## STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION COMMISSION

2012 JUN 21 P 3: 50

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION FOR THE PURPOSE OF CONSIDERING:

APPLICATION OF AGAVE ENERGY COMPANY FOR AUTHORITY TO INJECT, LEA COUNTY, NEW MEXICO

Case No. 14720

#### AGAVE ENERGY COMPANY'S PRE-HEARING STATEMENT

Pursuant to 19.15.4.13(B)(1) NMAC, applicant Agave Energy Company ("Agave") submits its Pre-Hearing Statement.

#### **APPEARANCES**

Agave's business address is 105 S. Fourth Street, Artesia, New Mexico 88210. It is represented by the undersigned counsel.

Kaiser-Francis Oil Company ("Kaiser-Francis") appeared with counsel at the Commission hearing held on December 8 and 9, 2011 and opposed Agave's application requesting authorization to inject treated acid gas ("TAG") from its Red Hills Gas Processing Plant into the Red Hills AGI #1 disposal well. Kaiser-Francis is represented by James Bruce.

#### STATEMENT OF THE CASE

On January 23, 2012, the Commission issued Order No. R-13507 granting Agave's application and authorizing Agave to drill and operate the Red Hill AGI #1 well, which will be located in Section 13, Township 24 South, Range 33 East, NMPM, in Lea County. The order imposes certain conditions, including requirements that Agave reenter and replug four plugged and abandoned wells located within a one-mile radius of the Red Hills AGI #1 well. On May 14, 2012, Agave filed a motion requesting the Commission to amend Order No. R-13507 by

eliminating the requirement that Agave reenter and replug the Smith Federal #001 (API 30-025-27491) well. As stated in the motion, Agave has obtained and evaluated additional data pertaining to the Smith Federal #001 well and has concluded that, based on its post-hearing analysis of the cementing of the well and its spatial relationship to the Red Hills AGI #1 well, the Smith Federal #001 well as currently plugged will not be impacted by Agave's injection of TAG for disposal.

#### PROPOSED EVIDENCE

WITNESSES	EST. TIME	<u>EXHIBITS</u>
Ivan Villa (Engineer)	10 min.	
Jennifer Knowlton (Engineer)	10 min.	
Alberto Gutierrez (Geologist)	20 min.	1

In accordance with 19.15.4.13(B)(2) NMAC, a copy of the exhibit that Agave Energy will offer into evidence at the hearing is attached.

#### **PROCEDURAL MATTERS**

There are no procedural matters to be resolved prior to the hearing.

HINKLE, HENSLEY, SHANOR & MARTIN, LLP

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Counsel for Agave Energy Company

#### **CERTIFICATE OF SERVICE**

I hereby certify that on this 21<sup>st</sup> day of June, 2012, I sent a true and correct copy of the foregoing *Agave Energy Company's Pre-Hearing Statement* via email to:

James Bruce, Esq. P.O. Box 1056 Santa Fe, NM 87504-1056 jamesbruc@aol.com

Counsel for Kaiser-Francis Oil Company

Gary W. Larson

## Request to Remove the Requirement in Order R-13507 to Remediate the Smith Federal #1 Well

Hearing before the New Mexico Oil Conservation Commission

June 28, 2012 Santa Fe, NM OCC Case No. 14720
AGAVE ENERGY
Exhibit # 1





## **Agave Witnesses**

Ivan Villa – Engineering Manager

Jennifer Knowlton, PE – Environmental Manager

Alberto A. Gutierrez, RG – Geolex, Inc.





### **Outline of Presentation**

- Update on Red Hills Plant construction progress
- Compliance with Order No. R-13507 conditions
- New analysis of plugging requirements, plan development, permitting and approvals
- Development and execution of remediation program
- Well remediation program status
- Technical basis for request to exclude Smith Federal #1 from remediation requirement





## **Red Hills Plant Construction Update**

- Site preparation work started on 7/24/2011
- Amine tower will be erected on 7/9/2012
- Demethanizer tower erected on 5/18/2012
- Currently scheduled for completion of construction on 9/1/2012
- Initiation of operations and commissioning expected to begin on 10/1/2012





# Status of Compliance with Conditions of NMOCC Order R-13507

- Additional analysis of plugging status and requirements of order assigned by Agave to Geolex, Inc.
- Additional data were developed on each well, site inspections conducted, and detailed well remediation program and cost estimates were developed
- Geolex has determined that the Smith Federal #1 is adequately protected in current condition based on four independent technical factors
- Agave has initiated the well remediation program implementation based on NMOCD and BLM approvals of remediation plans for Govt "L" Com #1 and #2 and Sims #1
- Geolex is currently working on remediating the Govt "L" Com #2 to be followed by the Govt "L" Com #1 and the Sims #1



# Technical Basis for Agave Energy Company's Request to amend Order No. R-13507 to not require the reentry and re-plugging of the Smith Federal #1

- Well plugging and cementing: The well's current plugging configuration is more than adequate to protect the Cherry Canyon zone and will prevent any potential for acid gases to leave the injection zone.
- **Distance:** The Smith Federal #1 well is located approximately 0.75 miles southeast of the proposed Agave AGI
- Area Impacted by Injection: The well is far outside the area calculated to be impacted even after 30 years of injection at anticipated rates (0.39 mile radius from the proposed AGI). Even with a 3X safety factor, the radius of injection would only extend 0.68 mile, safely away and updip from the Smith Federal #1 well
- **Structural position:** The well is downdip of the Agave proposed AGI, and the elevation of the Cherry Canyon in that well lies approximately 50 feet below the elevation of the target zone in the proposed AGI



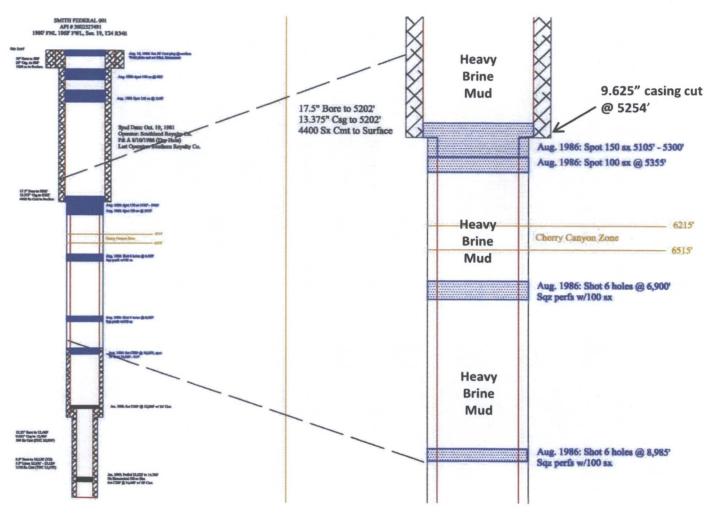
#### Smith Federal #1: Re Plugging is not Needed Because Current Plugging Configuration Protects the Cherry Canyon

- The 9.625" casing runs from 5,254 to 12,400 feet, spanning the Cherry Canyon zone at 6,215 to 6,515'
- Prior to plugging, the well was killed with heavy brine mud which filled the casing
- A squeeze job was performed at 6,900 feet (400 feet below the Cherry Canyon) perforating the casing and injecting 100 sacks of cement with a retainer set at 6,870 feet.
- After the 9.625" casing was pulled from 5,254 feet, two spot plugs were set over the casing stub: 100 sacks at 5,355 feet, and an additional 150 sacks from 5,105 to 5,300 feet, closing both the casing and the annulus
- The squeeze job and the spots combined with the heavy mud effectively isolate the casing between 5,100 and 6,900 feet, protecting the Cherry Canyon in this well





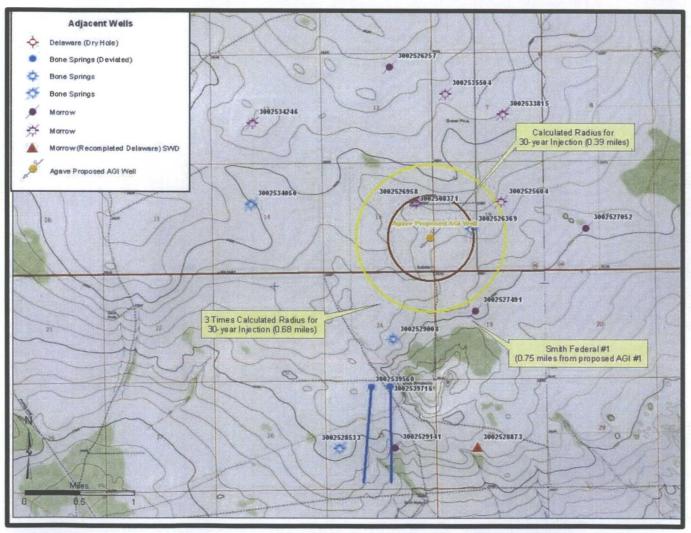
#### **Existing Plugging Conditions in Smith Federal #1**







# The Distance From the Proposed AGI and the Location Outside the Calculated Influence of Injection Protect Smith Federal #1 from Impacts by Proposed Injection

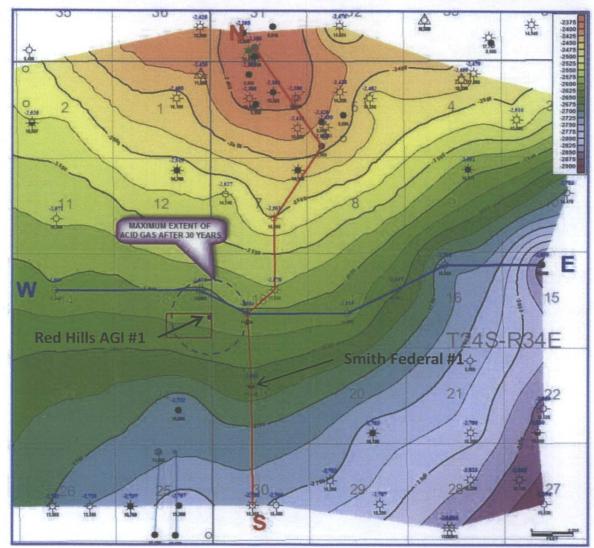


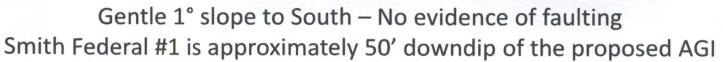






### The Structure on top of the Cherry Canyon Shows the Downdip Location of Smith Federal #1

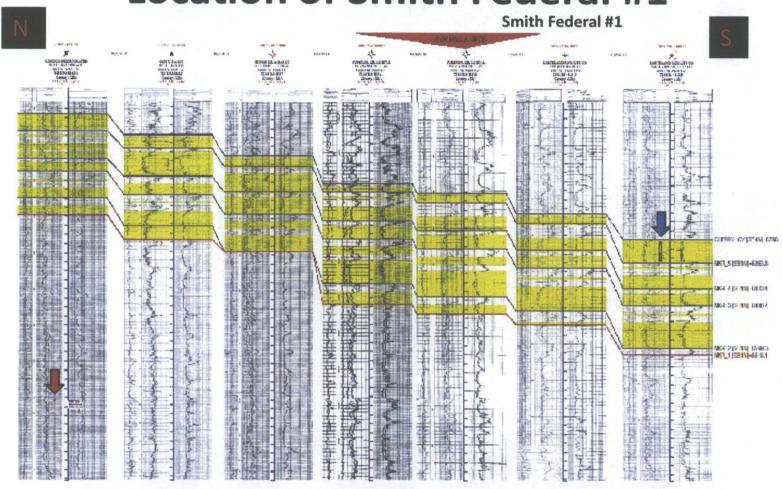








## North-South Cross-Section Showing Downdip Location of Smith Federal #1



- Sand units are laterally continuous
- Proposed AGI is clearly updip of Smith Federal #1





#### Summary of Agave Energy Company's Request

- Agave initiated the plugging program for the following three wells (in this order) on June 21, 2012 as per the requirements of Order No. R-13507:
  - Government "L" Com #2
  - Government "L" Com #1
  - Sims #1
- In compliance with the Order, Agave has prepared detailed re-plugging plans for the above-named wells, has obtained access from landowners, has done surface preparations and has retained Geolex to execute the plugging program for these wells in the sequence above
- The appropriate notices of proposed plugging programs were submitted to, and approved by, the NMOCD via Forms C-103 for the Sims #1 and Government "L" Com #2 and by the BLM via a Form 3160-5 for the Government "L" Com #1
- For the reasons detailed above, Agave believes that is safe and prudent to leave Smith Federal #1 in its current condition, as it poses no significant hazard to the Cherry Canyon Formation as a result of the proposed AGI well operations
- Agave respectfully requests that the Commission amend Order R-13507 to delete Smith Federal #1 (API 30-025-27491) from the list of wells requiring remediation



