RAILROAD COMMISSION OF TEXAS
HEARINGS DIVISION

OIL AND GAS DOCKET NO. 10-0272890
IN THE LOTT RANCH (MORROW, UP) FIELD, WHEELER COUNTY, TEXAS

NUNC PRO TUNC ORDER

APPROVING THE APPLICATION OF FOREST OIL CORPORATION FOR DISPOSAL AUTHORITY PURSUANT TO 16 TAC §3.9 FOR THE EPOCH SWD LEASE, WELL NO. 101 LOTT RANCH (MORROW, UP) FIELD WHEELER COUNTY, TEXAS

At conference on November 20, 2012, the Commission voted to approve the referenced docket. Due to clerical error, the final order incorrectly listed the field name as Lott Ranch (Morrow), however the correct field name should have been listed as Lott Ranch (Morrow, Up) Field. Accordingly, the November 20, 2012, Final Order is hereby amended, nunc pro tunc, to correct the field name to Lott Ranch (Morrow, Up) Field throughout the order. The corrected order reads as follows:

The Commission finds that after statutory notice in the above-numbered docket heard on December 09, 2011 and January 09-10, 2012, the presiding examiners have made and filed a report and proposal for decision containing findings of fact and conclusions of law, which was served on all parties of record; that the proposed application is in compliance with all statutory requirements; and that this proceeding was duly submitted to the Railroad Commission of Texas at conference held in its offices in Austin, Texas.

The Commission, after review and due consideration of the examiners' report and proposal for decision, the findings of fact and conclusions of law contained therein, and any exceptions and replies thereto, hereby adopts as its own the findings of fact and conclusions of law contained therein, and incorporates said findings of fact and conclusions of law as if fully set out and separately stated herein.

Therefore, it is ORDERED by the Railroad Commission of Texas that the application of Forest Oil Corporation is hereby granted and Forest Oil Corporation is authorized to conduct saltwater disposal operations in the Epoch SWD Lease, Well No. 101, Lott Ranch (Morrow, Up) Field, Wheeler County, Texas, subject to the following terms and conditions.
SPECIAL CONDITIONS:

1. Fluid shall be injected into the Brown Dolomite formation in the subsurface depth interval between 4,631 feet and 5,350 feet.

2. The injection volume shall not exceed 10,000 barrels per day.

3. The maximum operating surface injection pressure shall not exceed 1,200 psig.

4. Injected fluid shall be limited to produced saltwater and RCRA Exempt Waste.

5. A bottom-hole pressure measurement must be performed at the time of each H-5 test.

STANDARD CONDITIONS:

1. Injection must be through tubing set on a packer. The packer must be set no higher than 100 feet above the top of the permitted interval.

2. The District Office must be notified 48 hours prior to:
   a. running tubing and setting packer;
   b. beginning any workover or remedial operation;
   c. conducting any required pressure tests or surveys.

3. The wellhead must be equipped with a pressure observation valve on the tubing and for each annulus.

4. Prior to beginning injection and subsequently after any workover, an annulus pressure test must be performed. The test pressure must equal the maximum authorized injection pressure or 500 psig, whichever is less, but must be at least 200 psig. The test must be performed annually and the results submitted in accordance with the instructions of Form H-5.

5. The injection pressure and injection volume must be monitored at least monthly and reported annually on Form H-10 to the Commission's Austin office.

6. Within 30 days after completion, conversion to disposal, or any workover which results in a change in well completion, a new Form W-2 or G-1 must be filed to show the current completion status of the well. The date of the disposal well permit and the permit number must be included on the new Form W-2 or G-1.

7. Written notice of intent to transfer the permit to another operator by filing Form P-4 must be submitted to the Commission at least 15 days prior to the date of the transfer.
8. Unless otherwise required by conditions of the permit, completion and operation of
the well shall be in accordance with the information represented on the application
(Form W-14).

9. This permit will expire when the Form W-3, Plugging Record, is filed with the
Commission. Furthermore, permits issued for wells to be drilled will expire three (3)
years from the date of the permit unless drilling operations have commenced.

10. The operator shall be responsible for complying with the following requirements so
as to assure that discharges of oil and gas waste will not occur:

a. Prior to beginning operation, all collecting pits, skimming pits, or washout pits
must be permitted under the requirements of Statewide Rule 8.

b. Prior to beginning operation, a catch basin constructed of concrete, steel, or
fiberglass must be installed to catch oil and gas waste which may spill as a
result of connecting and disconnecting hoses or other apparatus while
transferring oil and gas waste from tank trucks to the disposal facility.

c. Prior to beginning operation, all fabricated waste storage and pretreatment
facilities (tanks, separators, or flow lines) shall be constructed of steel,
concrete, fiberglass, or other materials approved by the Director of
Environmental Services. These facilities must be maintained so as to
prevent discharges of oil and gas waste.

d. Prior to beginning operation, dikes shall be placed around all waste storage,
pretreatment, or disposal facilities. The dikes shall be designed so as to be
able to contain a volume equal to the maximum holding capacity of all such
facilities. Any liquids or wastes that do accumulate in the containment area
shall be removed within 24 hours and disposed of in an authorized disposal
facility.

e. Prior to beginning operation, the facility shall have security to prevent
unauthorized access. Access shall be secured by a 24-hour attendant, a
fence and locked gate when unattended, or a key-controlled access system.
For a facility without a 24-hour attendant, fencing shall be required unless
terrain or vegetation prevents truck access except through entrances with
lockable gates.

f. Prior to beginning operation, each storage tank shall be equipped with a
device (visual gauge or alarm) to alert drivers when each tank is within 130
barrels from being full.

11. Form P-18, Skim Oil Report, must be filed with the Commission in Austin by the
15th day of the month following the month covered by the report.
12. The permit number shall be 13882.

Provided further that, should it be determined that such injection fluid is not confined to the approved interval, then the permission given herein is suspended and the disposal operation must be stopped until the fluid migration from such interval is eliminated. Failure to comply with all of the conditions of this permit may result in the operator being referred to enforcement to consider assessment of administrative penalties and/or the cancellation of the permit.

Each exception to the examiners' proposal for decision not expressly granted herein is overruled. All requested findings of fact and conclusions of law which are not expressly adopted herein are denied. All pending motions and requests for relief not previously granted or granted herein are denied.

This order will not be final and effective until 20 days after a party is notified of the Commission’s order. A party is presumed to have been notified of the Commission’s order three days after the date on which the notice is actually mailed. If a timely motion for rehearing is filed by any party at interest, this order shall not become final and effective until such motion is overruled, or if such motion is granted, this order shall be subject to further action by the Commission. Pursuant to TEX. GOV'T CODE §2001.146(e), the time allotted for Commission action on a motion for rehearing in this case prior to its being overruled by operation of law, is hereby extended until 90 days from the date the order is served on the parties.

Done this 24th day of May, 2013.

RAILROAD COMMISSION OF TEXAS

(Order approved and signatures affixed by Hearings Divisions' Unprotested Master Order dated May 24, 2013)
OIL AND GAS DOCKET NO. 7B-0281578

THE APPLICATION OF MOMENTUM OPERATING CO., INC. TO RENUMBER AND AMEND FIELD RULES FOR THE LUEDERS, S. (BLUFF CREEK SD) FIELD, JONES COUNTY, TEXAS

HEARD BY: Richard D. Atkins, P.E. - Technical Examiner
Michael Crnich - Legal Examiner

HEARING DATE: April 19, 2013

APPEARANCES:

APPLICANT:
Dale E. Miller
Momentum Operating Co., Inc.

REPRESENTING:

EXAMINERS’ REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Field Rules for the Lueders, S. (Bluff Creek Sd) Field were adopted in Final Order No. 7B-28,980, effective January 11, 1954. The Field Rules are summarized as follows:

1. 330'-660' well spacing;
2. 10 acre oil units;
3. Allocation based on 75% acres and 25% per well;
4. Surface casing provisions;

Momentum Operating Co., Inc. ("Momentum") requests that the Field Rules be renumbered and amended, as shown below:

1. Designated correlative interval from 1,708 feet to 1,726 feet as shown on the log of the Momentum Operating Co., Inc. - Mrs. S. Monson Lease, Well No. 5R (API No. 42-253-34690);
2. 150'-300' well spacing;
3. 10 acre oil units with optional 2 acre density;
4. Salvage classification with no allowable restrictions.

Momentum also requests that proration unit plats not be required for individual wells, but that Form P-15 be filed to designate the number of acres to be assigned to each well with no maximum diagonal limitation.

The application is unprotested and the examiners recommend that the Field Rules for the Lueders, S. (Bluff Creek Sd) Field be renumbered and amended, as proposed by Momentum.

DISCUSSION OF EVIDENCE

The Lueders, S. (Bluff Creek Sd) Field was discovered in October 1952 at an average depth of 1,700 feet. There are two producing oil wells carried on the proration schedule and Momentum is the only operator in the field. Field Rules currently provide for 330'-660' well spacing and 10 acre oil units. Cumulative production from the field through December 2012 is 181.9 MBO.

There is currently no defined correlative interval for the field. Momentum requests that the field be defined as the correlative interval from 1,708 feet to 1,726 feet as shown on the log of the Momentum Operating Co., Inc. - Mrs. S. Monson Lease, Well No. 5R (API No. 42-253-34690), Section 23, HT&B RR Co. Survey, A-240, Jones County, Texas. The correlative interval includes the entire Bluff Creek Sand formation. From log analysis, Momentum estimated an average porosity of 17%, an average saltwater saturation of 42%, an average net pay thickness of 20 feet and a recovery factor of 40%. The primary drive mechanism is a moderate water drive.

Momentum is re-developing the Lueders, S. (Bluff Creek Sd) Field by drilling infill wells and requests Field Rules that will promote the efficient and effective development of the remaining hydrocarbons. Momentum provided drainage area calculations for all of the nine wells that produced from the field. The drainage areas range from two acres up to a maximum of six acres. The average drainage area was calculated to be approximately three acres and seven of the wells had drainage areas of two acres. Based on the drainage area calculations, Momentum proposes 150'-300' well spacing and 10 acre oil units with optional 2 acre density.
Given the depleted status of the reservoir and an average producing well water cut of 90%, there is no reason to limit production from wells in the field. Momentum requests a salvage classification with no allowable restrictions and that proration unit plats not be required for individual wells, but that Form P-15 be filed to designate the number of acres to be assigned to each well with no maximum diagonal limitation.

**FINDINGS OF FACT**

1. Notice of this application and hearing was provided to all persons entitled to notice at least ten (10) days prior to the date of the hearing.

2. The Lueders, S. (Bluff Creek Sd) Field was discovered in October 1952 at an average depth of 1,700 feet.
   a. There are two producing oil wells carried on the proration schedule and Momentum Operating Co., Inc. ("Momentum") is the only operator in the field.
   b. Field Rules currently provide for 330'-660' well spacing and 10 acre oil units.

3. The Lueders, S. (Bluff Creek Sd) Field should be defined as the correlative interval from 1,708 feet to 1,726 feet as shown on the log of the Momentum Operating Co., Inc. - Mrs. S. Monson Lease, Well No. 5R (API No. 42-253-34690), Section 23, HT&B RR Co. Survey, A-240, Jones County, Texas. The correlative interval includes the entire Bluff Creek Sand formation.

4. Field Rules for the Lueders, S. (Bluff Creek Sd) Field that provide for 150'-300' well spacing and 10 acre oil units with optional 2 acre density are appropriate for the field.
   a. Momentum is re-developing the Lueders, S. (Bluff Creek Sd) Field by drilling infill wells and requests Field Rules that will promote the efficient and effective development of the remaining hydrocarbons.
   b. Drainage areas for all of the nine wells that produced from the field range from two acres up to a maximum of six acres.
   c. The average drainage area was calculated to be approximately three acres and seven of the wells had drainage areas of two acres.
5. Given the depleted status of the reservoir and an average producing well water cut of 90%, there is no reason to limit production from wells in the field. A salvage classification with no allowable restrictions is appropriate for the Lueders, S. (Bluff Creek Sd) Field.

6. The filing of Form P-15 to designate the number of acres to be assigned to each well for proration purposes with no proration unit plats will eliminate unnecessary paperwork.

CONCLUSIONS OF LAW

1. Proper notice of this hearing was issued.

2. All things have been accomplished or have occurred to give the Commission jurisdiction in this matter.

3. Renumbering and amending the Field Rules for the Lueders, S. (Bluff Creek Sd) Field is necessary to prevent waste, protect correlative rights and promote development of the field.

RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission renumber and amend the Field Rules for the Lueders, S. (Bluff Creek Sd) Field, as requested by Momentum Operating Co., Inc.

Respectfully submitted,

Richard D. Atkins, P.E.  
Technical Examiner

Michael Crnich  
Legal Examiner