

# UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY
Conservation Division
P. O. Box 26124
Albuquerque, New Mexico 87125

AUG 29 1979

Walter W. Krug dba Wallen Production Company Post Office Box 1960 Midland, Texas 79702

Dear Mr. Krug:

Your Application for Permit to Drill well No. 2 Bass in the SEASWa, Sec. 21, T. 20 S., R. 34 E., Lea County, New Mexico, lease Las Cruces 070315, to a depth of 3650 feet to test the Yates and Seven Rivers formations in the Oil Potash area is hereby approved, as amended by stipulations attached to the application.

One copy of the application is returned herewith. Please notify the District Engineer, Geological Survey, Hebbs, New Mexico, in sufficient time for a representative to witness all cementing operations.

Sincerely yours,

(ORIG. SGD.) GENE F. DANIEL

Acting 011 and Gas Supervisor, SRMA

#### Enclosure

cc: Conservation Manager, Denver

Area Mining Supervisor, Albuquerque (2) NMOCD, Hobbs (2) (w/2 copies Notice)
Roswell Area Office (2)

Roswell Area Office (2) Hobbs District Office

U-113339

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C.C.D. HOBBS, OFFICE

(This space for Federal or State office use)

CONDITIONS OF APPROVAL, IF ANY:

PERMIT NO.

APPROVED BY \_

#### COPY TO O. C. C. UNI ) STATES

SUBMIT IN TRIPLICATE. (Other instructionForm approved. Budget Bureau No. 42-R1425.

DATE

DATE

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- 1

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DEPARTMENT OF THE INTERIOR

|   | 5. LEASE DESIGNATION AND SERIAL NO.                 |   |   |                  |   |
|---|---|---|---|------------------|---|
| 4 DDI 16 4 TIO  | <b>40C</b> 070315                                   |   |   |                  |   |
| APPLICATION   | N FOR PERMIT  | TO DRILL, DE  | EPEN, OR PLUG   | BACK             | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME                    |
| 1a. TYPE OF WORK  | u   | D.F.D.F. 1  |   |                  |   |
| DKI<br>b. TYPE OF WELL  |   | DEEPEN 🗌  | PLUG BA   | ACK □            | 7. UNIT AGREEMENT NAME                                  |
| OIL G   | AB  |   | SINGLE MULT   | TIPLE [          |   |
| 2. NAME OF OPERATOR   | ELL OTHER   |   | ZONE ZONE   |                  | S. FARM OR LEASE NAME                                   |
| Walter W. ]   | Krug DBA Wal  | <u>len Product</u>                                  | ion Company   |                  | Bass 9. WELL NO.  |
| Box 1960, Midland, Texas 79702  4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*) |   |   |   |                  | 10. PIELD AND POOL OR WILDCAT                           |
| 4. LOCATION OF WELL (Re   | eport location clearly an                           | d in accordance with a                              | ny State requirements.*)                                    |                  | UNDESIGNATELL   |
|   | FWL & 660 F   |   |   |                  | Middle Lynch Yates, 7-                                  |
| At proposed prod. zone  |   | DL  |   | -                | 11. SEC., T., R., M., OE BLK. AND SURVEY OR AREA RIVERS |
| Same  | as above  |   |   |                  |   |
| 14. DISTANCE IN MILES A   | ND DIRECTION FROM NE                                | AREST TOWN OR POST OF                               | FFICE*  |                  | Sec 21, T20S, R34E  12. COUNTY OR PARISH   13. STATE    |
| 28 miles W  | NW from Euni  | ce New Mari   | CO  | ₹"               |   |
| 15. DISTANCE FROM PROPO<br>LOCATION TO NEAREST  | SED*  | 1 16  | NO. OF ACRES IN LEASE                                       | 17. NO O         | Lea New Mexico  |
| PROPERTY OF TRACE TO  | INE, FT.<br>. unit line, if any) 66                 | 1   |   | TO TH            | IS WELL   |
| 18. DISTANCE FROM PROPO   | SED LOCATIONS                                       |   | 640<br>PROPOSED DEPTH                                       | 90 707           | 40  |
| TO NEAREST WELL, DR<br>OR APPLIED FOR, ON THE   | O IDAGO www.  | 1   |   | 1                | Y OR CAHLE TOOLS  |
| 21. ELEVATIONS (Show whe  | ther DF, RT, GR, etc.)                              | 2 <u>0</u> <u>l</u>                                 | 3650 <b>'</b>   | Cal              | ole Tool  |
|   | -   |   |   |                  | 22. APPROX. DATE WORK WILL START*                       |
| 23.   |   | 6   |   |                  | 1 9 /15/ 79   |
|   |   | PROPOSED CASING A                                   | AND CEMENTING PROGR   | RAM              |   |
| SIZE OF HOLE  | SIZE OF CASING                                      | WEIGHT PER FOOT                                     | SETTING DEPTH   | ] ;.             | QUANTITY OF CEMENT                                      |
| 15½"  | 13_3/8  | 72#   | 225   | 300 5            | Exs Class "C"   |
| 12½"  | 10_3/4''  | <u>48#</u>  | 750   |                  | lded in   |
| 10"   | 8 5/8"  | 32 <b>#</b>   | 1200  | Muc              | lded in   |
| 8"  | 7 <b>v</b> .  | ¹ 23# ,   | 3300  | 1000 S           | Exs Class "C" w/circulati                               |
|   |   |   |   | 2% Ge1           | & 4# flocele/Sx.  |
| Liner 6 월"  | 4½"   | 10⅓ <b>∦</b>  | 3650 <b>'</b>   | 50 Sx            | s Class "C" w/z#circula                                 |
|   | .4  | •   |   | floc             | ele/Sx.   |
|   |   |   |   |                  |   |
|   |   | •   |   |                  |   |
|   |   |   |   |                  |   |
|   |   |   |   |                  |   |
|   |   |   |   | [5] [F]          |   |
|   |   |   |   | 100 120          |   |
| •   |   |   |   |                  |   |
| ·   |   |   |   | M.               | Մ   |
| ,   |   |   |   | AL               | յց ն 1979   |
| ,   |   |   |   | AL<br>U. S. GE   |   |
| N ABOVE SPACE DESCRIBE 1<br>one. If proposal is to dr<br>reventer program, if any.  | PROPOSED PROGRAM: If p<br>Fill or deepen directiona | oroposal is to deepen o<br>lly, give pertinent date | r plug back, give data on p<br>a on subsurface locations as | U. S. GE<br>HOBE | JG 8 1979<br>OLOGICAL SURVEY                            |

TITLE

APPROVAL DATE

Medical Control States of the Control of the Contro

AUG 31 1979

O.C.D. HOBBS, OFFICE

All distances must be from the outer boundaries of the Section

|   | unces must be from t | he outer boundaries of | the Section.                |   |  |  |  |  |  |  |  |
|---|----------------------|------------------------|-----------------------------|---|--|--|--|--|--|--|--|
| WALLEN PRODUCTION CO  | ).                   | BASS                   |                             | Well No.  |  |  |  |  |  |  |  |
|   | 20-S                 | Range<br>34-E          | County                      |   |  |  |  |  |  |  |  |
| Actual Footage Location of Well:  2310 feet from the WEST line and 660 feet from the SOUTH line   |                      |                        |                             |   |  |  |  |  |  |  |  |
| Ground Level Elev. Producing Formation YATES & SEVEN  | RIVERS SE            |                        |                             | Dedicated Acreage: 40 Acres                                   |  |  |  |  |  |  |  |
| 1. Outline the acreage dedicated to th  |                      |                        |                             |   |  |  |  |  |  |  |  |
| 2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).                                    |                      |                        |                             |   |  |  |  |  |  |  |  |
| 3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling.etc? |                      |                        |                             |   |  |  |  |  |  |  |  |
| Yes No If answer is "yes," type of consolidation  |                      |                        |                             |   |  |  |  |  |  |  |  |
| If answer is "no," list the owners ar   | nd tract description | ons which have ac      | tually been consolid        | ated. (Use reverse side of                                    |  |  |  |  |  |  |  |
| No allowable will be assigned to the  | well until all inte  | rests have been c      | onsolidated (by con         | umunitization unitization                                     |  |  |  |  |  |  |  |
| forced-pooling, or otherwise) or until a sion.  | non-standard uni     | t, eliminating such    | interests, has been         | approved by the Commis-                                       |  |  |  |  |  |  |  |
|   |                      | <u> </u>               |                             |   |  |  |  |  |  |  |  |
|   |                      |                        |                             | CERTIFICATION   |  |  |  |  |  |  |  |
|   |                      |                        | E 1                         | certify that the information con-                             |  |  |  |  |  |  |  |
|   |                      |                        |                             | rein is true and complete to the y knowledge and belief.      |  |  |  |  |  |  |  |
|   |                      |                        |                             |   |  |  |  |  |  |  |  |
|   |                      |                        | Name                        | W Knight  |  |  |  |  |  |  |  |
|   |                      | 1                      | Position                    | ę ·   |  |  |  |  |  |  |  |
|   |                      | 1                      | Company                     | Ilm Prol  |  |  |  |  |  |  |  |
|   |                      |                        | Date Q — 6                  | - 79  |  |  |  |  |  |  |  |
|   | <del></del>          |                        |                             | //  |  |  |  |  |  |  |  |
|   |                      | 1                      | 4 1                         | certify that the well location                                |  |  |  |  |  |  |  |
|   |                      |                        | 1 1                         | this plat was plotted from field octual surveys made by me or |  |  |  |  |  |  |  |
|   | •                    | 1                      | 1 1                         | supervision, and that the same                                |  |  |  |  |  |  |  |
|   |                      | - i                    | I 1                         | and belief.   |  |  |  |  |  |  |  |
| PROD. CO.   |                      |                        |                             |   |  |  |  |  |  |  |  |
| 2310 <sup>1</sup> / BASS "/// #2.   |                      | 1                      | AUGUS                       | T 7, 1979 (1) (1) (1)   |  |  |  |  |  |  |  |
| 40 ACRES / / / / / / / / / / / / / / / / / / /  |                      | 1                      | Registered F<br>and XX Land | Professional Engineer<br>Surveyor                             |  |  |  |  |  |  |  |
|   |                      | 1                      | MAX                         | A SCHUMANN R  |  |  |  |  |  |  |  |
| 0 330 660 ·90 1320 1650 1980 2310 264   | 0 2000 11            | 1000 500               | Centificate N               | · 1510  |  |  |  |  |  |  |  |

Noranda Exploration, Inc have no objection to Walter W. Krug, DBA Wallen Production Co's casing program on a well located in 2310 FWL and 660 FSL of Section 21, T20 S, R 34 E being in Lea County, New Mexico (said well to be 3600 feet plus or minus) using the USGS approved requirements and that Wallen Production Co. will furnish Noranda Exploration, Inc an electric log, gamma ray and neutron run at as low a speed as possible through the salt section, and that Wallen Production Co. will build its brine with KCl through the interval of the 10th ore zone and allow Noranda Exploration Inc's man to study the drill cuttings through that section, if so requested by Noranda.

This is as per the conversation and agreement with James Brewer, Geologist, Noranda Exploration, Inc.

DATED this - 28 -- day of March 1978

MODANDA EVOLODAMION THO

NORANDA EXPLORATION, INC

Walter W. Krug, dba Wallen Production Co., does hereby agree by the terms of this consent as outlined above.

WALTER W. KRUG dba WALLEN PRODUCTION CO.

By Walter W. Tryp

SUPERVISOR, OIL AND GAS OPERATIONS:

# DESIGNATION OF OPERATOR

The undersigned is, on the records of the Bureau of Land Management, holder of oil and gas lease

DISTRICT LAND OFFICE:

Santa Fe, New Mexico

SERIAL NO.:

LC 070315

and hereby designates

NAME:

Walter W. Krug, DBA Wallen Production Company

ADDRESS:

P.O. Box 1960

Midland, Texas

79702

as his operator and agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the supervisor or his representative may serve written or oral instructions in securing compliance with the Oil and Gas Operating Regulations with respect to (describe acreage to which this designation is applicable):

Township 20 South, Range 34 East, N.M.P.M. Section 21: S/2

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Oil and Gas Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his representative.

The lessee agrees promptly to notify the oil and gas supervisor of any change in the designated operator.

BASS ENTERPRISES PRODUCTION CO.

By My March 3, 1978

Vice President

(Signature of lessee)

(Signature of Lessee)

PERRY R. BASS

3100 Fort Worth National Bank Building Fort Worth, Texas 76102

# DESIGNATION OF OPERATOR

The undersigned is, on the records of the Bureau of Land Management, holder of lease

DISTRICT LAND OFFICE:

Santa Fe, New Mexico

SERIAL No.: NM 070315

and hereby designates

Name: Walter W. Krug DBA Wallen Production Company

ADDRESS: Box 1960, Midland, Texas 79702

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the supervisor or his representative may serve written or oral instructions in securing compliance with the Operating Regulations with respect to (describe acreage to which this designation is applicable):

S/2, Section 21, T 20 S, R 34 E, Lea County, New Mexico

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his representative.

The lessee agrees promptly to notify the supervisor of any change in the designated operator.

Bass Enterprises Production Company

3-7-1978

(Date)

Vaughn Bldg.

Midland, Texas 9701

. R. GOVERNMENT PRINTING OFFICE 10-53599-

# REQUIREMENTS OF N T L -6

- 1. Geologic name of the surface where the Bass . # 2 is located is the Quarternary (Alluvium and sand).
- 2. The estimated tops of the geologic markers are:

| Α. | Rustler (Anhydrite) | === | 1350'         |
|----|---------------------|-----|---------------|
| В. | Top Salt            | ==  | 1473'         |
| C. | Base of Salt        | =   | 3155'         |
| D. | Lime                | =   | 3182'         |
| Ε. | Yates               | =   | 3450 <b>'</b> |
| F. | Reef (Seven Rivers) | =   | 3675 <b>'</b> |

- 3. a. Surface Water = 195'
  - b. Santa Rosa Water = 835'
  - c. Yates Sand Oil = 3450'
  - d. Seven River Reef Oil = 3675'
- 4. Control equipment is a 1500# W.P. control head with double oil saver (if needed) (this will be a cabletool rig).
- 5. Drilling fluid is fresh water.
- 6. Logging program will be Gamma Ray-Neutron with CCL.
- 7. Estimated drilling duration is 60 days.

### Walter W. Krug DBA Wallen Production Company

#### DEVELOPMENT PLAN FOR SURFACE USE

Wallen Bass #2. Well 2310 'FWE and 66 0 FSL Section 21', T 20 S, R 34 E, Lea County, New Mexico

The following discussion answers the items 1 through 12, concerning the above subject well.

1. AERIAL MAP

Plat # 1 is a portion of a USGS topographic map, Lea County, New Mexico, showing existing roads. The location is approximately 26½ miles from Hobbs. The location is along the county road.

2. LOCATION OF EXISTING WELLS

Plat # 2 shows all of the wells and dry holes within a one (1) mile radius of the proposed location.

3. PROPOSED WELL LOCATION

Plat # 3 shows the rig location with North orientation marker.

- a. Mat size is 140' x 180'.
- b. Surfaced with 8" of compacted, watered and leveled caliche from BLM quarry.
- c. Pit is 40' x 60' x 8' deep.
- d. Cut and fill isn't necessary, here the location is nearly level and only requires caliche.
- e. Entrance road is 380' long and comes off of the county maintained road.
- f. SETTING AND ENVIRONMENT
  - 1. Terrain is gently rolling sand (see Plat # 1).
  - 2. Soil is a very sandy clay.
  - 3. Vegetation is scrub oak, mesquite, gramma grass, spanish dagger, general desert weeds and sand burrs.
  - 4. Surface use is for grazing.
  - 5. Other the area is nearly flat semiarid desert country and is probably considered a low environmental risk area, There should be very little (if any) environmental effect of drilling and producing in this vicinity.

### ~g. Distances to

- 1. Ponds and streams there are none within 6 miles.
- 2. Water wells none within one mile.
- 3. Residences and buildings none within 6 miles.
- 4. Arroyos, Canyons, etc none within 1½ miles.
- h. Well sign there will be a well sign at the entrance of the road.
- i. Open Pit will be guarded while drilling, fenced while we are completing the well and then closed in.

4. ROADS

Plat # 1 shows all roads within 3 miles or more. Planned entrance is staked and road will be 380' long and F2' wide and will be caliched with 8" mat note Plat # 3. There are no fences, gates or cattle guard.

5. TANK BATTERY

Plat # 4 shows the existing Bass tank battery in NW/4 of NW/4, Section 28, T 20 S, R 34 E.

6. LEASE PIPELINES

Plat # 4 shows all existing oil pipelines and salt water line and disposal well. This plat also shows the proposed oil flow line from this well if oil is established.

7. WASTE DISPOSAL

Well cuttings will be disposed of in slush pit. Barrel trash containers are on location and contents will be burned or buried with a minimum of 23" of dirt cover. Produced water will be disposed of by injecting in our own salt water disposal well.

8. WATER SUPPLY

Our water is hauled by commercial haulers.

9. ARCHAEOLOGICAL RESOURCES

None in the surrounding area.

10. RESTORATION OF SURFACE

Should the well be productive the pit will be back filled as soon as practical.

## 11. OPERATORS REPRESENTATIVE

Walter W. Krug

P. O. Box 1960

Midland, Texas 79701

office phone

ac 915- 683-2600 ac 915- 683-6526

phone home

ac 915- 563-0048

# 12. CERTIFICATION

I hereby certify that I have inspected the proposed drillsite and access route; that I am familiar with the conditions as they exist. The statements made in this plan are, to the best of my knowledge, true and correct and that the proposed work performed by Wallen Production Company contractors and sub-contractors will conform to this plan.

August 10, 1979

Walter W. Krug

Engineer and authorized agent

