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State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised July 18, 2013

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-48081
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> ACID GAS INJECTION		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
2. Name of Operator Piñon Midstream, LLC		6. State Oil & Gas Lease No.
3. Address of Operator 465 W NM Highway 128; Jal, NM 88252		7. Lease Name or Unit Agreement Name INDEPENDENCE AGI
4. Well Location Unit Letter <u>C</u> : <u>829</u> feet from the <u>NORTH</u> line and <u>1,443</u> feet from the <u>WEST</u> line Section <u>20</u> Township <u>25S</u> Range <u>36E</u> NMPM County <u>LEA</u>		8. Well Number 1
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3,103' (GR)		9. OGRID Number 330718
		10. Pool name or Wildcat AGI: Devonian/Fusselman

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
DOWNHOLE COMMINGLE <input type="checkbox"/>	P AND A <input type="checkbox"/>
CLOSED-LOOP SYSTEM <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>
OTHER: <input type="checkbox"/>	OTHER: 2022 Annual Summary Injection Data Report <input checked="" type="checkbox"/>

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

INDEPENDENCE AGI #1 - Annual Report (2022) from January 1, 2022 through December 31, 2022
(MAOP - 4,779 psig, NMOCC Order R-21455-A,B)

Independence AGI #1 (API: 30-025-48081) is operated by Piñon Midstream, LLC and was placed in service in late August 2021. NMOCC Order R-21455-A initially authorized Independence AGI #1 to be operated at a maximum allowable operating pressure of 4,779 psig and a maximum daily injection volume of 12 million standard cubic feet per day (MMSFD). The daily volume limitation was increased to 20 MMSCFD in calendar year 2022, through the issuance of New Mexico Oil Conservation Commission (NMOCC) Order R-21455-B. Since commissioning of the Independence AGI #1 well, all monthly, quarterly, and annual AGI reports have been submitted timely during the complete period of injection well operation.

Consistent with the reporting requirements of NMOCC Order R-21455 (A-B), this annual report includes the data and analysis of surface injection temperature, treated acid gas (TAG) injection temperature, casing annular pressure, as well as bottom-hole injection pressure and temperature (the "injection parameters") for the period of 2022, in which Independence AGI #1 was continuously operated. Over this period, daily injection volume has steadily increased, as was anticipated in response to the sour gas disposal needs in the area of the Piñon facility. All injection parameters over this period have continued to demonstrate excellent and stable operations of the AGI well, and all parameters exhibit the anticipated responses to increased daily injection volumes. These injection parameter data have yielded the following average results and are described and shown in detail in the attached report, Table 1, and Figures 1 and 2:

Surface Measurements (2022): Avg. TAG Injection Pressure - 2,044 psig, Avg. TAG Injection Temperature - 132 °F, Avg. TAG Injection Rate - 1,885 bpd (approx. 3,555 MSCFD), Avg. Annular Pressure - 590 psig, Avg. Differential Pressure - 1,454 psig.

Down-Hole Measurements (2022): Avg. Bottom-Hole Pressure - 7,573 psig, Avg. Bottom-Hole Temperature - 182 °F

Data collected and representative of calendar year 2022 exhibit the anticipated correlative behavior of the annular pressure with the injection rate, injection pressure and temperature, which demonstrate the operational behavior of a normally-functioning AGI well. Furthermore, excellent mechanical integrity is demonstrated over this period, as shown in the relationship between surface injection pressure and surface annular pressure, which has maintained differential pressure indicative of isolation between the injection tubing and annular space.

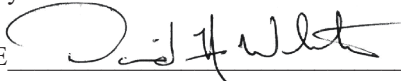
In 2022, TAG average daily injection rates have increased approximately 53% over the prior 2021 period (from approximately 2,325 MSCFD in 2021, to 3,555 MSCFD in 2022), and increased rates of injection occur coincident with expected increase in surface- and bottom-hole injection pressures. In all aspects, the approved Siluro-Devonian injection reservoir remains readily capable of meeting the needs of the Piñon Midstream facility and the additional injection volume has resulted in a significant increase in the permanent sequestration of CO₂ associated with the Independence AGI #1 well.

Injection parameter data recorded over the 2022 period continually demonstrate excellent mechanical integrity of the well, which is confirmed annually through the completion of a mechanical integrity test (MIT) and bradenhead test (BHT). Annual MIT and BHT testing of the Independence AGI #1 well was successfully completed on July 14, 2022, fulfilling the annual testing requirements of NMOCC Order R-21455 (A-B). The next tests will be completed in July of calendar year 2023.

For a brief period in 2022, acquisition of bottom-hole pressure and temperature data was interrupted. This interruption was the result of a lightning strike, which irreparably damaged the bottom-hole sensor surface control panel. A replacement panel was installed, configured, and normal data acquisition was restored on November 4, 2022. A thorough review and analysis of data collected prior to, and following the period of outage indicates that no abnormal reservoir conditions occurred during this time.

Overall, the Independence AGI #1 well continues to display excellent mechanical integrity and is functioning appropriately within the requirements of the NMOCC Orders. Furthermore, the geological reservoir (Siluro-Devonian) has exhibited adequate and sufficient response to injection operations and has easily accommodated the gas disposal needs of the Piñon Midstream Dark Horse Gas Treatment Facility. Based on this report, Piñon requests that the immediate notification parameters, approved for 2022 operation at the facility, remain unchanged for calendar year 2023.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE  TITLE Consultant to Piñon DATE 02/06/2023

Type or print name David A. White, P.G. E-mail address: dwhite@geolex.com PHONE: 505-842-8000

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any): _____



ANALYSIS OF ANNUAL INJECTION TRENDS AND REQUEST TO CONTINUE OPERATION UNDER THE CURRENT IMMEDIATE NOTIFICATION PARAMETERS

PIÑON MIDSTREAM, LLC
Independence AGI #1 (API: 30-025-48081)
NMOCC Order: R-21455 (A-B)

This document presents the results from the analyses of injection parameter data, which reflect the operation of the Independence AGI #1 well during the 2022 calendar year. The AGI well serves the Piñon Midstream, LLC (Piñon) Dark Horse Treatment Facility in Lea County, NM, and was put into service on August 21, 2021. Since commissioning the AGI well, injection parameter data have been continuously monitored, recorded, and have been analyzed by Geolex, Inc. (Geolex) on a monthly basis. Pursuant to the requirements of NMOCC Order R-21455 (A-B), injection data reports based on the analysis of injection parameter data have been prepared and submitted to NMOCD by Geolex.

The Independence AGI #1 well was drilled as a vertical well and completed to inject via an open-hole completion over the interval of Devonian through Fusselman Formation geologic strata. Over the period of calendar year 2022 operation, the well has served as the primary disposal method for acid gas (H₂S and CO₂) at the Dark Horse Gas Treatment Facility. In accordance with the requirements of the approved NMOCC Order (Order R-21455-A), Piñon has filed with the NMOCD an application, and received approval to construct and operate a redundant AGI well, the Independence AGI #2, which is anticipated to be placed in service in Q2 2023.

Operations at the Piñon Dark Horse Treatment Facility will continue to utilize the Independence AGI #1 as the primary method for disposing of waste acid gas until the redundant Independence AGI #2 well (API: 30-025-49974) is placed in service. To monitor the impact injection operations at the Dark Horse Facility have on the injection reservoir, Independence AGI #1 was completed with bottom-hole sensors, which provide the ability to monitor real-time reservoir conditions in the deeper Devonian by providing reliable bottom-hole pressure and temperature data. Additionally, surface injection data from the well is continuously monitored and collected relative to the following parameters:

- Treated Acid Gas (TAG) Surface Injection Pressure
- TAG Surface Injection Temperature
- Surface Annular Pressure
- Bottom-Hole Pressure and Temperature
- TAG Injection Rate from Compressors
- Differential Pressure (between injection tubing and casing annulus)

The above are the key parameters which are currently being recorded in the well in order to monitor the operations, prevent hydrate formation, and minimize corrosion potential. Since these parameters are useful indicators and predictors of potential operational or mechanical problems in the well, various levels of alarms have been established for each of these parameters. Surface injection parameters include three direct measurements (TAG injection pressure, TAG injection temperature, and surface annular pressure) and one (differential pressure) value calculated as the difference between measured injection pressure and measured annular pressure. The analyses of these parameters are useful in identifying long-term trends and in the development of appropriate alarm ranges for each parameter. Independence AGI #1 surface injection parameter data for the period of operation during calendar year 2022 are included in Table 1 of this report.



In addition to surface monitoring, the AGI well at the Piñon Dark Horse Facility is also equipped with bottom-hole pressure/temperature sensors, which monitor the injection tubing conditions and have been installed on a mandrel immediately overlying the injection packer. The monitoring of these additional parameters aids significantly in determining appropriate Immediate Notification Parameters, which are required by NMOCC Order R-21455 (A-B). Following commencement of the AGI #1, initial Immediate Notification Parameters recommendations were based on operational experience with other AGI systems, and the associated injection parameter data have demonstrated that these notification conditions have been appropriate for the Independence AGI throughout the total period of operation (August 2021 through December 2022). As additional operating data is recorded for the Independence AGI #1 well, long-term trends and analyses of these data will be utilized to further refine the Immediate Notification Parameters as necessary.

To assure that successful and safe operation of the AGI well is maintained, Geolex reviews and analyzes Independence AGI #1 injection parameter data on a monthly basis, and provides a quarterly injection analysis report to NMOCD, in accordance with the requirements of NMOCC Order R-21445 (A-B). Observed trends in the injection parameter data for the 2022 operational period, as well as all data collected over the life of the well (September 2021 through December 2022) can be seen in the Table 1 and Figures 1 and 2 of this report.

Analyses of the 2022 Independence AGI #1 injection parameter data demonstrate that the Siluro-Devonian injection reservoir is responding satisfactorily to injection operations with operating pressures observed to be within an acceptable and anticipated range. Throughout the period of 2022, TAG injection rates have continued to increase as the Dark Horse Facility treatment volume has increased. This increase has been anticipated and is in accordance with forecasts of gas-disposal needs for production operations in the area of the Piñon facility. As expected, any increase in the TAG injection rate produces a corresponding increase in surface- and bottom-hole injection pressure, and there are no indications that current reservoir conditions are impeding Piñon's ability to inject, nor are they exhibiting indication of unexpected reservoir pressure increase. For the period of 2022 operation, Independence AGI #1 injection rates have increased approximately 53% over the prior 2021 period of partial operations (from approximately 2,325 MSCFD to 3,555 MSCFD).

Given the observations of the injection parameter trends, it is clear that the AGI well has demonstrated excellent mechanical integrity over the 2022 operational period, as shown in the relationship between surface injection pressure and surface annular pressure. These data trends show that an adequate pressure differential has been maintained between injection tubing and injection tubing annulus, thus, confirming the mechanical integrity of the system.

There have been no significant operational issues during the 2022 period of operation. Injection parameter data exhibit operating trends indicative of a mechanically-sound AGI well, and annual mechanical integrity testing and bradenhead testing (completed on July 13, 2022) confirmed the physical integrity of the AGI well. For a brief period, acquisition of down-hole pressure and temperature data was interrupted, as inclement weather and a lightning strike in Q3 2022 irreparably damaged the surface control panel for the Halliburton down-hole pressure and temperature sensors. A new surface control panel was acquired and installed, and all data acquisition was restored by November 4, 2022. Analysis of injection data collected prior to, and following the period of outage indicates that no abnormal reservoir conditions occurred during this time.



REVIEW OF STATISTICAL ANALYSIS OF INJECTION PARAMETERS, DEVELOPMENT OF AND REQUEST TO CONTINUE WITH APPROVED IMMEDIATE NOTIFICATION PARAMETERS FOR INDEPENDENCE AGI #1 (API: 30-025-48081) UNDER NMOCC ORDER R-21455 (A-B)

The statistical analyses of the injection parameter data of other AGI well projects were initially utilized for the purpose of identifying and establishing normal operating levels for the Independence AGI #1, which are continuously and automatically monitored via the facility control system. Over the period of 2022 operation, acquired operational data confirms the adequacy of these normal operating levels. As Independence AGI #1 continues to be operated through calendar year 2023, collected injection parameter data will continue to be utilized to further refine the understanding of normal operating conditions and the determination of appropriate alarm ranges.

Since commissioning of the Independence AGI #1 well, all injection parameters have been continuously monitored, recorded, and analyzed by Geolex. Table 1 includes a summary of average injection parameter data for the Independence AGI #1 well for the period from startup through December 2022.

Based on the analysis of these trends, the original Immediate Notification Parameters remain appropriate for the future operation of the AGI well through calendar year 2022.

The current Immediate Notification Parameters for the Independence AGI #1 well are summarized below:

1. Exceedance of the approved maximum allowable operating pressure (MAOP) of 4,779 psig (surface) for a period greater than two hours
2. Failure of a mechanical integrity test (MIT)
3. Confirmation of any condition that indicates a tubing, packer, or casing leak
4. Consistent increase of the annular pressure to a value greater than 80% of the injection pressure
5. Any release of H₂S which results in an activation of the facility's Rule 11 H₂S Contingency Plan
6. Any workover or maintenance activity that requires intrusive work in the well

Based on the analysis of operating conditions for the 2022 calendar year, Piñon requests the current Immediate Notification Parameters remain in effect for the 2023 calendar year.

TABLE 1. INDEPENDENCE AGI #1 ANNUAL SUMMARY OF INJECTION PARAMETER DATA (September 2021 through December 2022)

Reporting Period	TAG Injection Temperature (Avg. °F)	Surface TAG Inj. Pressure (psig)	Surface Casing Annulus Pressure (psig)	Pressure Differential (Inj. Tubing - Casing Annulus)	Flowrate (bpd)	Flowrate (MSCFD)	Bottom Hole Pressure (Avg. psig)	Bottom Hole Temperature (Avg. °F)	Notes
Monthly Average Operating Conditions									
2021 - Q3	105	1732	190	1542	808	1800	7377	199	AGI well was put into service on Aug. 21, 2021, however, downtime and facility troubleshooting followed startup and quarterly reporting began on Sep. 1, 2021.
2021 - Q4	112	1825	215	1609	1352	2850	7463	189	
2022 - Q1	120	1941	440	1499	1717	3541	7527	183	
2022 - Q2	135	2033	716	1318	1692	3179	7525	184	
2022 - Q3	141	2083	646	1437	1887	3426	7569	182	BHP/BHT Surface Panel damaged by lightning strike MIT completed on July 14, 2022
2022 - Q4	132	2118	557	1562	2243	4073	7670	179	
Average Operating Conditions & Standard Deviation									
Average (2022)	132	2044	590	1454	1885	3555	7573	182	
Standard Deviation (2022)	8	67	103	90	220	327	59	2	
Lifetime Average	128	2000	515	1485	1778	3414	7551	183	
Lifetime Standard Deviation	11	106	176	102	290	406	69	3	

FIGURE 1. INDEPENDENCE AGI #1 SUMMARY OF SURFACE INJECTION DATA

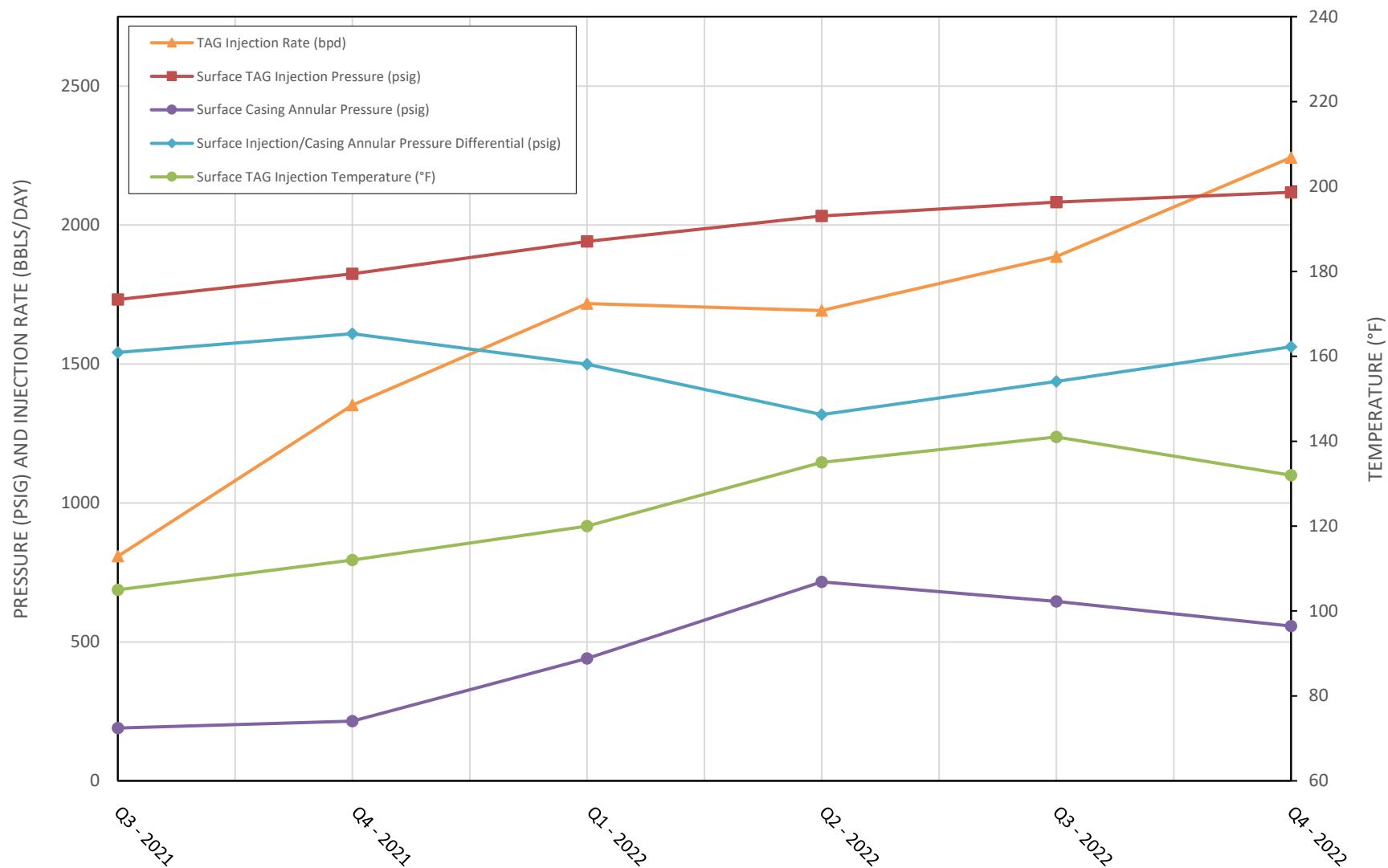
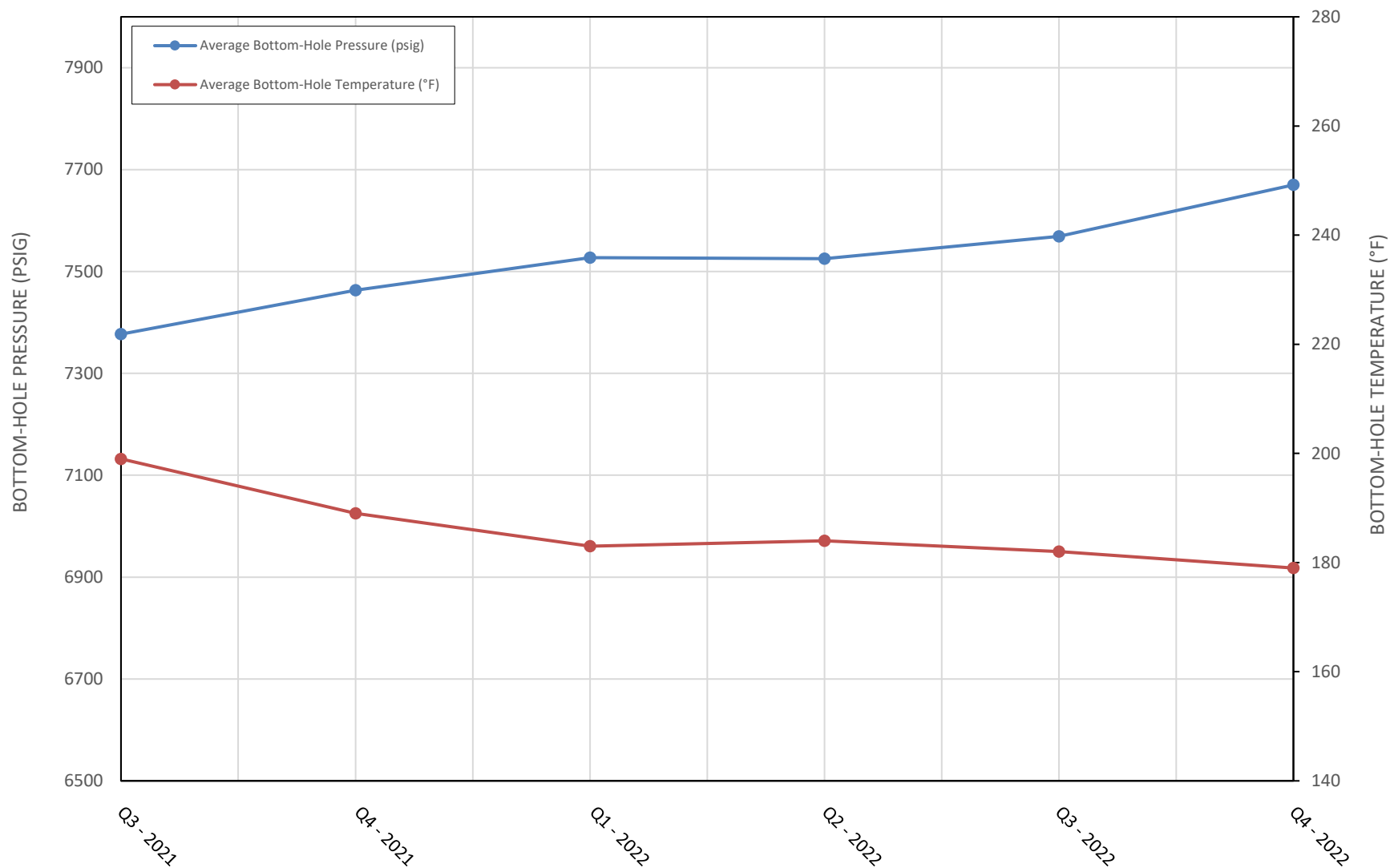


FIGURE 2. INDEPENDENCE AGI #1 SUMMARY OF BOTTOM-HOLE INJECTION DATA

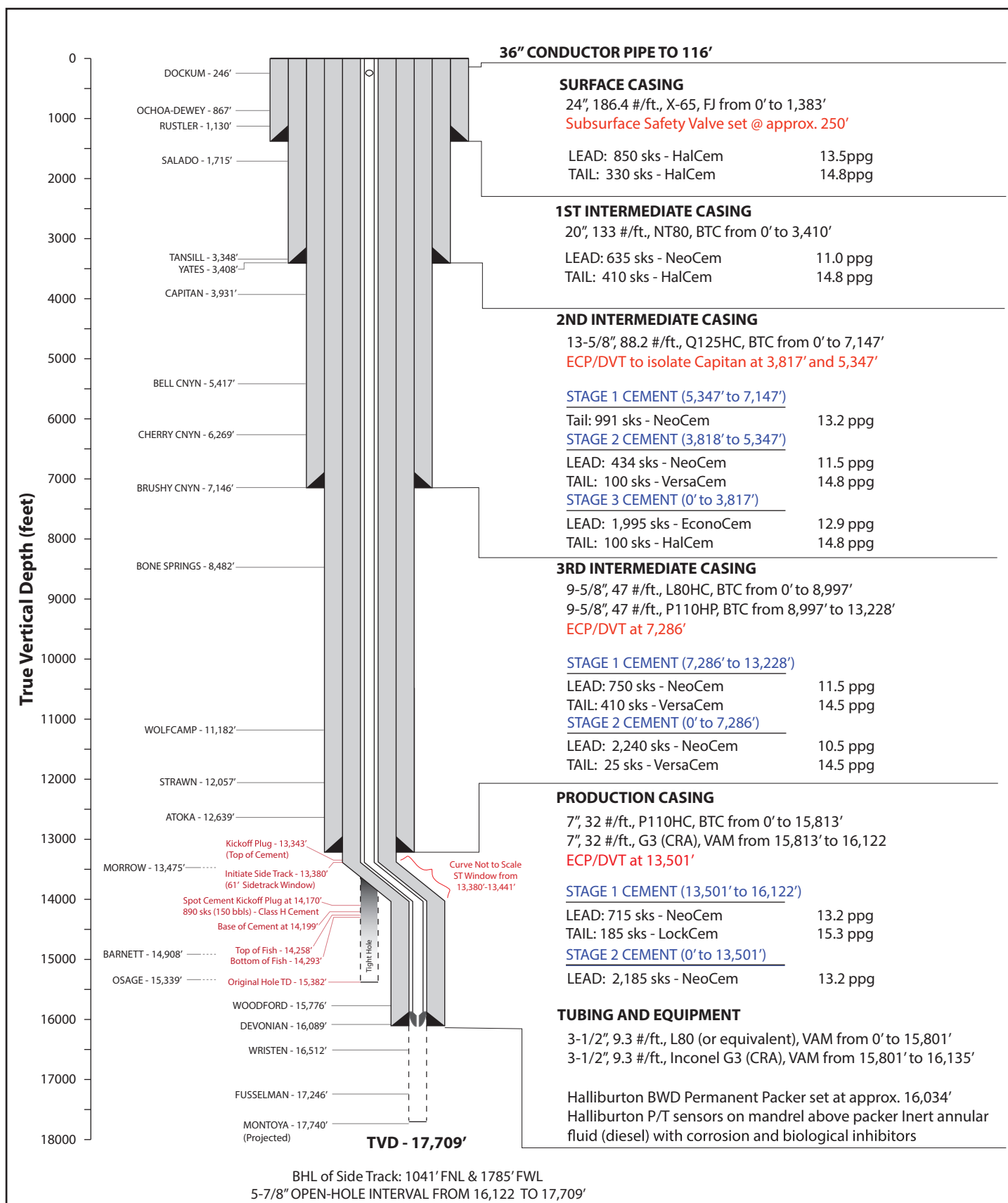


**INDEPENDENCE AGI #1**

UL C - S20 - T25S - R36E

API: 30-025-48081

Lat: 32.120855, Long: -103.291021

GEOLEX
INCORPORATED

As-drilled well schematic consisting of a surface string of casing, three intermediate strings, and a production string with associating tubing/equipment and cement types. Original hole and sidetrack are shown.

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CONDITIONS

Action 186322

CONDITIONS

Operator: Pinon Midstream LLC 465 W. NM Highway 128 Jal, NM 88252	OGRID: 330718
	Action Number: 186322
	Action Type: [C-103] Sub. General Sundry (C-103Z)

CONDITIONS

Created By	Condition	Condition Date
mgebremichael	None	2/20/2023