Ba CASE 6077: BASS ENTERPRISES PRODUCTION COMPANY FOR A DRILLING PERMIT IN THE POTASH-OIL AREA, EDDY COUNTY, NEW MEXICO

Am. Co.

Case Number

6077

Application

Transcripts.

Small Exhibits

ETC.

EXHIBIT 2

ORDER
OCT 16, 1951

DEPARTMENT OF THE INTERIOR

Office of the Secretary

EDDY AND LEA COUNTIES, NEW MEXICO

OIL AND GAS, AND POTASH LEASING AND DEVELOPMENT WITHIN POTASH AREA

1. For the purpose of providing for concurrent operations in the prospecting for and the development and production of oil and gas and potash deposits owned by the United States within the area herein described and designated as "Potash Area" (see Schedule A), and for the purpose of opening to oil and gas leasing certain lands (see Schedule B) which have heretofore been withheld from such leasing and, subject to valid existing rights as to leases heretofore issued, it is ordered as follows:

1. *Oil and gas leases for that part of Potash Area covered by order of February 6, 1939.* (a) The order of the Secretary of the Interior dated February 6, 1939 (4 F. R. 1012), withholding certain lands in New Mexico from application or lease under the oil and gas provisions of the Mineral Leasing Act of February 25, 1920 (41 Stat. 437), as amended, is hereby revoked.

(b) The lands described in the order dated February 6, 1939 (except the E½SE¼, sec. 24, and the E½E½, W½SE¼, S½SW¼, sec. 25, T. 20 S., R. 29 E., N. M. M., which were withdrawn from all forms of entry by Public Land Order No. 569, 14 F. R. 1036), shall be open for oil and gas leasing as of the date of this notice, and offers on form No. 4–1158, Second Edition, received up to and including November 16, 1951, at the Land and Survey Office, Bureau of Land Management, Santa Fe, New Mexico, for lands subject to noncompetitive leasing under section 17 of the Mineral Leasing Act, as amended, shall be regarded as simultaneously filed.

(c) During the period from the date of this order to and including November 16, 1951, the following rules must be followed in applying for oil and gas leases:

(i) Each offer must cover all the Federal land subject to noncompetitive oil and gas leasing contained in a particular section and must not cover more than one section.

(ii) All offers of any offeror shall be rejected if the offeror's interests, direct and indirect, in oil and gas leases and offers and applications therefor on Federal lands in the State of New Mexico, including the offers filed pursuant to this notice exceed 15,360 chargeable acres. Where a corporation, or association, files an application for the Federal lands in a section, no person who owns an interest of 10 percent or more in such corporation or association shall be eligible to file an offer for the same area.

(iii) It will be necessary to file only one copy of each offer to lease and lease form for each section. If the offeror is successful, the Manager will execute the form and arrange to obtain the additional copies.

(iv) Each offer, accompanied by two separate checks or money orders, must be enclosed in a separate sealed envelope. One check or money order must be for $10 to cover the filing fee. The second check or money order must cover the first year's rental (50 cents per acre).

(v) The front of each envelope must be marked to show the nature of the contents and the section involved as follows:

Oil and Gas Offer, Potash Area
Sec. ------ T. ------, R. ------

(vi) Any offer filed during the prescribed period that does not conform to all the requirements of this notice shall be rejected.

(d) If necessary, a drawing will be held to determine the successful offeror for each section. Such drawing will commence at 10 a. m., m. s. t., November 20, 1951, at the Land and Survey Office, Santa Fe, New Mexico.

(e) Each successful applicant for a noncompetitive oil and gas lease, and any party awarded a competitive lease, for lands included in schedule B will be required, as a condition to the issuance of such lease, to execute a stipulation agreeing that:

(i) No wells will be drilled for oil or gas in formations above the base of the Delaware sand, or above a depth of 5,000 feet, whichever is the lesser, except upon approval of the Director of the Geological Survey, it being understood that drilling for production to these formations will be permitted only in the event that it is satisfactorily established that such drilling will not interfere with the mining and recovery of potash deposits or the interest of the United States would best be subserved thereby.

(ii) No wells will be drilled for oil or gas in formations below the base of the Delaware sand, or below a depth of 5,000 feet, whichever is the lesser, except pursuant to a unit plan approved by the Director of the Geological Survey, unless drilling is otherwise required or approved by the Director to protect the lease from drainage.

(iii) No wells will be drilled for oil or gas at a location which, in the opinion of the Oil and Gas Supervisor of the Geological Survey, would result in undue waste of potash deposits or constitute a hazard to or unduly interfere with mining operations being conducted for the extraction of potash deposits.

(iv) The drilling or the abandonment of any well on said lease shall be done in accordance with applicable oil and gas operating regulations including such requirements as the Oil and Gas Supervisor of the Geological Survey may prescribe as necessary to prevent the infiltration of oil, gas, or water into formations containing potash deposits or into mines or workings being utilized in the extraction of such deposits.

2. *Oil and gas leases for lands in Potash Area not covered by order of February 6, 1939.* (a) As a condition to the issuance of either a non-competitive or a competitive lease, or the granting of any renewal or extension of any existing lease, embracing such lands, the applicant, the successful bidder, or the lessee, as the case may be, will be required to execute a stipulation identical to that specified in item 1 (e) hereof.

(b) Upon the discovery hereafter of any oil or gas pool or field embracing all or part of any nonunitized oil and gas lease heretofore issued, unit operation will be required under the applicable unitization provisions of the lease and the Mineral Leasing Act of 1920, as amended, unless it is shown to the satisfaction of the Secretary of the Interior that independent operation will not jeopardize maximum economic recovery of the natural resources of the area.

3. *Potash leases.* All potash permits and leases hereafter issued or existing potash leases hereafter renewed for federal lands within the Potash Area, shall be subject to a requirement, either to be included in the lease or permit or imposed as a stipulation, to the effect that no mining or exploratory operations will be conducted that, in the opinion of the Mining Supervisor of the Geological Survey, would constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production under any oil or gas lease issued for the same land.

4. *Maps and surveys.* (a) Well records and survey plats that an oil and gas lessee must file, pursuant to applicable operating regulations (30 CFR Part 221), shall be available for inspection at the office of the Oil and Gas Supervisor, to any party holding a potash permit or lease on the land on which the well is situated insofar as such records are pertinent to the mining and protection of potash deposits.

(b) Maps of mine workings and surface installations, and records of core analyses that a potash lessee must file pursuant to applicable operating regulations (30 CFR Part 231), shall be available for inspection at the office of the Mining Supervisor, to any party holding an oil and gas lease on the same land insofar as such maps or records are pertinent to the development and protection of oil and gas deposits.

5. *Unit plans.* Any unit plan hereafter approved or prescribed that includes oil and gas leases covered by this notice shall include a provision embodying in substance the requirements set forth in items 1 (e) (iii) and (iv) and 4 (a), hereof.

6. *Definition.* The word "potash" as used herein shall be deemed to embrace potassium and associated minerals as specified in the act of February 7, 1927 (44 Stat. 1057).

II. Except to the extent herein modified the general regulations contained in 43 CFR, Parts 191 and 192, governing the leasing and development of oil and gas and in 43 CFR, Part 194, governing the leasing and development of potash deposits shall be applicable to the lands covered hereby. Copies of this notice and copies of form No. 4–1158, Second Edition, titled "Offer to Lease and Lease for Oil and Gas" can be obtained from the Land and Survey Office, Bureau of Land Management, Santa Fe, N. Mex.

SCHEDULE A

DESIGNATED POTASH AREA

New Mexico Principal Meridian

T. 19 S., R. 29 E.,
Sec. 11, SE¼;
Sec. 12, S½;
Secs. 13, and 14;
Sec. 23, N½;
Sec. 24, N½.
T. 20 S., R. 29 E.,
Sec. 12, NE¼SE¼, and S½SE¼;
Sec. 13, NE¼, and S½;
Sec. 24, N½;
Sec. 36.
T. 21 S., R. 29 E.,
Secs. 1 and 2;
Sec. 3, E½;
Sec. 10, E½;
Sec. 11 to 15 inclusive;
Sec. 22, N½N½;
Sec. 23, N½;
Secs. 24 and 25;
Sec. 35, E½;
Sec. 36.
T. 22 S., R. 29 E.,
Secs. 1 and 2;
Sec. 3, S½;
Sec. 9, E½;
Secs. 10 to 15 inclusive;
Sec. 17, E½;
Sec. 20, E½;
Secs. 21 to 28 inclusive;
Secs. 33 to 36 inclusive.
T. 23 S., R. 29 E.,
Secs. 1 to 3 inclusive;
Secs. 4, E½;
Sec. 9, E½;
Secs. 10 to 15 inclusive;
Secs. 22 to 27 inclusive;
Secs. 34 to 36 inclusive.
T. 18 S., R. 30 E.,
Sec. 12, S½;
Secs. 13 and 14;
Sec. 15, SE¼;
Sec. 21, SE¼;
Secs. 22 to 24 inclusive;
Sec. 25, W½;
Secs. 26 to 28 inclusive;
Sec. 29, SE¼;
Sec. 32, NE¼, and S½;
Secs. 33 and 34;
Sec. 35, W½.
T. 19 S., R. 30 E.,
Secs. 2 to 5 inclusive;
Sec. 6, SE¼;
Sec. 7, NE¼, and S½;
Secs. 8 to 36 inclusive.
T. 20 S., R. 30 E.;
T. 21 S., R. 30 E.,
Secs. 1 to 11 inclusive;
Sec. 12, S½;
Secs. 13 to 22 inclusive;
Sec. 23, N½;
Sec. 24, N½;
Secs. 27 to 34 inclusive;
Sec. 35, S½.
T. 22 S., R. 30 E.,
Secs. 1 to 24 inclusive;
Sec 25, W½;
Secs. 26 to 35 inclusive;
Sec. 36, W½.
T. 23 S., R. 30 E.,
Sec. 1, S½;
Secs. 2 to 36 inclusive.
T. 24 S., R. 30 E.,
Sec. 1, N½;
Sec. 2, N½;
Sec. 3, N½.
T. 18 S., R. 31 E.,
Sec. 18, W½.
T. 19 S., R. 31 E.,
Secs. 9 and 10;
Sec. 11, W½;
Sec. 14, W½;
Secs. 15 to 17 inclusive;
Secs. 19 to 22 inclusive;
Sec. 23, W½;
Sec. 25, S½;
Secs. 26 to 36 inclusive.
T. 20 S., R. 31 E.;
T. 21 S., R. 31 E.,
Sec. 1, lots 1 to 16 inclusive;
Sec. 2, lots 1 to 16 inclusive;
Sec. 4, W½;
Secs. 5 and 6;
Sec. 18, S½;
Sec. 19, N½.
T. 22 S., R. 31 E.,
Secs. 4 to 9 inclusive;
Secs. 17 and 18;
Sec. 19, N½.
T. 23 S., R. 31 E.,
Sec. 7;
Sec. 8, S½;
Sec. 16, SW¼;
Secs. 17 to 20 inclusive;
Sec. 21, W½;
Secs. 28 to 33 inclusive.
T. 24 S., R. 31 E.,
Secs. 4 to 6 inclusive.
T. 19 S., R. 32 E.,
Sec. 23, S½;
Secs. 24 to 27 inclusive;
Sec. 28, S½;
Sec. 31, S½;
Sec. 32, S½;
Secs. 33 to 36 inclusive.
T. 20 S., R. 32 E.;
T. 21 S., R. 32 E.,
Secs. 1 to 17 inclusive;
Secs. 21 to 27 inclusive;
Secs. 35 and 36.
T. 19 S., R. 33 E.,
Secs. 19, 30 and 31.
T. 20 S., R. 33 E.,
Secs. 5 to 9 inclusive;
Secs. 15 to 23 inclusive;
Secs. 25 to 36 inclusive.
T. 21 S., R. 33 E.,
Secs. 4 to 9 inclusive;
Secs. 16 to 21 inclusive;
Secs. 28 to 33 inclusive.
T. 22 S., R. 33 E.,
Secs. 4 to 6 inclusive.
T. 20 S., R. 34 E.,
Sec. 31.

The area described, including both public and nonpublic lands, aggregates approximately 298,345 acres.

SCHEDULE B

LANDS COVERED BY ORDER OF FEBRUARY 6, 1939, WITHIN POTASH AREA[1]

T. 20 S., R. 29 E.,
Sec. 12, SE¼SE¼;
Sec. 13, E½E½, and NW¼NE¼;
Sec. 24, E½NE¼;
Sec. 36.
T. 21 S., R. 29 E.,
Sec. 1;
Sec. 11, N½NE¼, SW¼NE¼, N½NW¼, SE¼NW¼, and SE¼;
Sec. 12;
Sec. 13, E½, and S½SW¼;
Sec. 14, SW¼NE¼, SW¼, and S½SE¼;
Sec. 15, NE¼, NE¼NW¼, S½NW¼, and S½;
Sec. 22, N½N½;
Sec. 23, N½N½;
Sec. 24, NE¼, and N½NW¼.
T. 22 S., R. 29 E.,
Sec. 1;
Sec. 11, E½, N½NW¼, and S½SW¼;
Secs. 12 to 14, inclusive;
Secs. 23 and 24;
Sec. 25, NE¼, NE¼NW¼, S½NW¼, and S½;
Sec. 26, W½NW¼, and S½;
Sec. 35, NE¼.

[1] Of the lands included in this schedule, the following tracts are covered by outstanding leases or are within the limits of a known geologic structure of a producing oil or gas field: E½NE¼, sec. 24, T. 20 S., R. 29 E., S½NE¼, SE¼, sec. 9, W½SE¼, SW¼, SE¼SE¼, sec. 10, sec. 15 (all), N½NE¼, sec. 21, T. 20 S., R. 30 E. The SE¼NE¼, sec. 11, T. 21 S., R. 29 E., is included in the order of February 6, 1939, but is omitted from this schedule because it is state land.

T. 10 S., R. 30 E.,
Sec. 22, S½;
Sec. 23, S½N½, and S½;
Sec. 24;
Sec. 25, NE¼, NE¼NW¼, S½NW¼, and S½;
Secs. 26 and 27;
Sec. 28, SE¼;
Secs. 33 to 35 inclusive.
T. 20 S., R. 30 E.,
Sec. 3, lots 2, 3, and 4, S½N½, and S½;
Sec. 4;
Sec. 5, lots 1, 2, 3, and 4, S½N½, N½SW¼, SE¼SW¼, and SE¼;
Sec. 6, E½SE¼;
Sec. 7, lots 3 and 4, NE¼NE¼, S½NE¼, SE¼NW¼, E½SW¼, and SE¼;
Secs. 8 to 10 inclusive;
Sec. 13, SE¼;
Sec. 14, NW¼NE¼, S½NE¼, NW¼, and S½;
Sec. 15;
Sec. 21, N½NE¼;
Sec. 22, N½;
Sec. 23, N½;
Sec. 24, NW¼;
Sec. 25, NE¼, and S½;
Sec. 31, lots 1, 2, 3, and 4, E½W½;
Sec. 35, S½.
T. 21 S., R. 30 E.,
Sec. 3, lots 3, 4, 5, 6, 11, 12, 13, and 14, SW¼;
Secs. 4 to 7 inclusive;
Sec. 8, NE¼, NE¼NW¼, S½NW¼, and S½;
Sec. 9;
Sec. 10, W½;
Secs. 17 and 18;
Sec. 19, lots 1, 2, 3, and 4, NE¼, and E½NW¼;
Sec. 20, N½N½;
Sec. 31.
T. 22 S., R. 30 E.,
Secs. 6 and 7;
Secs. 18 to 20 inclusive;
Sec. 21, W½E½, and W½;
Secs. 28 and 29;
Sec. 30, lots 1, 2, 3, and 4, N½NE¼, SE¼NE¼, E½W½, and SE¼;
Sec. 31, lot 1.
T. 19 S., R. 31 E.,
Secs. 19, 30, and 31.
T. 20 S., R. 31 E.,
Secs. 28 to 31 inclusive;
Sec. 33.

The areas described aggregate 42,245.18 acres.

Dated: October 16, 1951.

OSCAR L. CHAPMAN,
Secretary of the Interior.

[F. R. Doc. 51-12547; Filed, Oct. 18, 1951; 8:46 a. m.]

Published in 16 F.R. 10669 of October 18, 1951

INT.-DUP. SEC., WASH., D.C. (9483)

EXHIBIT 3

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Stipulations to be executed and made part of any oil and gas lease involving lands described in the Departmental Notice of October 16, 1951.

The lessee further agrees that:

(1) No wells will be drilled for oil or gas in formations above the base of the Delaware sand, or above a depth of 5,000 feet, whichever is the lesser, except upon approval of the Director of the Geological Survey, it being understood that drilling for production to these formations will be permitted only in the event that it is satisfactorily established that such drilling will not interfere with the mining and recovery of potash deposits or the interest of the United States would best be subserved thereby.

(2) No wells will be drilled for oil or gas in formations below the base of the Delaware sand, or below a depth of 5,000 feet, whichever is the lesser, except pursuant to a unit plan approved by the Director of the Geological Survey, unless drilling is otherwise required or approved by the Director to protect the lease from drainage.

(3) No wells will be drilled for oil or gas at a location which, in the opinion of the Oil and Gas Supervisor of the Geological Survey, would result in undue waste of potash deposits or constitute a hazard to or unduly interfere with mining operations being conducted for the extraction of potash deposits.

(4) The drilling or the abandonment of any well on said lease shall be done in accordance with applicable oil and gas operating regulations including such requirements as the Oil and Gas Supervisor of the Geological Survey may prescribe as necessary to prevent the infiltration of oil, gas, or water into formations containing potash deposits or into mines or workings being utilized in the extraction of such deposits.

_____
Signature of Offeror or Lessee

EXHIBIT 4

ORDER MAY 11, 1965

DEPARTMENT OF THE INTERIOR

Office of the Secretary

EDDY AND LEA COUNTIES, N. MEX.

Oil, Gas, and Potash Leasing and Development Within Potash Area

For the purpose of revising the rules for concurrent operations in prospecting for and development and production of oil and gas and potash deposits owned by the United States within the Potash Area and for the purpose of revising the designated Potash Area to which the revised provisions are to be applicable, it is ordered as follows:

I. The order of the Secretary of the Interior dated February 6, 1939 (4 F.R. 1012), withholding certain lands in New Mexico from application or lease under the oil and gas provisions of the Mineral Leasing Act of February 25, 1920 (41 Stat. 437), as amended, which order was revoked by order of the Secretary of the Interior dated October 16, 1951 (16 F.R. 10069), shall continue to be revoked. The lands described in said order dated February 6, 1939 (except the E½SE¼, sec. 24, and the E½E½, W½SE¼, S½SW¼, sec. 25, T. 20 S., R. 29 E., N.M.M., which were withdrawn from all forms of entry by Public Land Order No. 569, 14 F.R. 1066), which are opened for oil and gas leasing by said order dated October 16, 1951, shall continue to be open for oil and gas leasing. This order shall not affect the current status of land with respect to its being withdrawn from, or open for, entry or leasing.

II. Subject to the provisions of I above, the provisions of the order of the Secretary of the Interior dated October 16, 1951 (16 F.R. 10069), and the Potash Area designated therein are revised to be as specified herein.

III. 1. *Oil and gas leases.* Each successful applicant for a non-competitive oil and gas lease, and any party awarded a competitive lease, for lands included in the designated Potash Area will be required, as a condition to the issuance of such lease, to execute a stipulation agreeing that:

(a) No wells will be drilled for oil or gas except upon approval of the Regional Oil and Gas Supervisor of the Geological Survey, it being understood that drilling will be permitted only in the event that it is satisfactorily established that such drilling will not interfere with the mining and recovery of potash deposits, or the interest of the United States would best be subserved thereby.

(b) No wells will be drilled for oil or gas at a location which, in the opinion of the Regional Oil and Gas Supervisor of the Geological Survey, would result in undue waste of potash deposits or constitute a hazard to or unduly interfere with mining operations being conducted for the extraction of potash deposits.

(c) When it is determined by the Regional Oil and Gas Supervisor of the Geological Survey that unitization is necessary for orderly oil and gas development and proper protection of potash deposits, no well shall be drilled for oil or gas except pursuant to a unit plan approved by the Director of the Geological Survey.

(d) The drilling or the abandonment of any well on said lease shall be done in accordance with applicable oil and gas operating regulations including such requirements as the Regional Oil and Gas Supervisor of the Geological Survey may prescribe as necessary to prevent the infiltration of oil, gas, or water into formations containing potash deposits or into mines or workings being utilized in the extraction of such deposits.

The Regional Oil and Gas Supervisor of the Geological Survey in any action taken under item 1 (a), (b), (c), and (d) shall take into consideration recommendations of the Regional Mining Supervisor of the Geological Survey and applicable conservation rules and regulations of the Oil Conservation Commission of the State of New Mexico.

2. *Oil and gas leases.* As a condition to the granting of any renewal or extension of any existing lease embracing lands included in the designated Potash Area, the lessee will be required to execute a stipulation identical to that specified in item 1 (a), (b), (c), and (d) hereof.

3. *Potash leases.* All potash permits and leases hereafter issued or existing potash leases hereafter renewed for Federal lands within the designated Potash Area, shall be subject to a requirement either to be included in the lease or permit or imposed as a stipulation, to the effect that no mining or exploratory operations will be conducted that, in the opinion of the Regional Mining Supervisor of the Geological Survey, would constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production under any oil or gas lease issued for the same land.

4. *Maps and surveys.* (a) Well records and survey plats that an oil and gas lessee must file pursuant to applicable operating regulations (30 CFR Part 221), shall be available for inspection at the office of the Regional Oil and Gas Supervisor by any party holding a potash permit or lease on the land on which the well is situated insofar as such records are pertinent to the mining and protection of potash deposits.

(b) Maps of mine workings and surface installations and records of core analyses that a potash lessee must file pursuant to applicable operating regulations (30 CFR Part 231), shall be available for inspection at the office of the Regional Mining Supervisor to any party holding an oil and gas lease on the same land insofar as such maps or records are pertinent to the development and protection of oil and gas deposits.

5. *Unit plans.* Any unit plan hereafter approved or prescribed that includes oil and gas leases covered by this notice shall include a provision embodying in substance the requirements set forth in items 1 (a), (b), and (d), and 4 (a), hereof.

6. *Definition.* The word "potash" as used herein shall be deemed to embrace potassium and associated minerals as specified in the act of February 7, 1927 (44 Stat. 1057).

IV. The lessee of any existing lease in the designated Potash Area may make such land subject to the rules and regulations of Part III above by filing an election to do so, in duplicate, with the Land Office, Bureau of Land Management, Santa Fe, N. Mex. Except to the extent herein modified, the general regulations contained in 43 CFR Part 3100, and the specific regulations in Part 3120 (governing the leasing and development of oil and gas deposits) and Part 3140 (governing the leasing and development of potash deposits), shall be applicable to the lands covered hereby.

V. The designated Potash Area is described as follows:

NEW MEXICO PRINCIPAL MERIDIAN

T. 19 S., R. 29 E.,
Secs. 1 and 2;
Secs. 11 to 14 inclusive;
Secs. 23 to 26 inclusive;
Secs. 35 and 36.
T. 20 S., R. 29 E.,
Secs. 1 and 2;
Secs. 11 to 15 inclusive;
Secs. 22 to 27 inclusive;
Secs. 34 to 36 inclusive.
T. 21 S., R. 29 E.,
Secs. 1 to 5 inclusive;
Secs. 10 to 15 inclusive;
Secs. 22 to 27 inclusive;
Secs. 34 to 36 inclusive.
T. 22 S., R. 29 E.,
Secs. 1 to 5 inclusive;
Secs. 8 to 17 inclusive;
Secs. 20 to 29 inclusive;
Secs. 32 to 36 inclusive.
T. 23 S., R. 29 E.,
Secs. 1 to 5 inclusive;
Secs. 8 to 15 inclusive;
Secs. 22 to 27 inclusive;
Secs. 34 to 36 inclusive.
T. 18 S., R. 30 E.,
Secs. 5 to 17 inclusive;
Secs. 20 to 29 inclusive;
Secs. 32 to 35 inclusive.
T. 19 S., R. 30 E.
T. 20 S., R. 30 E.,
T. 21 S., R. 30 E.,
T. 22 S., R. 30 E.,
T. 23 S., R. 30 E.
T. 19 S., R. 31 E.,
Secs. 31 to 36 inclusive;
T. 20 S., R. 31 E.,
T. 21 S., R. 31 E.,
T. 22 S., R. 31 E.,
Secs. 1 to 9 inclusive;
Secs. 16 to 21 inclusive;
Secs. 28 to 33 inclusive.
T. 23 S., R. 31 E.,
Secs. 4 to 9 inclusive;
Secs. 16 to 21 inclusive;
Secs. 28 to 33 inclusive.
T. 19 S., R. 32 E.,
Secs. 25 to 28 inclusive;
Secs. 31 to 36 inclusive.
T. 20 S., R. 32 E.
T. 21 S., R. 32 E.
T. 19 S., R. 33 E.,
Secs. 31 to 36 inclusive.
T. 20 S., R. 33 E.
T. 21 S., R. 33 E.
T. 19 S., R. 34 E.,
Secs. 19 and 20;
Secs. 29 to 32 inclusive.
T. 20 S., R. 34 E.,
Secs. 5 to 10 inclusive;
Secs. 15 to 35 inclusive.
T. 21 S., R. 34 E.,
Secs. 5 to 8 inclusive;
Secs. 17 to 20 inclusive;
Secs. 29 to 32 inclusive.

The area described, including public and nonpublic lands, aggregates 420,212.38 acres, more or less.

VI. This order shall be effective on the date of publication in the FEDERAL REGISTER.

Dated: May 11, 1965.

STEWART L. UDALL,
Secretary of the Interior.

[F.R. Doc. 65-5149; Filed, May 14, 1965; 8:46 a.m.]

(30 F.R. 6692-93)

EXHIBIT 5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Stipulations to be executed and made part of any oil and gas lease involving lands described in the Departmental Notice of May 11, 1965.

The lessee further agrees that:

(1) No wells will be drilled for oil or gas except upon approval of the Regional Oil and Gas Supervisor of the Geological Survey, it being understood that drilling will be permitted only in the event that it is satisfactorily established that such drilling will not interfere with the mining and recovery of potash deposits, or the interest of the United States would best be subserved thereby.

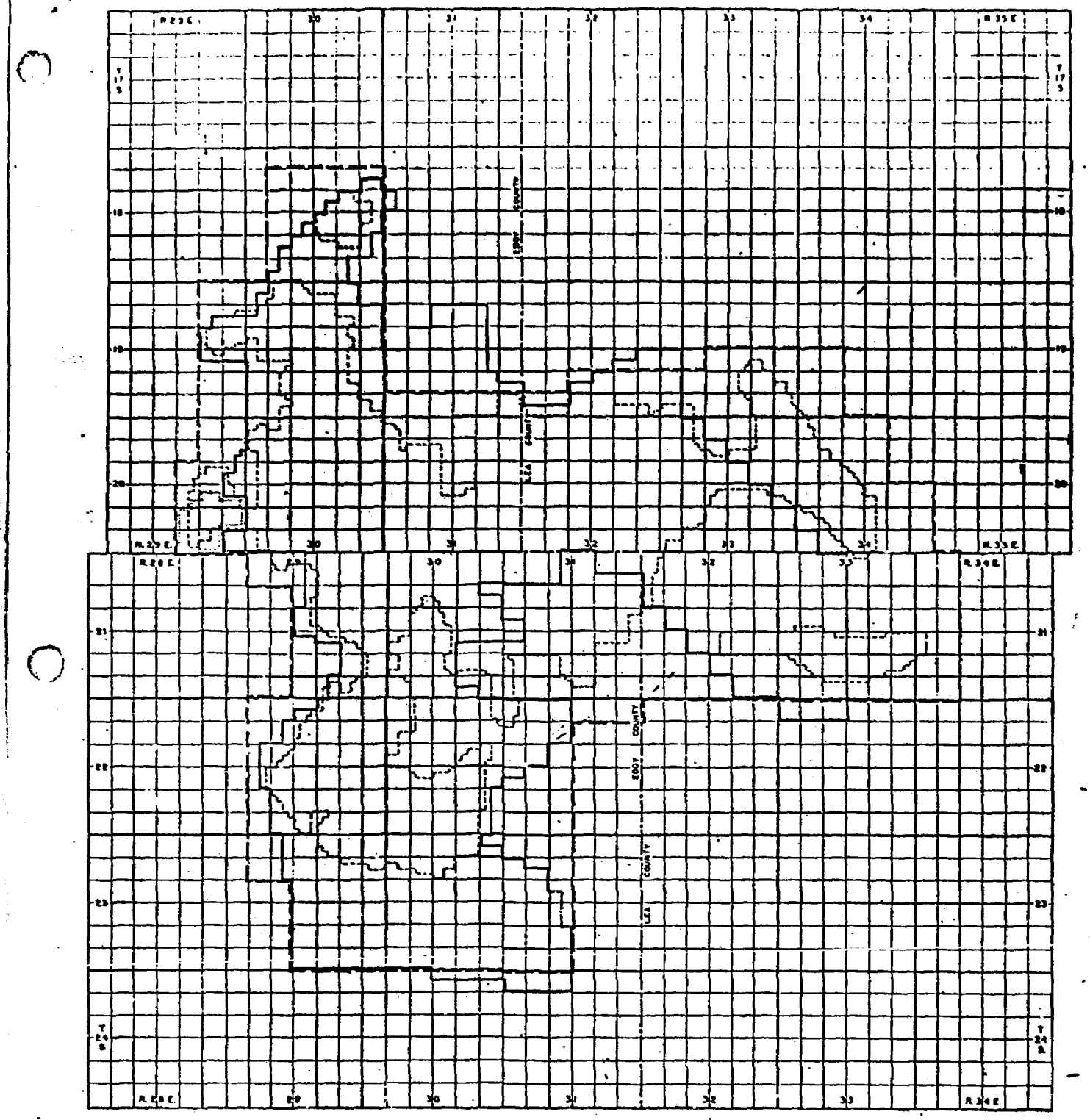
(2) No wells will be drilled for oil or gas at a location which, in the opinion of the Regional Oil and Gas Supervisor of the Geological Survey, would result in undue waste of potash deposits or constitute a hazard to or unduly interfere with mining operations being conducted for the extraction of potash deposits.

(3) When it is determined by the Regional Oil and Gas Supervisor of the Geological Survey that unitization is necessary for orderly oil and gas development and proper protection of potash deposits, no well shall be drilled for oil or gas except pursuant to a unit plan approved by the Director of the Geological Survey.

(4) The drilling or the abandonment of any well on said lease shall be done in accordance with applicable oil and gas operating regulations including such requirements as the Regional Oil and Gas Supervisor of the Geological Survey may prescribe as necessary to prevent the infiltration of oil, gas or water into formations containing potash deposits or into mines or workings being utilized in the extraction of such deposits.

_____
Signature of Offeror or Lessee

EXHIBIT 6


R.29 E.
30
31
32
33
34
R.35 E.
T. 17 S.
T. 24 S.
EDDY COUNTY
LEA COUNTY
R.29 E.
R.30 E.
R.34 E.
R.35 E.
LEGEND
SCALE IN MILES
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
MAP SHOWING
OIL-POTASH AREA
SOUTHEAST NEW MEXICO
ROSWELL, NEW MEXICO
JANUARY 1, 1950

sentence "These orders are effective October 30, 1975." should be inserted in lieu thereof.

Dated: October 31, 1975.

HENRY S. DOGIN,
Acting Administrator,
Drug Enforcement Administration.

[FR Doc.75-29699 Filed 11-4-75;8:45 am]

Law Enforcement Assistance Administration

NATIONAL INSTITUTE OF LAW ENFORCEMENT AND CRIMINAL JUSTICE ADVISORY COMMITTEE

Meeting

Notice is hereby given that the Advisory Committee of the National Institute of Law Enforcement and Criminal Justice, Law Enforcement Assistance Administration, will meet on November 21, 1975 at the Hospitality House Motor Inn in Arlington, Virginia.

Topics of discussion will include the special needs of criminal justice research, the achievement of consistency in dispositions, and deterrence.

The meeting will be open to the public. For further information, please contact Gerald M. Caplan, National Institute of Law Enforcement and Criminal Justice, Law Enforcement Assistance Administration, U.S. Department of Justice, 633 Indiana Avenue NW., Washington, D.C. 20531. (202) 376-3506.

GERALD YAMADA,
Attorney-Advisor,
Office of General Counsel.

[FR Doc.75-29720 Filed 11-4-75;8:45 am]

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

COLORADO

District Managers Delegation of Authority

October 22, 1975.

1. In accordance with authority contained in sections 3.1 and 3.9(g) of Bureau Order No. 701 of July 23, 1964, as amended, the amount not to be exceeded in sales by District Managers of material other than forest products is increased to $5,000.

2. Effective date. This delegation will become effective November 5, 1975.

DALE R. ANDRUS,
State Director.

[FR Doc.75-29776 Filed 11-4-75;8:45 am]

National Park Service

[INT FES 75-87]

WHITE SANDS NATIONAL MONUMENT, NEW MEXICO; PROPOSED MASTER PLAN

Availability of Final Environmental Statement

Pursuant to Section 102(2)(C) of the National Environmental Policy Act, the Department of the Interior has prepared a final environmental statement on a proposed master plan for White Sands National Monument located within Dona Ana and Otero Counties, New Mexico.

The environmental statement considers development patterns, land classification, boundary adjustments, and management goals for administration of the area. Major development proposals include an improved circulation pattern at the monument entrance, additions to the existing headquarters building and improvements for picnicking in the dunes, additional parking, and a new road to the Heart-of-the-Dunes to form a one-way interpretive motor road. Boundary proposals involve a proposed land exchange in the Garton Lake Area and the deletion of the Dog Canyon tract.

Copies are available from or for inspection at the following locations:

Southwest Regional Office, National Park Service, Old Santa Fe Trail, Post Office Box 728, Santa Fe, New Mexico 87501.

White Sands National Monument, Post Office Box 458, Alamogordo, New Mexico 88310.

Chaco Center, Anthropology Building, Room 240, University of New Mexico, Post Office Box 26176, Albuquerque, New Mexico 87125.

Dated: October 14, 1975.

STANLEY D. DORESMUS,
Secretary,
of the Interior.

[FR Doc.75-29695 Filed 11-4-75;8:45 am]

Office of the Secretary

EDDY AND LEA COUNTIES, NEW MEXICO

Oil, Gas, and Potash Leasing and Development Within Potash Area

For the purpose of revising the rules for concurrent operations in prospecting for, development, and production of oil and gas and potash deposits owned by the United States within the Potash Area and for the purpose of revising the designated Potash Area to which the amended provisions are to be applicable, it is ordered as follows:

I. The Order of the Secretary of the Interior dated February 6, 1939 (4 FR 1012), withholding certain lands in New Mexico from application or lease under the oil and gas provisions of the Mineral Leasing Act of February 25, 1920 (41 Stat. 437), as amended, which Order was revoked by Order of the Secretary of the Interior dated October 16, 1951 (16 FR 10669), shall continue to be revoked. The lands described in said Order dated February 6, 1939 (except the E½SE¼, sec. 24, and the E½E½, W½SE¼, S½SW¼, sec. 25, T. 20 S., R. 29 E., N.M.M., which were withdrawn from all forms of entry by Public Land Order No. 569, 14 FR 1086), which were opened for oil and gas leasing by said Order dated October 16, 1951, shall continue to be open for oil and gas leasing. This Order shall not affect the current status of land with respect to its being withdrawn from, or open for, entry or leasing.

II. Subject to the provisions of I. above, the provisions of the Order of the Secretary of the Interior dated May 11, 1955 (30 FR 6592-93), and the Potash Area designated therein are revised to be as specified herein.

III. *General Provisions*—A. *Issuance of Oil and Gas Leases.*

The Department of the Interior reaffirms its position that the lease stipulations contained in the Order of May 11, 1955, adequately protect the rights of the oil and gas, and potash lessees and operators.

Therefore, each successful applicant for a noncompetitive oil and gas lease, and any party awarded a competitive lease, for lands included in the designated Potash Area will be required, as a condition to the issuance of such lease, to execute a stipulation to the lease as follows:

1. No wells will be drilled for oil or gas except upon approval of the Area Oil and Gas Supervisor of the Geological Survey, it being understood that drilling will be permitted only in the event that it is satisfactorily established that such drilling will not interfere with the mining and recovery of potash deposits, or the interest of the United States would best be subserved thereby.

2. No wells will be drilled for oil or gas at a location which, in the opinion of the Area Oil and Gas Supervisor, would result in undue waste of potash deposits or constitute a hazard to or unduly interfere with mining operations being conducted for the extraction of potash deposits.

3. When it is determined by the Area Oil and Gas Supervisor that unitization is necessary for orderly oil and gas development and proper protection of potash deposits, no well shall be drilled for oil or gas except pursuant to a unit plan approved by the Area Oil and Gas Supervisor.

4. The drilling or the abandonment of any well on said lease shall be done in accordance with applicable oil and gas operating regulations including such requirements as the Area Oil and Gas Supervisor may prescribe as necessary to prevent the infiltration of oil, gas, or water into formations containing potash deposits or into mines or workings being utilized in the extraction of such deposits.

The Area Oil and Gas Supervisor in any action taken under Part A, items 1, 2, 3, and 4 shall take into consideration the recommendations of the Area Mining Supervisor of the Geological Survey and the applicable conservation rules and regulations of the Oil Conservation Commission of the State of New Mexico.

B. *Renewal or Extension of Oil and Gas Leases.*

As a condition to the granting of any renewal or extension of any existing lease embracing lands included in the designated Potash Area, the lessee will be required to execute a stipulation identical to that specified in Part A, items 1, 2, 3, and 4 hereof.

C. *Potash Leases.*

All potash permits and leases hereafter issued or existing potash leases hereafter renewed for Federal lands within the designated Potash Area, shall be subject to a requirement either to be included in the lease or permit or imposed as a stitpulation, to the effect that no mining

or exploratory operations will be conducted that, in the opinion of the Area Mining Supervisor, would constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production under any oil or gas lease issued for the same land.

D. Minable Reserves.

1. Each potash lessee will file annually by January 1 with the Area Mining Supervisor a map or maps on which has been delineated the following information with respect to the Federal potash leases which it then holds:

a. The areas where active mining operations are now in progress on one or more ore zones.

b. The areas where mining operations have been completed on one or more ore zones.

c. The presently unmined areas which are considered to contain a minable reserve in one or more ore zones, i.e., those areas (enclaves) where potash ore is known to exist in sufficient thickness and quality to be minable under present day technology and economics.

d. The areas within these enclaves which are believed to be barren of commercial ore.

2. The Area Geologist of the Geological Survey, in consultation with the Area Mining Supervisor, will review the information submitted in this regard and make any revisions in the boundaries of the proposed minable reserves (potash enclaves) which are consistent with the data available at the time of such analyses. The Area Geologist and Area Mining Supervisor will commit their initial findings to a map or maps of suitable scale and will thereafter revise that map or maps as necessary to reflect the latest available information.

E. Oil and Gas Drilling.

1. It will be departmental policy to deny approval of most applications for permits to drill oil and gas tests from surface locations within the potash enclaves established in accordance with Part D, item 1 hereof. Two exceptions to this policy will be permitted under the following conditions:

a. Drilling of vertical or directional holes will be allowed to take place from barren areas within the potash enclaves when the Area Mining Supervisor determines that such operations will not adversely affect active or planned mining operations in the immediate vicinity of the proposed drillsite.

b. Drilling of vertical or directional holes will be permitted to take place from a drilling island located within a potash enclave when: (1) there are no barren areas within the enclave or drilling is not permitted on the established barren area(s) within the enclave because of interference with mining operations; (2) the objective oil and gas formation beneath the lease cannot be reached by a well which is vertically or directionally drilled from any permitted location within the barren area(s); or, (3) in the opinion of the Area Oil and Gas Supervisor, the target formation beneath a remote interior lease cannot be reached by a well directionally drilled from a surface location outside the potash enclave. Under these circumstances, the Area Mining Supervisor will, in consultation with the Area Oil and Gas Supervisor, establish an island within the potash enclave from which the drilling of that well and subsequent wells will be permitted. The Area Mining Supervisor in establishing any such island will, consistent with the data supplied by the Area Oil and Gas Supervisor regarding present directional drilling capabilities, select a site which will minimize the loss of potash ore. No island will be established within one mile of any area where approved mining operations will be conducted within three years. To assist the Area Mining Supervisor in this regard, he may require affected potash mining operators to furnish a three-year mining plan.

2. In order to protect the equities between oil and gas lessees while at the same time reducing the number of oil and gas wells which operators propose to drill in the Potash Area, the Area Oil and Gas Supervisor will make greater use of his prerogative to require unitization. Unitization will be mandatory in those cases where completion of the proposed well as a producer would result in the drainage of oil and gas from beneath other Federal lands within a potash enclave. Thus, unitization will be prerequisite to the approval of any well which is (1) located adjacent to an enclave (within a quarter of a mile if an oil test or one-half mile if a gas test) and which is to be drilled vertically to the prospective formation; (2) to be directionally drilled from an adjacent surface location to bottom in a formation beneath an enclave; or, (3) to be vertically or directionally drilled from a barren area or island within an enclave. Any unit plan hereafter approved or prescribed that includes oil and gas leases covered by this notice shall include a provision embodying in substance the requirements set forth in Part A, items 1, 2, 3, and 4 hereof.

3. The Department will cooperate with the New Mexico Oil Conservation Commission (NMOCC) in the implementation of that agency's rules and regulations. In that regard the Federal potash lessees shall continue to have the right to protest to the NMOCC the drilling of a proposed oil and gas test on Federal lands provided that the location of said well is within the State of New Mexico's "Oil-Potash Area" as that Area is delineated by NMOCC Order III, as amended. However, the Department will exercise its prerogative to make the final decision of whether to approve the drilling of any proposed well on a Federal oil and gas lease within the Potash Area.

4. Applications for permits to drill vertical tests for oil and gas at locations that are in the Potash Area but outside the State of New Mexico's "Oil-Potash Area" and which do not directly offset an enclave (within a quarter mile of an oil test or within one-half mile if a gas test) will be routinely approved by the Area Oil and Gas Supervisor after review by the Area Mining Supervisor.

F. Access to Maps and Surveys.

1. Well records and survey plats that an oil and gas lessee must file pursuant to applicable operating regulations (30 CFR Part 221), shall be available for inspection at the office of the Area Oil and Gas Supervisor, by any party holding a potash permit or lease on the land on which the well is situated insofar as such records are pertinent to the mining and protection of potash deposits.

2. Maps of mine workings and surface installations and records of core analyses that a potash lessee must file pursuant to applicable operation regulations (30 CFR Part 231), shall be available for inspection at the office of the Area Mining Supervisor by any party holding an oil and gas lease on the same land insofar as such maps or records are pertinent to the development and protection of oil and gas deposits.

3. Maps of potash enclaves shall be available for inspection in the office of the Area Geologist, Area Mining Supervisor, and Area Oil and Gas Supervisor. Copies of such maps will be available through local reproduction firms in Roswell, New Mexico.

G. Definition.

The word "potash" as used herein shall be deemed to embrace potassium and associated minerals as specified in the Act of February 7, 1927 (44 Stat. 1057).

IV. The lessee of any existing lease in the designated Potash Area may make such land subject to the rules and regulations of Part III above by filing an election to do so, in duplicate, with the Land Office, Bureau of Land Management, Santa Fe, New Mexico. Except to the extent herein modified, the general regulations contained in 43 CFR Part 3100 (governing the leasing and development of oil and gas deposits) and Part 3500 (governing the leasing and development of potash deposits), shall be applicable to the lands covered hereby.

V. The designated Potash Area is described as follows:

NEW MEXICO PRINCIPAL MERIDIAN

T. 22 S., R. 28 E.,
Secs. 25 and 36.
T. 23 S., R. 28 E.,
Sec. 1.
T. 19 S., R. 29 E.,
Secs. 1 and 2;
Secs. 11 to 15 inclusive;
Secs. 22 to 26 inclusive;
Secs. 25 and 36.
T. 20 S., R. 29 E.,
Secs. 1 and 2;
Secs. 11 to 15 inclusive;
Secs. 22 to 27 inclusive;
Secs. 34 to 36 inclusive.
T. 21 S., R. 29 E.,
Secs. 1 to 5 inclusive;
Secs. 10 to 15 inclusive;
Secs. 22 to 27 inclusive;
Secs. 34 to 36 inclusive.
T. 22 S., R. 29 E.,
Secs. 1 to 5 inclusive;
Secs. 8 to 17 inclusive;
Secs. 19 to 36 inclusive.

T. 23 S., R. 29 E.,
Secs. 1 to 17 inclusive;
Secs. 21 to 28 inclusive;
Secs. 33 to 36 inclusive.
T. 24 S., R. 29 E.,
Secs. 1 to 4 inclusive.
T. 18 S., R. 30 E.,
Secs. 8 to 17 inclusive;
Secs. 20 to 29 inclusive;
Secs. 32 to 36 inclusive.
T. 19 S., R. 30 E.,
T. 20 S., R. 30 E.,
T. 21 S., R. 30 E.,
T. 22 S., R. 30 E.,
T. 23 S., R. 30 E.,
T. 24 S., R. 30 E.,
Secs. 1 to 18 inclusive.
T. 19 S., R. 31 E.,
Secs. 31 to 36 inclusive.
T. 20 S., R. 31 E.,
T. 21 S., R. 31 E.,
T. 22 S., R. 31 E.,
T. 23 S., R. 31 E.,
T. 24 S., R. 31 E.,
Secs. 1 to 18 inclusive.
T. 19 S., R. 32 E.,
Secs. 25 to 28 inclusive;
Secs. 31 to 36 inclusive.
T. 20 S., R. 32 E.,
T. 21 S., R. 32 E.,
T. 23 S., R. 32 E.,
Secs. 1 to 12 inclusive.
T. 19 S., R. 33 E.,
Secs. 31 to 36 inclusive.
T. 20 S., R. 33 E.,
T. 21 S., R. 33 E.,
T. 22 S., R. 33 E.,
Secs. 1 to 12 inclusive.
T. 19 S., R. 34 E.,
Secs. 19 and 20;
Secs. 29 to 32 inclusive.
T. 20 S., R. 34 E.,
Secs. 3 to 10 inclusive;
Secs. 15 to 36 inclusive.
T. 21 S., R. 34 E.,
Secs. 5 to 8 inclusive;
Secs. 17 to 20 inclusive;
Secs. 29 to 32 inclusive.

The area described, including public and nonpublic lands, aggregates 491,915.71 acres, more or less.

VI. This Order shall be effective on November 5, 1975.

KENT FRIZZELL,
Acting Secretary of the Interior.

OCTOBER 7, 1975.

[FR Doc.75-29642 Filed 11-4-75;8:45 am]

Office of the Secretary

[INT FES 75-90]

PROPOSED LACASSINE WILDERNESS AREA

Availability of Final Environmental Statement

Pursuant to section 102(2)(C) of the National Environmental Policy Act of 1969, Public Law 91-190, the Department of the Interior has prepared a final environmental statement for the Proposed Lacassine Wilderness Area, Cameron Parish, Louisiana.

The proposal recommends about 2,854 acres of the Lacassine National Wildlife Refuge, Cameron Parish, Louisiana, be designated as wilderness within the National Wilderness Preservation System.

Copies of the final statement are available for inspection at the following locations:

Regional Director, U.S. Fish and Wildlife Service, 17 Executive Park Drive, N.E., Atlanta, Georgia 30329.

Refuge Manager, Lacassine National Wildlife Refuge, Route 1, Box 188, Lake Arthur, Louisiana 70549.

U.S. Fish and Wildlife Service, Division of Wildlife Refuges, Room 2280, 18th and C Streets, N.W., Washington, D.C. 20240.

Single copies may be obtained by writing the Environmental Impact Statement Coordinator, Division of Wildlife Refuges, U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240.

STANLEY D. DOREMUS,
Deputy Assistant Secretary of the Interior.

OCTOBER 30, 1975.

[FR Doc.75-29679 Filed 11-4-75;8:45 am]

DEPARTMENT OF AGRICULTURE

Federal Crop Insurance Corporation

[Notice No. 100]

GRAPE CROP INSURANCE; NEW YORK AND PENNSYLVANIA

Extension for Applications Date

Pursuant to the authority contained in § 411.3 of Title 7 of the Code of Federal Regulations, the time for filing applications for grape crop insurance for the 1976 crop year in all counties in New York and Pennsylvania where such insurance is otherwise authorized to be offered is herby extended until the close of business on December 19, 1975. Such applications received during this period will be accepted only after it is determined that no adverse selectivity will result.

[SEAL] M. R. PETERSON,
Manager,
Federal Crop Insurance Corporation.

[FR Doc.75-29682 Filed 11-4-75;8:45 am]

[Notice No. 101]

WHEAT CROP INSURANCE—HOUSTON COUNTY, GEORGIA

Extension of Applications Date

Pursuant to the authority contained in § 401.103 of Title 7 of the Code of Federal Regulations, the time for filing applications for wheat crop insurance in Houston County, Georgia, where such insurance is otherwise authorized to be offered is hereby extended until the close of business on November 15, 1975. Such applications received during this period will be accepted only after it is determined that no adverse selectivity will result.

[SEAL] M. R. PETERSON,
Manager,
Federal Crop Insurance Corporation.

[FR Doc.75-29683 Filed 11-4-75;8:45 am]

DEPARTMENT OF COMMERCE

Domestic and International Business Administration

[File No. 23(75)-6; Case No. 479 (CP-38A)]

HEWLETT-PACKARD GES. m.b.H.

Order Imposing Civil Penalty and Placing Respondent on Probation for Export Control Violations

In the matter of Hewlett-Packard Ges. m.b.H., Handelskai 52, Postfach 7, A-1025 Vienna, Austria.

The Director, Compliance Division, Office of Export Administration, Bureau of East-West Trade, issued a charging letter on November 26, 1974, charging the above respondent with violations of the Export Administration Act of 1969 and regulations thereunder. It alleged, in substance, that the respondent had violated §§387.2, 387.4, and 387.6 of the Export Administration Regulations (hereinafter, the export regulations), in that it, on two separate occasions, reexported or caused to be reexported to Czechoslovakia two computer systems with associated peripherals and accessories, of a value of $61,000 and $29,000 respectively, containing United States-origin parts and components, without obtaining the required authorization for such reexportation. The respondent's answer, dated January 3, 1975, stated that the facts contained in the charging letter are substantially correct and agreed with the information submitted by the parent company to the Office of Export Administration. In addition, it was represented that a substantial portion of the commodities involved had been manufactured outside the United States; that export licenses had been issued by West Germany and Great Britain; that the licensing specialist involved erroneously considered that outstanding demonstration licenses would provide temporary coverage until United States export permission was obtained, and that the transactions involved would be ultimately approved and licensed by the United States. Pressure from the purchasing organization and personal difficulties which forced the relocation of the employee, who is no longer with the Hewlett-Packard organization, were also cited as extenuating circumstances contributing to the violations.

Pursuant to § 388.10 of the Export Administration Regulations, the Office of General Counsel, with agreement of the Director, Compliance Division, submitted to the Hearing Commissioner a consent proposal for the issuance of an order imposing a civil penalty and placing the respondent on probation for 6 months. In said consent proposal the respondent admitted for the purpose of this compliance proceeding only, did not contest or deny the violations set forth in the charging letter of November 26, 1974. The respondent waived: (1) all rights to oral hearing before the Hearing Commissioner; (2) all rights of administrative appeal from and judicial review of said

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

APRIL 12, 1978

COMMISSION HEARING

IN THE MATTER OF:

Application of Bass Enterprises Production Company for a drilling permit in the Potash-Oil Area, Eddy County, New Mexico. Case 6077

BEFORE: Joe D. Ramey, Secretary-Director

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission:

Joe Ramey, Chairman
Emery Arnold, Commissioner
Phil Lucero, Commissioner
Richard L. Stamets, Staff Member

Lynn Teschendorf, Esq., Legal Counsel

LANPHERE REPORTING SERVICE
P. O. BOX 449
58 SOUTH FEDERAL PLACE
SANTA FE, NEW MEXICO 87501

FOR BASS ENTERPRISES PRODUCTION COMPANY:

HINKLE, COX, EATON, COFFIELD & HENSLEY
Attorneys at Law
600 Hinkle Building
P. O. Box 10
Roswell, New Mexico
By: Harold L. Hensley, Jr., Esq.

FOR MISSISSIPPI CHEMICAL CORPORATION:

MONTGOMERY, ANDREWS & HANNAHS
Attorneys at Law
325 Paseo De Peralta
Santa Fe, New Mexico 87501
By: Owen Lopez, Esq.

FOR KERR-MCGEE:

RODEY, DICKASON, SLOAN, AKIN & ROBB, P.A.
Attorneys at Law
Suite 700, 20 First Plaza
Albuquerque, New Mexico
By: Mark Adams, Esq.

MR. RAMEY: Call the next case on the docket.

MS. TESCHENDORF: Case 6077. Application of Bass Enterprises Production Company for a drilling permit in the Potash-Oil area, Eddy County, New Mexico.

MR. RAMEY: Before we start I will make a short statement. Bass sometime ago did apply for an application to drill a well at this location. There was an objection from the Potash people involved. Arbitration meeting was held here in Santa Fe and nothing was resolved as to permitting the well to be drilled. I think the sum total was the UGGS obejcted to any location in the area except for the reentry of a well that had been previously drilled, plugged and abandoned.

With that I will ask for appearances in the case.

MR. HENSLEY: If the Commission please, Harold L. Hensley, Jr., of the law firm of Hinkle, Cox, Eaton, Coffield and Hensley, Roswell, New Mexico for the Applicant, Bass Enterprises Production Company.

MR. RAMEY: Any witnesses, Mr. Hensley?

MR. HENSLEY: We will have probably four witness, Mr. Chairman. Mr. James M. Deacon, Jr.,

Mr. Dave Cromwell, Mr. Mike Cure, Mr. George Warnock and possibly Mr. Harold Kersey in rebuttal.

MR. RAMEY: Any other appearances? Mr. Lopez?

MR. LOPEZ: Owen Lopez with the Montgomery law firm in Santa Fe, New Mexico representing the Protestant, Mississippi Chemical Corporation. We may have two witnesses, Mr. Russ Hayworth and Mr. Tim Hall.

MR. ADAMS: Mark Adams with the Rodey firm in Albuquerque representing Kerr-McGee Corporation. We intend to have one witness, Bob Lane.

MR. RAMEY: Any other appearances?

(No other appearances.)

MR. RAMEY: We ask that all the witnesses stand at this time to be sworn.

(WHEREUPON, the witnesses were duly sworn.)

MR. LOPEZ: Excuse me, Mr. Ramey. If I may first interject this point. I've discussed with Mr. Hensley the fact that we could stipulate to the most recent USGS map as being representative of the potash area and he seems to have no objections on that score. And that the fact that the area in question, Section 27 falls within the parameters of ~~our~~ R-111, Order 111 as being recognized by the Commission as within the potash area.

I should also like to see if we could explore and define what the parameters of this hearing are. It has been advertised as an application for both the Rodke No. 3 and the Bass No. 52 and I guess what I'm inquiring and requesting is an order of the Commission, I think we're all aware of the letter of May 6, 1977 signed by James Sutherland addressed to Bass Enterprises denying their application to drill the Rodke Federal No. 3.

I'm inquiring as to whether we're going forward with testimony and evidence to support the application for the permission to drill this well and whether it is the Commission's position that they will go ahead and issue an order either approving or denying the application even in light of such a denial by the USGS?

MR. RAMEY: Mr. Hensley, do you want to make a statement?

MR. HENSLEY: Yes, Mr. Chairman, I would like to respond to that.

First of all the advertisements for this hearing as indicated by Mr. Lopez, do, in fact, involve both the Rodke No. 3 and Big Eddy No. 52. It is true that the USGS on May entered an order which denied the application to drill the Rodke No. 3. As a matter of fact

immediately followed the arbitration proceeding.

No order has ever been issued with respect to the pending application of Bass Interprises Production Company to drill its Big Eddy No. 2. It is true as you indicated for the record that at the arbitration proceeding there was some indication about the reentry of the Baxendale Well as alternative to the drilling of the Big Eddy No. 52 but most certainly Bass Enterprises Production Company is not agreeable to that and they desire that the Commission proceed with both application and I believe that directing the Chairman's attention to paragraph VII of Order R-111-A, there is no condition preceded that the USGS take any action whatsoever prior to the entertainment by this Commission of applications pursuant to R-111-A.

It just so happens that in the past in many instances the USGS has made a decision in advance, but there is no requirement. As a matter of fact I think the rules and regulations of the Commission requires that the USGS submit this matter, if they cannot resolve it by arbitration to the Commission for a full hearing and then if they don't agree with that they can deny it or approve it.

But I would respectfully submit to the

Commission that there is no requirement in the rules of this Commission or order R-111-A that require any condition precedent action by the USGS to your jurisdiction to entertain an application.

MR. RAMEY: I tend to agree with you, Mr. Hensley. I think the Applicant has the right to be heard and we will hear the testimony and the Commission will issue an order.

MR. HENSLEY: If the Commission please, I think there is one procedural matter which I would like in the record. I notice that there has been an entry of appearances in these proceedings by the Protestants, Kerr-McGee.

The record of the Commission should reflect or if it doesn't our testimony will reflect that the notices for this hearing pursuant--I'm sorry, the notices for the application to drill, intention to drill were duly submitted as required by R-111-A to all potash lessees within a radius of one mile of the proposed wells. Those lessees, according to the status of the potash leases at that time included both the Protestants, Mississippi Chemical and Kerr-McGee.

Mississippi Chemical make a timely

objection to the application which is, as the Commission is aware, required to be made within ten days.

Kerr-McGee did not. Their objection, first objection that was ever lodged to this application was two months and one day following the mailing of the notice of intention to drill and for that reason we would respectfully urge that they have not complied with the requirements of R-111-A insofar as lodging objections within the ten day period and consequently we do not believe they are entitled to be a party participant in these proceedings.

MR. ADAMS: May I respond for Kerr-McGee?

MR. RAMEY: Yes, Mr. Adams.

MR. ADAMS: I have two responses to that point. First of all this was advertised and proceeded as a de nova hearing. My understanding is that any interested party, and Kerr-McGee is obviously an interested party, has a right to be heard in de nova proceedings such as this one.

The second point is that beginning before the arbitration proceedings about a year ago and continuing thereafter Kerr-McGee has proceeded as a party to the predecessor to this proceeding, I think, without

objection by Bass and I don't think there is any sound reason to decide that Kerr-McGee can't continue to participate. Thank you.

MR. RAMEY: Mr. Hensley, I think anyone has a right to appear at the hearing and be heard. So we will permit Kerr-McGee to participate.

MR. HENSLEY: With the Commission's permission I would like to make an opening statement.

I think this, if the Commission please, is an unique case. Possibly that's been stated before and it's turned out it wasn't but I firmly believe this proceeding is. I know that the Commission is fully familiar with the potash-Oil area problems. You have considered many cases but I believe that we can demonstrate through the course of this proceeding that the situation is entirely different with respect not only to these applications, ,but the situation has been completely different since the Federal government passed its land policy management act, which contemplated as its sole purpose the multiple resource development and also as a consequence of an order of the Secretary of Interior, which was promulgated in 1975, which, I'm sure the Commission is aware of and I will have copies of which I would like the Commission to

take judicial notice of.

This order completely changed the concept of oil-potash development in this area. As a matter of fact I think the order itself requires a mandatory approval of all drilling whether by island or otherwise unless there is some proof offered that there is going to be mine workings within one mile, within three years. So prior to that time it was just a question, was there any potash or wasn't there any potash. If there was potash it was all over.

The oil operators were required to take a second seat, sit back, but I think the Federal government began to realize this, as I said, with the Land Policy Management Act and most certainly the Secretary of Interior has recognized it through the 1975 order.

I think this demonstrates the foresight that this Commission has, because I would like as a predicate for this entire proceeding to refer the Commission, which you are obviously aware of anyway, to the objective of ~~our~~ R-111-A which obviously forms the basis of this entire proceeding.

As stated by this Commission in its order the objective of these rules and regulations was to prevent waste, protect correlative rights, assure maximum

conservation of oil, gas and potash resources in New Mexico and permit the economic recovery of oil, gas and potash. Not one, but both and likewise it's stipulated in the order that no mining operations will be conducted which in the opinion of the Commission or its duly qualified agent or representatives would constitute a hazard to oil or gas production, or it would unreasonably interfere with the orderly development of production from oil or gas in any pool.

Now, what we have here as the Commission is aware, is two development wells in the parallel Delaware pool. Those are in Section 27 of 20 south, 31 east.

We think the evidence in the case will show there is no plans to develop any potash in this area in the foreseeable future. I think the arbitration proceedings it was indicated that not for 20 years is there going to be any development. That statement constitutes a predicate of our case, Mr. Commissioner, but the fact that this case is unique lies on two other aspects.

First of all and I'm not sure the USGS is aware of this. These two spacing units for the applied for wells are on two Federal oil and gas leases which predate the Secretary of Interior's order of October 16, 1951, which

the Commission knows is the order which set up the restrictions for drilling in the potash area. But two leases involve predate that order and I believe, my recollection may be incorrect but I believe that every case that the Commission has considered prior to this one, you have been involved with situations where the applicant oil company was operating pursuant to oil and gas leases issued subsequent to that 1951 order. And those leases were expressly subject to the restrictions and conditions for the development for oil and gas under the terms of that lease.

These oil and gas leases have no restrictions whatsoever and I have certified copies from the USGS of the leases and there are no restrictions developed.

In addition, the oil and gas lease, the Federal lease form as the Commission is aware specifically prescribes that no subsequent regulations of the Secretary or any other agency can preclude the orderly development of oil and gas in the pools.

So we would submit that this is unique in the first instance because the USGS cannot impose restrictions in the potash area because there are no

restrictions appurtenant to these grants and that's the only authority the USGS has ever had to impose any restrictions at all.

The second unique aspect of this case, I believe it's unique, is the fact as I mentioned, these lands are situated in Section 27 of 20 South 31 East. At the time the applications were filed only the south half, south half of Section 27 was subject to an existing potash lease. There is, as a matter of fact, on most of the acreage in Section 27 there aren't any applications pending. But one thing is for certain and the record will surely reflect it. Prior to this time there have been pending since, as a matter of fact, 1951 oil and gas leases on this property.

From the very beginning of the Secretary of Interior's involvement with potash and most particularly when these restrictions were put upon the issuance of all further non-competitive or competitive leases, the orders of the Secretary have had a specific provision, the most recent being contained in the 1975 order which states that "all potash permits and leases hereafter issued or existing potash leases hereafter renewed for Federal lands within the potash area shall be subject to a requirement to be

included in the lease or permit or imposed as a stipulation to the effect that no mining or exploratory operations will be conducted. That in the opinion of the mining supervisor of the GS would constitute as hazard to oil or gas productions or that would unreasonably interfere with orderly development and production under any oil and gas lease issued for the same land."

Now the undisputed facts in this case will reflect that there are no potash leases covering either of the proposed standard spacing units for these wells and the regulations of the Secretary are clear that if a potash lease is ever issued it will be expressly subject to the rights of Bass Enterprises Production Company to continue with the orderly development of this pool, so those two facts, we believe gentlemen, set the stage, so to speak, for this proceeding which we believe is unique in that whether or not there are commercial deposits of potash underlying the lands which are the subject of these application should have no bearing whatsoever on the right of BAss Enterprises Production to proceed with the orderly development of parallel Delaware Pool.

With that statement, Mr. Commissioner, we would like first of all to request that the Commission take

administrative notice of the orders of the Secretary of Interior. Those orders which have a relevance to this proceeding are the orders dated October 16, 1951, the order of May 11, 1965, and the order of the Secretary dated November 5, 1975 and of course, we would also like, as is customary in these proceedings for the Commission to take administrative notice of all the rules, regulations and orders of this Commission heretofore entered with respect to these proceedings, specifically Order R-111-A.

MR. RAMEY: Do you have copies of those.

MR. HENSLEY: Yes, sir. I will have to substitute these, Mr. Chairman, I had some underlining on these, but I will substitute clean copies.

We would like to call our first witness, Mr. James M. Deacon, Jr., D-E-A-C-O-N.

MR. RAMEY: Please proceed, Mr. Hensley.

MR. HENSLEY: Thank you, Mr. Chairman.

JAMES M. DEACON, JR.

the witness herein, having been previously sworn upon his oath was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HENSLEY:

Q Would you please state your name?

A James F. Deacon, Jr.

Q What is your occupation, Mr. Deacon?

A Manager of Contracts and Legal Services for Bass Enterprises Production Company in Fort Worth.

Q Would you briefly describe your professional, educational background?

A Yes. I graduated from the University of Kentucky in 1957 with a Bachelor of Arts Degree, from the University of Kentucky Law School in 1960 with a Bachelor of Laws Degree. Immediately after graduation went to work for Texaco in the Land Department in their New Orleans office and worked in various supervisory jobs until 1972. I was transferred to their New York office and spent two years working in Foreign Concession Negotiations with foreign governments.

I was employed by Bass Enterprises Production Company in 1974 as Manager of Contracts and Legal Services.

Q Is that still your position with Bass?

A Yes, it is.

MR. HENSLEY: Are the qualifications of this applicant as professional land man and manager of legal services satisfactory?

MR. RAMEY: Yes.

Q (By Mr. Kellahin) Mr. Deacon, are you familiar with the application of Bass Enterprises Production Company in these proceedings?

A Yes, sir. I am.

Q What actions or relief do you seek from the Commission in connection with this case?

A The approval of our application to drill two development wells, the Bass Big Eddy Unit 52 well and Bass Federal Rodke No. 3 well.

Q Has Bass Enterprises Production Company duly filed with the USGS a notice of intention to drill each of the proposed wells?

A Yes, we have. There are two separate applications. One for each of the two wells I mentioned. Both applications are dated November 1, 1976.

Q Have you caused these exhibits to be premarked for the benefit of the Commission?

A Yes, I have.

Q I will hand you what has been premarked as Exhibit Nos. 1 and 2 of the Applicant and ask you if you can identify these as the notices which you described?

A Yes. Exhibit 1 is the application to drill the Federal Rodke No. 3 well. Exhibit 2 is the

A Yes. The Big Eddy 52 well is located 990 feet from the east line and 1980 feet from the south line of Section 27, Township 20 south, Range 31 east. The Federal Rodke No. 3 proposed location is 1980 feet from the north line and 1980 feet from the west line of the same Section 27.

Q You're aware of the fact, are you not Mr. Deacon, that both of the proposed wells are located in the potash oil area designated by the Commission's order R-111-A?

A Yes. sir.

Q Also within the confines of the Secretary's potash boundaries?

A Yes, sir.

Q Directing your attention next, sir, to that which has been marked for identification as Applicant's Exhibit No. 3. Would you please identify that for the Commission?

A Yes. Exhibit 3 is a map showing the oil and gas lease status within Section 27. The acreage which is colored yellow is owned by Bass Enterprises Production Company, 75 per cent interest and Perry R. Bass, 25 per cent interest. It covers the entire section with the

exception of the west half of the southeast quarter which Kerr-McGee has a lease on.

Q Directing your attention next, sir, to Exhibit 4 and 5, can you identify these exhibits as certified copies of the two oil and gas leases which are the subject matter of this proceeding?

A Yes. Exhibit 4 is a certified copy of a U. S. Oil and Gas Lease issued from the Las Cruces office bearing serial number 065897. It covers the southeast quarter of Section 27.

Exhibit 5 is a certified copy of a U.S. Oil and Gas Lease bearing serial number LC 065431. It covers the south half of the northeast quarter and the northwest quarter of the Section 27.

Q If the Commission please, directing the Commission's attention for the moment to the Exhibit appended to the October 16, 1951 Order of the Secretary of the Interior which is a list of stipulations and restrictions for drilling in the potash area. I would like to direct your attention, Mr. Deacon, to that attachment and ask you, sir, if you will review each of these certified copies of the oil and leases under which Bass proposes to drill these wells and state whether either of

these lease are subject to any restrictions for drilling in the potash area?

A The lease denominated Exhibit 4 is not subject to these restrictions. Nor is the lease denominated Exhibit 5 subject to restrictions.

Q Directing your attention to that which has been marked for identification as Applicant's Exhibit No. 6. Would you please explain what that is?

A Yes. Exhibit 6 is a map showing the current status of potash leases and potash lease applications within the affected area. It shows that there is a potash lease application from Kerr-McGee which covers the east half of the northeast quarter of Section 27, as well as the northeast quarter of the southeast quarter of Section 27. The south half of the south half of Section 27 is covered by an existing potash lease which is now owned by Mississippi Chemical.

Q Are the proposed locations for the Rodke No. 3 and Big Eddy No. 52 outside the boundary of the current potash lease on the premises?

A Yes.

Q There is not potash lease at all on either of the spacing units which would be assigned to

these wells, is that correct?

A That's correct.

Q Is Bass the operator of the Big Eddy Unit, Mr. Deacon?

A Yes. Perry R. Bass is the operator of the Big Eddy Unit.

Q Does the Big Eddy Unit require that the operator file annual plans of development?

A Yes.

Q Did you file a plan of development for 1976?

A Yes, we did.

Q Directing your attention to that, which has been marked for identification as Applicant's Exhibit No. 7, is that a copy of this development plan?

A Yes. Our letter dated December 22, 1975 denominated Exhibit 7 did consist of our originally submitted 1976 plan of development.

Q Was the '76 plan of development subsequently amended?

A Yes, it was.

Q In that connection I will direct your attention to that whichas been marked for identification as

Applicant's Exhibit No. 8 and ask you if you will please identify that exhibit?

A Yes. Exhibit 8 is our letter of September 29, 1976 which is an amended plan of development for the year of 1976 for the Big Eddy Unit.

Q Does the 1976 amended plan of development for the Big Eddy Unit contain references to the Big Eddy No. 52 and the Rodke No. 3 well as development wells on the unit?

A Yes, both of those wells are covered by our amended plan of development. In fact, that was the reason we filed the amended plan of development.

Q Is it required, Mr. Deacon, that your plan of development be submitted for joint approval to the USGS and also the Commissioner of Public Lands?

A Yes, that's correct and the amended '76 plan of development was approved by the State of New Mexico and by James A. Sutherland, Supervisor of the U. S. Geological Survey.

Q All right, sir. Did Bass file a plan of development for 1977?

A Yes, we did.

Q Directing your attention, sir, to what has

been marked for identification as Applicant's Exhibit No. 9. Is that a copy of the 1977 plan of development?

A Yes. Exhibit 9 is a copy of our December 13, 1976 plan of development for 1977.

Q Are your proposed plans to drill the Rodke No. 3 and the Big Eddy NO. 52 incorporated in the 1977 plan?

A Yes, sir.

Q Was this 1977 plan submitted for approval as required by goth USGS and the Commission?

A Yes, it also was approved by the State of New Mexico and again by Mr. Sutherland for the U. S. Geological Survey.

Q Simultaneously upon the filing of your Notice of Intention to Drill each of the proposed wells, Mr. Deacon, did Bass send a copy of the notice and attachments by registered mail to potash operators holding potash leases in a radius of one mile to each of the proposed locations?

A Yes, sir. We did.

Q Directing your attention, sir, to what as been marked for identification as Exhibits 10 and 11, could you please identify those exhibits?

A Exhibit 10 is a copy of a letter directed to Kerr-McGee dated December 7, 1976 advising them of the location of both the Big Eddy 52 well and the Federal Rodke Well No. 3.

Exhibit 11 is a copy of a letter dated December 8, 1976 to Mississippi Chemical Corporation advising them of our application for permit for the same two wells.

Q Did you receive any objections from either of these potash lessees?

A Yes, sir.

Q Next directing your attention to what has been marked for identification as Applicant's Exhibits 12 and 13. Will you please identify those exhibits?

A Exhibit 12 is a letter dated February 9, 1977 received from Mr. Mark K. Adams, attorney representing Kerr-McGee Corporation objecting to the location.

Q Is there any specific reason why the objection was made by Kerr-McGee?

A Kerr-McGee made the statement in their letter that the drilling of either of the proposed wells would result in undue waste of potash deposits and constitute a hazard to and interfere unduly with the

recovery of such potash deposits.

Q And yet they had no potash leases on either of the proposed locations at the time the notices were filed?

A That's correct. Exhibit 13 is a letter dated December 15, 1976 from Don G. McCormick, attorney representing Mississippi Chemical Corporation also objecting to the drilling of these wells.

Q For the same reasons?

A For the reason that it is located in the oil-potash areas defined by Order R-111-A.

Q By reason of these objections, Mr. Deacon, did Bass then refer this matter to the Secretary-Director of the Oil Conservation for arbitration in accordance with the mandate R-111-A?

A Yes, sir.

Q Was an arbitration held?

A Yes, the meeting was held on April 21 of last year.

Q Who was represented at the arbitration proceeding?

A In addition to representatives of the Commission and Bass there were representatives of the USGS,

Kerr-McGee, Duval Corporation, Mississippi Chemical and Mesa Petroleum.

Q Was a satisfactory settlement of the controversy reached?

A No, sir.

Q Why not?

A The Potash companies were unwilling to withdraw their objections to the two locations.

Q Has Bass received any communications from the USGS regarding the notice of intention to drill the Rodke Federal No. 3?

A Yes, sir.

Q Directing your attention, sir, to what has been marked for identification as Applicant's Exhibit No. 14. Is this the communication that you received?

A Yes. Our Exhibit 14 is a copy of a letter dated May 6, 1977 from James W. Sutherland, Area Oil and Gas Supervisor of the Geological Survey denying our application for a permit.

Q Have you ever received any communication from the USGS since November of 1976 with regard to your pending application to drill the Big Eddy No. 52?

A No, sir.

Q Have you perfected an appeal of the decision of the USGS with respect to the Rodke No. 3 well?

A Yes, sir. We have.

Q I hand you what has been marked for identification as Applicant's Exhibit No. 15 and ask if you can identify that?

A Yes. This is a copy of a letter from our attorney to James W. Sutherland, Area Oil and Gas Supervisor of the Geological Survey. It's dated June 2, 1977 and it appeals his denial of our permit for the Federal Rodke No. 3.

Q Mr. Deacon, were Exhibits 1 through 15 prepared by you or under your direct control or supervision or were those documents obtained from the business records maintained by Bass Enterprises Production Company?

A Yes, sir.

MR. HENSLEY: Mr. Chairman, we offer Exhibits 1 through 15 of the Applicant.

MR. RAMEY: They will be admitted.

(WHEREUPON, Applicant's Exhibit No. 1 through 15 admitted into the evidence.)

MR. HENSLEY: We pass the witness for cross-examination.

MR. RAMEY: Before we get into that, let's take a 15 minute recess.

(WHEREUPON, a brief recess was held, after which time the following proceedings were had:)

MR. RAMEY: The hearing will come to order. Any questions of Mr. Deacon?

MR. LOPEZ: If the Chairman please.

CROSS-EXAMINATION

BY MR. LOPEZ:

Q Mr. Deacon, I believe you have testifed that a certified copy that you have introducted as Exhibit 4 and 5 of the leases covering the area that you have proposed to drill with your current application pre-dated any of the regulations adopted by the Secretary of Interior or the Oil Conservation Commission affecting the potash area, does that fairly summarize your testimony or your position?

A I believe that summarizes Mr. Hensley's opening statement but not my testimony.

Q Okay. I believe you did introduce the regulation that Mr. Hensley asked the Chairman to take administrative notice of, namely those dated 1951, 1965, '75

and R-111-A, is that correct?

A Yes.

Q You don't seriously propose to drill either of these locations, do you, without the approval of both the Commission and the USGS?

A We don't propose to drill either well without all of the necessary approvals under existing law.

Q Well, I believe, if I can characterize your position fairly that your position, that since the leases in question predated the regulations, you're not subject to the subsequent regulations, is that correct?

A That's Bass' position, yes.

Q I would like to call your attention to the order dated November 5, 1975, which you have introduced into evidence. Specifically paragraph E-1. I would ask you to read it, if you would?

A "It will be the departmental policy to deny approval of most applications for permits to drill oil and gas tests from surface locations within the potash enclave established in accordance with part D, Item 1 hereof. Two exceptions to this policy will be permitted under the following conditions.

Q Okay. That's all I needed. So it does

state that it will be the departmental policy to deny permits to drill oil and gas tests from surface locations within potash enclaves. That's what we're here to discuss, isn't it, the fact whether you will be allowed to drill these wells, not whether or not the leases in question have stipulations with respect to the potash area?

A If I understand Bass' legal position, I feel like I'm speaking for our attorneys and I'm really not qualified to do this, but our position, as I understand it from a legal standpoint, is simply that our leases predate these regulations that are not subject to them.

Q I understand that.

A Regardless of what these regulations may say.

Q But I think you earlier testified that you don't seriously propose to drill the wells without the necessary permit and these regulations clearly address the drilling of the wells.

A We don't intend to drill the wells without the necessary approval of all those who have the legal right to approve our permit as we receive advice from our attorneys.

Q Now, I would like to call your attention

to R-111-Z and request that you read Provision III, paragraph 2.

MR. HENSLEY: I think these provisions in the order speak for themselves. I have no specific objection to the witness reading the order. But I'm sure the Commission can read it for themselves.

MR. LOPEZ: Okay, Mr. Hensley, your point is well taken. Let me ask Mr. Deacon this. Is not Provision III, paragraph 2 also address the situation of the denial of permission to drill wells wherein the opinion of the Commission or its representatives the result would be in the undue waste of potash deposits or constitute a hazard or interfere unduly with the potash deposits?

A That's correct and the second paragraph also prohibits mining operations that will unduly interfere with oil and gas production.

Q We don't have any production from the location in question, isn't that correct?

A As I understand it, I think our technical testimony will be to the effect that there are two producing wells in this section from this pool.

Q I understand that. But there is no

production from the locations which you're seeking approval of today?

A No, if there were a well on these spacing areas we wouldn't be allowed to drill a second well.

Q Were you present at the arbitration hearing approximately a year ago?

A No, sir.

Q Have you had an opportunity to discuss what was discussed there with any of the people who were present?

A Yes.

Q Have you been informed that there was testimony from USGS at that time regarding the Bass No. 52, that if an application to reenter the Baxendale well were sought that USGS would not resist such an application?

A That's my understanding of what took place. It's also my understanding that the potash companies representatives said they would not concur with that reentry.

Q Have you applied for permission to reenter Baxendal and directional drill?

A No, sir.

Q Why not?

A We prefer to drill at the present location for various technical reason that I'm not competent to discuss.

Q To your knowledge have there been any directional drilling operations in the area conducted by yourself or others?

A I'm not competent to testify to that.

Q I believe in characterizing the protest made by Mr. McCormick on behalf of Mississippi Chemical against your application, you stated that the reason was that the area in question was located within the oil-potash area as defined by R-111-A?

This is just for clarification purposes. Isn't it also true that the position of Mississippi Chemical as stated in this letter of December 15, 1976, would also that the drilling of the well in question would cause damage to their lease holding interest and that the deposits of potash contained therein?

A Yes, that's correct.

Q I just wanted the record to so reflect.

CROSS-EXAMINATION

BY MR. ADAMS:

Q Sir, again I will direct your attention to

paragraph 1 of the Interior Department order of October 30, 1975. Is it of concern under that paragraph whether there are existing potash leases in effect in an area within the potash enclave as far as the limitation on oil and gas drilling is concerned?

MR. HENSLEY: I will object to that question. That asks the witness to interpret the regulation and it's clear as can be and I'm sure the Commission can render its own interpretation.

Q (By Mr. Adams) It's a very simple question. Does paragraph E refer to existing potash leases?

A The only reference I see just from scanning it quickly is over in Section C and that provision says potash leases shall be subject to the existing oil leases.

Q But does paragraph E limit oil and gas drilling on land subject to existing potash leases?

A As I read it the regulation attempts to never to prohibit drilling but to limit the locations on which drilling can take place.

Q Withe reference to existing leases or with references to areas within the potash enclave, refer to your paragraph E again?

A I haven't studied this thing closely

recently. I think we're talking about leases within the potash area.

Q Does paragraph 1 refer to leases or does it refer to locations within the potash area?

A It seems to be talking about drilling within the potash area.

Q Thank you. I will refer you now to Order R-111 A of the Oil Conservation Commission. Specifically Roman numeral III, subparagraph 2. Does that subparagraph prohibit the drilling of oil and gas wells on land subject to existing potash leases or rather does it prohibit the drilling of oil and gas leases on land when the drilling would result in undue waste of or constitute a hazard to or unduly interfer with potash deposits?

A As I understand it, just isolating the first paragraph of subparagraph 2, if the Commission finds there will be an undue waste of potash deposits or a hazard or interference as defined in paragraph 2, then the well may not be drilled there.

MR. ADAMS: Thank you. That's all I have.

MR. RAMEY: Any other questions of the witness? You may be excused. Call your next witness, Mr. Hensley.

MR. HENSLEY: Call Mr. Dave Cromwell.

DAVID W. CROMWELL

the witness herein, having been previously sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HENSLEY:

Q Will you state your full name, occupation and by whom you are employed?

A David W. Cromwell, I'm a geologist with Bass Enterprises Production Company in Midland, Texas.

Q Mr. Cromwell, have you ever testified before this Commission?

A No, sir.

Q Would you please state your formal education?

A I have a BA Degree from the University of California, majoring in geology, I have an MS Degree from the University of Oklahoma in geology.

Q What has been your practical experience since graduating from college?

A I have nearly four years experience as an petroleum exploration geologist, first working two and a half years with Amoco Production Company, Houston, working in the New Mexico area and since November of 1976

working with Bass Enterprises in Midland, also working in the New Mexico area.

Q Is the area involved in connection with the subject wells a part of the area of responsibility which you worked with?

A Yes, sir.

MR. HENSLEY: Are the qualifications of the witness acceptable?

MR. RAMEY: The witness is considered qualified.

MR. HENSLEY: If the Commission please, this witness will be referring to a number of exhibits, all of which have been posted on the wall and I would like your permission for him to be able to stand at the wall and explain the exhibits if possible?

MR. RAMEY: Wish he would.

Q (By Mr. Hensley) While you're walking up there, Mr. Cromwell, I would ask that you first direct your attention to what has been marked for identification as Applicant's Exhibit No. 16 and identify that if you will.

A This is Exhibit No. 16. This is a regional 1 to 1600 map of the northwestern corner of the

Delaware basin. Also in green I have outlined the Delaware Field. The purpose of this map highlighting where the location of the Parallel Delaware Field and the Capitan Reef is to show that--give you a brief synopsis of the deposition environment of the Delaware Sands as I envision it.

The Delaware Sands are--have thought to have their origins in the permelnaise (Permian Uplift) and they were brought down to a back reef environment by various fluvial and and aeolian means. At certain periodic times these sands were preworked through the low places in the existing refront (reef front) and deposited as to bit occurance in deep water environment.

Because the sands are so fine grained and because the organisms that were present on the bottom of the sea had a chance to rework it and change the porosity permeability that historically Delaware production has been one and two well fields. As best I can--data I can gather at least 50 percent of all Delaware production in New Mexico is from one and two well fields.

This essentially is the gist of Exhibit No. 16.

Q All right, sir. Directing your attention

to what has been marked for identification as Applicant's Exhibit No. 17, would you please identify that Exhibit and explain to the Commission what it purports to show?

A This is a structure map on the limestone unit just above the pay sands, we call it Basapurboe as our code name. This map is one to four hundred scale map of the cross section, I mean with the contour lines every ten feet.

You have the Bass No. 2 Rodke, Bass No. 1 Rodke are both producing wells at this time. The Rodke No. 3 location is designed to be up dipped from the No. 2 and--pardon me, from the No. 2 and No. 1 Rodke and the Big Eddy No. 52 is designed to be slightly up dip from the Baxendale well.

Q Are both of these wells classified as development wells?

A Yes, sir. According to New Mexico Proration Spacing on the Delaware, which is 40 acres spacing, No. 3 Rodke is direct off set and the No. 52 Big Eddy is also direct off set.

Q You indicated that the reason for your proposed location of the Rodke 3 where indicated there is because it was up dip on the structure. What about the

Big Eddy No. 52. Is it likewise proposed that an up structure location?

A Yes, sir. It is slightly up dip from the No. 1 Baxendale.

Q Have you reviewed the logs of the Baxendale well when it was originally drilled?

A Yes, sir.

Q Do you have reason to believe that it might be productive of oil and gas under present-day technology if it had been drilled now?

A Yes, sir. If it will--if you will look at Exhibit No. 18 which is just a cross-section line of the existing wells and lead us into Exhibit No. 19 which also--which is a cross-section of this line.

Q Does Exhibit 18 simply show the specific locations from which the cross-section of the well?

A Yes, sir.

Q Directing your attention to what has been marked for identification as Applicant's Exhibit 19. Explain, if you will, what that is and what the purpose of the exhibit is?

A Exhibit No. 19 contains the wells that are in the cross-section plus two other wells that are on

the eastern margin of the area of interest.

The Big Eddy 48, now called the No. 2 Rodke, was drilled approximately two years ago. We have the Rodke No. 1, original Rodke well which was drilled some 23 years ago and the only Baxendale which was drilled approximately 23, 24 years ago and proposed location relative to the adjacent wells.

This cross-section was designed to show, first of all, that we have multi-pay potential in the area in that we--the original pay in the Rodke well was down around 57- 5800 feet. And since then, several years ago it was recompleted to an upper zone, up in here, that we consider the pay and which is the pay in the No. 2 Rodke. So we have two zones that we are interested in. Original Rodke zone, the lower zone and the upper zone which is currently producing in the No. 1 Rodke and the No. 2 Rodke.

The old Baxendale well drilled in 1955 had a thick sand section and using our present techniques that we know of today, we are not sure that this well may have been a past up producer and this is the reason we are choosing the No. 52 location slightly away from it and yet up dip.

Q Is one reason for the location being away from it is the possible damage that may have been done surrounding the original well bore?

A Yes, sir. That's what I've been told.

Q Directing your attention to the other cross-section map which you have, which is I believe marked for identification as Exhibit No. 20. Would you explain what the significance of that Exhibit is?

A Cross-section, which also follows the same line as cross-section that I've illustrated in Exhibit No. 18, shows in detail on a one to forty inch basis that we have a thick pay sand in the No. 1 Rodke and it thins in the No. 2 Rodke.

This is one of the reasons why we are picking a location that is to the west of the No. 1 Rodke and not going directly north. It is also in an up dip location.

As I mentioned earlier, the Baxendale well also has a thick sand in it and this is the reason we're interested in the proposed location adjacent to it.

Q Is there anything else of significance that you wish to comment about that exhibit?

A No, sir, I think that's everything.

Q Directing your attention, if you will, Mr. Cromwell, Applicant's Exhibit No. 21. Please identify that, first of all and then if you will state what the purpose of that exhibit is insofar as these proceedings are concerned?

A Exhibit 21 and 22 are actually together. These are base maps on a one- to two thousand scale, It's taken from the USGS map open file of '76-554 which is published by or authored by Aguilar, Cheeseman and Sandell.

That shows the outlying mined areas, specifically around Getty Field, Barber Field and PCA Field and then up to the north the Duval mine around Leo Field.

These maps also show the primary mine areas and barren areas and second mined areas as illustrated in the legend.

The reason for these maps is to show, first of all, or most importantly there has been compatible development with oil and gas as well as potash.

First of all, these fields were drilled in the early '40's, Getty, Barber and PCA as well as Leo Field before there was any mining done. And subsequent to the drilling mining was commenced in and around these

various fields and also note, according to my source which was the USGS map, that there was no significant island left around these borehole tests which is an indication to me that there hasn't been any undue waste of potash.

Also this map illustrates, and second point is that our field, the Parallel Delaware Field, is productive from low pressure pumping oil wells. These wells also in the Getty Field, Barber, PCS and Leo are also productive from low pressure pumping oil wells. The oil characteristics is somewhat similar, according to the Roswell Geological Society Publication, on the oil and gas fields in New Mexico, in that these are both fairly low gravity crude and the only difference, the significant difference is that these fields have a higher sulfur content. In other words, sour crude classification whereas our oil has a sweet crude classification. In other words, not as much sulfur in the oil.

And also, in addition, I would like to point out on Exhibit No. 22 we have in the Duval second-mined area we have three pumping wells that are currently producing from the Grayburg formation. These wells are producing, as I say once again, in a second-mined area.

Q Do you know who the operator of those wells is?

A Yes, sir. Mr. Kersey, Harold Kersey is the operator of two of the wells.

Q From Artesia, New Mexico?

A Yes, sir.

Q Were Exhibits 16 through 22 prepared by you or under your direct supervision and control, Mr. Cromwell?

A Yes, sir.

MR. HENSLEY: If the Commission please, we would offer Applicant's Exhibits 16 through 22 into evidence.

MR. RAMEY: Without objection they will be admitted.

(WHEREUPON, Applicant's Exhibits Nos. 16 through 22 admitted into evidence.)

MR. HENSLEY: We would pass the witness for cross-examination.

MR. RAMEY: Any questions of the witness?

CROSS-EXAMINATION

BY MR. ADAMS:

Q Mr. Cromwell, I will refer you to your Exhibit No. 21, it shows mining to have taken place around the Getty Field and Barber Field and PCA Field. What type of mining was that?

A Potash mining.

Q Was it first-mining or second-mining?

A First-mining.

Q What's the difference between first-mining and second mining?

A As I understand it, first-mining, they go in and recover approximately 60 percent of the ore, leaving numerous pillars of various sizes there and second-mining they go back and recover 80 to 90 percent of the ore, pulling these pillars, as I understand it. I'm not really expert in the mining field.

Q So the type of mining that's been done to date in the vicinity of the Getty Field and Barber Field and PCA Field has been first-mining without pulling pillars?

A According to the USGS map, that's correct.

Q The first-mining involves leaving, to use your figures, say 20 to 30 percent of the ore in place

that would be recovered by second-mining?

A Say again please.

Q First-mining, according to the figures you have used, would involve leaving unmined something in the range of 20 to 30 percent of the ore?

A First-mining?

Q Yes.

A I said 60 percent I believe.

Q Leaving in place, not recovered, leaving in place?

A During first-mining?

Q Yes.

A That's the way I understand it. I'm not really qualified to talk about the first and second-mining, but that's the way I understand it.

Q Some of that ore, again to use your figures, 20 to 30 percent additional amount would be recovered in the second mining?

A Yes, sir. Also noted on Leo Field there has been second-mining within a producing field.

Q Are you familiar with the nature of that second-mining?

A No, sir. I've never been down in the mine.

Q Do you know what the recovery rate was in the second-mining in the Leo Field?

A No, sir.

MR. ADAMS: No further questions.

MR. RAMEY: Mr. Cromwell, I assume that you have no experience in mining, so your answers are based on your opinion more than anything else?

MR. CROMWELL: Absolutely, yes, sir.

MR. RAMEY: Mr. Lopez, do you have any questions?

MR. LOPEZ: No, Mr. Chairman.

MR. RAMEY: Any other questions of the witness? Ms. Teschendorf?

CROSS-EXAMINATION

BY MS. TESCHENDORF:

Q Mr. Cromwell, you mentioned that there was possible damage to the wellbore in the Baxendale Well. You said that might be the reason for not reentering the Baxendale. Do you have any concrete reasons for not reentering it?

A The way we evaluate the Delaware now is we drill the well, we run logs and then we shoot side-wall cores and the sidewalls cores are little plugs that

shoot about at most ten inches into the formation--like little bullet, they shoot in and recover maybe an inch and quarter sample. We can't do that with this well. I mean we don't feel wecould get good evidence for it because the oil has been flushed from the vicinity from the borehole. So we do not have this tool to adequately evaluate what we feel the potential of the Baxendale would be. And that's why we picked this location 300 feet away and slightly up dip.

Q So the Big Eddy 52 is 300 feet west, approximately?

A Yes, ma'am.

Q To your knowledge, have any cores been drilled ir Section 27 for potash?

A No, ma'am, I don't believe so.

Q So to your knowledge, at least, you don't have any concrete evidence of potash existing under Section 27?

A Well, I really don't feel qualified to answer that, but that's no to the best of my knowledge.

Q That's fine.

MS. TESCHENDORF: That's all.

MR. RAMEY: Any question of the witness?

You may be excused.

MR. HENSLEY: If the Commission please, we would like to call next Mr. Harold Kersey.

HAROLD KERSEY

the witness herein, having been previously sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HENSLEY:

Q Will you state your name please, sir?

A Harold Kersey.

Q Where do you live, Mr. Kersey?

A Artesia, New Mexico.

Q What's your occupation?

A Oil producer.

Q How long have you been involved as an oil producer in New Mexico?

A I've actually had production for 39 years.

Q Where do you operate?

A In Eddy County and Lea County.

Q What is your formal education, sir?

A Graduate, Petroleum Engineer from the University of Oklahoma.

Q In your experience as an oil operator have

you ever had occasion in the past to appear before this Commission?

A Numerous occasions.

Q Have you testified before the Commission as an expert witness?

A Yes, I have.

Q Petroleum Engineer?

A Yes, a petroleum engineer.

Q Are your qualifications a matter of record in the Commission's records?

A That is right.

MR. HENSLEY: Are the qualifications of Mr. Kersey as a petroleum engineer acceptable to the Commission?

MR. RAMEY: Yes, the Commission has been aware of Mr. Kersey's existence for a long time.

Q (By Mr. Hensley: Mr. Kersey, I would like to direct your attention, sir to what I believe is marked for identification as Applicant Exhibit No. 22. In any event, it's the small map, the last one on the right wall here in front of you. That depicts what is denominated as the Leo Field. Do you know anything about that field?

A Yes. I've had production in that field since 1939.

Q What kind of production?

A It's in the Grayburg, upper Grayburg and sand section. The initial well came in for about 300 barrels a day. The production now is pretty well depleted but we're still producing it.

Q There's an indication, I believe, on the Applicant's Exhibit 22 as to the location of certain wells there. Can you point out for the benefit of the Commission which of the wells you are now producing?

A Yes, be glad to. We're currently producing Creek No. 1 located here in the northwest-- of the northeast to northwest and Creek No. 2, located in the southeast of the northwest.

Q Would you indicate those were drilling back in '39 or '40?

A No. 1 was drilled in '39 and No. 2 was drilled in '42.

Q Now that Exhibit reflects that there has been some potash mining in that area by Duval. When did that potash mining first commence, do you know?

A My memory is not real good on that but I

would say in the early '60's, somewhere in that time.

Q Is that an underground potash mine?

A That's an underground potash mine.

Q Have you ever been in it?

A Yes, I have. At the time they were mining under our wells, Mr. Ellers was the manager of the Duval Mine and we ran a survey on our wells to see exactly how much deflection. So he invited me to go down in the mine and I went down in the mine and while we were down there we went back fairly close to our wells. But he wanted to show me where they had mined, where a well had been plugged.

So we went to this well here, which was O. H. Randal well and all you could see in the mine were just a small discolored hole and the same thing in the roof.

Q Had the casing been pulled?

A The casing had been pulled in that well.

Q Just an open hole?

A Just an open hole. I mean it had been plugged, cement put in it at the time they plugged it. But they had mined right through it with no effort at all and then we went on back at that time to where they

were second-mining which was taking place, where they were pulling the pillars and which was an interesting experience for me, being an amateur in that line.

Q They went on and pulled the pillars and left those producing wells intact?

A Left the producing wells intact.

Q Have you ever had any trouble operating your wells?

A None whatsoever.

Q Are they operated on a pump?

A Operated on a pump on a timer.

Q Is there undue mechanical problem occasioned by the fact that there had been potash mining there?

A No. The only problem I've had is the well being depleted.

Q Thank you, sir. You can take your seat.

MR. HENSLEY: We pass the witness for cross-examination.

MR. RAMEY: Any questions of Mr. Kersey?

MR. LOPEZ: No, sir.

MR. ADAMS: No, Mr. Chairman.

MR. RAMEY: Mr. Arnold?

MR. ARNOLD: Mr. Kersey, when those pillars were pulled was there any sign of substance of any kind.

MR. KERSEY: Well, you could see where the roof had come down where they pulled the pillars. And it wasn't, as I remember it, it didn't come clear together but it had--the area had sagged somewhat.

MR. ARNOLD: Didn't disturb the casing or anything?

MR. KERSEY: No disturbance at all. I can digress a second farther on that with the Commission's permission. At the time I went underground I was considering putting a water flood in on those wells and I had a hearing before the Commission and they asked me to secure the permission of the Potash Company so I went to the Potash Company and told them I was going to put a water flood in. So they said they wouldn't protest it, but if I would wait about a year they would be much happier and I could go ahead and put it in. So I waited about a year and I'm still waiting and never have put it in.

MR. HENSLEY: Did you ever hear any objection from them?

MR. KERSEY: No objections. I contacted

them and everything was clear.

MR. RAMEY: Any other questions of the witness.

MR. DANIELS: Are there any pillars around this well?

MR. KERSEY: They are around the two wells, yes.

MR. DANIELS: What size?

MR. KERSEY: At the time, and this is entirely from memory, it's about a 300 foot circle around each well.

MR. BURLESON: John Burleson, from Carlsbad, mining supervisor. When you're talking about pulling pillars, Mr. Kersey, would you clarify that?

MR. KERSEY: Well, I'm not a mining engineer and I don't know too much about it. But they were mining out when I was back there, they were mining the potash out.

MR. BURLESON: But when you say "pulling pillars" you do not mean total extraction of the pillar, just a portion of it is removed and the roof compresses down on the pillar but it's still supporting it, isn't that what you mean?

MR. KERSEY: Well, as I remember, I don't

remember seeing too much pillars left. But, like I say, my memory over a period of years can be a little bit faulty. You being a mining supervisor, you know more about that than I do.

MR. BURLESON: I've never been in this property, unfortunately it was closed when I got to Carlsbad, so you have the advantage on me seeing the operation.

MR. KERSEY: It was certainly a revelation to me and I was happy to go in underground.

MR. BURLESON: Thank you.

MR. RAMEY: Any other questions of the witness? You may be excused.

MR. HENSLEY: Call Mr. Mike Cure. If the Commission please.

MR. RAMEY: Please proceed, Mr. Hensley.

LOUIE M. CURE

the witness herein, having been previously sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HENSLEY:

Q Would you please state your name, sir?

A My name is Louie M. Cure.

Q What's your occupation, Mr. Cure?

A I'm a drilling engineer for Bass Enterprises Production Company in Midland, Texas.

Q Have you ever had occasion to testify before this Commission before?

A No, sir, I have not.

Q Would you then state your formal education?

A I have a Bachelor of Science Degree in Mechanical Engineering from Texas A and M University. I have a Master of Science in Mechanical Engineering from Okalahoma State University. I've been in the drilling engineer business for about the last seven years since I got out of the service.

I spent a year in West Africa working for a drilling contractor, a couple of years for the U. S. Gulf Coast working for Exxon Corporation, couple of years overseas in Japan and Singapore working for Exxon Exploration. And the last two years I've been Midland working for Bass Enterprises.

MR. HENSELY: Are the qualifications of the witness acceptable to the Commission?

MR. RAMEY: Yes, they are.

Q (By Mr. Hensley) Mr. Cure, are you

familiar with the existing development of the Parallel Delaware Pool in Section 27?

A Yes, I am.

Q Directing your attention, if I may, to what has been marked for identification as Applicant's Exhibit No. 23, please explain the significance of this Exhibit insofar as it relates to our application?

A This Exhibit shows Section 27, Range 31 east, Township 20 south, showing the section we plan to drill these two wells we've applied for.

It also show the existing status of the development in the Parallel Delaware Pool in the Section. It shows, in addition, the standard 40 acre spacing for wells of this depth and type. It shows the first well, Bass No. 1 Rodke which shows the second well drilled which is originally the Bass No. 1 Baxendale plugged when it was drilled.

It shows a well drilled two years ago, Bass No. 2 Rodke and it shows the location for our wells we have proposed for hearing, Bass No. 3 Rodke and the Bass No. 52 Big Eddy Unit.

Q Keeping this Exhibit as a reference plat, I will next call your attention to what has been marked for

identification as Applicant's Exhibit No. 24 and ask if you will please identify that Exhibit and explain its significance.

A Exhibit No. 24 is a recap of the existing production and past production on this section giving the Commission some idea of what type of wells we're talking about and establish the fact that we're indeed in a development drilling situation.

Josephine Rodke Federal No. 1 well was drilled in January, 1955 by Richardson and Bass. It occupys a 40 acre space operated by Perry R. Bass and it was completed from interval which is deeper than the interval it now produces from, Its original completion interval was 5722 feet down to 5734 feet.

It produced there from March of 1955 to March of '75 at a total of 20 years, cumulative production was a little over 7900 barrels. The well was abandoned and it's been recomplted in a second interval which is the objective pool that we now would like to drill for.

The second interval is from 4718 feet down to 4748 in this particular wellbore. It's been producing there since June of '76 and our cumulative production up to February of this year is almost 3800

barrels of oil. Its present rate is 44 barrels a day being pumped.

Josephine Rocke Federal No. 2 was drilled in March of '76 by Perry R. Bass. It's on a 40 acre space, it's operated by Perry Bass. It's completed in the correlative interval to the Rocke 1. The depth in that wellbore is 4722 down to 4747 and from June, '76 up through February of this year it's produced 11,500 barrels, its present rate is 22 barrels of oil a day, it produces 84 barrels of water each day.

The J. N. Baxendale Federal No. 1 was drilled and abandoned. It was spudded in September, 1955 by Richardson and Bass.

Q Sir, are you familiar with the pending application of Bass Enterprises and the notice to drill two proposed wells in this pool?

A Yes, I am.

Q Is the casing program which would be utilized if these wells are permitted specified on the application?

A Yes, sir, it is.

Q I would like then to direct your attention, if I may, to what has been marked for identification as

Applicant's Exhibit No. 25 and ask if you will identify that with reference to the original notices which were filed for the proposed wells?

A Applicant's Exhibit No. 25 is simply a wellbore schematic presentation showing our proposed hole size, casing design and cementing programs, also showing down the left hand side of the exhibit, the formations encountered as we drill in this section.

Q Are you familiar with the fact that both of the proposed locations lie within what is been designated as the R-111-A potash-oil area?

A Yes, I am.

Q And do the casing programs which you have proposed and which are contained in the application on file comply with the requirements of R-111-A with respect to drilling in the area?

A They do.

Q Next, Mr. Cure, I would like to direct your attention to what has been marked for identification as Applicant's Exhibit No. 26 and ask if you will please identify that ehxibit and state the purpose for it?

A Exhibit No. 26 is another wellbore schematic for the same wells as proposed. It just shows how we

propose to plug these wells in the event they were drilled as dry holes and these cement plugs are set in accordance with R-111-A with a little bit extra to protect the Capitain Reef.

Q These plugging requirements then are at least sufficient to comply with the R-111-A order?

A Yes, they exceed R-111-A specifications, in fact.

Q As a drilling engineer and based on your knowledge of the production history on the wells in question, do you have an opinion, sir, as to whether or not drilling of the proposed wells is necessary to the orderly development and production from its Parallel Delaware Pool?

A Yes, sir. The drilling of these wells is necessary for the orderly development of this pool, certainly.

Q Do you feel that if Bass is unable to drill these wells that correlative rights will be violated and economic waste will result?

A Yes, sir. I do feel that.

Q Were Exhibits 23 through 26 prepared by you or under your direct supervision and control, Mr. Cure?

A Yes, sir. They were.

MR. HINSLEY: If the Commission please, we would offer Exhibits 23 through 26.

MR. RAMEY: They will be admitted.

(WHEREUPON, Applicant's Exhibit Nos. 23 through 26 admitted into evidence.)

MR. HINSLEY: We pass the witness for cross-examination.

MR. RAMEY: Any questions of the witness?

CROSS-EXAMINATION

BY MR. LOPEZ:

Q Mr. Cure, I don't know if this question is appropriately asked of you or Mr. Deacon, but I think you're both qualified to answer it.

I believe your testimony today has been that the two proposed locations, the Rodke No. 3 and Bass No. 52 are development wells in the development of the Delaware Sand Stone, is that correct?

A Yes, that's correct.

Q Are these two wells part of a larger plan, much larger plan by Bass to develop the Delaware zones in the potash-oil area?

A We, of course, hope to develop any pool to

to its full extent. The extent of the pool is unknown until its developed. That's the meaning of the word "developed". Mr. Cromwell has put in testimony today that some 50 percent of the Delaware fields are two wells or less. I can only make a guess from a statistical basis that this pool will not extend, you know, for miles and miles or something like that. But I have no real ability to say just how large the pool may be until we get it developed.

Q The exhibit that's on the wall, next to the picture, immediately to the right, that's an area map of your projections of the Delaware Sandstone, is that correct?

MR. RAMEY: Which exhibit are you referring to, Mr. Lopez.

MR. LOPEZ: Exhibit 16.

A Exhibit 16, I believe shows the general distribution of Delaware fieldsin the north part of the Delaware Basin.

Q And the shaded area is the area in which you plan to drill these development wells, is that correct?

A No, the shaded area is the Capitain Reef.

Q I see.

A What Carlsbad Caverns is in.

Q Do you have under consideration any other area where you propose to drill development wells besides the area in question at todays hearing?

A Yes, we do have other Delaware pools in southeastern New Mexico that we hope to develop. We are completing a well, at the present time, in one of them.

Q Are these wells within the potash-oil area?

A No, they are not.

Q Would your experience indicate that if your application is--approval to your application was granted and that the two wells were producers that you would continue to drill offset wells to these two wells?

A Yes, my experience would indicate if those wells are good producers we would indeed offset them.

MR. LOPEZ: That's all.

MR. RAMEY: Mr. Cure, maybe you can answer this, if not, maybe Mr. Cromwell will. In your opinion can the oil in this pool be drained by the existing wells?

MR. CURE: No, sir. In my opinion it could not.

MR. RAMEY: Thank you. Ms. Teschendorf?

CROSS-EXAMINATION

BY MS. TESCHENDORF:

Q I'm interested in the consequences of not drilling these two wells. First of all, you mentioned briefly but I would like you to explain a little more how you feel your correlative rights would be violated by not being able to drill these two wells? For instance, are there offsetting wells owned by other companies that would be draining your oil if these particular wells weren't drilled?

A No, there are not offset wells that are competing for the oil. The wells we have will not produce the oil from this pool. If we're not allowed to drill these wells, that oil under our lease will be lost to us. Since we have exclusive rights to drill there it would be lost to everyone.

Q So it's not essentially--

A It's essentially taking our property from us to put it that way.

Q My other question is, Mr. Lopez touched on this, do you have an overall and I don't know if you know this, do you have an overall plan of development for this pool?

A We have a formal plan of development for the Big Eddy Unit which has already been introduced into evidence. The development wells have to be played by ear especially in areas of the Delaware which is a bit risky, small pools is the rule rather than the exception. What's done is wells are stepped out and as long as the geologist feels competent to go certain directions we continue to go there.

Q Judging by your 1976 and 1977 plan which are already introduced as exhibits and I don't know the numbers, but by not drilling these wells than you are interfering with--it would be interfering with your development of this unit?

A Certainly.

MS. TESCHENDORF: That's all.

MR. RAMEY: Mr. Cure, what would your opinion be, what would happen say if potash were allowed to be mined out of there before you were allowed to develop your oil in the area? Would that be possible?

MR. CURE: I personally have never drilled through a subsidence mined area. I don't think it's been done in this part of the world. The opposite is true, the mining has been done last. But I don't have any personal

knowledge of wells being drilled through after. There would be an economic waste because, as stated in the arbitration meeting, they don't plan to develop this area until after the year 2000 and our well produce, after it's completed, for a total of maybe 15 or 20 years. We would be deferring our income from this oil producer for a period of 30 to 50 years.

The effect on our present value of economics this oil would not be worth very much to us if we had to delay 40 or 50 years before we could get our money.

MR. RAMEY: Any other questions of the Witness. Mr. Adams?

CROSS-EXAMINATION

BY MR. ADAMS:

Q Mr. Cure, what kind of production do you anticipate getting from the two wells you have applied to drill?

A I would anticipate these wells would produce a cumulative of 100,000 barrels of oil apiece. It might initially start producing in the neighborhood of 200 barrels a day. Their total lifetime would be 15 to 20 years.

MR. ADAMS: That's all I have.

MR. HINSLEY: A couple of questions on

rebuttal.

REDIRECT EXAMINATION

BY MR. HINSLEY:

Q You indicated in response to a question by the Chairman that you did not feel that the two existing wells would efficiently drain the oil from this pool. The existing wells are based on 40 acre spacing units, are they not?

A That's correct.

Q Do you have an opinion as to whether or not either of those wells will drain an area larger than the dedicated 40 acre spacing?

A My opinion is in the sand of this type, no.

Q So that in order to recover the hydrocarbons from the balance of the acreage it would be sufficient to, it would be necessary to drill on the remaining 40 acre tract in order to recover all the oil from a pool?

A That is correct. Actually 40 acres is a matter of statutory requirement and in this case it happens to fit fairly close to what a well would actually drain down to an economic limit. After a well is drained out to a large radius, the flow into the wellbore is such

that you can't economically operate the well, so production is terminated.

Q Did I understand the answers to your questions correct, that the life of these wells would be between 15 and 20 years and you would anticipate a recovery of something in the range of 100,000 barrels?

A That's correct.

Q And so that if no potash mining was proposed for 20 years, practically all of these reserves would have already been recovered before any mining started, would that be correct?

A That's correct.

MR. HENSLEY: No further questions.

MR. RAMEY: Mr. Arnold?

MR. ARNOLD: Mr. Cure, upon what do you base your information that the well would be depleted in 15 or 20 years?

MR. CURE: The best information I have is what the first rodke completed in, in the same wellbore, the geology is similar and that zone produced for 20 years and recovered 80,000 barrels of oil. The new zone is a bit thicker and looks a bit better so I would say it would produce perhaps the same amount of time and perhaps shorter.

MR. ARNOLD: I noticed that Mr. Kersey said his well was drilled in 1939. I wondered--

MR. CURE: The PCA, Larber, Yates, those field produced from shallower production, Yates and Seven Rivers, the production is substantially better than the Delaware Sand production in the area. Those wells will produce several times the volume of oil that the Delaware will.

MR. HENSLEY: One final question, if I may Mr. Chairman, because I don't know whether the record is clear on it. Counsel for the Commission addressed the witness with a question as to whether or not any correlative rights were involved in connection with these wells. I would like to ask the witness, assuming for the purpose of this question, the different royality owners are under these leases and with different override owners exist under these leases, it is necessary that you drill all the locations in order that the correlative rights of those persons be protected, is that not correct?

MR. CURE: Yes, that is correct.

MR. HENSLEY: No further question.

MR. RAMEY: Mr. Adams?

RECROSS-EXAMINATION

BY MR. ADAMS:

Q Mr. Cure, Rodke Federal No. 1 well is still producing 23 years after it was drilled, isn't that true?

A That's true.

Q Do you anticipate that the wells you have applied for here will be producing from first one interval and then another interval like your Rodke No. 1 well did?

A That's possible. If both zones happen to look attractive we could always twin the wells.

Q It's possible that your estimate of 15 to 20 years might turn out to be substantially longer?

A Per zone estimate, that is possible, yes.

MR. ADAMS: That's all I have.

MR. RAMEY: Any other questions. The witness may be excused. Do you have another witness, Mr. Hensley?

MR. HENSLEY: Yes, sir. We would like to call Mr. George Warnock.

GEORGE WARNOCK

the witness herein, having been previously sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HENSLEY:

Q Would you state your name, occupation and by whom you are employed?

A George Warnock, Geological Consultant, self-employed.

Q Have you previously testified before the Commission as an expert witness?

A Yes, sir.

Q Have your qualifications been accepted as a matter of record in prior proceedings?

A Yes, sir.

MR. HENSLEY: Are the qualifications of Mr. Warnock acceptable?

MR. RAMEY: Yes, they are acceptable.

Q (By Mr. Hensley) Mr. Warnock, have you been present during the entire testimony in this case?

A Yes, sir.

Q Are you familiar with the application of Bass Enterprises Production Company with respect to their desire to drill the Rodke No. 3 and the Big Eddy No. 52 well?

A Yes, sir.

Q In connection with this matter have you made a study of potash leasing and exploration in Section 27 and 20 south, 31 east?

A Yes, sir.

Q Have you prepared any exhibits which might assist in your explanation of what development has occurred there?

A Yes, we have two. They're 27 and 28.

Q Directing your attention first, sir, to what has been marked for identification as Applicant's No. 27, would you please explain the significance of that exhibit and what it purports to show?

A Yes, sir. This is the general drill location map of the district. It's from the USGS open file report by Brokaw. All drilling locations are updated as to about a year ago, just prior to the arbitration meeting. Nothing since then.

With the updates out of the new locations filed with the Mining Supervisor in Carlsbad. It also shows the mining areas mined as to that time and there's no distinction made between first and second. Just the mining areas.

The purpose of this exhibit is that I

assume we will very shortly get into a strong debate on the definitions of proven, probable and possible ore. a debate we go through each time, which really turns on the number of data points or in this case the core holes necessary in a given area to prove ore, it justifies a major economic investment to mine.

Very briefly my criteria, which has been stated before the Commission before, is that in the sylvite areas to the north as opposed to langbeinite to the south, which is a different situation, that to firmly prove ore a minimum of approximately four holes per section or a projection of 1500 foot radius from a hole is necessary to prove ore.

I've been contested on this many times or several times and the purpose of this map is to show that throughout the whole district the potash district historically, where potash has been mined that approximate four holes per section in the sylvite areas to the north has been observed with two exceptions on this map.

There are approximately, I haven't counted them, but there might be 30 sections there that have been mined in and in all but two case or one out of 15 there has been at least four holes per section prior to mining.

The langbeinite area, which we are not discussing today a more erratic mineralization commonly thought to require eight to twelve holes per section to the south, as you can see on your map, the difference in density as opposed to the sylvite areas which is given a more uniform type potash mineralization.

Section 27 is marked in the yellow. There are zero holes in the section, no holes in the section. There are two very close U 32 at the south boundary U 83 at the northwest we have a little more than 5000 feet apart and in those zones, where they're mineralized, they indicate possible ore or a potash potential for the section very definitely unproven as far as economic ore reserves go.

Q Directing your attention now, Mr. Warnock, to what has been marked for identification as Applicant's Exhibit 28. Will you please explain that exhibit?

A Yes. Exhibit 28 is a 1 to 2000 blowup of the area we're concerned with 27, 20, 31 is here in yellow. We have the open mine workings for both Kerr-McGee, National, Mississippi and the old Duval section. We have five year plans on here, looking at the legend for the past six years now, as we have the '78 one lately, color schemed. We have all known drilling on the map, the green

symbols and we also have marked by crosses those holes that we have data on and those holes we don't. Although I understand on the small copies they used paste on the spots so you can't see the crosses. It doesn't matter because there's no economic data on the map. No economic data put on the map.

We have the logs for the immediate area. I have studied them but we chose not to put it on because we're going to make two points here.

I technically agree that there is a geological potential for potash in the section in at least one if not more of the zones. Second main point and the most important in my mind is that this section is not drilled out to the point that you can say there's proven ore and it will never be mined.

The Commission had a similar case before it recently and the last one I was involved in, if I can remember the name, which was PCA Mesa, 5496 where we had a very similar situation. It was not drilled out to the point that anyone could logically and objectively from an engineering point of view block ore in it. Both PCA and while I never came to testimony on it, I agreed there was a geological potential even though this doesn't help my

client. They existed according to the logs. The outcome of that hearing was that three holes were drilled in the immediate vicinity of where we were debating and the hearing was held off until the results were in and the protest was withdrawn.

The point here is that while I, as a geologist, have to give the thing geological potential that doesn't mean we're going to prove ore and we have a classical example where you didn't in the PCS Mesa case to the south.

You can try to quantify what the probabilities are, you'll get different numbers from different geologists. I could take a guess at what I feel is the probability that they're going to hit ore but I'm guessing. It does have another way to put it, as an exploration geologist, I could recommend drilling the section. The potential as projected and this is trendology as you have seen many times, just projecting holes on the foot percent contour method into the area would justify to my mind further drilling in the area. But it is a long ways from being proven. It's not even started to be proven and whether it will ever prove out or not, we just don't know.

Second point we make off of Exhibit 28 is, of course, the timing again. The latest Mississippi five year plan is shown in purple and also in purple for Kerr-McGee on the east. There's no plans to be anywhere near the section. Certainly, in the five year plan and I was also in the arbitration meeting where it was stated they wouldn't be out there until after the year 2000 minimum and I can certainly agree with that as potash mines develop it will be some time. They are a full two and a half miles aware from it on the east and one and a half miles away from it--I'm sorry on the west and one and half on the east Kerr-McGee.

Q Mr. Warnock, let me ask a question, It appears to me that one of these five year plans went up right to the south boundary of Section 27?

A Yes, this was during Tele Dyne previously United States potash and then Tele Dyne. Each of the years, '73 through '76 with the colored code, the blue being '76 took a broad brush approach to the five year plan and just blocked it out by sections as you can see. An unmeaningful five year plan. They were, as I understand the requirements of the five year plan, which is to show as accurately as possible where they really plan to go, that

they may plan to go.

The blue there might make a good 50 year plan rather than a five year plan.

Q So they have actually withdrawn their five year plan?

A Yes, that may or may not be when Mississippi took over, I'm not sure. But in '76 which is this kind of gold colored here, they brought it down and didn't put in anymore ground than they could reasonably expect to mine in five years and followed that in '78. '77, '78 are realistic five year plans, yes.

Q Is there anything else of significance that you would like to comment about with respect to these two exhibits?

A I don't think so.

Q As I understand your testimony then, sir, in order to establish a known deposit of commerical ore it is essential in your opinion as an exploration geologist, to have a density of at least four holes per section?

A Yes, sir.

Q That has not been done in this case and subsequently you do not believe these deposits could be classified as known commercial potash deposits?

A They cannot be classified as such at the moment.

Q Were Exhibits 27 and 28 either prepared by you or under your direct control and supervision?

A Yes, sir.

MR. HENSLEY: We offer Applicant's Exhibits 27 and 28.

MR. RAMEY: They will be admitted.

MR. HENSLEY: We pass the witness for cross-examination.

MR. RAMEY: Any questions of the witness?

CROSS-EXAMINATION

BY MR. LOPEZ:

Q Mr. Warnock, you have testified that your requirement, as an expert geologist, in order to determine whether or not there exists potash reserves is that there be four holes per section. Does this comply with the USGS requirement?

A No, it doesn't.

Q What is the USGS requirement?

A I think they--I would have to look at that. I think one and a half miles between holes.

Q Is that correct?

A Yes. And of course, the difference being that USGS doesn't have to invest dollars to make those decisions. We've had lots of debate on the USGS classification, the 40 foot percent cutoff and so forth. And if you want to get back into it, fine. If you're making a proposal to a board of directors to spend "X" fifty million for a shaft, you don't do that on a mile and a half basis, no one does.

Q Let's get to that point then. Do your requirements comply with any known operators in the area if so, who?

A Apparently in 28 out of 30 cases they apparently apply. I do not know the specific or reserved guidelines for any given operator. But statistically it has been at least approximately four holes per section in the sylvite area and more, of course, in the langbeinite where it's more relevant.

Q When were these densities completed? Isn't it fair to say right before sinking a shaft, before beginning mining operations rather than determining proven ore reserves?

A No. We can get into debate what is development drilling versus exploration drilling, which we have

been in before.

Certainly to go possible ore drilling out in my criteria for possible ore would be one hole per section or five thousand foot spacing. This certainly gives us an interest and this is the case with Section 27. It gives you a distinct interest and gives you a hope to someday mine that area. Probable ore, two holes per section or 2500 foot radius. By the time you have two holes per section or 25 foot radius, if you want to try to put a number on it, 70 percent sure that you're going to get some ore out of there to drill it off tight, to know what ore you have to go down to the four holes per section which Bob will argue with, is really development drilling. It's a question of terminology.

Development drilling to continous miner conventional, how thick is it, you have as a general indication that already with two holes, you need the tighter spacing, a 1500 foot spacing both to know the economic ore is there to mine and of course for mine planning. I have no argument with it. But you can use it also as development drilling.

Q. Have you ever worked for or been retained by a potash producing company to estimate or calculate

reserves for mining purposes or for exploration development drilling?

A Yes, I have. A potash producing company?

Q Yes.

A No, sir. I have not.

Q So your experience is not in the area of estimating reserves for potash companies, who are in the potash industry?

A My principle experience in potash is in estimating ore reserves and feasibilities for possible potash mining, yes. In other words, in the exploration phase if you like.

Q For whom have you conducted this work?

A W. R. Grace.

Q Are they a producing company in New Mexico?

A No, they're not a producing company. They, at the time held leases in Saskatchewan which I think has subsequently been let go, although I'm not sure.

Q Turning to the area in question, you've already testified that there are two drill cores immediately adjacent to Section 27?

A Correct.

Q Both of these tests did indicate potash, did

they not?

A Yes, in one zone they did, yes.

Q And turning to the other ones that were not quite so close, but the drill test to the northeast there are three, one in Section 26, one on the boundary between Section 21 and 26 and another in Section 23, I guess it is, between 23 and 26 and one in 23. These three tests also indicate potash, did they not?

A I would have to go to the specifics if you want to. Some of them did and some of them didn't. Specific by hole, log and ore zone.

Q Before we get to that let's turn, have you had an opportunity to examine the electric logs on the three wells that have been drilled in Section 27, namely the Baxendale, Rodke and Rodke No. 2?

A Electric logs or the gamma logs?

Q Gamma logs?

A Yes, sir.

Q Would it be a fair characterization to say that each of those logs also indicated potash?

A As a potential it would be fair to say if my memory is correct, that two, the Rodke No. 1 shows a very low content. The Rodke No. 2 has distinct potential

for potash at the correct stratigraphic correlation and Maxendale 6, 1 also does. So two of the three show a reasonable potential for potash.

Q Could you define what your definition is for a "reasonable showing?

A I again, I'm using 55 foot percent cutoff for oil reserves and I don't have factual sales information. We got through that everytime too. But the last time we were here we were using 70 foot percent, The difference, of course, is the increase in price. It's counteracted to some degree by lower grade and in this particular area, it's high in soil, probably 82, 83, 84 percent mill recovery. So I can show you the calculations but it's a judgment factor that 55 foot percent is at this time reasonable foot percent cutoff for this area.

So what I say potash potential, it means above 55 foot percent and where I say no potential, it's an economic definition of 55 foot percent. 9 percent minimum I'm using, 9 percent minimum K_2O, minimum 4 feet, four and a half continuous mining. But minimum of 4 feet of 9 or minimum of 55 foot percent.

Q You brought up the Mesa PCA case on several occasions. That was in a langbeinite area not the

area in question, is that correct?

A That's correct. However, the target was the tenth ore zone which was a sylvite target. Tenth ore zone target. To clarify that for you if you want me to, the point was made in the foot percent projection versus follow-up drilling.

The foot percent projection in that case showed no possibilities or very low possibility in the first through the fourth ore zone, which is generally the langbeinite ore zone in the south, with a tenth ore zone sylvite possibility based on projections. And of course the drilling, I haven't seen the drilling, but the protest was simply withdrawn, assuming it's more or less negative why it's shoot down. Tenth ore zone sylvite projected.

MR. LOPEZ: That's all, Mr. Chairman.

MR. RAMEY: Any other questions of the witness? You may be excused.

Recess the hearing until one-thirty.

(WHEREUPON, a luncheon recess was had, after which the following proceedings were had:)

MR. RAMEY: The hearing will come to order.

Mr. Hensley, did you have anything further at this time?

MR. HENSLEY: No further questions. The Applicant rests.

MR. RAMEY: Mr. Lopez, I think you're next in line.

MR. LOPEZ: That is correct. I believe Mr. Adams will put on the first witness if that's all right.

MR. RAMEY: That will be fine. Mr. Adams?

MR. ADAMS: My first witness will be Bob Lane from Farmington. Before he begins his testimony I would like to make a brief opening statement if I could.

Carlsbad potash basin is a valuable resource of the State of New Mexico and of the United States. More than 80 percent of the U. S. potash production comes from that basin. Recognizing this, the State and the United States both have enacted regulatory programs to prevent the waste and destruction of a potash deposits by oil and gas drilling.

This section we're concerned with here, Section 27, is within the protected area established both by the State of New Mexico and Order R-111 and in the area established by the United States and portrayed on the

map which the Commission has taken administrative notice of.

Both groups, both the United States and the Oil Conservation Commission have concluded after appropriate study that there are potash reserves worth preserving in Section 27. Mr. Lane's testimony will verify that and show how they arrived at that determination.

Mr. Cure testified that he didn't know how long the wells that Bass has proposed to drill in this section might be producing. They might be producing from one zone from 15 to 20 years. He said they might be producing from other zones, one or more other zones, for possibly a substantial amount of time after that.

He also didn't indicate how many holes Bass was likely to want to drill in Section 27 or elsewhere. But he did indicate that they would keep on applying to drill holes and trying to drill holes for as long as such drilling was indicated by the existence of a oil pool in that area. There's 16 drilling sites, as shown on Applicant's Exhibit No. 23 for this kind of well in this area.

It's conceivable that they had applied to drill wells in each of those 16 drilling sites in this

section. It's also conceivable they would continue to apply to drill similar wells in similar spacing in other sections.

I think there is no way anybody here today can say where this application to drill and desire to drill is going to stop in this area. It's also clear if these wells are permitted they will condemn substantial areas from potash mining, result in substantial waste in potash reserves, which Mr. Lane is going to testify, have tremendous economic value and in so doing they could condemn a substantial part of a major source of potash production and consumption in the United States.

Now, the regulatory program established by the State and the Federal government aren't set up to preserve the rights of potash lessees. Both programs are directed at preserving potash reserves, not protecting the rights of the lessee. When you read the programs, read the statutes and regulations. It's clear what they're looking at is protection of reserves.

As indicated I think there are sufficient reserves in Section 27 as recognized by the U. S. and the Oil Conservation Commission, to be worthy of preservation. So with that in mind, I would like to call

Mr. Bob Lane as the first witness and only witness.

BOB LANE

the witness herein, having been previously sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. ADAMS:

Q State your name, please?

A Robert Lane.

Q By whom are you employed?

A Kerr-McGee Chemical Corporation.

Q What is your job there?

A Superintendent of Mining Engineering.

Q Would you outline briefly your professional education?

A Education, BS from School of Mines at Socorro in 1950.

Q Outline briefly your professional experience in potash mining?

A Been in potash mining ever since getting out of school. Started to work for IMC in 1950, held positions in production and engineering until '63 when I moved over to Kerr-McGee and have been with Kerr-McGee ever since.

Q How much of your time in potash mining has been spent in the Carlsbad potash basin?

A All but three years. That was with IMC in Canada.

Q So you spent 15 years in Carlsbad potash basin?

A It was more than that, about 25.

Q Have you testified before this Commission on occasions prior to this?

A Yes, I have.

MR. ADAMS: Are Mr. Lane's qualifications as an expert witness considered qualified?

MR. RAMEY: The witness is considered qualified.

Q (By Mr. Adams) Mr. Lane, of your duties in the 25 years you've worked in the Carlsbad potash basin included the determination of potash reserves?

A Yes, they have.

Q Could you explain briefly how you determined where potash reserves are in the basin?

A In the basin?

Q Yes.

A Basically from drill hole data and mine

workings. They're determined by several different methods, what you call the triangular method, $R_2 0$ foot radius with the basis being with the standards of height and grade to be considered.

Q Have you made a determination of the potash reserves in Section 27 that would be affected by the two holes Bass has applied to drill?

A Yes, I have.

Q I will refer to the exhibit marked for identification Nos. 1, 2 and 3 of Kerr-McGee and Mississippi. And Mr. Lane, could you please step down here and explain how those are determined? Exhibit No. 1 refers to the fifth ore zone, Exhibit No. 2 refers to the seventh ore zone and No. 3 to the tenth ore zone.

A All three exhibits were made from the same base map so I will take Exhibit 1 to explain some of the coding on it.

The solid blue line outlines present leases of Kerr-McGee. Coming around on the right hand side, the present Federal and State lease of Mississippi Chemical Corporation is shown by the dash and dot outline. The lease applied for by Kerr-McGee is in the dotted and the two oil wells that are in question today, I mean the

Big Lady 52 located here and the Rodke 3 to the northwest in Section 27.

We used a K_2O foot contour to indicate ore on these maps. The basis for data is all from drill hole data, potash core tests.

Core tests are indicated by the circle in the number on the top which are scattered throughout.

Q Does the map indicate, Mr. Lane, which core test you used to determine the ore reserves?

A In this all core tests that are shown here are indicated by K_2O foot contours. They are all used.

In Section 27 the main drill holes would be 87 to the--about in the west center of Section 23, hole of 26, on the center south line to 26 U. S. Potash 136, in the southeast quarter of 26, U108 in Section 35, U32 and U83 up in the northwest corner of 27 or approximately in the northwest corner of 27.

Q What type of data do you get from those core holes that you use in determining ore reserves?

A From the chemical analysis and from the physical log we have height of ore and chemical grade.

Q How do you go about plotting the reserves as shown?

A K_2O foot method would be the total of the height times the grade. So we're talking about cutoffs, the USGS uses a 4 foot of 10 or 40 line, Kerr-McGee normal reserve outline we use a 5 and 11 or 55.

Q Do you recall what Mr. Warnock testified he was using?

A He indicate a 5 and 55.

Q Same as Kerr-McGee?

A To 55-11.

Q Would you please explain, with reference to Section 27 on Exhibit 1 which is a map of the fifth ore zone, where the ore reserve outline would cross Section 27 using Kerr-McGee's standards and Mr. Warnock's standards on the one hand and USGS standards on the other hand?

A Section in question and here is Section 27, the 40 line is running clear to the north. All of Section 27 lies within the USGS 40 percent line. Using a 55 it would cut from the--approximately the northeast corner of 27 over towards the center of the west line or approximately three-quarters of the section woud lie within the 55 line.

Q Is the entire area that would be affected by the two wells Bass has requested would be within the

55 line?

A Generally, yes, I would say 90 percent at least.

Q Mr. Lane, there are three maps, each one covering a separate ore zone. Would you please explain what the separate ore zones are that represent?

A In the potash basin we have 12 ore zones recognized. Mine to date was the first ore zone which is the deepest one, the third ore zone, fourth, fifth, seventh and tenth have been mined to date.

Here the fifth would be the lower of these three.

Q The fifth is portrayed on Exhibit No. 1?

A No. 1. Seventh on Exhibit 2 and tenth on Exhibit 3.

Q Will you please exlain where the ore reserves using the 55 cutoff line and the 40 cutoff line in the seventh ore zone as shown in cross-section 27 on Exhibit No. 2.

A Section 27 again, the 40 line is approximately 7- or 800 feet south of the north line of Section 27 and the remainder of the section would be at a grade higher than 40.

Q How about the 55 cutoff?

A 55, I would say approximately three-quarters of the section lies within the 55 line or better.

Q Would you explain the same factors for the tenth ore zone referring to Exhibit No. 3?

A As indicated at the tenth all of Section 27 is somewhere greater than 7 so it would lie better than USGS cutoff

Q The entire section?

A The entire section.

Q So is it fair to say that there are three ore zones containing or exceeding the GS standards covering essentially all of Section 27?

A A substantial port of 27, yes.

Q Is the same true with respect to the 55 cut-off used by Kerr-McGee and Mr. Warnock?

A Generally.

Q Have you examined the gamma logs for the three oil wells that have previously been drilled on Section 27?

A I have seen the logs, yes and I have looked at them.

Q What do they indicate with respect to

potash in the section?

A Generally they indicate possible reserves.

Q Are they consistent with your ore reserve determination depicted on Exhibit 1, 2 and 3?

A I think they are. I have not signed a grade off the gamma logs.

Q Is counting the number of drill holes in a section, in your experience, an acceptable way of determining whether there are potash reserves in that section?

A Not necessarily.

Q Would you explain, Mr. Lane, what effects the drilling of the two wells that Bass has applied to drill would have upon mining the potash ore in Section 27?

A We already have one abandoned well and two producers. The additional two would tie up substantial reserves again.

Q Why is that?

A Or loss.

Q Why would they tie up substantial reserves and cause a loss in substantial reserves?

A The very possibility of losing second-mining.

Q Would you elaborate on that please?

A In this area on Lea County Line is here, so in Lea County, present mining in Lea County and along the western line of Lea County the ore zones contain high clay. They are fairly low height and we have not found in 13 years of production in the tenth ore zone that you can first-mine and come back years later to second-mine. They have to be mined within a reasonable time and that's possibly one year.

Q I'm still not clear as to why you can't first-mine and second-mine in cross sequence in the event of an oil well?

A First-mining, we're stating as approximately 50 per cent , second-mining additional 30 and with the 80 percent extraction we do have subsidence to the surface of approximately a third, or two-thirds of our mining height and we feel it would damage the casing or the producing oil well.

Q You said subsidence to the surface, you mean subsidence beginning--

A At the mining level and radiating back up to the point of the bore, roughly at an angle of 45 degrees.

Q Where is the 45 degrees measured from?

A From the depth of the ore body.

Q Extending at an angle?

A This is fifth in this general location of the Iddy 52 proposed location is approximately 1590 feet. So we would have a radius of 1590 at the ore level, a circle of that size.

Q Within that radius you could safely do only first-mining--

A 50 percent.

Q --Extraction?

A Maximum.

Q If the oil well were not there what recovery ratio would you expect to get from that radius?

A 80 percent.

Q You're talking about 30 percent--

A It would be a 30 percent loss.

Q --in recovery?

A In recovery of mine ore.

Q In addition to having to leave an area where you recover only 50 percent of the ore reserves instead of 80 percent is there an area around a well bore where you wouldn't feel safe mining at all?

A We would leave a hundred foot radius pillar

around an abandoned well and minimum of two hundred foot radius around a production well if it has low pressure.

Q Would you recover any potash ore in that?

A Not within that pillar, no, sir.

Q If there were damage to the casing as a result of subsidence what could be the effect upon your potash mine?

A To date we have no experience on that but if we would have any traces of methane we would have to be classified as a gasy mine.

Q What effects would that have on your mining?

A We would have to change all equipment. We have no permissible equipment underground at the present time. Permissible, I mean electrical equipment and we would have to change all ventilation.

Now, we have a continuous ventilation system, otherwise we would have to lay it out like a coal mine where you have bleeders and you have to get rid of the gas.

Q Would there be a danger of fire or explosion in the mine before you converted to permissible--

A Possibly if the concentrations were there.

Q Has there ever been a gas explosion in the potash mine?

A Utah is the only one I know of, of any size.

Q Do you happen to know what the effects of that were in terms of human life and future of the mine?

A I think there was 17 killed in that accident and it resulted eventually in closing the mine.

Q Did you prepare those Exhibits 1, 2 and 3?

A Yes, or under my supervision they were prepared.

MR. ADAMS: I would like to move the admission of these three.

MR. RAMEY: They will be admitted.

(WHEREUPON, Kerr-McGee-Mississippi Chemical's Exhibit Nos. 1, 2, and 3 admitted into evidence.)

Q (By Mr. Adams) Mr. Lane, did you prepare an exhibit and make calculations relating to the amount of potash ore that would be lost in Section 27 if Bass' application to drill these two wells were granted?

A Yes, I have.

Q Are those calculations depicted on Kerr-McGee-Mississippi's Exhibit No. 4?

A These calculations are on Exhibit 4.

Q Could you briefly explain what Exhibit No. 4 shows?

A Exhibit 4 shows the producing wells of Rodke 2 and Rodke 1 and proposed well locations of Big Eddy 52 and Rodke 3, along with the abandoned Baxendale tests.

Q I notice around the existing wells, Rodke No. 2 and Rodke No. 1 there are circles. What do those circles indicate?

A The circles indicate a two hundred foot radius pillar left around the bore.

Q Those are the smaller circles with the crosses?

A Yes, with the crosses in them.

Q How about the larger circles?

A Larger, is a circle of 1590 feet, that would be the lowest bed or ore zone in that general area.

Q Now, I notice also there is a circle with steps or dots, what do those indicate?

A That would be the additional affect of these two wells over the affect which we already have from Rodke 1 and Rodke 2.

Q When you say additional effect, what exactly would that effect be?

A That would be the effect on the area of no second-mining.

Q Then I notice in the southeastern portion of Section 27 there's a smaller circle around proposed Big Eddy No. 52 and even smaller circle immediately to the east of that?

A That's the location of the Baxendale abandoned well, 100 foot radius.

Q What's the larger circle immediately west of that?

A That's the location of the Big Eddy 52.

Q Within those circles, as I understand your prior testimony, you had not done any mining at all?

A Not in those two circles.

Q Did you determine how much potash ore and recoverable potash reserves lie within in areas covered by the dotted circles?

A Up at the top of Exhibit 4 I have estimate tonage loss to the drilling of Big Eddy 52 for the fifth, seventh and tenth ore zones.

Q Is this tonage of ore or tonage of product

or what?

A This is K_2O tonage which is the--it can be converted into a product tonage. K_2O tons are--we're taking directly off of these K_2O foot maps, that's why I left it in the K_2O ton number.

Also most reports we read are in K_2O tons. U. S. production, New Mexico production, demand, imports, exports are all in K_2O tons.

Q Have you made a dtermination as to the number of K_2O tons that would be lost if Big Eddy No. 52 were drilled?

A Estimate, we would lose 71,200 in the fifth ore zone, 79,000 approximately in the seventh, 93,500 in the tenth ore zone or a total of approximately 244,000 K_2O tons.

Q Made a similar determination for the amount ore that would be lost for the drilling of Rodke No. 3?

A Yes.

Q What is your calculation?

A Total there again, fifth, 61,700, seventh ore zone, 21,600, tenth ore zone, 98,000 or a total of 181,300 K_2O tons.

Q Have you made determination then of the

total number of K_2O tons that would be lost if both wells covered by Bass's application were drilled?

A Yes, and this is a loss of second-mining of 30 percent of the tons in place.

Q What is that loss?

A Total loss for both wells would be 425,600 tons, estimated.

Q Is that shown at the lower left portion of Kerr-McGee-Mississippi Exhibit No. 4?

A Yes.

Q Have you made a determination of what this loss would amount to in terms of total potash production in the United States?

A Total potash production in the United States is approximately 2.4 million or this would be a loss of approximately 65 days of U. S. production.

Q Have you made a determination as to the amount of U.S. consumption of potash that would be lost to the drilling of the two wells Bass has applied for?

A The last figures I have on U. S. Consumption was for 1975 at 5.1 million or this would amount to approximately 30 days of U. S. usage.

Q Have you made a determination as to the loss

of sales value of the potash reserves that would be lost by the drilling of the two wells Bass has applied to drill?

A Sales at todays prices would amount to approximately 22 million dollars, loss of sales.

Q Did you prepare Exhibit No. 4?

A I did.

MR. ADAMS: I will move the admission of Kerr-McGee-Mississippi's Exhibit 4.

MR. HENSLEY: No objection.

MR. RAMEY: It will be admitted.

(WHEREUPON, Kerr-McGee-Mississippi Chemical's Exhibit No. 4 admitted into the evidence.)

Q (By Mr. Adams) Mr. Lane, did you hear the testimony this morning as to the mining in the northern ore body of Duval, that was in the vicinity of the two oil wells?

A I did.

Q What ore zone was the mining in that Duval area in?

A To my knowledge it was in the first ore zone.

Q What ore zone, again, would be affected by

drilling of oil wells in Section 27?

A Fifth ore zone, seventh ore zone and the tenth ore zone.

Q Are there significant differences between the ore in the first zone as distinguished from ore in the fifth, seventh and tenth ore zones?

A There are.

Q What are those differences?

A Main differences is the in-soil content where the first ore zone generally is under two percent with the majority of it being between one and one and a half.

Q What's the in-soil content in the fifth, seventh and tenth ore zone?

A Indicated by the logs it will run from five to eight percent.

Q What effect does this have on mining?

A That is one of the main factors where we can not delay second-mining after the first. It has to be done together because with the 6 to 7 percent in-soil we have immediate convergence and within a year at our present mine, in the tenth, five foot mining going into an area, one year later on the way back out of it after the

second mining is completed, that initial mining on the way in would be at a height of 42 to 48 inches. A lot of times we have to take and remove bottom to get the equipment out within a year.

Q What effects would these differences have on the ability to mine in the vicinity of oil wells contrasting the first ore zone with the fifth, seventh and tenth ore zones?

A We wouldn't have any chance to do the first-mining and then come back years later and do the second.

Q You're referring in the fifth, seventh and tenth ore zone?

A Fifth, seventh and tenth ore zone.

Q In the first ore zone you feel more comfortable with having a considerable lag between first-mining?

A Yes, that's been proven.

Q Does the geological survey require the existence of four core holes per section before they will conclude that there are potash reserves in that section?

A I wouldn't think so.

Q Could you please, referring again to this

geological survey map that the Commission has taken administrative notice of, explain what factors they used in determining where there exists measured potash reserve or potash enclave?

A As stated on this map the area with the shading is measurable potash reserve and their criteria for it is 3 data points in any one ore zone meeting quality and thickness standards, no more than one and one half miles apart have been used to delineate measured reserves.

Q Do holes meeting those criteria exist with respect to Section 27?

A Generally, yes.

Q Do you base your ore reserves determinations on such holes?

A Holes, yes, generally these holes are all within one and one half miles of each other or closer.

Q Does Kerr-McGee require the existence of four holes per section before it concludes it has a potash reserves?

A No.

Q In your experience and in your knowledge has any potash producer in the Carlsbad area basin require four holes per section before they conclude they have a

potash reserve?

A I couldn't speak for all. I know of Kerr-McGee and another one that did not.

Q Mr. Lane, are you familiar with the existing potash leasing situation in Section 27?

A Yes.

Q Would you describe what that is starting with the situation with respect to Mississippi?

A Mississippi has a potash lease on the south half of the south half of 27. Kerr-McGee has a lease application in on the northeast quarter of the southeast quarter and the east half of the northeast quarter of Section 27.

Q Is the area that Mississippi has under lease shown by fairly faint line running east to west across the southern border of Section 27 on Exhibit 4?

A On Exhibit 4, yes.

Q Is the area in the eastern portion of Section 27 that Kerr-McGee has under lease application similiarly shown by fairly faint straight lines?

A It is.

Q What's the leasing situation with respect to the remainder of Section 27?

A We have had a meeting with the USGS, the potash operators have and it was indicated that in a very short time Section 27 and other sections adjoining and to the north of Section 27 will be coming up for competitive bids.

Q This obviously is no indication of who would be the high bidder?

A No, not at this time.

Q Might somebody be the high bidder and obtain the lease in the remainder of Section 27 who would be prepared to mine it in a fairly short time?

MR. HENSLEY: I object. Hypothetical, speculative and calls for conclusion of the witness.

MR. RAMEY: Do you want to argue that point, Mr. Adams?

MR. ADAMS: Well, I think Mr. Lane's 25 years of experience in the basin has made him familiar with the way that old and new operators prepare in obtaining land and going into operation. I think it's within the scope of his expert knowledge.

MR. HENSLEY: I think it's rank speculation. I might get the lease and sell it to Dass.

MR. RAMEY: I have to agree with Mr. Hensley.

I will sustain the objection.

MR. ADAMS: No more questions, Mr. Chairman.

MR. RAMEY: Mr. Lane, I have some trouble with your Exhibit 4 and I wondered if I could get it clear. The smaller circle around well number 52 is 100 foot circle?

MR. LANE: 100 foot, yes.

MR. RAMEY: The other circles around the other wells in the proposed locations are 200 foot?

MR. LANE: 200 foot radius.

MR. RAMEY: No, the larger white circle is around the Rodke 1 and Rodke 2 are 1600 foot circles?

MR. LANE: Approximately 1600 foot. That would be the depth to the fith ore zone or the lowest ore zone in this area.

MR. RAMEY: The shaded circles are extension around the proposed--

MR. LANE: Proposed two new wells.

MR. RAMEY: Now, as to mining, would you lease 1600 foot circle or would you leave a 200 foot circle, if you came in and mined it?

MR. LANE: If these wells were producing at the time, mining was going on we would leave a 200 foot

diameter, 200 foot radius circle around the producing bore and an additional circle with a radius of 1590 feet where no second-mining would take place.

MR. RAMEY: Okay. So in essence you would, you could get first-mining, let's just take the Rodke 1 for example, you could get first-mining in all but a 200 foot circle?

MR. LANE: Yes.

MR. RAMEY: 200 foot radius?

MR. LANE: Radius of the bore.

MR. RAMEY: Second-mining you would have to leave an additional 1500 foot?

MR. LANE: In this area I have laid out 1590 feet, yes, sir.

MR. RAMEY: Mr. Hensley, I assume you will have questions?

MR. HENSLEY: Yes, sir.

CROSS-EXAMINATION

BY MR. HENSLEY:

Q Mr. Lane, was your degree in engineering, did I understand that?

A Yes, mining engineering.

Q What is the economic foot percentage of

the cutoff?

A At the present time at Kerr-McGee we're using 5 feet at 11 or the 55 K_2O foot.

Q That's the economic cutoff? Or the exploration cutoff?

A No, we're doing that in actual mining operations.

Q I believe you have established from reference to USGS map that they use a 40 foot percent cutoff, for these measured potash calculations, is that correct?

A That's my understanding from the USGS, yes. 4 feet at 10 per cent sylvite and 4 foot of 4 of langbeinite is the USGS cutoff.

Q Did I understand your answer to one of the questions on direct that you relied on this USGS measured potash to come up to your calculations on potash reserves in Section 27?

A The USGS map here?

Q Yes.

A No, I didn't say that.

Q You did not rely on that at all, did you?

A No.

Q Now, as I understand it you have used foot per cent method to make a determination of what you believe to be potash reserves existing in Section 27 and they apparently, according to your testimony, are deposited in the fifth, seventh and tenth ore zone, is that right?

A That is right.

Q And your method of contouring was K_2O?

A K_2O feet, yes, sir.

Q Did you give any consideration to your carnallite indication in your logging analysis?

A In our process the carnallite would report and we would recover.

Q What per cent?

A We use an 80 percent recovery factor for mill operations.

Q Same as K_2O?

A Yes. Carnallite is K_2O.

Q What's the difference between carnallite and pure potash?

A Carnallite is a potassium-magnesium chloride mineral, where sylvite is a potassium chloride mineral only.

Q Do I understand it that your recovery is the same as you would expect for pure potash?

A Pure potash?

Q Yes, K_2O?

A I can't follow your question there at all.

Q You don't draw any distinction between the amount of carnallite that can be recovered from the ore and the amount of potash?

A The quanities that are indicated in cores in this general area, they would be recoverable. Now they are not pure carnallite beds. This is a secondary or a third mineral.

Q Have you made any distinction of your analysis of foot percent for the log indications for carnallite and the log indications just simply reflecting K_2O?

A From the logs it would be for the K_2O off the chemical analysis and summary sheets.

Q All right. Now, do I understand it that this contour was based on no holes on Section 27?

A No holes within the lines of 27, holes very close to the edges of 27.

Q You had a hole you apparently relied on in Section 23, the 67, one in 26, the F 26?

A Right.

Q And U. S. 136 in Section 26, is that right?

A Yes.

Q So the hole that's on the midline of the south line of Section 27 and the hole that's in the northwest corner of Section 27 are the closest ones to the area in question?

A Yes.

Q They're over 5000 feet apart?

A That's right.

Q Yet your, as I understand it, these calculations of potash reserves are based on a contour which connect up those intersections?

A That is correct.

Q You're not testifying, are you Mr. Lane, that you can determine from mineralization and holes over 5000 feet apart that there are known commercial deposits of potash throughout the intersection, are you?

A In the past I think you can go back, if we had a time drilling record of any and all the mines, all but one, that there has been times when areas have been leased without holes within that section. I can give an example of a lease that was issued in 1975 to Kerr-McGee by the Federal Government that had one hole drilled in

center of it and we had a stipulation in the lease that we could not disturb the surface.

Q It's not customary though from the standpoint of management that you would rely on that type of contour to go out and say that you had proven reserves potash, is it?

A We would for leasing and then for the main development of it, yes. Possibly later , which is a continual deal in a potash basin but to a lesser degree than in the past we drill continually, continually we were drilling some core tests.

Q But this assumes--

A --for mining, mining plans in a given area.

Q This would assume you got homogeneous ore deposits and that's just not correct, is it?

A I think we do have homogeneous.

Q You have the same indications in the tenth, seventh and fifth ore zones and all these cores that you looked at?

A No, but I mean you have a homogeneous body where there's mineralization within economics limits. You do have mineralization.

Q You can't correlate the tenth ore zone

in those zones, can you?

A I have.

Q What about the seventh?

A Same thing on the seventh.

Q What about the eighth?

A Eighth, there is indications but I did not put it on here. The eight lies, I think generally, to the southeast of Section 27.

Q Be sure you understand my question. The foot percent cannot be correlated in all of these, they're not the same, are they?

A They're not the same number, no.

Q As a consequence of that the mineralization is not the same?

A You can correlate it, but it is not equal, no.

Q Are you simply telling me you can pick a stratigraphic point here and call it the tenth ore zone?

A I sure can.

Q All right. But that does not mean those picks contain the same mineralization?

A No.

Q So these bodies, in fact, are not homogeneous

in their deposition?

A Not to the exact height and exact grade, no. Different cores.

Q Have you looked at all of the drill holes and the analysis of those holes on the holes which you indicate were the basis of your contour projection?

A I have looked at the recap sheets or the results of the chemical analysis, yes.

Q Let me establish if this is how this stratigraphic analysis is done. Do you pick these zones from a stratigraphic distance marker on another stratigraphic marker within the section?

A Yes.

Q Does Kerr-McGee use the anhydrite bed as your base marker?

A No.

Q What do you use?

A 119 marker.

Q What's the stratigraphic relationship between the 119 marker and the anhydrite?

A I don't have a log in front of me. I think it's approximately 130 or 140 feet down to the anhydrite which is lower than anything we have mineralized here.

Q So you used a 119 marker to pick each of these stratigraphic ore bodies?

A That is the closest to the tenth ore zone, in drilling we use other USGS markers which are higher up.

Q Isn't it--let me ask you this. Did you rely substantially on the analysis of hole U32 in making these contour projections?

A It was used, yes.

Q Isn't it a fact, Mr. Lane, that the 119 marker cannot even be identified on that analysis?

A In the written logs there is a polyhalite band I think with a one inch green clay seam underneath it, which I would identify as the 119.

Q Did you try and make a stratigraphic comparison between the stratigraphic distance from the 119 marker to the tenth ore zone in all of these holes, do they compare distance wise?

A They should generally, yes.

Q Do they?

A I didn't review that. I didn't go back to the 119 in all of these holes. I relied a lot on our recap sheets which I think is correct.

Q Did you make any comparison with the

anhydrite marker for purposes of taking these stratigraphic zones?

A Not of the anhydrite marker, no.

Q Is it your testimony that you don't use that?

A Not the anhydrite marker, no.

Q Would you expect that the stratigraphic distance from the 119 marker to the tenth ore zone would be approximately the same throughout this area?

A I would.

Q If one of these holes on which you are relying reflects that the stratigraphic distance is considerably off from the average of the entire area, would you think there might be a mistake as to the pick on the tenth ore zone?

A Possibly.

Q If that were true these contour lines, particularly on this tenth ore zone would not actually reflect the conditions which exist, would they?

A It would change it , yes.

Q If that U 32 hole, for example, shows to be barren on the tenth ore zone these contour lines would be really completely changed, wouldn't they?

A They would be charged, yes.

Q As a matter of fact, if you didn't have a tenth ore zone in 132 hole you would practically have barren indications for potash in the fifth ore zone and all of Section 27 because that's the primary log you're relying on?

A As a primary number, yes.

Q Have you recorded the stratigraphic instance between the tenth ore zone and the 119 marker on each of those holes that you relied on for your contour mapping?

A No, sir.

Q How long did it take you to calculate those distances?

Do you have the logs here?

A I do not have all the logs here, not the written logs which would show the 119 marker.

Q You don't have any work sheets showing that?

A No.

Q Have you ever done that, compared them?

A When we're drilling, yes. We visually see it and measure it and log it.

Q When were these holes drilled? Let's take

them one by one.

A I wouldn't be able to answer that for the data. I don't have the logs here in front of me.

Q Were several of them drilled several years ago?

A Only one on the map would have been drilled within the last five years. K104, I think it is.

Q So it's been a long time since you made a comparison of stratigraphic distance between the marker and the Big Eddy?

A Yes.

Q You indicated, I think, that you had looked at the gamma ray logs?

A I have seen them, yes.

Q When did you last examine them?

A I've seen it about a week ago, the last time I've seen it.

Q Is it your testimony that you can pick these ore zones on K_2O content from looking at a gamma ray kick?

A I would say we can, yes.

Q Actually that gamma ray kick doesn't show a thing, does it Mr. Lane, but the presence of potassium?

A Gamma ray coming off the potassium mineral, yes.

Q There are several potassium minerals aren't there, besides K_2O?

A Yes, it's another way of correlating that. Polyhalite bands will be shown on that also.

Q As a matter of fact, gamma ray analysis is so unreliable that it is simply not used as an exploratory tool for potash, is it?

A We do not use it for the K_2O content but we do use it for locating beds.

Q You didn't rely on those gamma ray readings in the preparation of your contour, did you?

A No, I didn't use any gamma ray numbers and we have no analysis off the gamma ray.

Q Now as I understand your testimony under direct, sir, you indicated that you would lose substantial reserves or somebody would, of potash in this area as a consequence of that fact that there couldn't be any second-mining, is that right?

A That is right.

Q Actually Kerr McGee doesn't second-mine, do you?

A We obtain 80 percent extraction with a combination of first and second-mining.

Q My question is, does Kerr-McGee utilize a second-mining technique as that terms is understood in the industry?

A Yes.

Q You do, where?

A In all of our operations, in all our production panels.

Q Have you testifed to the contrary?

A I don't think I have.

Q Your indication from your experience is that you have 50 percent recovery on first-mining?

A 50 percent recovery on our reentry system going into a given block and 80 percent when we retreat out of that area.

Q Has your recovery in practical experience in excess of 50 percent on your first-mining operation?

A It would be more under 50 percent than it would be over 50 percent. It will vary, we do have different size pillars in different areas.

Q Now, as a second-mining technique as such being employed by Kerr-McGee in the immediate area?

A Immediate area, we employed it approximately a mile and a half to the east.

Q You indicated, I believe, in the course of your direct testimony that if you have any time lapse between the first and second-mining that this can be detrimental in your efforts to recover the second studies?

A That is correct.

Q Do you immediately undertake second-mining in areas where you've completed your first-mining?

A In the paneled layouts, we do. Generally panel layout will last us approximately one year.

Q Are there other layouts that you don't?

A There is.

Q Why?

A In entry systems where we have to maintain them open for haulage for years and examples of that is all our mains now, radiating out from the bottom of our production shaft, we're mining at a minimum of eight foot height regardless of height of ore. So that we will have an opening to operate.

Q This is the first stage mining?

A You would call that first-mining, somewhere around 50 percent.

Q I believe you testified that in your opinion damage to casing would occur if you didn't leave this angle of incidence?

A Subsidence.

Q 45 degree angle?

A Yes, sir.

Q Does anybody use that?

A I think all operators use a 45 degree subsidence angle.

Q How about Duval?

A I would assume they would have.

Q Were you present in the Commission hearing this morning when Mr. Kersey testified?

A I was.

Q You heard what he said, didn't you?

A Yes.

Q What's the depth of the potash in Leo Field area there? 800 feet, 700 feet?

A I would assume it's that. I do not know the exact depth.

Q If an angle of subsidence were adhered to by Duval you would have to have a radius equal to the depth of potash, wouldn't you?

A Yes, I would.

Q Apparently they didn't do that. Do you have any reason to disbelieve that?

A No, sir, not after the testimony this morning.

Q Have you ever made any calculation to confirm that this angle of subsidence is necessary to avoid any casing collapse?

A We're assuming the casing collapse and from testimony presented in other cases. We do have proof of the 45 degree subsidence angle or draw.

Q As a matter of fact, all cases in the oil-potash area, potash companies have consistently testified that you must have a 45 degree angle of subsidence, isn't that correct?

A That's correct.

Q My question is, is that rule of thumb adhered to by Kerr-McGee?

A We have no mining in the vicinity of producing wells at the present.

Q Do you know of any other operator that's ever strictly adhered to that as a practical matter as far as mining is concerned?

A This morning is the first I ever heard of second-mining around a producing well.

Q Are you aware of the fact that some of this mining is right up to close proximity of the wellbore?

A Some first-mining has been, yes, I've heard.

Q Do you know of any problems occurring in the district out there as a consequence of that?

A I know of none.

Q Are you familiar, Mr. Lane, with a publication put out by the United States Department of Interior Bureua of Mines designated MERC, R1771, dealing with the plugging techniques that should allow mining through wells?

A No, I'm not.

Q You've never heard of that?

A I have not.

Q Are you aware of the fact that in many of the coal fields where there has been similar testimony concerning subsidence angles that it has been determined through study that you can mine right up to the wellbore without any risk at all?

A That may be possible.

Q And that may be just as possible here, isn't

that correct?

A I don't know of any studies being made in the Carlsbad basin for our type of ground or that would indicate that or where we can say it's possible.

Q As a matter of fact, there never has been any studies in the Carlsbad area have there?

A Not that I'm aware of.

Q But yet all of the potash companies repeatedly state that this is a rule of thumb which must be adhered to?

A Yes, sir.

Q Do I understand your testimony that notwithstanding this angle of subsidence that you can leave only 100 foot pillar according to your stipulations and parameters around an abandoned hole?

A Abandoned hole, when the operator is satisfied with the plugging we consider it sufficient.

Q Once a hole then is plugged you don't consider there will be any substantial risk?

A Not substantial, no.

Q So if these wells were drilled by Bass Enterprises Production Company and the production obtained and prior to the time any mining commenced you wouldn't

anticipate any substantial problem, would you?

A No, none. Not substantial, no.

Q You wouldn't have any mechanical problems to concern yourself with?

A Shouldn't have, no.

Q You do agree, don't you Mr. Lane, if Bass is not permitted to drill out these development wells in this pool they will suffer economic loss?

A I can't testify to that.

Q You are familiar with present value calculations, aren't you?

A On the present value, that's possible.

Q If you postpone the recovery of a asset for 20 years or so, it's not worth a fraction of what it's worth today, is it?

A That's correct.

Q That applies whether you're an oil and gas operator or potash operator, isn't that true?

A Possible, yes.

Q There's not any differences in CV calculations, is there, between potash and oil and gas?

A There might be some, I don't know.

Q Do you know what those could be?

A No, not offhand.

Q Now, you have indicated in what has been identified into evidence as Exhibit 4 that you have made a calculation of the tonage that would be lost by the drilling of the proposed wells. As I understand this calculation you come up with K_2O tons of 244,000 if the Big Eddy No. 52 is drilled, is that correct?

A That's correct.

Q And you come up with 181,300 K_2O tons if the Rodke 3 is drilled, is that right?

A That's correct.

Q And you're indicating a sales loss of 22 million dollars for that?

A That's correct.

Q I don't notice any cost calculations on this Exhibit. Do you have another exhibit reflecting your costs?

A No, sir. This is sales loss.

Q Sales loss. But what you're concerned about is potash operator is not sales loss but it's profit loss, isn't it?

A That's the end result, yes.

Q What's the cost of recovering a ton of

potash in that area right now?

A I cannot give you that number.

Q Why not?

A Because none of our cost calculations are completed at our local operations. They're all done in Oklahoma City.

Q The fact of the matter is, Mr. Lane, isn't it a fact that the cost of extracting this potash is practically the cost you can get for it on the market?

A I could not answer that question.

Q Can't answer the question?

A No, sir.

Q By the way, if that Baxendale Well had been completed as a producer, as Mr. Cromwell indicated it could have been, you wouldn't have any loss here, would you?

A Not additional loss.

Q You would never have been able to get that potash in the first place?

A There would have been a loss if the mining was taking place there when it was producing, yes.

Q Now these density drilling requirements that Mr. Warnock testified to, I believe you indicated that

you don't adhere to that rule of thumb, 4 percent at least?

A No.

Q I think you further indicated that you knew of approximately two operators who did have the same position about it that you did?

A At one time, yes.

Q That you could have a wider density?

A Wider density for estimating reserves, yes.

Q You mean they don't do it any more?

A I couldn't say about the other one.

Q Let's just assume the other one still does. You have two out of what, seven?

A Right.

Q That looks to me like five of them agree with Mr. Warnock?

A I can't testify on the other five.

Q Most of your acreage, as a matter of fact, does have a density of coreholes drilling in excess of two or three, doesn't it, that you're proposing to mine?

A There you would that we have listed under the five year mining plan at the present time, yes.

Q As a matter of fact, the density exceeds

four in almost every instance?

A Possibly.

Q Yet that's not a rule of thumb that you operate under?

A Not for--not when the mine went into operation. It's a continual drilling program out in front of you. You do not spend all your money for drilling before you get there to mine it.

Q When you start talking about proving commercial reserves in potash, you sure wouldn't rely on one or two section holes per section, would you?

A You would take and spend your money and obtain the leases, yes, way under that.

Q I'm talking about when you make a determination, management decision that you have proven commercial reserves of potash, you don't do it on the basis of what kind of subsurface data you have here, do you? You have to have a lot more subsurface control than that, don't you, a lot more density?

A Not in all cases, no.

Q But in most cases?

A In most cases, yes.

Q Now, you made some observations about the

status of potash leasing in Section 27. There's no question, is that, but that the only lease for potash in 27 is the south half, south half?

A That's correct.

Q And there are no potash leases on the balance?

A That is correct.

Q And the two spacing units that would be assigned and proposed wells are not in the area which is subject to a potash lease?

A The actual location of the bore, no. But the effects of that hole would affect leased land.

Q The 40 acre spacing?

A Yes.

Q In what respect?

A Big Eddy 52 would have affect on the southwest quarter of Section 26, controlled by Kerr-McGee, the west half of the west half of the southwest quarter of Section 26 and the south half of the south half of Section 27 and that is leased land in those areas.

Q Is this because of this angle incidence again, is that what you're basing that opinion on?

A Yes.

Q The fact of the matter is, there is no lease within the confines of each of those proration units?

A Not at the bore sight, no.

Q You indicated though that you had had a meeting with the USGS?

A That is correct.

Q When?

A Approximately a month or six weeks ago.

Q Was that--did that have any relationship to this proceeding?

A No, sir.

Q Who was at that meeting?

A Managers of potash companies, Mr. Burleson of the USGS, Carlsbad and somebody else, Dave Stewart of the USGS in Carlsbad.

Q Who else?

A Outside of the managers of the potash companies, I think I was the only other individual, I'm not sure.

Maybe I didn't understand you correctly, only Kerr-McGee represented?

A No, managers of the potash companies in the Carlsbad Basin.

Q Well, why has there been an interest in Section 27 all of a sudden?

A This was not brought up for Section 27. We asked the USGS to be present at the meeting so that we could find out about leasing in general and it came out that this part here would come up for competitive leasing in the near future.

Q Was Section 27 even discussed?

A I don't think in relation to the oil wells, no.

Q Well, I mean in relation to anything?

A It was in general because that was in one of the leasing packages.

MR. HENSLEY: If the Commission please, do I understand it, Mr. Lane that you do not have the logs for U32 with you?

A I do not, no.

Q Do you have any of them with you?

A I do have F26 in the Kerr-McGee holes.

Q But your recollection is, as I understand it, your recollection is that you can take that tenth ore zone from that 119 marker?

A Should be able to, yes, sir.

Q You're going to do that again on the base of a stratigraphic distance?

A Generally, yes, sir.

Q What parameters are you looking for when you make a pick of the tenth ore zone from the 119 marker?

A 119 generally identified as polyhalite, one to one half feet thick and a green and gray clay seam underneath approximately one to two inches thick.

Q I'm talking about the stratigraphic distance between the polyhalite marker and the tenth zone?

A In this area it will be approximately 14 to 17 feet from the base of the 119 to the base of the tenth.

Q How much?

A 14 to 17 feet

Q If the Commission please, let me hand you what has been marked for identification, Mr. Lane, as Exhibit 29 of the Applicant Bass and ask you if that's a copy of the written log on U32?

A It is the data sheet for US potash No. 32 Core test.

Q Is that the one you relied on when you prepared these contours?

A I have not seen this front page at all.

Q Well, look at the other pages, if you will, sir?

A (Complies.)

Q In fact, I think that came right out of your file, if I'm not incorrect.

A Not mine. I used this analysis sheet here, they have the number one bed listed as 16.81 percent.

Q Is there any reference in that log at all to pick the 119 marker, anywhere?

A This is not a written log of the hole that you have here. It's a summary more than anything else. Out of this I do not see how you could.

Q Well, we got that from your files. Do you have something else?

A There is a Mississippi Chemical, it does have a written log of the hole foot by foot.

Q Maybe we ought to use it. Is there any reference to the anhydrite marker in that report, the 124 bed?

A They have the A bed here listed, yes, 1999 feet, no 1556 feet.

Q You say somebody suggested that?

A What? Come again on your question, please.

Q I didn't understand your answer.

A Yes, the anhydrite number A bed comes from the marker bed data sheet is listed for 1556 feet to 1562 foot, 9 inches.

Q What's the stratigraphic distance between that marker and the tenth ore zone pick?

A Tenth ore zone, approximately 114 feet on this summary sheet here.

Q Slightly less than 114 feet, is that correct?

A Well, the top of the number 1 bed is listed at 1442 and the top of the anhydrite A is at 1556, top to top.

Q If I asked you to assume, Mr. Lane, on all the other holes that you made reference to in comparing these contours, which you say indicate these potash reserves, that the average stratigraphic distance of all those holes from the anhydrite marker to the tenth ore zone pick was 96 feet would you think--I'm sorry, 140 feet, would you think there might be something possibly wrong with your pick of that zone from that log?

A Where do we get the 140 feet?

Q I asked you to assume that the average

stratigraphic--

A I would assume that they would all be the same.

Q I'm asking you to assume that the average stratigraphic distance from the anhydrite marker to the tenth ore zone on all the logs, all these holes that you considered in marking up these contours, was 140 feet would you think there might be some serious question about whether your pick of that tenth ore zone is correct?

A Possibly with 114 foot.

Q It's off substantially?

A Yes.

MR. HENSLEY: No further questions. Pass the witness.

MR. RAMEY: Any other questions of the witness? Mr. Lane, do you have any approximate idea of when mining would occur in Section 27, providing you got the lease that you now have applied for, how long from now would it take the Kerr-McGee to be ready to mine that?

MR. LANE: 20 years or approximately less. Good chance it would be less.

MR. RAMEY: Do you have any idea about Mississippi Chemical plant?

A MR. LANE: No, sir.

MR. KAMY: Any other questions of the witness?

MR. HINSLEY: I might have one more.

Q (By Mr. Hensley) I would like to hand the witness what has been marked for identification as Applicant's No. 30 and ask you to identify that, please sir?

A Exhibit 30 is the data sheet for United States potash No. 108 core test. Looks like summary sheet again, and a chemical analysis sheet.

Q All right, sir. Is that from the files of Kerr-McGee?

A No, sir, I wouldn't think so.

Q Is that one of your holes?

A No, sir.

Q Who drilled that?

A United States Potash Company.

Q Where is that hole located?

A Location on the log is 1200 feet south of the north quarter of north border lines, 600 feet east, 1200 feet south and 600 feet east of the north quarter of Section 35. It would be in the northeast quarter of Section 35.

Q Now, does that log, that written log have a pick for the anhydrite marker?

A Anhydrite A is identified here, yes.

Q What's the stratigraphic distance between that marker and the tenth ore zone?

A Approximately 140 feet.

Q Okay. And the eighth?

A About 98 feet.

Q Does that lead you to have any doubt about your pick of the tenth ore zone on U32, Mr. Lane?

A It might lead to some, but going from this the tenth was identified as the number one sylvite bed.

Q Actually it's closer to the eighth, isn't it, than the tenth on the U32?

A 114 would be 26 against 16 feet.

Q Have you ever made these comparisons, have you ever made these stratigraphic comparisons before?

A Not off of the logs, possibly would off the gamma rays.

Q Isn't that an absolute necessity when you start using these picks for contour?

A No.

Q It isn't?

A Because with Kerr-McGee holes we do not go to the anhydrite to start with.

Q Well, I realize that but if they don't correlate you wouldn't show them in the same orezone, would you?

A In our logs we feel sure of the beds we identified as the tenth from the 119 marker,

Q But they don't compare with respect to this log analysis?

A Not this log of the US Log 32.

Q Do you know of any other logs where the pick of the tenth ore zone is even comparable to what you have indicated to be in the U32 hole?

A I don't know of any off hand, no, sir.

MR. HENSLEY: We will pass the witness.

MR. RAMEY: Any other questions of the witness? You may be excused. We will have a fifteen minute recess.

(WHEREUPON, a brief recess was held, after which time the following proceedings were had:)

MR. RAMEY: Are you ready to make a statement,

Mr. Lopez?

MR. ADAMS: We have no further witnesses.

MR. LOPEZ: We have no further witnesses. We're ready to close it up and go home.

MR. HENSLEY: We would like to have a five minute recess.

MR. RAMEY: Fifteen minute recess then.

(WHEREUPON, a brief recess was held.)

MR. RAMEY: Hearing will come to order. Mr. Hensley, do you have anything further?

MR. HENSLEY: We decided to rest.

MR. RAMEY: Do you want to make the first closing statement or Mr. Lopez?

MR. LOPEZ: May it please the Commission, I don't think that it is necessary that I repeat any of the statements made by Mr. Adams regarding the value, the measurable value of the potash deposits in New Mexico of the U. S. potash industry.

What I would like to address my comments to is Mr. Hensley's opening statement and the evidence that has been put in support thereof. You will recall that Mr. Hensley, this morning stated that this application of Bass Enterprises was unique. Unique in two respects and he

listed those two respects.

The first being that the oil and gas leases which the Applicant is proposing to drill anadated the regulation adopted by the Department of Interior with respect to the potash-oil zone. I would expect that no less imaginative argument from Mr. Hensley, the eminent attorney that he is. But I think if you follow the logic of his first point with respect to uniqueness you come out to ridiculous posture.

If he seriously takes the fact that the leases actually anadate the regulations of the Department of the Interior which were designed to protect the potash area in question, then there would be no way the Department of Interior in anyway could protect any part of the potash zone.

In fact, I suggest that Mr. Hensley may be wanting to drill down to the bottom of some of the mine shafts if this indeed were in fact the case.

As we've pointed out both the Commission's regulations and the regulations adopted by the Interior address themselves to drilling operations and the protection of known potash deposits and this is where we're at. So then saying no more about the first part of Mr. Hensley's

unique argument. Let's get to the second part which is the fact that the area in question is not been shown to have proven potash reserves.

The primary basis for this argument is, if I can fairly recap it, twofold. One, the majority of Section 27 is not under lease at the present time to any potash producers in the Carlsbad area.

And secondly, that the calculations done by the Protestants in this case are on such a wide spacing range that they really prove nothing.

I think the testimony has been fairly clear and the Commission has taken administrative notice of the fact that Section 27 is within the potash area as defined by the Department of Interior and also within the area designated by the order of the Commission R-111-A.

I have to give both governmental agencies the benefit of the doubt that they did not take lightly their task of designating the potash area to begin with.

And secondly, the testimony has been, I think, pretty well common knowledge that the deposition of potash in the Carlsbad area is on sort of a consistent basis in land stream beds and although that the various zones, whether they be one, two, all the way down to ten

may not be completely contiguous in terms of grade and thickness that the potash deposits itself is contiguous and continuous.

The fact that the majority of the section is under, is not under lease, in our opinion is clearly of no consequence. We are not discussing whether or not the drilling operations are going to interfere with existing leases. The question is whether the drilling operations are going to interfere with the mining of potash deposits and even assuming for the moment there was some merit to Mr. Kensley's argument in this case, there has been further testimony that the area in question is going to come up for comeptitive lease in the not too distant future.

As an aside on this point, I think it need to be touched upon that there is a problem with the timing factors that have been discussed. In the arbitration hearing I think it's been ilicited in todays testimony it was the opinion of the Protestants that they may not be into Section 27 for 20 years.

But this is purely conjectural. That's under present mining plans. I think we can all recognize that a five year mining plan is good only for this year only

and next year that five year mining plan will change in some respect.

Further, the fact that the majority of the section will be subject to competitive lease means any other company who is successful, assuming it's not one of the Protestants here may have a completely different intention with respect to when they should recover those known potash reserves.

Further, I think this is also needs to be mentioned, as a correlation the testimony of Bass Enterprises itself is suggested that there is certainly no guarantee that there will be a 20 year life if their application is granted and they are successful in drilling producing wells.

There's been testimony that the minimum time would be 15 to 20 years and it's anyone's guess how long a time it may take to recover all the known oil in the vicinity.

Another argument in support of the second part of the uniqueness theory that Mr. Hensley's propounded was the fact that the Protestants are actually alarmists, that we are testifying that we cannot mine right up to the wellbore and that there is really no substance to that

argument and in that connection and with all due respect to Mr. Kersey, who is as I understand a fine independent oil operator, I just do not believe that the testimony one independent oil operator who on one occasion visited an underground mine whose characteristics depth, grade and type of ore is completely different than the type we're discussing. Together with the fact that his memory isn't all that secure with respect to exactly what he saw or how it was done cannot be, cannot outweigh the testimony in this case and of many previous cases that it is the belief and operating procedures of the potash companies in the area that if there is a producing well in the area there can only be a one time recovery. They cannot go in for second-mining operations and also the fact that there is required, for safety purposes, a 45 degree angle of subsidence around the wellbore.

I don't think anyone, whether it be the Commission or the USGS is seriously going to suggest to the operating companies that they should not comply with those operating procedures at the present time.

Again, I think it's important that the Commission focus on the primary issue before it and that is whether or not the proposed drilling operations will

interfere with the recovery of the potash and I think that the testimony is unrefuted even by Mr. Warnock, himself, that there exists potash in Section 27 and that to some extent it will be interfered with by any drilling operations in that area. Whether the area is in zone eight or zone ten is really irrelevant so long as there is potash that will be interfered with, that's the issue that I believe the Commission must focus on and I think in closing, I should say that we do not take our position in this matter lightly because not only do we believe that it is important to set a precedent in order to protect the immeasurably valuable potash in the area and Mr. Lane testified that we're talking about a 65 day production in terms of 27 million as opposed to 200,000 barrels of oil which I don't think were gone into the calculations of testimony, which is in comparative sense is really negligible compared to the potash deposits.

The problem as a precedent setting mechanism is that if there is production here there will be a offmove to offset at 40 acres and thereof throughout the potash zone.

Thank you for your attention.

MR. RAMEY: Thank you, Mr. Lopez.

Mr. Adams, do you have anything?

MR. ADAMS: No, sir, nothing additional.

MR. RAMEY: Mr. Hensley?

MR. HENSLEY: If the Commission please, I won't be repetitious at length about points I made in the opening statement and appreciate the diplomatic way in which Mr. Lopez indicated his disagreement with our position.

But I want to assure this Commission that I don't come before the Commission unless I'm extremely serious about the position I'm espousing and I've never been more serious about the situation that is the subject matter of these proceedings here.

First of all, I believe that the uncontroverted evidence in this record will reflect that from the documents themselves that there should be no restrictions imposed on the development by Bass of proven oil reserves and existing pool. This follows as a matter of course and there's been no contradiction of this whatsoever, even by statement much less testimony.

Our two leases predate the 1951 order as I mentioned at length this morning. It's only by virtue of the '51 order that the Secretary of Interior can impose

a restriction on an oil and gas operator.

Mr. Lopez indicated that we probably weren't serious about this because if this were true, if we could simply go out and drill because our lease predates the effective restriction then the USGS could not protect potash reserves. I think my answer to that is very simple. The fact of the matter is if the USGS, Secretary of Interior had not intended us to develop these resources for oil and gas, they shouldn't have issued the leases. And the only way they can impair or restrict our rights under the terms of those leases by the written documentation in the lease itself, is to require us to sign a stipulation and a reservation at the time the lease is issued.

They didn't make any such requirements and there cannot be any restrictions imposed and as I indicated our postion is unique. I don't think there's ever been another case argued before the Commission that has that factor involved and I do not believe that our rights can be restricted in any way.

Now, with respect to the second point, Mr. Lopez questioned the fact that maybe our position was not serious or maybe we didn't have a bonified contention

about the fact there aren't any potash leases on these spacing units. He says that that should make no difference and it's of not consequence whether there is any potash leases or isn't.

Well that statement just simply is just absolutely contrary to the dictates and the mandates of the Secretary of Interior. The Secretary of Interior and I assume these regulations were written for some reason, but the Secretary of Interior in these regulations has specifically stated that where you have a situation where existing oil and gas leases and those leases are not subject to restriction and these aren't, any potash lease subsequently issued is expressly subject to the right of the oil and gas lessee to orderly develop the pool.

And I submit to the Commission that there can't even be a legal question about it. It's uncontroverted from the documents themselves that even if we assume, and this is rank speculation, that a potash lease is issued out there that that lease has got to contain stipulations by virtue of the order of the Secretary that they cannot mine that property if it would interfere in any way with the rights of Bass Enterprises Production Company to orderly develop the Parallel Delaware pool.

Now, how can there be a controversy if that's the situation. I think this case is unique in the third respect now that the hearing has been concluded. Mr. Lopez argued that the testimony with that equivocation that there is potash all through this area and that Mr. Warnock admitted there was potash all through this area.

The record is not that way at all. Mr. Warnock didn't admit that. He said you can make a projection that you might have a possibility of potash but that's not the test. Why protect the possibility of a recovery when it's an uncertain factor. What the mandate is and what the requirements are under the order of this Commission and R-111-A is commercial potash reserves. That's what you're trying to protect. You're trying to protect the waste of commercial potash reserves.

What does commercial mean? We've got testimony in this record from Mr. Lane that this drilling of these two wells is going to cost 22 million dollar loss of sales. I would submit to the Commission and I think the Commission can take administrative notice of the fact that that is absolutely meaningless. The criteria in any case before this Commission in the oil-potash area is loss of commercial potash reserves. How can you determine

commercial potash reserves when the witness refuses to testify as to what the economic factors are involved to withdraw the potash deposits.

I would submit that there should be no reason for any regulatory body, particularly this Commission, to give credence to the protection of a resource when the Proponents for that resource development cannot even get on the witness stand and testify that there is going to be an economic loss.

Compare that with the testimony as to the loss of the oil reserves. Mr. Lane, himself, can't argue with that. He admitted there would be an economic waste of oil production. It is a simple mathematic present day calculation that any engineer knows that if you postpone the recovery of a resource for an extended period of time the present value of the loss of that income is severely diminished.

Now, how does that fit into the facts as have been introduced into the evidence in this case. We know what took place at the arbitration proceeding. Mississippi Chemical who was one of the proponents put on no testimony here, but at the arbitration hearing they stated to the Commission, to the Secretary-Director that

we don't have any plans to develop this resource for over 20 years. Well, Mr. Lane hedged on it a little. He said 20 years or maybe less. The fact of the matter is that theuncontroverted evidence in this case reflects that these oil reserves can be produced, 90 percent of them can be recovered before any effort is made on the part of the potash company to extract any of that ore.

Now, I think it's a simple question of priority. Are we going to sit here for 20 years, completely lose the economic value of this oil and gas production when we're right in the middle of the most severe energy crisis this country has ever faced. We're talking about all these potash reserve loses, how important it is, what it's going to cost.

The fact of the matter is demand and supply controls the value and nothing is in more severe shortage than oil and gas. And we have a field of the Delaware Pool, 100,000 barrels of well and we're said we couldn't be permitted to develop it because there might be some prospect 20 years from now for potash recovery.

I would submit that that doesn't make any economic or any logical sense to anybody.

We respectfully submit that the record in

this case shows that there is no substantial showing, no substantial evidencary showing of any commercial reserves of potash. They were not, Mr. Lane was not even able to correlate the tenth ore zone. There is no substantial evidence and that is the test.

In addition, we believe that the record in this case shows that where the recovery is going to be this far distant there can be no logical conclusion but to permit the oil company, Bass Enterprises Production Company to extract the resource, get about the business of solving this energy crisis and if there are potash reserves there when the density drilling is done to show whether there is or there isn't, then 20 years from now these holes can be abandoned and the production of potash can be commenced.

Interestingly enough, we're not looking at a severe waste. Even if there is commercial potash there this calculation , which Mr. Lane made, took into consideration the angle of subsidence. What did Mr. Kersey say about that. It was played down by Mr. Lopez as rather insignificant when just one man goes in one mine. One man, one mine, I don't care if it's ten men, ten mines, the fact of the matter is these potash companies do not comply

with the so-called rule of thumb that they say is mandatory.

Further, if we get in here and produce this oil and gas and get out in 20 years, and the only testimony is that we will, Mr. Lane testified that all you have to do is leave a hundred foot radius around that wellbore. These calculations don't take into consideration what loss you will have there and the reason they don't it's so insignificant it's practically meaningless.

Consequently, we respectfully submit that the application of Bass Enterprises to drill the Rodke No. 3 and the Big Eddy 52 well be approved. Thank you.

MR. RAMEY: Thank you, Mr. Hensley. Any other statements?

Nothing further in the case, the Commission will take the case under advisement. The hearing is adjourned.

(WHEREUPON, the hearing was adjourned at 3:45 p.m.)

* * * * *

LANPHERE REPORTING SERVICE
P. O. BOX 449
58 SOUTH FEDERAL PLACE
SANTA FE, NEW MEXICO 87501

REPORTER'S CERTIFICATE

I, BETTY J. LANPHERE, CSR-RPR with offices in Santa Fe, New Mexico, do hereby certify that the foregoing transcript is a complete and accurate record of said proceedings as the same were recorded by me stenographically and reduced to typewritten transcript by me or under my supervision.

DATED at Santa Fe, New Mexico, this twenty-seventh day of April, 1978.

Betty J. Lanphere

Betty J. Lanphere, Court Reporter

LANPHERE REPORTING SERVICE
P. O. BOX 449
58 SOUTH FEDERAL PLACE
SANTA FE, NEW MEXICO 87501

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* * * * *

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SANTA FE, NEW MEXICO 87501

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* * * * *

WILLIAM A. SLOAN
JACKSON G. AKIN
JOHN D. ROBB
CHARLES B. LARRABEE
JAMES C. RITCHIE
JOHN P. EASTHAM
WILLIAM C. SCHAAB
WILLIAM C. BRIGGS
RAY H. RODEY
ROBERT O. TAICHERT
ROBERT M. ST JOHN
JOSEPH J. MULLINS
DUANE C. GILKEY
MARK K. ADAMS
ROBERT G. McCORKLE
PETER G. PRINA
BRUCE HALL

JOHN P. SALAZAR
WILLIAM S. DIXON
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KENNETH R. BRANDT
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May 26, 1978

N. M. Oil and Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Attn: Joe D. Ramey, Director

Re: Case No. 6077;
Order No. R-5725

Dear Sirs:

Enclosed is the Application for Rehearing of Kerr-McGee Corporation in the referenced matter.

Yours very truly,

RODEY, DICKASON, SOLAN, AKIN & ROBB, P.A.

By: Mark K. Adams
Mark K. Adams

MKA:ks

Enclosure

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6077
Order No. R-5725

APPLICATION OF BASS ENTERPRISES
PRODUCTION COMPANY FOR A PERMIT
TO DRILL ITS BIG EDDY UNIT NO. 52
AND ITS RODKE FEDERAL NO. 3 AT
LOCATIONS WITHIN THE BOUNDARIES OF
THE POTASH-OIL AREA AS DEFINED BY
DIVISION ORDER R-111-A, EDDY COUNTY,
NEW MEXICO.

APPLICATION FOR REHEARING

Kerr-McGee Corporation, the owner of potash leases within one mile of the proposed wells covered by the application of Bass Enterprises Production Company considered herein, and a participant in the arbitaration meeting held herein on April 21, 1977 and the hearing held herein on April 12, 1978, hereby requests a rehearing before the Oil Conservation Commission with respect to all matters determined by the Order of the Commission entered herein on May 9, 1978. Kerr-McGee Corporation believes that Findings (14), (15), (16), and certain other Findings contained in said Order are erroneous and not supported by the evidence and that the drilling of the wells permitted by the Order would result in undue waste of potash deposits and constitute a hazard to and interfere unduly with the recovery of such potash deposits in violation of the law of the State of New Mexico.

RODEY, DICKASON, SLOAN, AKIN &
ROBB, P.A.

By: Mark K. Adams
Mark K. Adams
Counsel for Kerr-McGee Corporation
P. O. Box 1888
Albuquerque, New Mexico 87103

I hereby certify that a
copy of the foregoing in-
strument has been mailed
to counsel of record this
26th day of May, 1978.
Mark K. Adams

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 6077
Order No. R-5725

APPLICATION OF BASS ENTERPRISES PRODUCTION COMPANY FOR A PERMIT TO DRILL ITS BIG EDDY UNIT NO. 52 AND ITS RODKE FEDERAL NO. 3 AT LOCATIONS WITHIN THE BOUNDARIES OF THE POTASH-OIL AREA AS DEFINED BY DIVISION ORDER R-111-A, EDDY COUNTY, NEW MEXICO

APPLICATION FOR REHEARING

Comes now MISSISSIPPI CHEMICAL CORPORATION, by and through its attorneys and respectfully petitions the Commission for a rehearing and in support thereof states:

(1) Mississippi Chemical Corporation is the owner of potash leases within one mile of the proposed wells covered by the application of Bass Enterprises Production Company.

(2) Mississippi Chemical Corporation believes that the above referenced Order is contrary to the evidence adduced at the arbitration meeting held on April 21, 1977 and the examiner hearing held on April 12, 1978. Specifically, Mississippi Chemical Corporation believes that Findings (13), (14), (15), (16) and (18) are erroneous and contrary to law and therefore seeks a rehearing on all matters set forth in the Order.

(3) The drilling of the wells permitted by the Order would result in undue waste of potash deposits and constitute a hazard to and interfere unduly with the recovery of such potash deposits in violation of the law of the State of New Mexico.

Respectfully submitted,
MONTGOMERY, ANDREWS & HANNAHS
By _____
Owen M. Lopez, Attorney
Mississippi Chemical Corp.

Certificate of Mailing

I hereby certify that I caused to be mailed a true and correct copy of the foregoing Application for Rehearing to all counsel of record this 29th day of May, 1978.

Owen M. Lopez

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

May 10, 1978

Re: CASE NO. 6077
ORDER NO. R-5725

Mr. Harold L. Hensley, Jr.
Hinkle, Cox, Eaton, Coffield
& Hensley
Attorneys at Law
Post Office Box 10
Roswell, New Mexico 88201

Applicant:

Bass Enterprises Production Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC

Other Owen Lopez, Mark Adams

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6077
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APPLICATION OF BASS ENTERPRISES
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LOCATIONS WITHIN THE BOUNDARIES OF
THE POTASH-OIL AREA AS DEFINED BY
DIVISION ORDER R-111-A, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 12, 1978, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission."

NOW, on this 9th day of May, 1978, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant seeks to drill its Big Eddy Unit Well No. 52 and its Rodke Federal Well No. 3 located, respectively, in Units I and F of Section 27, Township 20 South, Range 31 East, Eddy County, New Mexico.

(3) That said locations are within the boundaries of the Potash-Oil Area as defined by Division Order No. R-111-A.

(4) That a potash operator with leases within one mile of said locations objected to the drilling of said wells.

(5) That an arbitration meeting was held in Santa Fe, New Mexico, on April 21, 1977.

(6) That the issues surrounding the drilling of said wells were not resolved as a result of the arbitration meeting.

(7) That said proposed wells are direct offsets to the Parallel-Delaware Oil Pool.

(8) That evidence indicates there are commercial oil and gas reserves underlying the 40 acre tracts to be dedicated to said wells.

(9) That failure to develop said tracts would tend to reduce the total quantity of crude oil and natural gas to be ultimately recovered from said Parallel-Delaware Pool.

(10) That such reduction of ultimate recovery constitutes waste.

(11) That prohibiting the development of these tracts would deny the operator the opportunity to recover its just and reasonable share of the oil and gas production from the Parallel-Delaware Pool.

(12) That to deny the oil and gas operator the opportunity to recover its just and reasonable share of the oil and gas in the Parallel-Delaware Pool is a violation of its correlative rights.

(13) That although no potash core holes have been drilled within said Section 27, there are indications that potash is present under the proposed oil and gas locations.

(14) That although potash is indicated to be present under said oil and gas locations there is no testimony of record that the same constitutes commercial potash deposits.

(15) That, based on the testimony of record, there will be no undue waste of commercial deposits of potash as a result of oil and gas operations occasioned by the drilling of these two wells.

(16) That the testimony presented did not demonstrate that the drilling of these wells will unduly reduce the total quantity of commercial deposits of potash, if any exist, or that such operations would interfere unduly with the orderly commercial development of any potash deposits.

(17) That the portion of said Section 27 covered by the proposed drilling tracts is not under lease by any potash operator.

(18) That no mining of potash will occur under said tracts for at least ten years.

(19) That the application should be granted.

IT IS THEREFORE ORDERED:

(1) That the applicant, Bass Enterprises Production Company, is hereby authorized to drill its Big Eddy Unit No. 52 to be located in Unit I and its Rodke Federal Well No. 3 located in Unit F, both in Township 20 South, Range 31 East, NMPM, Eddy County, New Mexico.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

fd/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 6077
Order No. R-5725

APPLICATION OF BASS ENTERPRISES PRODUCTION COMPANY FOR A PERMIT TO DRILL ITS BIG EDDY UNIT NO. 52 AND ITS RODKE FEDERAL NO. 3 AT LOCATIONS WITHIN THE BOUNDARIES OF THE POTASH-OIL AREA AS DEFINED BY DIVISION ORDER R-111-A, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on April 12, 1978, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission."

NOW, on this _____ day of _____, 1978, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearings, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant seeks to drill its Big Eddy Unit Well No. 52 and its Rodke Federal Well No. 3 located, respectively, in Units I and F of Section 27, Township 20 South, Range 31 East, Eddy County, New Mexico.

(3) That said locations are within the boundaries of the Potash-Oil Area as defined by Division Order No. R-111-A.

(4) That a potash operator with leases within one mile of said locations objected to the drilling of said wells.

(5) That an arbitration meeting was held in Santa Fe, New Mexico, on April 21, 1977.

ADD :

(16) That the testimony presented did not demonstrate that the drilling of these wells will unduly reduce the total quantity of commercial deposits of potash, if any exist, or that such operations would interfere unduly with the orderly commercial development of any potash deposits.

(6) That the issues surrounding the drilling of said wells were not resolved as a result of the arbitration meeting.

(7) That said proposed wells are direct offsets to the Parallel-Delaware Oil Pool.

(8) That evidence indicates there are commercial oil and gas reserves underlying the 40 acre tracts to be dedicated to said wells.

(9) That failure to develop said tracts would tend to reduce the total quantity of crude oil and natural gas to be ultimately recovered from said Parallel-Delaware Pool.

(10) That such reduction of ultimate recovery constitutes waste.

See under

locations there is no testimony of record that the same constitutes commercial potash deposits.

(15) That, based on the testimony of record, there will be no undue waste of commercial deposits of potash ~~reserves~~ as a result of oil and gas operations occasioned by the drilling of these two wells.

(16) (17) That the portion of said Section 27 covered by the proposed drilling tracts is not under lease by any potash operator.

(18) That no mining of potash will occur under said tracts for at least ~~approximately~~ 10 years. ~~or longer.~~

(19) That the application should be granted.

IT IS THEREFORE ORDERED:

(1) That the applicant, Bass Enterprises Production Company, is hereby authorized to drill its Big Eddy Unit No. 52 to be located

in Unit I and its Rodke Federal Well No. 3 located in Unit F, both in Township 20 South, Range 31 East, NMPM, Eddy County, New Mexico.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

EXHIBIT 'D'

BASS ENTERPRISES PRODUCTION COMPANY

BIG EDDY UNIT No. 52

Location: 1980' from South line, 990' from East line; Sec. 27, T-20-S; Range 31-E; Eddy County, N. M.

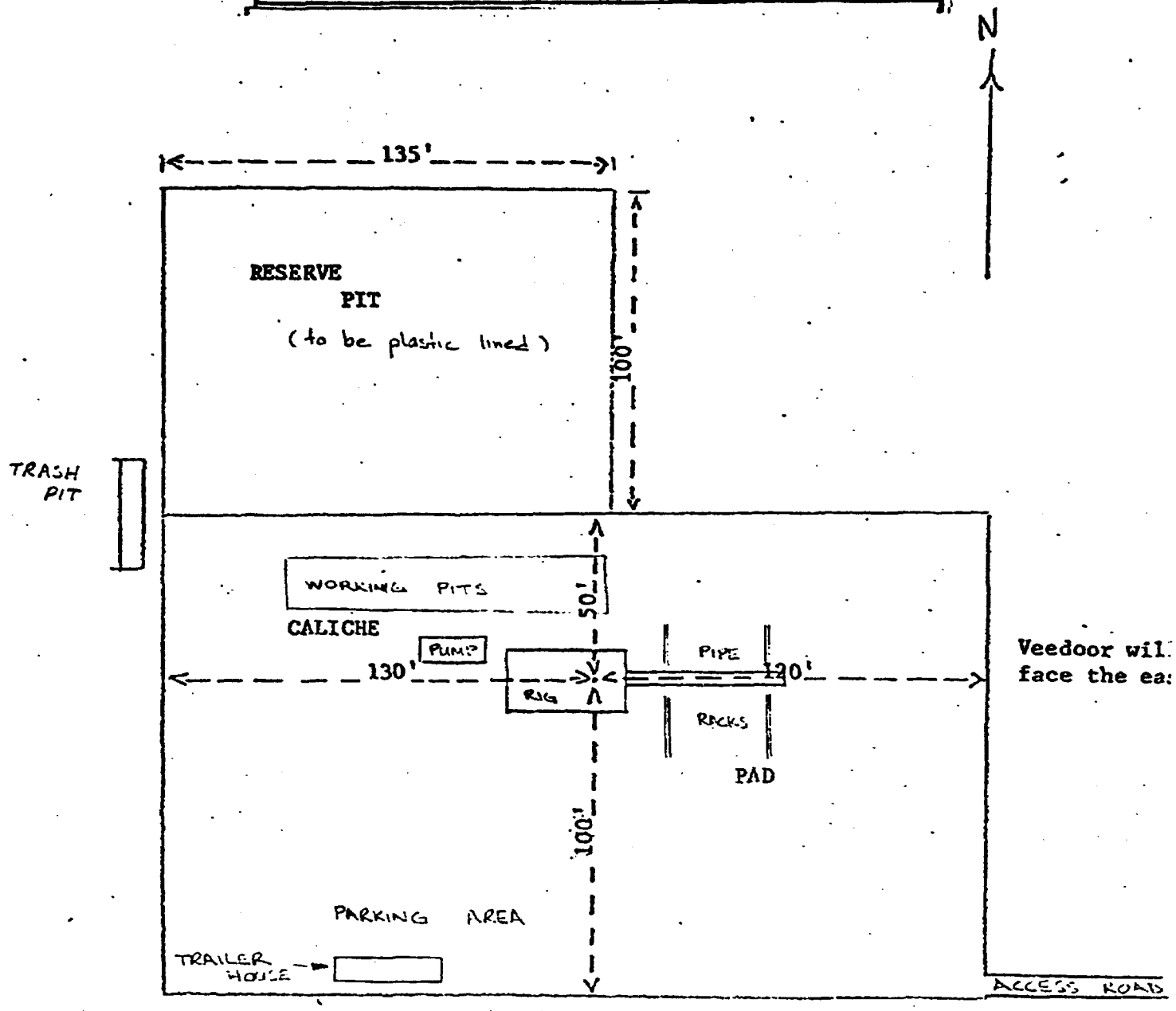


EXHIBIT 'C'

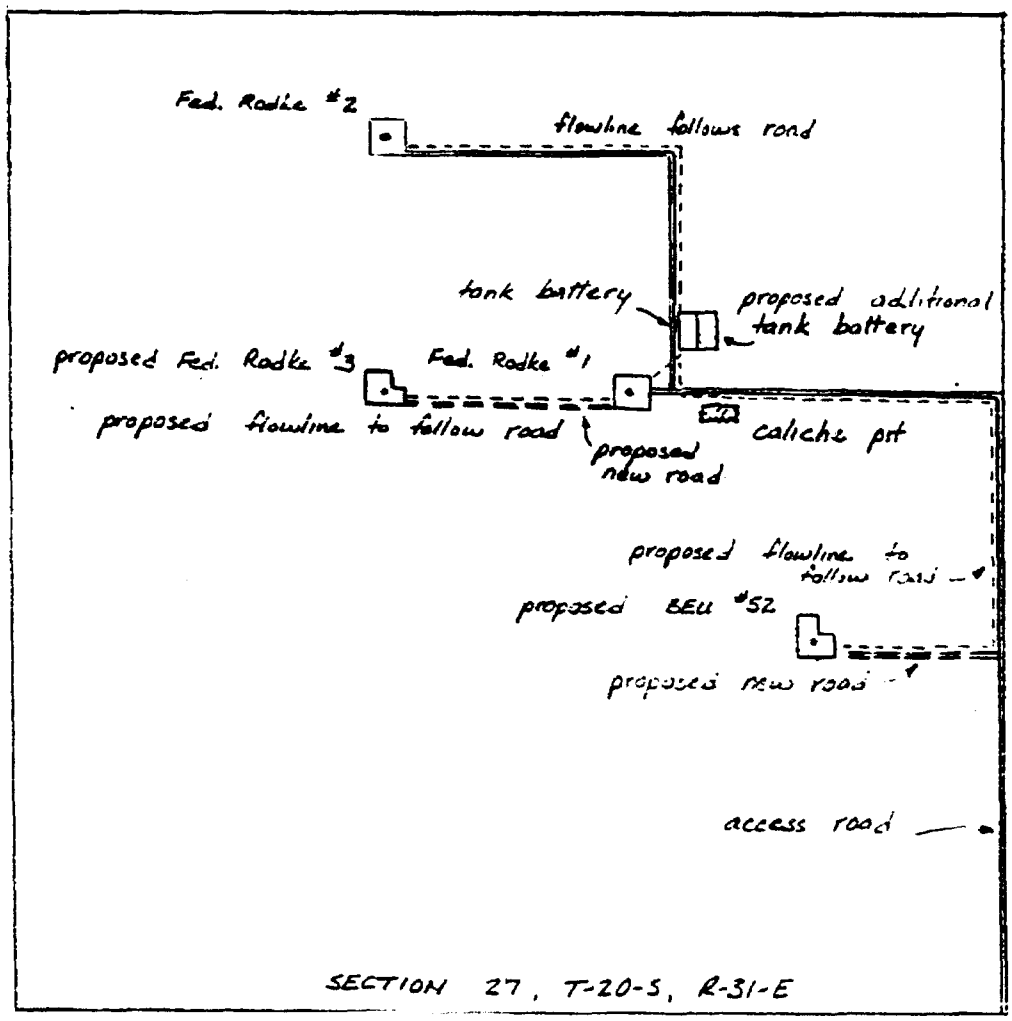

Fed. Radke #2
flowline follows road
tank battery
proposed additional tank battery
proposed Fed. Radke #3
Fed. Radke #1
proposed flowline to follow road
proposed new road
caliche pit
proposed flowline to follow road
proposed BEU #52
proposed new road
access road
SECTION 27, T-20-S, R-31-E

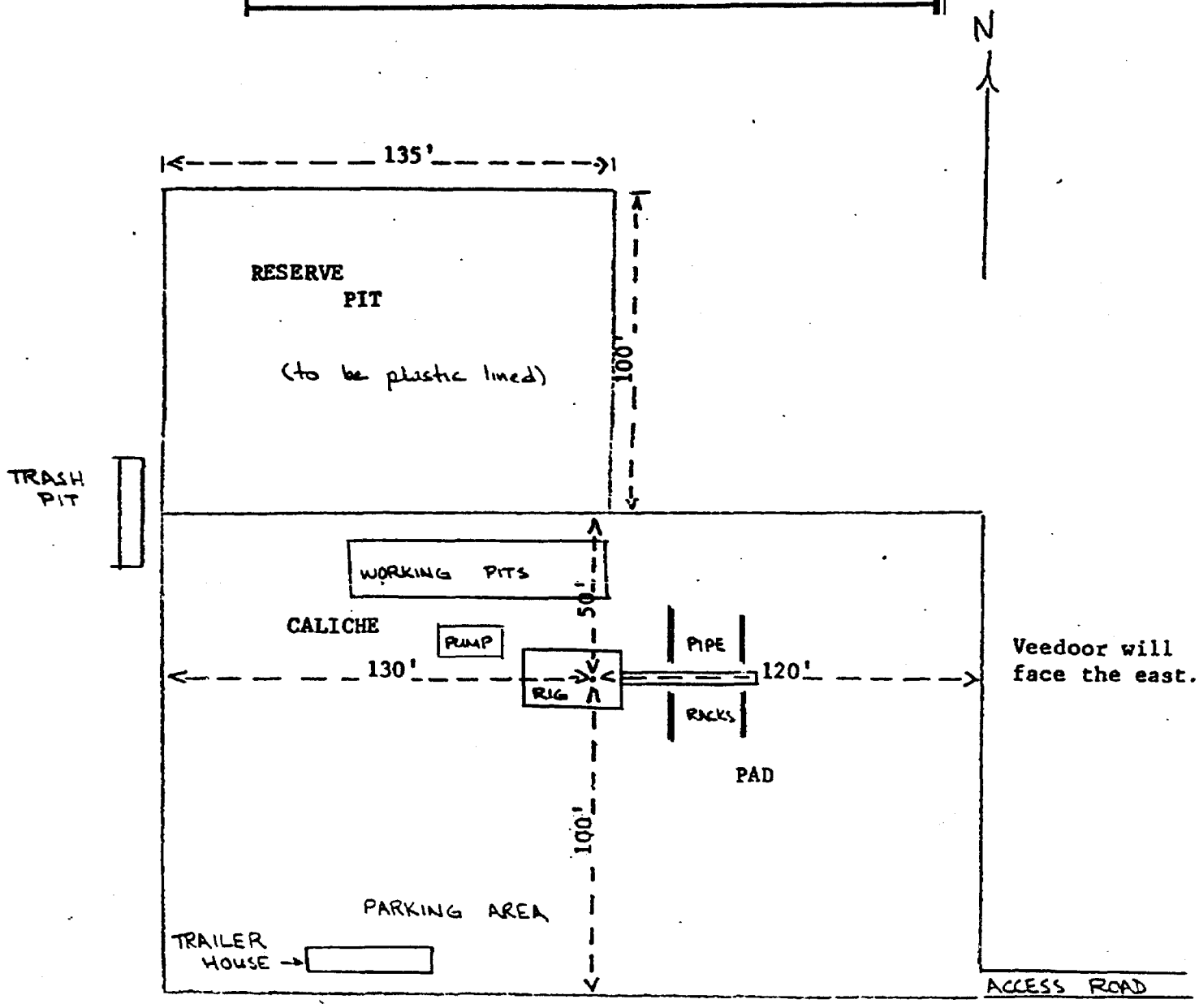
EXHIBIT 'D'

Bass Enterprises Production Company

Federal Rodke No. 3

Location: 1980' FN&WL, Sec. 27,
T-20-S, R-31-E;

Eddy County, New Mexico



Veedoor will face the east.

EXHIBIT 2

ORDER
OCT 16, 1951

DEPARTMENT OF THE INTERIOR

Office of the Secretary

EDDY AND LEA COUNTIES, NEW MEXICO

OIL AND GAS, AND POTASH LEASING AND DEVELOPMENT WITHIN POTASH AREA

1. For the purpose of providing for concurrent operations in the prospecting for and the development and production of oil and gas and potash deposits owned by the United States within the area herein described and designated as "Potash Area" (see Schedule A), and for the purpose of opening to oil and gas leasing certain lands (see Schedule B) which have heretofore been withheld from such leasing and, subject to valid existing rights as to leases heretofore issued, it is ordered as follows:

1. *Oil and gas leases for that part of Potash Area covered by order of February 6, 1939.* (a) The order of the Secretary of the Interior dated February 6, 1939 (4 F. R. 1012), withholding certain lands in New Mexico from application or lease under the oil and gas provisions of the Mineral Leasing Act of February 25, 1920 (41 Stat. 437), as amended, is hereby revoked.

(b) The lands described in the order dated February 6, 1939 (except the E½SE¼, sec. 24, and the E½E½, W½SE¼, S½SW¼, sec. 25, T. 20 S., R. 29 E., N. M. M., which were withdrawn from all forms of entry by Public Land Order No. 569, 14 F. R. 1036), shall be open for oil and gas leasing as of the date of this notice, and offers on form No. 4–1158, Second Edition, received up to and including November 16, 1951, at the Land and Survey Office, Bureau of Land Management, Santa Fe, New Mexico, for lands subject to noncompetitive leasing under section 17 of the Mineral Leasing Act, as amended, shall be regarded as simultaneously filed.

(c) During the period from the date of this order to and including November 16, 1951, the following rules must be followed in applying for oil and gas leases:

(i) Each offer must cover all the Federal land subject to noncompetitive oil and gas leasing contained in a particular section and must not cover more than one section.

(ii) All offers of any offeror shall be rejected if the offeror's interests, direct and indirect, in oil and gas leases and offers and applications therefor on Federal lands in the State of New Mexico, including the offers filed pursuant to this notice exceed 15,360 chargeable acres. Where a corporation, or association, files an application for the Federal lands in a section, no person who owns an interest of 10 percent or more in such corporation or association shall be eligible to file an offer for the same area.

(iii) It will be necessary to file only one copy of each offer to lease and lease form for each section. If the offeror is successful, the Manager will execute the form and arrange to obtain the additional copies.

(iv) Each offer, accompanied by two separate checks or money orders, must be enclosed in a separate sealed envelope. One check or money order must be for $10 to cover the filing fee. The second check or money order must cover the first year's rental (50 cents per acre).

(v) The front of each envelope must be marked to show the nature of the contents and the section involved as follows:

Oil and Gas Offer, Potash Area
Sec. ------ T. ------, R. ------

(vi) Any offer filed during the prescribed period that does not conform to all the requirements of this notice shall be rejected.

(d) If necessary, a drawing will be held to determine the successful offeror for each section. Such drawing will commence at 10 a. m., m. s. t., November 20, 1951, at the Land and Survey Office, Santa Fe, New Mexico.

(e) Each successful applicant for a noncompetitive oil and gas lease, and any party awarded a competitive lease, for lands included in schedule B will be required, as a condition to the issuance of such lease, to execute a stipulation agreeing that:

(i) No wells will be drilled for oil or gas in formations above the base of the Delaware sand, or above a depth of 5,000 feet, whichever is the lesser, except upon approval of the Director of the Geological Survey, it being understood that drilling for production to these formations will be permitted only in the event that it is satisfactorily established that such drilling will not interfere with the mining and recovery of potash deposits or the interest of the United States would best be subserved thereby.

(ii) No wells will be drilled for oil or gas in formations below the base of the Delaware sand, or below a depth of 5,000 feet, whichever is the lesser, except pursuant to a unit plan approved by the Director of the Geological Survey, unless drilling is otherwise required or approved by the Director to protect the lease from drainage.

(iii) No wells will be drilled for oil or gas at a location which, in the opinion of the Oil and Gas Supervisor of the Geological Survey, would result in undue waste of potash deposits or constitute a hazard to or unduly interfere with mining operations being conducted for the extraction of potash deposits.

(iv) The drilling or the abandonment of any well on said lease shall be done in accordance with applicable oil and gas operating regulations including such requirements as the Oil and Gas Supervisor of the Geological Survey may prescribe as necessary to prevent the infiltration of oil, gas, or water into formations containing potash deposits or into mines or workings being utilized in the extraction of such deposits.

2. *Oil and gas leases for lands in Potash Area not covered by order of February 6, 1939.* (a) As a condition to the issuance of either a non-competitive or a competitive lease, or the granting of any renewal or extension of any existing lease, embracing such lands, the applicant, the successful bidder, or the lessee, as the case may be, will be required to execute a stipulation identical to that specified in item 1 (e) hereof.

(b) Upon the discovery hereafter of any oil or gas pool or field embracing all or part of any nonunitized oil and gas lease heretofore issued, unit operation will be required under the applicable unitization provisions of the lease and the Mineral Leasing Act of 1920, as amended, unless it is shown to the satisfaction of the Secretary of the Interior that independent operation will not jeopardize maximum economic recovery of the natural resources of the area.

3. *Potash leases.* All potash permits and leases hereafter issued or existing potash leases hereafter renewed for federal lands within the Potash Area, shall be subject to a requirement, either to be included in the lease or permit or imposed as a stipulation, to the effect that no mining or exploratory operations will be conducted that, in the opinion of the Mining Supervisor of the Geological Survey, would constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production under any oil or gas lease issued for the same land.

4. *Maps and surveys.* (a) Well records and survey plats that an oil and gas lessee must file, pursuant to applicable operating regulations (30 CFR Part 221), shall be available for inspection at the office of the Oil and Gas Supervisor, to any party holding a potash permit or lease on the land on which the well is situated insofar as such records are pertinent to the mining and protection of potash deposits.

(b) Maps of mine workings and surface installations, and records of core analyses that a potash lessee must file pursuant to applicable operating regulations (30 CFR Part 231), shall be available for inspection at the office of the Mining Supervisor, to any party holding an oil and gas lease on the same land insofar as such maps or records are pertinent to the development and protection of oil and gas deposits.

5. *Unit plans.* Any unit plan hereafter approved or prescribed that includes oil and gas leases covered by this notice shall include a provision embodying in substance the requirements set forth in items 1 (e) (iii) and (iv) and 4 (a), hereof.

6. *Definition.* The word "potash" as used herein shall be deemed to embrace potassium and associated minerals as specified in the act of February 7, 1927 (44 Stat. 1057).

II. Except to the extent herein modified the general regulations contained in 43 CFR, Parts 191 and 102, governing the leasing and development of oil and gas and in 43 CFR, Part 194, governing the leasing and development of potash deposits shall be applicable to the lands covered hereby. Copies of this notice and copies of form No. 4–1153, Second Edition, titled "Offer to Lease and Lease for Oil and Gas" can be obtained from the Land and Survey Office, Bureau of Land Management, Santa Fe, N. Mex.

SCHEDULE A

DESIGNATED POTASH AREA

New Mexico Principal Meridian

T. 19 S., R. 29 E.,
Sec. 11, SE¼;
Sec. 12, S½;
Secs. 13, and 14;
Sec. 23, N½;
Sec. 24, N½.
T. 20 S., R. 29 E.,
Sec. 12, NE¼SE¼, and S½SE¼;
Sec. 13, NE¼, and S½;
Sec. 24, N½;
Sec. 36.
T. 21 S., R. 29 E.,
Secs. 1 and 2;
Sec. 3, E½;
Sec. 10, E½;
Sec. 11 to 16 inclusive;
Sec. 22, N½N½;
Sec. 23, N½;
Secs. 24 and 25;
Sec. 35, E½;
Sec. 36.
T. 22 S., R. 29 E.,
Secs. 1 and 2;
Sec. 3, S½;
Sec. 9, E½;
Secs. 10 to 16 inclusive;
Sec. 17, E½;
Sec. 20, E½;
Secs. 21 to 28 inclusive;
Secs. 33 to 36 inclusive.
T. 23 S., R. 29 E.,
Secs. 1 to 3 inclusive;
Secs. 4, E½;
Sec. 9, E½;
Secs. 10 to 15 inclusive;
Secs. 22 to 27 inclusive;
Secs. 34 to 36 inclusive.
T. 18 S., R. 30 E.,
Sec. 12, S½;
Secs. 13 and 14;
Sec. 15, SE¼;
Sec. 21, SE¼;
Secs. 22 to 24 inclusive;
Sec. 25, W½;
Secs. 26 to 28 inclusive;
Sec. 29, SE¼;
Sec. 32, NE¼, and S½;
Secs. 33 and 34;
Sec. 35, W½.
T. 19 S., R. 30 E.,
Secs. 2 to 5 inclusive;
Sec. 6, SE¼;
Sec. 7, NE¼, and S½;
Secs. 8 to 36 inclusive.
T. 20 S., R. 30 E.;
T. 21 S., R. 30 E.,
Secs. 1 to 11 inclusive;
Sec. 12, S½;
Secs. 13 to 22 inclusive;
Sec. 23, N½;
Sec. 24, N½;
Secs. 27 to 34 inclusive;
Sec. 35, S½.
T. 22 S., R. 30 E.,
Secs. 1 to 24 inclusive;
Sec 25, W½;
Secs. 26 to 35 inclusive;
Sec. 36, W½.
T. 23 S., R. 30 E.,
Sec. 1, S½;
Secs. 2 to 36 inclusive.
T. 24 S., R. 30 E.,
Sec. 1, N½;
Sec. 2, N½;
Sec. 3, N½.
T. 18 S., R. 31 E.,
Sec. 18, W½.
T. 19 S., R. 31 E.,
Secs. 9 and 10;
Sec. 11, W½;
Sec. 14, W½;
Secs. 15 to 17 inclusive;
Secs. 19 to 22 inclusive;
Sec. 23, W½;
Sec. 25, S½;
Secs. 26 to 36 inclusive.
T. 20 S., R. 31 E.;
T. 21 S., R. 31 E.,
Sec. 1, lots 1 to 16 inclusive;
Sec. 2, lots 1 to 16 inclusive;
Sec. 4, W½;
Secs. 5 and 6;
Sec. 18, S½;
Sec. 19, N½.
T. 22 S., R. 31 E.,
Secs. 4 to 9 inclusive;
Secs. 17 and 18;
Sec. 19, N½.
T. 23 S., R. 31 E.,
Sec. 7;
Sec. 8, S½;
Sec. 16, SW¼;
Secs. 17 to 20 inclusive;
Sec. 21, W½;
Secs. 28 to 33 inclusive.
T. 24 S., R. 31 E.,
Secs. 4 to 6 inclusive.
T. 19 S., R. 32 E.,
Sec. 23, S½;
Secs. 24 to 27 inclusive;
Sec. 28, S½;
Sec. 31, S½;
Sec. 32, S½;
Secs. 33 to 36 inclusive.
T. 20 S., R. 32 E.;
T. 21 S., R. 32 E.,
Secs. 1 to 17 inclusive;
Secs. 21 to 27 inclusive;
Secs. 35 and 36.
T. 19 S., R. 33 E.,
Secs. 19, 30 and 31.
T. 20 S., R. 33 E.,
Secs. 5 to 9 inclusive;
Secs. 16 to 23 inclusive;
Secs. 26 to 36 inclusive.
T. 21 S., R. 33 E.,
Secs. 4 to 9 inclusive;
Secs. 16 to 21 inclusive;
Secs. 28 to 33 inclusive.
T. 22 S., R. 33 E.,
Secs. 4 to 6 inclusive.
T. 20 S., R. 34 E.,
Sec. 31.

The area described, including both public and nonpublic lands, aggregates approximately 298,345 acres.

SCHEDULE B

LANDS COVERED BY ORDER OF FEBRUARY 6, 1939, WITHIN POTASH AREA[1]

T. 20 S., R. 29 E.,
Sec. 12, SE¼SE¼;
Sec. 13, E½E½, and NW¼NE¼;
Sec. 24, E½NE¼;
Sec. 36.
T. 21 S., R. 29 E.,
Sec. 1;
Sec. 11, N½NE¼, SW¼NE¼, N½NW¼, SE¼NW¼, and SE¼;
Sec. 12;
Sec. 13, E½, and S½SW¼;
Sec. 14, SW¼NE¼, SW¼, and S½SE¼;
Sec. 15, NE¼, NE¼NW¼, S½NW¼, and S½;
Sec. 22, N½N½;
Sec. 23, N½N½;
Sec. 24, NE¼, and N½NW¼.
T. 22 S., R. 29 E.,
Sec. 1;
Sec. 11, E½, N½NW¼, and S½SW¼;
Secs. 12 to 14, inclusive;
Secs. 23 and 24;
Sec. 25, NE¼, NE¼NW¼, S½NW¼, and S½;
Sec. 26, W½NW¼, and S½;
Sec. 35, NE¼.

[1] Of the lands included in this schedule, the following tracts are covered by outstanding leases or are within the limits of a known geologic structure of a producing oil or gas field: E½NE¼, sec. 24, T. 20 S., R. 29 E., S½NE¼, SE¼, sec. 9, W½SE¼, SW¼, SE¼SE¼, sec. 10, sec. 15 (all), N½NE¼, sec. 21, T. 20 S., R. 30 E. The SE¼NE¼, sec. 11, T. 21 S., R. 29 E., is included in the order of February 6, 1939, but is omitted from this schedule because it is state land.

T. 19 S., R. 30 E.,
Sec. 22, S½;
Sec. 23, S½N½, and S½;
Sec. 24;
Sec. 26, NE¼, NE¼NW¼, S½NW¼, and S½;
Secs. 26 and 27;
Sec. 28, SE¼;
Secs. 33 to 35 inclusive.
T. 20 S., R. 30 E.,
Sec. 3, lots 2, 3, and 4, S½N½, and S½;
Sec. 4;
Sec. 8, lots 1, 2, 3, and 4, S½N½, N½SW¼, SE¼SW¼, and SE¼;
Sec. 6, E½SE¼;
Sec. 7, lots 3 and 4, NE¼NE¼, S½NE¼, SE¼NW¼, E½SW¼, and SE¼;
Secs. 8 to 10 inclusive;
Sec. 13, SE¼;
Sec. 14, NW¼NE¼, S½NE¼, NW¼, and S½;
Sec. 15;
Sec. 21, N½NE¼;
Sec. 22, N½;
Sec. 23, N½;
Sec. 24, NW¼;
Sec. 25, NE¼, and S½;
Sec. 31, lots 1, 2, 3, and 4, E½W½;
Sec. 35, S½.
T. 21 S., R. 30 E.,
Sec. 3, lots 3, 4, 5, 6, 11, 12, 13, and 14, SW¼;
Secs. 4 to 7 inclusive;
Sec. 8, NE¼, NE¼NW¼, S½NW¼, and S½;
Sec. 9;
Sec. 10, W½;
Secs. 17 and 18;
Sec. 19, lots 1, 2, 3, and 4, NE¼, and E½NW¼;
Sec. 20, N½N½;
Sec. 31.
T. 22 S., R. 30 E.,
Secs. 6 and 7;
Secs. 18 to 20 inclusive;
Sec. 21, W½E½, and W½;
Secs. 28 and 29;
Sec. 30, lots 1, 2, 3, and 4, N½NE¼, SE¼NE¼, E½W½, and SE¼;
Sec. 31, lot 1.
T. 19 S., R. 31 E.,
Secs. 19, 30, and 31.
T. 20 S., R. 31 E.,
Secs. 28 to 31 inclusive;
Sec. 33.

The areas described aggregate 42,245.18 acres.

Dated: October 16, 1951.

OSCAR L. CHAPMAN,
Secretary of the Interior.

[F. R. Doc. 51-12547; Filed, Oct. 18, 1951; 8:46 a. m.]

Published in 16 F.R. 10669 of October 18, 1951

INT.-DUP. SEC., WASH., D.C. 49453

EXHIBIT 3

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Stipulations to be executed and made part of any oil and gas lease involving lands described in the Departmental Notice of October 16, 1951.

The lessee further agrees that:

(1) No wells will be drilled for oil or gas in formations above the base of the Delaware sand, or above a depth of 5,000 feet, whichever is the lesser, except upon approval of the Director of the Geological Survey, it being understood that drilling for production to these formations will be permitted only in the event that it is satisfactorily established that such drilling will not interfere with the mining and recovery of potash deposits or the interest of the United States would best be subserved thereby.

(2) No wells will be drilled for oil or gas in formations below the base of the Delaware sand, or below a depth of 5,000 feet, whichever is the lesser, except pursuant to a unit plan approved by the Director of the Geological Survey, unless drilling is otherwise required or approved by the Director to protect the lease from drainage.

(3) No wells will be drilled for oil or gas at a location which, in the opinion of the Oil and Gas Supervisor of the Geological Survey, would result in undue waste of potash deposits or constitute a hazard to or unduly interfere with mining operations being conducted for the extraction of potash deposits.

(4) The drilling or the abandonment of any well on said lease shall be done in accordance with applicable oil and gas operating regulations including such requirements as the Oil and Gas Supervisor of the Geological Survey may prescribe as necessary to prevent the infiltration of oil, gas, or water into formations containing potash deposits or into mines or workings being utilized in the extraction of such deposits.

_____
Signature of Offeror or Lessee

EXHIBIT 4

ORDER MAY 11 1965

DEPARTMENT OF THE INTERIOR

Office of the Secretary

EDDY AND LEA COUNTIES, N. MEX.

Oil, Gas, and Potash Leasing and Development Within Potash Area

For the purpose of revising the rules for concurrent operations in prospecting for and development and production of oil and gas and potash deposits owned by the United States within the Potash Area and for the purpose of revising the designated Potash Area to which the revised provisions are to be applicable, it is ordered as follows:

I. The order of the Secretary of the Interior dated February 6, 1939 (4 F.R. 1012), withholding certain lands in New Mexico from application or lease under the oil and gas provisions of the Mineral Leasing Act of February 25, 1920 (41 Stat. 437), as amended, which order was revoked by order of the Secretary of the Interior dated October 16, 1951 (16 F.R. 10669), shall continue to be revoked. The lands described in said order dated February 6, 1939 (except the E½SE¼, sec. 24, and the E½E½, W½SE¼, S½SW¼, sec. 25, T. 20 S., R. 29 E., N.M.M., which were withdrawn from all forms of entry by Public Land Order No. 569, 14 F.R. 1066), which are opened for oil and gas leasing by said order dated October 16, 1951, shall continue to be open for oil and gas leasing. This order shall not affect the current status of land with respect to its being withdrawn from, or open for, entry or leasing.

II. Subject to the provisions of I above, the provisions of the order of the Secretary of the Interior dated October 16, 1951 (16 F.R. 10669), and the Potash Area designated therein are revised to be as specified herein.

III. 1. *Oil and gas leases.* Each successful applicant for a non-competitive oil and gas lease, and any party awarded a competitive lease, for lands included in the designated Potash Area will be required, as a condition to the issuance of such lease, to execute a stipulation agreeing that:

(a) No wells will be drilled for oil or gas except upon approval of the Regional Oil and Gas Supervisor of the Geological Survey, it being understood that drilling will be permitted only in the event that it is satisfactorily established that such drilling will not interfere with the mining and recovery of potash deposits, or the interest of the United States would best be subserved thereby.

(b) No wells will be drilled for oil or gas at a location which, in the opinion of the Regional Oil and Gas Supervisor of the Geological Survey, would result in undue waste of potash deposits or constitute a hazard to or unduly interfere with mining operations being conducted for the extraction of potash deposits.

(c) When it is determined by the Regional Oil and Gas Supervisor of the Geological Survey that unitization is necessary for orderly oil and gas development and proper protection of potash deposits, no well shall be drilled for oil or gas except pursuant to a unit plan approved by the Director of the Geological Survey.

(d) The drilling or the abandonment of any well on said lease shall be done in accordance with applicable oil and gas operating regulations including such requirements as the Regional Oil and Gas Supervisor of the Geological Survey may prescribe as necessary to prevent the infiltration of oil, gas, or water into formations containing potash deposits or into mines or workings being utilized in the extraction of such deposits.

The Regional Oil and Gas Supervisor of the Geological Survey in any action taken under item 1 (a), (b), (c), and (d) shall take into consideration recommendations of the Regional Mining Supervisor of the Geological Survey and applicable conservation rules and regulations of the Oil Conservation Commission of the State of New Mexico.

2. *Oil and gas leases.* As a condition to the granting of any renewal or extension of any existing lease embracing lands included in the designated Potash Area, the lessee will be required to execute a stipulation identical to that specified in item 1 (a), (b), (c), and (d) hereof.

3. *Potash leases.* All potash permits and leases hereafter issued or existing potash leases hereafter renewed for Federal lands within the designated Potash Area, shall be subject to a requirement either to be included in the lease or permit or imposed as a stipulation, to the effect that no mining or exploratory operations will be conducted that, in the opinion of the Regional Mining Supervisor of the Geological Survey, would constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production under any oil or gas lease issued for the same land.

4. *Maps and surveys.* (a) Well records and survey plats that an oil and gas lessee must file pursuant to applicable operating regulations (30 CFR Part 221), shall be available for inspection at the office of the Regional Oil and Gas Supervisor by any party holding a potash permit or lease on the land on which the well is situated insofar as such records are pertinent to the mining and protection of potash deposits.

(b) Maps of mine workings and surface installations and records of core analyses that a potash lessee must file pursuant to applicable operating regulations (30 CFR Part 231), shall be available for inspection at the office of the Regional Mining Supervisor to any party holding an oil and gas lease on the same land insofar as such maps or records are pertinent to the development and protection of oil and gas deposits.

5. *Unit plans.* Any unit plan hereafter approved or prescribed that includes oil and gas leases covered by this notice shall include a provision embodying in substance the requirements set forth in items 1 (a), (b), and (d), and 4 (a), hereof.

6. *Definition.* The word "potash" as used herein shall be deemed to embrace potassium and associated minerals as specified in the act of February 7, 1927 (44 Stat. 1057).

IV. The lessee of any existing lease in the designated Potash Area may make such land subject to the rules and regulations of Part III above by filing an election to do so, in duplicate, with the Land Office, Bureau of Land Management, Santa Fe, N. Mex. Except to the extent herein modified, the general regulations contained in 43 CFR Part 3100, and the specific regulations in Part 3120 (governing the leasing and development of oil and gas deposits) and Part 3140 (governing the leasing and development of potash deposits), shall be applicable to the lands covered hereby.

V. The designated Potash Area is described as follows:

New Mexico Principal Meridian

T. 19 S., R. 29 E.,
Secs. 1 and 2;
Secs. 11 to 14 inclusive;
Secs. 23 to 26 inclusive;
Secs. 35 and 36.
T. 20 S., R. 29 E.,
Secs. 1 and 2;
Secs. 11 to 15 inclusive;
Secs. 22 to 27 inclusive;
Secs. 34 to 36 inclusive.
T. 21 S., R. 29 E.,
Secs. 1 to 5 inclusive;
Secs. 10 to 15 inclusive;
Secs. 22 to 27 inclusive;
Secs. 34 to 36 inclusive.
T. 22 S., R. 29 E.,
Secs. 1 to 5 inclusive;
Secs. 8 to 17 inclusive;
Secs. 20 to 29 inclusive;
Secs. 32 to 36 inclusive.
T. 23 S., R. 29 E.,
Secs. 1 to 5 inclusive;
Secs. 8 to 15 inclusive;
Secs. 22 to 27 inclusive;
Secs. 34 to 36 inclusive.
T. 18 S., R. 30 E.,
Secs. 5 to 17 inclusive;
Secs. 20 to 29 inclusive;
Secs. 32 to 36 inclusive.
T. 19 S., R. 30 E.
T. 20 S., R. 30 E.
T. 21 S., R. 30 E.
T. 22 S., R. 30 E.
T. 23 S., R. 30 E.
T. 19 S., R. 31 E.,
Secs. 31 to 36 inclusive.
T. 20 S., R. 31 E.
T. 21 S., R. 31 E.
T. 22 S., R. 31 E.,
Secs. 1 to 9 inclusive;
Secs. 16 to 21 inclusive;
Secs. 28 to 33 inclusive.
T. 23 S., R. 31 E.,
Secs. 4 to 9 inclusive;
Secs. 16 to 21 inclusive;
Secs. 28 to 33 inclusive.
T. 18 S., R. 32 E.,
Secs. 25 to 28 inclusive;
Secs. 31 to 36 inclusive.
T. 20 S., R. 32 E.
T. 21 S., R. 32 E.
T. 19 S., R. 33 E.,
Secs. 31 to 36 inclusive.
T. 20 S., R. 33 E.
T. 21 S., R. 33 E.
T. 19 S., R. 34 E.,
Secs. 19 and 20;
Secs. 29 to 32 inclusive.
T. 20 S., R. 34 E.,
Secs. 3 to 10 inclusive;
Secs. 15 to 36 inclusive.
T. 21 S., R. 34 E.,
Secs. 3 to 8 inclusive;
Secs. 17 to 20 inclusive;
Secs. 29 to 32 inclusive.

The area described, including public and nonpublic lands, aggregates 420,212.36 acres, more or less.

VI. This order shall be effective on the date of publication in the FEDERAL REGISTER.

Dated: May 11, 1965.

STEWART L. UDALL,
Secretary of the Interior.

[F.R. Doc. 65-5149; Filed, May 14, 1965; 8:46 a.m.]

(30 F.R. 6692-93)

EXHIBIT 5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Stipulations to be executed and made part of any oil and gas lease involving lands described in the Departmental Notice of May 11, 1965.

The lessee further agrees that:

(1) No wells will be drilled for oil or gas except upon approval of the Regional Oil and Gas Supervisor of the Geological Survey, it being understood that drilling will be permitted only in the event that it is satisfactorily established that such drilling will not interfere with the mining and recovery of potash deposits, or the interest of the United States would best be subserved thereby.

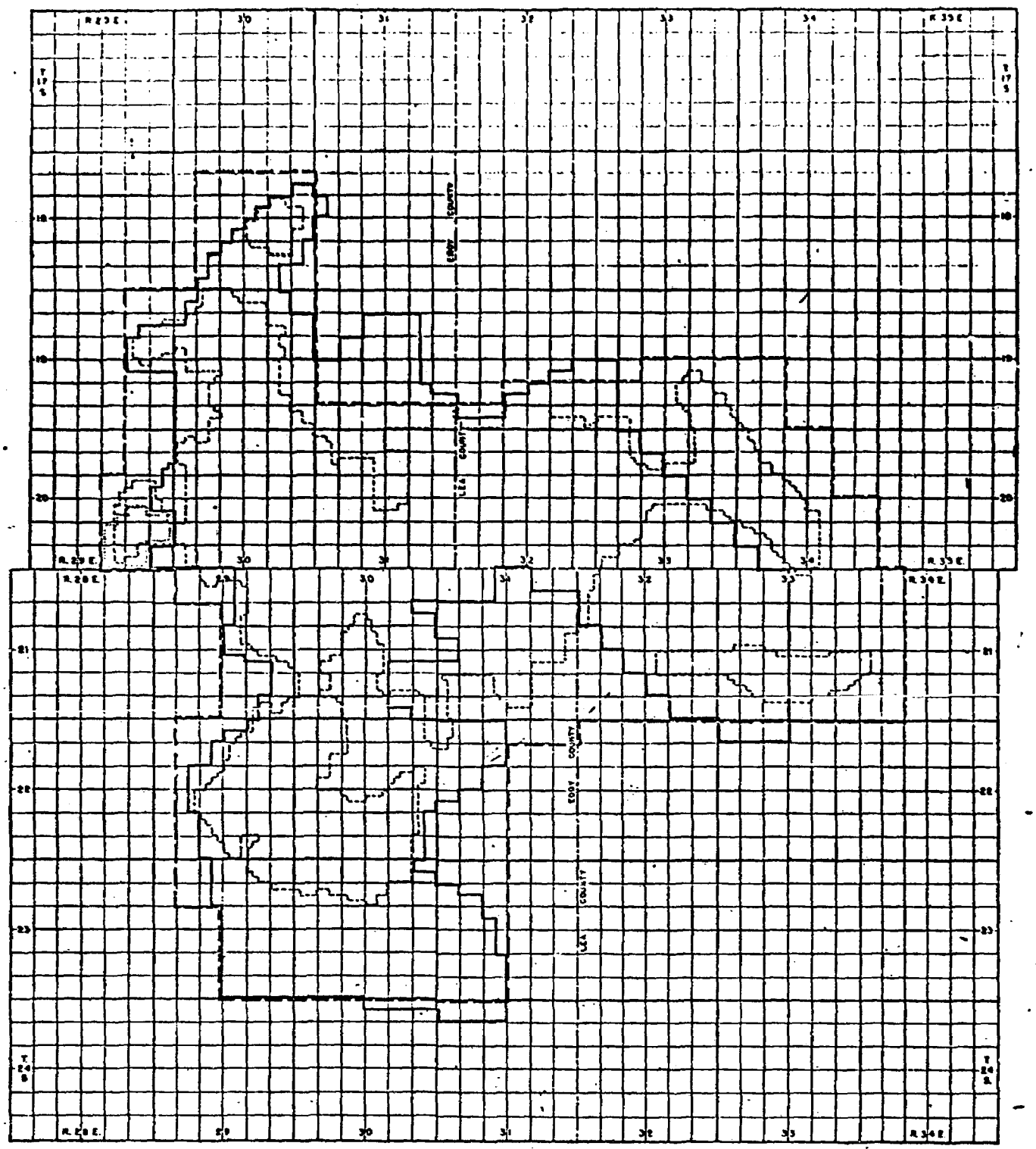
(2) No wells will be drilled for oil or gas at a location which, in the opinion of the Regional Oil and Gas Supervisor of the Geological Survey, would result in undue waste of potash deposits or constitute a hazard to or unduly interfere with mining operations being conducted for the extraction of potash deposits.

(3) When it is determined by the Regional Oil and Gas Supervisor of the Geological Survey that unitization is necessary for orderly oil and gas development and proper protection of potash deposits, no well shall be drilled for oil or gas except pursuant to a unit plan approved by the Director of the Geological Survey.

(4) The drilling or the abandonment of any well on said lease shall be done in accordance with applicable oil and gas operating regulations including such requirements as the Regional Oil and Gas Supervisor of the Geological Survey may prescribe as necessary to prevent the infiltration of oil, gas or water into formations containing potash deposits or into mines or workings being utilized in the extraction of such deposits.

_____
Signature of Offeror or Lessee

EXHIBIT 6


R.29 E.
30
31
32
33
34
R.35 E.
LEA COUNTY
EDDY COUNTY
T. 24 S.
LEGEND
SCALE IN MILES
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
MAP SHOWING
OIL-POTASH AREA
SOUTHEAST NEW MEXICO
JANUARY 1, 1950

sentence "These orders are effective October 30, 1975." should be inserted in lieu thereof.

Dated: October 31, 1975.

HENRY S. DOGIN,
Acting Administrator,
Drug Enforcement Administration.

[FR Doc.75-29699 Filed 11-4-75;8:45 am]

Law Enforcement Assistance Administration

NATIONAL INSTITUTE OF LAW ENFORCEMENT AND CRIMINAL JUSTICE ADVISORY COMMITTEE

Meeting

Notice is hereby given that the Advisory Committee of the National Institute of Law Enforcement and Criminal Justice, Law Enforcement Assistance Administration, will meet on November 21, 1975 at the Hospitality House Motor Inn in Arlington, Virginia.

Topics of discussion will include the special needs of criminal justice research, the achievement of consistency in dispositions, and deterrence.

The meeting will be open to the public.

For further information, please contact Gerald M. Caplan, National Institute of Law Enforcement and Criminal Justice, Law Enforcement Assistance Administration, U.S. Department of Justice, 633 Indiana Avenue NW., Washington, D.C. 20531. (202) 376-3506.

GERALD YAMADA,
Attorney-Adviser,
Office of General Counsel.

[FR Doc.75-29720 Filed 11-4-75;8:45 am]

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

COLORADO

District Managers Delegation of Authority

OCTOBER 22, 1975.

1. In accordance with authority contained in sections 3.1 and 3.9(g) of Bureau Order No. 701 of July 23, 1964, as amended, the amount not to be exceeded in sales by District Managers of material other than forest products is increased to $5,000.

2. Effective date. This delegation will become effective November 5, 1975.

DALE R. ANDRUS,
State Director.

[FR Doc.75-29775 Filed 11-4-75;8:45 am]

National Park Service

[INT FES 75-87]

WHITE SANDS NATIONAL MONUMENT, NEW MEXICO; PROPOSED MASTER PLAN

Availability of Final Environmental Statement

Pursuant to Section 102(2)(C) of the National Environmental Policy Act, the Department of the Interior has prepared a final environmental statement on a proposed master plan for White Sands National Monument located within Dona Ana and Otero Counties, New Mexico.

The environmental statement considers development patterns, land classification, boundary adjustments, and management goals for administration of the area. Major development proposals include an improved circulation pattern at the monument entrance, additions to the existing headquarters building and improvements for picnicking in the dunes, additional parking, and a new road to the Heart-of-the-Dunes to form a one-way interpretive motor road. Boundary proposals involve a proposed land exchange in the Garton Lake Area and the deletion of the Dog Canyon tract.

Copies are available from or for inspection at the following locations:

Southwest Regional Office, National Park Service, Old Santa Fe Trail, Post Office Box 728, Santa Fe, New Mexico 87501.

White Sands National Monument, Post Office Box 458, Alamogordo, New Mexico 88310.

Chaco Center, Anthropology Building, Room 1240, University of New Mexico, Post Office Box 26178, Albuquerque, New Mexico 87125.

Dated: October 14, 1975.

STANLEY D. DORAMUS,
Secretary,
of the Interior.

[FR Doc.75-29695 Filed 11-4-75;8:45 am]

Office of the Secretary

EDDY AND LEA COUNTIES, NEW MEXICO

Oil, Gas, and Potash Leasing and Development Within Potash Area

For the purpose of revising the rules for concurrent operations in prospecting for, development, and production of oil and gas and potash deposits owned by the United States within the Potash Area and for the purpose of revising the designated Potash Area to which the amended provisions are to be applicable, it is ordered as follows:

I. The Order of the Secretary of the Interior dated February 6, 1939 (4 FR 1012), withholding certain lands in New Mexico from application or lease under the oil and gas provisions of the Mineral Leasing Act of February 25, 1920 (41 Stat. 437), as amended, which Order was revoked by Order of the Secretary of the Interior dated October 15, 1951 (16 FR 10669), shall continue to be revoked. The lands described in said Order dated February 6, 1939 (except the E½SE¼, sec. 24, and the E½E½, W½SE¼, S½SW¼, sec. 25, T. 20 S., R. 29 E., N.M.M., which were withdrawn from all forms of entry by Public Land Order No. 569, 14 FR 1086), which were opened for oil and gas leasing by said Order dated October 16, 1951, shall continue to be open for oil and gas leasing. This Order shall not affect the current status of land with respect to its being withdrawn from, or open for, entry or leasing.

II. Subject to the provisions of I. above, the provisions of the Order of the Secretary of the Interior dated May 11, 1955 (30 FR 6502-03), and the Potash Area designated therein are revised to be as specified herein.

III. *General Provisions*—A. *Issuance of Oil and Gas Leases.*

The Department of the Interior reaffirms its position that the lease stipulations contained in the Order of May 11, 1955, adequately protect the rights of the oil and gas, and potash lessees and operators.

Therefore, each successful applicant for a noncompetitive oil and gas lease, and any party awarded a competitive lease, for lands included in the designated Potash Area will be required, as a condition to the issuance of such lease, to execute a stipulation to the lease as follows:

1. No wells will be drilled for oil or gas except upon approval of the Area Oil and Gas Supervisor of the Geological Survey, it being understood that drilling will be permitted only in the event that it is satisfactorily established that such drilling will not interfere with the mining and recovery of potash deposits, or the interest of the United States would best be subserved thereby.

2. No wells will be drilled for oil or gas at a location which, in the opinion of the Area Oil and Gas Supervisor, would result in undue waste of potash deposits or constitute a hazard to or unduly interfere with mining operations being conducted for the extraction of potash deposits.

3. When it is determined by the Area Oil and Gas Supervisor that unitization is necessary for orderly oil and gas development and proper protection of potash deposits, no well shall be drilled for oil or gas except pursuant to a unit plan approved by the Area Oil and Gas Supervisor.

4. The drilling or the abandonment of any well on said lease shall be done in accordance with applicable oil and gas operating regulations including such requirements as the Area Oil and Gas Supervisor may prescribe as necessary to prevent the infiltration of oil, gas, or water into formations containing potash deposits or into mines or workings being utilized in the extraction of such deposits.

The Area Oil and Gas Supervisor in any action taken under Part A, items 1, 2, 3, and 4 shall take into consideration the recommendations of the Area Mining Supervisor of the Geological Survey and the applicable conservation rules and regulations of the Oil Conservation Commission of the State of New Mexico.

B. *Renewal or Extension of Oil and Gas Leases.*

As a condition to the granting of any renewal or extension of any existing lease embracing lands included in the designated Potash Area, the lessee will be required to execute a stipulation identical to that specified in Part A, items 1, 2, 3, and 4 hereof.

C. *Potash Leases.*

All potash permits and leases hereafter issued or existing potash leases hereafter renewed for Federal lands within the designated Potash Area, shall be subject to a requirement either to be included in the lease or permit or imposed as a stipulation, to the effect that no mining

or exploratory operations will be conducted that, in the opinion of the Area Mining Supervisor, would constitute a hazard to oil or gas production, or that would unreasonably interfere with the orderly development and production under any oil or gas lease issued for the same land.

D. Minable Reserves.

1. Each potash lessee will file annually by January 1 with the Area Mining Supervisor a map or maps on which has been delineated the following information with respect to the Federal potash leases which it then holds:

a. The areas where active mining operations are now in progress on one or more ore zones.

b. The areas where mining operations have been completed on one or more ore zones.

c. The presently unmined areas which are considered to contain a minable reserve in one or more ore zones, i.e., those areas (enclaves) where potash ore is known to exist in sufficient thickness and quality to be minable under present day technology and economics.

d. The areas within these enclaves which are believed to be barren of commercial ore.

2. The Area Geologist of the Geological Survey, in consultation with the Area Mining Supervisor, will review the information submitted in this regard and make any revisions in the boundaries of the proposed minable reserves (potash enclaves) which are consistent with the data available at the time of such analyses. The Area Geologist and Area Mining Supervisor will commit their initial findings to a map or maps of suitable scale and will thereafter revise that map or maps as necessary to reflect the latest available information.

E. Oil and Gas Drilling.

1. It will be departmental policy to deny approval of most applications for permits to drill oil and gas tests from surface locations within the potash enclaves established in accordance with Part D, item 1 hereof. Two exceptions to this policy will be permitted under the following conditions:

a. Drilling of vertical or directional holes will be allowed to take place from barren areas within the potash enclaves when the Area Mining Supervisor determines that such operations will not adversely affect active or planned mining operations in the immediate vicinity of the proposed drillsite.

b. Drilling of vertical or directional holes will be permitted to take place from a drilling island located within a potash enclave when: (1) there are no barren areas within the enclave or drilling is not permitted on the established barren area(s) within the enclave because of interference with mining operations; (2) the objective oil and gas formation beneath the lease cannot be reached by a well which is vertically or directionally drilled from any permitted location within the barren area(s); or, (3) in the opinion of the Area Oil and Gas Supervisor, the target formation beneath a remote interior lease cannot be reached by a well directionally drilled from a surface location outside the potash enclave. Under these circumstances, the Area Mining Supervisor will in consultation with the Area Oil and Gas Supervisor, establish an island within the potash enclave from which the drilling of that well and subsequent wells will be permitted. The Area Mining Supervisor in establishing any such island will, consistent with the data supplied by the Area Oil and Gas Supervisor regarding present directional drilling capabilities, select a site which will minimize the loss of potash ore. No island will be established within one mile of any area where approved mining operations will be conducted within three years. To assist the Area Mining Supervisor in this regard, he may require affected potash mining operators to furnish a three-year mining plan.

2. In order to protect the equities between oil and gas lessees while at the same time reducing the number of oil and gas wells which operators propose to drill in the Potash Area, the Area Oil and Gas Supervisor will make greater use of his prerogative to require unitization. Unitization will be mandatory in those cases where completion of the proposed well as a producer would result in the drainage of oil and gas from beneath other Federal lands within a potash enclave. Thus, unitization will be prerequisite to the approval of any well which is (1) located adjacent to an enclave (within a quarter of a mile if an oil test or one-half mile if a gas test) and which is to be drilled vertically to the prospective formation; (2) to be directionally drilled from an adjacent surface location to bottom in a formation beneath an enclave; or, (3) to be vertically or directionally drilled from a barren area or island within an enclave. Any unit plan hereafter approved or prescribed that includes oil and gas leases covered by this notice shall include a provision embodying in substance the requirements set forth in Part A, items 1, 2, 3, and 4 hereof.

3. The Department will cooperate with the New Mexico Oil Conservation Commission (NMOCC) in the implementation of that agency's rules and regulations. In that regard, the Federal potash lessees shall continue to have the right to protest to the NMOCC the drilling of a proposed oil and gas test on Federal lands provided that the location of said well is within the State of New Mexico's "Oil-Potash Area" as that Area is delineated by NMOCC Order III, as amended. However, the Department will exercise its prerogative to make the final decision of whether to approve the drilling of any proposed well on a Federal oil and gas lease within the Potash Area.

4. Applications for permits to drill vertical tests for oil and gas at locations that are in the Potash Area but outside the State of New Mexico's "Oil-Potash Area" and which do not directly offset an enclave (within a quarter mile of an oil test or within one-half mile if a gas test) will be routinely approved by the Area Oil and Gas Supervisor after review by the Area Mining Supervisor.

F. Access to Maps and Surveys.

1. Well records and survey plats that an oil and gas lessee must file pursuant to applicable operating regulations (30 CFR Part 221), shall be available for inspection at the office of the Area Oil and Gas Supervisor, by any party holding a potash permit or lease on the land on which the well is situated insofar as such records are pertinent to the mining and protection of potash deposits.

2. Maps of mine workings and surface installations and records of core analyses that a potash lessee must file pursuant to applicable operation regulations (30 CFR Part 221), shall be available for inspection at the office of the Area Mining Supervisor by any party holding an oil and gas lease on the same land insofar as such maps or records are pertinent to the development and protection of oil and gas deposits.

3. Maps of potash enclaves shall be available for inspection in the office of the Area Geologist, Area Mining Supervisor, and Area Oil and Gas Supervisor. Copies of such maps will be available through local reproduction firms in Roswell, New Mexico.

G. Definition.

The word "potash" as used herein shall be deemed to embrace potassium and associated minerals as specified in the Act of February 7, 1927 (44 Stat. 1057).

IV. The lessee of any existing lease in the designated Potash Area may make such land subject to the rules and regulations of Part III above by filing an election to do so, in duplicate, with the Land Office, Bureau of Land Management, Santa Fe, New Mexico. Except to the extent herein modified, the general regulations contained in 43 CFR Part 3100 (governing the leasing and development of oil and gas deposits) and Part 3500 (governing the leasing and development of potash deposits), shall be applicable to the lands covered hereby.

V. The designated Potash Area is described as follows:

NEW MEXICO PRINCIPAL MERIDIAN

T. 22 S., R. 28 E.,
Secs. 25 and 36.
T. 23 S., R. 28 E.,
Sec. 1.
T. 19 S., R. 29 E.,
Secs. 1 and 2;
Secs. 11 to 15 inclusive;
Secs. 22 to 26 inclusive;
Secs. 35 and 36.
T. 20 S., R. 29 E.,
Secs. 1 and 2;
Secs. 11 to 15 inclusive;
Secs. 22 to 27 inclusive;
Secs. 34 to 36 inclusive.
T. 21 S., R. 29 E.,
Secs. 1 to 5 inclusive;
Secs. 10 to 15 inclusive;
Secs. 22 to 27 inclusive;
Secs. 34 to 36 inclusive.
T. 22 S., R. 29 E.,
Secs. 1 to 5 inclusive;
Secs. 8 to 17 inclusive;
Secs. 19 to 36 inclusive.

T. 23 S., R. 29 E.,
Secs. 1 to 17 inclusive;
Secs. 21 to 28 inclusive;
Secs. 33 to 36 inclusive.
T. 24 S., R. 29 E.,
Secs. 1 to 4 inclusive.
T. 18 S., R. 30 E.,
Secs. 8 to 17 inclusive;
Secs. 20 to 29 inclusive;
Secs. 32 to 36 inclusive.
T. 19 S., R. 30 E.,
T. 20 S., R. 30 E.,
T. 21 S., R. 30 E.,
T. 22 S., R. 30 E.,
T. 23 S., R. 30 E.,
T. 24 S., R. 30 E.,
Secs. 1 to 18 inclusive.
T. 19 S., R. 31 E.,
Secs. 31 to 36 inclusive.
T. 20 S., R. 31 E.,
T. 21 S., R. 31 E.,
T. 22 S., R. 31 E.,
T. 23 S., R. 31 E.,
T. 24 S., R. 31 E.,
Secs. 1 to 18 inclusive.
T. 19 S., R. 32 E.,
Secs. 25 to 28 inclusive;
Secs. 31 to 36 inclusive.
T. 20 S., R. 32 E.,
T. 21 S., R. 32 E.,
T. 22 S., R. 32 E.,
Secs. 1 to 12 inclusive.
T. 19 S., R. 33 E.,
Secs. 31 to 33 inclusive.
T. 20 S., R. 33 E.,
T. 21 S., R. 33 E.,
T. 22 S., R. 33 E.,
Secs. 1 to 12 inclusive.
T. 19 S., R. 34 E.,
Secs. 19 and 20;
Secs. 29 to 32 inclusive.
T. 20 S., R. 34 E.,
Secs. 3 to 10 inclusive;
Secs. 15 to 36 inclusive.
T. 21 S., R. 34 E.,
Secs. 5 to 8 inclusive;
Secs. 17 to 20 inclusive;
Secs. 29 to 32 inclusive.

The area described, including public and nonpublic lands, aggregates 491,915.71 acres, more or less.

VI. This Order shall be effective on November 5, 1975.

KENT FRIZZELL,
Acting Secretary of the Interior.

OCTOBER 7, 1975.

[FR Doc.75-29642 Filed 11-4-75;8:45 am]

Office of the Secretary

[ENT F23-75-90]

PROPOSED LACASSINE WILDERNESS AREA

Availability of Final Environmental Statement

Pursuant to section 102(2)(C) of the National Environmental Policy Act of 1969, Public Law 91-190, the Department of the Interior has prepared a final environmental statement for the Proposed Lacassine Wilderness Area, Cameron Parish, Louisiana.

The proposal recommends about 2,854 acres of the Lacassine National Wildlife Refuge, Cameron Parish, Louisiana, be designated as wilderness within the National Wilderness Preservation System.

Copies of the final statement are available for inspection at the following locations:

Regional Director, U.S. Fish and Wildlife Service, 17 Executive Park Drive, N.E., Atlanta, Georgia 30329.

Refuge Manager, Lacassine National Wildlife Refuge, Route 1, Box 186, Lake Arthur, Louisiana 70549.

U.S. Fish and Wildlife Service, Division of Wildlife Refuges, Room 2250, 18th and C Streets, N.W., Washington, D.C. 20240.

Single copies may be obtained by writing the Environmental Impact Statement Coordinator, Division of Wildlife Refuges, U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240.

STANLEY D. DORESUS,
Deputy Assistant Secretary of the Interior.

OCTOBER 30, 1975.

[FR Doc.75-29679 Filed 11-4-75;8:45 am]

DEPARTMENT OF AGRICULTURE

Federal Crop Insurance Corporation

[Notice No. 100]

GRAPE CROP INSURANCE; NEW YORK AND PENNSYLVANIA

Extension for Applications Date

Pursuant to the authority contained in § 411.3 of Title 7 of the Code of Federal Regulations, the time for filing applications for grape crop insurance for the 1976 crop year in all counties in New York and Pennsylvania where such insurance is otherwise authorized to be offered is herby extended until the close of business on December 19, 1975. Such applications received during this period will be accepted only after it is determined that no adverse selectivity will result.

[SEAL] M. R. PETERSON,
Manager,
Federal Crop Insurance Corporation.

[FR Doc.75-29682 Filed 11-4-75;8:45 am]

[Notice No. 101]

WHEAT CROP INSURANCE—HOUSTON COUNTY, GEORGIA

Extension of Applications Date

Pursuant to the authority contained in § 401.103 of Title 7 of the Code of Federal Regulations, the time for filing applications for wheat crop insurance in Houston County, Georgia, where such insurance is otherwise authorized to be offered is hereby extended until the close of business on November 15, 1975. Such applications received during this period will be accepted only after it is determined that no adverse selectivity will result.

[SEAL] M. R. PETERSON,
Manager,
Federal Crop Insurance Corporation.

[FR Doc.75-29683 Filed 11-4-75;8:45 am]

DEPARTMENT OF COMMERCE

Domestic and International Business Administration

[File No. 23(74)-6; Case No. 479 (CP-38A)]

HEWLETT-PACKARD GES. m.b.H.

Order Imposing Civil Penalty and Placing Respondent on Probation for Export Control Violations

In the matter of Hewlett-Packard Ges. m.b.H., Handelskai 52, Postfach 7, A-1025 Vienna, Austria.

The Director, Compliance Division, Office of Export Administration, Bureau of East-West Trade, issued a charging letter on November 26, 1974, charging the above respondent with violations of the Export Administration Act of 1969 and regulations thereunder. It alleged, in substance, that the respondent had violated §§387.2, 387.4, and 387.6 of the Export Administration Regulations (hereinafter, the export regulations), in that it, on two separate occasions, reexported or caused to be reexported to Czechoslovakia two computer systems with associated peripherals and accessories, of a value of $61,000 and $29,000 respectively, containing United States-origin parts and components, without obtaining the required authorization for such reexportation. The respondent's answer, dated January 3, 1975, stated that the facts contained in the charging letter are substantially correct and agreed with the information submitted by the parent company to the Office of Export Administration. In addition, it was represented that a substantial portion of the commodities involved had been manufactured outside the United States; that export licenses had been issued by West Germany and Great Britain; that the licensing specialist involved erroneously considered that outstanding demonstration licenses would provide temporary coverage until United States export permission was obtained, and that the transactions involved would be ultimately approved and licensed by the United States. Pressure from the purchasing organization and personal difficulties which forced the relocation of the employee, who is no longer with the Hewlett-Packard organization, were also cited as extenuating circumstances contributing to the violations.

Pursuant to § 388.19 of the Export Administration Regulations, the Office of General Counsel, with agreement of the Director, Compliance Division, submitted to the Hearing Commissioner a consent proposal for the issuance of an order imposing a civil penalty and placing the respondent on probation for 6 months. In said consent proposal the respondent admitted for the purpose of this compliance proceeding only, did not contest or deny the violations set forth in the charging letter of November 26, 1974. The respondent waived: (1) all rights to oral hearing before the Hearing Commissioner; (2) all rights of administrative appeal from and judicial review of said

Case LA 77

Harold L. Hensley - Boss
4 witnesses

Owen Lopez - Miss.
2

Mark Adams Kerr-McGee

Oct 16, 1951
May 11, 1965
Nov 5, 1975

Boss
James M Deacon Jr
Mgr Contracts & Legal Services

1 Redke well
2 Big Chief
3 Lease plat
4 [illegible] No restrictions
5 [illegible]
6 Potash leases
No potash lease locations
7 [illegible] 1976
8 Revised "
9 1977 Plan development
10 Notices to lessees
11
12 & 13 Chronological [illegible]

Donnon

14. USGS Navajo 5½ Route
15. Appx. USGS Navajo
Cross Section

Dave Cromwell

16. Delaware plot
17. Bottom Map
18. Cross Section plot
19. Isolations
20
21 Plats showing Pools in relation to mining
22

Harold Hersey

Leo [redacted] Pool Produced since 1939
Still producing 2 well
Potash mining since 1960±
Mined thru plugged hole

Mike Cure Drlg. Engineer

23. Well Location plot
24. [illegible]
25. Schematic [illegible]
26. " "

[illegible] to be submitted by

Warren

27. Potash mining & potash core holes
silvite - North
Langbeinite - South
1 hole per section

28. Same - ~~Smaller~~ Larger Scale
R-5496 or Case 5496

Kerr-McGee

Mark Adams - Bob Lane
Supt. Mine Engineering

Potash Reserves

K_2O Foot Method ~~Height~~ x Grade

1
2
3 } Ore Contour Maps

Lose second mining
Must mine back within year

40% with well three
60% without well

Leave 100' around P+A
200' " Prod.

Potash Lease Line -
4. Ore Isopach Maps

~~Item of Record~~

~~Item of Record~~

Applicant

(29.) U-32 Data sheet

20 Yrs or less

(30.) 108 Core Data sheet

140 10 th

96 8 th

Statements

Lopez

1. Leases

Hensley

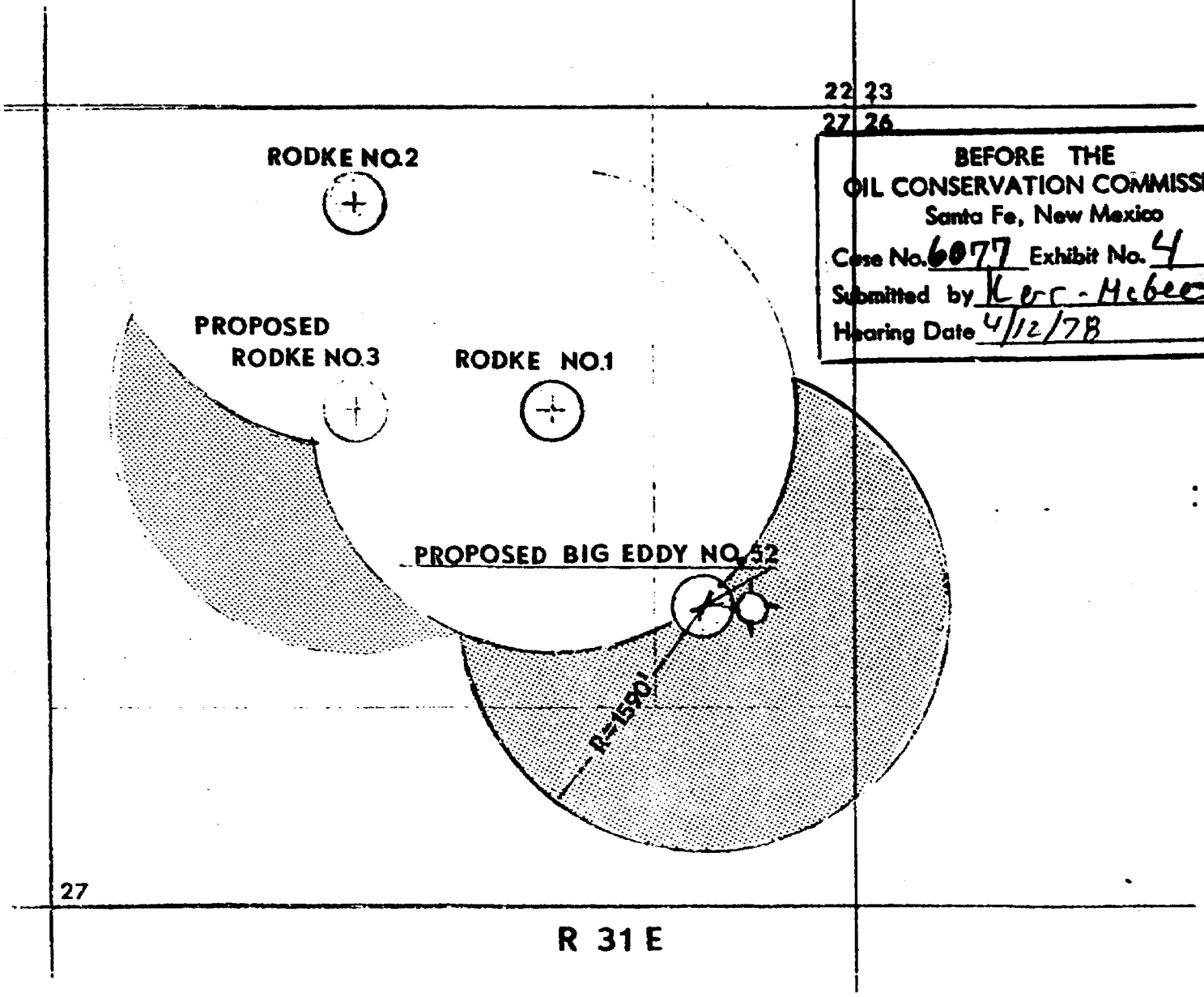
Commercial / Reserve ?

ESTIMATE TONNAGE LOSS TO THE DRILLING OF BIG EDDY NO. 52

5th ore zone	=	71,200	
7th ore zone	=	79,600	
10th ore zone	=	93,500	
Total		244,300	K20 Tons

ESTIMATE TONNAGE LOSS TO THE DRILLING OF RODKE NO. 3

5th ore zone	=	61,700	
7th ore zone	=	21,600	
10th ore zone	=	98,000	
Total		181,300	K20 Tons



BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 6077 Exhibit No. 4
Submitted by Kerr-McGee
Hearing Date 4/12/78

Total estimated loss = 425,600 K20 Tons
or 65 days potash production for the United States or 30 days United States usage of potash or a sales loss of $22,000,000.

KERR-MCGEE CHEMICAL CORPORATION
SCALE 1" = 1000' RHL 4/7/78

Docket No. 12-78

CASE 6197: Application of Amerada Hess Corporation for a non-standard gas proration unit, an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 320-acre non-standard gas proration unit comprising the N/2 of Section 36, Township 23 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to its State LMT Well No. 5 at an unorthodox location in Unit A of said Section 36 and its Well No. 2 in Unit F.

CASE 6170: (Continued from March 22, 1978, Examiner Hearing)

Application of Aminoil USA, Inc., for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Westlake Unit Area comprising 1920 acres, more or less, of State lands in Township 24 South, Range 33 East, Lea County, New Mexico.

CASE 6189: (Continued from March 22, 1978, Examiner Hearing)

Application of Merrion & Bayless for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Pictured Cliffs and Mesaverde production in the wellbore of its North Lindrith Com Well No. 2, to be drilled in the NW/4 of Section 20, Township 26 North, Range 2 West, Rio Arriba County, New Mexico.

CASE 6137: (Continued from March 22, 1978, Examiner Hearing)

Application of Amoco Production Company for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Nellis Federal Well No. 3 to be located 1980 feet from the North line and 660 feet from the West line of Section 8, Township 19 South, Range 33 East, West Tonto-Pennsylvanian Gas Pool, Lea County, New Mexico, the N/2 of said Section 8 to be dedicated to the well.

****

Docket No. 13-78

DOCKET: COMMISSION HEARING - WEDNESDAY - APRIL 12, 1978

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 6149: (Continued from February 21, 1978, Commission Hearing)

Application of The Permian Corporation for amendment of Order No. R-5208, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-5208 which, as amended by R-5208-A, authorizes salt water disposal into the Delaware formation through applicant's State CS Well No. 1 located in Unit L of Section 17, Township 21 South, Range 27 East, Eddy County, New Mexico, with a maximum wellhead surface pressure of 600 psi. Applicant seeks to have the aforesaid pressure limitation increased or removed.

CASE 6077: (Continued from February 23, 1978, Commission Hearing)

Application of Bass Enterprises Production Company for a drilling permit in the Potash-Oil Area, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Big Eddy Unit Well No. 52 and its Rodke Federal Well No. 3 located, respectively, in Units I and F of Section 27, Township 20 South, Range 31 East, Eddy County, New Mexico, said location being within the boundaries of the Potash-Oil Area as defined by Commission Order No. R-111-A and having been objected to by the owners of potash leases in the area.

Docket No. 6-78

Dockets Nos. 9-78 and 11-78 are tentatively set for hearing on March 8 and March 22, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - TUESDAY - FEBRUARY 21, 1978

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 6149: Application of The Permian Corporation for amendment of Order No. R-5208, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-5208 which, as amended by R-5208-A, authorizes salt water disposal into the Delaware formation thru applicant's State CS Well No. 1 located in Unit L of Section 17, Township 21 South, Range 27 East, Eddy County, New Mexico, with a maximum wellhead surface pressure of 600 psi. Applicant seeks to have the aforesaid pressure limitation increased or removed.

CASE 6069 and 6070: (Rehearing)

Application of Atlantic Richfield Company for two statutory unitizations, Lea County, New Mexico. Upon application of Texaco Inc., there will be a rehearing of Cases Nos. 6069 and 6070, Orders Nos. R-5593 and R-5594. These cases involve statutory unitization of the East Blinebry and East Drinkard Unit Area in Township 21 South, Range 37 East, Lea County, New Mexico. Pursuant to Commission Order No. R-5593-B and R-5594-B, evidence at said rehearing shall be limited to evidence relating to the unitization of the following tract in said unit areas:

Tract No. 13 comprising the SW/4 of Section 14, Township 21 South, Range 37 East.

CASE 5998, 6000, 6069, and 6070: (Rehearing)

Application of Atlantic Richfield Company for two statutory unitizations and two waterflood projects, Lea County, New Mexico. Upon application of J. R. Cone and Summit Energy Inc., there will be a rehearing of Cases Nos. 5998, 6000, 6069, and 6070, Orders Nos. R-5592, R-5591, R-5593, and R-5594. These cases involve statutory unitization of the East Blinebry and East Drinkard Unit Areas in Township 21 South, Range 37 East, Lea County, New Mexico, and waterflood operations thereon. Pursuant to Commission Order No. R-5592-A, R-5591-A, R-5593-A, and R-5594-A, evidence at said rehearing shall be limited to evidence relating to unitization of and waterflood operations on the following tracts in said unit areas:

Tract No. 13 comprising the SW/4 of Section 14 and Tract No. 15 comprising the N/2 NW/4 and NW/4 NE/4 of Section 13 all in Township 21 South, Range 37 East.

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Docket No. 8-78

DOCKET: COMMISSION HEARING - THURSDAY - FEBRUARY 23, 1978

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

CASE 6077: (Continued from November 9, 1977, Examiner Hearing)

Application of Bass Enterprises Production Company for a drilling permit in the Potash-Oil Area, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Big Eddy Unit Well No. 52 and its Rodke Federal Well No. 3 located, respectively, in Units I and F of Section 27, Township 20 South, Range 31 East, Eddy County, New Mexico, said location being within the boundaries of the Potash-Oil Area as defined by Commission Order No. R-111-A and having been objected to by the owners of potash leases in the area.

LAW OFFICES
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STUART D. SHANOR
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JAMES H. ISBELL
DOUGLAS L. LUNSFORD
PAUL M. BOHANNON
J. DOUGLAS FOSTER

W. E. BONDURANT, JR. (1914-1973)

TELEPHONE (505) 622-6510

MR. ISBELL LICENSED IN TEXAS ONLY

MIDLAND, TEXAS OFFICE
521 MIDLAND TOWER
(915) 683-4691

January 10, 1978

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey, Secretary-Director

Re: Application of Bass Enterprises Production Company to drill Big Eddy Unit Well No. 52 located in Unit I of Section 27 and Rodke Federal Well No. 3, located in Unit F of Section 27, all in Township 20 South, Range 31 East, Eddy County, New Mexico

Dear Mr. Ramey:

You will recall that this application was previously set for hearing before the full Commission on November 9, 1977 and continued at the request of certain protestants until after the end of the year. This application involves a reference to the Commission subsequent to arbitration as contemplated by paragraph VII of Order R-111-A.

It would be appreciated if this matter could be rescheduled for hearing as soon as convenient to the Commission after February 14.

Respecfully submitted,

HINKLE, COX, EATON, COFFIELD & HENSLEY

Harold L. Hensley, Jr.

HLH:lss
cc: Bass Enterprises Production Co.

Docket No. 35-77

Dockets Nos. 37-77 and 38-77 are tentatively set for hearing on November 16 and 30, 1977. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - WEDNESDAY - NOVEMBER 9, 1977

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

CASE 6077: Application of Bass Enterprises Production Company for a drilling permit in the Potash-Oil Area, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Big Eddy Unit Well No. 52 and its Rodke Federal Well No. 3 located, respectively, in Units I and F of Section 27, Township 20 South, Range 31 East, Eddy County, New Mexico, said location being within the boundaries of the Potash-Oil Area as defined by Commission Order No. R-111-A and having been objected to by the owners of potash leases in the area.

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Docket No. 36-77

DOCKET: COMMISSION HEARING - THURSDAY - NOVEMBER 10, 1977

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

CASE 5994: (DE NOVO)

Application of Tenneco Oil Company for an exception to the provisions of Order No. R-5459, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the provisions of Order No. R-5459 to exclude its Florance Well No. 29-A in Unit F of Section 25, and its Northeast Blanco Unit Well No. 64 in Unit P of Section 24, both in Township 30 North, Range 8 West, San Juan County, New Mexico, from the vertical limits of the Blanco-Mesaverde Pool.

Upon application of Tenneco Oil Company, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 6009: (DE NOVO)

Application of Morris R. Antweil for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the S/2 of Section 29, Township 18 South, Range 25 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

Upon application of Yates Petroleum Corporation, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 6078: Application of Yates Petroleum Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and older formations underlying the S/2 of Section 29, Township 18 South, Range 25 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

Case 6077

LAW OFFICES
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ROSWELL, NEW MEXICO 88201

September 15, 1977

CLARENCE E. HINKLE
LEWIS C. COX, JR.
PAUL W. EATON, JR.
CONRAD E. COFFIELD
HAROLD L. HENSLEY, JR.
STUART D. SHANOR
C. D. MARTIN
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MR. ISBELL LICENSED
IN TEXAS ONLY

MIDLAND, TEXAS OFFICE
521 MIDLAND TOWER
(915) 683-4691

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey, Secretary-Director

Re: Application of Bass Enterprises Production Co. to drill Big Eddy Unit Well No. 52 located in Unit I of Section 27 and Rodke Federal Well No. 3, located in Unit F of Section 27, all in Township 20 South, Range 31 East, Eddy County, New Mexico

Dear Mr. Ramey:

In accordance with the provisions of Order No. R-111-A, Bass Enterprises Production Co. has heretofore filed with the Commission Notices of Intention to Drill each of the above described wells and has otherwise duly given notice of the proposed wells to potash operators holding potash leases within a radius of one mile of the proposed wells as required.

Upon receipt of objection, these pending applications were referred to yourself for arbitration. Your records will reflect that the arbitration meeting was held in Santa Fe, New Mexico on April 21, 1977 at which time a satisfactory settlement could not be reached.

In view of the foregoing it is respectfully submitted that this matter now be referred to a hearing before the full Commission as contemplated by Paragraph VII of Order R-111-A.

It would be appreciated if you could advise me of the available dates for this hearing so that I can insure that the date will be convenient to necessary witnesses.

Respectfully submitted,

HINKLE, COX, EATON, COFFIELD & HENSLEY

Harold L. Hensley, Jr.

HLH:lss
cc: Ms. Lynn Teschendorf, Counsel for NMOCC
Bass Enterprises Production Co.

Case 6077

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September 15, 1977

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey, Secretary-Director

Re: Application of Bass Enterprises Production Co. to drill Big Eddy Unit Well No. 52 located in Unit I of Section 27 and Rodke Federal Well No. 3, located in Unit F of Section 27, all in Township 20 South, Range 31 East, Eddy County, New Mexico

Dear Mr. Ramey:

In accordance with the provisions of Order No. R-111-A, Bass Enterprises Production Co. has heretofore filed with the Commission Notices of Intention to Drill each of the above described wells and has otherwise duly given notice of the proposed wells to potash operators holding potash leases within a radius of one mile of the proposed wells as required.

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Respectfully submitted,

HINKLE, COX, EATON, COFFIELD & HENSLEY

Harold L. Hensley, Jr.

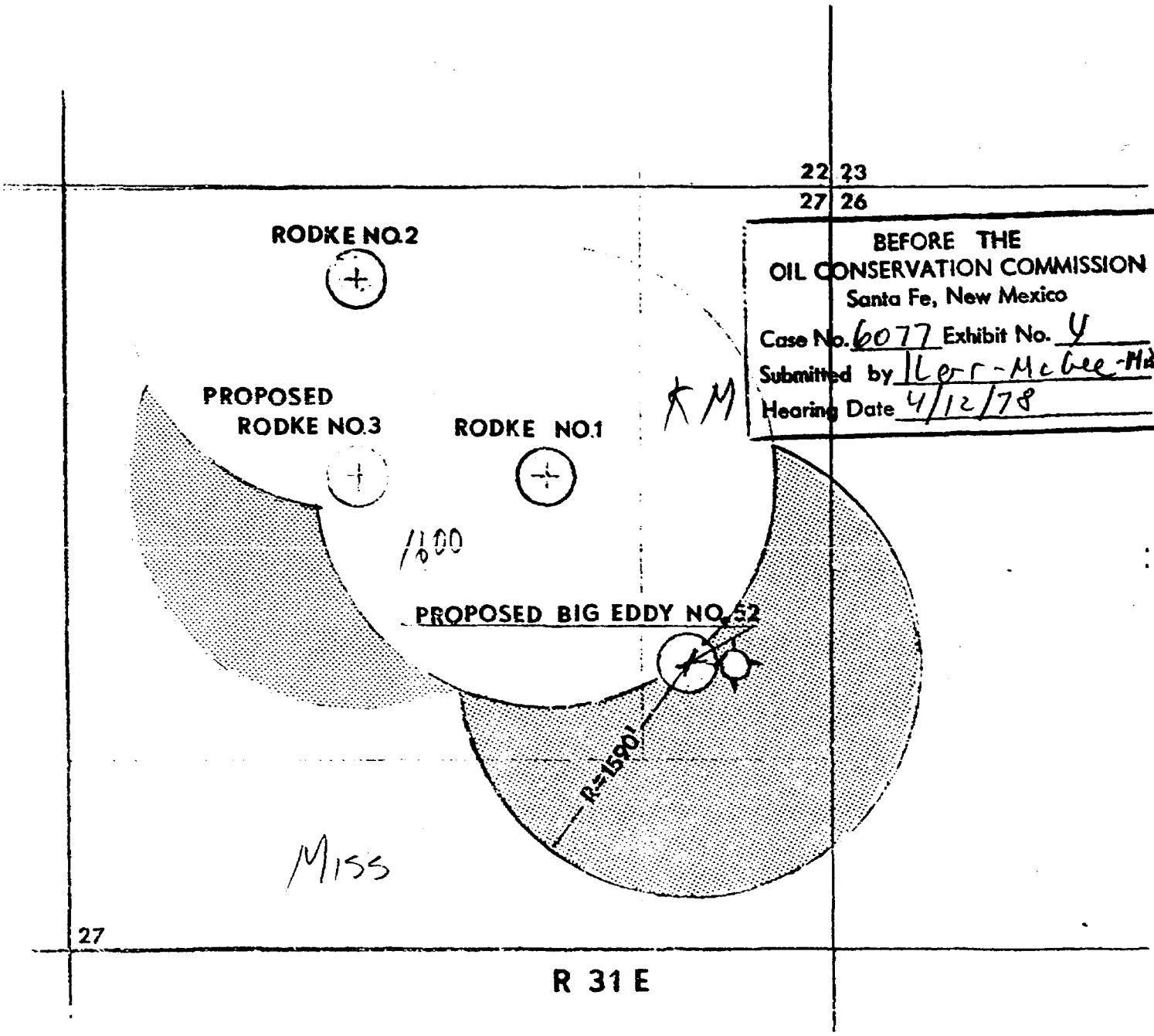
HLH:lss
cc: Ms. Lynn Teschendorf, Counsel for NMOCC
Bass Enterprises Production Co.

ESTIMATE TONNAGE LOSS TO THE DRILLING OF BIG EDDY NO. 52

5th ore zone	=	71,200	
7th ore zone	=	79,600	
10th ore zone	=	93,500	
Total		244,300	K20 Tons

ESTIMATE TONNAGE LOSS TO THE DRILLING OF RODKE NO. 3

5th ore zone	=	61,700	
7th ore zone	=	21,600	
10th ore zone	=	98,000	
Total		181,300	K20 Tons



BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 6077 Exhibit No. 4
Submitted by Kerr-McGee-Miss.
Hearing Date 4/12/78

Total estimated loss = 425,600 K20 Tons
or 65 days potash production for the United States or 30 days United States usage of potash or a sales loss of $22,000,000.

KERR-MCGEE CHEMICAL CORPORATION
SCALE 1" = 1000' RHL 4/7/78

Well file

BASS ENTERPRISES PRODUCTION CO.

P. O. BOX 2760
MIDLAND, TEXAS 79701

November 1, 1976
File: 400-WF

Mr. James A. Knauf
U. S. Geological Survey
P. O. Drawer U
Artesia, New Mexico 88210

Dear Sir:

Subject: BASS ENTERPRISES PRODUCTION CO.
FEDERAL RODKE NO. 3
EDDY COUNTY, NEW MEXICO

Attached is our application to drill the subject well, with complete drilling prognosis and development plan.

If additional information is required, please contact me.

Yours very truly,

Louie M. Cure

Louie M. Cure
Senior Drilling Engineer

LMC/blh
Attach.

BEFORE EXAMINER STAMTS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 1
CASE NO. 6077
Applicant
4-12-78

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

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 [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Bass Enterprises Production Company

3. ADDRESS OF OPERATOR: P. O. Box 2760; Midland, Texas 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1980' FN&WL, Sec. 27, T-20-S, R-31-E; Eddy County, NM
Unit Letter F
At proposed prod. zone: As above.

5. LEASE DESIGNATION AND SERIAL NO.:

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME: - - - - -

8. FARM OR LEASE NAME: Federal Rodke

9. WELL NO.: 3

10. FIELD AND POOL, OR WILDCAT: Parallel (Delaware

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 27, T-20-S, R-31-E.

12. COUNTY OR PARISH: Eddy

13. STATE: New Mexi

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 24 miles east of Carlsbad, New Mexico.

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 1980'

16. NO. OF ACRES IN LEASE:

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

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 1/4 mi. to Fed. Rodke #1

19. PROPOSED DEPTH: 6000'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3527.0' GL

22. APPROX. DATE WORK WILL START*: Dec. 1, 1976

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
16" +	16"	65#/ft.	40'	Ready-mix. (Conductor csg
15"	11 3/4" OD	47#/ft. J-55	835'	470 sx. API Cl. "C", 4% ge 2% $CaCl_2$.
11"	8 5/8"	24#/ft. K-55	2560'	640 sx., "Light", w/18% salt 1% $CaCl_2$ + 50 sx. Cl. "C".
7 7/8"	5 1/2"	14#/ft. K-55	5800'	500 sx. Cl. A, w/4% benton 5#/sk. gilsonite.

Drilling procedure, BOPE diagram, anticipated formation tops, and surface use plan are attached.

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 Louis W. Cure TITLE Sr. Drilling Engr. DATE October 8, 197

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
PERRY R. BASS	FEDERAL RODKE	3

Unit Letter	Section	Township	Range	County
F	27	20 SOUTH	31 EAST	EDDY

Actual Footage Location of Well:
1980 feet from the NORTH line and 1980 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3527.0			Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

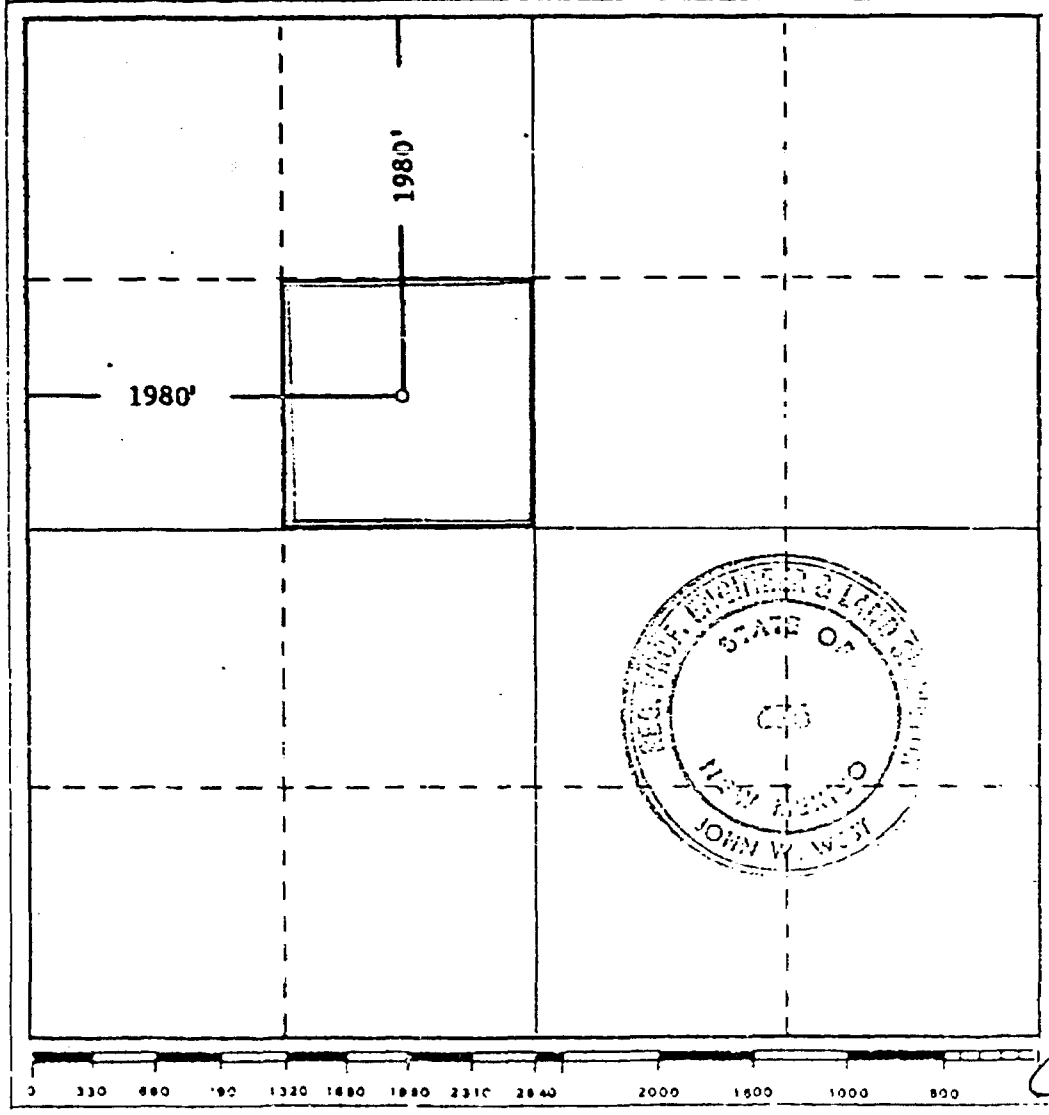
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Louie M. Cure

Name: Louie M. Cure

Position: Sr. Drilling Engineer

Company: Bass Enterprises Prod.

Date: October 8, 1976

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 supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: 9-2-1976

Registered Professional Engineer and/or Land Surveyor

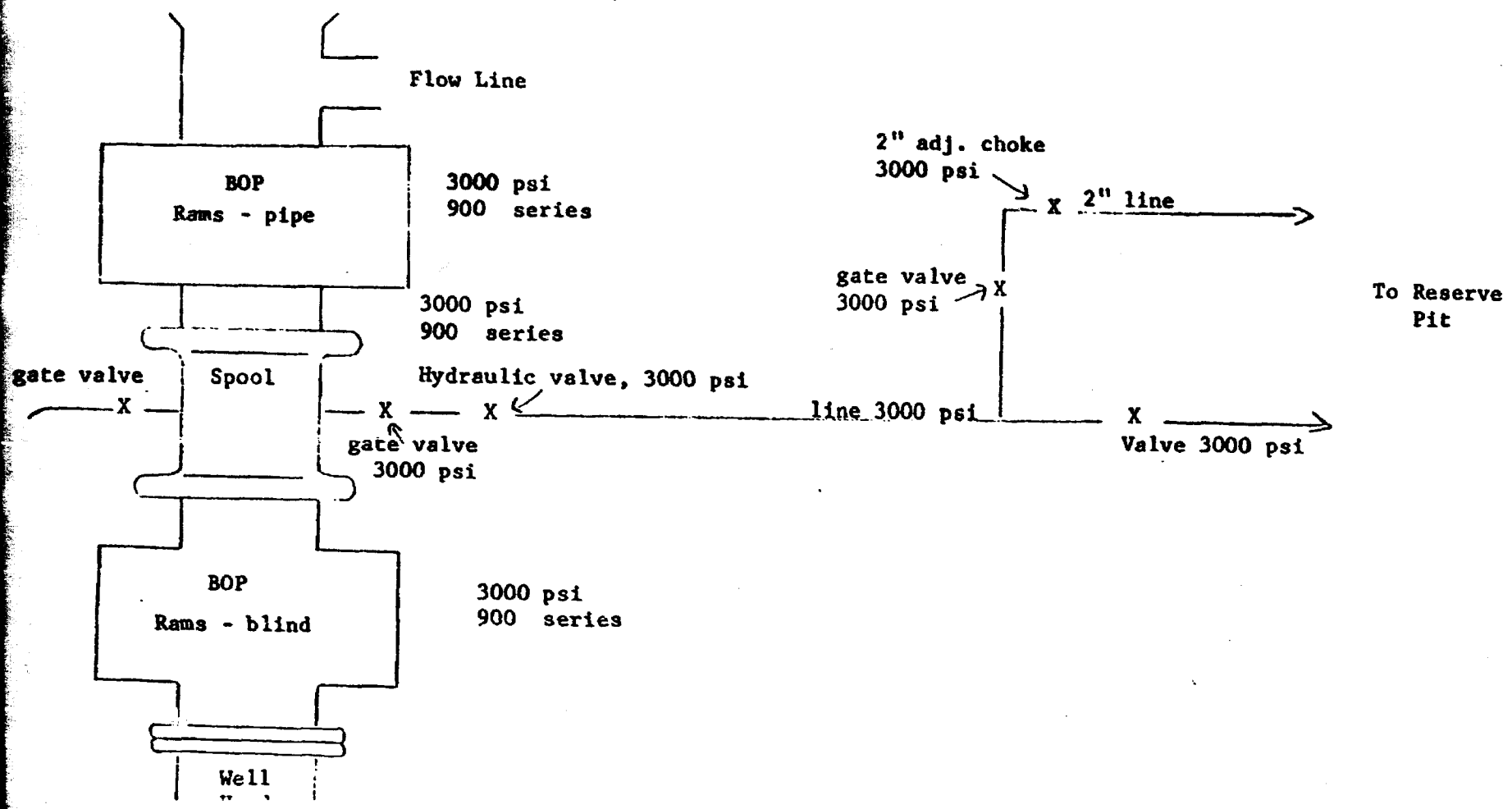
John W. West

Certificate No. 676

Bass Enterprises Production Company

Federal Rodke No. 3

Location: 1980' FN&WL, Sec. 27, T-20-S, R-31-E; Eddy County, New Mexico.



BASS ENTERPRISES PRODUCTION COMPANY

Federal Rodke No. 3

ANTICIPATED FORMATION MARKERS

Top Rustler Anhydrite:	640'
Base Rustler Anhydrite:	910'
T/Salt	910'
B/Salt	2500±
T/Tansill Anhydrite:	2500 ±
T/Tansill Dolomite:	2620±
T/Capitan Reef:	2760±
1st Delaware Sand:	3650±
Total Depth:	6000±

BASS ENTERPRISES PRODUCTION COMPANY
PROGNOSIS TO DRILL

LEASE: Federal Rodke WELL NO: 3

DIVISION: West Texas DISTRICT/AREA: Kermit

PROJECTED DEPTH: 5800 EST. ELEVATION: 3527 GL

LOCATION: Surface - 1980' FNL & 1980' FWL, Section 27, T-20-S, R-31-E
Eddy County, New Mexico

Propose: BH - Straight Hole

GENERAL INFORMATION:

24 miles East from Carlsbad, NM. Type Rig rotary. Distance from nearest state maintained road 2 mi.

CASING AND CEMENTING:

1. Conductor Casing -

Depth 40 ft Size 16 " OD Wt 65 #/ft Grd -- Thd --

Cement -

Desired Top GL ft Type Cement ready mix

2. Surface Casing -

Hole Size 15" Clearance 1.13" radial clearanc at coupling

Depth 835' ± ft

Casing 11 3/4 " OD

Interval	Footage	Wt/Ft	Grade	Type Jt	Intvl Wt	Cum Wt	CALC SAFETY FACTORS Ten	Col		
0-835 ±	835	47	J-55	ST&C	39000	39000				

Cement -

Desired Top surface Type Cement (slurry wt, yield factor & est sx) API Class c w/4% gel and 2% $CaCl_2$ mixed to 13.5 ppg; yield 1.69 ft^3/sack for 100% excess need 470 sx

835' X 0.4742 ft^3/ft = 396 ft^3 X 2 = 792 ft^3 ÷ 1.69 ft^3/sx = 469 sx

Percent excess 100 % Caliper Survey ____Yes, X No

Required ft^3 792

Placement time 30 min Minimum Thickening Time 120 min

Head - 11 3/4" weld on X 10" series 900 w/2 X 2" outlets

Accessories - 3 centralizers, guide shoe, & float collar

3. First Intermediate Casing - Salt Protection String

Hole Size 11" Clearance 0.69" radial clearance at couplin

Depth 2560' + ft

Casing 8 5/8 " OD

Interval	Footage	Wt/Ft	Grade	Type Jt	Intvl Wt	Cum Wt	CALC SAFETY FACTORS Ten	Col	TB	BB
0-2560' +	2560	24	K-55	ST&C	61440	61440	4.28	1.03		

Cement -

Desired Top surface Type Cement (slurry wt, yield factor & est sx) 640 sacks Halliburton "Light" cement w/18% salt & 1% $CaCl_2$ mixed to 13.2 ppg yield 1.92 ft^3/sx Tail w/ 50 sx Class C mixed to 14.8 ppg yield 1.32 ft^3/sx

Percent excess 100 % Caliper Survey X Yes, ____ No

Required ft ^{3} 1300 Placement time 40 min.

Minimum Thickening time 120 min.

Head - 10"-900 X 10"-900 csg head 8 5/8 pack-off w/2 X 2" outlets

Accessories - guide shoe, float collar & 12 centralizers (one regd every 150'.)

4. Second Intermediate Casing -

Hole Size _____ Clearance _____

Depth _____ ft

Casing _____ " OD

Interval	Footage	Wt/Ft	Grade	Type Jt	Intvl Wt	Cum Wt	CALC SAFETY FACTORS Ten	Col	TB	BB

Cement -

Desired Top _____ Type Cement (slurry wt, yield factor & est sx) _____

Percent excess _____% Caliper Survey _____Yes, _____No

Required ft ^{3} _____ Placement time _____ min.

Minimum Thickening time _____min.

Head -

Accessories -

5. Third Intermediate Casing -

Hole Size _____ Clearance _____

Depth _____ ft

Casing _____ " OD

Interval	Footage	Wt/Ft	Grade	Type Jt	Intvl Wt	Cum Wt	CALC SAFETY FACTORS Ten	Col	TB	BB

Cement -

Desired Top _____ Type Cement (slurry wt, yield factor & est sx) _____

Percent excess _____%. Caliper Survey _____Yes, _____No

Required ft ^{3} _____ Placement time _____ min.

Minimum Thickening time _____ min.

Head -

Accessories -

6. Intermediate Liner Casing -

Hole Size _____ Clearance _____

Depth _____ ft

Casing _____ " OD

Interval	Footage	Wt/Ft	Grade	Type Jt	Intvl Wt	Cum Wt	CALC SAFETY FACTORS Ten	Col	TB	BB

Cement -

Desired Top _____ Type Cement (slurry wt, yield factor & est sx) _____

Percent excess _____% Caliper Survey _____Yes, _____No

Required ft ^{3} _____ Placement time _____ min.

Minimum Thickening time _____min.

Head -

Accessories -

7. Production/Liner Casing Cemented back across Capitan Reef

Hole Size 7 7/8 Clearance 0.9125" radial clearance at coupling

Depth 5800 ± ft

Casing 5½ " OD

Interval	Footage	Wt/Ft	Grade	Type Jt	Intvl Wt	Cum Wt	CALC SAFETY FACTORS Ten	Col	TB	BB
0-5800	5800	14	K-55	ST&C	81200	81200	2.33	1.15	1.78	1.91

Design Conditions -

BHP 2500 psi TP 2400 psi Drilling Mud 9 #/gal

Completion Fluid 8.45 #/gal

Cement -

Desired Top 2000' ft Type Cement (slurry wt, yield factor & est sx) 500 sx Class "A" w/4% bentonite and 5 lb/sx gilsonite mixed to 12.8 ppg yield 1.98 ft^3/sx.

Percent excess 50 % Caliper Survey X Yes, ____ No

Required ft^3 988 Placement time 60 min.

Minimum Thickening time 180 min. Reciprocate while cementing X Yes ____ No.

Head - Tubing head 10"-900 X 6"-900 w/2 X 2" outlets

Accessories - Automatic full float collar, guide shoe, ten centralizers sand blast and ruff-cote pipe across producing zone. DV cementer.
1) If returns are lost while drilling the Capitan Reef a stage cmt tool will be run above the highest loss zone.

2) If returns are not lost while drilling the Capitan Reef a stage cmt t will be run 300' below the top of the Reef. If returns are lost during primary cmt job, a stage cmt job will be done.

3) A temperature survey will be run to find the top of the cmt behind th pipe.

MUD

1. Surface Hole - surface to Rustler Anhydrite (835'±)

Mud Type fresh water w/gel & lime

Properties at Casing Point: Wt 9.5 #/gal Visc 33 sec.

WL -- sec.

2. Below Surface Casing -

Properties:

terval	Mud Type	Weight	PV/YP	Water Loss
835-2560'	satruated brine	9.9	---	---
2560-3600'	fresh water	8.6	---	---
3600-5800'	fresh water	8.6	10/15	15

3. Remarks -

Centrifuge _____ Degasser _____ Diesel Content ____%

after breakover Desander _____ Pit-O-Graph _____

HOLE DEVIATION:

1. Vertical Hole -

Limits of Deviation:

Interval _____ Maximum Deviation 5°

Surveys required every 500' normally and every 250' through salt section

Maximum Change in Deviation: 1 °/100'.

2. Directional Hole

Direction _____

Deviation -

	MD	TVD	Deviation
Vertical Hole			
Build Angle, _____°/100'			
Maintain Angle, _____°			
Drop Angle, 1°/100'			
Maintain Angle			

Target (s)

Maximum Change in Deviation _____°/100'.

LOG RUNS:

Depth				
5800-2560	DILL-GR w/Rxo curve & GR 2650-surface			
5800-2560	BHC-Sonic w/GR & Caliper			
5800-3600	4-arm HRC dipmeter optional			

Remarks: * At discretion of wellsite geologist Sidewall cores will be taken after logging. No conventional coring will be done.

DRILLING SAMPLES:

Catch 1 sets of drilling samples (5½" x 10½" bag) at 10' intervals from 0 ft to TD. Samples will be maintained at the wellsite unless otherwise specified as follows:

Sample sack should be completely labeled with operator's name, well name, and number.

RIG PROCEDURES:

1. Blowout Prevention -

   a. Nipple up 2 BOPs (~~1-Hydril and 2-ORC's~~), (2 rams) on surface pipe as shown on attached diagram.

   b. Nipple up _____ BOPs (1-Hydril and 2-ORC's) on intermediate or production casing as shown on attached diagram.

   c. Test BOPs to working pressure for 30 min upon installation and every 30 days thereafter.

   d. Tighten BOP and head bolts once each week.

   e. Work BOPs daily.

2. Measurements -

   a. Tally drill pipe at casing points, logging points, and otherwise as required by Company representative.

   b. Prepare detailed sketch to include length, OD, ID, and type connections of all tools run into hole on Company time.

3. Miscellaneous -

   a. Drill string should be stabilized while drilling all hole sizes.

   b. Continuous check on hydraulics should be made.

   c. Run consistometer tests on all cement used for production casing.

   d. After cement job, release pressure immediately if back pressure valves are holding, and begin nipple-up operations.

   e. Pressure test surface casing to 1000 psi before drilling plug; intermediate and production casing and/or liners to 1500 psi.

COMPLETION:

Procedure for completion will be outlined on separately issued Prognosis to Complete.

NOTIFICATION:

1. In case of emergency, please notify the following:

Mike Cure	915-684-5723	915-683-7965
Leroy Hurt	915-684-5723	915-697-2934
Alan Roberts	915-684-5723	915-694-1568

2. Prior to logging, please notify:

Bill Parsons	915-684-5723	
Howard Hodges	915-684-5723	915-697-3634

PREPARED BY: CHECKED BY: APPROVED BY:

Louie M. Cure

Louie M. Cure

Attachments: Estimated Drilling Time
Minimum BOP Hook-up
Sample Catching Instructions
Proposed Mud Program

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
BASS ENTERPRISES PRODUCTION CO.
WELL FEDERAL RODKE NO. 3
1980' FNL and 1980' FWL Sec. 27-20S-31E
(Development Well)

1. EXISTING ROADS:

A. Exhibit "A" is a portion of a topographic map showing the location of the proposed well as staked. Access is obtained by traveling approximately 24 miles NE of Carlsbad on State Highway 62-180, turning N 1½ miles on a lease road and then turning W and continuing 1/2 mile to the location.

B. Exhibit "B" is a map showing all existing roads and wells within several miles of the wellsite.

2. PLANNED ACCESS ROADS:

Length and Width: New road required will be 12' wide and 1320' long. This new road is labeled on Exhibit "B". There are no turnouts, culverts, gates or cattleguards required. The surface of the new road will be caliche.

3. THE LOCATION OF EXISTING WELLS:

The location of existing wells will be shown on Exhibit "B".

4. LOCATION OF EXISTING AND PROPOSED FACILITIES:

A. Location of existing tank batteries or flow lines for proposed well is shown on Exhibit "C". There are no water disposal lines or injection lines. The flow lines will not be buried, except for road crossings. Flow lines will be laid along existing roads and no additional surface damage will be done.

B. If the proposed well is completed for production, the existing tank batteries will be enlarged to accommodate new production facilities, which will require an additional pad size of 20' x 100'.

5. LOCATION AND TYPE OF WATER SUPPLY:

Fresh water and brine will be hauled to location by commercial haulers.

6. SOURCE OF CONSTRUCTION MATERIALS:

Caliche for servicing road and well pad will be obtained from nearby existing pit, as shown on Exhibit "C".

7. METHODS OF HANDLING WASTE DISPOSAL:

A. Drill cuttings will be disposed of in the drilling pits.

B. Drilling fluids will be allowed to evaporate in the drilling pits until pits are dry.

C. Water produced during tests will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks until sold.

D. Current laws and regulations pertaining to the disposal of human waste will be complied with.

E. Trash, waste paper, garbage, and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind. Location of trash pit is shown on Exhibit "D". (Alternate - all trash, junk and other waste material will be contained to prevent scattering and will be removed and deposited in an approved sanitary landfill.)

F. All trash and debris will be buried or removed from the wellsite within 30 days after finishing drilling and/or completion operations. (Note: All trash left on wellsite, to be removed or buried within 30 days, will be contained to prevent scattering.)

8. ANCILLARY FACILITIES:

None required.

9. WELLSITE LAYOUT:

A. Exhibit "D" shows the relative location and dimensions of the well pad, mud pits, reserve pit, trash pit, and location of major rig components.

B. Only minor levelling of the wellsite will be required. No significant cuts and fills will be necessary.

C. The reserve pit will be plastic lined.

10. PLANS FOR RESTORATION OF THE SURFACE:

A. After the completion of drilling and completion operations, all equipment and other materials not needed for operations will be removed. Pits will be filled and location cleaned of all trash and junk.

B. Any unguarded pits containing fluids will be fenced until the pits are filled. A period of about 90 days after completion of drilling operations will be required to allow the pits to dry up suitable for filling.

C. After abandonment of the well, the pit area, well pad, and all

access roads not needed will be ripped to promote revegetation.

11. OTHER INFORMATION:

A. Topography - The wellsite is on fairly level terrain.

B. Soil - The soil is sandy with some caliche and gravel.

C. Flora and Fauna - Vegetation is sparse being primarily cat claw and mesquite with very little grass. Wild life in the area is that typical semi-area desert land. Environmental risk is very low.

D. Ponds and streams - There are no streams or ponds in the area.

E. Residences and other structures - There are no residences or any type of structures or dwellings in the area. There is a railroad that passes about one mile south of the location.

F. Land Use - The only use for the area is grazing.

G. Surface Ownership - The wellsite is on federal surface.

12. OPERATOR'S REPRESENTATIVE:

Field personnel who can be contacted concerning compliance with this "Surface Use Plan" are as follows:

DRILLING

Leroy Hurt
P. O. Box 2760
Midland, Texas 79701

Louie M. Cure
P. O. Box 2760
Midland, Texas 79701

PRODUCTION

Al Gallas
P. O. Box 1043
Kermit, Texas 79745

Alan Roberts
P. O. Box 2760
Midland, Texas 79701

13. CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions as they actually exist, that the statements made in this plan are to the best of my knowledge true and correct, and that the proposed work performed by Bass Enterprises Production Company and its contractors and sub-contractors will conform to this plan.

Louie M. Cure
Senior Drilling Engineer

LMC/dsm

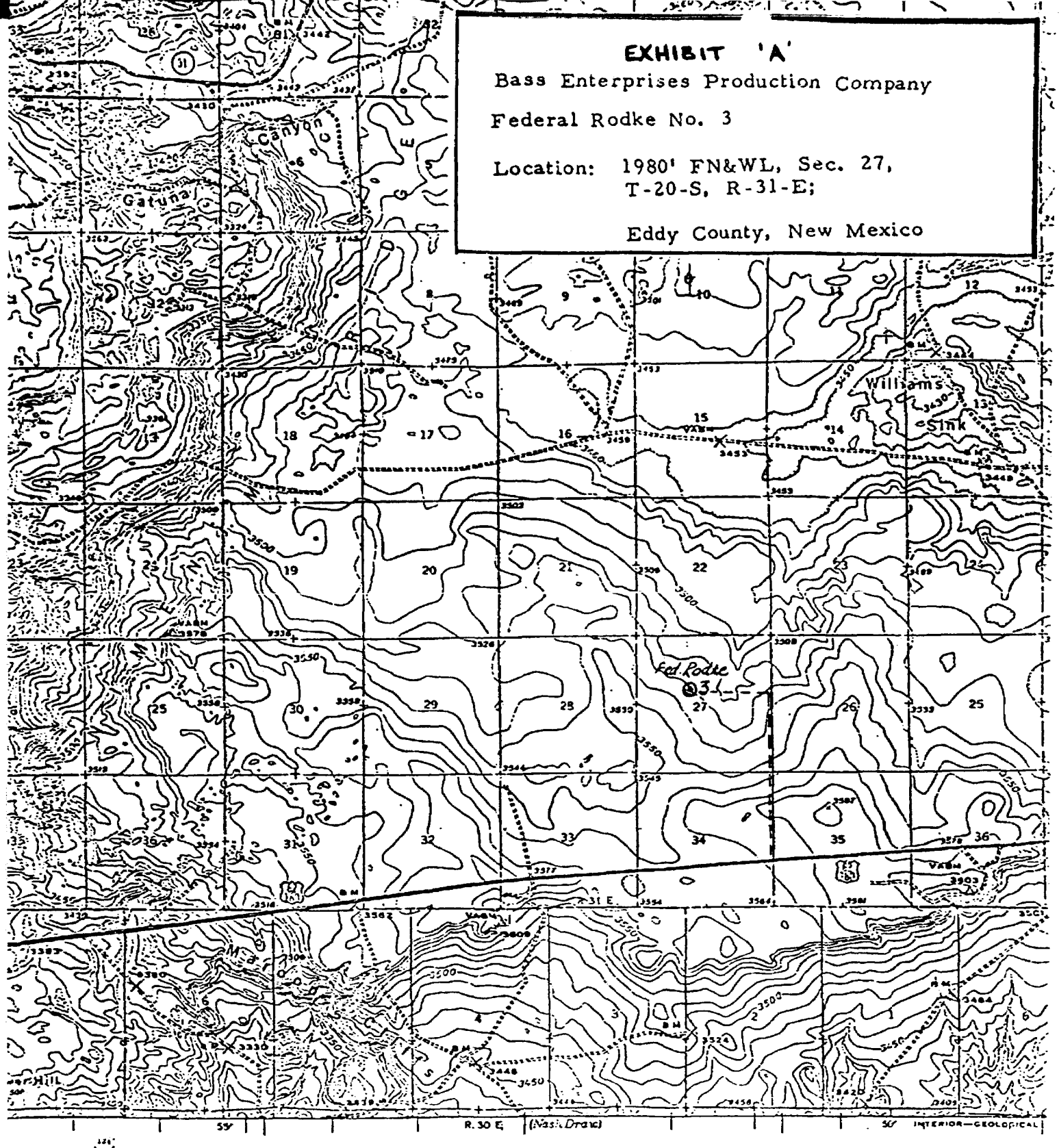
EXHIBIT 'A'

Bass Enterprises Production Company

Federal Rodke No. 3

Location: 1980' FN&WL, Sec. 27,
T-20-S, R-31-E;

Eddy County, New Mexico



Contour interval 10 feet
Datum is mean sea level

FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER 2, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

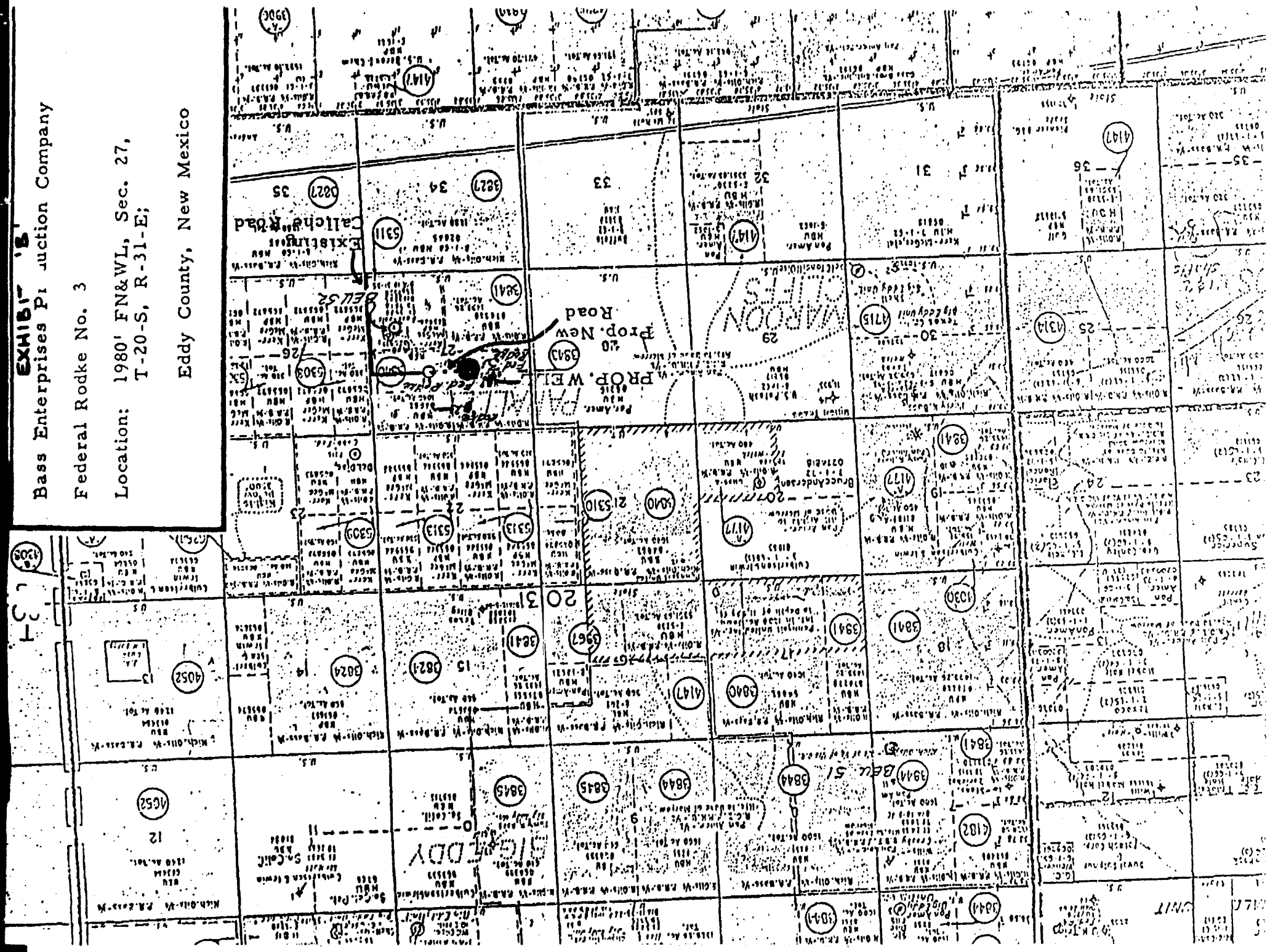
EXHIBIT 'B'

Bass Enterprises Production Company

Federal Rodke No. 3

Location: 1980' FN&WL, Sec. 27,
T-20-S, R-31-E;

Eddy County, New Mexico



BASS ENTERPRISES PRODUCTION CO.

P. O. BOX 2760
MIDLAND, TEXAS 79701

November 1, 1976
File: 400-WF

Mr. James A. Knauf
U. S. Geological Survey
P. O. Drawer U
Artesia, New Mexico 88210

Dear Sir:

Subject: BASS ENTERPRISES PRODUCTION CO.
BIG EDDY UNIT NO. 52;
EDDY COUNTY, NEW MEXICO

Attached is our application to drill the subject well, with complete drilling prognosis and development plan.

Please contact me if additional information is required.

Yours very truly,

Louie M. Cure

Louie M. Cure
Senior Drilling Engineer

LMC/blh
Attach.

BEFORE EXAMINER STAMEY
OIL CONSERVATION DIVISION
2
CASE 6077
EXHIBIT Applicant
DATE 4-12-78

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

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 [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Bass Enterprises Production Company

3. ADDRESS OF OPERATOR: P. O. Box 2760; Midland, Texas 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1980' from South line, 990' from East line, Sec. 27, T-20-S, R-31-E; Eddy Co., New Mexico
At proposed prod. zone: As above.

5. LEASE DESIGNATION AND SERIAL NO.:

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME: Big Eddy Unit

8. FARM OR LEASE NAME: Big Eddy Unit

9. WELL NO.: 52

10. FIELD AND POOL, OR WILDCAT: Parallel (Delaware)

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 27, T-20-S, R-31-E.

12. COUNTY OR PARISH: Eddy

13. STATE: New Me

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 24 miles east of Carlsbad, New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 990'

16. NO. OF ACRES IN LEASE:

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.: 3/4 mi SE of Fed. Rodke #2

19. PROPOSED DEPTH: 6000'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3529.7' GL

22. APPROX. DATE WORK WILL START*: December 1, 1976

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
16" +	16"	65#/ft.	40'	Ready-mix (Conductor csg.
15"	11 3/4" OD	47#/ft. J-55	835'	470 sx. API Cl. "C", 4% 2% $CaCl_2$
11"	8 5/8" OD	24#/ft. K-55	2560'	640 sx. "Light", w/18% sa & 1% $CaCl_2$ + 50 sx. Cl "
7 7/8"	5 1/2"	14#/ft. K-55	5800'	500 sx. Cl. "A", w/4% bentonite, 5#/sk. gilsonite

Drilling procedure, BOPE diagram, anticipated formation tops, and surface use plan are attached.

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 Lewis M. Cure TITLE Sr. Drilling Engineer DATE 10-9-76

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
PERRY R. BASS	Big Eddy Unit	52

Unit Letter	Section	Township	Range	County
I	27	20 South	31 East	Eddy

Actual Footage Location of Well:
1980 feet from the south line and 990 feet from the east line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3529.7			Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

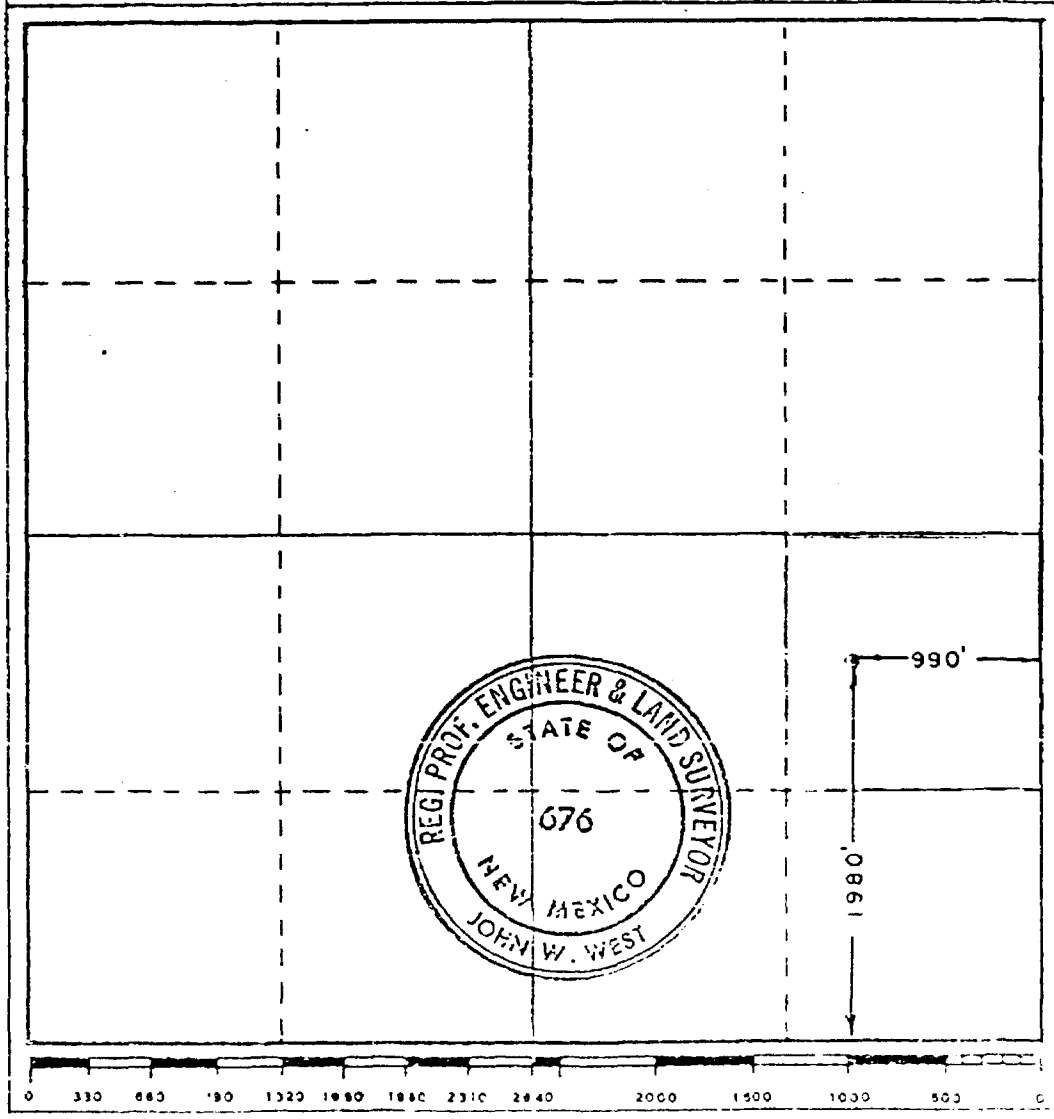
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 and tract descriptions which have actually been consolidated (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name: Louie M. Cure

Louie M. Cure

Position: Sr. Drilling Engr.

Company: Bass Ent. Prod. Co.

Date: 10-9-76

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 supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
Sept. 2, 1976

Registered Professional Engineer and/or Land Surveyor

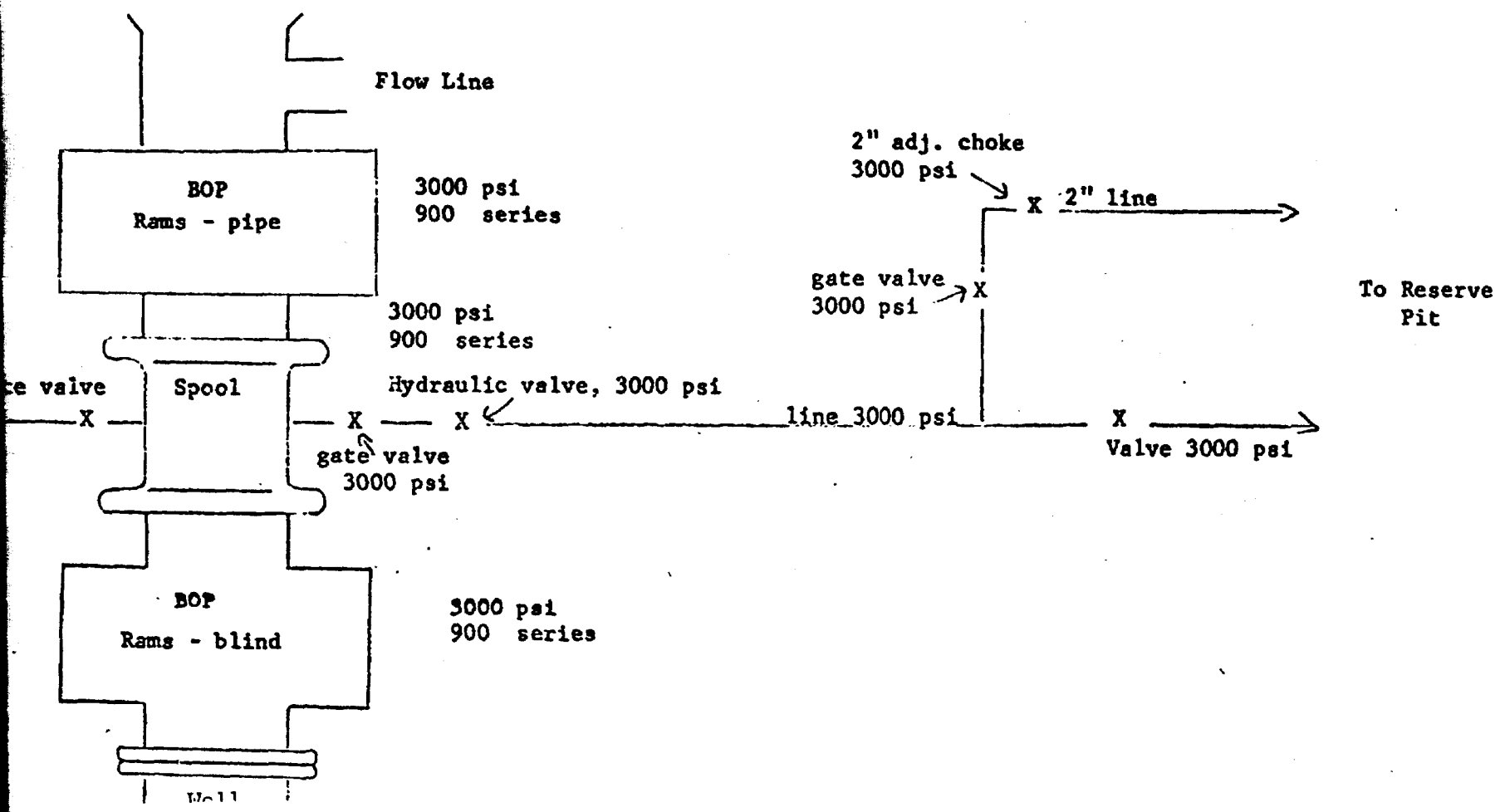
John W. West

Certificate No. 676

BASS ENTERPRISES PRODUCTION COMPANY

BIG EDDY UNIT NO. 52

Location: 1980' from South line, 990' from East line, Sec. 27, T-20-S, R-31-E; Eddy County, New Mexico.



BASS ENTERPRISES PRODUCTION CO.

BIG EDDY UNIT NO. 52

ANTICIPATED FORMATION MARKERS

T/Rustler Anhydrite:	640'
T/Salt:	1010'
B/Salt:	2445'
Tansil Dolomite:	2550'
Capitan Reef:	2680'
Delaware Sand:	3850'

Salt 650
Delaware [illegible]
Bone Spring 8350
Wolf Camp 9350
Strawn 10,350
Atoka 10,850
Morrow 11,300

BASS ENTERPRISES PRODUCTION COMPANY
PROGNOSIS TO DRILL

LEASE: Big Eddy Unit WELL NO: 52

DIVISION: West Texas DISTRICT/AREA: Kermit

PROJECTED DEPTH: 5800' EST. ELEVATION: 3530' GL

LOCATION: Surface - 1980' FSL & 990' FEL, Section 27, T-20-S, R-31-E
Eddy County, New Mexico

Propose: BH - Straight Hole

GENERAL INFORMATION:

24 miles East from Carlsbad, NM. Type Rig rotary. Distance from nearest state maintained road 2 mi.

CASING AND CEMENTING:

1. Conductor Casing -

Depth 40 ft Size 16 " OD Wt 65 #/ft Grd --- Thd ---

Cement -

Desired Top GL ft Type Cement Ready Mix

2. Surface Casing -

Hole Size 15" Clearance 1.13" Radial Clearai
At coupling

Depth 835' ± ft

Casing 11 3/4 " OD

Interval	Footage	Wt/Ft	Grade	Type Jt	Intvl Wt	Cum Wt	CALC SAFETY FACTORS Ten	Col		
0-835'±	835	47	J-55	ST&C	39000	39000				

Cement -

Desired Top surface Type Cement (slurry wt, yield factor & est sx) API Class c w/4% gel and 2% $CaCl_2$ mixed to 13.5 ppg; yield 1.69 ft^3/sack for 100% excess need 470 sx

835' X 0.4742 ft^3/ft = 396 ft^3 X 2 = 792 ft^3 ÷ 1.69 ft^3/sx = 469 sx

Percent excess 100 % Caliper Survey ____Yes, X No

Required ft^3 792

Placement time 30 min Minimum Thickening Time 120 min

Head - 11 3/4" weld on X 10" series 900 w/2 X 2" outlets

Accessories - 3 centralizers, guide shoe, & float collar

3. First Intermediate Casing - Salt Protection String

Hole Size 11" Clearance 0.69" radial clearance at coupli

Depth 2560' + ft

Casing 8 5/8 " OD

Interval	Footage	Wt/Ft	Grade	Type Jt	Intvl Wt	Cum Wt	CALC SAFETY FACTORS Ten	Col	TB	BB
0-2560' +	2560	24	K-55	ST&C	61440	61440	4.28	1.03		

Cement -

Desired Top surface Type Cement (slurry wt, yield factor & est sx) 640 sacks Halliburton "Light" cement w/18% salt & 17 $CaCl_2$ mixed to 13.2 ppg yield 1.92 ft^3/sx Tail w/ 50 sx Class C mixed to 14.8 ppg yield 1.32 ft^3/sx

Percent excess 100 % Caliper Survey X Yes, ____ No

Required ft ^{3} 1300 Placement time 40 min.

Minimum Thickening time 120 min.

Head - 10"-900 X 10"-900 csg head 8 5/8 pack-off w/2 X 2" outlets

Accessories - guide shoe, float collar & 12 centralizers (one regd every 150'.)

4. Second Intermediate Casing -

Hole Size _____ Clearance _____

Depth _____ ft

Casing _____ " OD

Interval	Footage	Wt/Ft	Grade	Type Jt	Intvl Wt	Cum Wt	CALC SAFETY FACTORS Ten	Col	TB	BB

Cement -

Desired Top _____ Type Cement (slurry wt, yield factor & est sx) _____

Percent ex s _____% Caliper Sur _____Yes, _____No

Required ft ^{3} _____ Placement time _____ min.

Minimum Thickening time _____min.

Head -

Accessories -

5. Third Intermediate Casing -

Hole Size _____ Clearance _____

Depth _____ ft

Casing _____ " OD

Interval	Footage	Wt/Ft	Grade	Type Jt	Intvl Wt	Cum Wt	CALC SAFETY FACTORS Ten	Col	TB	BB

Cement -

Desired Top _____ Type Cement (slurry wt, yield factor & est sx) _____

Percent excess _____%. Caliper Survey _____Yes, _____No

Required ft ^{3} _____ ement time _____ min.

Minimum Thickeni; time _____ min.

Head -

Accessories -

6. Intermediate Liner Casing -

Hole Size _____ Clearance _____

Depth _____ ft

Casing _____ " OD

Interval	Footage	Wt/Ft	Grade	Type Jt	Intvl Wt	Cum Wt	CALC SAFETY FACTORS Ten	Col	TB	BB

Cement -

Desired Top _____ Type Cement (slurry wt, yield factor & est sx) _____

Percent excess _____% Caliper Survey _____Yes, _____No

Required ft^3 _____ Placement time _____ min.

Minimum Thickening time _____ min.

Head -

Accessories -

7. Production/Liner Casing Cemented back across Capitan Reef

Hole Size 7 7/8 Clearance 0.9125" radial clearance at coupling

Depth 5800 ± ft

Casing 5½ " OD

Interval	Footage	Wt/Ft	Grade	Type Jt	Intvl Wt	Cum Wt	CALC SAFETY FACTORS Ten	Col	TB	BB
0-5800	5800	14	K-55	ST&C	81200	81200	2.33	1.15	1.78	1.91

Design Conditions -

BHP 2500 **psi** **TP** 2400 **psi** **Drilling Mud** 9 **#/gal**

Completion Fluid 8.45 **#/gal**

Cement -

Desired Top 2000' ft Type Cement (slurry wt, yield factor & est sx) 500 sx Class "A" w/4% bentonite and 5 lb/sx gilsonite mixed to 12.8 ppg yield 1.98 ft^3/sx.

Percent excess 50 % Caliper Survey X Yes, ____ No

Required ft^3 988 Placement time 60 min.

Minimum Thickening time 180 min. Reciprocate while cementing X Yes ____ No.

Head - Tubing head 10"-900 X 6"-900 w/2 X 2" outlets

Accessories - Automatic full float collar, guide shoe, ten centralizers sand blast and ruff-cote pipe across producing zone. DV cementer.

1) If returns are lost while drilling the Capitan Reef a stage cmt tool will be run above the highest loss zone.

2) If returns are not lost while drilling the Capitan Reef a stage cmt will be run 300' below the top of the Reef. If returns are lost during primary cmt job, a stage cmt job will be done.

3) A temperature survey will be run to find the top of the cmt behind t pipe.

1. Surface hole - surface to Rustler Anhydrite (835'±)

Mud Type fresh water w/gel & lime

Properties at Casing Point: Wt 9.5 #/gal Visc 33 sec.

WL -- sec.

2. Below Surface Casing -

Properties:

Interval	Mud Type	Weight	PV/YP	Water Loss
835-2560'	satruated brine	9.9	---	---
2560-3600'	fresh water	8.6	---	---
3600-5800'	fresh water	8.6	10/15	15

3. Remarks -

Centrifuge _____ Degasser _____ Diesel Content ____%

after breakover Desander _____ Pit-O-Graph _____

HOLE DEVIATION:

1. Vertical Hole -

Limits of Deviation:

Interval	Maximum Deviation 5°

Surveys required every 500' normally and every 250' through salt secti

Maximum Change in Deviation: 1 °/100'.

2. Directional Hole

Direction _____

Deviation -

	MD	TVD	Deviation
Vertical Hole			
Build Angle, ____°/100'			
Maintain Angle, ____°			
Drop Angle, 1°/100'			
Maintain Angle			

Target (s)

Maximum Change in Deviation _____°/100'.

LOG RUNS:

Depth				
5800-2560	DILL-GR w/Rxo curve & GR 2650-surface			
5800-2560	BHC-Sonic w/GR & Caliper			
5800-3600	4-arm HRC dipmeter optional			

Remarks: * At discretion of wellsite geologist Sidewall cores will be taken after logging. No conventional coring will be done.

DRILLING SAMPLES:

Catch 1 sets of drilling samples (5½" x 10½" bag) at 10' intervals from 0 ft to TD. Samples will be maintained at the wellsite unless otherwise specified as follows:

Sample sack should be completely labeled with operator's name, well name, and number.

RIG PROCEDURES:

1. Blowout Prevention -

   a. Nipple up 2 BOPs (~~1-Hydril and 2-ORC's~~), (2 rams) on surface pipe as shown on attached diagram.

   b. Nipple up _____ BOPs (1-Hydril and 2-ORC's) on intermediate or production casing as shown on attached diagram.

   c. Test BOPs to working pressure for 30 min upon installation and every 30 days thereafter.

   d. Tighten BOP and head bolts once each week.

   e. Work BOPs daily.

2. Measurements -

   a. Tally drill pipe at casing points, logging points, and otherwise as required by Company representative.

   b. Prepare detailed sketch to include length, OD, ID, and type connections of all tools run into hole on Company time.

3. Miscellaneous -

   a. Drill string should be stabilized while drilling all hole sizes.

   b. Continuous check on hydraulics should be made.

   c. Run consistometer tests on all cement used for production casing.

   d. After cement job, release pressure immediately if back pressure valves are holding, and begin nipple-up operations.

   e. Pressure test surface casing to 1000 psi before drilling plug; intermediate and production casing and/or liners to 1500 psi.

COMPLETION:

Procedure for completion will be outlined on separately issued Prognosis to Complete.

NOTIFICATION:

1. In case of emergency, please notify the following:

Mike Cure	915-684-5723	915-683-7965
Leroy Hurt	915-684-5723	915-697-2934
Alan Roberts	915-684-5723	915-694-1568

2. Prior to logging, please notify:

Bill Parsons	915-684-5723	
Howard Hodges	915-684-5723	915-697-3634

PREPARED BY: CHECKED BY: APPROVED BY:

Louie M. Cure

Louie M. Cure

Attachments: Estimated Drilling Time
Minimum BOP Hook-up
Sample Catching Instructions
Proposed Mud Program

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
BASS ENTERPRISES PRODUCTION CO.
WELL BIG EDDY UNIT NO. 52
1980' FSL and 990' FEL Sec. 27-20S-31E
(Development Well)

1. EXISTING ROADS:

A. Exhibit "A" is a portion of a topographic map showing the location of the proposed well as staked. Access is obtained by traveling approximately 24 miles NE of Carlsbad on State Highway 62-180, turning N one mile on a lease road and then turning W and continuing 1/4 mile to the location.

B. Exhibit "B" is a map showing all existing roads and wells within several miles of the wellsite.

2. PLANNED ACCESS ROADS:

Length and Width: New road required will be 12' wide and 990' long. This new road is labeled on Exhibit "B". There are no turnouts, culverts, gates or cattleguards required. The surface of the new road will be caliche.

3. THE LOCATION OF EXISTING WELLS:

The location of existing wells will be shown on Exhibit "B".

4. LOCATION OF EXISTING AND PROPOSED FACILITIES:

A. Location of existing tank batteries or flow lines for proposed well is shown on Exhibit "C". There are no water disposal lines or injection lines. The flow lines will not be buried, except for road crossings. Flow lines will be laid along existing roads and no additional surface damage will be done.

B. If the proposed well is completed for production, the existing tank batteries will be enlarged to accommodate new production facilities, which will require an additional pad size of 20' x 100'.

5. LOCATION AND TYPE OF WATER SUPPLY:

Fresh water and brine will be hauled to location by commercial haulers.

6. SOURCE OF CONSTRUCTION MATERIALS:

Caliche for servicing road and well pad will be obtained from nearby existing pit, as shown on Exhibit "C".

7. METHODS OF HANDLING WASTE DISPOSAL:

A. Drill cuttings will be disposed of in the drilling pits.

B. Drilling fluids will be allowed to evaporate in the drilling pits until pits are dry.

C. Water produced during tests will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks until sold.

D. Current laws and regulations pertaining to the disposal of human waste will be complied with.

E. Trash, waste paper, garbage, and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind. Location of trash pit is shown on Exhibit "D". (Alternate - all trash, junk and other waste material will be contained to prevent scattering and will be removed and deposited in an approved sanitary landfill.)

F. All trash and debris will be buried or removed from the wellsite within 30 days after finishing drilling and/or completion operations. (Note: All trash left on wellsite, to be removed or buried within 30 days, will be contained to prevent scattering.)

8. ANCILLARY FACILITIES:

None required.

9. WELLSITE LAYOUT:

A. Exhibit "D" shows the relative location and dimensions of the well pad, mud pits, reserve pit, trash pit, and location of major rig components.

B. Only minor levelling of the wellsite will be required. No significant cuts and fills will be necessary.

C. The reserve pit will be plastic lined.

10. PLANS FOR RESTORATION OF THE SURFACE:

A. After the completion of drilling and completion operations, all equipment and other materials not needed for operations will be removed. Pits will be filled and location cleaned of all trash and junk.

B. Any unguarded pits containing fluids will be fenced until the pits are filled. A period of about 90 days after completion of drilling operations will be required to allow the pits to dry up suitable for filling.

C. After abandonment of the well, the pit area, well pad, and all

access roads not needed will be ripped to promote revegetation.

11. OTHER INFORMATION:

A. Topography - The wellsite is on fairly level terrain.

B. Soil - The soil is sandy with some caliche and gravel.

C. Flora and Fauna - Vegetation is sparse being primarily cat claw and mesquite with very little grass. Wild life in the area is that typical semi-area desert land. Environmental risk is very low.

D. Ponds and streams - There are no streams or ponds in the area.

E. Residences and other structures - There are no residences or any type of structures or dwellings in the area. There is a railroad that passes about 3/4 miles south of the location.

F. Land Use - The only use for the area is grazing.

G. Surface Ownership - The wellsite is on federal surface.

12. OPERATOR'S REPRESENTATIVE:

Field personnel who can be contacted concerning compliance with this "Surface Use Plan" are as follows:

DRILLING

Leroy Hurt
P. O. Box 2760
Midland, Texas 79701

Louie M. Cure
P. O. Box 2760
Midland, Texas 79701

PRODUCTION

Al Gallas
P. O. Box 1043
Kermit, Texas 79745

Alan Roberts
P. O. Box 2760
Midland, Texas 79701

13. CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions as they actually exist, that the statements made in this plan are to the best of my knowledge true and correct, and that the proposed work performed by Bass Enterprises Production Company and its contractors and sub-contractors will conform to this plan.

Louie M. Cure

Louie M. Cure
Senior Drilling Engineer

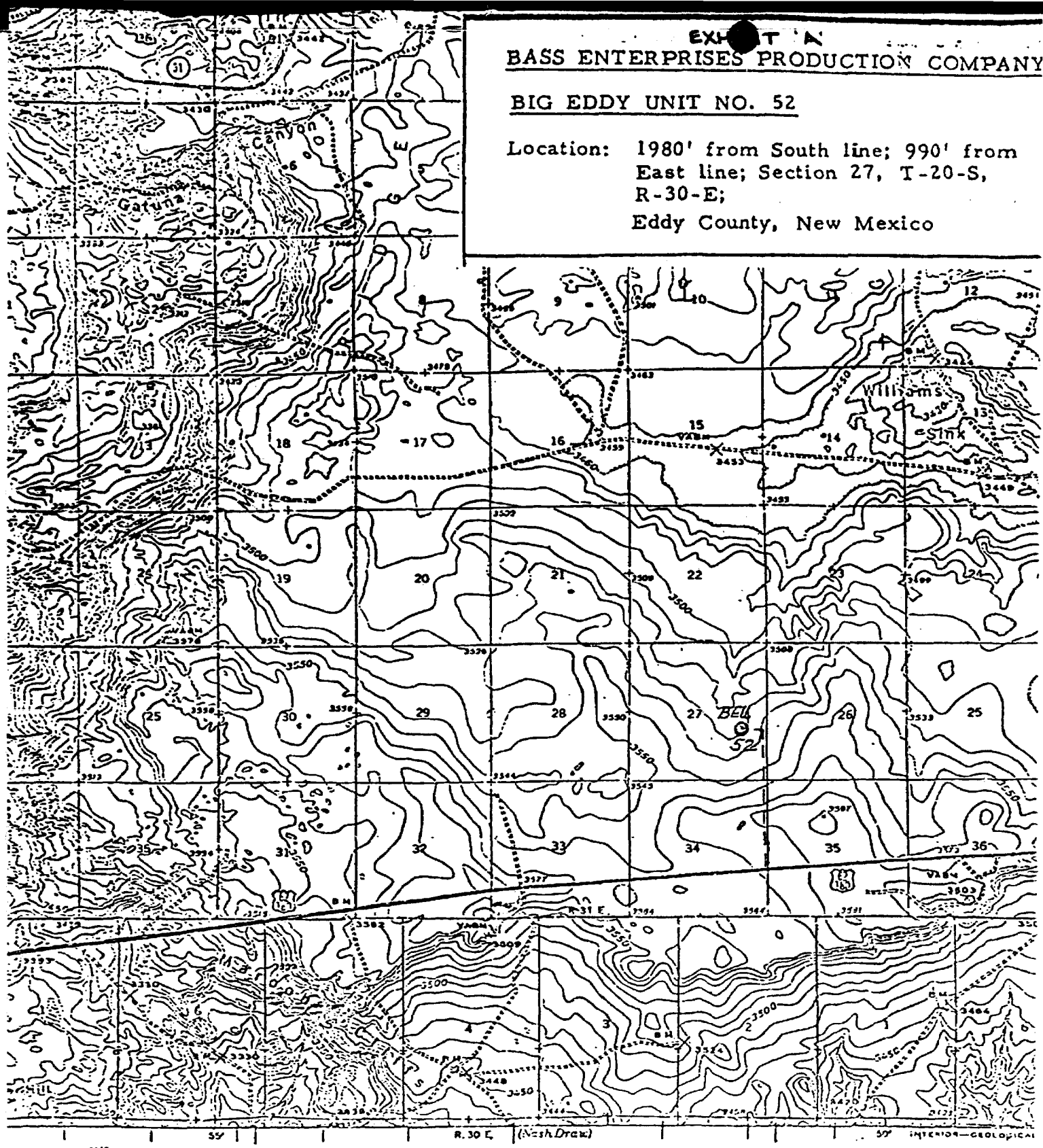
LMC/dsm

EXHIBIT A

BASS ENTERPRISES PRODUCTION COMPANY

BIG EDDY UNIT NO. 52

Location: 1980' from South line; 990' from East line; Section 27, T-20-S, R-30-E;
Eddy County, New Mexico



Contour interval 10 feet
Datum is mean sea level

FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER 2, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

EXHIBIT C

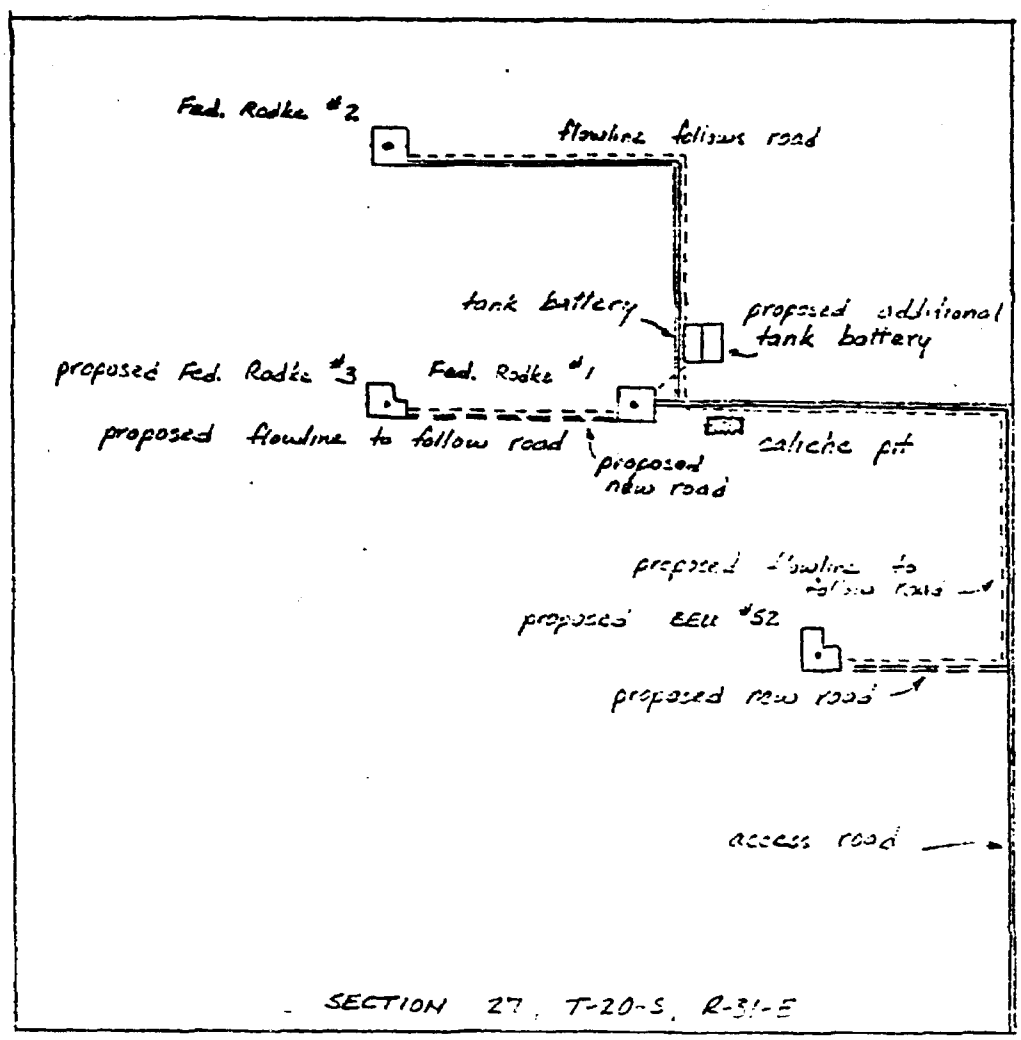
BASS ENTERPRISES PRODUCTION COMPANY

BIG EDDY UNIT NO. 52

Location: 1980' from South line, 990' from East line, Sec. 27, T-20-S, R-31-E;
Eddy County, New Mexico.



EXHIBIT 'C'


Fed. Rodke #2
flowline follows road
tank battery
proposed additional tank battery
proposed Fed. Rodke #3
Fed. Rodke #1
proposed flowline to follow road
proposed new road
caliche pit
proposed flowline to follow road
proposed EEU #52
proposed new road
access road
SECTION 27, T-20-S, R-31-E

Oil [illegible] 4
C. 6077
Su. Applicant
Hearing D. 4-12-78

Form 4-218
(August 1947)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Attached to Melay Lease

Office Las Cruces
Serial 065897

NONCOMPETITIVE

LEASE OF OIL AND GAS LANDS UNDER THE ACT OF FEBRUARY 25, 1920, AS AMENDED

THIS INDENTURE OF LEASE, entered into, in triplicate, as of the OCT 1 1948 day of by and between the UNITED STATES OF AMERICA, through the Bureau of Land Management, party of the first part, and James M. Bassindale, Box 150, Artesia, New Mexico, party of the second part, hereinafter called the lessee, under, pursuant, and subject to the terms and provisions of the act of February 25, 1920 (41 Stat. 437), as amended, hereinafter referred to as the act, and to all reasonable regulations of the Secretary of the Interior now or hereafter in force when not inconsistent with any express and specific provisions herein, which are made a part hereof, WITNESSETH:

SECTION 1. Rights of Lessee.—That the lessor, in consideration of rents and royalties to be paid, and the conditions and covenants to be observed as herein set forth, does hereby grant and lease to the lessee the exclusive right and privilege to drill for, mine, extract, remove, and dispose of all the oil and gas deposits except helium gas in or under the following-described tracts of land situated in ~~the district~~:

T. 20 S., R. 31 E., N.M.P.M., New Mexico,
Sec. 27, SW¼,

April 5, 1978 Bureau of Land Management
Date NMSO

I hereby certify that this reproduction is a copy of the official record on file in this office. Consists of 2 pages.
Authorized Signature

containing 160 acres, more or less, together with the right to construct and maintain thereupon all works, buildings, plants, waterways, roads, telegraph or telephone lines, pipe lines, reservoirs, tanks, pumping stations, or other structures necessary to the full enjoyment thereof, for a period of 5 years, and so long thereafter as oil or gas is produced in paying quantities; subject to any unit agreement heretofore or hereafter approved by the Secretary of the Interior, the provisions of said agreement to govern the lands subject thereto where inconsistencies with the terms of this lease occur.

SEC. 2. In consideration of the foregoing, the lessee hereby agrees:

(a) Bonds.—(1) To maintain any bond furnished by the lessee as a condition for the issuance of this lease. (2) If the lease is issued noncompetitively, to furnish a bond in a sum double the amount of the $1 per acre annual rental, but not less than $1,000 nor more than $5,000, upon the inclusion of any part of the leased land within the geologic structure of a producing oil or gas field. (3) To furnish prior to beginning of drilling operations and maintain at all times thereafter as required by the lessor a bond in the penal sum of $5,000 with approved corporate surety, or with deposit of United States bonds as surety therefor, conditioned upon compliance with the terms of this lease, unless a bond in that amount is already being maintained or unless such a bond furnished by an approved operator of the lease is accepted.

Until a general lease bond is filed a noncompetitive lessee will be required to furnish and maintain a bond in the penal sum of not less than $1,000 in those cases in which a bond is required by law for the protection of the owners of surface rights. In all other cases where a bond is not otherwise required, a $1,000 bond must be filed for compliance with the lease obligations not less than 90 days before the due date of the next unpaid annual rental, but this requirement may be successively dispensed with by payment of each successive annual rental not less than 90 days prior to its due date.

(b) Cooperative or unit plan.—Within 30 days of demand, or if the land is within an approved unit plan, in the event such a plan is terminated prior to the expiration of this lease, within 30 days of demand made thereafter, to subscribe to and to operate under such reasonable cooperative or unit plan for the development and operation of the area, field, or pool, or part thereof, embracing the lands included herein as the Secretary of the Interior may determine to be practicable and necessary or advisable, which plan shall adequately protect the rights of all parties in interest, including the United States.

(c) Wells.—(1) To drill and produce all wells necessary to protect the leased land from drainage by wells on lands not the property of the lessor or lands of the United States leased at a lower royalty rate, or in lieu of any part of such drilling and production, with the consent of the Director of the Geological Survey, to compensate the lessor in full each month for the estimated loss of royalty through drainage in the amount determined under instructions of said Secretary; (2) at the election of the lessee, to drill and produce other wells in conformity with any system of well spacing or production allotments affecting the field or area in which the leased lands are situated, which is authorized and sanctioned by applicable law or by the Secretary of the Interior; and (3) promptly after due notice in writing to drill and produce such other wells as the Secretary of the Interior may require to insure diligence in the development and operation of the property.

(d) Rentals and royalties.—(1) To pay the rentals and royalties set out in the rental and royalty schedule attached hereto and made a part hereof.

(2) It is expressly agreed that the Secretary of the Interior may establish reasonable minimum values for purposes of computing royalty on any or all oil, gas, natural gasoline, and other products obtained from gas; due consideration being given to the highest price paid for a part or for a majority of production of like quality in the same field, to the price received by the lessee, to posted prices and to other relevant matters and, whenever appropriate, after notice and opportunity to be heard.

(3) When paid in value, such royalties on production shall be due and payable monthly on the last day of the calendar month next following the calendar month in which produced. When paid in amount of production, such royalty products shall be delivered in merchantable condition on the premises where produced without cost to lessor, unless otherwise agreed to by the parties hereto, at such times and in such tanks provided by the lessee as reasonably may be required by the lessor, but in no case shall the lessee be required to hold such royalty oil or other products in storage beyond the last day of the calendar month next following the calendar month in which produced. The lessee shall not be responsible or held liable for the loss or destruction of royalty oil or other products in storage from causes over which he has no control.

(4) Royalties shall be subject to reduction on the entire leasehold or on any portion thereof segregated for royalty purposes if the Secretary of the Interior finds that the lease cannot be successfully operated upon the royalties fixed herein, or that such action will encourage the greatest ultimate recovery of oil or gas or promote conservation.

(e) Contracts for disposal of products.—Not to sell or otherwise dispose of oil, gas, natural gasoline, and other products of the lease except in accordance with a contract or other arrangement first approved by the Director of the Geological Survey or his representative, such approval to be subject to review by the Secretary of the Interior but to be effective unless and until revoked by the Secretary or the approving officer, and to file with such officer all contracts or full information as to other arrangements for such sales.

(f) Statements, plats, and reports.—At such times and in such form as the lessor may prescribe, to furnish detailed statements showing the amounts and quality of all products removed and sold from the lease, the proceeds therefrom, and the amounts used for production purposes or unavoidably lost; a plat showing development work and improvements on the leased lands and a report with respect to stockholders, investment, depreciation, and costs.

(g) Well records.—To keep a daily drilling record, a log, and complete information on all well surveys and tests in form acceptable to or prescribed by the lessor of all wells drilled on the leased lands, and an acceptable record of all subsurface investigations affecting said lands, and to furnish them, or copies thereof to the lessor when required.

(h) Inspection.—To keep open at all reasonable times for the inspection of any duly authorized officer of the Department, the leased premises and all wells, improvements, machinery, and fixtures thereon and all books, accounts, maps, and records relative to operations and surveys or investigations on the leased lands or under the lease.

(i) Payments.—Unless otherwise directed by the Secretary of the Interior, to make rental, royalty, or other payments to the lessor, to the order of the Treasurer of the United States, such payments to be tendered to the manager of the district land office in the district in which the lands are located or to the Director of the Bureau of Land Management if there is no district land office in the State in which the lands are located.

(j) Diligence—Prevention of waste—Health and safety of workmen.—To exercise reasonable diligence in drilling and producing the wells herein provided for unless consent to suspend operations temporarily is granted by the lessor; to carry on all operations in accordance with approved methods and practice as provided in the operating regulations, having due regard for the prevention of waste of oil or gas or damage to deposits or formations containing oil, gas, or water or to coal measures or other mineral deposits, for conservation of gas energy, for the preservation and conservation of the property for future productive operations, and for the health and safety of workmen and employees; to plug properly and effectively all wells before abandoning the same; to carry out at expense of the lessee all reasonable orders of the lessor relative to the matters in this paragraph, and that on failure of the lessee so to do the lessor shall have the right to enter on the property and to accomplish the purpose of such orders at the lessee's cost: Provided, that the lessee shall not be held responsible for delays or casualties occasioned by causes beyond lessee's control.

(k) Taxes and wages—Freedom of purchase.—To pay when due, all taxes lawfully assessed and levied under the laws of the State or the United States upon improvements, oil, and gas produced from the lands hereunder, or other rights, property, or assets of the lessee; to accord all workmen and employees complete freedom of purchase, and to pay all wages due workmen and employees at least twice each month in the lawful money of the United States.

(l) Nondiscrimination.—Not to discriminate against any employee or applicant for employment because of race, creed, color, or national origin, and to require an identical provision to be included in all subcontracts.

(m) Assignment of oil and gas lease or interest therein.—To file within 90 days from the date of final execution any instrument of transfer made of this lease, or any interest therein, including assignments of record title, working or royalty interests, operating agreements and subleases for approval, such instrument to take effect upon its final approval by the Director, Bureau of Land Management, as of the first day of the lease month following the date of filing in the proper land office.

(n) Pipe lines to purchase or convey at reasonable rates and without discrimination.—If owner, or operator, or owner of a controlling interest in any pipe line or of any company operating the same which may be operated accessible to the oil or gas derived from lands under this lease, to accept and convey and, if a purchaser of such products, to purchase at reasonable rates and without discrimination the oil or gas of the Government or of any citizen or company not the owner of any pipe line,

operating a lease or purchasing or selling oil, gas, natural gasoline, or other products under the provisions of the act.

(o) Reserved deposits.—To comply with all statutory requirements and regulations thereunder, if the lands embraced herein have been or shall hereafter be disposed of under the laws reserving to the United States the deposits of oil and gas therein, subject to such conditions as are or may hereafter be provided by the laws reserving such oil or gas.

(p) Reserved or segregated lands.—If any of the land included in this lease is embraced in a reservation or segregated for any particular purpose, to conduct operations thereunder in conformity with such requirements as may be made by the Director, Bureau of Land Management, for the protection and use of the land for the purpose for which it was reserved or segregated, so far as may be consistent with the use of the land for the purpose of this lease, which latter shall be regarded as the dominant use unless otherwise provided herein or separately stipulated.

(q) Overriding royalties.—To limit the obligation to pay overriding royalties or payments out of production in excess of 5 percent to periods during which the average production per well per day is more than 15 barrels on an entire leasehold or any part of the area thereof or any zone segregated for the computation of royalties.

(r) Deliver premises in cases of forfeiture.—To deliver up the premises leased, with all permanent improvements thereon, in good order and condition in case of forfeiture of this lease; but this shall not be construed to prevent the removal, alteration, or renewal of equipment and improvements in the ordinary course of operations.

SEC. 3. The lessor expressly reserves:

(a) Rights reserved—Easements and rights-of-way.—The right to permit for joint or several use easements or rights-of-way, including easements in tunnels upon, through, or in the lands leased, occupied, or used as may be necessary or appropriate to the working of the same or of other lands containing the deposits described in the act, and the treatment and shipment of products thereof by or under authority of the Government, its lessees or permittees, and for other public purposes.

(b) Disposition of surface.—The right to lease, sell, or otherwise dispose of the surface of any of the lands embraced within this lease which are owned by the United States under existing law or laws hereafter enacted, insofar as said surface is not necessary for the use of the lessee in the extraction and removal of the oil and gas therein.

(c) Monopoly and fair prices.—Full power and authority to promulgate and enforce all orders necessary to insure the sale of the production of the leased lands to the United States and to the public at reasonable prices, to protect the interests of the United States, to prevent monopoly, and to safeguard the public welfare.

(d) Helium.—Pursuant to section 1 of the act, and section 1 of the act of March 3, 1927 (44 Stat. 1387), as amended, the ownership and the right to extract helium from all gas produced under this lease, subject to such rules and regulations as shall be prescribed by the Secretary of the Interior. In case the lessor elects to take the helium the lessee shall deliver all gas containing same, or portion thereof desired, to the lessor at any point on the leased premises in the manner required by the lessor, for the extraction of the helium in such plant or reduction works for that purpose as the lessor may provide, whereupon the residue shall be returned to the lessee with no substantial delay in the delivery of gas produced from the well to the purchaser thereof. The lessee shall not suffer a diminution of value of the gas from which the helium has been extracted, or loss otherwise, for which he is not reasonably compensated, save for the value of the helium extracted. The lessor further reserves the right to erect, maintain, and operate any and all reduction works and other equipment necessary for the extraction of helium on the premises leased.

(e) Taking of royalties.—All rights pursuant to section 36 of the act, to take royalties in amount or in value of production.

(f) Casing.—All rights pursuant to section 40 of the act to purchase casing and lease or operate valuable water wells.

(g) Fissionable materials.—Pursuant to the provisions of the act of August 1, 1946 (Public Law 585, 79th Congress) all uranium, thorium, or other material which has been or may hereafter be determined to be peculiarly essential to the production of fissionable materials, whether or not of commercial value, together with the right of the United States through its authorized agents or representatives at any time to enter upon the land and prospect for, mine and remove the same, making just compensation for any damage or injury occasioned thereby.

SEC. 4. Drilling and producing restrictions.—It is covenanted and agreed that the rate of prospecting and developing and the quantity and rate of production from the lands covered by this lease shall be subject to control in the public interest by the Secretary of the Interior, and in the exercise of his judgment the Secretary may take into consideration, among other things, Federal laws, State laws, and regulations issued thereunder, or lawful agreements among operators regulating either drilling or production, or both. After unitization, the Secretary of the Interior, or any person, committee, or State or Federal officer or agency so authorized in the unit plan, may alter or modify from time to time, the rate of prospecting and development and the quantity and rate of production from the lands covered by this lease.

SEC. 5. Surrender and termination of lease.—The lessee may surrender this lease or any legal subdivision thereof by filing in the proper land office a written relinquishment, in triplicate, which shall be effective as of the date of filing subject to the continued obligation of the lessee and his surety to make payment of all accrued rentals and royalties and to place all wells on the land to be relinquished in condition for suspension or abandonment in accordance with the regulations and the terms of the lease, to be accompanied by a statement that all wages and moneys due and payable to the workmen employed on the land relinquished have been paid.

SEC. 6. Purchase of materials, etc., on termination of lease.—Upon the expiration of this lease, or the earlier termination thereof pursuant to the last preceding section, the lessor or another lessee may, if the lessor shall so elect within 3 months from the termination of the lease, purchase all materials, tools, machinery, appliances, structures, and equipment placed in or upon the land by the lessee, and in use thereon as a necessary or useful part of an operating or producing plant, on the payment to the lessee of such sum as may be fixed as a reasonable price therefor by a board of three appraisers, one of whom shall be chosen by the lessor, one by the lessee, and the other by the two so chosen; pending such election all equipment shall remain in normal position. If the lessor, or another lessee, shall not within 3 months elect to purchase all or any part of such materials, tools, machinery, appliances, structures, and equipment, the lessee shall have the right at any time, within a period of 90 days thereafter to remove from the premises all the material, tools, machinery, appliances, structures, and equipment which the lessor shall not have elected to purchase, save and except casing in wells and other equipment or apparatus necessary for the preservation of the well or wells. Any materials, tools, machinery, appliances, structures, and equipment, including casing in or out of wells on the leased lands, shall become the property of the lessor, on expiration of the period of 90 days above referred to or such extension thereof as may be granted on account of adverse climatic conditions throughout said period.

SEC. 7. Proceedings in case of default.—If the lessee shall not comply with any of the provisions of the act or the regulations thereunder or make default in the performance or observance of any of the terms, covenants, and stipulations hereof and such default shall continue for a period of 30 days after service of written notice thereof by the lessor, the lease may be canceled by the Secretary of the Interior in accordance with section 31 of the act, as amended, and all materials, tools, machinery, appliances, structures, equipment, and wells shall thereupon become the property of the lessor, except that if said lease covers lands known to contain valuable deposits of oil or gas, the lease may be canceled only by judicial proceedings in the manner provided in section 31 of the act; but this provision shall not be construed to prevent the exercise by the lessor of any legal or equitable remedy which the lessor might otherwise have. A waiver of any particular

cause of forfeiture shall not prevent the cancellation and forfeiture of this lease for any other cause of forfeiture, or for the same cause occurring at any other time.

SEC. 8. Heirs and successors in interest.—It is further covenanted and agreed that each obligation hereunder shall extend to and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors, or assigns of the respective parties hereto.

SEC. 9. Unlawful interest.—It is also further agreed that no Member of, or Delegate to, Congress, or Resident Commissioner, after his election or appointment, or either before or after he has qualified, and during his continuance in office, and that no officer, agent, or employee of the Department of the Interior, shall be admitted to any share or part in this lease or derive any benefit that may arise therefrom; and the provisions of section 3741 of the Revised Statutes of the United States, and sections 114, 115, and 116 of the Codification of the Penal Laws of the United States approved March 4, 1909 (35 Stat. 1109), relating to contracts, enter into and form a part of this lease so far as the same may be applicable.

IN WITNESS WHEREOF:

THE UNITED STATES OF AMERICA.

By_____
Director of the Bureau of Land Management.

_____

_____ _____

_____ _____

_____ _____

Witnesses to signature of lessee. Lessee.

Schedule "A"

RENTALS AND ROYALTIES

Rentals.—To pay the lessor in advance on the first day of the month in which the lease issues a rental at the following rates:

(a) If the lands are wholly outside the known geologic structure of a producing oil or gas field:

(1) For the first lease year, a rental of 50 cents per acre.

(2) For the second and third lease years, no rental.

(3) For the fourth and fifth years, 25 cents per acre.

(4) For the sixth and each succeeding year, 50 cents per acre.

(b) On leases wholly or partly within the geologic structure of a producing oil or gas field:

(1) Beginning with the first lease year after 30 days' notice that all or part of the land is included in such a structure and for each year thereafter, prior to a discovery of oil or gas on the lands herein, $1 per acre.

(2) On the lands committed to an approved cooperative or unit plan which includes a well capable of producing oil or gas and contains a general provision for allocation of production, for the lands not within the participating area an annual rental of 50 cents per acre for the first and each succeeding lease year following discovery.

Minimum royalty.—To pay the lessor in lieu of rental at the expiration of each lease year after discovery a minimum royalty of $1 per acre or, if there is production, the difference between the actual royalty paid during the year and the prescribed minimum royalty of $1 per acre, provided that on unitized leases, the minimum royalty shall be payable only on the participating acreage.

Royalty on production.—To pay the lessor 12½ percent royalty on the production removed or sold from the leased lands.

The average production per well per day for oil and for gas shall be determined pursuant to 30 CFR, Part 221, "Oil and Gas Operating Regulations."

In determining the amount or value of gas and liquid products produced, the amount or value shall be net after an allowance for the cost of manufacture. The allowance for cost of manufacture may exceed two-thirds of the amount or value of any product only on approval by the Secretary of the Interior.

Form No. 4-1175
(July 1951)

RECEIVED
Bureau of Land Management
Santa Fe, New Mexico
JUN 20 1952

OFFICE STAMP

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NOT TO BE FILLED IN BY LESSEE
Rece... No. .....
The following to be filled in by land office when new serial number is required:
New Serial No. .....

Office Santa Fe, New Mexico
Serial No. LC 065897
Date of Lease October 1, 1948

ASSIGNMENT AFFECTING RECORD TITLE TO OIL AND GAS LEASE

The undersigned, as owner of record title interest as hereinafter specified in the oil and gas lease designated above,

for good and valuable consideration does hereby assign to Kerr-McGee Oil Industries, Inc.,
(Name and address)
Kerr-McGee Building, Oklahoma City, Oklahoma

the right, title, and interest in and to the lands embraced in such lease as specified below, giving and granting to assignee rights and privileges as lessee in such lands, to the extent indicated, subject to the reservations of overriding royalties as herein noted:

1. Lands affected by this assignment:

SE¼ Section 27, Township 20 South, Range 31 East., N.M.P.M., New Mexico, containing 160 acres, more or less.

2. Interest of assignor in such lands Full interest.
3. Extent of such interest conveyed to assignee Full interest, subject to 1/2 of 1% O.R.R.
4. Overriding royalty reserved herein to assignor 1/2 of 1%
(See item 5 of Instructions.) (State percentage only)
5. Overriding royalties previously reserved None
(State percentage only)

It is hereby certified that the statements made herein are true, complete, and correct to the best of the undersigned's knowledge and belief, and are made in good faith.

Executed and witnessed this 7th day of April 19 52

WITNESS:

James W Bowman

× James N. Baxendale
(Assignor's signature) James N. Baxendale

Box 1512, Odessa, Texas
(Address)

REQUEST FOR APPROVAL OF ASSIGNMENT

The undersigned hereby requests approval of the above assignment and certifies as follows:

1. Assignee is a citizen of the United States: Native Born ..... Naturalized .....
Corporation or other legal entity (specify what kind) Delaware Corporation
2. Assignee's other interests direct and indirect in oil and gas leases and applications or offers therefor in the same State together with the acreage in this instrument do not exceed 15,360 chargeable acres.
3. Assignee is 21 years of age or over, or if a corporation or other legal entity, is qualified as shown by statements attached hereto. Qualifications heretofore filed with Department under LC 061607.
4. Amount remitted: Filing fee, $10.
5. Compliance with the requirements of 43 CFR 192.100 and item 6 of the Instructions is made by the attachments hereto.

The undersigned agrees to be bound by the terms and provisions of said lease, provided the assignment is approved by the signing officer of the Bureau of Land Management, and further agrees that the obligation to pay any overriding royalties or payments out of production created herein, which, when added to overriding royalties or payments out of production previously created, and to royalty payable to the United States, aggregate in excess of 17½ percent, shall be suspended when the average production per well per day averaged on the monthly basis is (*a*) as to oil: 15 barrels or less and (*b*) as to gas: 500,000 cubic feet or less, and that such suspension will apply separately to any zone or portion of a lease segregated for computing Government royalty.

It is hereby certified that the statements made herein are true, complete, and correct to the best of the undersigned's knowledge and belief, and are made in good faith.

Executed and witnessed this 22nd day of April 19 52

WITNESSES:

Attest:
(Name and address)
Assistant Secretary (Name and address)

Kerr-McGee Oil Industries, Inc.
By: ×
(Assignee's signature)
Vice President
Kerr-McGee Bldg., Okla. City, Oklahoma
(Address)

Assignment approved effective .....

ASSIGNMENT APPROVED:
FOR THE DIRECTOR, B.L.M.,

THE UNITED STATES OF AMERICA

By .....
(Signing officer)

By .....
Manager
Land & Survey Office

..... (Title)

S- 6-23-52-JH

NOTE.—18 U. S. C. sec. 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.

NOTE.—This form may be reproduced provided that the copies are exact reproductions on one sheet of both sides of this official form in accordance with the provisions of 43 CFR 192.141 (a).

16-64804-1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Land & Survey Office
Santa Fe, New Mexico

In Reply Refer To:
AD:HRH
LC 065897 O&G/L

September 16, 1952

DECISION

Assignor: James N. Baxendale
Box 1512, Odessa, Texas

Oil and Gas
Lease dated 10/1/48

Assignee: Kerr-McGee Oil Industries, Inc.
Kerr-McGee Building, Oklahoma City, Oklahoma

Assignment
Filed: 6/20/52

Assignment Approved

The above-captioned assignment of noncompetitive oil and gas lease is hereby approved effective on the first day of the lease month following the date of its filing.

The lease account is in good standing. Acceptable evidence of the qualifications and holdings of the assignee under the Mineral Leasing Act, as amended, has been filed. The showing as to overriding royalties and payments out of production conforms to the regulations.

1/2 of 1% overriding royalty reserved.

Leo F. Sanchez
Acting Manager

Orig. to assignor
cc: assignee (with assgt)
G.A.O. (with assgt)
O&G Sup. (3)

Form No. 4-534b
(Rev. Aug. 1948)
42878

9-17-52 ... DH ...
(DH) - Dat

9

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Land Office
P.O. Box No. 1251
Santa Fe, New Mexico

In Reply Refer To:
M:MRH
LC 065897
065897-A O&G/L

4-21-55

Oil and Gas

DECISION

Assignor: Kerr-McGee Oil Industries, Inc.

Assignment Filed: 2-15-54

Lease Dated: 10-1-48

Assignee: S. W. Richardson and Perry R. Bass

Partial Assignment Approved

The above-captioned partial assignment of noncompetitive oil and gas lease is hereby approved, effective on the first day of the lease month following the date of its filing.

Acceptable evidence of the qualifications and holdings of the assignee under the Mineral Leasing Act, as amended, has been filed. The showing as to overriding royalties and payments out of production conforms to the regulations. The partial assignment, the approved counterpart of which is herewith transmitted to the assignee, is identified by the above serial number. The number of the original lease is

Land Retained Under LC 065897	Land Assigned (Now LC 065897-A)
T. 20 S., R. 31 E, NMPM Sec. 27: W½SE¼	T. 21 S., R. 31 E, NMPM Sec. 27: E½SE¼
Containing 80 Acres 1/2 of 1% overriding royalty heretofore reserved.	Containing 80 Acres

Attachment

Subject to Big Eddy Unit Agreement.

J. A. Delany
Manager

Orig. to Assignor (w/assignment)
cc: Assignee (w/assignment)
O&G Supervisor (3 for each case)

Form No. 4-534a
(Feb. 1953)

16-67956-2 U. S. GOVERNMENT PRINTING OFFICE

Bureau of Land Management
LAND AND SURVEY OFFICE
SANTA FE, N. M.
FEB 15 1954
HOUR 4:44 PM

S-992

ASSIGNMENT OF OIL AND GAS LEASE

THIS ASSIGNMENT, made and entered into this 22nd day of December, 1953, by and between Kerr-McGee Oil Industries, Inc., of Oklahoma City, Oklahoma, hereinafter referred to as Assignor, and S. W. Richardson and Perry R. Bass, of Fort Worth National Bank Building, Fort Worth, Texas, hereinafter referred to as Assignee,

WITNESSETH:

That the undersigned Assignor, for and in consideration of the sum of $10.00, and other good and valuable considerations, cash in hand paid by said Assignee, the receipt of which is hereby confessed and acknowledged, does hereby sell, assign, transfer, set over and convey to said Assignee, their heirs, personal representatives (or successors) and assigns, subject to the approval of the Secretary of the Interior, that certain oil and gas lease made and entered into on October 1, 1948, by and between the United States, as Lessor, and James N. Baxendale, as Lessee, bearing Las Cruces Serial No. 065897, insofar as said lease covers the following described land situated in Eddy County, New Mexico, to-wit:

Township 20 South, Range 31 East, N.M.P.M.

Section 27: $E\frac{1}{2}$ $SE\frac{1}{4}$,
containing 80 acres, more or less;

together with all rights and privileges thereunder or appurtenant thereto.

This Assignment is made subject to an overriding royalty of 1/2 of 1% previously reserved, and said Assignment is also subject to the BIG EDDY UNIT.

TO HAVE AND TO HOLD said oil and gas lease covering the above described lands unto said Assignee, their heirs (or successors) and assigns forever. This Assignment is made without any warranty of title, express or implied, except as to claims by, through or under Assignor.

Land Office

Noted on Tract Book
T/B - S/R - Plat

IN WITNESS WHEREOF this assignment is executed on the day and year first hereinabove written.

KERR-McGEE OIL INDUSTRIES, INC.

ATTEST:

By _____
Vice-President

_____
Secretary

STATE OF OKLAHOMA)
: SS
COUNTY OF OKLAHOMA)

On this 22nd day of ~~September~~ December, 1953, before me personally appeared J. C. Swan to me personally known, who, being by me duly sworn did say that he is the Vice-President of KERR-McGEE OIL INDUSTRIES, INC., and that the seal affixed to said instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors, and said J. C. Swan acknowledged said instrument to be the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal on this the day and year last above written.

_____
Notary Public

My commission expires:

_____

1V

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Land Office
P.O.Box No. 1251
Santa Fe, New Mexico

IN REPLY REFER TO:
In Reply Refer To:
LC 065897
065897-A O&G/L

May 5, 1955

Kerr-McGee Oil Industries, Inc. S. W. Richardson and Perry R. Bass	:	Oil and Gas

Decision of April 21, 1955, Corrected

By decision of April 21, 1955, partial assignment of oil and gas lease LC 065897 for the [illegible], Sec. 27, T. 20 S., R. 31 E., from Kerr-McGee Oil Industries, Inc., to S. W. Richardson and Perry R. Bass, was approved.

The decision erroneously showed the land assigned to be in Township 21 S., and is hereby corrected to show the land assigned, identified as LC 065897-A, to be in Township 20 S.

J. A. Delany
Manager

cc: O&G Supervisor (3)

ASSIGNMENT OF OIL AND GAS LEASES

THIS ASSIGNMENT made and entered into this, the 9 day of March, 1961, by and between Perry R. Bass, John B. Connally, and Howell E. Smith, Independent Executors and New Mexico Ancillary Executors of the Estate of S. W. Richardson, Deceased, Parties of the First Part, hereinafter referred to as "Assignors," and Richardson Oils, Inc., a Texas corporation, with offices in Fort Worth, Texas, Party of the Second Part, hereinafter referred to as "Assignee;"

WITNESSETH:

WHEREAS, Richardson & Bass, a co-partnership composed of Sid W. Richardson, also known as S. W. Richardson, and Perry R. Bass were the owners and holders of certain leasehold, mineral, and overriding royalty interests embracing lands of the United States situated in the State of New Mexico, said partnership interests being owned an undivided three-fourths (3/4) interest by S. W. Richardson and an undivided one-fourth (1/4) interest by Perry R. Bass, and which said interests are more particularly described in the schedule attached hereto, made a part hereof, and for all purposes of identification marked "Exhibit A;" and

WHEREAS, S. W. Richardson, Deceased, left the last will and testament which was duly admitted to probate in the County Court of Tarrant County, Texas, and the executors therein named duly appointed and qualified; and

WHEREAS, said last will and testament has also been duly admitted to probate in the Probate Court of Eddy County, New Mexico, and the executors named in said will have qualified as ancillary executors, and being the executors named herein; and

WHEREAS, the Assignors are desirous of selling and assigning to the Assignee herein all of the right, title and interest of the Estate of S. W. Richardson, deceased, in and to the leasehold, mineral, and overriding

royalty interests described on Exhibit "A" attached hereto, and being the three-fourths (3/4) interest of S. W. Richardson in and to the co-partnership above referred to of Richardson & Bass;

NOW, THEREFORE, THE UNDERSIGNED ASSIGNORS, for and in consideration of the sum of Ten and No/100 Dollars ($10.00) and other good and valuable consideration to them in hand paid by said Assignee, the receipt whereof is hereby acknowledged, do hereby sell, assign, transfer, set over, and convey unto said Assignee, its successors or assigns, all of the undivided three-fourths (3/4) interest of the Estate of S. W. Richardson, deceased, in and to all of the leasehold and other interests described on Exhibit "A" attached hereto.

It is understood and agreed that the interests conveyed and assigned hereby as shown on Exhibit "A" attached hereto are subject to all existing unit agreements to which any of said leasehold interests may be committed, and also subject to any overriding royalties or obligations payable out of production as the same may appear of record, it being the intention and purpose of this assignment to convey and assign to the Assignee all of the right, title, and interest of the Estate of S. W. Richardson, deceased, in and to said properties as described on Exhibit "A" attached hereto; and if any interests of the estate of said deceased in and to leasehold and other interests in the State of New Mexico are omitted from the description set forth on said exhibit, all other interests, if any, of the estate of said deceased are hereby conveyed and assigned to the Assignee herein.

The undersigned, Perry R. Bass, individually, also joins in this assignment for the purposes of conveying and assigning to the Assignee herein any interest which he may have by virtue of being the surviving partner of the co-partnership of Richardson & Bass; however, it is not intended to convey or assign to the Assignee herein any of the undivided one-fourth

(1/4) interest of Perry R. Bass in and to any of said partnership properties as described on Exhibit "A" attached hereto.

IN WITNESS WHEREOF, this assignment is executed as of the day and year first hereinabove written.

Perry R. Bass

John B. Connally

Howell E. Smith

INDEPENDENT EXECUTORS OF THE ESTATE OF S. W. RICHARDSON, DECEASED

Perry R. Bass

STATE OF TEXAS

COUNTY OF TARRANT

On This 9 day of March, 1961, before me personally appeared Perry R. Bass, John B. Connally, and Howell E. Smith, to me known to be the persons described in and who executed the foregoing instrument as Independent Executors of the Estate of S. W. Richardson, deceased, and acknowledged that they executed the same as their free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

Joan Barnhart
Notary Public

My Commission Expires:

June 1, 1961

STATE OF TEXAS

COUNTY OF TARRANT

On this 9 day of March, 1961, before me personally appeared Perry R. Bass, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

Joan Barnhart
Notary Public

My Commission Expires:

June 1, 1961

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EXHIBIT "A"

BIG EDDY UNIT

NM-0251 — Lease dated July 1, 1952 from United States of America to Bertrand O. Baetz covering SW/4 of Section 5, SE/4 of Section 6, E/2 of Section 7, All of Section 8, W/2 of Section 9, T-20-S, R-31-E, N.M.P.M., containing 1600 acres, more or less, Eddy County, New Mexico

NM-0299-A — Lease dated July 1, 1951 from United States of America to Thelma L. Rhodes insofar as it covers Lots 1,2,7,8,9,10,15 and 16, SE/4 of Section 3, T-21-S, R-30-E, Eddy County, New Mexico, containing 471.70 acres, more or less.

NM-0486 — Lease dated November 1, 1951 from United States of America to Jerry Curtis covering all of Sections 21, 22, 27 and 28, T-21-S, R-28-E, N.M.P.M. Eddy County, New Mexico, containing 2,560 acres, more or less.

NM-0505 — Lease dated February 1,1950 from United States of America to Marian D. Harris insofar as it covers NW/4 of Section 8; W/2 of NW/4, SE/4 of Section 10, T-21-S, R-29-E, N.M.P.M., Eddy County, New Mexico, containing 400 acres, more or less.

NM-0509 — Lease dated February 1, 1950 from United States of America to Marian D. Harris insofar as it covers SE/4 of Section 8; NW/4, SE/4 of Section 17; SW/4 of Section 20; T-21-S, R-29-E, N.M.P.M., Eddy County, New Mexico, containing 640 acres, more or less.

NM-0915 — Lease dated March 1, 1950 from United States of America to Magnolia Petroleum Company covering S/2, S/2 N/2 of Section 22; S/2 N/2, S/2 of Section 23; S/2, S/2 NW/4 of Section 24; All of Section 25; N/2, SE/4, E/2 SW/4 of Section 26, T-21-S, R-29-E, N.M.P.M., Eddy County, New Mexico, containing 2,560 acres, more or less.

NM-01148 — Lease dated May 1, 1950 from United States of America to Lorraine A. Nelson and James C. Nelson covering W/2 NE/4 and E/2 SE/4 of Section 31; N/2 of NE/4 and NE/4 of NW/4 of Section 32; and N/2 of Section 33, T-21-S, R-28-E, N.M.P.M., Eddy County, New Mexico, containing 600 acres, more or less.

NM-01189-A — Lease dated May 1, 1950 from United States of America to Marian Condrey Welch and Van S. Welch, Trustee, being Trustee for Estates of Wendell Condrey Welch, Thomas Flynn Welch and Phoebe Jane Welch, insofar as it covers the E/2 of Section 19 and SE/4 of Section 20, T-20-S, R-31-E, N.M.P.M., Eddy County, New Mexico, containing 480 acres, more or less.

NM-01206-A — Lease dated September 1, 1951 from United States of America to W. E. Bondurant, Jr., insofar as it covers Lots 1,2,3,4, E/2 W/2, E/2 of Section 7; W/2 W/2 of Section 8; All of Section 17; Lots 1,2,3,4, E/2 W/2, E/2 of Section 18; T-20-S, R-32-E, N.M.P.M., Lea County, New Mexico, containing 2075.40 acres, more or less.

NM-01353-A — Lease dated November 1, 1951 from United States of America to John D. Meredith, insofar as it covers Lots 1 and 2 of Section 3, T-22-S, R-28-E, N.M.P.M., Eddy County, New Mexico, containing 80.37 acres, more or less.

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LC-065035 — Lease dated June 1, 1951 from United States of America to Joe W. Lackey, covering all of Section 9; NW/4 NW/4 of Section 10; E/2 E/2, SW/4 NE/4, W/2 SE/4 of Section 17; All of Section 20; W/2, W/2 of NE/4, NW/4 SE/4 of Section 29; E/2 of E/2 of Section 30; S/2 of Section 31, T-22-S, R-29-E, N.M.P.M., Eddy County, New Mexico, containing 2520 acres, more or less.

LC-065431 — Lease dated March 1, 1951 from United States of America to Josephine Rodke, covering S/2 NE/4, NW/4 of Section 27, T-20-S, R-31-E, N.M.P.M., Eddy County, New Mexico, containing 240 acres, more or less.

LC-065609 — Lease dated September 1, 1948 from United States of America to Robert C. Glines, covering Lots 3, 4, E/2 SW/4, SE/4 of Section 19; W/2 of SW/4 of Section 26, T-21-S, R-29-E, N.M.P.M., Eddy County, New Mexico, containing 380.98 acres, more or less.

LC-065750-A — Lease dated July 1, 1951 from United States of America to Paul Wallach, insofar as it covers the S/2 S/2 of Section 27; E/2, SW/4 of Section 28; T-20-S, R-32-E, N.M.P.M., Lea County, New Mexico, containing 640 acres, more or less.

LC-065751-A — Lease dated August 1, 1951 from United States of America to Paul Wallach, insofar as it covers SW/4, S/2 NW/4 of Section 29; All of Section 30; Lots 1,2,3,4, E/2 W/2, NE/4 of Section 31, T-20-S, R-32-E, N.M.P.M., containing 1358.92 acres, more or less, Lea County, New Mexico.

LC-065752-A — Lease dated July 1, 1951 from United States of America to Paul Wallach, insofar as it covers all of Sections 19, 20 and 21; NW/4 of Section 28, E/2, N/2 NW/4 of Section 29, T-20-S, R-32-E, N.M.P.M., Lea County, New Mexico, containing 2478.48 acres, more or less.

LC-065872-A — Lease dated September 1, 1948 from United States of America to Letha F. Hubbard, insofar as it covers W/2 NW/4, W/2 NE/4, E/2 SW/4, E/2 SE/4 of Section 26, T-20-S, R-31-E, N.M.P.M., Eddy County, New Mexico, containing 320 acres, more or less.

LC-065873-A — Lease dated September 1, 1948 from United States of America to George H. Cobb, insofar as it covers E/2 NW/4, W/2 SW/4 of Section 23, T-20-S, R-31-E, N.M.P.M., Eddy County, New Mexico, containing 160 acres, more or less.

LC-065874-A — Lease dated September 1, 1948 from United States of America to Robert E. Anderson, insofar as it covers E/2 NE/4 of Section 21, T-20-S, R-31-E, N.M.P.M., Eddy County, New Mexico, containing 80 acres, more or less.

LC-065897-A — Lease dated October 1, 1948 from United States of America to James N. Baxendale, insofar as it covers E/2 SE/4 of Section 27, T-20-S, R-31-E, N.M.P.M., Eddy County, New Mexico, containing 80 acres, more or less.

LC-065914-A — Lease dated September 1, 1948 from United States of America to Thomas L. Glover, insofar as it covers W/2 NW/4, W/2 NE/4, E/2 of SW/4, E/2 SE/4 of Section 25, T-20-S, R-31-E, N.M.P.M., Eddy County, New Mexico, containing 320 acres, more or less.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Land Office
P. O. Box 1251
Santa Fe, New Mexico

IN REPLY REFER TO
NM 0251, et al
Oil and Gas
4.10h

July 19, 1961

DECISION

:

Assignor: Perry R. Bass, John B. Connally and Howell E. Smith, Independent Executors of the Estate of S. W. Richardson, Deceased

Assignee: Richardson Oils, Inc.

Assignment of Record Title Approved
Assignment of Operating Agreements Approved

Richardson & Bass, a co-partnership composed of Sid W. Richardson, a/k/a S. W. Richardson, and Perry R. Bass are the owners and holders of certain leasehold interests embracing Federal lands situated in the State of New Mexico, said partnership interests being owned in the proportions of 3/4 by Richardson and 1/4 by Bass.

S. W. Richardson is deceased and the executors of his estate are desirous of assigning all of the interest of the Estate being the 3/4 interest of S. W. Richardson in and to the co-partnership above referred to as Richardson & Bass

Acceptable evidence of the qualifications and holdings of the assignee, Richardson Oils, Inc., has been filed.

The assignment of record title, executed March 9, 1961, completed May 24, 1961, of an undivided 3/4 interest by and between the captioned assignor and assignee, affecting the oil and gas leases listed below is hereby approved effective June 1, 1961.

Big Eddy Unit Agreement

Serial No.	Lease Date	Acreage
NM 0251	7-1-52	1600
0299-A	7-1-51	471.70
0486	11-1-51	2560
0505	2-1-50	400
0509	2-1-50	640
0915	3-1-50	2560
01148	5-1-50	600
01139-A	5-1-50	480 (Subject to an operating agreement, dated 2-23-60, between the Estate of S.W. Richardson, Dec'd and Perry R. Bass, lessees and Shell Oil Co. and Texas Crude Oil Co, a partnership, operators)
01206-A	9-1-51	2075.40
01353-A	11-1-51	80.37
02045	8-1-50	1280
02447	9-1-50	1360
02536	12-1-50	160
02828	3-1-47	920
02918	2-1-50	800
02922	2-1-50	160
02946	2-1-50	400
02977	10-1-48	160
02979	10-1-48	160
02980	10-1-48	160
03057	9-1-48	160

NOTED S/R HI CS MTP USE

Serial No.	Lease Date	Acreage	
LC 065751-A	8-1-51	1358.92	(Subject to an operating agreement dated 7-24-59, between Richardson & Bass, lessees, and Shell Oil Co. and Texas Crude Oil Co, a partnership, operator, covering S½, Sec. 30, Lots 1, 2, E½NW¼, NE¼, Sec. 31, T. 20 S., R. 32 E.,NMPM.)
065752-A	7-1-51	2478.48	
065872-A	9-1-48	320	(Subject to an operating agreement dated 12-22-53 between Richardson & Bass, lessees, and Kerr-McGee Oil Industries, Inc. operator, covering all the lands in the lease below 16,569 feet; and an operating agreement dated 7-24-59 between Richardson & Bass, lessees, and Shell Oil Co. and Texas Crude Oil Co. a partnership, operators, covering the W½NE¼, E½SE¼, Sec. 26, down to a depth of 7,705 feet.)
065873-A	9-1-48	160	(Subject to an operating agreement dated 12-22-53 between Richardson & Bass, lessees, Kerr-McGee Oil Industries, Inc.Operator.)
065874-A	9-1-48	80	(Subject to an operating agreement dated 12-22-53 between Richardson & Bass, lessees and Kerr-McGee Oil Industries,Inc. operator.)
065897-A	10-1-43	80	(Subject to an operating agreement dated 12-22-53 between Richardson & Bass, lessees, and Kerr-McGee Oil Industries,Inc.operator.)
065914-A	9-1-48	320	(Subject to an operating agreement dated 12-22-53 between Richardson & Bass, lessees, and Kerr-McGee Oil Industries, Inc, operator, covering all the lands below 16,569 feet; and an operating agreement dated 7-24-59 between Richardson & Bass, lessees, and Shell Oil Co. and Texas Crude Oil Co. a partnership,operators,covering all the lands down to 7,705ft.)
065944-A	9-1-48	320	(Subject to an operating agreement dated 12-22-53 between Richardson & Bass, lessees, and Kerr-McGee Oil Industries, Inc, operator.)

Bell Lake Unit Agreement

	Serial No.	Lease Date	Acreage
NM	04587	4-1-51	320
LC	063798	2-1-51	2480
	063820	5-1-52	1199.08
	063993	9-1-46	160
	067747	9-1-51	239.57

Little Lucky Lake Unit Agreement

NM	01171-A	4-1-50	607.88

West Tonto Deep Unit Agreement

NM	01235-F	1-1-52	160

Leases Not Unitized

NM	0732	11-1-51	80
	01294	12-1-51	320
	02388	11-1-50	108.47
	02886-A	4-1-52	39.31
	0116567	4-1-52	120
	0116568	4-1-52	39.92
LC	063664	3-1-51	120

As the result of this assignment all of the above leases, with the exception of Las Cruces 064827-A in the James Ranch Unit, are held of record as follows: Richardson Oils, Inc, 3/4 interest and Perry R. Bass, 1/4 interest. Lease Las Cruces 064827-A is held as follows: Joe Whitehurst, 1/2 interest; Richardson Oils, Inc, 3/8 interest; and Perry R. Bass, 1/8 interest.

The assignment of operating agreements, executed March 9, 1961, completed May 24, 1961, by and between the captioned assignor and assignee of an undivided 3/4 interest affecting the oil and gas leases listed below is hereby approved effective the date of this decision:

Big Eddy Unit Agreement

Serial No.	Lease Date	Leasehold Area Affected
LC 060515	9-1-50	All, containing 110.52 acres, below a depth of 3,000 feet from the surface.
060572	9-1-50	All, containing 990.37 acres, below a depth of 3,000 feet from the surface
063674	2-1-48	N½NE¼, Sec. 23, E½SW¼, Sec. 24, T. 20 S., R. 31 E, containing 160 acres, below a depth of 3500 feet down to 16,559 feet.

Little Eddy Unit Agreement

NM 05960	9-1-51	All, containing 641.72 acres, below a depth of 5000 feet below the surface.

James Ranch Unit Agreement

Serial No.	Lease Date	Leasehold Area Affected
LC 069377	5-1-51	All, containing 320 acres, unlimited.

Perry R. Bass holds an undivided 1/4 interest in the operating rights described above.

Richardson Oils, Inc. and Perry R. Bass are maintaining nationwide bonds.

Howard M. Grotberg, Chief
Mineral Adjudication Section

Distribution:
Richardson Oils, Inc.
Assignor
O&G Supv. Roswell

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF LANDS & MINERALS
PROGRAM MANAGEMENT & LAND OFFICE
P. O. Box 1449
Santa Fe, New Mexico

In Reply Refer To:
LC 063245-B, et al
Oil and Gas
4.10b

February 14, 1966

DECISION

Kerr-McGee Corporation : Oil and Gas

Change in Corporate Name Accepted

There has been filed in this office an Amendment to the Certificate of Incorporation of Kerr-McGee Oil Industries, Inc. changing the name of the corporation to Kerr-McGee Corporation. The change in its corporate title was effective November 1, 1965.

The evidence is acceptable and all documents relating thereto have been assembled and placed in the qualifications file under serial number NM 0558400.

The records of this office relating to interests held by Kerr-McGee Oil Industries, Inc. have been changed to show the interests are now held by Kerr-McGee Corporation in the following leases:

RECORD TITLE:

Serial No.	Lease Date	Acreage	Interest
LC 063245-B	11-1-51	40.00	100%
LC 064198-A	8-1-51	160.00	50%
LC 065710-A	10-1-51	640.00	50%
LC 065872	9-1-48	320.00	50%
LC 065873	9-1-48	160.00	50%
LC 065874	9-1-48	80.00	50%
LC 065897	10-1-48	80.00	50%
LC 065914	9-1-48	320.00	50%
LC 065944	9-1-48	320.00	50%
LC 066126-C	3-1-51	320.00	50%
LC 068947	4-1-52	120.00	50%
LC 070474	8-1-49	315.72	100%
NM 01218-A	5-1-52	40.00	50%
NM 04246	3-1-51	120.00	100%
NM 05470-C	6-1-51	360.00	50%
NM 06775-A	6-1-52	120.00	50%
NM 06775-D	6-1-52	40.00	50%
NM 06775-E	6-1-52	40.00	50%
NM 06779-B	7-1-52	40.00	100%
NM 06781	7-1-52	320.00	50%
NM 06819	7-1-52	639.80	50%
NM 015071-B	8-1-54	40.00	100%
NM 015580	11-1-54	1080.00	100%
NM 015581-A	11-1-54	1080.00	100%
NM 015581-C	11-1-54	40.00	100%
NM 016116-C	12-1-54	40.00	100%
NM 020604	1-1-56	280.00	100%
NM 023272	9-1-56	320.00	100%
NM 025235	6-1-57	40.00	100%
NM 025235-A	6-1-57	318.08	100%
NM 029081	10-1-58	240.00	50%
NM 029301	12-1-57	320.00	100%
NM 029886	2-1-57	160.00	100%
NM 029962	10-1-58	560.00	100%

OPERATING RIGHTS (Cont'd)

Serial No.	Lease Date	Land Description
LC 065872-A	9-1-48	T. 20 S., R. 31 E., NMPM Sec. 26: W½NE¼, W½NW¼, E½SW¼, E½SE¼ Containing 320 acres. An undivided 1/2 interest as to all depths lying below 16,569 feet.
LC 065873-A	9-1-48	T. 20 S., R. 31 E., NMPM Sec. 23: E½NW¼, W½SW¼ Containing 160 acres. An undivided 1/2 interest as to all depths lying below 16,569 feet.
LC 065874-A	9-1-48	T. 20 S., R. 31 E., NMPM Sec. 21: E½NE¼ Containing 80 acres. An undivided 1/2 interest as to all depths lying below 16,569 feet.
LC 065897-A	10-1-48	T. 20 S., R. 31 E., NMPM Sec. 27: E½SE¼ Containing 80 acres. An undivided 1/2 interest as to all depths lying below 16,569 feet.
LC 065914-A	9-1-48	T. 20 S., R. 31 E., NMPM Sec. 25: W½NE¼, W½NW¼, E½SW¼, E½SE¼ Containing 320 acres. An undivided 1/2 interest as to all depths lying below 16,569 feet.
LC 065944-A	9-1-48	T. 20 S., R. 31 E., NMPM Sec. 22: E½NE¼, E½NW¼, W½SW¼, W½SE¼ Containing 320 acres. An undivided 1/2 interest as to all depths lying below 16,569 feet.
LC 070687	5-1-51	T. 19 S., R. 30 E., NMPM Sec. 20: N½ Containing 320 acres. An undivided 1/2 interest as to all depths lying below 5,000 feet.
BLM 012843(Okla)	8-1-50	T. 1 S., R. 12 E., C.M., Okla Dry gas operating rights, except casinghead gas, down to 100 feet below sea level, in the following lands: (1) An undivided 3/4 interest in Sec. 1. (2) An undivided 3/8 interest in Sec. 3. (3) 100% interest in Sec. 6. Containing a total of 168.50 acres.

Kerr-McGee Corporation is maintaining a nationwide bond.

Howard M. Grotberg, Chief
Branch of Minerals Adjudication

Distribution:
Kerr-McGee (10)
O&G Supv. (246) Roswell
O&G Supv. (3) Tulsa
Accounts

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF LANDS & MINERALS
PROGRAM MANAGEMENT & LAND OFFICE
P. O. Box 1449
Santa Fe, New Mexico 87501

In Reply Refer To:
NM 0251, et al.
Oil and Gas
4.10h

March 5, 1970

DECISION

Bass Enterprises Production Co. :
12th Floor Ft. Worth National :
Bank Building :
Fort Worth, Texas 76102 :

Oil and Gas

Change in Corporate Name Recognized

There has been filed in this office acceptable evidence whereby the name of Richardson Oils, Inc. has been changed to Bass Enterprises Production Co. The evidence and all documents relating thereto have been placed in the Corporate Qualifications file, NM 0558400, to which reference should be made in the future.

Consent of Surety on $25,000 statewide bond No. 3469093 for New Mexico has been filed agreeing to the change of name of the principal from Richardson Oils, Inc. to Bass Enterprises Production Co. The Consent of Surety is hereby accepted.

Listed below are the oil and gas leases in which Richardson Oils, Inc. has interests by virtue of record title or operating rights:

Serial No.	Lease Date	Serial No.	Lease Date
NM 0251	7/1/52	NM 02979	10/1/48
0299-A	7/1/51	02980	10/1/48
0300	11/1/51	03023	5/1/52
0486	11/1/51	03023-A	5/1/52
0505	2/1/50	03023-B	5/1/52
0506-A	12/1/50	03057	9/1/48
0509	2/1/50	03059	9/1/48
0522-A	12/1/50	03075	5/1/52
0542-A	1/1/51	03103-C	5/1/52
0915	3/1/50	03183-A	3/1/52
01148	5/1/50	03183-B	3/1/52
01171-A	4/1/50	03205	2/1/50
01189-A	5/1/50	03273-A	5/1/52
01206-A	9/1/51	03297-B	4/1/52
01235-B	1/1/52	03302	9/1/51
01235-E	1/1/52	03364	2/1/50
01353-A	11/1/51	03504	9/1/48
02045	8/1/50	03505	9/1/48
02139	1/1/51	03507	9/1/48
02139-B	1/1/51	03508	9/1/48
02447	9/1/50	03585	4/1/50
02536	12/1/50	03653	2/1/51
02828	3/1/47	03926	6/1/52
02860	4/1/52	04082	12/1/51
02883-A	4/1/52	04105-A	3/1/52
02884-A	4/1/52	04225	7/1/50
02884-B	4/1/52	04225-A	7/1/50
02887-B	4/1/52	04228	2/1/50
02887-D	4/1/52	04229	2/1/51
02918	2/1/50	04229-A	2/1/51
02922	2/1/50	04229-B	2/1/51
02946	2/1/50	04229-C	2/1/51
02951-A	5/1/52	04382-A	11/1/51
02952-A	5/1/52	04383-A	7/1/52
02952-B	5/1/52	04383-B	7/1/52
02952-C	5/1/52	04473	11/1/52
02953-A	5/1/52	04557	8/1/52
02953-B	5/1/52	04587	4/1/51
02953-C	5/1/52	04749	7/1/53
02977	10/1/48	04801	9/1/52

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Lease No.	Lease Date	Lease No.	Lease Date
LC 065750	7/1/51	LC 068905	11/1/51
065750-A	7/1/51	068847	4/1/51
065750-B	7/1/51	068921	10/1/51
065750-C	7/1/51	068996-A	6/1/51
065751	8/1/51	069005	8/1/51
065751-A	8/1/51	069060	11/1/51
065752	7/1/51	069140-A	8/1/51
065752-A	7/1/51	069141	6/1/51
065833	6/1/51	069142-A	8/1/51
065872-A	9/1/48	069144	7/1/49
065873-A	9/1/48	069144-A	7/1/49
065874-A	9/1/48	069157-A	7/1/51
065897-A	10/1/48	069159-A	8/1/51
065914-A	9/1/48	069188	6/1/51
065944-A	9/1/48	069219	4/1/51
066067	9/1/48	069227	8/1/52
066067-A	9/1/48	069241	6/1/51
066148	9/1/51	069504	9/1/54
066156	6/1/52	069506	9/1/51
067052	9/1/48	069507	10/1/51
067053-A	9/1/48	069508	11/1/51
067054	9/1/48	069509	2/1/52
067056-A	9/1/48	069513	11/1/51
067130-A	2/1/52	069514-B	6/1/51
067144	10/1/51	069550-A	7/1/49
067145	4/1/51	069627-A	6/1/51
067186	7/1/51	069705	7/1/51
067251	8/1/51	069707	6/1/51
067297-A	3/1/51	069817	7/1/51
067297-B	3/1/51	069852-A	12/1/51
067297-C	3/1/51	069877	5/1/51
067747	9/1/51	069899	7/1/49
067748	5/1/51	069944	6/1/51
067793-A	3/1/51	069944-A	6/1/51
067964	7/1/51	070060	12/1/49
068104	8/1/51	070061	7/1/49
068104-A	8/1/51	070175-A	7/1/51
068284	11/1/51	070220	9/1/51
068337-A	2/1/52	070315	8/1/49
068368	7/2/51	070335	7/1/49
068379	8/1/51	070711	8/1/51
068399	6/1/51	070792-A	4/1/50
068408	11/1/51	070876	8/1/51
068430	5/1/51	071033	2/1/50
068431	5/1/51	071771-A	8/1/49
068545	10/1/51	071917-A	8/1/51
068665	4/1/51	071918	7/1/51
068669	10/1/49	071986-A	7/1/51
068695	4/1/51	071988-B	8/1/51
068446	4/1/51		

Fred E. Padilla, Chief
Branch of Oil and Gas

Distribution:
Bass Enterprises Prod. Co. (318)
O&G Supv. Roswell (636)
Each Case File(1) (318)

BEFORE EXAMINERS
OIL CONSERVATION COMMISSION
EXHIBIT 5
CASE NO. 6077 Applicant
Submitted by Form 1-213 (December 1969)
Hearing Date 4-12-78

COPY FOR: Boatright
GS - BLM
MAO

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Office New Mexico
Serial LC 065431

NONCOMPETITIVE

LEASE OF OIL AND GAS LANDS UNDER THE ACT OF FEBRUARY 25, 1920, AS AMENDED

THIS INDENTURE OF LEASE, entered into, in triplicate, as of the MAR 1 1951 day of by and between the UNITED STATES OF AMERICA, through the Bureau of Land Management, party of the first part, and Josephine Rodke ~~439 W. Quay~~ Box 605 Artesia, New Mexico party of the second part, hereinafter called the lessee, under, pursuant, and subject to the terms and provisions of the act of February 25, 1920 (41 Stat. 437), as amended, hereinafter referred to as the act, and to all reasonable regulations of the Secretary of the Interior now or hereafter in force when not inconsistent with any express and specific provisions herein, which are made a part hereof, WITNESSETH:

SECTION 1. Rights of Lessee.—That the lessor, in consideration of rents and royalties to be paid, and the conditions and covenants to be observed as herein set forth, does hereby grant and lease to the lessee the exclusive right and privilege to drill for, mine, extract, remove, and dispose of all the oil and gas deposits except helium gas in or under the following-described tracts of land situated ~~in the~~ Mexico

T. 20 S., R. 31 E., NMPM, New Mexico
Sec. 27, S½NE¼, NW¼

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x
x
x
x
x

containing 240 acres, more or less, together with the right to construct and maintain thereupon all works, buildings, plants, waterways, roads, telegraph or telephone lines, pipe lines, reservoirs, tanks, pumping stations, or other structures necessary to the full enjoyment thereof, for a period of 5 years, and so long thereafter as oil or gas is produced in paying quantities; subject to any unit agreement heretofore or hereafter approved by the Secretary of the Interior, the provisions of said agreement to govern the lands subject thereto where inconsistencies with the terms of this lease occur.

SEC. 2. In consideration of the foregoing, the lessee hereby agrees:

(a) Bonds.—(1) To maintain any bond furnished by the lessee as a condition for the issuance of this lease. (2) If the lease is issued noncompetitively, to furnish a bond in a sum double the amount of the $1 per acre annual rental, but not less than $1,000 nor more than $5,000, upon the inclusion of any part of the leased land within the geologic structure of a producing oil or gas field. (3) To furnish prior to beginning of drilling operations and maintain at all times thereafter as required by the lessor a bond in the penal sum of $5,000 with approved corporate surety, or with deposit of United States bonds as surety therefor, conditioned upon compliance with the terms of this lease, unless a bond in that amount is already being maintained or unless such a bond furnished by an approved operator of the lease is accepted.

4-5-78 Bureau of Land Management
Date NMSO

(1) I hereby certify that this reproduction is a true copy of the official record on file in this office. Consists of 7 pages.
Laurie G. Gonzales
Authorized Signature

Noted 1/25/51 by
T/B - S/R - Plat

Until a general lease bond is filed a noncompetitive lessee will be required to furnish and maintain a bond in the penal sum of not less than $1,000 in those cases in which a bond is required by law for the protection of the owners of surface rights. In all other cases where a bond is not otherwise required, a $1,000 bond must be filed for compliance with the lease obligations not less than 90 days before the due date of the next unpaid annual rental, but this requirement may be successively dispensed with by payment of each successive annual rental not less than 90 days prior to its due date.

(b) Cooperative or unit plan.—Within 30 days of demand, or if the land is within an approved unit plan, in the event such a plan is terminated prior to the expiration of this lease, within 30 days of demand made thereafter, to subscribe to and to operate under such reasonable cooperative or unit plan for the development and operation of the area, field, or pool, or part thereof, embracing the lands included herein as the Secretary of the Interior may determine to be practicable and necessary or advisable, which plan shall adequately protect the rights of all parties in interest, including the United States.

(c) Wells.—(1) To drill and produce all wells necessary to protect the leased land from drainage by wells on lands not the property of the lessor or lands of the United States leased at a lower royalty rate, or in lieu of any part of such drilling and production, with the consent of the Director of the Geological Survey, to compensate the lessor in full each month for the estimated loss of royalty through drainage in the amount determined under instructions of said Secretary; (2) at the election of the lessee, to drill and produce other wells in conformity with any system of well spacing or production allotments affecting the field or area in which the leased lands are situated, which is authorized and sanctioned by applicable law or by the Secretary of the Interior; and (3) promptly after due notice in writing to drill and produce such other wells as the Secretary of the Interior may require to insure diligence in the development and operation of the property.

(d) Rentals and royalties.—(1) To pay the rentals and royalties set out in the rental and royalty schedule attached hereto and made a part hereof.

(2) It is expressly agreed that the Secretary of the Interior may establish reasonable minimum values for purposes of computing royalty on any or all oil, gas, natural gasoline, and other products obtained from gas; due consideration being given to the highest price paid for a part or for a majority of production of like quality in the same field, to the price received by the lessee, to posted prices and to other relevant matters and, whenever appropriate, after notice and opportunity to be heard.

(3) When paid in value, such royalties on production shall be due and payable monthly on the last day of the calendar month next following the calendar month in which produced. When paid in amount of production, such royalty products shall be delivered in merchantable condition on the premises where produced without cost to lessor, unless otherwise agreed to by the parties hereto, at such times and in such tanks provided by the lessee as reasonably may be required by the lessor, but in no case shall the lessee be required to hold such royalty oil or other products in storage beyond the last day of the calendar month next following the calendar month in which produced. The lessee shall not be responsible or held liable for the loss or destruction of royalty oil or other products in storage from causes over which he has no control.

(4) Royalties shall be subject to reduction on the entire leasehold or on any portion thereof segregated for royalty purposes if the Secretary of the Interior finds that the lease cannot be successfully operated upon the royalties fixed herein, or that such action will encourage the greatest ultimate recovery of oil or gas or promote conservation.

(e) Contracts for disposal of products.—Not to sell or otherwise dispose of oil, gas, natural gasoline, and other products of the lease except in accordance with a contract or other arrangement first approved by the Director of the Geological Survey or his representative, such approval to be subject to review by the Secretary of the Interior but to be effective unless and until revoked by the Secretary or the approving officer, and to file with such officer all contracts or full information as to other arrangements for such sales.

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(f) Statements, plats, and reports.—At such times and in such form as the lessor may prescribe, to furnish detailed statements showing the amounts and quality of all products removed and sold from the lease, the proceeds therefrom, and the amounts used for production purposes or unavoidably lost; a plat showing development work and improvements on the leased lands and a report with respect to stockholders, investment, depreciation, and costs.

(g) Well records.—To keep a daily drilling record, a log, and complete information on all well surveys and tests in form acceptable to or prescribed by the lessor of all wells drilled on the leased lands, and an acceptable record of all subsurface investigations affecting said lands, and to furnish them, or copies thereof to the lessor when required.

(h) Inspection.—To keep open at all reasonable times for the inspection of any duly authorized officer of the Department, the leased premises and all wells, improvements, machinery, and fixtures thereon and all books, accounts, maps, and records relative to operations and surveys or investigations on the leased lands or under the lease.

(i) Payments.—Unless otherwise directed by the Secretary of the Interior, to make rental, royalty, or other payments to the lessor, to the order of the Treasurer of the United States, such payments to be tendered to the manager of the district land office in the district in which the lands are located or to the Director of the Bureau of Land Management if there is no district land office in the State in which the lands are located.

(j) Diligence—Prevention of waste—Health and safety of workmen.—To exercise reasonable diligence in drilling and producing the wells herein provided for unless consent to suspend operations temporarily is granted by the lessor; to carry on all operations in accordance with approved methods and practice as provided in the operating regulations, having due regard for the prevention of waste of oil or gas or damage to deposits or formations containing oil, gas, or water or to coal measures or other mineral deposits, for conservation of gas energy, for the preservation and conservation of the property for future productive operations, and for the health and safety of workmen and employees; to plug properly and effectively all wells before abandoning the same; to carry out at expense of the lessee all reasonable orders of the lessor relative to the matters in this paragraph, and that on failure of the lessee so to do the lessor shall have the right to enter on the property and to accomplish the purpose of such orders at the lessee's cost: Provided, that the lessee shall not be held responsible for delays or casualties occasioned by causes beyond lessee's control.

(k) Taxes and wages—Freedom of purchase.—To pay when due, all taxes lawfully assessed and levied under the laws of the State or the United States upon improvements, oil, and gas produced from the lands hereunder, or other rights, property, or assets of the lessee; to accord all workmen and employees complete freedom of purchase, and to pay all wages due workmen and employees at least twice each month in the lawful money of the United States.

(l) Nondiscrimination.—Not to discriminate against any employee or applicant for employment because of race, creed, color, or national origin, and to require an identical provision to be included in all subcontracts.

(m) Assignment of oil and gas lease or interest therein.—To file within 90 days from the date of final execution any instrument of transfer made of this lease, or any interest therein, including assignments of record title, working or royalty interests, operating agreements and subleases for approval, such instrument to take effect upon its final approval by the Director, Bureau of Land Management, as of the first day of the lease month following the date of filing in the proper land office.

(n) Pipe lines to purchase or convey at reasonable rates and without discrimination.—If owner, or operator, or owner of a controlling interest in any pipe line or of any company operating the same which may be operated accessible to the oil or gas derived from lands under this lease, to accept and convey and, if a purchaser of such products, to purchase at reasonable rates and without discrimination the oil or gas of the Government or of any citizen or company not the owner of any pipe line,

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operating a lease or purchasing or selling oil, gas, natural gasoline, or other products under the provisions of the act.

(o) Reserved deposits.—To comply with all statutory requirements and regulations thereunder, if the lands embraced herein have been or shall hereafter be disposed of under the laws reserving to the United States the deposits of oil and gas therein, subject to such conditions as are or may hereafter be provided by the laws reserving such oil or gas.

(p) Reserved or segregated lands.—If any of the land included in this lease is embraced in a reservation or segregated for any particular purpose, to conduct operations thereunder in conformity with such requirements as may be made by the Director, Bureau of Land Management, for the protection and use of the land for the purpose for which it was reserved or segregated, so far as may be consistent with the use of the land for the purpose of this lease, which latter shall be regarded as the dominant use unless otherwise provided herein or separately stipulated.

(q) Overriding royalties.—To limit the obligation to pay overriding royalties or payments out of production in excess of 5 percent to periods during which the average production per well per day is more than 15 barrels on an entire leasehold or any part of the area thereof or any zone segregated for the computation of royalties.

(r) Deliver premises in cases of forfeiture.—To deliver up the premises leased, with all permanent improvements thereon, in good order and condition in case of forfeiture of this lease; but this shall not be construed to prevent the removal, alteration, or renewal of equipment and improvements in the ordinary course of operations.

SEC. 3. The lessor expressly reserves:

(a) Rights reserved—Easements and rights-of-way.—The right to permit for joint or several use easements or rights-of-way, including easements in tunnels upon, through, or in the lands leased, occupied, or used as may be necessary or appropriate to the working of the same or of other lands containing the deposits described in the act, and the treatment and shipment of products thereof by or under authority of the Government, its lessees or permittees, and for other public purposes.

(b) Disposition of surface.—The right to lease, sell, or otherwise dispose of the surface of any of the lands embraced within this lease which are owned by the United States under existing law or laws hereafter enacted, insofar as said surface is not necessary for the use of the lessee in the extraction and removal of the oil and gas therein.

(c) Monopoly and fair prices.—Full power and authority to promulgate and enforce all orders necessary to insure the sale of the production of the leased lands to the United States and to the public at reasonable prices, to protect the interests of the United States, to prevent monopoly, and to safeguard the public welfare.

(d) Helium.—Pursuant to section 1 of the act, and section 1 of the act of March 3, 1927 (44 Stat. 1387), as amended, the ownership and the right to extract helium from all gas produced under this lease, subject to such rules and regulations as shall be prescribed by the Secretary of the Interior. In case the lessor elects to take the helium the lessee shall deliver all gas containing same, or portion thereof desired, to the lessor at any point on the leased premises in the manner required by the lessor, for the extraction of the helium in such plant or reduction works for that purpose as the lessor may provide, whereupon the residue shall be returned to the lessee with no substantial delay in the delivery of gas produced from the well to the purchaser thereof. The lessee shall not suffer a diminution of value of the gas from which the helium has been extracted, or loss otherwise, for which he is not reasonably compensated, save for the value of the helium extracted. The lessor further reserves the right to erect, maintain, and operate any and all reduction works and other equipment necessary for the extraction of helium on the premises leased.

(e) Taking of royalties.—All rights pursuant to section 36 of the act, to take royalties in amount or in value of production.

(f) Casing.—All rights pursuant to section 40 of the act to purchase casing and lease or operate valuable water wells.

(g) Fissionable materials.—Pursuant to the provisions of the act of August 1, 1946 (Public Law 585, 79th Congress) all uranium, thorium, or other material which has been or may hereafter be determined to be peculiarly essential to the production of fissionable materials, whether or not of commercial value, together with the right of the United States through its authorized agents or representatives at any time to enter upon the land and prospect for, mine and remove the same, making just compensation for any damage or injury occasioned thereby.

SEC. 4. Drilling and producing restrictions.—It is covenanted and agreed that the rate of prospecting and developing and the quantity and rate of production from the lands covered by this lease shall be subject to control in the public interest by the Secretary of the Interior, and in the exercise of his judgment the Secretary may take into consideration, among other things, Federal laws, State laws, and regulations issued thereunder, or lawful agreements among operators regulating either drilling or production, or both. After unitization, the Secretary of the Interior, or any person, committee, or State or Federal officer or agency so authorized in the unit plan, may alter or modify from time to time, the rate of prospecting and development and the quantity and rate of production from the lands covered by this lease.

SEC. 5. Surrender and termination of lease.—The lessee may surrender this lease or any legal subdivision thereof by filing in the proper land office a written relinquishment, in triplicate, which shall be effective as of the date of filing subject to the continued obligation of the lessee and his surety to make payment of all accrued rentals and royalties and to place all wells on the land to be relinquished in condition for suspension or abandonment in accordance with the regulations and the terms of the lease, to be accompanied by a statement that all wages and moneys due and payable to the workmen employed on the land relinquished have been paid.

SEC. 6. Purchase of materials, etc., on termination of lease.—Upon the expiration of this lease, or the earlier termination thereof pursuant to the last preceding section, the lessor or another lessee may, if the lessor shall so elect within 3 months from the termination of the lease, purchase all materials, tools, machinery, appliances, structures, and equipment placed in or upon the land by the lessee, and in use thereon as a necessary or useful part of an operating or producing plant, on the payment to the lessee of such sum as may be fixed as a reasonable price therefor by a board of three appraisers, one of whom shall be chosen by the lessor, one by the lessee, and the other by the two so chosen; pending such election all equipment shall remain in normal position. If the lessor, or another lessee, shall not within 3 months elect to purchase all or any part of such materials, tools, machinery, appliances, structures, and equipment, the lessee shall have the right at any time, within a period of 90 days thereafter to remove from the premises all the material, tools, machinery, appliances, structures, and equipment which the lessor shall not have elected to purchase, save and except casing in wells and other equipment or apparatus necessary for the preservation of the well or wells. Any materials, tools, machinery, appliances, structures, and equipment, including casing in or out of wells on the leased lands, shall become the property of the lessor, on expiration of the period of 90 days above referred to or such extension thereof as may be granted on account of adverse climatic conditions throughout said period.

SEC. 7. Proceedings in case of default.—If the lessee shall not comply with any of the provisions of the act or the regulations thereunder or make default in the performance or observance of any of the terms, covenants, and stipulations hereof and such default shall continue for a period of 30 days after service of written notice thereof by the lessor, the lease may be canceled by the Secretary of the Interior in accordance with section 31 of the act, as amended, and all materials, tools, machinery, appliances, structures, equipment, and wells shall thereupon become the property of the lessor, except that if said lease covers lands known to contain valuable deposits of oil or gas, the lease may be canceled only by judicial proceedings in the manner provided in section 31 of the act; but this provision shall not be construed to prevent the exercise by the lessor of any legal or equitable remedy which the lessor might otherwise have. A waiver of any particular

cause of forfeiture shall not prevent the cancellation and forfeiture of this lease for any other cause of forfeiture, or for the same cause occurring at any other time.

SEC. 8. Heirs and successors in interest.—It is further covenanted and agreed that each obligation hereunder shall extend to and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors, or assigns of the respective parties hereto.

SEC. 9. Unlawful interest.—It is also further agreed that no Member of, or Delegate to, Congress, or Resident Commissioner, after his election or appointment, or either before or after he has qualified, and during his continuance in office, and that no officer, agent, or employee of the Department of the Interior, shall be admitted to any share or part in this lease or derive any benefit that may arise therefrom; and the provisions of section 3741 of the Revised Statutes of the United States, and sections 431, 432, and 433, title 18, United States Code, relating to contracts, enter into and form a part of this lease so far as the same may be applicable.

IN WITNESS WHEREOF:

THE UNITED STATES OF AMERICA.

For the Director, Bureau of Land Management

By J. A. D. Lacy Manager

1768 N. 4th. St.
Oleta Kesler Abilene, Tex.

1766 N. 4th St.
Zelle Polk Abilene, Texas

Witnesses to signature of lessee.

Josephine Lockie

Lessee.

U. S. GOVERNMENT PRINTING OFFICE 16—86705-6

6

Schedule "A"
RENTALS AND ROYALTIES

Rentals--To pay the lessor in advance on the first day of the month in which the lease issues a rental at the following rates:

(a) If the lands are wholly outside the known geologic structure of a producing oil or gas field:

(1) For the first lease year, a rental of 50 cents per acre.

(2) For the second and third lease years, no rental.

(3) For the fourth and fifth years, 25 cents per acre.

(4) For the sixth and each succeeding year, 50 cents per acre.

(b) On leases wholly or partly within the geologic structure of a producing oil or gas field:

(1) Beginning with the first lease year after 30 days' notice that all or part of the land is included in such a structure and for each year thereafter, prior to a discovery of oil or gas on the lands herein, $1 per acre.

(2) On the lands committed to an approved cooperative or unit plan which includes a well capable of producing oil or gas and contains a general provision for allocation of production, for the lands not within the participating area an annual rental of 50 cents per acre for the first and each succeeding lease year following discovery.

Minimum royalty--To pay the lessor in lieu of rental at the expiration of each lease year after discovery a minimum royalty of $1 per acre or, if there is production, the difference between the actual royalty paid during the year and the prescribed minimum royalty of $1 per acre, provided that on unitized leases, the minimum royalty shall be payable only on the participating acreage.

Royalty on production--To pay the lessor 12½ percent royalty on the production removed or sold from the leased lands.

The average production per well per day for oil and for gas shall be determined pursuant to 30 CFR, Part 221, "Oil and Gas Operating Regulations."

In determining the amount or value of gas and liquid products produced, the amount or value shall be net after an allowance for the cost of manufacture. The allowance for cost of manufacture may exceed two-thirds of the amount or value of any product only on approval by the Secretary of the Interior.

HDH—4-10-52—Federal

ASSIGNMENT OF OIL AND GAS LEASE

THIS ASSIGNMENT, made and entered into this the 2 day of May, 1952, by and between Josephine Rodke and R. E. Rodke, her husband,

of , hereinafter referred to as "Assignor" (whether one or more), and S. W. Richardson and Perry R. Bass

of Fort Worth, Texas, hereinafter referred to as "Assignee" (whether one or more).

RECEIVED
Bureau of Land Management
LAND AND SURVEY OFFICE
SANTA FE, N. M.
JUL 30 1952
HOUR

Whereas, the undersigned Assignor, for and in consideration of the sum of $10.00 and other good and valuable considerations to Assignor in hand paid by said Assignee, the receipt whereof is hereby confessed and acknowledged, does hereby sell, assign, transfer, set over and convey unto said Assignee, his heirs, personal representatives (or its successors) and assigns that certain Oil and Gas Lease made and entered into on the 1st day of March, 1951, by and between the United States, as Lessor, and Josephine Rodke, as Lessee, bearing Las Cruces Serial No. 065431, insofar and only insofar as said Oil and Gas Lease covers and affects the following described land situated in Eddy County, New Mexico, to-wit:

Twp. 20 S., Rge. 31 E., N.M.P.M.,
Sec. 27: S½NE¼, NW¼
containing 240 acres, more or less.

together with all rights and privileges thereunder or appurtenant thereto, subject, however, to the following:

(a) The Assignor hereby excepts and reserves an overriding royalty equal to 3% of the market value at the wells as produced of all the oil and gas which may be produced, saved and marketed from the above described land under the terms of said lease or any extensions or renewals thereof or which may be allocated to said land under the terms of any cooperative or unit plan of operation formed and approved in accordance with the regulations of the Secretary of the Interior. Said overriding royalty shall be computed and paid at the same time and in the same manner as royalties payable to the United States under the terms of said lease are computed and paid and the Assignor shall be responsible for said proportionate part of all taxes levied upon or against or measured by the production of oil and gas from said land. Said overriding royalty shall be the total overriding royalty for which the Assignee shall be obligated and the same shall include all overriding royalties or obligations payable out of production heretofore created, if any. No change in the ownership of said overriding royalty or any interest therein shall be binding upon the Assignee until such time as said Assignee shall have been furnished with either the original, a certified copy or an acceptable photostatic copy of the recorded instrument or instruments effecting such change in ownership, and said overriding royalty shall not imply any development obligation on the part of the Assignee.

(b) This Assignment is made subject to the approval of the Unit Agreement for the operation and development of the Big Eddy Unit Area, Lea and Eddy Counties, New Mexico.

ASSIGNMENT APPROVED:
FOR THE DIRECTOR, B.L.M. Noted 8-11-52 by
T/S - S/R - Plat
By
Manager
Land & Survey Office

If the Assignee should at any time desire to release or surrender said Oil and Gas Lease as to all or any portion of the above described lands, Assignee shall tender a reassignment of said Lease as to the lands sought to be surrendered or relinquished to the Assignor at least thirty (30) days prior to the time for the payment of the next annual rental under the terms of said Lease or any extension or renewal thereof or at least thirty (30) days prior to the expiration of said Lease in the event the same may be extended or renewed. In such event, the Assignor shall accept such reassignment within ten (10) days from the time the same is tendered, failing in which, the Assignee shall be free to surrender or relinquish said Lease as to such lands. In the event the reassignment is accepted by the Assignor as herein provided, the Assignor shall save, hold and protect the Assignee harmless from all rentals and liability of whatsoever character subsequently accruing under said Lease on account of the lands covered by said reassignment.

TO HAVE AND TO HOLD said Oil and Gas Lease covering the above described lands unto said Assignee, his heirs, personal representatives (or its successors) and assigns forever. For the same consideration, the Assignor covenants with and warrants to said Assignee that said Oil and Gas Lease is in good standing and is free and clear of all liens and encumbrances and obligations of whatsoever character except those hereinabove referred to and that Assignor will warrant and forever defend the title thereto unto said Assignee, his heirs, personal representatives (or its successors) and assigns, against all persons whomsoever lawfully having or claiming an interest therein.

IN WITNESS WHEREOF, this Assignment is executed in quadruplicate as of the day and year first hereinabove written.

Josephine Rodke

R. B. Rodke

STATE OF Texas
COUNTY OF Taylor } SS.

On this the 3 day of May, 1952, before me personally appeared Josephine Rodke and R. B. Rodke, her husband,

to me personally known to be the person S described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal on the day and year in this certificate first above written.

~~June 1, 1953~~

Notary Public

My Commission Expires:
June 1, 1953

Taylor County, Texas

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Land & Survey Office
Santa Fe, New Mexico

In reply refer To:
AD:HHH
LC 062940 etc. O&G/L

October 16, 1952

DECISION

Assignments Approved

The assignments, filed July 30, 1952, of noncompetitive oil and gas leases listed below are hereby approved effective as to each on the first day of the lease month following the date of filing. Acceptable evidence of the qualifications and holdings of the respective assignees under the mineral leasing act, as amended, has been filed. The showing as to overriding royalties and payments out of production conforms to the regulations.

Serial Number	Assignor	Assignee	Overriding Royalty Reservation
LC 062940	Geo. E. Currier	S.W. Richardson & Perry R. Bass	3%
063541	Maurice Schwartz	S.W. Richardson & Perry R. Bass	5%
063545	Myra B. Daugherty and Madelyn B. Metcalf	S.W. Richardson & Perry R. Bass	5%
063548	F. P. Schuster and S. A. Schuster	S.W. Richardson & Perry R. Bass	5%
063667	William Spurck	S.W. Richardson & Perry R. Bass	4 1/8%
063862-A	Eugene H. Perry	S.W. Richardson & Perry R. Bass	3% heretofore
065035	Joe W. Lackey	S.W. Richardson & Perry R. Bass	4%
065431	Josephine Redke	S.W. Richardson & Perry R. Bass	3%
065609	Robert C. Glines	S.W. Richardson & Perry R. Bass	5%
066067	Ralph Petty	S.W. Richardson & Perry R. Bass	--
066156	Helen Orton Watson formerly Helen Orton Ham	S.W. Richardson & Perry R. Bass	1%
067144	Rosemary Murphy Barnett	S.W. Richardson & Perry R. Bass	3%
067145	Dixie D. Flood	S.W. Richardson & Perry R. Bass	3%
067297-A	I. W. Bosworth	S.W. Richardson & Perry R. Bass	3% and 2% heretofore
067297-B	Eugene H. Perry	S.W. Richardson & Perry R. Bass	2% heretofore
067297-C	Eugene H. Perry	S.W. Richardson & Perry R. Bass	2% heretofore
067793-A	Eugene H. Perry	S.W. Richardson & Perry R. Bass	--
067964	Mabel E. Todhunter	S.W. Richardson & Perry R. Bass	3%
068284	Aileen T. Taylor	S.W. Richardson & Perry R. Bass	3%
068368	Harry F. Schram	S.W. Richardson & Perry R. Bass	3%
068379	Betty Ruth Wright	S.W. Richardson & Perry R. Bass	3%
068669	Robert E. McKee General Contractor, Inc.	S.W. Richardson & Perry R. Bass	5%
069141	Gilbert F. Scheib	S.W. Richardson & Perry R. Bass	5%
069144-A	Frances Nix	S.W. Richardson & Perry R. Bass	1% and 2% heretofore
069227	Elaine V. Scheib	S.W. Richardson & Perry R. Bass	5%
069707	Boo Bear	S.W. Richardson & Perry R. Bass	5%
069899	Wilma Elliott Donchue	S.W. Richardson & Perry R. Bass	5%
070060	Robert E. McKee General Contractor, Inc.	S.W. Richardson & Perry R. Bass	5%
070061	Robert E. McKee General Contractor, Inc.	S.W. Richardson & Perry R. Bass	5%
070220	Gilbert Scheib	S.W. Richardson & Perry R. Bass	3½%
070711	Mabel E. Todhunter	S.W. Richardson & Perry R. Bass	3%
071033	Frances Nix	S.W. Richardson & Perry R. Bass	3% heretofore
071918	Morris Cannan	S.W. Richardson & Perry R. Bass	3%

All of the above assignments are made subject to the Big Eddy Unit Agreement, approved and effective October 1, 1952, and designated No. 14-08-001-326.

Distribution:
Each assignor
Each assignee (with assgt)
G.A.O. (with assgts)
O&G Sup. (3 - ea assgt)
Accounts
Federal Abstract Co.

J. A. Delany
Manager

S/B + S/B - Plat

ASSIGNMENT OF OIL AND GAS LEASES

THIS ASSIGNMENT made and entered into this, the 9 day of March, 1961, by and between Perry R. Bass, John B. Connally, and Howell E. Smith, Independent Executors and New Mexico Ancillary Executors of the Estate of S. W. Richardson, Deceased, Parties of the First Part, hereinafter referred to as "Assignors," and Richardson Oils, Inc., a Texas corporation, with offices in Fort Worth, Texas, Party of the Second Part, hereinafter referred to as "Assignee;"

WITNESSETH:

WHEREAS, Richardson & Bass, a co-partnership composed of Sid W. Richardson, also known as S. W. Richardson, and Perry R. Bass were the owners and holders of certain leasehold, mineral, and overriding royalty interests embracing lands of the United States situated in the State of New Mexico, said partnership interests being owned an undivided three-fourths (3/4) interest by S. W. Richardson and an undivided one-fourth (1/4) interest by Perry R. Bass, and which said interests are more particularly described in the schedule attached hereto, made a part hereof, and for all purposes of identification marked "Exhibit A;" and

WHEREAS, S. W. Richardson, Deceased, left the last will and testament which was duly admitted to probate in the County Court of Tarrant County, Texas, and the executors therein named duly appointed and qualified; and

WHEREAS, said last will and testament has also been duly admitted to probate in the Probate Court of Eddy County, New Mexico, and the executors named in said will have qualified as ancillary executors, and being the executors named herein; and

WHEREAS, the Assignors are desirous of selling and assigning to the Assignee herein all of the right, title and interest of the Estate of S. W. Richardson, deceased, in and to the leasehold, mineral, and overriding

royalty interests described on Exhibit "A" attached hereto, and being the three-fourths (3/4) interest of S. W. Richardson in and to the co-partnership above referred to of Richardson & Bass;

NOW, THEREFORE, THE UNDERSIGNED ASSIGNORS, for and in consideration of the sum of Ten and No/100 Dollars ($10.00) and other good and valuable consideration to them in hand paid by said Assignee, the receipt whereof is hereby acknowledged, do hereby sell, assign, transfer, set over, and convey unto said Assignee, its successors or assigns, all of the undivided three-fourths (3/4) interest of the Estate of S. W. Richardson, deceased, in and to all of the leasehold and other interests described on Exhibit "A" attached hereto.

It is understood and agreed that the interests conveyed and assigned hereby as shown on Exhibit "A" attached hereto are subject to all existing unit agreements to which any of said leasehold interests may be committed, and also subject to any overriding royalties or obligations payable out of production as the same may appear of record, it being the intention and purpose of this assignment to convey and assign to the Assignee all of the right, title, and interest of the Estate of S. W. Richardson, deceased, in and to said properties as described on Exhibit "A" attached hereto; and if any interests of the estate of said deceased in and to leasehold and other interests in the State of New Mexico are omitted from the description set forth on said exhibit, all other interests, if any, of the estate of said deceased are hereby conveyed and assigned to the Assignee herein.

The undersigned, Perry R. Bass, individually, also joins in this assignment for the purposes of conveying and assigning to the Assignee herein any interest which he may have by virtue of being the surviving partner of the co-partnership of Richardson & Bass; however, it is not intended to convey or assign to the Assignee herein any of the undivided one-fourth

(1/4) interest of Perry R. Bass in and to any of said partnership properties as described on Exhibit "A" attached hereto.

IN WITNESS WHEREOF, this assignment is executed as of the day and year first hereinabove written.

Perry R. Bass

John B. Connally

Howell E. Smith

INDEPENDENT EXECUTORS OF THE ESTATE OF S. W. RICHARDSON, DECEASED

Perry R. Bass

STATE OF TEXAS

COUNTY OF TARRANT

On This 9 day of March, 1961, before me personally appeared Perry R. Bass, John B. Connally, and Howell E. Smith, to me known to be the persons described in and who executed the foregoing instrument as Independent Executors of the Estate of S. W. Richardson, deceased, and acknowledged that they executed the same as their free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

Joan Barnhart
Notary Public

My Commission Expires:

June 1, 1961

STATE OF TEXAS

COUNTY OF TARRANT

On this 9 day of March, 1961, before me personally appeared Perry R. Bass, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

Joan Barnhart
Notary Public

My Commission Expires:

June 1, 1961

EXHIBIT "A"

BIG EDDY UNIT

NM-0251 — Lease dated July 1, 1952 from United States of America to Bertrand O. Baetz covering SW/4 of Section 5, SE/4 of Section 6, E/2 of Section 7, All of Section 8, W/2 of Section 9, T-20-S, R-31-E, N.M.P.M., containing 1600 acres, more or less, Eddy County, New Mexico

NM-0299-A — Lease dated July 1, 1951 from United States of America to Thelma L. Rhodes insofar as it covers Lots 1,2,7,8,9,10,15 and 16, SE/4 of Section 3, T-21-S, R-30-E, Eddy County, New Mexico, containing 471.70 acres, more or less.

NM-0486 — Lease dated November 1, 1951 from United States of America to Jerry Curtis covering all of Sections 21, 22, 27 and 28, T-21-S, R-28-E, N.M.P.M. Eddy County, New Mexico, containing 2,560 acres, more or less.

NM-0505 — Lease dated February 1,1950 from United States of America to Marian D. Harris insofar as it covers NW/4 of Section 8; W/2 of NW/4, SE/4 of Section 10, T-21-S, R-29-E, N.M.P.M., Eddy County, New Mexico, containing 400 acres, more or less.

NM-0509 — Lease dated February 1, 1950 from United States of America to Marian D. Harris insofar as it covers SE/4 of Section 8; NW/4, SE/4 of Section 17; SW/4 of Section 20; T-21-S, R-29-E, N.M.P.M., Eddy County, New Mexico, containing 640 acres, more or less.

NM-0915 — Lease dated March 1, 1950 from United States of America to Magnolia Petroleum Company covering S/2, S/2 N/2 of Section 22; S/2 N/2, S/2 of Section 23; S/2, S/2 NW/4 of Section 24; All of Section 25; N/2, SE/4, E/2 SW/4 of Section 26, T-21-S, R-29-E, N.M.P.M., Eddy County, New Mexico, containing 2,560 acres, more or less.

NM-01148 — Lease dated May 1, 1950 from United States of America to Lorraine A. Nelson and James C. Nelson covering W/2 NE/4 and E/2 SE/4 of Section 31; N/2 of NE/4 and NE/4 of NW/4 of Section 32; and N/2 of Section 33, T-21-S, R-28-E, N.M.P.M., Eddy County, New Mexico, containing 600 acres, more or less.

NM-01189-A — Lease dated May 1, 1950 from United States of America to Marian Condrey Welch and Van S. Welch, Trustee, being Trustee for Estates of Wendell Condrey Welch, Thomas Flynn Welch and Phoebe Jane Welch, insofar as it covers the E/2 of Section 19 and SE/4 of Section 20, T-20-S, R-31-E, N.M.P.M., Eddy County, New Mexico, containing 480 acres, more or less.

NM-01206-A — Lease dated September 1, 1951 from United States of America to W. E. Bondurant, Jr., insofar as it covers Lots 1,2,3,4, E/2 W/2, E/2 of Section 7; W/2 W/2 of Section 8; All of Section 17; Lots 1,2,3,4, E/2 W/2, E/2 of Section 18; T-20-S, R-32-E, N.M.P.M., Lea County, New Mexico, containing 2075.40 acres, more or less.

NM-01353-A — Lease dated November 1, 1951 from United States of America to John D. Meredith, insofar as it covers Lots 1 and 2 of Section 3, T-22-S, R-28-E, N.M.P.M., Eddy County, New Mexico, containing 80.37 acres, more or less.

LC-065035 — Lease dated June 1, 1951 from United States of America to Joe W. Lackey, covering all of Section 9; NW/4 NW/4 of Section 10; E/2 E/2, SW/4 NE/4, W/2 SE/4 of Section 17; All of Section 20; W/2, W/2 of NE/4, NW/4 SE/4 of Section 29; E/2 of E/2 of Section 30; E/2 of Section 31, T-20-S, R-29-E, N.M.P.M., Eddy County, New Mexico, containing 2520 acres, more or less.

LC-065431 — Lease dated March 1, 1951 from United States of America to Josephine Rodke, covering S/2 NE/4, NW/4 of Section 27, T-20-S, R-31-E, N.M.P.M., Eddy County, New Mexico, containing 240 acres, more or less.

LC-065609 — Lease dated September 1, 1948 from United States of America to Robert C. Glines, covering Lots 3, 4, E/2 SW/4, SE/4 of Section 19; W/2 of SW/4 of Section 26, T-21-S, R-29-E, N.M.P.M., Eddy County, New Mexico, containing 380.98 acres, more or less.

LC-065750-A — Lease dated July 1, 1951 from United States of America to Paul Wallach, insofar as it covers the S/2 S/2 of Section 27; E/2, SW/4 of Section 28; T-20-S, R-32-E, N.M.P.M., Lea County, New Mexico, containing 640 acres, more or less.

LC-065751-A — Lease dated August 1, 1951 from United States of America to Paul Wallach, insofar as it covers SW/4, S/2 NW/4 of Section 29; All of Section 30; Lots 1,2,3,4, E/2 W/2, NE/4 of Section 31, T-20-S, R-32-E, N.M.P.M., containing 1358.92 acres, more or less, Lea County, New Mexico.

LC-065752-A — Lease dated July 1, 1951 from United States of America to Paul Wallach, insofar as it covers all of Sections 19, 20 and 21; NW/4 of Section 28, E/2, N/2 NW/4 of Section 29, T-20-S, R-32-E, N.M.P.M., Lea County, New Mexico, containing 2478.48 acres, more or less.

LC-065872-A — Lease dated September 1, 1948 from United States of America to Letha F. Hubbard, insofar as it covers W/2 NW/4, W/2 NE/4, E/2 SW/4, E/2 SE/4 of Section 26, T-20-S, R-31-E, N.M.P.M., Eddy County, New Mexico, containing 320 acres, more or less.

LC-065873-A — Lease dated September 1, 1948 from United States of America to George H. Cobb, insofar as it covers E/2 NW/4, W/2 SW/4 of Section 23, T-20-S, R-31-E, N.M.P.M., Eddy County, New Mexico, containing 160 acres, more or less.

LC-065874-A — Lease dated September 1, 1948 from United States of America to Robert E. Anderson, insofar as it covers E/2 NE/4 of Section 21, T-20-S, R-31-E, N.M.P.M., Eddy County, New Mexico, containing 80 acres, more or less.

LC-065897-A — Lease dated October 1, 1948 from United States of America to James N. Baxendale, insofar as it covers E/2 SE/4 of Section 27, T-20-S, R-31-E, N.M.P.M., Eddy County, New Mexico, containing 80 acres, more or less.

LC-065914-A — Lease dated September 1, 1948 from United States of America to Thomas L. Glover, insofar as it covers W/2 NW/4, W/2 NE/4, E/2 of SW/4, E/2 SE/4 of Section 25, T-20-S, R-31-E, N.M.P.M., Eddy County, New Mexico, containing 320 acres, more or less.

1 lp

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Land Office
P. O. Box 1251
Santa Fe, New Mexico

IN REPLY REFER TO:
NM 0251, et al
Oil and Gas
4.10h

July 19, 1961

DECISION

Assignor: Perry R. Bass, John B. Connally and Howell E. Smith, Independent Executors of the Estate of S. W. Richardson, Deceased

Assignee: Richardson Oils, Inc.

Assignment of Record Title Approved
Assignment of Operating Agreements Approved

Richardson & Bass, a co-partnership composed of Sid W. Richardson, a/k/a S. W. Richardson, and Perry R. Bass are the owners and holders of certain leasehold interests embracing Federal lands situated in the State of New Mexico, said partnership interests being owned in the proportions of 3/4 by Richardson and 1/4 by Bass.

S. W. Richardson is deceased and the executors of his estate are desirous of assigning all of the interest of the Estate being the 3/4 interest of S. W. Richardson in and to the co-partnership above referred to as Richardson & Bass

Acceptable evidence of the qualifications and holdings of the assignee, Richardson Oils, Inc., has been filed.

The assignment of record title, executed March 9, 1961, completed May 24, 1961, of an undivided 3/4 interest by and between the captioned assignor and assignee, affecting the oil and gas leases listed below is hereby approved effective June 1, 1961.

Big Eddy Unit Agreement

Serial No.	Lease Date	Acreage
NM 0251	7-1-52	1600
0299-A	7-1-51	471.70
0486	11-1-51	2560
0505	2-1-50	400
0509	2-1-50	640
0915	3-1-50	2560
01148	5-1-50	600
01189-A	5-1-50	[illegible] (Subject to an operating agreement, dated 2-23-60, between the Estate of S.W. Richardson, Dec'd and Perry R. Bass, lessees and Shell Oil Co. and Texas Crude Oil Co, a partnership, operators)
01206-A	9-1-51	2075.40
01353-A	11-1-51	80.37
02045	8-1-50	1280
02447	9-1-50	1360
02536	12-1-50	160
02828	3-1-47	920
02918	2-1-50	800
02922	2-1-50	160
02946	2-1-50	400
02977	10-1-48	160
02979	10-1-48	160
02980	10-1-48	160
03057	9-1-48	160

17

	Serial No.	Lease Date	Acreage	
LC	060572-A	9-1-50	1520.80	
	060613	9-1-48	1156.51	
	060853-A	8-1-49	1479.16	
	061277	5-1-50	195.00	
	061396	4-1-49	320	
	061641	3-1-47	80	
	062573	1-1-51	1805.21	
	062727-A	1-1-51	236.76	
	062727-D	1-1-51	434.24	
	062727-E	1-1-51	240	
	062793-B	1-1-51	160	
	062940	1-1-51	40	
	063167	10-1-48	800	
	063346	10-1-46	158.71	(Subject to an operating agreement, dated 2-23-60, between the Estate of S.W. Richardson, Dec'd and Perry R. Bass, lessees and Shell Oil Co. and Texas Crude Oil Co, a partnership,operators)
	063410	5-1-50	160	
	063418-A	11-1-46	640	
	063484	9-1-48	1240	
	063510	10-1-50	160	
	063516	7-1-51	1040	(Subject to an operating agreement dated 8-3-53 between Richardson & Bass, lessees, and Max Friess,Operator.)
	063516-A	7-1-51	80	(Subject to an operating agreement dated 8-8-53 between Richardson & Bass, lessees, and Willard D. Dennett, operator.)
	063541	6-1-50	80	
	063543	7-1-50	240	(Subject to an operating agreement dated 5-52 between Richardson & Bass, lessees, and C. S. Messinger,operator),
	063545	6-1-50	160	(Subject to an operating agreement dated 5-20-52 between Richardson & Bass, lessees, and Myra B.Daugherty and Madelyn B. Metcalf, operators.)
	063548	6-1-50	40	(Subject to an operating agreement dated 5-17-52 between Richardson & Bass, lessees, and F.P. Schuster and S.A.Schuster,operators.)
	063667	9-1-46	960	
	063862-A	2-1-51	200	
	064806-A	2-1-51	1280	
	064828-A	3-1-51	1760	
	064829	4-1-51	2481.60	
	065035	6-1-51	2520	
	065431	3-1-51	240	
	065609	9-1-48	320.98	
	065750-A	7-1-51	640	

Bell Lake Unit Agreement

	Serial No.	Lease Date	Acreage
NM	04587	4-1-51	320
LC	063798	2-1-51	2480
	063820	5-1-52	1199.08
	063993	9-1-46	160
	067747	9-1-51	239.57

Little Lucky Lake Unit Agreement

NM	01171-A	4-1-50	607.38

West Tonto Deep Unit Agreement

NM	01235-F	1-1-52	160

Leases Not Unitized

NM	0732	11-1-51	80
	01294	12-1-51	320
	02388	11-1-50	108.47
	02886-A	4-1-52	39.31
	0116567	4-1-52	120
	0116568	4-1-52	39.92
LC	063664	3-1-51	120

As the result of this assignment all of the above leases, with the exception of Las Cruces 064827-A in the James Ranch Unit, are held of record as follows: Richardson Oils, Inc, 3/4 interest and Perry R. Bass, 1/4 interest. Lease Las Cruces 064827-A is held as follows: Joe Whitehurst, 1/2 interest; Richardson Oils, Inc, 3/8 interest; and Perry R. Bass, 1/8 interest.

The assignment of operating agreements, executed March 9, 1961, completed May 24, 1961, by and between the captioned assignor and assignee of an undivided 3/4 interest affecting the oil and gas leases listed below is hereby approved effective the date of this decision:

Big Eddy Unit Agreement

Serial No.	Lease Date	Leasehold Area Affected
LC 060515	9-1-50	All, containing 110.52 acres, below a depth of 3,000 feet from the surface.
060572	9-1-50	All, containing 990.37 acres, below a depth of 3,000 feet from the surface
063674	2-1-48	N½NE¼, Sec. 23, E½SW¼, Sec. 24, T. 20 S., R. 31 E, containing 160 acres, below a depth of 3500 feet down to 16,559 feet.

Little Eddy Unit Agreement

NM 05960	9-1-51	All, containing 641.72 acres, below a depth of 5000 feet below the surface.

James Ranch Ur. Agreement

Serial No.	Lease Date	Leasehold Area Affected
LC 069377	5-1-51	All, containing 320 acres, unlimited.

Perry R. Bass holds an undivided 1/4 interest in the operating rights described above.

Richardson Oils, Inc. and Perry R. Bass are maintaining nation-wide bonds.

Howard M. Grotberg, Chief
Mineral Adjudication Section

Distribution:
Richardson Oils, Inc.
Assignor
O&G Supv. Roswell

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF LANDS & MINERALS
PROGRAM MANAGEMENT & LAND OFFICE
P. O. Box 1449
Santa Fe, New Mexico 87501

In Reply Refer To:
NM 0251, et al.
Oil and Gas
4.10h

March 5, 1970

DECISION

Bass Enterprises Production Co. :
12th Floor Ft. Worth National :
Bank Building :
Fort Worth, Texas 76102 :

Oil and Gas

Change in Corporate Name Recognized

There has been filed in this office acceptable evidence whereby the name of Richardson Oils, Inc. has been changed to Bass Enterprises Production Co. The evidence and all documents relating thereto have been placed in the Corporate Qualifications file, NM 0558400, to which reference should be made in the future.

Consent of Surety on $25,000 statewide bond No. 3469093 for New Mexico has been filed agreeing to the change of name of the principal from Richardson Oils, Inc. to Bass Enterprises Production Co. The Consent of Surety is hereby accepted.

Listed below are the oil and gas leases in which Richardson Oils, Inc. has interests by virtue of record title or operating rights:

Serial No.	Lease Date	Serial No.	Lease Date
NM 0251	7/1/52	NM 02979	10/1/48
0299-A	7/1/51	02980	10/1/48
0300	11/1/51	03023	5/1/52
0486	11/1/51	03023-A	5/1/52
0505	2/1/50	03023-B	5/1/52
0506-A	12/1/50	03057	9/1/48
0509	2/1/50	03059	9/1/48
0522-A	12/1/50	03075	5/1/52
0542-A	1/1/51	03103-C	5/1/52
0915	3/1/50	03183-A	3/1/52
01148	5/1/50	03183-B	3/1/52
01171-A	4/1/50	03205	2/1/50
01189-A	5/1/50	03273-A	5/1/52
01206-A	9/1/51	03297-B	4/1/52
01235-B	1/1/52	03302	9/1/51
01235-E	1/1/52	03364	2/1/50
01353-A	11/1/51	03504	9/1/48
02045	8/1/50	03505	9/1/48
02139	1/1/51	03507	9/1/48
02139-B	1/1/51	03508	9/1/48
02447	9/1/50	03585	4/1/50
02536	12/1/50	03653	2/1/51
02828	3/1/47	03926	6/1/52
02860	4/1/52	04082	12/1/51
02883-A	4/1/52	04105-A	3/1/52
02884-A	4/1/52	04225	7/1/50
02884-B	4/1/52	04225-A	7/1/50
02887-B	4/1/52	04228	2/1/50
02887-D	4/1/52	04229	2/1/51
02918	2/1/50	04229-A	2/1/51
02922	2/1/50	04229-B	2/1/51
02946	2/1/50	04229-C	2/1/51
02951-A	5/1/52	04382-A	11/1/51
02952-A	5/1/52	04383-A	7/1/52
02952-B	5/1/52	04383-B	7/1/52
02952-C	5/1/52	04473	11/1/52
02953-A	5/1/52	04557	8/1/52
02953-B	5/1/52	04587	4/1/51
02953-C	5/1/52	04749	7/1/53
02977	10/1/48	04801	9/1/52

Noted
S/R
HI
OG
MTP
USE

Serial No.	Lease Date
NM 04835-A	6/1/52
04843	5/1/52
05039-A	6/1/51
05214	6/1/51
05661	9/1/51
05864	8/1/51
05864-A	8/1/51
05906	9/1/51
05912	11/1/51
05961	9/1/51
05965	8/1/51
06408-A	11/1/51
06746	6/1/52
06748	6/1/52
06749	7/1/52
06750	5/1/52
06751	7/1/52
06752	6/1/52
06753	7/1/52
06787	6/1/52
06789	5/1/52
06790	7/1/52
06791	6/1/52
* 06794-2	6/1/52
06796	6/1/52
06797	6/1/52
06798	6/1/52
06799	7/1/52
06800	7/1/52
06801	7/1/52
06806	6/1/52
06807	6/1/52
06808	6/1/52
06809-A	7/1/52
06811	7/1/52
06818	6/1/52
07686	5/1/52
07964	6/1/52
08606	6/1/53
013266	12/1/53
014445	9/1/54
014449	9/1/54
014482	9/1/54
014490	9/1/54
014496	9/1/54
024368-A	2/1/57
025497	9/1/56
025533	8/1/57
025607	3/1/51
025670	11/1/51
029082-A	1/1/57
030452	4/1/57
030453	4/1/57
030454	4/1/57
030456	4/1/57
030457	4/1/57
030458	4/1/57
032056	10/1/57
032056-A	10/1/57
038681-A	3/1/59
038682	2/1/59
038684	2/1/59
045255	9/1/59
045256	2/1/60
045354	2/1/59
050213	12/1/58
080120	2/1/60
0359294	9/1/59
0359295-A	2/1/60
* 06795	6/1/52

Serial No.	Lease Date
NM 2064	4/1/50
LC 059365	5/1/50
060117	11/1/48
060118	11/1/48
060515	9/1/50
060515-A	9/1/50
060572	9/1/50
060572-A	9/1/50
060613	9/1/48
060853-A	8/1/49
061144	9/1/48
061277	5/1/50
061396	4/1/49
061616	11/1/48
061634-A	9/1/48
061640	7/1/50
061641	3/1/47
061672-B	6/1/50
061705-A	9/1/48
061862-A	6/1/50
061869	1/1/51
062140-A	3/1/51
062573	1/1/51
062727-A	1/1/51
062727-D	1/1/51
062727-E	1/1/51
062793-B	1/1/51
062940	1/1/51
062975	6/1/49
063079-A	2/1/51
063106	2/1/51
063136-A	6/1/51
063167	10/1/48
063346	10/1/46
063410	5/1/50
063418-A	11/1/46
063484	9/1/48
063510	10/1/50
063516	7/1/51
063516-A	7/1/51
063541	6/1/50
063543	7/1/50
063545	6/1/50
063548	6/1/50
063587	11/1/48
063587-A	11/1/48
063667	9/1/48
063674	2/1/48
063798	2/1/51
063820	5/1/52
063862-A	2/1/51
063873-A	2/1/51
063875-A	2/1/51
063993	9/1/46
064198-B	8/1/51
064228	2/1/51
064806-A	2/1/51
064827-A	2/1/51
064828-A	3/1/51
064829	4/1/51
064894-A	5/1/51
065035	6/1/51
065161-B	4/1/51
065161-C	4/1/51
065161-D	4/1/51
065431	3/1/51
065609	9/1/48
065705	9/1/48
065710	10/1/51

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Lease No.	Lease Date	Lease No.	Lease Date
LC 065750	7/1/51	LC 068905	11/1/51
065750-A	7/1/51	068847	4/1/51
065750-B	7/1/51	068921	10/1/51
065750-C	7/1/51	068996-A	6/1/51
065751	8/1/51	069005	8/1/51
065751-A	8/1/51	069060	11/1/51
065752	7/1/51	069140-A	8/1/51
065752-A	7/1/51	069141	6/1/51
065833	6/1/51	069142-A	8/1/51
065872-A	9/1/48	069144	7/1/49
065873-A	9/1/48	069144-A	7/1/49
065874-A	9/1/48	069157-A	7/1/51
065897-A	10/1/48	069159-A	8/1/51
065914-A	9/1/48	069188	6/1/51
065944-A	9/1/48	069219	4/1/51
066067	9/1/48	069227	8/1/52
066067-A	9/1/48	069241	6/1/51
066148	9/1/51	069504	9/1/54
066156	6/1/52	069506	9/1/51
067052	9/1/48	069507	10/1/51
067053-A	9/1/48	069508	11/1/51
067054	9/1/48	069509	2/1/52
067056-A	9/1/48	069513	11/1/51
067130-A	2/1/52	069514-B	6/1/51
067144	10/1/51	069550-A	7/1/49
067145	4/1/51	069627-A	6/1/51
067186	7/1/51	069705	7/1/51
067251	8/1/51	069707	6/1/51
067297-A	3/1/51	069817	7/1/51
067297-B	3/1/51	069852-A	12/1/51
067297-C	3/1/51	069877	5/1/51
067747	9/1/51	069899	7/1/49
067748	5/1/51	069944	6/1/51
067793-A	3/1/51	069944-A	6/1/51
067964	7/1/51	070060	12/1/49
068104	8/1/51	070061	7/1/49
068104-A	8/1/51	070175-A	7/1/51
068284	11/1/51	070220	9/1/51
068337-A	2/1/52	070315	8/1/49
068368	7/2/51	070335	7/1/49
068379	8/1/51	070711	8/1/51
068399	6/1/51	070792-A	4/1/50
068408	11/1/51	070876	8/1/51
068430	5/1/51	071033	2/1/50
068431	5/1/51	071771-A	8/1/49
068545	10/1/51	071917-A	8/1/51
068665	4/1/51	071918	7/1/51
068669	10/1/49	071986-A	7/1/51
068695	4/1/51	071988-B	8/1/51
068446	4/1/51		

Fred E. Padilla, Chief
Branch of Oil and Gas

Distribution:
Bass Enterprises Prod. Co. (318)
O&G Supv. Roswell (636)
Each Case File(1) (318)

23

PERRY R. BASS
FORT WORTH NATIONAL BANK BUILDING
FORT WORTH, TEXAS 76102

RECEIVED
DEC 23 1 41 PM '75
OIL CONSERVATION DIVISION
SANTA FE, NEW MEXICO

7
6077
Applicant
4-12-78

December 22, 1975

Re: 1976 Plan of Development
Big Eddy Unit
Eddy County, New Mexico

United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
P. O. Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

In accordance with Section 10 of the Big Eddy Unit Agreement, Perry R. Bass, Operator for said Unit hereby submits a Plan of Development for the above captioned Unit for 1976.

History of Past Development

We refer to our previous Plans of Development for a detailed description on this Unit. To date, we have drilled, or caused to be drilled, 35 tests within the Unit Area.

1975 Activity

During the year 1975 the Big Eddy #38, 660'FNL & 1980' FWL of Section 34-T21S-R29E was put on stream at 3500 MCFD on April 10, 1975.

Big Eddy #39, 1980' FN&EL of Section 29-T21S-R28E was placed on stream on March 18, 1975 @ 4100 MCFPD.

Big Eddy #41, 1980' FN&EL of Section 35-T21S-R28E, was completed, after extensive testing, March 6, 1975 and put on stream November 5, 1975 @ 130 MCFPD.

Big Eddy #42, 1980' FWL & 660' FNL of Section 32-T21S-R29E, was spudded January 23, 1975 and plugged and abandoned March 21, 1975 at a total depth of 13,075'.

United States Geological Survey
Commissioner of Public Lands
Oil Conservation Commission

Big Eddy #43, 1980' FS&EL of Section 25-T22S-R28E was spudded on March 27, 1975 and drilled to a total depth of 13,100' in the Morrow and plugged and abandoned on May 24, 1975.

Big Eddy #44, 1980' FNL & 660' FEL of Section 16-T21S-R30E was spudded in June 1975 and reached total depth of 13,544' on August 12, 1975. This well was completed in the Morrow for 1212 MCFD and is shut-in pending pipeline connections.

Future Development

We anticipate conducting approximately 20-25 miles of detail seismic within the boundaries of the Unit in hopes of delineating a location for a wildcat location to test for unitized substances.

We plan to drill 4 wildcats at the following tentative locations:

Big Eddy #45 - Section 16-T21S-R30E
Big Eddy #46 - Section 25-T22S-R28E
Big Eddy #47 - Section 35-T21S-R28E
Big Eddy #48 - Section 27-T20S-R31E

Offset Obligations

Appropriate and adequate measures will be taken to prevent drainage of unitized substances from land subject to the Big Eddy Unit Agreement, or, pursuant to applicable regulation, fair and reasonable compensatory royalty will be paid as provided by the Unit Agreement.

Additional Development

This Plan of Development shall constitute the drilling obligations of the Unit Operator under the terms of the Big Eddy Unit Agreement for the period ending December 31, 1976.

Modifications

It is understood that this Plan of Development may be modified from time to time to meet changing conditions.

United States Geological Survey
Commissioner of Public Lands
Oil Conservation Commission

Effective date

This Plan of Development shall be effective January 1, 1976.

If this Plan of Development meets with your approval, please indicate in the appropriate space provided below and return one copy for our files.

Yours very truly,

PERRY R. BASS, Unit Operator

By Wm. Arthur Hamilton
Wm. Arthur Hamilton

RBC:ld

APPROVED: _____ Date _____
Supervisor, United States
Geological Survey

APPROVED: Phil R Lucas Date January 7, 1976
Commissioner of Public Lands

APPROVED: _____ Date _____
Oil Conservation Commission

RECEIVED
DEC 29 1 42 PM '75
SANTA FE, N. M.

United States Geological Survey
Commissioner of Public Lands
Oil Conservation Commission

Effective date

This Plan of Development shall be effective January 1, 1976.

If this Plan of Development meets with your approval, please indicate in the appropriate space provided below and return one copy for our files.

Yours very truly,

PERRY R. BASS, Unit Operator

By Wm. Arthur Hamilton
Wm. Arthur Hamilton

RBC:ld

APPROVED: _____ Date _____
Supervisor, United States
Geological Survey

APPROVED: _____ Date _____
Commissioner of Public Lands

APPROVED: _____ Date Jan. 6, 1976
Oil Conservation Commission

Date

1-17

United States Department of the Interior

GEOLOGICAL SURVEY
Conservation Division
Western National Bank Building
505 Marquette, NW, Room 815
Albuquerque, New Mexico 87102

December 3, 1976

Prod. Dept.

Bass Enterprises Production Company
Attention: Mr. Robert B. Coleman
P. O. Box 2760
Midland, Texas 79701

Gentlemen:

One approved copy of your amended 1976 Plan of Development for the Big Eddy Unit Area, Eddy County, New Mexico, is enclosed. Such plan, proposing the drilling of unit wells No. 52 and the Federal-Rodke No. 3 was approved on this date subject to approval of the Notices to Drill by the District Engineer and like approval by the appropriate officials of the State of New Mexico.

Sincerely yours,

James W. Sutherland

JAMES W. SUTHERLAND
Area Oil and Gas Supervisor

Enclosure

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

8

6077
Applicant
4-12-78

BASS ENTERPRISES PRODUCTION CO.
DIVISION LAND & GEOLOGICAL OFFICE
POST OFFICE BOX 2760
MIDLAND, TEXAS 79701

September 29, 1976

RECEIVED
OCT 1 1975
U. S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
P.O. Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

Reference is made to the Big Eddy Unit Plan of Development submitted by Perry R. Bass, as Unit Operator for 1976, which is in compliance with Section 10 of the Big Eddy Unit Agreement.

We hereby respectfully request your favorable consideration of an amended Plan of Development for the Big Eddy Unit for 1976. This Amended Plan is necessitated because of changed conditions since the filing of the original Plan dated December 22, 1975 and to protect the interests of all parties to the subject Unit Agreement.

We propose amending the Future Development section of said Plan of Development to provide for the following:

1. We are in the process of obtaining the necessary permits to commence operations before the end of 1976 to spud the Big Eddy #52 located 1980' FSL and 990' FEL of Section 27, Township 20 South, Range 31 East, and drill to a depth to adequately test for unitized substances.

2. We are in the process of obtaining the necessary permits to commence operations before the end of 1976 to spud the Federal-Rodke #3 located 1980' FNL and WL of Section 27, Township 27 South, Range 31 East, and drill to a depth to adequately test for unitized substances.

We again request your favorable consideration in this matter.

Yours very truly,

PERRY R. BASS, Unit Operator

By Robert B. Coleman
Robert B. Coleman

RBC:kjb

APPROVED: _____ Date_____
Supervisor, United States Geological Survey

APPROVED: _____ Date_____
Commissioner of Public Lands

APPROVED: _____ Date Oct. 8, 1976
Oil Conservation Commission

We again request your favorable consideration in this matter.

Yours very truly,

PERRY R. BASS, Unit Operator

By Robert B. Coleman
Robert B. Coleman

RBC:kjb

APPROVED: James M. Hunthead
Supervisor, United States Geological Survey
Date DEC 3 1976
DEC 3 1976

APPROVED: _____
Commissioner of Public Lands
Date _____

APPROVED: _____
Oil Conservation Commission
Date _____

United States Department of the Interior

2/7/77

GEOLOGICAL SURVEY
Western Bank Building
505 Marquette, NW, Room 815
Albuquerque, New Mexico 87102

FEB 0 1 1977

Perry R. Bass
Attention: Mr. Robert B. Coleman
P. O. Box 171
Midland, Texas 79701

Gentlemen:

One approved copy of your 1977 Plan of Development for the Big Eddy Unit Area, Eddy County, New Mexico, is enclosed. Such plan, proposing the drilling of unit wells No. 41, 53 and 54 was approved on this date subject to approval of the Notices to Drill by the District Engineer and like approval by the appropriate officials of the State of New Mexico.

Sincerely yours,

James W. Sutherland

JAMES W. SUTHERLAND
Area Oil and Gas Supervisor

Enclosure

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

9
6077
Applicant
4-12-78

PERRY R. BASS
DIVISION LAND & GEOLOGICAL OFFICE
POST OFFICE BOX 171
MIDLAND, TEXAS 79701

December 13, 1976

United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
P.O. Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: 1977 Plan of Development
Big Eddy Unit
Eddy County, New Mexico

Gentlemen:

In accordance with Section 10 of the Big Eddy Unit Agreement, Perry R. Bass, Operator for said Unit hereby submits a Plan of Development for the above captioned Unit for 1977.

History of Past Development

We refer to our previous Plans of Development for a detailed description on this Unit. To date, we have drilled, or caused to be drilled, 41 tests within the Unit Area.

1976 Activity

During the year 1976, the Big Eddy #38, 660' FNL and 1980' FWL of Section 34, T-21-S, R-29-E was plugged back to the Upper Morrow and reperforated and acidized, and is presently producing.

Big Eddy #40, located in the NE/4 of Section 22, T-21-S, R-29-E, was plugged back from the Morrow to the Atoka, perforated and stimulated with sales commencing June 2, 1976.

Big Eddy #41, 1980' FS&EL of Section 35, T-21-S, R-28-E, was re-acidized in the Morrow.

Big Eddy #44, 1980' FNL and 660' FEL of Section 16, T-21-S, R-30-E, was completed in the Morrow for 1212 MCFD, with gas sales to Natural Gas Pipeline Company of America begun August 11, 1976.

Big Eddy Unit #45, located 1880' FNL and 790' FEL of Section 16, T-21-S, R-30-E, was spudded January 5, 1976, and plugged and abandoned January 20, 1976 due to lost circulation at a Total Depth of 2134'.

Big Eddy Unit #45y, located 1980' FNL and 751' FEL of Section 16, T-21-S, R-30-E, was spudded January 20, 1076 and plugged and abandoned, after testing unitized substances, on February 9, 1976, at 4942' as a dry hole.

Big Eddy Unit #46, located 1980' FS&EL of Section 25, T-22-S, R-28-E, was spudded February 8, 1976 and plugged and abandoned, after testing unitized substances, on March 8, 1976 at a depth of 6200' as a dry hole.

Big Eddy Unit #47, located 1980' FN&WL of Section 35, T-21-S, R-28-E, was spudded March 8, 1976 and completed at a Total Depth of 3791' in the Delaware on April 15, 1976 for 61 BOPD.

Josephine Rodke Federal #2, located 660' FNL and 1980' FWL of Section 27, T-20-S, R-31-E, was spudded March 3, 1976 and completed May 1, 1976 for 25 BOPD, after being drilled to a Total Depth of 7109'.

Big Eddy Unit #49, located 330' FWL and 1650' FSL of Section 35, T-21-S, R-28-E, was spudded July 25, 1976 and completed at a Total Depth of 3808' in the Delaware on August 30, 1976 for 37 BOPD.

Approximately 27 miles of detail seismic was conducted within the boundaries of the Big Eddy Unit to help delineate a Morrow location.

In addition to the above wells, permits were applied for on November 1, 1976, for the drilling of two additional wells to test unitized substances, specifically, Federal Rodke #3, located 1980' FN&WL of Section 27, T-20-S, R-31-E, and Big Eddy Unit #52, located 1980' FSL and 990' FEL of Section 27, T-20-S, R-31-E. These permits, as yet, have not been granted.

Future Development

We plan to drill three wildcats to test for unitized substances at the following tentative locations:

Big Eddy #51 - Section 7, T-20-S, R-31-E
Big Eddy #53 - Section 8, T-21-S, R-28-E
Big Eddy #54 - Section 29, T-21-S, R-28-E

We also are reviewing our most recent seismic work to help delineate other wildcat locations.

Offset Obligations

Appropriate and adequate measures will be taken to prevent drainage of unitized substances from land subject to the Big Eddy Unit Agreement, or, pursuant to applicable regulation, fair and reasonable compensatory royalty will be paid as provided by the Unit Agreement.

Additional Development

This Plan of Development shall constitute the drilling obligations of the Unit Operator under the terms of the Big Eddy Unit Agreement for the period ending Decmeber 31, 1977.

Modifications

It is understood that this Plan of Development may be modified from time to time to meet changing conditions.

Effective Date

This Plan of Development shall be effective January 1, 1977.

If this Plan of Development meets with your approval, please indicate in the appropriate space provided and return one copy for our files.

Sincerely,

PERRY R. BASS, Unit Operator

By Robert B. Coleman
Robert B. Coleman

RBC:kjb

APPROVED: James W. Luthiel Date FEB 8 1 1977
Supervisor, United States Geological Survey

APPROVED: Phil R. Lucero Date 12-21-76
Commissioner of Public Lands

APPROVED: _____ Date _____
Oil Conservation Commission

APPROVED: _____ Date _____
Commissioner of Public Lands

APPROVED: _____ Date Dec. 2, 1976
Oil Conservation Commission

BASS ENTERPRISES PRODUCTION CO.

DIVISION LAND & LEGAL DEPARTMENT

POST OFFICE BOX 2760

MIDLAND, TEXAS 79701

December 8, 1976

10

6077

Applicant

4-12-78

Kerr McGee Oil Corporation
Carlsbad, New Mexico

Attention: Mr. Ray Green
Resident Manager

Re: Big Eddy #52
Proposed Delaware Test
Section 27, T-20-S, R-31-E
Eddy County, New Mexico

Dear Sirs:

In accordance with R111-A, as amended, we are hereby putting your company on notice that Bass Enterprises Production Co. has made application to drill an approximate 6000' Delaware test to be located in Section 27, T-20-S, R-31-E, Eddy County, New Mexico.

We have been advised that your company is the owner of record of certain Potash leases that are within one mile of our proposed location. We respectfully request that you waive any objections which you might have to our proposed test and ask that you so indicate by signing and returning one copy of this letter to this office within the allotted ten day period. We have attached a copy of our formal application for your review.

Your favorable consideration of this request would be appreciated.

Sincerely,

BASS ENTERPRISES PRODUCTION CO.

Robert B. Coleman
Division Landman

RBC:kjb
Attachment

APPROVED: _____ Date _____

cc: Mr. Joe Ramey
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

New Mexico Oil Conservation Commission
Artesia, New Mexico

Mining Supervisor
United States Geological Survey
Carlsbad, New Mexico

United States Geological Survey
Roswell, New Mexico
Atten: Mr. Carl Traywick

BASS ENTERPRISES PRODUCTION CO.
DIVISION LAND & GEOLOGICAL OFFICE
POST OFFICE BOX 2760
MIDLAND, TEXAS 79701

December 8, 1976

Kerr McGee Oil Corporation
Carlsbad, New Mexico

Attention: Mr. Ray Green
Resident Manager

Re: Federal Rodke #3
Proposed Delaware Test
Section 27, T-20-S, R-31-E
Eddy County, New Mexico

Dear Sirs:

In accordance with R111-A, as amended, we are hereby putting your company on notice that Bass Enterprises Production Co. has made application to drill an approximate 6000' Delaware test to be located in Section 27, T-20-S, R-31-E, Eddy County, New Mexico.

We have been advised that your company is the owner of record of certain Potash leases that are within one mile of our proposed location. We respectfully request that you waive any objections which you might have to our proposed test and ask that you so indicate by signing and returning one copy of this letter to this office within the allotted ten day period. We have attached a copy of our formal application for your review.

Your favorable consideration of this request would be appreciated.

Sincerely,

BASS ENTERPRISES PRODUCTION CO.

Robert B. Coleman
Division Landman

RBC:kjb
Attachment

APPROVED:_____ Date _____

cc: Mr. Joe Ramey
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

New Mexico Oil Conservation Commission
Artesia, New Mexico

Mining Supervisor
United States Geological Survey
Carlsbad, New Mexico

United States Geological Survey
Roswell, New Mexico
Atten: Mr. Carl Traywick

BASS ENTERPRISES PRODUCTION CO.
DIVISION LAND & GEOLOGICAL OFFICE
POST OFFICE BOX 2760
MIDLAND, TEXAS 79701

December 8, 1976

C
S
R

6077
Applicant
4-12-78

Mississippi Chemical Corporation
Carlsbad, New Mexico

Attention: Mr. Ray Green
Resident Manager

Re: Big Eddy #52
Proposed Delaware Test
Section 27, T-20-S, R-31-E
Eddy County, New Mexico

Dear Sirs:

In accordance with R111-A, as amended, we are hereby putting your company on notice that Bass Enterprises Production Co. has made application to drill an approximate 6000' Delaware test to be located in Section 27, T-20-S, R-31-E, Eddy County, New Mexico.

We have been advised that your company is the owner of record of certain Potash leases that are within one mile of our proposed location. We respectfully request that you waive any objections which you might have to our proposed test and ask that you so indicate by signing and returning one copy of this letter to this office within the allotted ten day period. We have attached a copy of our formal application for your review.

Your favorable consideration of this request would be appreciated.

Sincerely,

BASS ENTERPRISES PRODUCTION CO.

Robert B. Coleman
Division Landman

RBC:kjb
Attachment

APPROVED: _____ Date _____

cc: Mr. Joe Ramey
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

New Mexico Oil Conservation Commission
Artesia, New Mexico

Mining Supervisor
United States Geological Survey
Carlsbad, New Mexico

United States Geological Survey
Roswell, New Mexico
Atten: Mr. Carl Traywick

BASS ENTERPRISES PRODUCTION CO.
DIVISION LAND & GEOLOGICAL OFFICE
POST OFFICE BOX XX2760
MIDLAND, TEXAS 79701

December 8, 1976

Mississippi Chemical Corporation
Carlsbad, New Mexico

Attention: Mr. J. R. Walls
General Manager

Re: Federal Rodke #3
Proposed Delaware Test
Section 27, T-20-S, R-31-E
Eddy County, New Mexico

Dear Sirs:

In accordance with R111-A, as amended, we are hereby putting your company on notice that Bass Enterprises Production Co. has made application to drill an approximate 6000' Delaware test to be located in Section 27, T-20-S, R-31-E, Eddy County, New Mexico.

We have been advised that your company is the owner of record of certain Potash leases that are within one mile of our proposed location. We respectfully request that you waive any objections which you might have to our proposed test and ask that you so indicate by signing and returning one copy of this letter to this office within the allotted ten day period. We have attached a copy of our formal application for your review.

Your favorable consideration of this request would be appreciated.

Sincerely,

BASS ENTERPRISES PRODUCTION CO.

Robert B. Coleman
Division Landman

RBC:kjb
Attachment

APPROVED: _____ Date _____

cc: Mr. Joe Ramey
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

New Mexico Oil Conservation Commission
Artesia, New Mexico

Mining Supervisor
United States Geological Survey
Carlsbad, New Mexico

United States Geological Survey
Roswell, New Mexico
Atten: Mr. Carl Traywick

WILLIAM A. SLOAN
JACKSON G. AKIN
JOHN B. ROBB
CHARLES B. LARRABEE
JAMES C. RITCHIE
JOHN P. EASTMAN
WILLIAM C. SCHAAB
WILLIAM C. BRIGGS
RAY M. RODEY
ROBERT B. TACHENY
ROBERT M. ST. JOHN
JOSEPH J. MULLINS
EUGENE C. GILLEY
MARK K. ADAMS
ROBERT G. McCORMLE
PETER G. PRIMA
BRUCE B. HALL

JOHN P. SALAZAR
WILLIAM S. DIXON
JOHN P. BURTON
REX D. THOCKMORTON
JONATHAN W. HEMES
GENE C. HALTOM
RICHARD C. MINZNER
W. ROBERT LASATER, JR.
KENNETH R. BRANDT
VICTOR R. MARSHALL
CARL M. ESBECK
RICHARD A. BARLOW
RICHARD J. SMITH
MARA C. MEIERING

RODEY, DICKASON, SLOAN, AKIN & ROBB, P.A.
COUNSELLORS AND ATTORNEYS AT LAW
20 FIRST PLAZA, SUITE 700
P. O. BOX 1888
ALBUQUERQUE, NEW MEXICO 87103

OF COUNSEL
DON L. DICKASON

FRANCE C. RODEY
1888-1958

TELEPHONE 765-590
AREA CODE 505

February 9, 1977

Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Joe D. Ramey
Secretary - Director

Re: Application of Bass Enterprises Production Co.
to Drill Eddy No. 52, Federal Rodke No. 3 Wells
Sec. 27, T 20 S, R 31 E, Eddy County, New Mexico

Dear Sirs:

We represent Kerr-McGee Corporation, which owns potash leases in the Potash Oil Area established by Oil Conservation Commission Order No. R-111-A and the Potash Area established by the Secretary of the Interior within one mile of the referenced proposed well locations. The drilling of either of the proposed wells would result in undue waste of potash deposits and constitute a hazard to and interfere unduly with the recovery of such potash deposits, and for this reason, Kerr-McGee Corporation opposes the drilling of either well.

I understand that you will hold an informal arbitration hearing to consider the referenced applications after the end of the current Session of the New Mexico Legislature. Kerr-McGee Corporation wishes to have its representatives present its views at the hearing, and I would appreciate your advising me of the date and time of the hearing when you have scheduled it.

Yours very truly,

RODEY, DICKASON, SLOAN, AKIN & ROBB, P.A.

By Mark K. Adams

Mark K. Adams

MKA/pa

OIL CONSERVATION COMMISSION
EXHIBIT NO. 12
CASE NO. 6077
Applicant
4-12-78

DON G McCORMICK
EUGENE C FAINE
JAY W FORBES
THOMAS L MAHEU
TOM GREGG JONES

McCORMICK, PAINE AND FORBES
ATTORNEYS AT LAW
BUJAC BUILDING
P O BOX 1718
CARLSBAD, NEW MEXICO 88220

TELEPHONE 885-3144
Area Code 505

Date
12/15

December 15, 1976

File

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: Application of Bass Enterprises Production Co. to drill Big Eddy Unit Well #52 Located in Section 27, Township 20 South, Range 31 East, Eddy County, New Mexico

Gentlemen:

We are writing this letter as attorneys for Mississippi Chemical Corporation. By letter dated 8 December 1975 Bass Enterprises Production Company advised us that they planned to drill the above described well, and had filed the application with you. The well is projected to a depth of 6,000 feet. Mississippi Chemical Company hereby protests the drilling of this well for the reason that it is located in the oil-potash area as defined by your Order #R-111A.

Mississippi Chemical Corporation is the owner of a potash lease from the U.S.A. covering lands within one mile of this proposed location. It is our position that drilling of this well will be of great damage to our leasehold interest and the deposits of potash which we are certain are contained therein.

Please accept this as a formal protest.

Very truly yours,

ORIGINAL SIGNED

Don G. McCormick

DGM:cb

Copies: Kerr-McGee Chemical Corporation
P.O. Box 610
Hobbs, New Mexico 88240

Mr. J. R. Walls, Resident Manager
Mississippi Chemical Corporation
P.O. Box 101
Carlsbad, New Mexico 83220

U.S. Geological Survey
P.O. Box 1157
Hobbs, New Mexico 88240

13
6077
Applicant
4-12-78

Copies (continued):

U.S. Geological Survey
Branch of Mining Operations
Federal Building
Carlsbad, New Mexico 88220

Robert Jones, Esq.
Mississippi Chemical Corporation
P.O. Box 388
Yazoo City, Mississippi 39194

Bass Enterprises Production Company
P.O. Box 2760
Midland, Texas 79701

DON G MCCORMICK
EUGENE C PAINE
JAY W FORBES
THOMAS L MAREK
TOM CHERRYHOMES

McCORMICK, PAINE AND FORBES
ATTORNEYS AT LAW
BUJAC BUILDING
P.O. BOX 1718
CARLSBAD, NEW MEXICO 88220

TELEPHONE 885-3144
AREA CODE 505

EXPLORATION DEPT
Date
WJP
PDC 12/18
[illegible]
Prod. Dept.

December 15, 1976

File

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: Federal Rodke #3 Well
Bass Enterprises Production Co.

Gentlemen:

We are writing this letter as attorneys for Mississippi Chemical Corporation. By letter dated 8 December 1975, Bass Enterprises Production Company advised us that they plan to drill the above described well, and had filed the application with you. The well is projected to a depth of 6,000 feet. Mississippi Chemical Company hereby protests the drilling of this well for the reason that it is located in the oil-potash area as defined by your Order #R-111-A.

Mississippi Chemical Corporation is the owner of a potash lease from the U.S.A. covering lands within one mile of this proposed location. It is our position that drilling of this well will be of great damage to our leasehold interest and the deposits of potash which we are certain are contained therein.

Please accept this as a formal protest.

Very truly yours,

ORIGINAL SIGNED

Don G. McCormick

DGM:cb

Copies: Kerr-McGee Chemical Corporation
P.O. Box 610
Hobbs, New Mexico 88240

Mr. J. R. Walls, Resident Manager
Mississippi Chemical Corporation
P.O. Box 101
Carlsbad, New Mexico 88220

Copies (continued):

Robert Jones, Esquire
Mississippi Chemical Corporation
P.O. Box 388
Yazoo City, Mississippi 39194

U.S. Geological Survey
P.O. Box 1157
Hobbs, New Mexico 88240

U.S. Geological Survey
Branch of Mining Operations
Federal Building
Carlsbad, New Mexico 88220

✓Bass Enterprises Production Company
P.O. Box 2760
Midland, Texas

United States Department of the Interior

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

May 6, 1977

Bass Enterprises Production Company
P. O. Box 2760
Midland, Texas 79701

Gentlemen:

This office, along with the Southern Rocky Mountain Area Mining Supervisor and Geologist, has reviewed all the information presented at the arbitration meeting on April 21, 1977, for the proposed drilling of your Rhodke Federal No. 3 in the SE¼NW¼, section 27, T. 20 S., R. 31 E., Eddy County, New Mexico. The drilling of the Rhodke Federal No. 3 would result in the waste of potash deposits, and approval for the drilling of a vertical well at the proposed location cannot be granted.

Sincerely yours,

(ORIG. SGD.) JAMES W. SUTHERLAND

JAMES W. SUTHERLAND
Area Oil and Gas Supervisor

cc:
N. M. Oil Conservation Commission
Attention: Mr. Joe Ramey
Hinkle, Cox, Eaton and Hensley

EXHIBIT "A"

14
6077
Applicant
4-12-78

CLARENCE E. HINKLE
LEWIS C. COX, JR.
PAUL W. EATON, JR.
CONRAD E. COFFIELD
HAROLD L. HENSLEY, JR.
STUART D. SHANOR
C. D. MARTIN
PAUL J. KELLY, JR.

JAMES H. BOZARTH
JAMES H. ISBELL
DOUGLAS L. LUNSFORD
PAUL M. BOHANNON

LAW OFFICES
HINKLE, COX, EATON, COFFIELD & HENSLEY
600 HINKLE BUILDING
POST OFFICE BOX 10
ROSWELL, NEW MEXICO 88201

W. E. BONDURANT, JR. (1914-1973)

TELEPHONE (505) 622-6510

MR. ISBELL LICENSED
IN TEXAS ONLY

MIDLAND, TEXAS OFFICE
521 MIDLAND TOWER
(915) 683-4691

June 2, 1977

Mr. James W. Sutherland
Area Oil and Gas Supervisor
Geological Survey
Conservation Division
P.O. Box 26124
Albuquerque, New Mexico 87125

Dear Mr. Sutherland:

We enclose three copies of Notice of Appeal, Reasons for Appeal and Argument of Bass Enterprises Production Company in connection with your decision of May 6, 1977 in which it is stated that the drilling of the Rhodke-Federal No. 3 well to be located in the SE¼NW¼ Section 27, Township 20 South, Range 31 East, Eddy County would not be approved. This appeal is taken in accordance with 30 CFR 221.66 and Part 290.

Bass Enterprises intends to request the New Mexico Oil Conservation Commission to proceed with a hearing in connection with the pending applications in accordance with the provisions of Order R-111A of the Commission.

Yours sincerely,

HINKLE, COX, EATON, COFFIELD & HENSLEY

By _____

CEH:cs
Enc.
cc: Roswell Office U.S.G.S.
cc: Bass Enterprises Production Company

15
6077
Applicant
4-12-78

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

NOTICE OF APPEAL

TO: Director, Geological Survey
Washington, D. C.

Comes Bass Enterprises Production Company, whose address is Box 2716, Midland, Texas 79701, and hereby gives notice of appeal to the Director of the Geological Survey from the decision of James W. Sutherland, Area Oil and Gas Supervisor, rendered on May 6, 1977 wherein it is stated that the application of Bass Enterprises Production Company to drill the Rhodke Federal No. 3 well cannot be approved. A copy of said decision is attached as Exhibit "A".

REASONS FOR APPEAL

Bass Enterprises Production Company (hereinafter referred to as "Bass") submits the following reasons for this appeal:

1. The decision appealed from was rendered after an informal arbitration meeting called by Joe D. Ramey, Secretary-Director of the New Mexico Oil Conservation Commission, which was held in Santa Fe, New Mexico on April 21, 1977, at which meeting there was no testimony taken and no record made.

2. Section VII of Order R-111A of the New Mexico Oil Conservation Commission provides that if the location of a proposed well is objected to by any potash operator the matter shall be referred

to the Secretary-Director of the Commission for arbitration and if a satisfactory settlement cannot be reached the Secretary-Director of the Commission shall refer the matter to a hearing before the Commission, after due notice, and a decision either approving or denying the operator's plans to drill shall be entered by the Commission.

3. Section 3 of the Order of the Acting Secretary of the Interior which was effective on November 5, 1975 relating to "oil, gas, and potash leasing and development within the potash area" provides that the Department will ccoperate with the New Mexico Oil Conservation Commission in the implementation of that agency's rules and regulations.

4. The decision of the Area Supervisor appealed from is premature in that an opportunity should be given to have a hearing before the Oil Conservation Commission and make a record in the case.

ARGUMENT

1. Bass has heretofore drilled and completed two producing oil wells in Section 27, Township 20 South, Range 31 East, both of which are producing from the Delaware formation. One of these wells is located in Unit C ($NE\frac{1}{4}NW\frac{1}{4}$) and the other in Unit G ($SW\frac{1}{4}NE\frac{1}{4}$) of Section 27. Bass has proposed to drill two development wells, the Rhodke Federal No. 3 to be located in the $SE\frac{1}{4}NW\frac{1}{4}$ of said Section 27 and the other to be located in the $NE\frac{1}{4}SE\frac{1}{4}$ of said section. The last mentioned location is close to a dry hole which was previously drilled

by Bass in the NE¼SE¼ of said section. Both of the proposed wells are offset wells to the existing producing wells and are proposed for the orderly development of the pool.

2. The N½ and N½S½ Section 27, Township 20 South, Range 31 East are not under lease for potash at the present time. No potash core tests have been drilled in Section 27 or in Section 22 the section north of Section 27. The closest potash core test to the proposed Rhodke Federal No. 3 is in the corner of the SE¼SE¼ Section 21 which is more than 1/2 mile from the proposed location and the closest core test to the proposed well in the NE¼SE¼ Section 27 is near the center of the north line of Section 34, which is at least 1/2 mile from said proposed location.

3. Due to the fact that no core tests for potash have been drilled in Section 27, it is simply conjecture to base the decision appealed from on the ground that the drilling of the Rhodke Federal No. 3 would result in the waste of potash deposits.

4. Any potash lease which might be issued for the north 3/4 of Section 27 will be subject to the order of the Acting Secretary of the Interior which was effective on November 5, 1975. Section 4C of the order provides as follows:

"All potash permits and leases hereafter issued or existing potash leases hereafter renewed for Federal lands within the Potash Area, shall be subject to a requirement either to be included in the lease or permit or imposed as a stipulation, to the effect that no mining or exploratory operations will be conducted that, in the opinion of the Area Mining Supervisor, would constitute a hazard to oil or gas production,

or that would unreasonably interfere with the orderly development and production under any oil or gas lease issued for the same land."

5. The proposed development wells will not, in the opinion of the appellant, cause undue waste of potash deposits and certainly should be permitted in view of the above quoted provision from the order of the Acting Secretary of the Interior, as it was clearly intended that potash development should not unreasonably interfere with the orderly development and production of any pool or field.

CONCLUSION

Based upon the foregoing, Bass respectfully submits that the decision appealed from should be reversed and this matter remanded to the Area Oil and Gas Supervisor for further action after a full hearing has been held before the New Mexico Oil Conservation Commission.

Respectfully submitted,

BASS ENTERPRISES PRODUCTION COMPANY

By _____

HINKLE, COX, EATON, COFFIELD & HENSLEY
Attorneys for Appellant
P.O. Box 10
Roswell, New Mexico 88201

United States Department of the Interior

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

May 6, 1977

Bass Enterprises Production Company
P. O. Box 2760
Midland, Texas 79701

Gentlemen:

This office, along with the Southern Rocky Mountain Area Mining Supervisor and Geologist, has reviewed all the information presented at the arbitration meeting on April 21, 1977, for the proposed drilling of your Rhodke Federal No. 3 in the SE¼NW¼, Section 27, T. 20 S., R. 31 E., Eddy County, New Mexico. The drilling of the Rhodke Federal No. 3 would result in the waste of potash deposits, and approval for the drilling of a vertical well at the proposed location cannot be granted.

Sincerely yours,

(ORIG. SGD.) JAMES W. SUTHERLAND

JAMES W. SUTHERLAND
Area Oil and Gas Supervisor

cc:
N. M. Oil Conservation Commission
Attention: Mr. Joe Ramey
Hinkle, Cox, Eaton and Hensley

EXHIBIT "A"

Office Copy

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

TO: Director, Geological Survey
Washington, D. C.

RE: Appeal by Bass Enterprises Production Company to Director, Geological Survey from the Decision of James W. Sutherland, Area Oil and Gas Supervisor, rendered on May 6, 1977

Bass Enterprises Production Company has heretofore filed an appeal to the Director of the Geological Survey from the decision of James W. Sutherland, Area Oil and Gas Supervisor, rendered on May 6, 1977 wherein it was stated that the application of Bass Enterprises Production Company to drill the Rhodke Federal No. 3 Well could not be approved. This appeal is now pending.

Subsequent to the original notice being filed, it has come to the attention of the appellant that additional reasons exist for the appeal and consequently those additional reasons and the argument in support of the additional reasons are hereinbelow set forth which should be considered in conjunction with the original appeal application.

ADDITIONAL REASONS FOR APPEAL

5. That the subject well is being drilled upon and in accordance with Federal Oil and Gas Lease LC 065431 which was issued March 1, 1951. This Lease is not subject to any drilling restriction regulation and consequently the imposition of any attempted restriction is without legal force or effect because it is inconsistent with the rights granted the lessee under the above-described Oil and Gas Lease.

ARGUMENT

On October 16, 1951, the Secretary of Interior delineated an area embracing 29,345 acres in southeastern New Mexico as a designated Potash Area, a copy of this Order being attached as Exhibit "A" hereto. This Order revoked the Secretary's Order of February 6, 1939, thereby eliminating the ban on oil and gas leasing which had been in effect on 42,295 acres of certain of these lands. While removing the previous ban on oil and gas leasing for lands located in the Potash Area, the 1951 Order did, however, establish certain stringent conditions to the issuance of oil and gas leases in the Potash Area and required that the successful applicant on a non-competitive oil and gas lease and any party acquiring a competitive oil and gas lease execute a stipulation to the lease. The provisions of the 1951 Order were prospective and could have no application with respect to leases issued prior to 1951 and consequently the Secretary never had authority to impose any restrictions on the subject lease since it was issued prior to the effective date of the 1951 Order of the Secretary. As more particularly reflected by a copy of the Oil and Gas Lease which is attached hereto as Exhibit "B", Section 1 of the Lease provides that the oil and gas lessee (or the assignee thereof) is given "the exclusive right and privilege to drill for, mine, extract, remove and dispose of all of the oil and gas deposits except helium gas in or under" the lands described. Moreover, the oil and gas lease form under which this Lease was issued provides that no future regulations of the Secretary of the Interior can

have any effect on the rights of the lessee to explore for oil and gas if such regulations are inconsistent with any of the expressed or specific provisions of the lease term.

CONCLUSION

Based upon the foregoing additional reason for appeal and the argument in support thereof, Bass Enterprises Production Company respectfully submits that the Area Oil and Gas Supervisor was without authority to restrict drilling operations in the Secretary's Potash Area in the absence of authority by way of restrictions contained in the Stipulation attached to the Lease and because no such conditions or stipulation exist with respect to this Lease, any effort by the Secretary to restrict operations is illegal.

Respectfully submitted,

BASS ENTERPRISES PRODUCTION COMPANY

By _____

HINKLE, COX, EATON, COFFIELD & HENSLEY
Attorneys for Appellant
P. O. Box 10
Roswell, New Mexico 88201

WELLS IN SECTION 27, T-20-S, R-32-E

JOSEPHINE RODKE FEDERAL NO. 1

Drilled January, 1955 by Richardson & Bass

40 acre space operated by Perry R. Bass

Production from first completion interval 5,722'-5,734' (3-55 through 3-75)

Oil	Gas	Water	Present Rate
79,335 bbls	54,247 MCF	77,646 bbls	abandoned

Production from second completion interval 4,718'-4,748' (6-76 through 2-78)

Oil	Gas	Water	Present Rate
37,971 bbls	3,598 MCF	554 bbls	44 BOPD no water

JOSEPHINE RODKE FEDERAL NO. 2

Drilled March, 1976 by Perry R. Bass

40 acre space operated by Perry R. Bass

Production from completion interval 4,722'-4,747' (6-76 through 2-78)

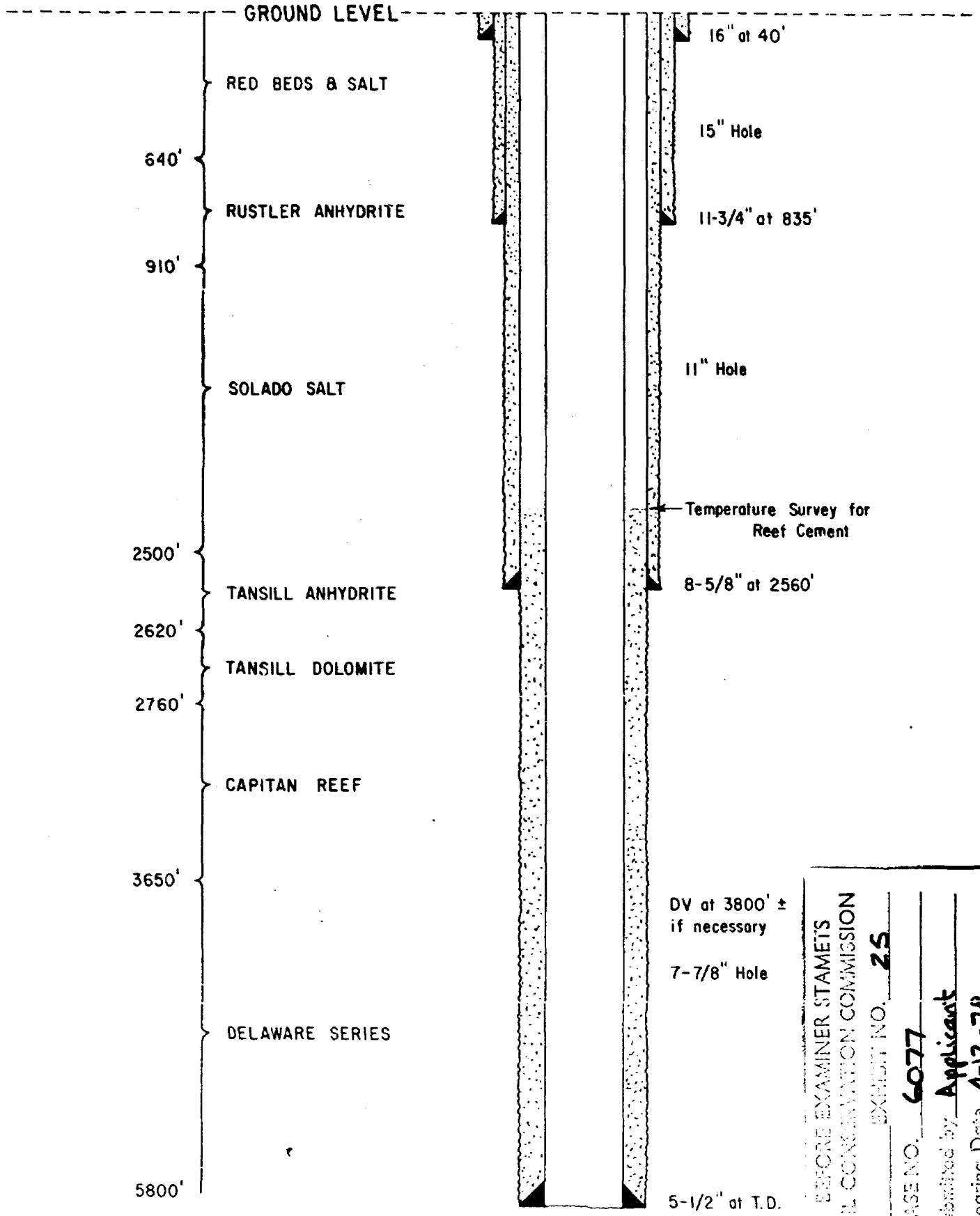
Oil	Gas	Water	Present Rate
11,580 bbls	8,820 MCF	55,687 bbls	22 BOPD 84 BWPD

J. N. BAXENDALE FEDERAL NO. 1

Drilled and abandoned September, 1955 by Richardson & Bass

...MMER STAMETS
...ON COMMISSION
...24
...6077
...Applicant
...4-12-78

PROPOSED
RODKE #3 & BEU #52



BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 25
CASE NO. 6077
Submitted by Applicant
Hearing Date 4-12-78

Exhibit No._____

NEW MEXICO OIL CONSERVATION COMMISSION HEARING

(Potash in Parallel Delaware Field)

Date:_____

BASS ENTERPRISES PRODUCTION CO.

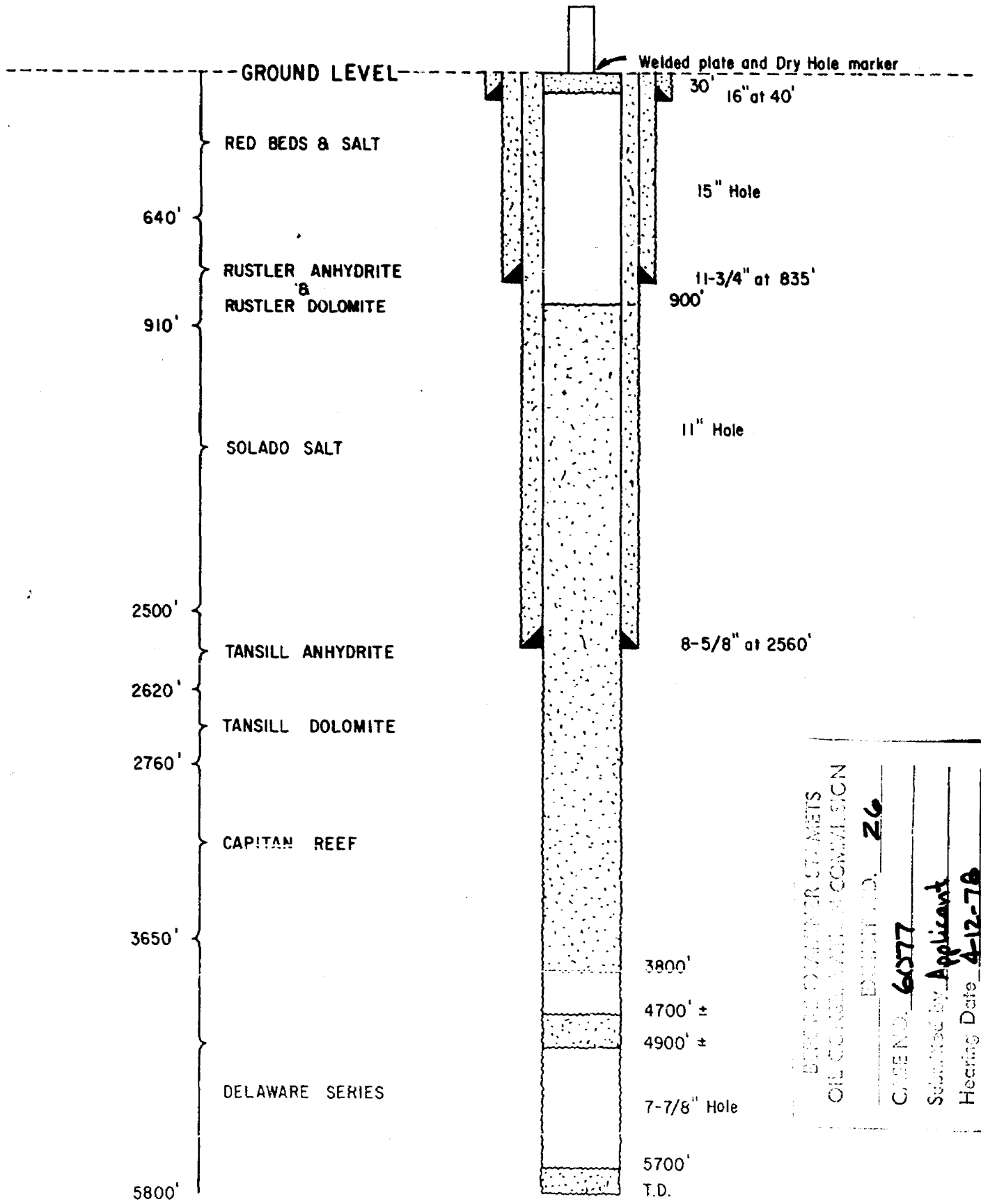
WEST TEXAS DIVISION

WELLBORE SCHEMATIC

Date: 3 Nov. 77 Interp. by: L.M.C.

Scale:_____ Drwn. by: R.L.S. Dept.:_____

PLUGGING SCHEMATIC
RODKE #3 & BEU #52



BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 26
CASE NO. 6577
Submitted by: Applicant
Hearing Date 4-12-78

Exhibit No._____

NEW MEXICO OIL CONSERVATION COMMISSION HEARING

(Potash in Parallel Delaware Field)

Date:_____

BASS ENTERPRISES PRODUCTION CO.

WEST TEXAS DIVISION

WELLBORE SCHEMATIC

Date: 3 Nov. 77 Interp. by: L.M.C.

Scale:_____ Drwn. by: R.L.S. Dept.:

Data Sheet on U.S.P. No.32 Core Test

Well: U.S.P. No.32 (C.A,Pierce Permit Las Cruces048185)

Location: 250' from N. line
2390' from E. line
Section 34- Township 20 S, Range 31 E.
NMPM, Eddy County, New Mexico

Elevation: 3555' above sea level, estimated from map.

Driller: United States Potash Co. Inc
Joy Manufacturing Company, Contractor.

Type Well: Rotery drill from 0' to 860'.
Cored from 860' to 1658'.

Size of hole 10" hole from 0' to 116'
8" hole from 116' to 860'
3 3/4" hole from 860' to 1658'.

Water horizons: 56' in red sand
513' in red beds
620' in top of Rustler gypsum
810' in base of Rustler dolomite.

Water levels: 56' water stands 50' below surface
513' water stands 100' below surface.

Casing Record: 8¼" casing at 116'
5 3/16" casing with packer set at 860'.

Drilling record: Rotary drilling,
Began 3-5-48
Finished 3-29-48
Coring
Began 4-1-48
Finished 4-17-48.
Plugging completed 4-22-48.

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 6077 Exhibit No. 29
Submitted by Bass
Hearing Date 4-12-78

Marker Beds U.S.P. No. 32.

Red Beds	20'	to	620'	
Rustler Formation	620'	to	840'	
Purple dolomite	670'	to	700'	
Buff dolomite	790'	to	810'	
1st salt	840'			
1st solid salt(Salado)	1033'6"			
Bed No.1A Sylvite	1442'1"	to	~~1444'5"~~	
	1447'0"	to	1448'7".	
Bed No. 2 sylvite	1487'0"	to	1489'0"	
	1494'0"	to	1495'~~6~~"	
Bed No. 2-A sylvite	~~1506'8"~~	to	~~1510'9"~~	
White polyhelite	1540'6"	to	1544'3"	3.75
Anhydrite "A"	1556'0"	to	1562'9"	4.75
Bed No. 3 Lengbeinite	1567'~~0~~"	to	15~~60'6~~"	2.92
Bed No. 3-A sylvite	157~~6'10~~"	to	15~~70'10~~".	2.0
Bed No. 3-B sylvite	158~~7'6~~"	to	158~~8'1~~"	0.42
	159~~1'0~~"	to	1595'6"	3.0
Salmon polyhalite	1597'4"	to	1598'0"	0.67
Salt clay zone above Bed No.4 Bed.	1601'9"	to	1602'5"	0.67
	1611'8"	to	1611'11"	0.25
Bed No.4 (position)	1612'1"	to	1617'2".	5.04
Pink polyhelite below Bed No.4	1628'5"	to	1628'10".	0.41

REPORT ON THE DRILLING OF U.S.P. No. 32 CORE TEST.

U.S.P. No. 32 well is located in the northeast quarter of Section 34, Township 20 South, Range 31 East, Eddy County, New Mexico. This well was a validation hole drilled on the C.A. Pierce Permit (Las Cruces 048185). This well was drilled to a total depth of 1658 feet. From surface to depth of 860 feet, it was drilled with rotary rock bit, from 860 feet to 1658 feet, it was cored. A Sullivan-Joy No. 200 machine was used for drilling, coring and plugging the hole. The Joy Manufacturing Company contracted the drilling of this hole. The drilling was completed on April 17, 1948. The hole was plugged and abandoned on April 22, 1948.

Samples were taken throughout the drilling of this well. Logs, analyses, correlation charts, maps, etc., based on these samples, accompany this report.

This well is located about 5.5 miles northeast of U.S.P. Shaft No. 1, about 3 miles northeast of McNutt No.1 coretest, about 2 miles due north of State No.1 (2-21S-30E) core test, and about 1.8 miles due east of Mitchell No.1 coretest. The potash showings, in the Upper potash zones, of U.S.P. No. 32

are stronger than those found in the Mitchell and State wells, and compare with those found in the McNutt well. The sylvite and langbeinite showings found in the lower potash zones (below anhydrite "A") are less than those found in this zone in the McNutt well. No blebs of sylvite or langbeinite were found in the lower zones in the State and Mitchell wells.

The No.4 Bed position was recognized by correlation of the enclosing polyhalites and clays. It occupies the interval 1612'0" to 1620'8"; no sylvite blebs were found in this interval, as the analysis shows 0.58% K_2O. The orange polyhalite marker (above Bed No.4) was cut from 1597'4" to 1598'0". The salt clay marker was cut from 1611'8" to1611'11". The pink polyhalite (below Bed No.4) was cut from 1628'5" to 1628'10".

Several zones, carrying soluble potash minerals, were cut by this well:

Blebs of carnallite were found in the upper part of the section from 928 feet to 1055 feet. Two thin zones of carnallite concentration were cut for analysis: 1048'8" to 1049'0", this 0'4" interval averages 6.30% K_2O combined as 35% carnallite. 1050'5" to 1051'5", this 0'8" interval averages 5.09% combined as 29.5%

carnallite.

Bed No.1., 1442' 1" to 1448' 11", this 6'10" interval averages 16.81% K_2O, combined as 26.6% sylvite. This is the strongest showing of sylvite in the No.1 Bed yet found in any core test, and, is a commercial showing.

Bed No.2 zone, 1487'0" to 1489'0", this 2'0" interval averages 16.97% K_2O, combined a 26.8% sylvite. 1494'0" to 1495'6", this 1'6" interval averages 17.52% K_2O, combined as 27.7% sylvite.

Bed No. 2-A, 1507'0" to 1511'0", this 4'0" interval averages 20.24% K_2O, combined as 32.0% sylvite. This is a commercial showing of sylvite.

Bed No.3 1567'4" to 1570'3", this 2'11" interval averages 2.14% K_2O. It is a weakly mineralized zone, containing about 5% of langbeinite as scattered blebs.

Bed No.3-A, 1577' 0" to 1579' 0", this 2'0" interval averages 12.76% K_2O, combined as 20.2% sylvite.

1589'10" to 1590'3", this 0'5" interval averages 9.41% K_2O, combined as 14.9% sylvite.

Bed No.3-B, 1592' 6" to 1595' 6", this interval averages 5.11%

K_2O, combined as 8.05% sylvite. This is the lowest showing of sylvite blebs in the well.

Respectfully submitted,

J.P.Smith,
Carlsbad,New Mexico.
May 19, 1948.

1595.6'
1562.9'
32.7'

UNITED STATES POTASH COMPANY
(INCORPORATED)
CARLSBAD, NEW MEXICO

ANALYSIS SHEET

DATE REPORTED 5-13-47

LABORATORY NUMBER	DATE	CAR NUMBER	CONSIGNEE	KCL	PER CENT K_2O	
122260	5-12	USP# 32-bandle #	1-1048'8" to 1490"-Th, 0'4"	—	6.30	
			K_2O = 4.95 %			
61	5-12	USP# 32-bandle #	2-1050'5" to 1051' 1" Th. 0'7"	>	5.09	
			K_2O = 4.22 %			
62	"	USP# 32-bandle #	3-1442'1" to 1448'11" Th. 6'10" 6.83	X	16.81	#1
63	"	USP# 32-bandle #	4-1487'0" to 1489'0" Th. 2'0"		16.97	#2
64	"	USP# 32-bandle #	5-1494'0" to 1495'6" Th. 1'6"		17.52	#2
65	"	USP# 32-bandle #	6-1507'0" to 1511'0" Th. 4'0"	X	20.24	2
66	"	USP# 32-bandle #	7-1570'0" to 1575'4" Th 2'4"		2.14	
67	"	USP# 32-bandle #	8-1574'0" to 1575'4" Th 1'4"		1.51	

REMARKS:

WHT

CHEMIST

L-301—5M—11-47

UNITED STATES POTASH COMPANY
(INCORPORATED)
CARLSBAD, NEW MEXICO

ANALYSIS SHEET

DATE REPORTED 5-13-47

LABORATORY NUMBER	DATE	CAR NUMBER	CONSIGNEE	KCL	PER CENT K_2O	
122268	5-12	USP# 32-bandle #	9-1577'0" to 1579'0" Th 2'-0"	3-A	12.76	
69	"	USP# 32-bandle #	10-1589'10" to 1590'3" Th 0'-5"		9.41	
70	"	USP# 32-bandle #	11-1592'6" to 1595'6" Th 3'0"	3-B	5.11	
71	"	USP# 32-bandle #	12-1612'0 to 1620'8" Th. 8'8"		0.58	

REMARKS:

WHT

CHEMIST

L-301—5M—11-47

CARLSBAD, NEW MEXICO

ANALYSIS REPORT

DATE REPORTED 5-26-51

LABORATORY NUMBER	DATE	SAMPLE NUMBER	CAR INITIAL AND NUMBER	KCL	K2O	HCl	REFERENCE
68384	8-25	U.S.P. #108	Sample 10266 — 10291" 2' 7"				
					1.25	0.65	5.93 5.97
85		U.S.P. #108	#2 14877" — 14904" 3' 2"		20.16	43.71	43.93
86		U.S.P. #108	#3 15081" — 15061" 2' 3"		20.79	46.75	
87		U.S.P. #108	#4 15291" — 15297" 0' 6"		2.65		
88		U.S.P. #108	#5 15297" — 15294" 0' 9"		6.69		
89		U.S.P. #108	#6 15291" — 15323" 2' 4"		4.20	9.77	
90		U.S.P. #108	#7 15323" — 15336" 1' 3"		21.47	46.84	
91		U.S.P. #108	#8 15336" — 15377" 4' 3"		7.56	83.42	
92		U.S.P. #108	#9 15377" — 15386" 0' 9"		2.24	70.0	

REMARKS:

5.6 1013 60.26

CHEMIST

UNITED STATES POTASH COMPANY
(INCORPORATED)
CARLSBAD, NEW MEXICO

ANALYSIS REPORT

DATE REPORTED 5-27-51

LABORATORY NUMBER	DATE	SAMPLE NUMBER	CAR INITIAL AND NUMBER	KCl	K2O	HCl	REFERENCE
68393	8-25	USP #108 #10	15353" - 15411'9" 3'6"		3.89		
94		#11	15419" - 15457" 3'10"		2.89		
95		#12	15550" - 15559" 0'9"	0.43	3.72	1.05	25.46
96		#13	15638" - 15642" 0'6"	0.20	5.36	1.25	25.61
97		#14	15642" - 15652" 1'0"		1.94		
98		#15	15652" - 15692" 4'0"		20.65		
99		#16	15692" - 15726" 1'4"		4.95		
168400		#17	15726" - 15750" 0'4"		1.63		
01		#18	15852" - 15921" 1'11"		17.38		
02		#19	15921" - 15960" 3'11"		14.80		

REMARKS:

CHEMIST

(INCORPORATED)
CARLSBAD, NEW MEXICO

ANALYSIS REPORT

DATE REPORTED 8-27-51

LABORATORY NUMBER	DATE	SAMPLE NUMBER	CAR INITIAL AND NUMBER	KCl %	K_2O	H_2O	B. L. REFERENCE
8403	8-25	USP#108 #20	1560'-1567' 07"		1.61		
04		#21	1639'2"-1643'10" 1'8"		1.06		
05		#22	1643'10"-1644'3" 1'5"		0.76		
06		#23	1646'1"-1648'7" 2'6"		2.37	-	
07		#24	1648'7"-1651'11" 3'4"	0.28	7.28	.24	65.87
08		#25	1651'11"-1652'7" 0'8"	0.00	22.72	—	2-3.53
09		#26	1652'7"-1657'0" 4'5"	0.17	21.94	.95	21.45
10		#27	1657'0"-1657'11" 0'11"	0.60	19.13	.45	23.11
11		#28	1657'11"-1662'2" 4'3"	0.30	3.64	.21	10.1
12		#29	1650'6"-1654'0" 3'6"		1.42		

REMARKS:

CHEMIST

UNITED STATES POTASH COMPANY
(INCORPORATED)
CARLSBAD, NEW MEXICO

ANALYSIS REPORT

DATE REPORTED 8-27-51

LABORATORY NUMBER	DATE	SAMPLE NUMBER	CAR INITIAL AND NUMBER	KCL	K_2O	H_2O	B. L. REFERENCE
8413	8-25	USP#108 #30	1654'0"-1657'7" 3'7"		2.22		
14		#31	1657'7"-1659'2" 2'7"		2.12		
15		#32	1659'2"-1662'7" 2'5"		0.17		

REMARKS:

CHEMIST

Data Sheet for U.S.P. No. 108 Core Test

Well:	U.S.P. No. 108 (Permit 048185)
Location:	1200 feet S of N¼ Cor; 600' E of N¼ Cor. Sec. 35, T-20S; R-31E. N.M.P.M; Eddy County, New Mexico.
Elevation:	3560ft. above sea level (map).
Total Depth:	1787 feet.
Type of Well:	Rotary rock bit surface to 947 feet. Cored from 947 ft. to 1787 ft.
Size of Well:	Surface to 985 feet - 6" hole 985 ft. to total depth (1787 ft) 4" hole.
Casing record:	4" casing set at 947 ft. Hole reamed to 985 feet and casing set at 985 ft. 500 feet of casing recovered when well plugged.
Drilling Record:	Began: July 20, 1951. Completed: Aug. 18, 1951.

BEFORE - THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 6077 Exhibit No. 30
Submitted by Applicant Boss
Hearing Date 4-12-78

U-108

Marker Beds USP No. 108 Core Test.

Red Beds:	3550. 2950	10' to 610'.	600'
Rustler Formation:	2950 - 2613	6.0' to 947'.	337'
Purple dolomite:		670' to 700'.	30
Grey dolomite:		780' to 810'.	
Top of Salado Salt:		947'.	
Upper Carnallite:		1026'6" to 1029'1".	
Upper Anhydrite:		1116'7" to 1140'10".	3.16
Bed No. 1 Sylvite:	2072.8 - 2069.17	1487'2" to 1490'4".	3.13 (4.0)
Stray Sylvite:	2055.3 - 2053.67	1504'8" to 1506'11".	2.20
Bed No. 1-A Sylvite:	2030.9 2027.75 - 2022.08 2021.08	1529'2" to 1538'2".	8.98 (5.67)
Bed No. 2 (Sylvite: & (Kainite ←	1996.3 1990.0	1563'3" to 1570'9".	6.30 (4.0)
Bed No. 2-A:	1979.4 1973.6	1580'7" to 1586'5".	(5.84)
White Polyhalite:	1949.4 1946.4	1610'5" to 1613'4".	2.9
Grey Anhydrite "A":	1933.0 1925.9	1627'0" to 1634'2".	7.1
Bed No. 3 Sylvite:	1921.2 1918.1	1638'10" to 1641'11".	3.1
Bed No. 3-A Sylvite & Langbeinite	1913.9 1910	1646'2" to 1658'2".	12.5
Zone:			
Salmon Polyhalite:	1884.58 1883.32	1675'5" to 1676'1".	0.34 0.66
Brown Salt Clay:	1880.35 1879.75	1679'9" to 1681'0".	0.25 1.35
Bed No. 4 Position:	1879 1806.4	1681'0" to 1692'7".	

Report on the Drilling of U.S.P. No. 108 Core Test

U.S.P. No. 108 Core Test is located in the Northeast quarter of Section 35, Township 20 South, Range 31 East, N.M.P.M., Eddy County, New Mexico.

This site is about 6500 feet Southwest of U.S.P. No. 48 Core Test, about 7600 feet Northwest of U.S.P. No. 61 Core Test, and, about 5800 feet east of U.S.P. No. 32 Core Test.

U.S.P. No. 108 Core Test was drilled to total depth of 1787 feet. From surface to 947 feet, well was drilled with rotary rock bit, and, from 947 feet to 1787 feet, well was cored.

The position of Bed No. 4 was indicated in the interval 1680'6" to 1692'7". This interval carried no sylvite, yet, samples 1684'0" to 1687'7" averaged 2.22% K_2O and 1687'7" to 1690'2" averaged 2.12% K_2O respectively. Polyhalite probably accounts for the relatively high K_2O values. The salmon polyhalite marker was cut from 1675'5" to 1676'1", and, the brown salt clay was cut from 1679'9" to 1681'0".

Several good showings of potash minerals were found in several upper beds.

Bed No.1 Sylvite- 1487'2" to 1490'4". This 3'2" interval averages 20.16% K_2O combined as 31.2% sylvite. This represents 4'6" zone of 14% K_2O.

Stray sylvite zone (correlative of rich white sylvite) 1504'8" to 1506'11". This 2'3" interval averages 20.79% K_2O combined as 32.9% sylvite. This is equivalent to 3'4" of 14% K_2O.

Bed No. 1-A. 1529'7" to 1537'11". This 8'4" interval averages 8.67% K_2O combined as 13.7% sylvite. Within this zone occurs a 1'3" zone (1532'3" to 1533'6") that averages 21.47% K_2O combined as 33.99% sylvite.

Bed No. 2 - 1565'2" to 1569'2". This 4'0" interval averages 20.65% K_2O combined as 32.6% sylvite. This may be expanded to 6'6" at 14% K_2O.

Bed No. 2-A.- 1580'2" to 1586'0". This 5'10" interval averages 15.64% K_2O combined as 24.75% sylvite. This may be expanded to 6'6" at 14% K_2O.

Bed No. 3-A.- 1648'7" to 1651'11". This 3'4" interval averages 7.16% K_2O combined as 10% sylvite and 3.6% leonite. 1651'11" to 1652'7", this 0'8" interval averages 22.34% K_2O combined as 40.7% langbeinite, and 20% sylvite. 1652'7" to 1657'0". This 4'5" interval averages 7.77% K_2O combined as 13.7% leonite, and 6.7% sylvite. 1657'0" to 1657'11". This 0'11" interval averages 17.81% K_2O combined as 25.4% sylvite, and 6.7% leonite. This 9'4" interval averages 9.58% K_2O.

Respectfully submitted,

J. P. Smith.

Carlsbad, N.M.
Sept. 6, 1951

#2 1565'2" - 69'2" - 4'0" @ 20.65