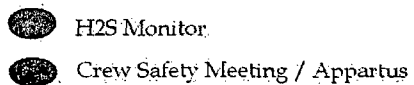
**DRILLING AND OPERATIONS PLAN
ICA ENERGY OPERATING, LLC**

ICA Energy Operating LLC

ICA Federal 31 # 1



Directions Map
ICA Federal 31 # 1
660'FEL & 660'FSL
SESE Sec 31, T8S, R34E



ICA Federal 31 # 1

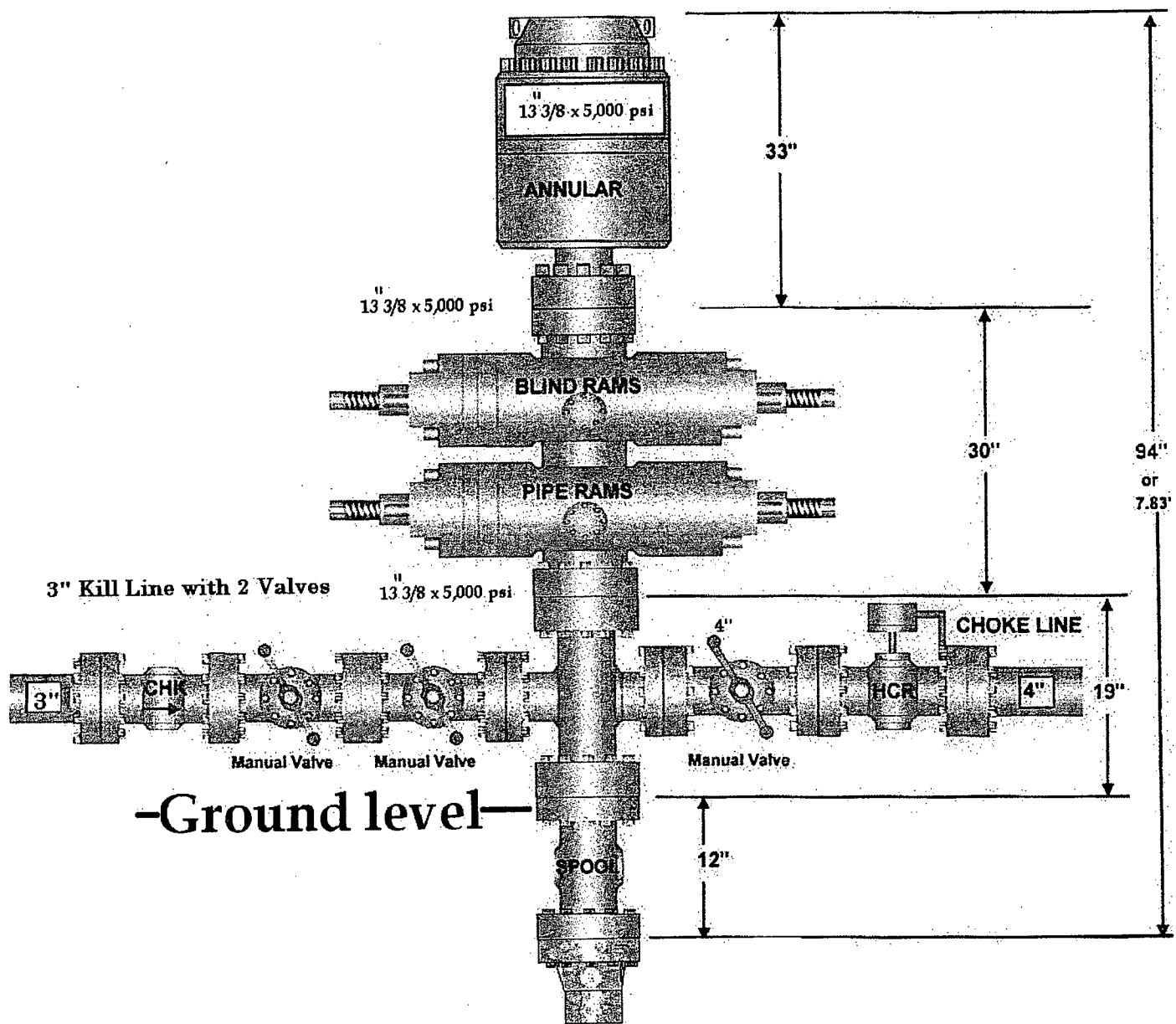


Exhibit 2.0
13" x 5M BOPE
stacking configuration

5,000 PSI CHOKE MANIFOLD

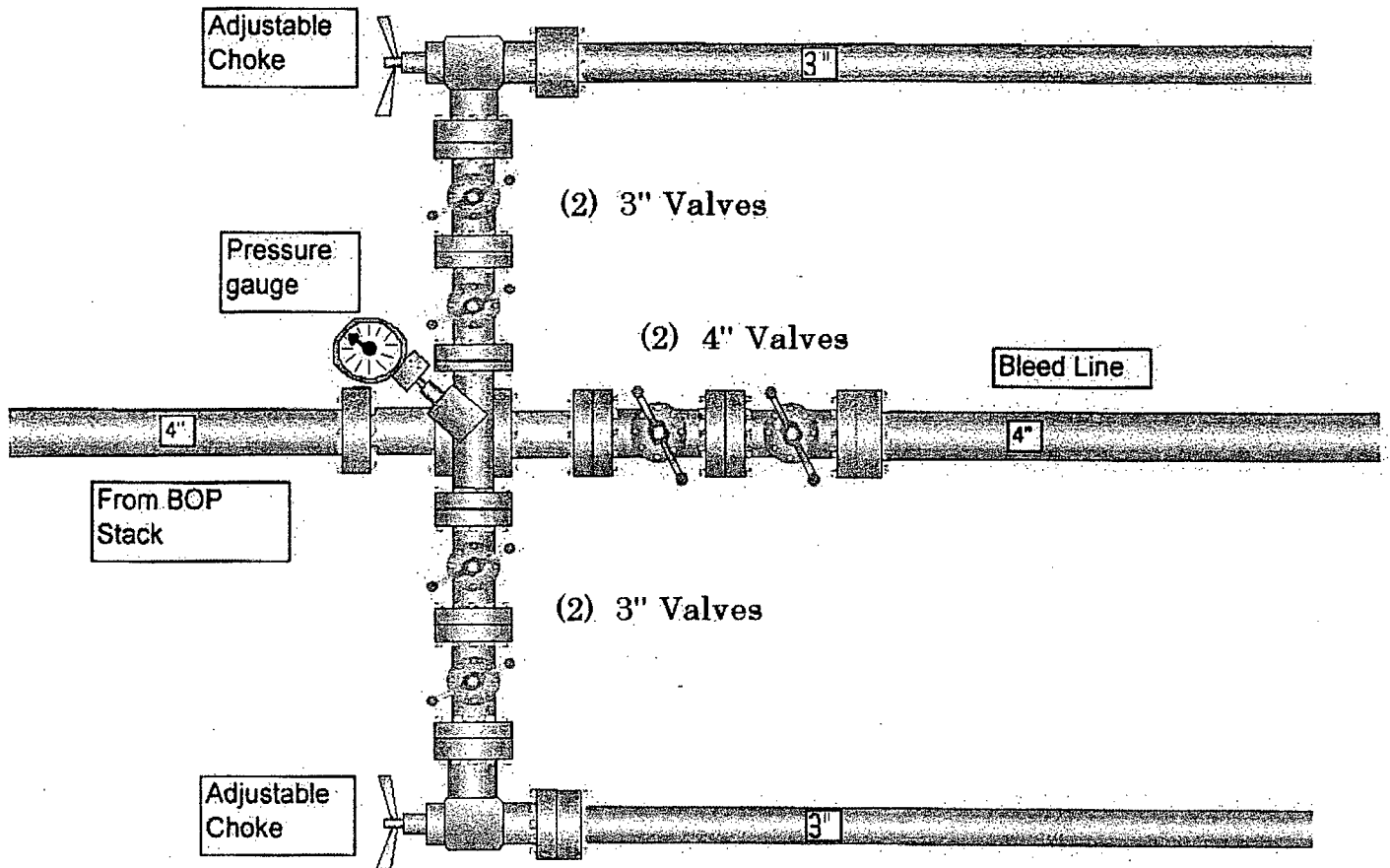
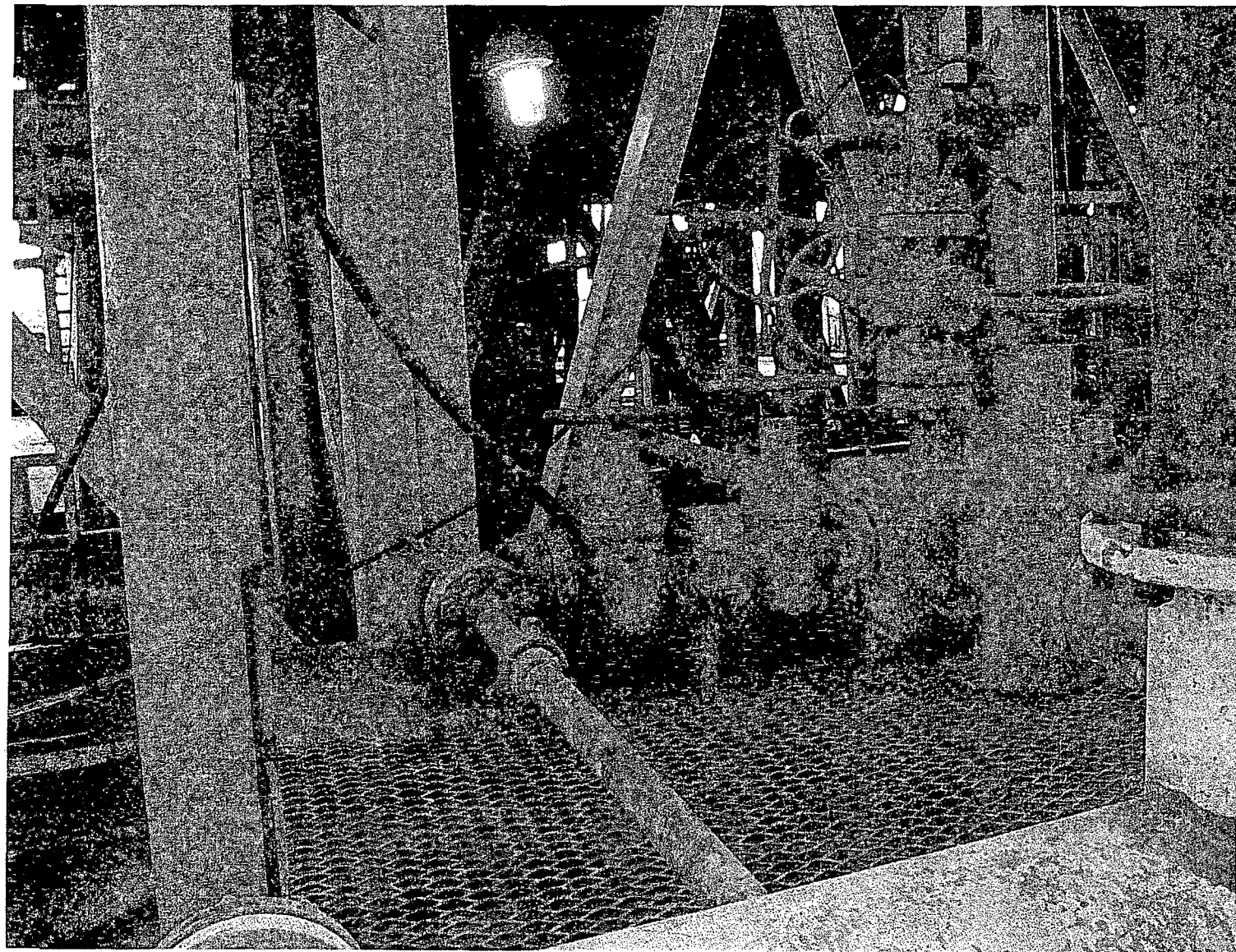


Exhibit 3.0
5,000 psi Choke Manifold



LOCATION/BATTERY DIAGRAM

ICA FEDERAL 31 #1

Section 31, T-8-S, R-34-E, Roosevelt County, NM

4309.3'

600'

4309.4'

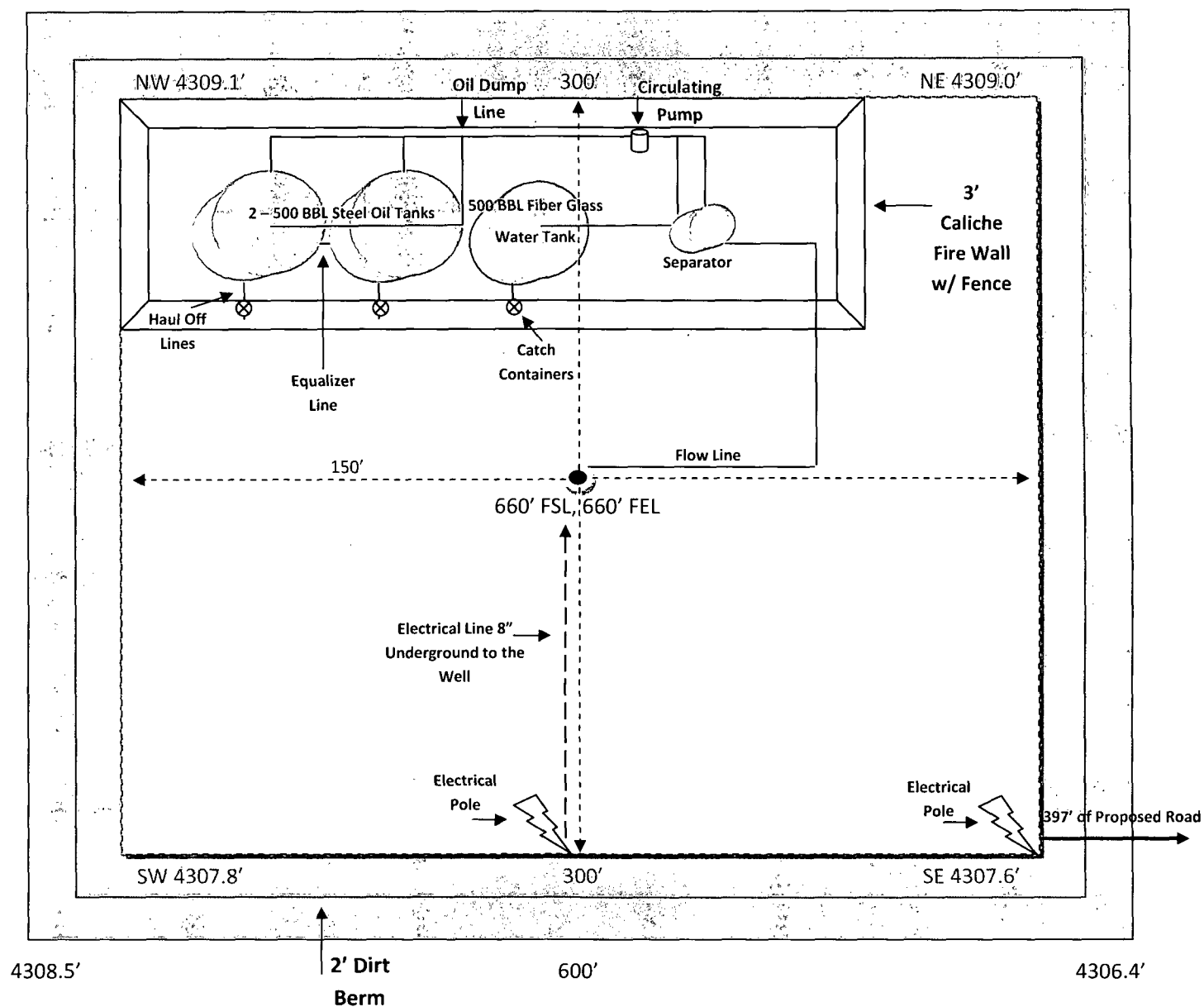


Exhibit 5.0
Production Facility
ICA Energy 31 #1
Sec. 31, T8S, R34E
Roosevelt County,
New Mexico