# **ATTACHMENT 3**

# CLOSED LOOP DESIGN PLAN FOR ZIA AGI WELLS

District I 1625 N. French Dr., Hobbs, NM 88240 District II
1301 W. Grand Avenue, Artesia, NM 88210 District III
1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

## State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-144 CLEZ July 21, 2008

For closed-loop systems that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, submit to the appropriate NMOCD District Office.

## Closed-Loop System Permit or Closure Plan Application

(that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

Type of action: Permit Closure

Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.  1.
Operator: DCP MIDSTREAM, LC OGRID #:
Address: 370 17 <sup>th</sup> STREET, SUITE 2500, DENVER, CO 80202
Facility or well name: ZIA AGI #1 & AGI #2
API Number: PENDING OCD Permit Number: PENDING
U/L or Qtr/QtrUnit O Section 19 Township 17S Range 32E County: Lea
Center of Proposed Design: Latitude <u>32.64459881</u> Longitude <u>-103.8111449</u> NAD: ⊠1927 □1983
Surface Owner:  Federal State Private Tribal Trust or Indian Allotment
2.  □ Closed-loop System: Subsection H of 19.15.17.11 NMAC  Operation: □ Drilling a new well □ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) □ P&A  □ Above Ground Steel Tanks or □ Haul-off Bins
Signs: Subsection C of 19.15.17.11 NMAC  ☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
☐ Signed in compliance with 19.15.3.103 NMAC
4.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  Closure Plan (Please complete Box 5) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC  Previously Approved Design (attach copy of design) API Number:  Previously Approved Operating and Maintenance Plan API Number:  5.
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC) Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.
Disposal Facility Name: Controlled Recovery, Inc. Disposal Facility Permit Number: NM-1-006
Disposal Facility Name: Disposal Facility Permit Number:
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations?  Yes (If yes, please provide the information below)  No
Required for impacted areas which will not be used for future service and operations:  Soil Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC  Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC
6. Operator Application Certification:
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print): _Alberto A. Gutiérrez, RG Title: Consultant to Frontier Field Services, LLC
Signature: Date:
e-mail address:aag@geolex.com Telephone:505-842-8000

7.  OCD Approval: Permit Application (including closure plan) Closure P	lan (only)		
OCD Representative Signature:	Approval Date:		
Title:	OCD Permit Number:		
8. Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.			
	Closure Completion Date:		
9. Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.			
Disposal Facility Name:	Disposal Facility Permit Number:		
Disposal Facility Name:	Disposal Facility Permit Number:		
Were the closed-loop system operations and associated activities performed on on Yes (If yes, please demonstrate compliance to the items below)	in areas that will not be used for future service and operations?		
Required for impacted areas which will not be used for future service and operat  Site Reclamation (Photo Documentation)  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique	ions:		
Operator Closure Certification:  I hereby certify that the information and attachments submitted with this closure belief. I also certify that the closure complies with all applicable closure requirer			
Name (Print):	Title:		
Signature:	Date:		
e-mail address:	Telephone:		

#### Closed Loop System Design Plan (pursuant to 19.15.17.11 NMAC):

The closed loop design does not incorporate any temporary pits or below-grade tanks. The plan uses above-ground tanks suitable to contain the fluids and cuttings generated during the drilling operations. The volume(s) of the tank(s) will be suitable to contain all anticipated fluids with an adequate freeboard for periodic removal of cuttings and fluids.

The fluids and cuttings will be held in temporary steel tanks, allowing settling of the cuttings and recycling of the drilling fluids. Following completion of drilling operations, the fluids and cuttings will be removed to a permitted disposal facility in Lea County (Controlled Recovery, Inc.).

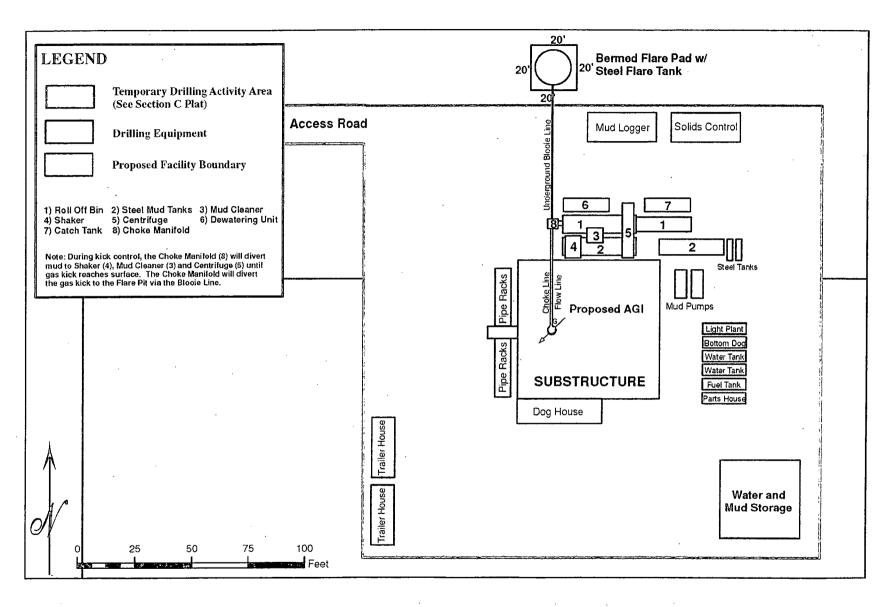
The grading and operation of the drilling pad will be maintained to minimize and control on-run and offrun from storm water.

#### Closed Loop Operations and Maintenance Plan (pursuant to 19.15.17.12 NMAC):

- 1. Any free liquids will be recovered and reused, disposed of at the Controlled Recovery, Inc. facility (Permit # NM-1-006), or relocated for use in other permitted drilling operations.
- 2. Drill solids will be periodically removed from the site and transported to the Controlled Recovery facility for disposal, as required to maintain a safe freeboard on the tanks. No on-site disposal or burial of cuttings will occur.
- 3. All drilling materials and trash will be stored and disposed of in an appropriate manner.
- 4. The NMOCD and BLM will be notified within 48 hours of the discovery of any compromised integrity of the closed loop containment. Any required repairs will commence immediately.

#### Close Loop Closure Plan (pursuant to 19.15.17.9 NMAC and 19.15.17.13 NMAC):

- 1. Following the completion of drilling operations, the temporary fluid tanks will be cleaned and the final residues hauled and disposed of by Controlled Recovery, Inc. facility (Permit # NM-1-006).
- 2. The site will be re-graded as necessary to maintain drainage control and minimize erosion. Since the drilling site is owned by the Operator (Frontier Field Services, LLC), there will be no impacts to Federal lands or any other property owner.
- 3. Appropriate fencing, signage and other security measures will be installed after well completion and installation of the surface injection facilities.



Rig Layout and Schematic with Closed Loop System Design

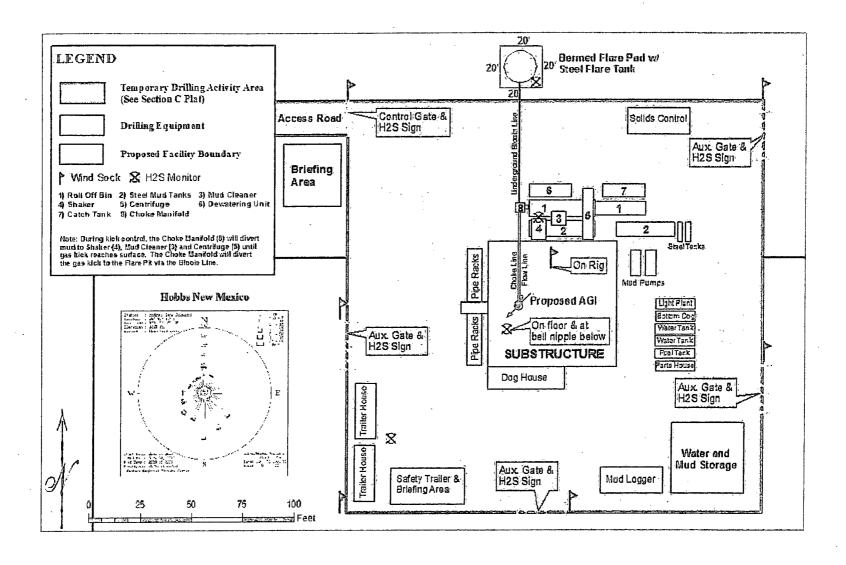


Figure 13: Site Plat Showing H2S Safety Features and Closed Loop System

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# **ATTACHMENT 4**

# TWELVE POINT SURFACE USE PLAN OF OPERATION (SUPO)

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# ZIA AGI #1 TWELVE POINT SURFACE USE PLAN OF OPERATION FOR BLM

#### **EXECUTIVE SUMMARY**

On behalf of DCP Midstream, LP (DCP), Geolex<sup>®</sup>, Inc. (Geolex) has prepared and is hereby submitting a complete application for approval for permit to drill (APD) two combined acid gas injection and CO<sub>2</sub> sequestration wells (Zia AGI #1 and Zia AGI #2) at the proposed DCP Zia Gas Plant in Section 19, T19S, R32 E approximately 35 miles west of Hobbs in Lea County, New Mexico (Figure 1). This is the required 12-point Surface Use Plan of Operations (SUPO) supporting the APD.

NAME OF WELL: Zia AGI #1

LEGAL DESCRIPTION: Surface 2100' FSL and 950' FWL Section 19, T19S, R32E.

BHL 2550' FNL, 750 FWL, Section 19, T19S, R32E, Lea County, NM.

#### I. EXISTING ROADS

- A. Proposed Well Site Location: See Figure 1
- B. Existing Roads: From the intersection of Highway 82 and County Rd 222 (30 miles east of Artesia), go south on C.R. 222 for 12 miles, turn east on C.R. 248 for 3.5 miles, turn south on lease road for 0.25 miles. AGI wells are on the east side of the lease road (Figures 1 and 5).
- C. Existing Road Maintenance or Improvement Plan: Approximately 100 feet of access road will be needed as shown on Figure 2 &4.

#### II. NEW OR RECONSTRUCTED ACCESS ROADS

- A. Route Location: 100 feet of new lease road will be built (See Figures 2 &3)
- B. Width: 12 feet wide
- C. Maximum Grade: Grade to match existing topography or as per BLM requirements
- D. Turnout Ditches: As required by BLM stipulations
- E. Culverts, Cattle Guards and Surfacing Equipment: Though none are anticipated, if required, culverts and cattle guards will be per BLM specifications.

#### III. LOCATION OF EXISTING WELLS

Figure 5 shows existing wells in the surrounding area (also see Attachment 1 of 9-Point Drilling Plan).

### IV. LOCATION OF EXISTING AND/OR PROPOSED PRODUCTION FACILITIES

- A. Existing production facilities: Not applicable. Wells are for Acid Gas Injection.
- B. Acid Gas Compression Facility: Compression facilities for the AGI are being built to the east of the proposed locations of Zia AGI #1 and Zia AGI #2 (see Figures 2 & 3).
- C. Rehabilitation of Disturbed Areas: Following the construction, those access areas required for AGI operations will be graded to provide drainage and minimize erosion. The areas unnecessary for use will be graded to blend in with the surrounding topography and reclaimed.

#### V. LOCATION AND TYPES OF WATER SUPPLY

- A. Location and Type of Water Supply: Freshwater and brine water will be hauled from commercial facilities
- B. Water Transportation System: Water hauling to the location will be over the existing and proposed roads.

#### VI. CONSTRUCTION MATERIALS

- A. Materials: On site caliche will be used. If this is not sufficient, caliche will be hauled from a BLM approved pit.
- B. Land Ownership: Federally Owned
- C. Materials Foreign to the Site: No construction materials foreign to this area are anticipated for this drill site.
- D. Access Roads: Approximately 100 feet of new access road is needed. (See Figures 2 & 3 & 4).

#### VII. METHODS FOR HANDLING WASTE

A. Cuttings: A closed loop system will be used. Cuttings will be contained in the roll off bins and disposed of at Control Recovery, Inc. (CRI) or other off-site licensed facility (See Attachment 2 to 9-Point Drilling Plan).

- B. Drilling Fluids: Drilling fluids will be contained in the steel pits and frac tanks, and disposed of at licensed disposal sites.
- C. Produced Fluids: Produced formation water will be contained in the steel pits of the closed loop system.
- D. Sewage: Portable facilities will contain sewage during drilling and waste will be disposed of in compliance with current laws and regulations pertaining to the disposal of human waste.
- E. Garbage: Portable containers will be utilized for garbage disposal during the drilling of this well. Garbage will be hauled off-site for disposal at an approved facility.
- F. Cleanup of Well Site: Upon release of the drilling rig, the surface of the drilling pad will be graded to accommodate the completion rig. Reasonable cleanup will be performed prior to the final restoration of the site.

#### VIII. ANCILLARY FACILITIES

None required

## IX. WELL SITE LAYOUT

- A. Rig Orientation and Layout: Figure 3 shows the dimensions of the well pad, closed loop system, and the location of major rig components. Minor leveling of the well site will be required. No significant cuts or fills will be necessary.
- B. Locations of Access Road: See Figure 2 & 3.
- C. Lining of the Pits: There will be no reserve pits. This will be a closed loop system (see Attachment 2 to 9-Point Drilling Plan.

#### X. PLANS FOR SURFACE RECLAMATION

- A. Reserve Pit Cleanup: Not applicable-- closed loop drilling fluid system will be used.
- B. Restoration Plans: Interim remediation activities are shown on Figure 4. After drilling and final completion, the areas outside the final well pad (Figure 2, 3 & 4), including temporary well roads, will be:
  - a) Removed of all non-native surface materials (caliche)
  - b) Ripped and re-graded
  - c) Contoured to match the surroundings
  - d) Spread with topsoil from the stockpile

- e) Disked to prepare the seed bed, and
- f) Seeded with A BLM-approved seed mixture.

Within the proposed new land lease (Figure 7), those areas not required for AGI operations will be graded to blend with the surrounding topography. Topsoil, as available, will be placed upon those areas and seeded. The portion of the site required for AGI operations will be graded to minimize erosion and provide access during inclement conditions.

C. Rehabilitation's Timetable: Upon completion of drilling operations, the initial cleanup of the site will be performed as soon as weather and site conditions allow economic execution of the work.

#### XI. SURFACE OWNERSHIP

Federal BLM

#### XII. OTHER INFORMATION

- A. Terrain: Flat with some low dunes.
- B. Soil: Caliche and sand.
- C. Vegetation: Sparse, primarily mesquite with very little grass.
- D. Surface Use: Primarily grazing.
- E. Surface Water: There is a small lake about 4.5 miles to the south of the AGI sites. There are several stock tanks/fire water tanks located in the adjacent gas field. There are no perennial streams or rivers within five miles of the well site.
- F. Residences and Buildings: The only nearby facilities are the DCP Gas Processing Plant located immediately to the east and a few gas well sites about 1/4-mile from the AGI well sites.
- G. Historical Sites: None observed
- H. Archeological Resources

DCP has had an independent archeological survey performed for the Zia Plant vicinity. No cultural resources were found in the survey.

- I. Well signs will be posted at the drilling site.
- J. Open Pits: No open pits will be used for drilling or production. Any open top tanks will be netted.

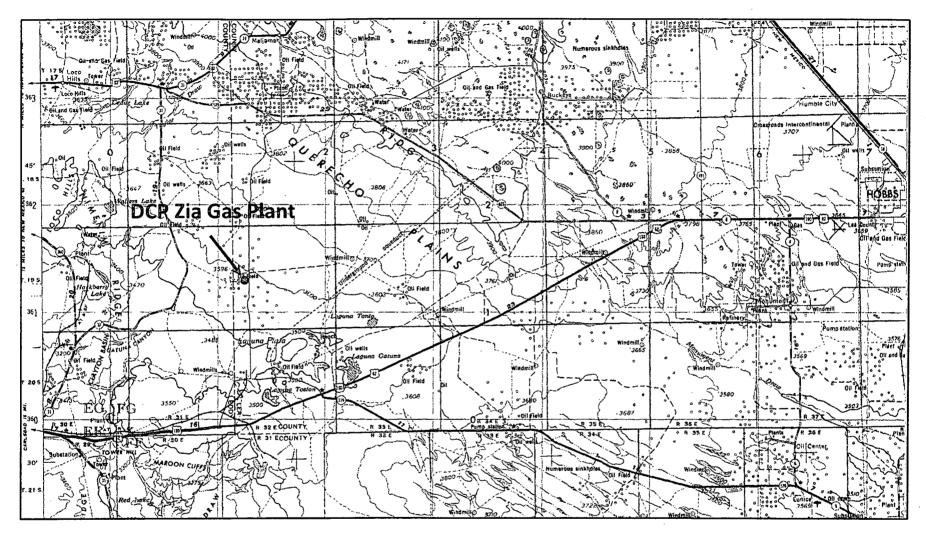


Figure 1: Location of the Proposed DCP Zia Gas Plant and AGI Wells. (USGS 1:250,000)

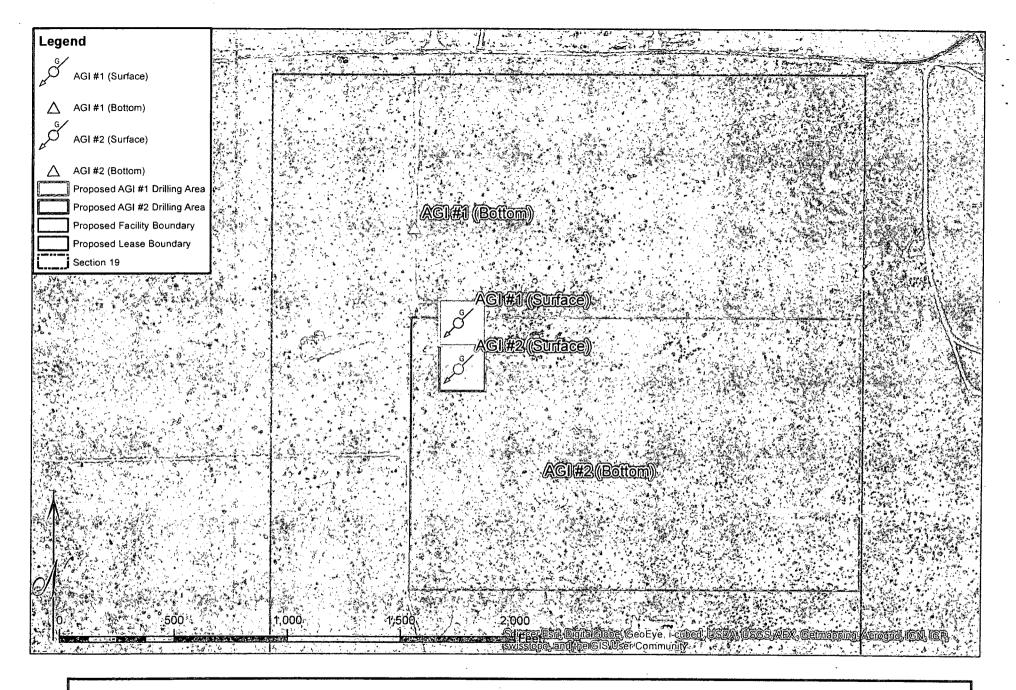


Figure 2: Proposed AGI Drilling Areas and Lease and Facility Boundaries

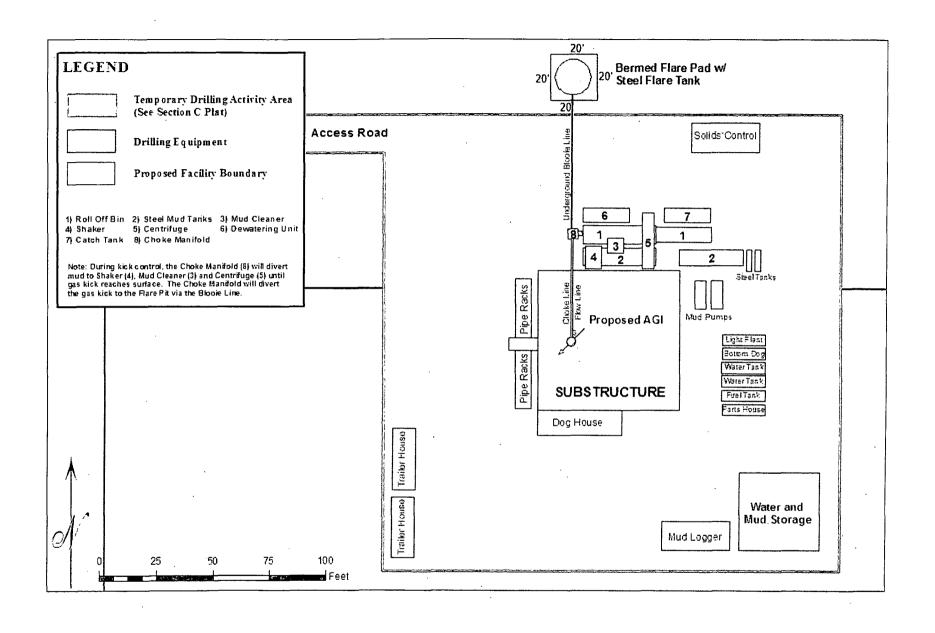
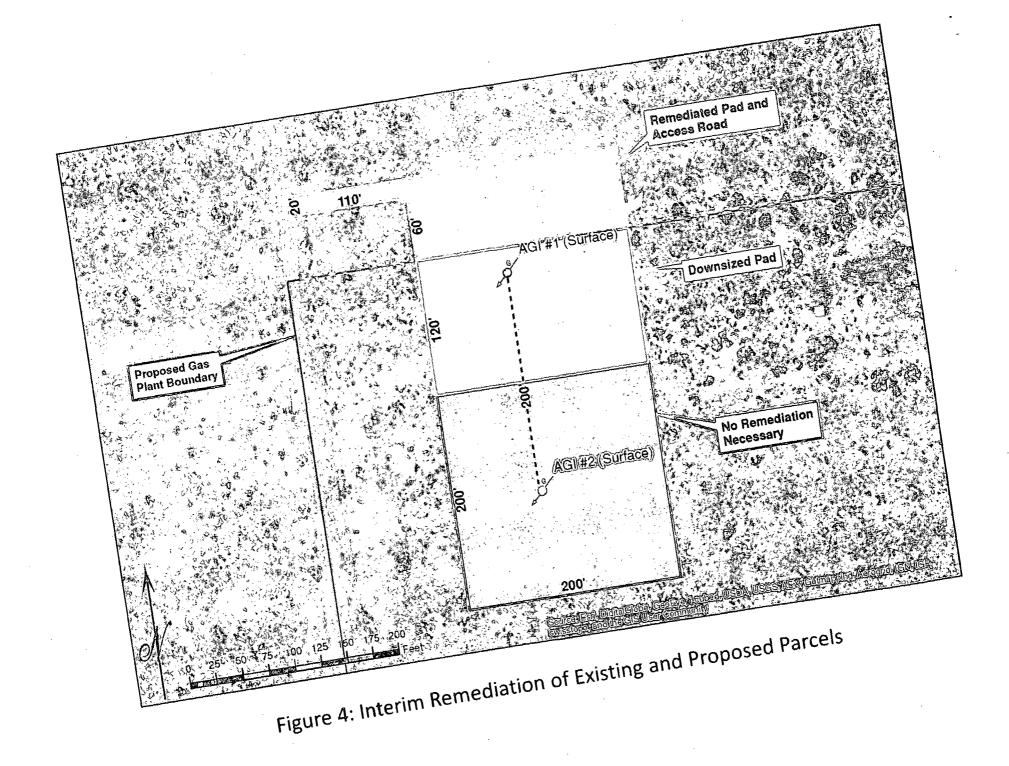


Figure 3: Rig Layout and Schematic with Closed Loop System



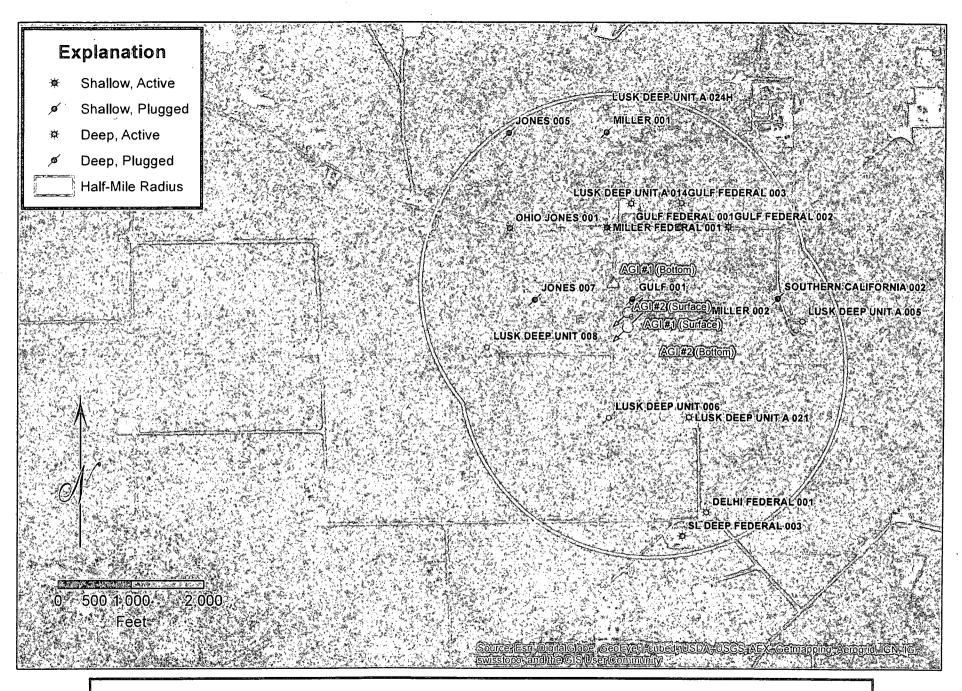


Figure 5: Locations of Wells Within One-Half Mile of AGI Zones