N. M. O. C. C. COPY

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-051-20002

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR
BEARD OIL COMPANY

3. ADDRESS OF OPERATOR
2000 Classen Center, 200 South, Oklahoma City, Oklahoma 73106

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1980' FSL & 660' FEL of Sec. 17-14S-1W
Sierra County, New Mexico
At proposed prod. zone: Same

5. LEASE DESIGNATION AND SERIAL NO.: NM 9729

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: ------

7. UNIT AGREEMENT NAME: Jornada del Muerto Unit

8. FARM OR LEASE NAME: ~~Beard-Federal~~

9. WELL NO.: 1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 17-14S-1W

12. COUNTY OR PARISH: Sierra

13. STATE: New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
7 miles south, 4 miles east of Engle, New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 660'

16. NO. OF ACRES IN LEASE: 2566.09

17. NO. OF ACRES ASSIGNED TO THIS WELL: 40 acres

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 1st well

19. PROPOSED DEPTH: 9000' ~~El Paso~~

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 4820' GR (Est.) Exact Elevation submitted when available

22. APPROX. DATE WORK WILL START*: Upon approval

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
~~17-1/2"~~	13-3/8"	48	500'	600 sx/Circ,
~~12-1/4"~~	9-5/8"	36	2650'	300 sx
7-7/8"	5-1/2"	14, 15.5 & 17	9000'	300 sx

1. If conductor needed, set & cmt 20" conductor in 26" hole @ approx. 30' with rathole or cable tool rig.
2. MIRU rotary rig. Drill 17-1/2" hole to 500'. Run 13-3/8" surface csg. & circ cmt
3. Nipple up 12" double ram-type Blowout Preventer, test to 500 psi.
4. Drill 12-1/4" hole to 2650'. Run electric logs. Run 9-5/8" intermediate csg & cement with 300 sx.
5. Nipple up 10" double ram-type BOP. Test to 1000 psi.
6. Drill out with 8-3/4" hole. Reduce hole size to 7-7/8" when conditions warrant. Drill to total depth 9000'. Run electric logs.
7. Drill Stem Test shows of oil or gas indicated by Mud Logging Unit while drilling.
8. If commercial oil or gas production is indicated, 5-1/2" csg will be run and cemented across prospective pay zones.
9. Selectively perforate csg and test. Stimulate if necessary.
10. Test and complete.

RECEIVED
FEB 14 1973
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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 Ivan D. Allred Jr. TITLE Petroleum Engineer DATE 2-8-73

(This space for Federal or State office use)

PERMIT NO. ------ APPROVAL DATE Subject to Submitting Dedication Plat (NMOCC C102) Prior to producing this well.

APPROVED BY ------ TITLE ------ DATE ------

CONDITIONS OF APPROVAL, IF ANY:

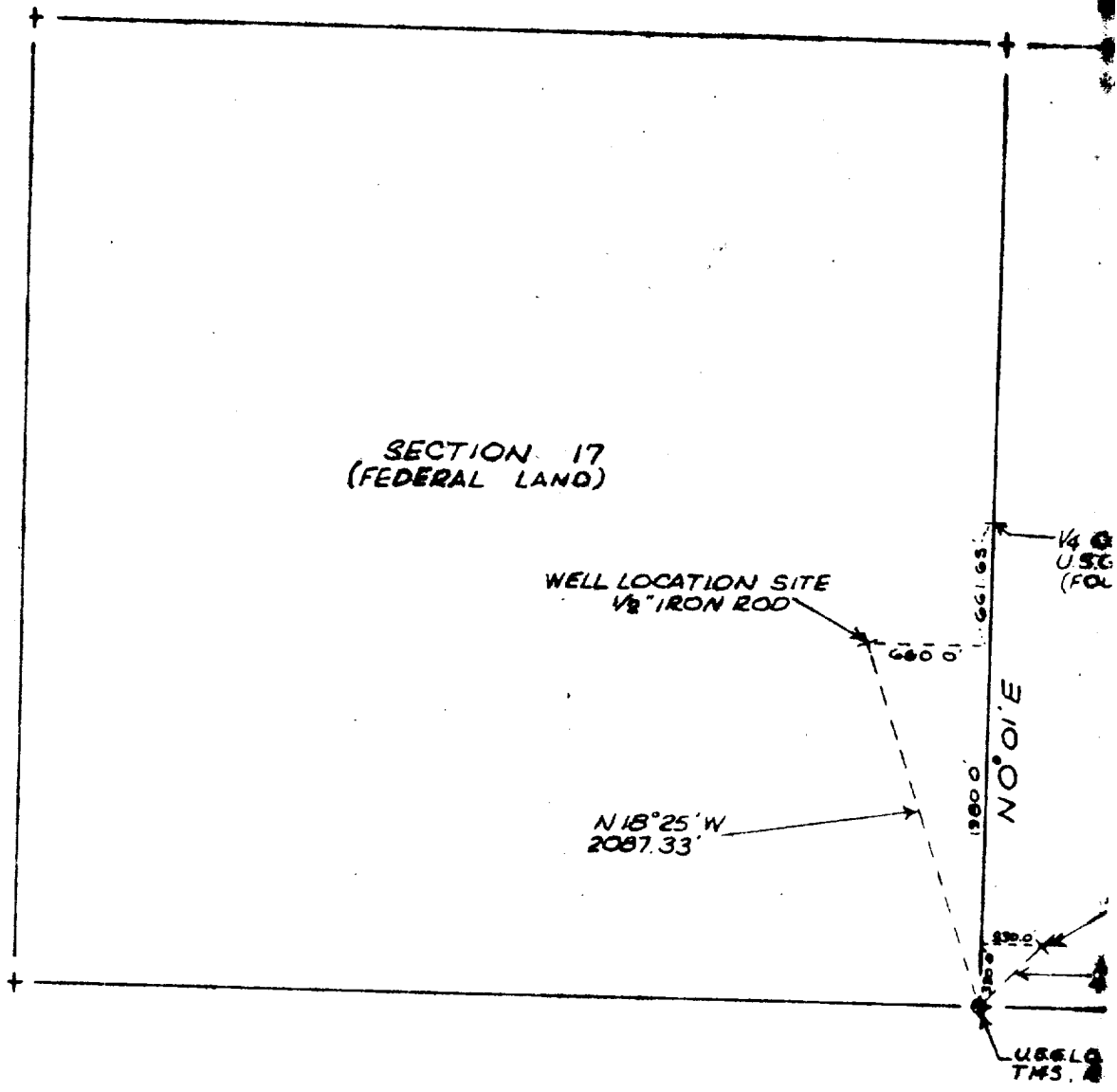
THIS APPROVAL IS VALID FOR 90 DAYS IF OPERATIONS ARE NOT COMMENCED WITHIN 3 MONTHS. EXPIRES

MAY 11 1973

*See Instructions On Reverse Side

PLAT OF SURVEY OF TW
LOCATED IN SECTION 17, TWP
APPROXIMATELY 10 MILES EAST OF L
SIERRA COUNTY, N

SCALE 1" = 1000'



WELL LOCATION SITES
14S, R1W, U.S.G.L.O. SURVEYS
OF TRUTH OR CONSEQUENCES
W MEXICO

FEBUARY 10, 1973

SECTION 16
(STATE LAND)

NER
O BRASS CAP
O)

LL LOCATION SITE
" IRON ROD

°49'20"E
.26'

BASS CAP (FOUND)

SURVEYORS CERTIFICATE

This is to certify that I am a registered land surveyor, that the survey was prepared from field notes of an actual survey made by me or under my direction and that it is true and correct to the best of my knowledge and belief.

Wayne D. Lyzes

DONALD [illegible]
REGISTERED ENGINEER &
LAND SURVEYOR
[illegible] NEW MEXICO

DONALD M. WIESE AND CO.

[illegible]

FEBRUARY [illegible], 1971

DESCRIPTION OF A WELL LOCATION SITE

A well location site situate approximately 16 miles westerly of Truth or Consequences, Sierra County, New Mexico, being located in Section 17, [illegible], R1W, U.S.G.L.O. Surveys, and being more particularly described as follows, to wit:

Beginning at the Southeast corner of said Section 17, [illegible], R1W U.S.G.L.O. Surveys marked by a U.S.G.L.O. Brass Cap; thence N.18°25'W. 2087.3 feet to the well location site marked by a [illegible] inch iron rod.

DRILLING WELL PROGNOSIS

OPERATOR: BEARD OIL COMPANY

WELL: ~~DARKHORSE FEDERAL #1~~ / Journada del Muerto Unit

LOCATION: 1980' FSL and 660' FEL (NE/4 SE/4) Section 17-14S-1W, Sierra County, New Mexico

TOTAL DEPTH: 9000' El Paso Test

ELEVATION: 4820' Ground Level (Est. from Topo map)

DRILLING, CASING AND CEMENTING:

Depth	Csg. Size	Hole Size	Cement
*30±	20"	26"	Circ
500'	13 3/8" 48# H	17-1/2"	600 sx Circulated
2650'	9-5/8" 36# K	12-1/4"	300 sx
9000'	5-1/2" vary	7-7/8"	300 sx

NOTE: May want to rathole ahead below 9-5/8" @ 2650' w/ 8-3/4" hole, and reduce to 7-7/8" when conditions warrant.

*Conductor will be set if needed.

MUD PROGRAM:

Interval	Mud Type	Mud Weight	Water Loss
0- 500'	Native	8.3+	NC
500-2650'	Native & Lo Solids	8.4-9.1	NC
2650-9000	Lo Solids	8.9-9.3	NC - 6cc

LOGGING:

Log Type	From	To	Scale
Dual Induction	500'	2650'	2" = 100' and 5" = 100' Detail
	2650'	9000'	2" = 100' and 5" = 100' Detail
FDC-GR-Caliper	500'	2650'	5" = 100' Detail Sec. of Interest
	2650'	9000'	5" = 100' Detail Sec. of Interest

No Log in Surface Hole.

DRILL STEM TEST:

Drill Stem Test will be run in any prospective zone in which valid shows of oil and/or gas are encountered.

CORING:

None anticipated.

SAMPLES:

1. 30' samples in surface hole - 0-500'.
2. 10' samples from 500' to 9000' TD.

MUD LOGGING UNIT:

One man mud logging unit will be used from out from under surface casing @ 500' to total depth.

DRILLING TIME LOG:

Contractor will install drilling time recorder at surface and maintain to total depth. One copy of Drilling Time Log will be delivered to Beard Oil Company.

DEVIATION SURVEYS:

Depth	Maximum Allowance Deviation	Maximum Allowance Change	Survey Frequency
0- 500'	1°	1°/100'	500'
500-2650'	3°	1°/100'	500'
2650-9000'	7°	1°/100'	500' or trip

WELL CONTROL EQUIPMENT:

1. Two 12" Series 600 ram-type, hydraulically actuated, blowout preventers, nippled up on 13-3/8" surface casing. Test BOP and surface pipe to 500 psi before drilling out from under surface.
2. Two 10" Series 900 ram-type and one 10" Series 900 bag-type, hydraulically actuated, blowout preventers, nippled up on 9-5/8" intermediate casing. Test BOP and intermediate pipe to 1000 psi before drilling out from under intermediate casing.
3. Blowout preventers will be operated daily, or on each trip while drilling.
4. Install Series 900 dual choke manifold to operator's specification.
5. Drill pipe safety valve on floor at all times below surface casing at 500'.
6. Kelly cock below surface casing at 500'.

ESTIMATED FORMATION TOPS:

Mesaverde	2025'
Dakota Sand	2450'
Permian (San Andreas)	2635'
Pennsylvanian	5635'
Mississippian	8000'
Devonian-Silurian	8125'
Ordovician (Montoya-El Paso)	8260'
Total Depth	8675'

COMPLETION:

If commercial production is found, 5-1/2" casing will be cemented through pay zone and selectively perforated in zones selected from the open hole logs.

SUPERVISION:

Telephone daily drilling reports to Beard Oil Company, Oklahoma City, Mrs. Garrett, Area Code 405 528 2323.

Geological: F. H. Hartman - Office: 405 528 2323
Home: 405 843 3164

Drilling: Ivan D. Allred, Jr. - Office: 405 528 2323
Home: 405 942 6053

C. F. Allred, Jr. - Office: 405 828 4456
Home: 405 375 5638

BEARD OIL COMPANY
SUITE 200, 2000 CLASSEN BUILDING
2000 CLASSEN BOULEVARD
OKLAHOMA CITY, OKLAHOMA 73106

February 9, 1973

Mr. Jim Knauf
United States Geological Survey
P. O. Box U
Artesia, New Mexico 88210

Re: Beard Oil Company ~~Darkhorse-Federal No. 1~~ Jornada del Muerto Unit
(Federal Lease No. NM-97291) C NE SE, Sec. 17-14S-1W,
Sierra County, New Mexico

Dear Mr. Knauf:

In connection with the proposed drilling of the captioned well, the following is an outline of our program with respect to the twelve points on which you have requested additional information:

1. Existing roads: See attached map.

2. Planned access roads: See attached map.

3. Location of wells: See Surveyor's Plat attached.

4. Lateral roads to wells locations: See attached map and Surveyor's Plat.

5. Location of tank batteries and flowlines: If production is found tank battery will be located on the edge of the drilling pad.

6. Locations and types of water supply: If it appears that we can get a water well on the location a water well will be drilled. If so, the water well permit will be obtained. If it does not appear that a water well can be made, then water will be purchased and transported to the location.

7. Methods for handling waste disposal: Any waste fluid produced will be disposed of in a manner satisfactory to the Governmental Regulatory Agencies.

8. Location of camps: None anticipated.

9. Location of airstrips: None anticipated.

10. Location layout to include position of the rig, mud tanks, reserve pits, burn pits, pipe racks, etc.: See attached sketch.

11. Plans for restoration of the surface: If the well is a producer or a dry hole the pits will be filled immediately if possible, or fenced until dry enough to backfill; land will be levelled and surface restored.

12. Any other information which the Approving Official considers essential to his assessment of the impact on the environment: The surface of this location is Public Domain land. A Grazing Lease is held by Buck Greer, P. O. Box 448, Truth or Consequences, New Mexico, 87901.

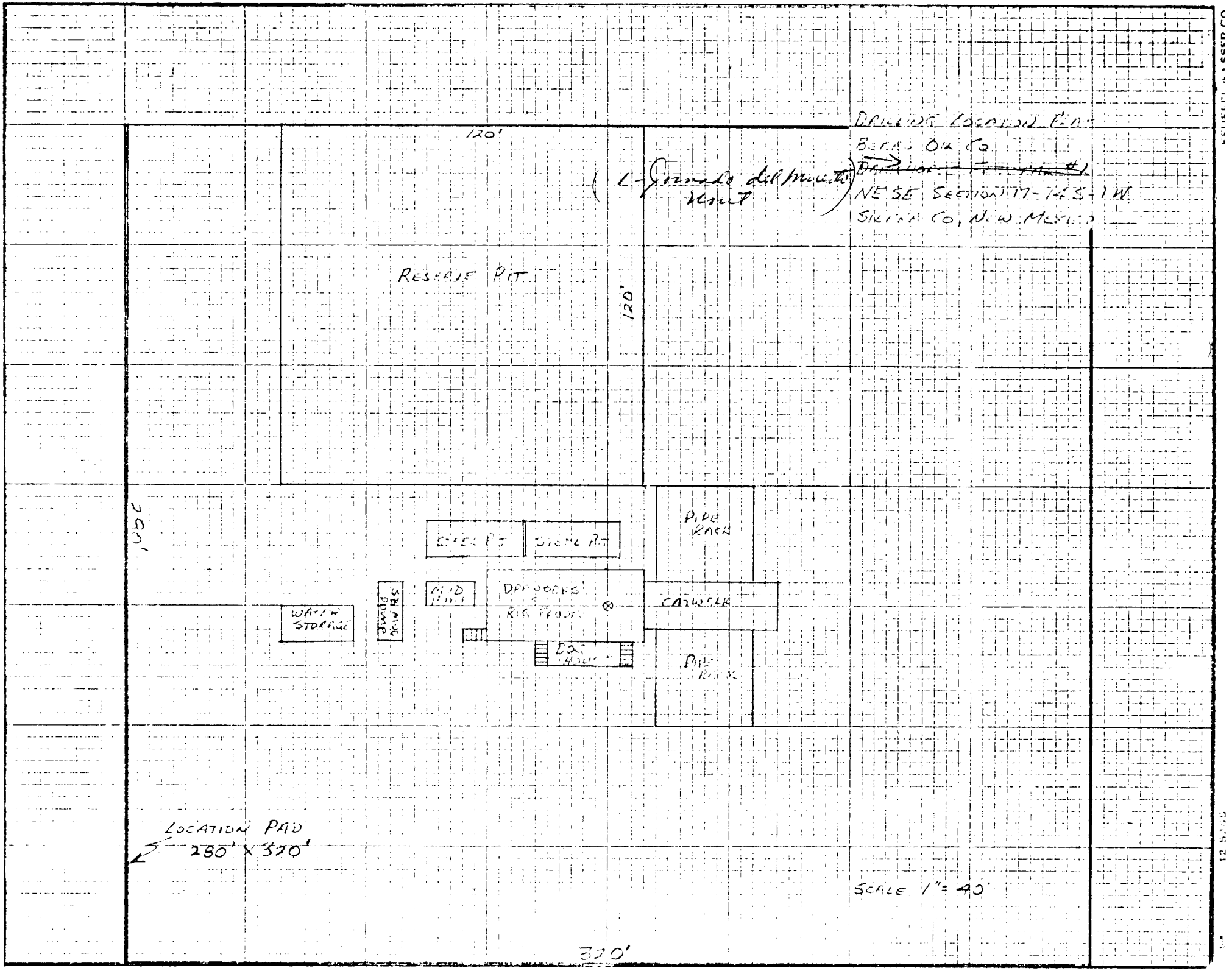
Very truly yours,

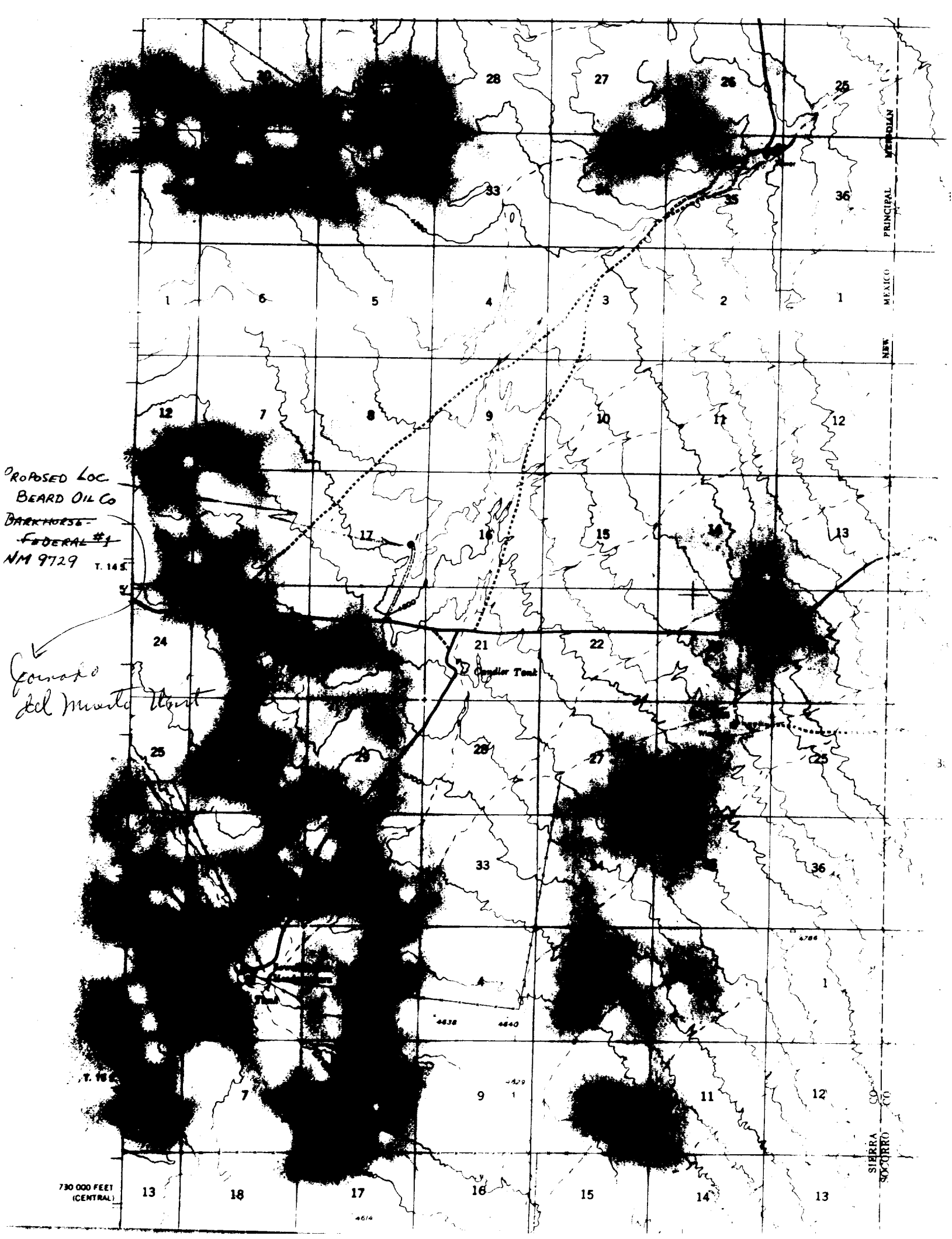
BEARD OIL COMPANY

Ivan D. Allred, Jr.
Petroleum Engineer

IDA:cd

Attachments


120'
DRILLING LOCATION FOR
BEARD OIL CO
NE SE SECTION 17-14S-1W
CHAVES CO, NEW MEXICO
RESERVE PIT
120'
PIPE RACK
MUD PUMP
DRILLERS RIG FLOOR
CATWALK
WATER STORAGE
DOG HOUSE
PIPE RACK
LOCATION PAD
280' X 320'
SCALE 1" = 40'
320'


PROPOSED LOC.
BEARD OIL CO
BARKHORSE -
FEDERAL #1
NM 9729
T. 14 S.
Gonzales
del Muerto Mesa
Spindler Tank
PRINCIPAL MERIDIAN
NEW MEXICO
SIERRA CO.
SOCORRO CO.
730 000 FEET
(CENTRAL)