Form 3160-3
(July 1992)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NMLC 030187

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL ☒ DEEPEN ☐

7. UNIT AGREEMENT NAME:

b. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ OTHER — SINGLE ZONE ☐ MULTIPLE ZONE ☐

8. FARM OR LEASE NAME, WELL NO.: C. E. Lamunyon #69

2. NAME OF OPERATOR: Arch Petroleum Inc.

9. API WELL NO.: 30-025-34359

3. ADDRESS AND TELEPHONE NO.: 10 Desta Drive, Suite 420E Midland, Texas 79705

10. FIELD AND POOL, OR WILDCAT: Teagua (Ellenburger)

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: Unit A, 536' FNL and 502' FEL
At proposed prod. zone

Potash

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 21, T23S, R37E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 10,75 miles South of Eunice

12. COUNTY OR PARISH: Lea

13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
502'	1520	40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
185'	10,500'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3290' GR

LEA COUNTY CONTROLLED WATER BASIN

22. APPROX. DATE WORK WILL START*: 04/06/98

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	H-40 13-3/8"	40#	350'	WITNESS 300 sx Class C
11"	J-55, 8-5/8"	24# & 32#	3000'	WITNESS 655 sx Class C
7-7/8"	N80 & K55	17#	10,000	1190 sx Class H

Mud Program:

0-350' Fresh Native 8.6-9.6 ppg, Vis 32-38,
350-3000' Brine/Native, 9.9-10.2 ppg, Vis 28-29
3000-8300' Fresh Water, 8.6-9.6 ppg, Vis 32-38
8300-10,500', Gel/Polymer, 8.6-9.6 ppg, Vis 35-45

See attached BOP drawing for psi system

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

IN ABOVE SPACE DESCRIBE PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED Robin S. McCarley TITLE Technical Administrator DATE 03/06/98

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

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:

APPROVED BY _____ TITLE Acting ADM. MINERALS DATE 4-13-98

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

Arch Petroleum, Inc.
Drilling Prognosis
C. E. LAMUNYON #69

Operator: Arch Petroleum , Inc.
Surface Location: See Plat
Field: Teague (Ellenburber)
Elevations: KB: GL: 3290'
Proposed TD: 10,500'
CO & State: Lea, NM

Well: C. E. Lamunyon #69

Projected Formation: Ellenburger

Permit Pending
API # Pending

Company Representatives: Rex Jasper - VP Operations
Office # 915-685-1961
Home # 915-694-1839
Cellular # 915-556-7895
Fax # 915-685-1232

Wellsite Supervisor: Lyle Kinsey
Home # 915-367-0632
Mobil # 915-557-6469

Directions to well: See Survey Plat

Drilling Contractor: **To be determined**

Location Size: 140' E x 150' W x 130'S x 70'± N
Reserve Pit Size: 150' x 150' x 5' lined with inner Brine water pit 45' x 45' x 5'

Requirements

BOPE: 3M-10"-S Rd- hyd. with choke manifold and kill line. The kill line will be 2" I.D with a minimum burst pressure rating of 3000 psi and will be a minimum of 75' away from the BOP assembly. Test BOP on NU on 13-3/8" to 1000 psi and on NU on 8-5/8" to 3000/250 psi.

Pit Liner : As required by BLM, NMOCD, & Landowners

Notification : 24 Hrs. notice to BLM & State prior to spud.

Drilling Times and Samples: See Geological Letter of Instruction

Coring and DST Program: See Geological Letter of Instruction

Pipe Inspection Program: Surface, Intermediate, and Production casing will be full length drifted and have the threads cleaned and visually inspected on location. If used pipe is run for production string it will have an EMI inspection back to new specs.

Formation Tops: See Geological Letter of Instruction.

Logging Program: See Geological Letter of Instruction.

Directional Control: Inclination surveys will be taken as required by the State. Max angle allowed is 5° and max dogleg severity allowed is 1 °/100'. At 7500' a Gyroscope Survey will be run. The hole has a target center located 100' south and 100' west of the surface location with a 125' target radius.

Hole Program

Surface Hole: Drill a 17-1/2" hole to +/- 350' w/ fresh water & sweeps Drill hole to fit casing.

Intermediate Hole: Drill an 11" hole to +/- 3000' w/ 10# Brine/Native w/Salt Gel Sweeps. Drill hole to fit casing.

Production Hole: Drill a 7-7/8" hole to top of Ellenburger Dolomite 3000-8300' w/FW. 8300-10,500' w/Gel/Polymer, 34-45 Sec Viscosity w/10 cc or less fluid loss. Set casing on top of Ellenburger and drill in w/Workover Rig.

Mud Program

Type	Depth	Mud weight	Viscosity	Water loss
Fresh Native	0'-350'+/-	8.6-9.6	32-38	N/C
Brine/Native	350-3000'	9.9-10.2	28-29	N/C
Fresh Water	3000'-8300'	8.6-9.6	32-38	N/C
Gel/Polymer	8300-10,500'	8.6-9.6	35-45	<10 CC

Refer to attached mud program. Mud engineer will be responsible for inventory control. Only float loads of mud will be delivered. Set a 500 bbl. frac tank on loc. for fresh water storage.

Cementing Program

Surface Casing: See attached program. Circulate to surface. Use thread lock on bottom 2 joints and on float equipment. Strap and weld mill end of collars on bottom 2 joints. Run Texas pattern guide shoe and baffle plate. Run centralizers on shoe joint and every 4th joint. Run cut off joint (if available) plus one joint for shoe joint and SOW guide shoe. Use DC clamp on first few joints of casing until there is enough weight to set the slips.

Lead Slurry: 150 Sx Class C w/ 4% gel, 2% CaCl2, and ¼% Celloflake
Tail Slurry: 150 Sx Class C w/ 2% CaCl2

Intermediate Casing: See attached program. Circulate to surface. Use thread lock on bottom 2 joints and on float equipment. Strap and weld mill end of collars on bottom 2 joints. Run guide shoe and insert flapper valve. Run centralizers on shoe joint and every 2nd joint (6 total). Run cut off joint (if available) plus one joint for shoe joint and SOW guide shoe. Use DC clamp on first few joints of casing until there is enough weight to set the slips.

Lead Slurry: 505 Sx Class C w/ 50:50 Poz w/10% Gel and 5% NaCl and ¼% Celloflake
Tail Slurry: 150 Sx Class C w/ 2% CaCl2

Production Casing: See attached program. Calculate cement to fill into 8-5/8". Use thread lock on shoe joint and float equipment. Run guide shoe and float collar. (Consider Packer Float Shoe). Run DV Tool @ 7000'. Use centralizers on every other joint thru the Pay Zone. Remove mill varnish through Pay Zone. Run 5 cable wipers every 15' @ top and bottom of all pay zones. Run cut off joint (if available) plus one joint for shoe joint and SOW guide shoe. Use DC clamp on first few joints of casing until there is enough weight to set the slips. Break circulation at base of intermediate casing and every 2000' thereafter while running casing. Keep pipe moving while circulating. Displace plug with 2% KCl water. Adjust cement slurry per hole caliper. Run 500 gals mud flush ahead of cmt. Run marker joint or short joint @ approx. 5300' and 9000'.

Reciprocate csg while cementing first stage.

Stage 1: 440 Sx Class H 50:50 Pozmix w/ 2% gel & 3% NaCl
Stage 2: 750 Sx Class H 50:50 Pozmix w/ 2% gel & 3% NaCl & 0.4% FL-62

Casing Program

Depth	Hole Size	Casing Size	Weight	Grade	Joint	Cond.	String
0'-350'	17-1/2"	13-3/8"	40#	H-40	STC	Used	Surface
0-3000'	11"	8-5/8"	24# & 32#	J-55	STC	Used	Intermediate
0'-1500'	7-7/8"	5-1/2"	17#	N80	LTC	WB	Production
1500'-8500'	7-7/8"	5-1/2"	17#	K55	LTC	WB	Production
8500'-10000'	7-7/8"	5-1/2"	17#	N80	LTC	WB	Production

Vendors

Cement & Stimulation: BJ Services - Hobbs 505-392-5556
Drilling Mud: MI Drilling Fluids
Supply Store: Continental Emsco -
Logging:
Surveyor: Ron Eidson – West Engineering
Float Equipment: Weatherford Gemoco 505-392-8139
Casing Crews:
Casing Services: Chaparral Services 505-394-2546
Fresh Water & Brine: Chaparrel Services 505-394-2546
Dirt Work: Rowland 505-394-2581
Wellheads; United Wellhead Service 915-686-8002
Casing: Inventory
Tubing: Inventory
H2S Equipt.: Callaway Safety 505-393-2973
BLM: 505-393-3612
Port-a-potty: Sani-Tech 505-393-2351 / 800550-8355
Pit Liner & Trash trailer: Dubose Drilling 915-366-9977
Fork Lift: Gold Star 505-394-2504
Welder: Ralph's Welding 505-369-9280

MULTI-POINT SURFACE USE PLAN

C. E. LAMUNYON #69
Arch Petroleum Inc.
Section 21, T23S, R37E
Lea County, New Mexico

1. Existing Roads:

To reach the proposed location, go 10 miles south of Eunice on Highway #18. Just south of the old abandoned Carbon Black Plant, turn east and go through cattle guard for approximately ½ mile. Continue on new lease road that heads generally east. This will take you into the C. E. Lamunyon lease. See Exhibit A for individual well locations and elevations. See Exhibit B for the nearest wells to the proposed locations.

2. Planned Access Roads:

The location will require between 40 feet of new access road to the location. The required access road will be constructed from the existing lease road to the new location from the shortest direction to minimize the amount of new road construction. The road will be crowned and ditched and constructed of 6" of rolled and compacted caliche. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns. See Exhibit C for the vicinity map. See Exhibit D with the proposed access road marked.

3. Location of Existing Wells:

Exhibit F shows all existing wells within a one-mile radius of this proposed well. Listed below is the proposed well and the nearest existing well to it:

Proposed Well	Nearest Existing Well	Distance	Direction
C.E. Lamunyon #69	C.E. Lamunyon #42	185'	NW

4. Location of Production Facilities:

Arch Petroleum Inc. operates two separate Blinebry production facilities on this lease. This well will be produced into Battery #2. Battery #2 is located in unit letter F of Section 21.

In the event of production a steel flow line will be laid from well #69 to Battery #2. The new flow line will be approximately 2932' long.

To protect livestock and wildlife, the reserve pit will be fenced. Upon completion of drilling, the location and surrounding area will be cleared of all debris. All trash will be disposed in an enclosed trash trailer and hauled off.

5. Water Supply:

Water for drilling and completion operations will be purchased from a supplier and transported to the wellsite by truck.

6. Source of Construction Materials:

All caliche required for construction of the drill pad and the proposed new access road will be obtained from a caliche pit owned by the surface owner in the area. Construction contractor to pay caliche royalty to the landowner.

7. Methods of Handling Waste Disposal:

A. The drill cuttings, fluids, and completion fluids will be placed in the reserve pit. The reserve pit will be fenced on three sides away from the pad during drilling. The fence will be completed on the fourth side as soon as the rig moves out. The reserve pit will be allowed to dry and materials remaining in the reserve pit buried. The reserve pit will be backfilled, leveled, and contoured so as to prevent any materials being carried into the watershed.

   Upon completion, the pad will be leveled, contoured, and reseeded with the appropriate seed mixture.

B. All garbage and trash will be placed in a covered trash trailer. This trailer will be emptied in an approved landfill as needed during the drilling operations.

C. Chemical toilets will be provided and maintained during drilling operations. See Exhibit E for location.

8. Ancillary Facilities:

No ancillary facilities are planned.

9. Well Site Layout:

Location of drilling equipment, rig orientation, and access road is shown on Exhibit F. The reserve pit will be lined with plastic to prevent liquids from soaking into the surrounding soil.

10. Plans for Restoration of the Surface:

When the well is abandoned, the location and access road will be cleaned and restored to the original topographical contours as much as possible. The area will be reseeded with the appropriate seed mixture.

If the well is productive, areas not used in production will be contoured and seeded with stipulated seed mixture. Production equipment will be painted the color designated by the surface managing agency.

11. Surface Ownership:

C.E. Lamunyon #69

Surface damages for the location, road, flow line, and power line have been settled with the landowner.

12. Lessee's or Operators Representative:

A. Rex Jasper
Arch Petroleum Inc.
10 Desta Drive, Suite 420E
Midland, Texas 79705
Phone: (915) 685-1961

13. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that the statements made in this plan are to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Arch Petroleum Inc., and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

A. Rex Jasper
Vice-President of Operations

Attachments

ARCH PETROLEUM INC.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

I. Hydrogen Sulfide Training

All personnel, whether regularly assigned, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on the well:

1. The hazards and characteristics of hydrogen sulfide (H2S).

2. The proper use and maintenance of personal protective equipment and life support systems.

3. The proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.

4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.

2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.

3. The contents and requirements of the H2S Drilling Operations Plan and the Public Protection Plan.

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

II. H2S SAFETY EQUIPMENT AND SYSTEMS

Note: All safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S.

1. Well Control Equipment:

    A. Flare line with electronic igniter or continuous pilot.

    B. Choke manifold with a minimum of one remote choke.

    C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

    D. Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head, and flare gun with flares.

2. Protective equipment for essential personnel:

    A. Mark II Suviveair 30-minute units located in the dog house and at briefing areas, as indicated on well site diagram.

3. H2S detection and monitoring equipment:

    A. 2 portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 PPM are reached.

4. Visual warning systems:

    A. Wind direction indicators as shown on well site diagram.

    B. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate.

5. Mud Program:

    A. The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

6. Metallurgy:

    A. All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

    B. All elastomers used for packing and seals shall be H2S trim.

7. Communication:

    A. Radio communications in company vehicles including cellular telephone and 2-way radio.

    B. Land Line (telephone) communications at field office.

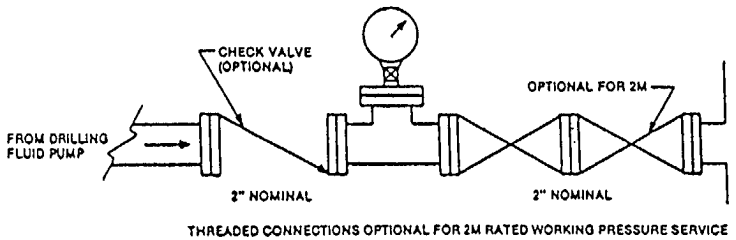
8. Well Testing:

    A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill stem testing operations conducted in an H2S environment will use the closed chamber method of testing.

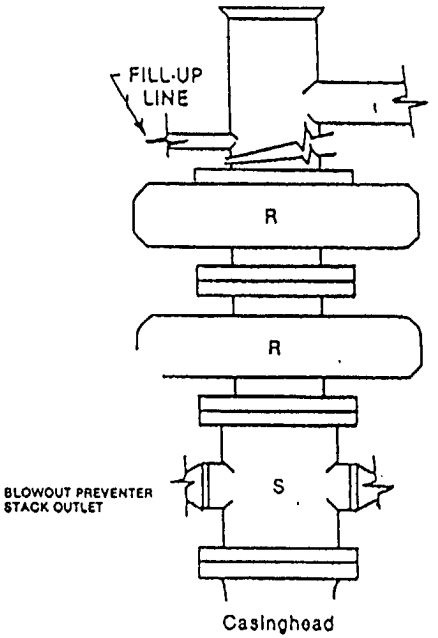
BOP SCHEMATIC

IADC Class 3

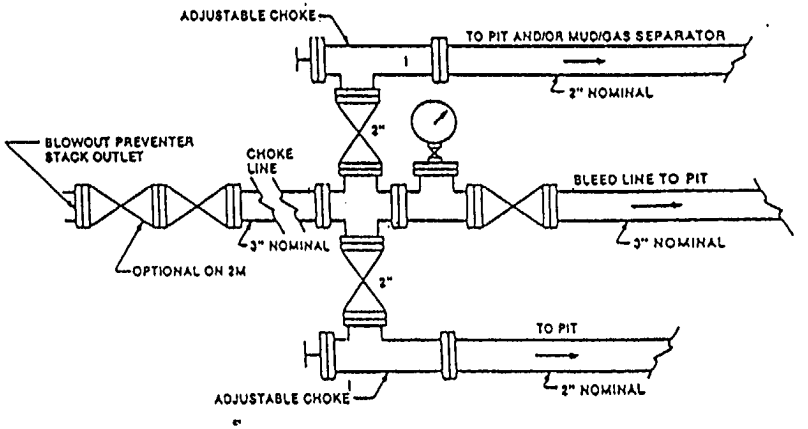
3M (3000 psi) Working Pressure



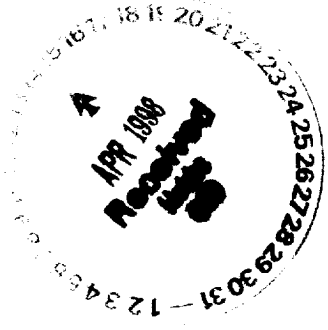
Typical Kill Line



BOP Stack



Choke Manifold


APR 1998
Received

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

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

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-34359	58520	Teague (Ellenburger)

Property Code	Property Name	Well Number
014898	LAMUNYON	69

OGRID No.	Operator Name	Elevation
000962	ARCH PETROLEUM, INC.	3290'

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	21	23 S	37 E		536	NORTH	502	EAST	LEA

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

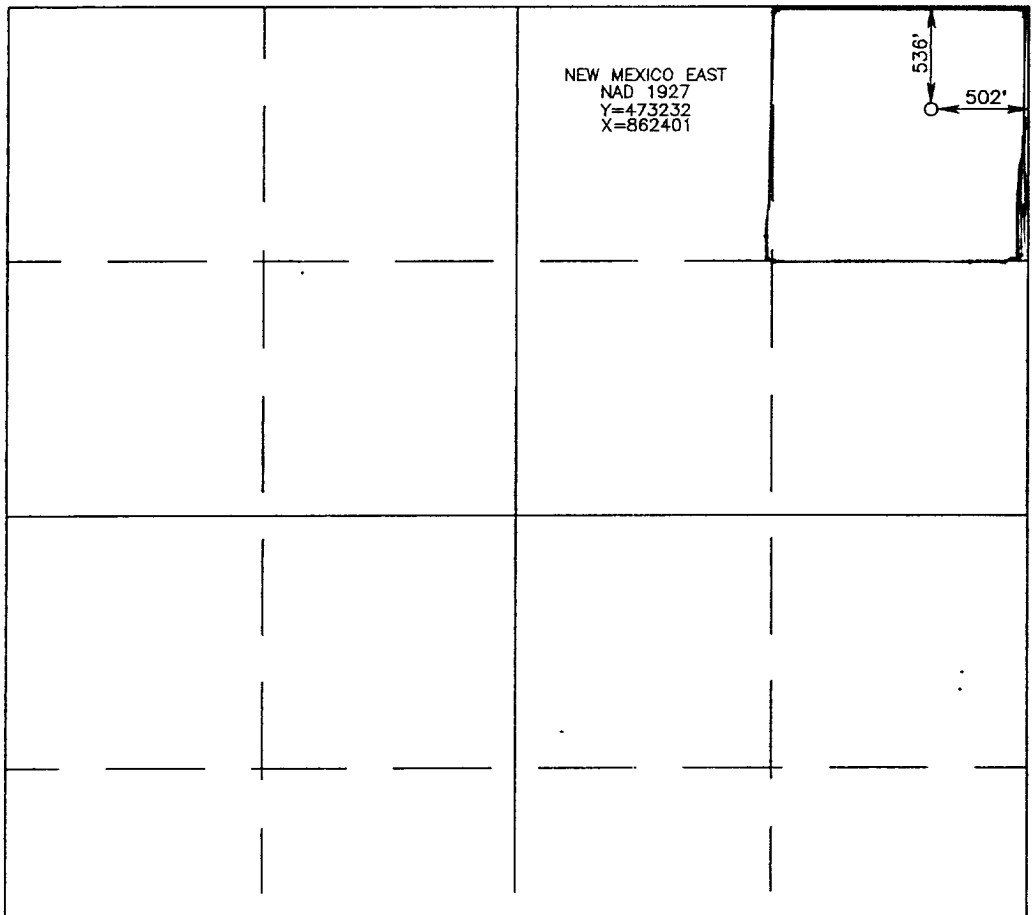


EXHIBIT A

OPERATOR CERTIFICATION

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

Robin S. McCarley
Signature

Robin S. McCarley
Printed Name

Technical Administrator
Title

03/06/98
Date

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.

FEBRUARY 19, 1998
Date Surveyed CDG

Signature & Seal of Professional Surveyor

RONALD J. EIDSON
NEW MEXICO
3239
REGISTERED PROFESSIONAL SURVEYOR

3-03-98

98-11-0270

Certificate No. RONALD J. EIDSON 3239
GARY L. EIDSON 12641

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

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

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-34359	58520	Teague (Ellenburger)

Property Code	Property Name	Well Number
014898	LAMUNYON	69

OGRID No.	Operator Name	Elevation
000962	ARCH PETROLEUM, INC.	3290'

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	21	23 S	37 E		536	NORTH	502	EAST	LEA

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			

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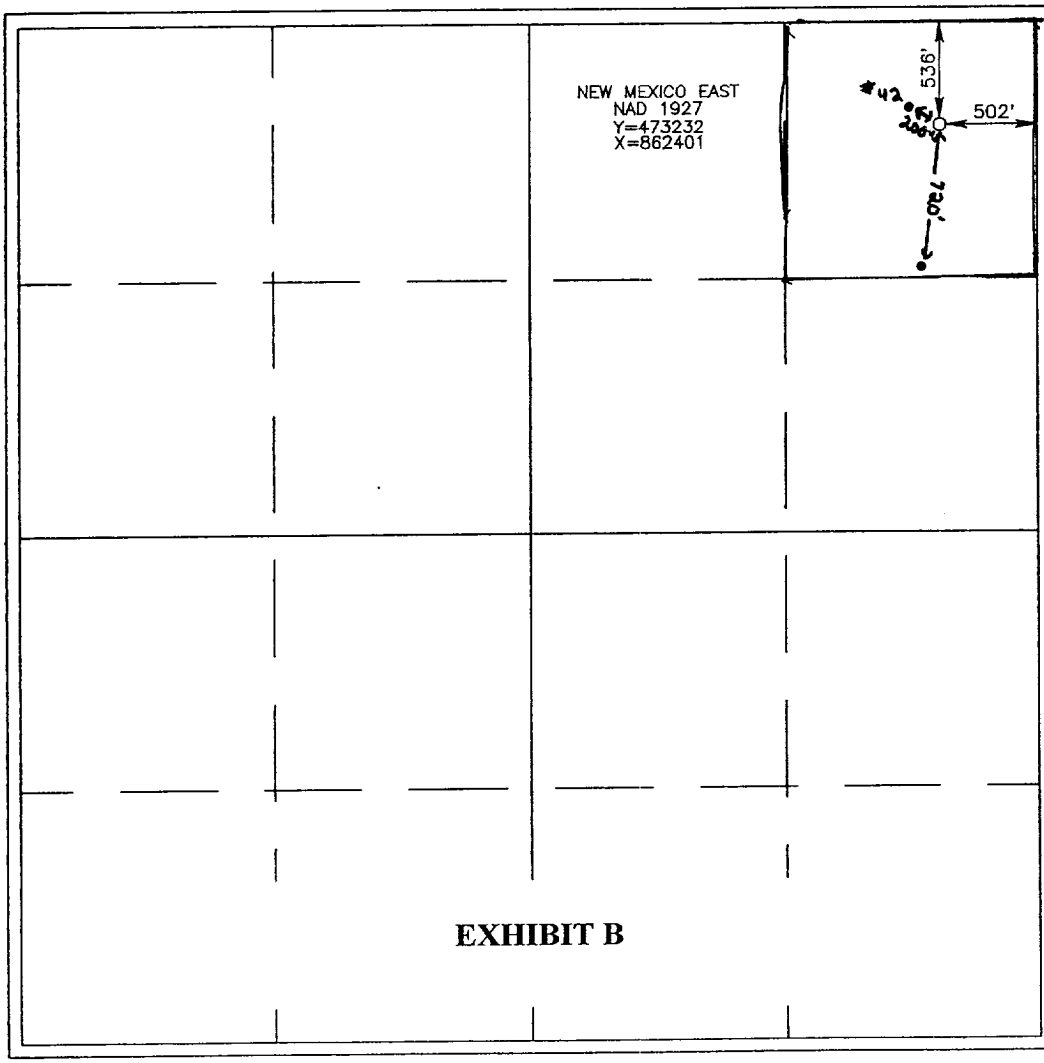


EXHIBIT B

OPERATOR CERTIFICATION

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

Robin S. McCarley
Signature

Robin S. McCarley
Printed Name

Technical Administrator
Title

03/06//98
Date

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.

FEBRUARY 19, 1998

Date Surveyed CDG

Signature & Seal of Professional Surveyor

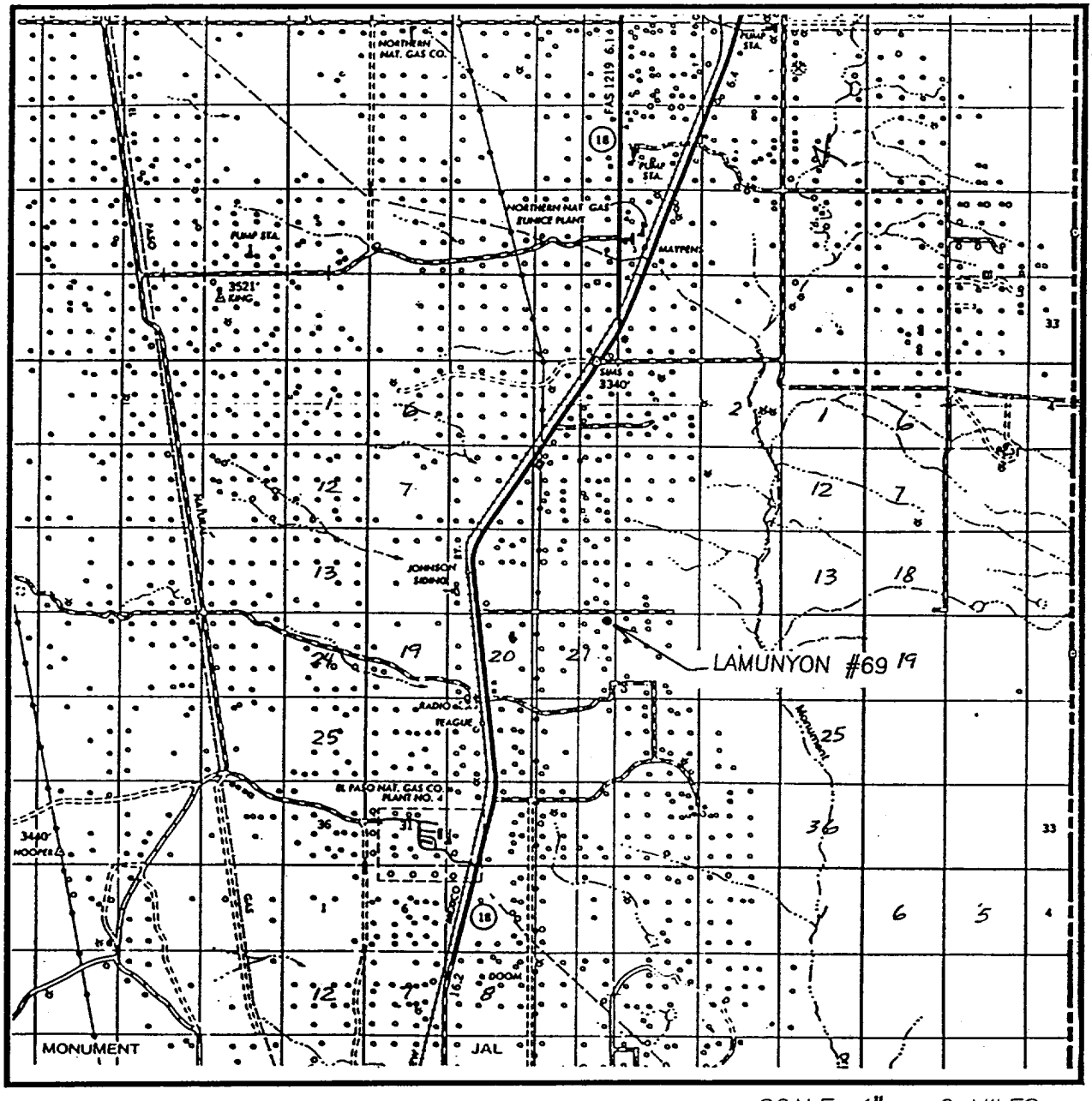
RONALD J. EIDSON
NEW MEXICO
3239
REGISTERED PROFESSIONAL SURVEYOR

3-03-98

98-11-0270

Certificate No. RONALD J. EIDSON 3239
GARY L. EIDSON 12641

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 21 TWP. 23-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 536' FNL & 502' FEL

ELEVATION 3290'

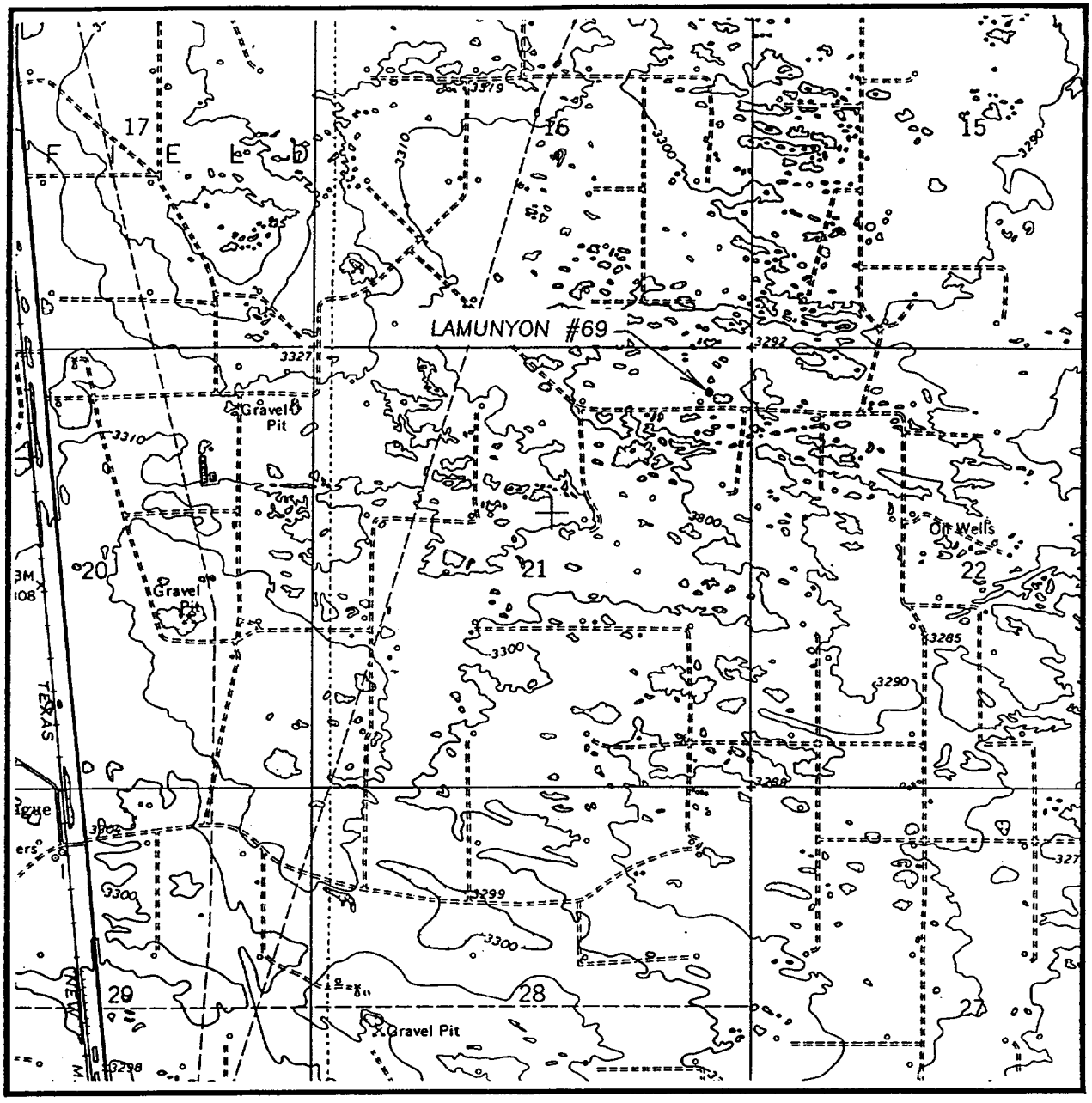
OPERATOR ARCH PETROLEUM, INC.

LEASE LAMUNYON

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO
(505) 393-3117

EXHIBIT C

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL – 10'

SEC. 21 TWP. 23–S RGE. 37–E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 536' FNL & 502' FEL

ELEVATION 3290'

OPERATOR ARCH PETROLEUM, INC.

LEASE LAMUNYON

U.S.G.S. TOPOGRAPHIC MAP

RATTLESNAKE CANYON , NM

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO
(505) 393-3117

EXHIBIT D

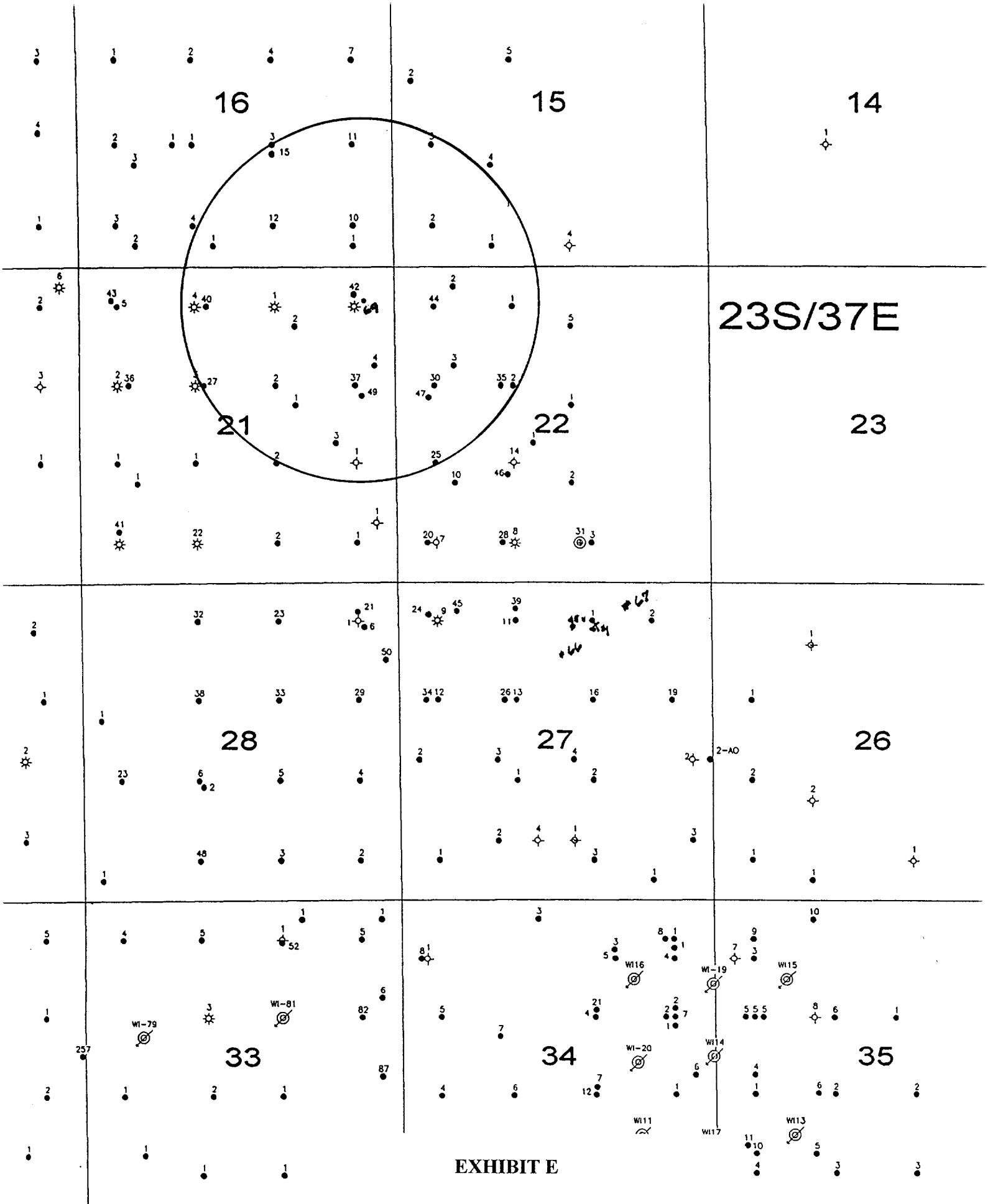


EXHIBIT E

103.10.0W

103.8.0W

Arch Petroleum Inc. - Drilling Pad Layout

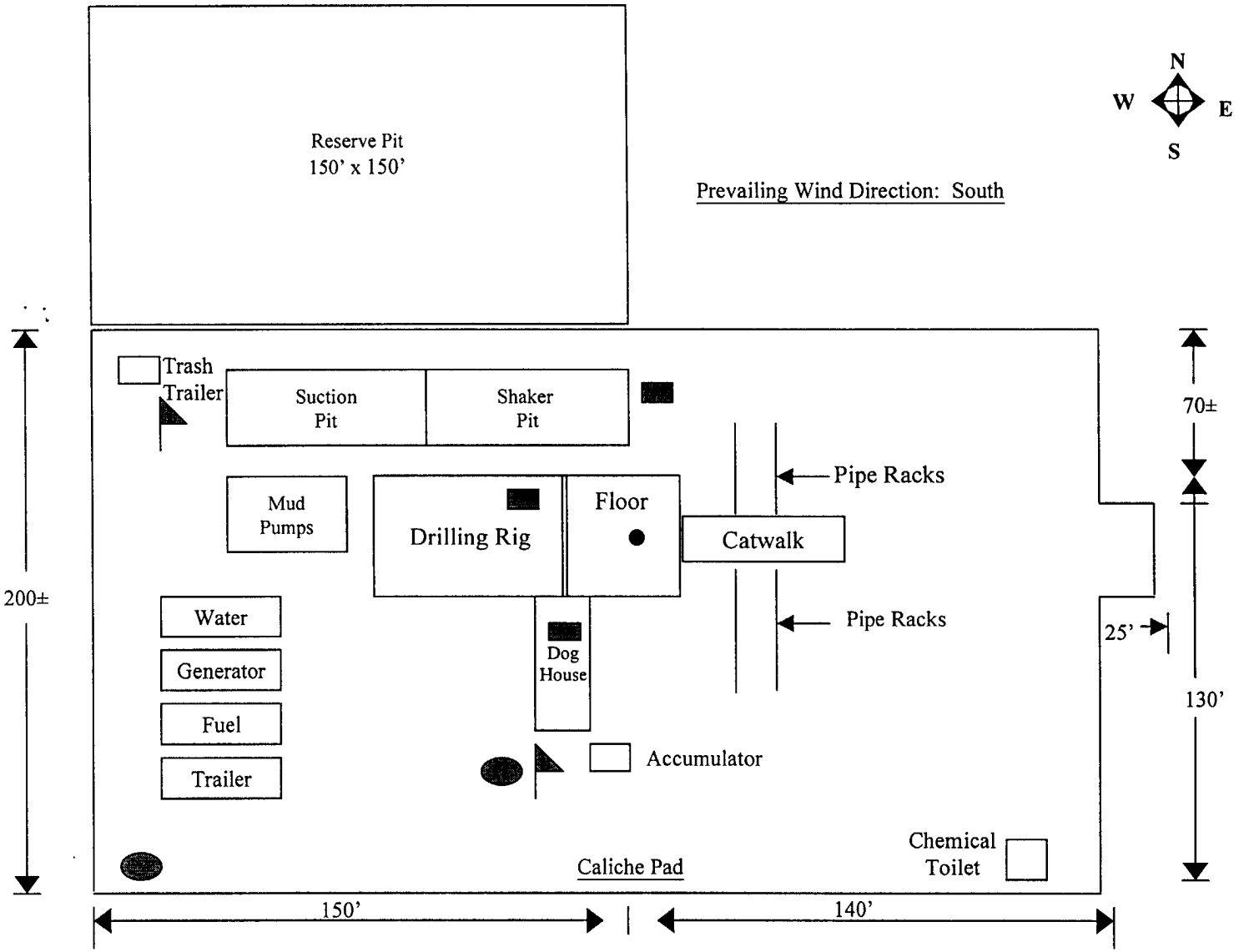


Exhibit "F"
(Not to Scale)

Proposed TD=5950'
Teague Blinebry Field
Unit A
Sec. 21 T23S R37E, Lea, NM

ARCH PETROLEUM INC
C.E. Lamunyon # 69
DRILLING PROGNOSIS

API # 30-025-00000
AFE # 00000-000-000
GE _____
KB 3309' est

Key Well: Composite of following logs:

C.E. Lamunyon # 42(0-6100'), 330' east from the C.E. Lamunyon #69
C.E. Lamunyon # 49(6100'-7100'), 1900' south from the C.E. Lamunyon #69
C.E. Lamunyon # 6(7100'-TD), 1 mile south from the C.E. Lamunyon #69

Formation Tops	Drill Depth	Interval Thickness	Possible O&G Pay	Possible DST's
Surface Sand	0			
Red Bed & gravel	165	165		
Santa Rosa	335	170		
Base of Santa Rosa	793	458		
Rustler	1028	235		
Top of Salt	1131	103		
Base of Salt	2368	1237		
Yates	2519	151	*	
7 Rivers	2758	239	*	
Penrose	3380	622	*	
Grayburg	3555	175		
San Andres	3815	260		
Glorieta	4957	1142	*	
Paddock	5139	182	*	
Blinebry	5300	161	*	
Tubb	6020	720	*	
Drinkard	6240	220	*	
Abo	6505	265	*	
Permian unconformity	7313	808		
Devonian	7328	15	*	
Silurian	8395	1067		
Fusselman	8630	235	*	*
Montoya	8660	30		
Simpson	8993	333		
McKee	9344	351	*	*
Ellenburger	9810	466	*	*
Permitted TD	10500	690		

N.M. Oil Cons. Division
P.O. Box 1980
Hobbs, NM 88241

2 man Mudlogging from 3000'-TD
GR-CNL-LDT-CL from 3,000'-TD
GR-DIL-MSFL from 3,000'-TD
NUMAR from 4900'-TD