

**DEPARTMENT OF NATURAL RESOURCES**

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July 13, 2009

Conquest Oil Company  
8203 W. 20<sup>th</sup> Street, Suite A  
Greeley, CO 80634

RE: Stepped Injection Schedule Approval  
SWD 1-30, API # 05-123-26004  
SESE 30, T3N, R65W, 6<sup>th</sup> PM  
Weld County, Colorado

Dear Sir or Madam:

I have reviewed the data Mr. Andy Peterson of Peterson Energy Management, Inc. submitted from the step rate test performed on 6/29/09 to justify a request to increase the injection pressure in the SWD 1-30 injection well, (UIC Facility Number 159193). Facility gauges and flow meters were used for the test. The maximum surface treating pressure reported during the test was 2500 psi at the maximum injection rate of 6529 barrels per day (4.53 barrels per minute). The bottom hole pressures were calculated for each step using friction from the 4/10/09 test where down hole and surface mounted pressure gauges were used. The maximum bottom hole pressure during the test was calculated as 5975 psi. The bottom hole pressures and rates from the six steps plotted as a straight line, indicating that the fracture pressure was not exceeded. Therefore COGCC authorizes injection according to the following schedule of surface injection pressures and rates.

Rate (bpm)	Rate (bpd)	STP max allowable (psi )
0 - 2	0 - 2880	2030
2 - 4	2880 - 5760	2160
4 - up	5760 - up	2410

This schedule supersedes the previous limit of 1504 psi as authorized by Form 33 (Document #2082583), and Approval Letter dated November 9, 2007 (Document #2053115),

This authorization to increase injection pressure is subject to the following conditions:

1. Surface injection pressures, rates, volume, and hours pumping shall be recorded as follows: Currently the site personnel are recording data every 2 hours, which is acceptable. The minimum, maximum and average pressures, rates and volume for each day shall be transferred onto a summary sheet for each month. The first 30 days of data shall be reported to COGCC within 45 days of beginning this pumping schedule.
2. After the first month the above data shall continue to be recorded the same way and reported to COGCC on a quarterly (3 month) basis. Data shall be reported in tabular format along with a brief Summary Report describing operations, trends, observations, and conclusions.
3. Calibrate the Barton Chart monthly and submit documentation with the quarterly reports.
4. If pressures are not maintained within the schedule values COGCC may require the surface injection pressure be returned to a single value.
5. If the pumping schedule is followed and reporting is acceptable for a period of 1 year then COGCC will consider applying this type of request at other facilities.

If you have any questions regarding this approval, please do not hesitate to call me at (303) 894-2100 Ext. 5107.

Sincerely,



Dirk Sutphin  
Petroleum Engineer, EIT III  
COGCC

Cc: Andy Peterson, Peterson Energy Management, Inc.

Enclosures

# Conquest SWD 1-30 Step Rate Test June 29, 2009

