



May 25, 2010

Mark E. Fesmire, P.E.  
Director  
Oil Conservation Division  
New Mexico Department of Energy,  
Minerals and Natural Resources  
1220 South Saint Francis Drive  
Santa Fe, New Mexico 87505

Re: Application of Chesapeake Operating, Inc. for Enhanced Oil Recovery  
Project Qualification for the Recovered Oil Tax Rate at the Chambers  
Strawn Unit, Lea County, New Mexico.

Dear Mr. Fesmire:

Chesapeake Operating, Inc. ("Chesapeake"), hereby makes application to qualify the Chambers Strawn Unit for the recovered oil tax rate as authorized by the Enhanced Oil Recovery Act. Chesapeake plans to commence waterflood operations in the project area during the 4th quarter of 2010. Chesapeake is making application pursuant to the rules promulgated by Oil Conservation Commission Order No. R-9708 entered on August 27, 1992.

In accordance with this Order, Chesapeake Energy Corporation provides the following information:

**A. Operator's name and address:**

Chesapeake Operating Inc.  
6100 No. Western Ave.  
Oklahoma City, Oklahoma 73154

**B. Description of the project area:**

1. Exhibit "A" is a plat outlining the project area
2. The following acreage is located in the project area:

**TOWNSHIP 16 SOUTH, RANGE 36 EAST, NMPM**

Section 7:	NE/4, NE/4 SE/4
Section 8:	NW/4 NW/4, S/2 NW/4, SW/4

The proposed project will impact 100% of the Unit area and is more accurately identified as the injection patterns highlighted on Exhibit "A", which includes the wells listed on Exhibit "B".

3. Total acres:

The Chambers Strawn Unit contains a total of 480, acres more or less.

Chesapeake is targeting 480 acres for this enhanced oil recovery project. All acreage in the Unit Area will be impacted by the initial phase of injection

4. Subject pool and formation:

The Chambers Strawn Unit is within the Northeast Shoe Bar Pool.

The unit includes the Strawn formation.

Exhibit "C" is the type-log identified in the Unit Agreement.

**C. Status of operations in the project area:**

1. The name of the Unit is the Chambers Strawn Unit.
2. The wells in the proposed unit are producing on primary decline.

**D. Method of recovery to be used:**

Secondary recovery by water injection.

1. Identify fluids to be injected:  
Produced Water from the unit wells and make-up water produced from Strawn and Wolfcamp producing wells.

**E. Description of the project:**

1. List of producing wells:

See Exhibit "B".

There are plans to drill no additional development wells within the project area.

2. List of injection wells:

See Exhibit "B".

3. Cost Estimate for project:

Capital Costs:

<u>Description</u>	<u>Cost</u>
Convert 2 active wells to injection	\$350,000
Clean out and acidize 1 producer	\$ 75,000
Construct injection facilities	\$325,000
<u>Water Supply System</u>	<u>\$500,000</u>
Total Capital Costs	\$1,250,000

Operating and Wellhead Tax      \$4,419,000

Total project costs      \$5,669,000

5. Estimated total value of the additional production that will be recovered as a result of this project:

The project is anticipated to recover an additional gross amount of 572,000 STB oil and 580,000 Mcf gas, the net volume to the working interest owners is 429,000 STB oil and 435,000 Mcf gas. Using an average price for the oil of \$ 75 per barrel and \$4 per Mcf, the value of the additional hydrocarbons to be produced from the proposed project is \$ 33,900,000 income to the working interest owners.

6. The anticipated date for commencement of injection:

December 15, 2010.

7. Identify the fluid to be injected and the anticipated volumes:

3,600 barrels of produced and makeup water as needed per well per day

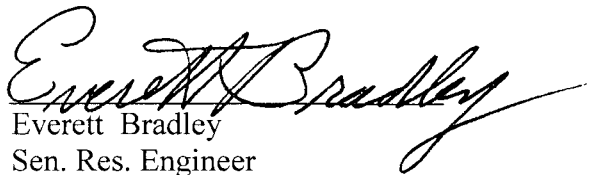
8. Production Data:

Exhibit "D" is a graph which shows the production history for the project and a forecast of the enhanced recovery of oil, gas, casinghead gas and water anticipated from this project.

Chesapeake Operating, Inc. requests that this application be set for hearing and, if no objections are received, that it be approved.

Very truly yours,  
CHESAPEAKE OPERATING, INC.

By:

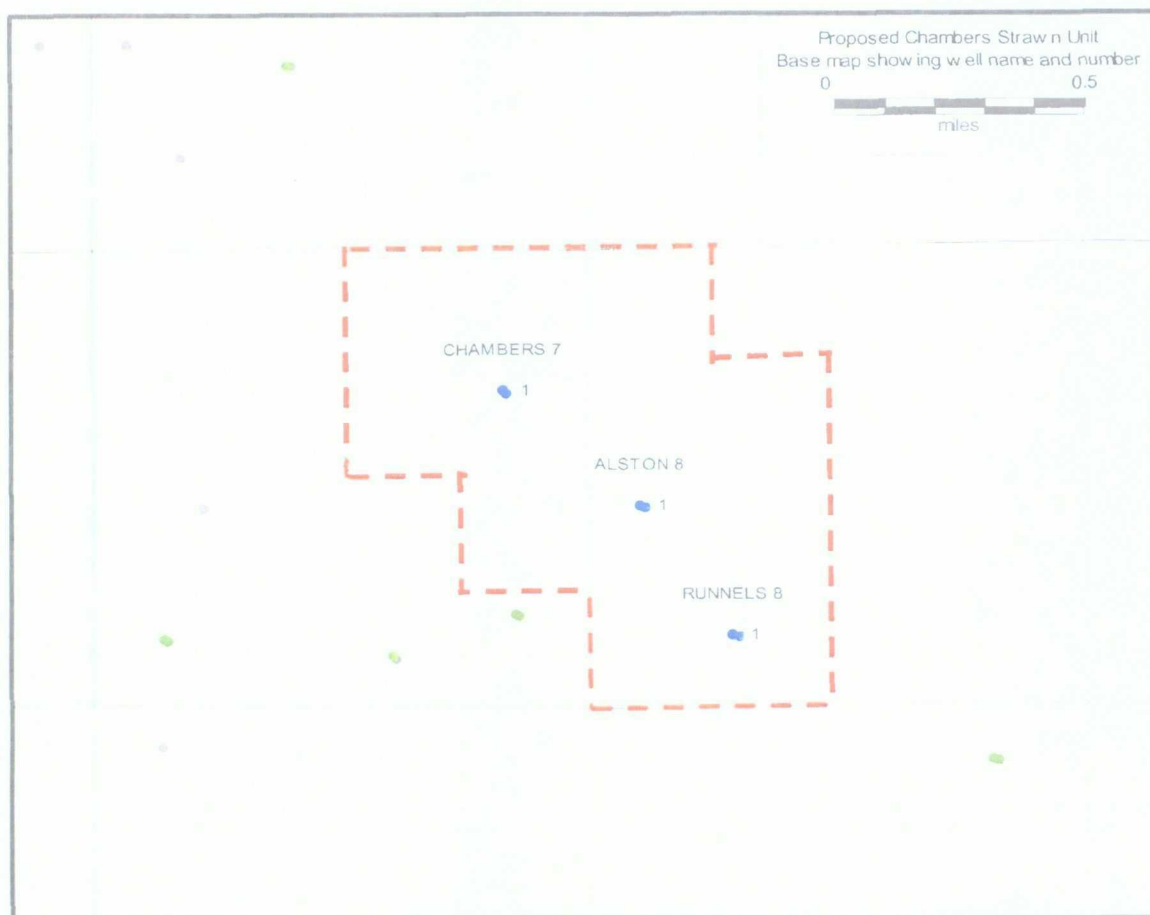


Everett Bradley  
Sen. Res. Engineer  
Chesapeake Energy Corporation

Exhibit A: Plat of Project Area  
Exhibit B: Table of Wells in the Project Area  
Exhibit C: Type Log  
Exhibit D: Historical Production Curve and Production Forecast

# Proposed Chambers Strawn Unit

## Base Map showing wells and Unit Boundary



We propose Chambers 7-1 and Runnels 8-1  
be converted to water injection service.

# Proposed Chambers Strawn Unit

## Table of Wells

Well Name	API	Location	Latitude	Longitude	Plan Use
Chambers 7-1	3002533623	Sec 7H T16S-R36E	32.93901	-103.38805	Injection
Alston 8-1	3002533876	Sec 8L T16S-R36E	32.93542	-103.38337	Production
Runnuls 8-1	3002534264	Sec 8N T16S-R36E	32.93133	-103.38016	Injection

# TYPE LOG RUNNELS 8 1



Top of Strawn Carbonate

Porosity > 5%

Top of Atoka Shale

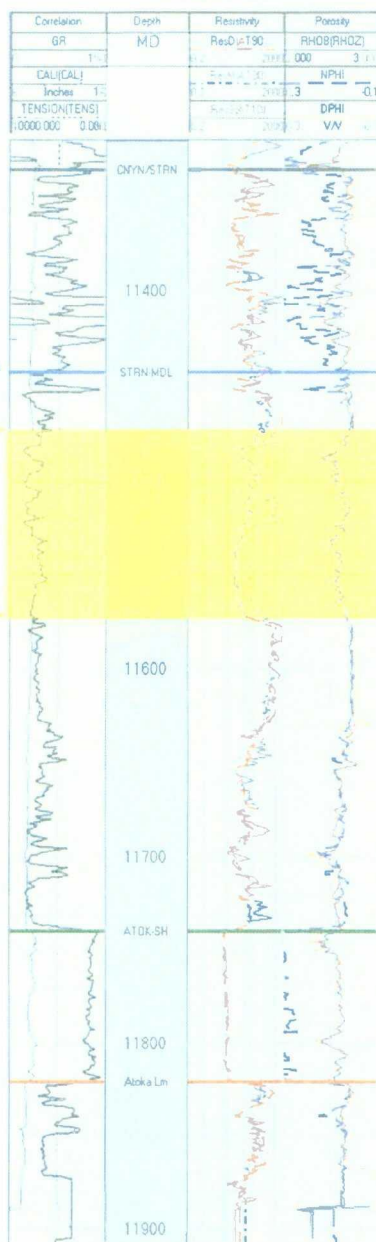


Exhibit C



# Proposed Chambers Strawn Unit Waterflood Performance Prediction

Proposed Chambers Strawn Unit  
Cum: 708,515 Oil, 2,195,740 Gas & 882,642 bbl Wtr  
Pri Res: 68,045 bbls oil & 199,100 Mcf gas (est. at 4/1/2010)  
Sec Res: 572,000 bbls oil & 580,000 mcf gas

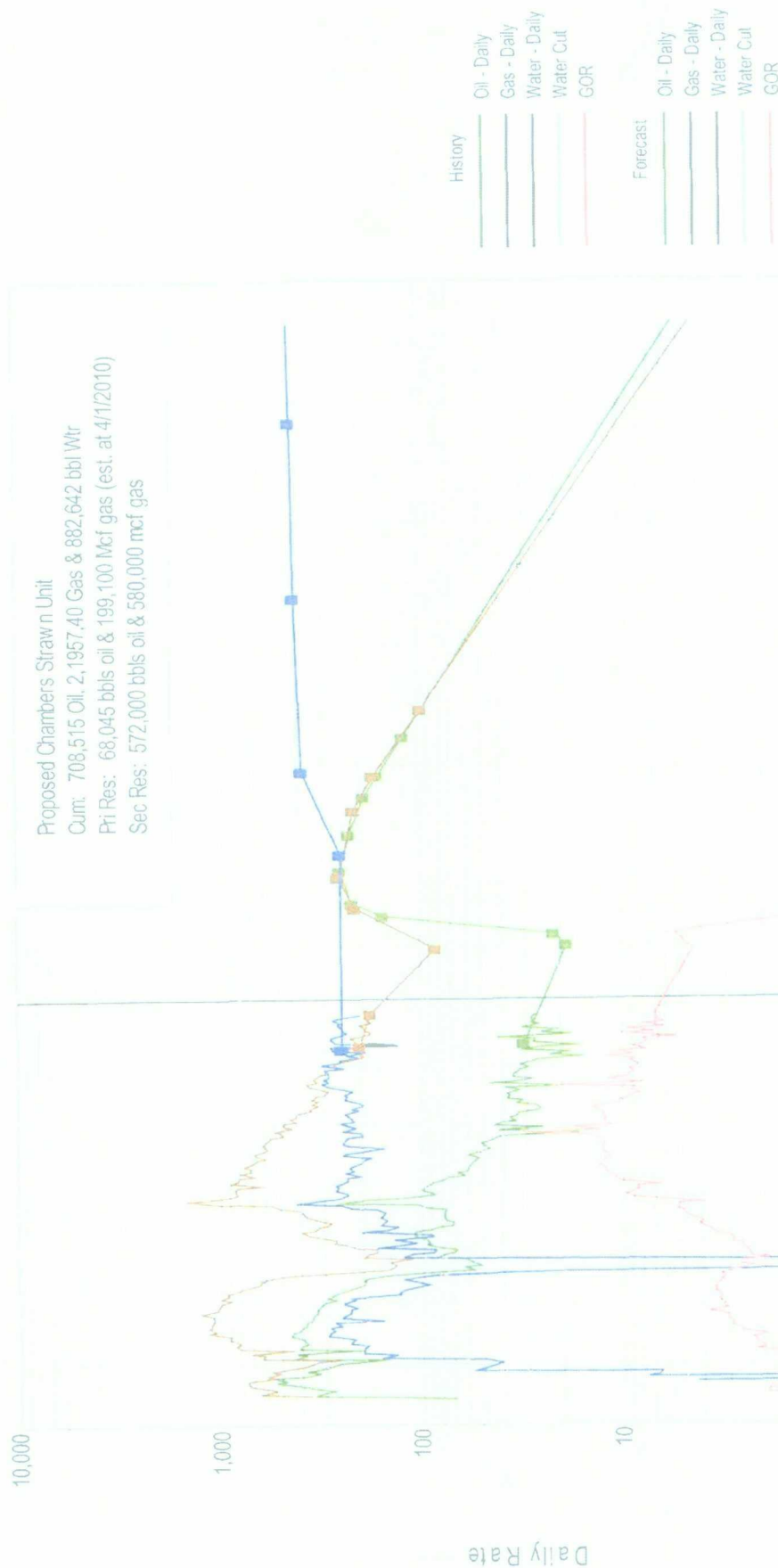


Exhibit D