SECRETARY'S POTASH

ATS-07-481

Form 3160-3
(April 2004)

SEP 14 2007
OCD-ARTESIA

OCD-ARTESIA 1045

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM-22080

6. If Indian, Allotee or Tribe Name

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

7 If Unit or CA Agreement, Name and No.

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

8. Lease Name and Well No.
FEDERAL "1" # 4

2. Name of Operator REEF EXPLORATION, L.P.
(JOHN MULLOY 432-687-0323)

9. API Well No.
30-015-35793

3a. Address 508 WEST WALL SUITE 700
MIDLAND, TEXAS 79701

3b. Phone No. *(include area code)*
432-687-0320

10. Field and Pool, or Exploratory
LIVINGSTON RIDGE DELAWARE SO.

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface 660' FNL & 1980' FWL SECTION 1 T23S-R31E

At proposed prod. zone SAME

CARLSBAD CONTROLLED WATER BASIN

11. Sec., T. R. M. or Blk. and Survey or Area
SECTION 1 T23S-R31E

14. Distance in miles and direction from nearest town or post office*
Approximately 27 miles East Southeast of Carlsbad New Mexico

12. County or Parish
EDDY CO.

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
660'	1280	40

18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
1320'	8,500'	~~RLB-0010378~~ NMB000482

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3468' GL	WHEN APPROVED	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall 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 shall 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 authorized officer.

25. Signature	Name *(Printed Typed)*	Date
Joe T. Janica	Joe T. Janica	07/11/07

Title Agent

Approved by *(Signature)*	Name *(Printed Typed)*	Date
Jesse J Juen		9-7-07

Title For STATE DIRECTOR

Office NM STATE OFFICE

Application approval does not wa[rrant] to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, ar[e attached.]

APPROVAL FOR TWO YEARS

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

Title 18 U.S.C. Section 1001 and Ti[tle 43] States any false, fictitious or fraud[ulent statements or representations as to any matter within its] jurisdiction.

(Instructions on page 2)

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

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

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Frances Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
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
	39380	LIVINGSTON RIDGE-DELAWARE SOUTHEAST

Property Code	Property Name	Well Number
36733	FEDERAL "1"	4

OGRID No.	Operator Name	Elevation
246083	REEF EXPLORATION, L.P.	3468'

Surface Location

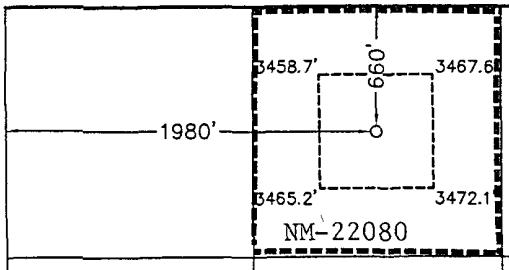
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	1	23 S	31 E		660	NORTH	1980	WEST	EDDY

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.
40			

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



Plane Coordinate
X = 685,366.7
Y = 487,484.6
Geodetic Coordinate
Lat. 32°20'19.62" N
Long. 103°43'59.35" W
(NAD '27)

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 hereon is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interestsn 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.

Signature Date

Joe T. Janica 07/11/07

Printed Name

Agent

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of surveys made by me or under my son and that the same is true and to the best of my belief

May 23, 2007

Date of Survey LVA

Signature & Seal of Professional Surveyor

W.O. Num. 2007-0580

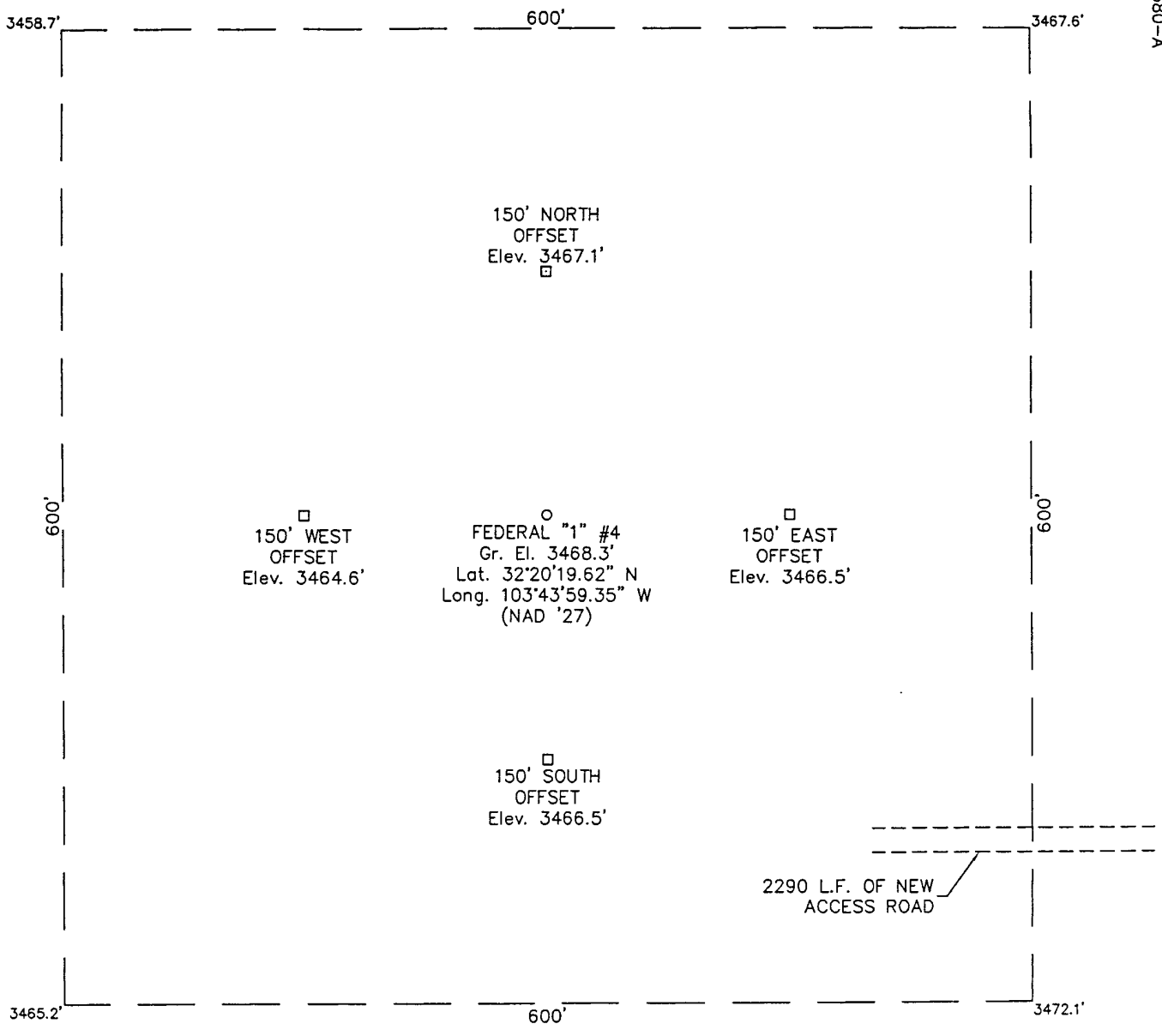
Certificate No. MACON McDONALD 12185

EXHIBIT "A"

SECTION 1, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.

EDDY COUNTY NEW MEXICO

L-2007-0580-A



DRIVING DIRECTIONS

FROM THE INTERSECTION OF STATE HIGHWAYS 18 AND 128 IN JAL, NM, GO NORTHWEST ON STATE HIGHWAY 128 APPROXIMATELY 35 MILES TO RED RD. ON NORTH (RIGHT) SIDE OF HIGHWAY, THEN GO NORTH ALONG RED RD. 5.0 MILES TO MILLS RANCH RD. ON EAST (RIGHT) SIDE OF ROAD, THEN GO EAST ALONG MILLS RANCH ROAD 0.6 MILE TO A LEASE ROAD ON NORTH (LEFT) SIDE OF ROAD, THEN GO NORTH ALONG SAID LEASE ROAD 0.2 MILE TO A WELL PAD, CONTINUE NORTH ANOTHER 0.2 MILE TO ANOTHER WELL PAD, THEN TURN EAST (RIGHT) AND GO 0.2 MILE TO A NORTH-SOUTH LEASE ROAD, THEN GO NORTH ALONG LEASE ROAD AT 0.1 MILE PASS A WELL PAD, CONTINUING IN ALL 0.3 MILE TO AN EXISTING WELL PAD AND THE PROPOSED FEDERAL "1" #1 LOCATION, THEN GO NORTH ALONG A PROPOSED ACCESS ROAD 0.2 MILE TO THE PROPOSED FEDERAL "1" #2 LOCATION, THEN GO WEST (LEFT) 0.2 MILE TO THE PROPOSED FEDERAL "1" #3 LOCATION, THEN CONTINUE WEST 0.2 MILE TO THE PROPOSED LOCATION.

100 0 100 200

Graphic Scale in Feet

REEF EXPLORATION, L.P.

FEDERAL "1" #4

Located 660' FNL & 1980' FWL, Section 1
Township 23 South, Range 31 East, N.M.P.M.
Eddy County, New Mexico

Drawn By: LVA	Date: May 31, 2007
Scale: 1"=100'	Field Book: 369 / 59-61
Revision Date:	Quadrangle: Bootleg Ridge
W.O. No: 2007-0580	Dwg. No.: L-2007-0580-A

WEST COMPANY of Midland, Inc.

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

APPLICATION TO DRILL

REEF EXPLORATION, L. P.
FEDERAL "1" #4
UNIT "C" SECTION 1
T23S-R31E EDDY CO. NM

In response to questions asked under Section II of Bulletin NTL-6, the following information on the above will is provided for your information.

1. LOCATION: 1980' FWL & 660' FNL SECTION 1 T23S-T31E EDDY CO. NM

2. ELEVATION ABOVE SEA LEVEL: 3468' GL

3. GEOLOGIC NAME OF SURFACE FORMATION: Quaternery Aeolian Deposits.

4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.

5. PROPOSED DRILLING DEPTH: 8500'

6. ESTIMATED TOPS OF GELOOGICAL MARKERS:

Rustler Anhydrite	764'	Cherry Canyon	5863'
Castile	1189'	Brushy Camyon	6678'
San Andres	5152'	Bone Spring	8375'

7. POSSIBLE MINERAL BEARING FORMATION:

Delaware Oil

8. CASING PROGRAM:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade	
26"	0-40'	20"	NA	NA	NA	Conductor	
17½"	0-860'	13 3/8"	48#	8-R	ST&C	H-40	New
11"	0-4500'	8 5/8"	32#	8-R	ST&C	J-55	New
7 7/8"	0-8500'	5½"	17# 15.5#	8-R	LT&C	J-55	New

see letter

See COA

Collapse 1.125 Burst 1.00 Tension 1.8 Body Yield 1.5

J. W. MULLOY ASSOCIATES, INC.
Engineering & Consulting
506 West Wall, Suite 500
Midland, Texas 79701
Phone (432) 687-0323
Fax (432) 686-7924

JOHN W. MULLOY
President

August 8, 2007

Wesley Ingram
BLM

Attached are casing designs that Reef Exploration, L.P. will utilize on the following wells:

Section 1, T-23-S, R-31-E	Federal "1" Well #1, 2, 3 & 4
Section 12, T-23-S, R-31-E	Federal "12" Well # 1 & 2

The intermediate casing will be:

4300' of 8 5/8" OD, 32 #/ft. J-55, ST&C New Casing
200' of 8 5/8" OD , 32 #/ft, ~~S-95~~ L&C New Casing
L S 65

The production casing will be:

8500' of 5 ½" OD 17 #/ft I80/L80 LTC R3 New Casing

Thank you for your assistance in this matter and should you have additional questions, please let us know.

Yours Truly,

J. W. Mulloy

APPLICATION TO DRILL

REEF EXPLORATION, L. P.
FEDERAL "1" #4
UNIT "C" SECTION 1
T23S-R31E EDDY CO. NM

9. CASING CEMENTING & SETTING DEPTHS:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Set 860'± 13 3/8" 48# H-40 ST&C casing. Cement with290 Sx. of Premium Plus cement 2% CaCl, + .125lbm/Sx. Poly-E-Flake, 12.6lb/Gal, yield 1.93 cuft/Sx., tili in with 545 Sx. of Class "C" Premium Plus cement + 2% CaCl yield 1.34cuft/Sx circulate cement to surface.
8 5/8"	Intermediate	Set 4500' of 8 5/8" 32# J-55 ST&C caing. Cement with 970 Sx. of interfill Class "C" cement + 1/8lb/Sx yield 2.45 cuft/Sx. Tail in with 300 Sx. of 94lb/Sx Premium PLus cement + 1% CaCl. yield 1.33 cuft/Sx. circulate cement to surface
5½"	Production	Set 8500' of 5½" 17 & 15.5# J-55 LT&C casing. Cement with 255 Sx. of Interfill cement + additives, yield 2.45 cuft/Sx. Tail in with 405 Sx. of 50/50 POZ premium cement +2% Gel + 5 lb salt/Sx. +.4% Halad(R)-9 return top of cement to at least 300' into Intermediate casing. Yield 1.31

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 Series 3000 PSI working pressure B.O.P. consisting of an annular bag type preventor, middle blind rams, and bottom pipe rams. The B.O.P. will be nipplled up on the 13 3/8" casing and tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period and the blind rams will be operated when the drill pipe is out of the hole on trips. Full opening stabbing valve and upper kelly cock will be available in case of need.Exhibit "E-1" shows a hydraulically operated closing unit amd a 3" 5000 PSI working pressure choke manifold with dual adjustable chokes. No abnormal pressures or temperatures are expected while drilling of this well.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-860'	8.6-8.9	32-36	NC	Fresh water Spud mud add paper to control seepage
860-4500'	10.0-10.1	28-29	NC	Brine water add paper to control seepage, and high viscosity sweeps to clean hole.
4500-8500'	9.0-9.2	28-31	NC to less than 20 cc	Fresh water going to cut brine, use high viscosity sweeps to clean hole.Starch to control water loss.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, and casing the viscosity and/or the water loss may have to be adjusted to meet these needs.

12. LOGGING, CORING, AND TESTING PROGRAM:

A. Open hole logs: Dual Laterolog, LDT, CNL, MSFL, Gamma Ray, Caliper from TD back to 8 5/8" casing shoe. Gamma Ray , CNL from 8 5/8" casing shoe back to Surface.

B. Mud logger on hole at 4600±' and remain on hole to TD.

C. No cores or DST"s are planned at this time.

13. POTENTIAL HAZARDS:

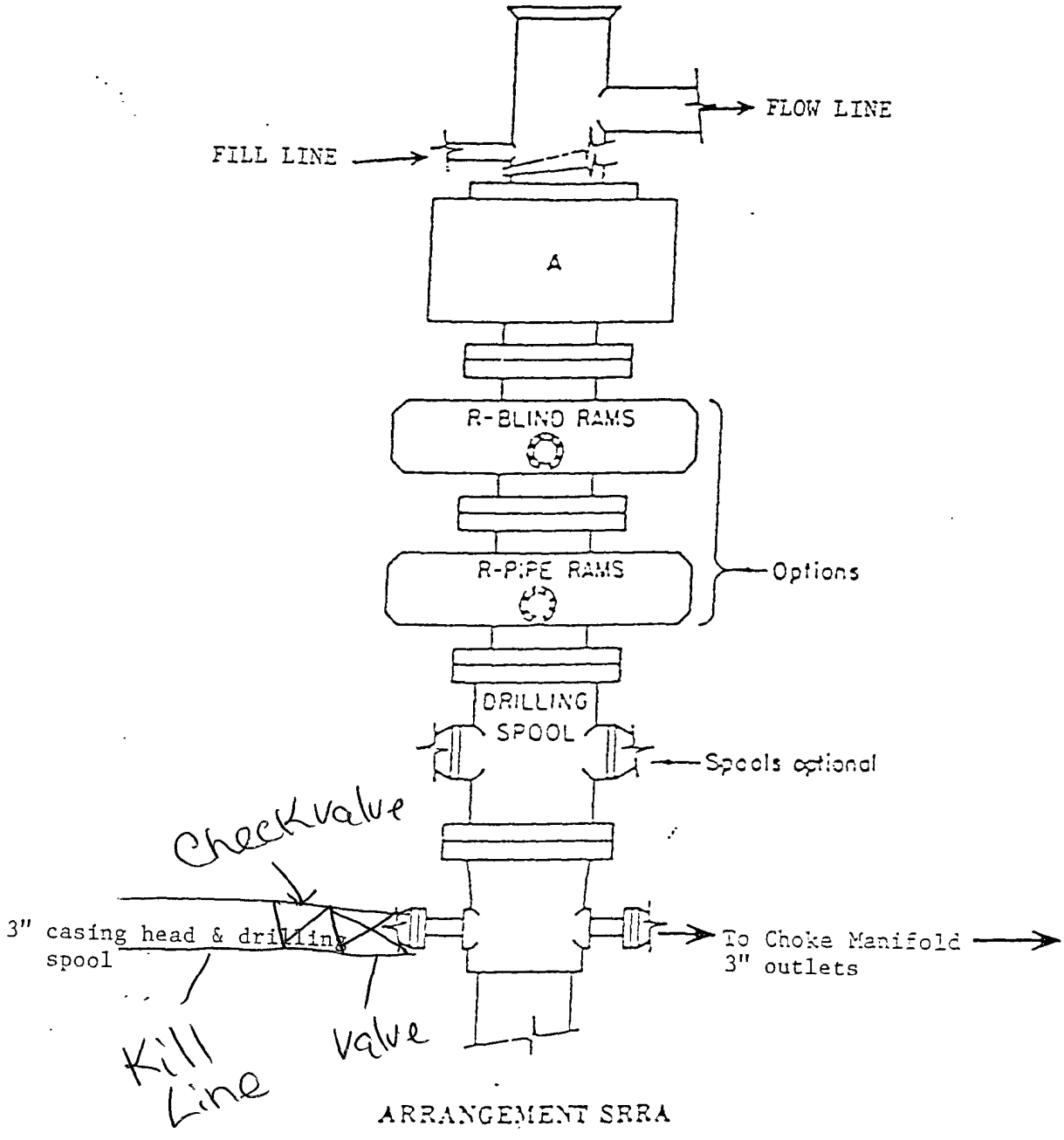
No abnormal pressures or temperatures are expected. There is no known presence of H^2S in this area. If H^2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3800± PSI, and Estimated BHT 180°+ .

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 40 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Delaware formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as an oil well.



ARRANGEMENT SRRA

900 Series
3000 PSI WP

EXHIBIT "E"
SKETCH OF B.O.P. TO BE USED ON

REEF EXPLORATION, L. P.
FEDERAL "1" #4
UNIT "C" SECTION 1
T23S-R31E EDDY CO. NM

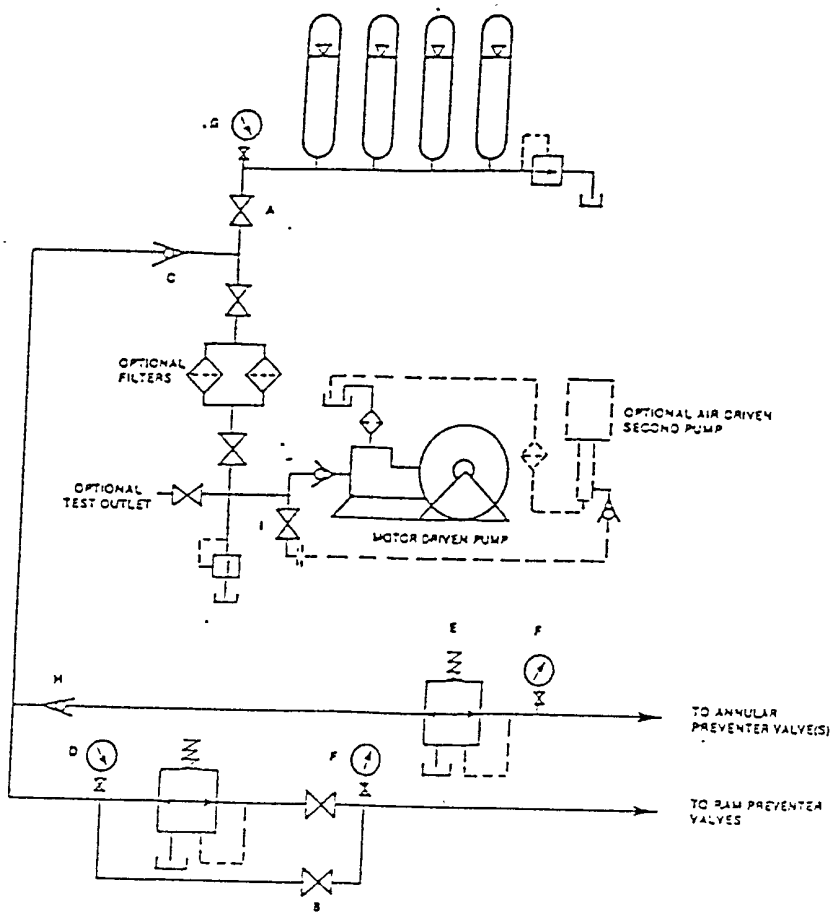


FIGURE K5-1. The schematic sketch of an accumulator system shows required and optional components.

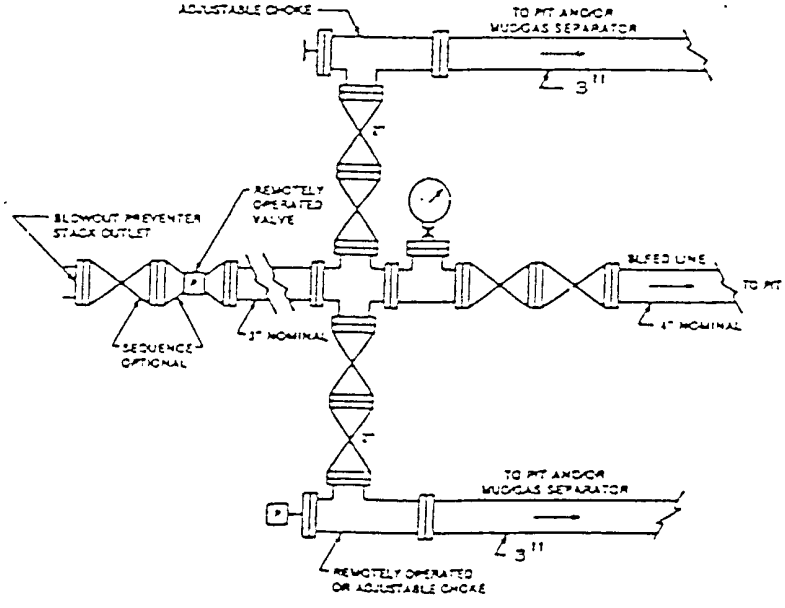


FIGURE K4-2. Typical choke manifold assembly for 5M rated working pressure service — surface installation.

EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

REEF EXPLORATION, L. P.
FEDERAL "1" #4
UNIT "C" SECTION 1
T23S-R31E EDDY CO. NM

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H_2S safety instructor to the following:

   A. Characteristics of H_2S
   B. Physical effects and hazzards
   C. Proper use of safety equipment and life support systems.
   D. Principle and operation of H_2S detectors, warning system and briefing areas.
   E. Evacuation procedure, routes and first aid.
   F. Proper use of 30 minute pressure demand air pack.

2. H_2S Detection and Alarm Systems

   A. H_2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.

3. Windsock and/or wind streamers

   A. Windsock at mudpit area should be high enough to be visible.
   B. Windsock at briefing area should be high enough to be visible.
   C. There should be a windsock at entrance to location.

4. Condition Flags and Signs

   A. Warning sign on access road to location.
   B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H_2S present in dangerous concentration. Only emergency personnel admitted to location.

5. Well control equipment

   A. See exhibit "E"

6. Communication

   A. While working under masks chalkboards will be used for communication.
   B. Hand signals will be used where chalk board is inappropriate.
   C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.

7. Drillstem Testing

   A. Exhausts will be watered.
   B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
   C. If location is near any dwelling a closed D.S.T. will be performed.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.

9. If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H_2S scavengers if necessary.

SURFACE USE PLAN

REEF EXPLORATION, L. P.
FEDERAL "1" #4
UNIT "C" SECTION 1
T23S-R31E EDDY CO. NM

1. EXISTING AND PROPOSED ROADS:

A. Exhibit "B" is a reporduction of a County General Hi-way map showing existing roads. Exhibit "C" is a reproduction of a USGS topographic map showing existing roads and and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. All new roads will be constructed to BLM specifications.

B. Exhibit "A" shows the proposed well site as staked.

C. Directions to location: From Hobbs New Mexico take U.S. Hi-way 62-180 West toward Carlsbad New Mexico go 39±mi to MP 67, turn Left (South) go 16.5 miles Turn Left (East) go .6+ miles, turn Left (North) follow lease road North .4+ miles turn Right (East) Turn North and .55 miles, turn Left (West) go .5 miles to location on the South side of road.

D. Exhibit "C" shows a topographic map showing proposed roads, flowlines, and powerlines.

2. PLANNED ACCESS ROADS: Approximately 1250' of new road will be constructed.

A. The access roads will be crowned and sitched to a 14' wide travel surface, within a 30' R-O-W.

B. Gradient of all roads will be less than 5%.

C. Turn-outs will be constructed where necessary.

D. If require new access roads will be surface with a minimum of 4-6" of caliche. this material will be obtained from a local source.

E. Center line for new roads will be flagged, road construction will be done as field conditions require.

F. Culverts will be placed in the access road as drainage conditions require. Roads will be constructed to use low water crossings for drainage as required by the topographic conditions.

3. LOCATION OF EXISTING WELLS WITHIN A ONE MILE RADIUS: EXHIBIT "A-1"

A. Water wells - none known

B. Disposal wells - none known

C. Drilling wells - none known

D. Producing wells - As shown on Exhibit "A-1"

E. Abandoned wells - As shown on Exhibit "A-1"

4. If on completion this well is a producer the operator will lay pipelines and construct powerlines along existing road R-O-W's or other existing R-O-W's. Exhibit "C" shows proposed roads , flowlines and powerlines.

5. LOCATION & TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the location access roads or piped to location in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction material will be obtained from the excavation of the drill site, if additional material is required it will be obtained from a local source and transported over the location access roads as shown on Exhibit "C".

7. METHODS OF HANDLING WASTE:

A. All trash, junk and other waste material will be contained in trash cages or trash bins in order to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary land fill.

B. Sewage from living quatersw will be drained into holding tanks and will be cleaned out periodically. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of well.

C. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for further drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a State approved disposal site. Later the pits will be broken out to speed drying. Water produced during completion will be stored in tanks and disposed of in State approved disposal site. Oil and condensate produced during completion will be put in storage tanks and sold.

D. Drill cuttings will be disposed of in resebev pits or if necessary will be taken to a State approved landfarm and disposed of properly.

E. Any remaining salts or mud additives will be collected by the supplier and to stock, this includes all broken bags.

8. ANCILLARY FACILITIES:

A. No camps or air strips will be constructed on location.

9. WELL SITE LAYOUT:

A. Exhibit "D" shows the proposed well site layout.

B. This Exhibit shows the location of reserve pit, sump pits, and living facilities.

C. Mud pits in the active circulating system will be steel pits and the reserve pits will be unlined unless subsurface conditions encontered during pit construction indicate that a plastic liner is required to contain lateral migration.

D. If needed the reserve pits will be lined with polyethelene. The pit liner will be no less than12 mils thick and the liner will be extended at least 3 feet over the top of the dikes and secured in place to keep edge of liner in place.

E. The reserve pit will be fenced on three sides and fenced with four strands of barbed wire during drilling and completionphases. The 4th side will be fenced after drilling operations are complete and the drilling rig has moved out.If the well is a producer the mud pits will remain fenced in until the mud has dried up enough to break out the pits and reclaimed according to BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE:

Rehabilitation of the location and reserve pits will be allowed to dry properly, fluids may be moved and disposed of in accordance with article 7-E as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any will be reshaped to the original configuration with provisions made to alleviate furture erosion. In case of the well completed as a producer the drilling pad will be necessary to construct production facilities. After the area has been shaped and contoured top soil from the spoil pile will be placed over the disturbed area to the extent possible so that revegetation procedures can be accomplished to comply with the BLM specifications.

If the well is a dry hole the pad and road area will be contoured to match the existing terrain. Top soil will be spread to the extent possible and revegetation will be carried out according to the BLM specifications.

Should the well be a producer the previously noted procedures will apply to those areas which are not required for production facilities.

11. OTHER GENERAL INFORMATION:

A. Topography consists of low lying sand dunes with a low relied f dip to the Westerly direction. Soil is tan sand with vegetation consisting of mesquite, snake weed, and native grasses.

B. The surface and the minerals are owned by The U.S Department ot Interior, and is administered by The Bureau of Land Management.

C. A block archaeological survey has been done on the area that will be impacted by this project.

D. There are no dwellings within two miles of this location.

E. Flowlines and powerlines will be constructed along existing roads and roads that will be constructed in conjunction with the drilling of these wells.

CERTIFICATION

I HEREBY CERTIFY THAT I OR PERSONS UNDER MY SUPERVISION HAVE INSPECTED THE PROPOSED DRILL SITE AND ACCESS ROAD ROUTES, THAT I AM FAMILIAR WITH THE CONDITIONS THAT CURRENTLY EXIST, AND THAT THE STATEMENTS MADE IN THIS PLAN ARE TO THE BEST OF MY KNOWLEDGE ARE TRUE AND CORRECT, AND THAT THE WORK ASSOCIATED WITH THE OPERATIONS PROPOSED HEREIN WILL BE PERFORMED BY Reef Exploration, L.P. , ITS CONTRACTORS OR ITS SUB-CONTRACTORS IS IN THE CONFORMITY WITH THIS PLAN AND THE TERMS AND THE CONDITIONS UNDER WHICH IT IS APPROVED. THIS STATEMENT IS SUBJECT TO THE PROVISIONS OF U.S.C. 1001 FOR THE FILING OF A FALSE STATEMENT.

OPERATORS REPRESENTIVEVES:

BEFORE CONSTRUCTION

JOE T. JANICA
TIERRA EXPLORATION, INC.
P.O. BOX 2188
HOBBS, NEW MEXICO 88241
OFFICE PHONE 505-391-8503
CELL PHONE 505-390-1598

DURING & AFTER CONSTRUCTION

J. W. MULLOY
REEF EXPLORATION, L. P.
508 WEST WALL STREET
SUITE 700
MIDLAND, TEXAS 79701-5028
OFFICE PHONE 432-687-0323

NAME; JOE T. JANICA Joe Janica

DATE ; 07/11/07

TITLE; AGENT

PRAIRIE CHICKENS

No surface use is allowed during the following time periods; unless otherwise specified, this stipulation does not apply to operation and maintenance of production facilities.

On the lands described below:

T. 23 S., R. 31 E.
Section 01: ALL

For the purpose of: Protecting Prairie Chickens:

Drilling for oil and gas, and 3-D geophysical exploration operations will not be allowed in Lesser Prairie Chicken Habitat during the period of March 15 through June 15, each year. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 a.m. and 9:00 a.m. The 3:00 a.m. and 9:00 a.m. restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during the period. Additionally, no new drilling will be allowed within up to 200 meters of leks know at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name:	**Reef Exploration, LP**
Well Name & No.	**Federal 1 # 4**
Location:	**660'FNL, 1980'FWL, SEC1, T23S, R31E, Eddy County, NM**
Lease:	**NM-22080**

I. DRILLING OPERATIONS REQUIREMENTS:

A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance for a representative to witness:

1. Spudding well
2. Setting and/or Cementing of all casing strings
3. BOPE tests

- Eddy County call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822

B. A Hydrogen Sulfide (H2S) Drilling Plan is N/A.

C. 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.

D. If floor controls are required, (3M or Greater) controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

II. CASING:

A. The **13.375** inch surface casing shall be set at **860** **feet** and cemented to the surface.

1. If cement does not circulate to the surface, the appropriate BLM 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.
2. Wait on cement (WOC) time for a primary cement job will be a minimum of 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compression strength, whichever is greater. (This is to include the lead cement)
3. 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.
4. If cement falls back, remedial action will be done prior to drilling out that string.

B. The minimum required fill of cement behind the **8.625** inch intermediate casing is circulating cement to the surface. If cement does not circulate see A.1 thru 4.

C. The minimum required fill of cement behind the **5.5** inch production casing is circulating cement to 300 feet above the shoe of the _8.625 inch_ intermediate casing.

D. 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 I joints of the drill pipe will be installed prior to continuing drilling operations.

III. PRESSURE CONTROL:

A. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2.

B. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

1. The tests shall be done by an independent service company.
2. The results of the test shall be reported to the appropriate BLM office.
3. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi in accordance with API RP 53, section 17. 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.

IV. Hazards:

1. Our geologist has indicated that there is potential for lost circulation in the Delaware and Bone Spring.
2. Our geologist has indicated that there is potential for flows in the Salado, Castile, Delaware and Bone Spring.

Engineering can be reached at 505-706-2779 for variances.

FWright 7/31/07