

PHILLIPS PETROLEUM COMPANY
DRILLING PROGRAM

Attached to BLM Form 3160-3

Lease Name: Emerald Fed.
Well No.: #2
Location: 660' FSL & 1980' FWL, Section 10, T22S, R32E, Lea Co., NM

1. Geological name of surface location:

See archaeological survey

2. Estimated tops of important geological markers:

<u>Name</u>	<u>Depth</u>
<u>Salado</u>	<u>900'</u>
<u>Base of Salt</u>	<u>4490'</u>
<u>Bell Canyon</u>	<u>4500'</u>
<u>Cherry Canyon</u>	<u>5750'</u>
<u>Manzanito</u>	<u>5820'</u>
<u>Brushy Canyon</u>	<u>6965'</u>
<u>Bone Springs</u>	<u>8770'</u>
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3. Estimated depths of anticipated fresh water, oil & gas:

<u>Formation</u>	<u>Depth</u>	<u>Fresh Water/Oil/Gas</u>
<u>Brushy Canyon</u>	<u>7000'-7600'</u>	<u>Oil & Gas</u>
<u>Brushy Canyon</u>	<u>7800'-7950'</u>	<u>Oil & Gas</u>
<u>Brushy Canyon</u>	<u>8500'-8700'</u>	<u>Oil & Gas</u>
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No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13-3/8" casing at 850' and circulating cement back to surface. Potash will be protected by setting NA " casing at NA ' and circulating cement back to surface. Any shallower zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across them by inserting a cementing stage tool into the 5-1/2" production casing which will be run at TD.

4. Casing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>OD Csg.</u>	<u>Weight, Grade, Type</u>
<u>17-1/2"</u>	<u>850'</u>	<u>13-3/8"</u>	<u>48 lb/ft, H-40, ST&C</u>
<u>12-1/4"</u>	<u>4550'</u>	<u>8-5/8"</u>	<u>24&32 lb/ft, J-55, ST&C</u>
<u>7-7/8"</u>	<u>8800'</u>	<u>5-1/2"</u>	<u>15.5&17 lb/ft, J-55, ST&C</u>