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**THE APPLICATION OF EL PASO PRODUCTION OIL & GAS COMPANY FOR NEW FIELD DESIGNATIONS AND PERMANENT FIELD RULES, (PROPOSED) BOB WEST, S. (L-1-6) AND BOB WEST, S. (ROLETA) FIELDS, AND FOR A RULE 10 EXCEPTION FOR ITS SILVA LEASE, WELL NO. 3, STARR COUNTY, TEXAS**

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**Heard by:** Margaret Allen, Technical Hearings Examiner

**Procedural history**

Application received: May 29, 2002

Hearing held: July 2, 2002

**Appearances**

Jim Cowden  
Terry Payne

Representing

El Paso Production Oil & Gas Company

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

El Paso Production Oil & Gas Company is proposing the new field designations of Bob West, S. (L-1-6) and Bob West, S. (Roleta) Fields for two intervals in its Silva Lease Well No. 3. The applicant proposes the following permanent field rules for the new fields:

1. Designated intervals as shown on the log of the El Paso Production Oil & Gas Company Silva Lease Well No. 3--from 8210' to 9200' for the Bob West, S. (L-1-6) Field; and from 10,640' to 13,560' for the Bob West, S. (Roleta) Field;
2. 467-933' well spacing, with no prescribed proration units; and
3. allocation based 5% per well and 95% on deliverability.

El Paso also requested a Rule 10 exception to downhole commingle the two new fields in the Silva No. 3, along with the Bob West, S. (L-7-12) Field. Because part of the L-1-6 interval is faulted out of El Paso's Silva Well No. 3, the examiner suggested that a second type well be designated for the Bob West, S. (L-1-6) Field whose log shows the entire section. El Paso agreed with this suggestion and proposed an additional type section as shown between 9000' and 10,800' in the log of its Luera Lease Well No.

1

**DISCUSSION OF THE EVIDENCE**

The Silva No. 3 was drilled in May, 2002. This is the first well in the Bob West and South Bob West field areas to be drilled through the major basal glide plane fault. It is also the first well in this area to be completed in the Roleta underlying the glide plane fault. The Silva No. 3 was perforated from 11,832-40', from 12,056-60' and from 12,436-48' in the Roleta section which extends from 10,640' to

13,560'. The highest producing rate during the initial production test of the Roleta was 775 MCF/D.

This well was subsequently perforated in the Wilcox sandstones referred to as L-1 through L-6. Two of these sandstones are already productive in the Bob West field area, but there are dry holes and inactive wellbores between the Silva No. 3 and the Bob West area. Perforations in the L-1 sandstone are from 8258-8304'; in the L-2 are from 8766-8812'; and in the L-3 are from 8944-66'. The highest producing rate on the initial test of the perforations in the L-1 through L-6 sandstones was 3186 MCF/D.

Well spacing of 467-933 feet, requested for the rules of the Bob West, S. (L-1-6) and Bob West, S. (Roleta) Fields, is standard for 40-acre drilling units. The requested allocation formula, based 95% on deliverability and 5% per well, is very close to the Statewide Rule for gas wells which bases allocation on deliverability. A two-factor allocation formula is required by statute when multiple reservoirs are included within one designated interval.

It is unnecessary to review these rules in 18 months because of their similarity to Statewide Rules. The proposed rules are also the same as those in effect for the Bob West, S. (L-7-12) Field. None of the Bob West or south Bob West fields have had a density rule adopted.

There are already three fields approved in the Wilcox of the South Bob West area: the L-7 through L-12 sandstones; the L-13 through L-20 sandstones; and the L-21 through L-25 sandstones. El Paso, the only operator in the Bob West, S. (L-7-12) Field, perforated the Silva No. 3 in this field as well as the two proposed new fields. The L-7 perforations are from 9271'-9300', L-9 perforations from 9756'-9764', L-10 perforations from 10,003'-10,040', and L-12 perforations from 10,457'-10,486'. El Paso wants to produce all the perforations in the L-1-6, L-7-12 and Roleta fields through the slim-hole casing of the Silva No. 3. Various Wilcox sandstones designated L-1 through L-33 have already been commingled in various wells in the Bob West and South Bob West fields.

All of the perforated intervals are geopressured, with gradients between 0.66 and 0.79 psi per foot of depth. They all produce gas with similar characteristics--mostly methane with 2 to 4% carbon dioxide and a trace of nitrogen. Produced saltwater from similar sandstones in offset wells has been compatible but El Paso will test for and treat any incompatibility problems in the Silva No. 3. Downhole commingling will produce the gas faster, before the well's high temperatures and pressures, and the corrosive properties of the gas cause premature wellbore failure. All of the sandstones to be commingled have low permeability and must be fracture-stimulated. Any cross-flow that might occur when the Silva No. 3 was shut-in would not cause waste.

The commingled daily production started at 7 MMCF in April of 2002, but has already fallen to 3 MMCF. The assumed abandonment rate is 1000 MCF per completion per month, and the decline rate is 15% per year. If the L-1-6, L-7-12 and Roleta fields can be produced together, the abandonment rate per field will be reduced to 333 MCF per month. The incremental production, anticipated from reducing the abandonment rate, is 160 MMCF per completion, or a half BCF of extra production for the well.

#### **FINDINGS OF FACT**

1. Notice of this hearing was given to all operators in the field and to all offset operators within 2-1/2 miles of the discovery tract on June 14, 2002.
2. The Silva No. 3 was drilled in May, 2002 and is the first well in the Bob West and South Bob West field areas to be drilled through the major basal glide plane fault.
3. The subject well is the first well in this area to be perforated in the Roleta, which extends from 10,640' to 13,560'.
4. The highest producing rate during the initial production test of the Roleta was 775 MCF/D.
5. The Silva No. 3 is the first well in the South Bob West Field area to be perforated in the Wilcox L-1 through L-6 sandstones which are found between 8210 and 9200'.
6. The entire Wilcox L-1 through L-6 section is shown between 9000' and 10,800' on the log of El Paso's Luera Lease Well No. 1.
7. The highest producing rate on the initial test of the perforations in the L-1 through L-6 sandstones was 3186 MCF/D.
8. Well spacing of 467-933 feet is standard for 40-acre density.
9. Allocation based 95% on deliverability and 5% per well will satisfy the statutory requirement for two factors in multiple-reservoir fields.
10. None of the Bob West or South Bob West fields have had proration units adopted.
11. Producing all the perforations in the Silva Lease Well No. 3 from the Bob West, S. (L-1-6), (L-7-12) and (Roleta) Fields through the slim-hole casing will prevent waste.
  - a. All of the perforated intervals are geopressed, with gradients between 0.66 and 0.79 psi per foot of depth.
  - b. The gas from all of the perforated intervals is similar--mostly methane with 2 to 4% carbon dioxide and a trace of nitrogen.
  - c. Produced saltwater from similar sandstones in offset wells has been compatible but El Paso will test for and treat any incompatibility problems in the Silva No. 3.
12. Downhole commingling will reduce the abandonment rate per completion and produce an incremental 160 MMCF per completion.
13. Commingling production, now about 3 MMCF/D, should be assigned to the deepest field, the Bob West, S. (Roleta) Field.

**CONCLUSIONS OF LAW**

1. Proper notice was given as required by statute.

2. All things have been done or occurred to give the Railroad Commission jurisdiction to resolve this matter.
3. The requested new field designations and proposed field rules will prevent waste, protect correlative rights within the fields, and promote orderly development of the reservoirs.
4. Downhole commingling production from the two proposed new fields and the Bob West, S. (L-7-12) Field will promote conservation and protect correlative rights.

**EXAMINER'S RECOMMENDATION**

Based on the above findings and conclusions, the examiner recommends that the El Paso Silva Lease Well No. 3, between 8210' to 9200', be designated as a new field discovery known as the Bob West, S. (L-1-6) Field. The interval between 10,640' to 13,560' should be designated as a new field discovery known as the Bob West, S. (Roleta) Field. The requested gas rules for both fields should be approved on a permanent basis. A Rule 10 exception should be granted to allow downhole commingling of the two new fields and the Bob West, S. (L-7-12) Field in the El Paso Production Oil & Gas Company Silva Lease Well No. 3.

Respectfully submitted,

Margaret Allen  
Technical Hearings Examiner

Date of Commission Action: August 6, 2002