District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised July 18, 2013

☐AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
AMEREDEV OPERATING, LLC 2901 Via Fortuna, Suite 600; Austin, TX 78746	372224
	3. API Number 30-025-48081

4. Property Code	5. Property Name	6. Well No.
329865	INDEPENDENCE AGI	1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
C	20	25-S	36-E		829	NORTH	1,443	WEST	LEA

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
C	20	25-S	36-E		829	NORTH	1,443	WEST	LEA

9. Pool Information

Pool Name	Pool Code
AGI; DEVONIAN-FUSSELMAN	97834

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
N	I	R	P	3,103′
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
NO	17,900′	FUSSELMAN		12-15-2020

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water
Approx. 280′	Approx. 1,750′	

☒**We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	26″	24″	186.4	1,400′	1,120	Surface
1st Int.	22″	20″	133	3,200′	1,375	Surface
2nd Int.	17.5″	13.625″	88.2	7,150′	3,850	Surface
3rd Int.	12.25″	9.625″	47	13,200′	2,440	Surface
Production	8.625″	7″	32	16,230′	1,615	Surface

Casing/Cement Program: Additional Comments

Additional casing and cementing details are included in the Attachment B - Independence AGI #1 well schematic

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5,000	4,500	
Double Ram	10,000	9,500	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.** Signature:	OIL CONSERVATION DIVISION Approved By:
Printed name: Alberto A. Gutiérrez, C.P.G.	Title:
Title: Consultant to Ameredev Operating, LLC	Approved Date: **12/01/2020** Expiration Date: **12/01/2022**
E-mail Address: aag@geolex.com	
Date: November 11, 2020 Phone: (505)842-8000	Conditions of Approval Attached **Must comply with R-21455-A**

GEOLEX®
INCORPORATED

Alberto A. Gutiérrez, C.P.G.

November 11, 2020 VIA ELECTRONIC MAIL

Paul Kautz
NMOCD – District 1
1625 North French Drive
Hobbs, New Mexico 88240

RE: C-101 AND C-102 SUBMITTAL FOR AMEREDEV OPERATING, LLC;
NMOCC ORDER R-21455-A

Dear Mr. Kautz,

Included as an attachment in this correspondence, you will find a complete Form C-101 Application for Permit to Drill and corresponding Form C-102 Well Location and Acreage Dedication Plat filed on behalf of Ameredev Operating, LLC (Ameredev) for the proposed Independence AGI #1 well to be located in Section 20, Township 25 South, Range 36 East in Lea County, New Mexico.

Ameredev has filed with the Oil Conservation Division (OCD) a C-108 Application for Authorization to Inject for the proposed well, which was heard and approved at the October 8, 2020 Oil Conservation Commission (OCC) hearing. The approved order (Order No. R-21455-A) was subsequently issued at the November 4, 2020 Oil Conservation Commission hearing and is included as an attachment in this submittal. The five-string well design included herein was presented and accepted by OCC and OCD at the October 8, 2020 hearing and includes considerations to separately isolate the Salado and the Capitan Reef pursuant to OCD's request. In this submittal, a minor revision to the casing grade of the first intermediate casing string is included in order to produce a greater collapse rating from the originally presented design.

If you have any questions concerning this application, you may contact Alberto A. Gutiérrez, C.P.G. or David White, M.S. at Geolex, Inc.®; 500 Marquette Avenue NW, Suite 1350; Albuquerque, New Mexico.

Sincerely,
Geolex, Inc.®

Alberto A. Gutiérrez, C.P.G.
President, Geolex, Inc.®
Consultant to Ameredev Operating, LLC

Enclosure:	Attachment A	Complete Form C-101 application and Form C-102
	Attachment B	Independence AGI #1 Well Schematic
	Attachment C	Example Drilling Program
	Attachment D	NMOCC Order No. R-21455-A
c.c.:	Phillip Goetze	phillip.goetze@state.nm.us
	Floyd Hammond	fhammond@ameredev.com
	Eric Rhoden	erhoden@ameredev.com

P:\19-029 Ameredev\Reports\C-101\Kautz.ltr.docx

ATTACHMENT A

NMOCD FORMS C-101 & C-102

Ameredev Operating, LLC
Independence AGI #1

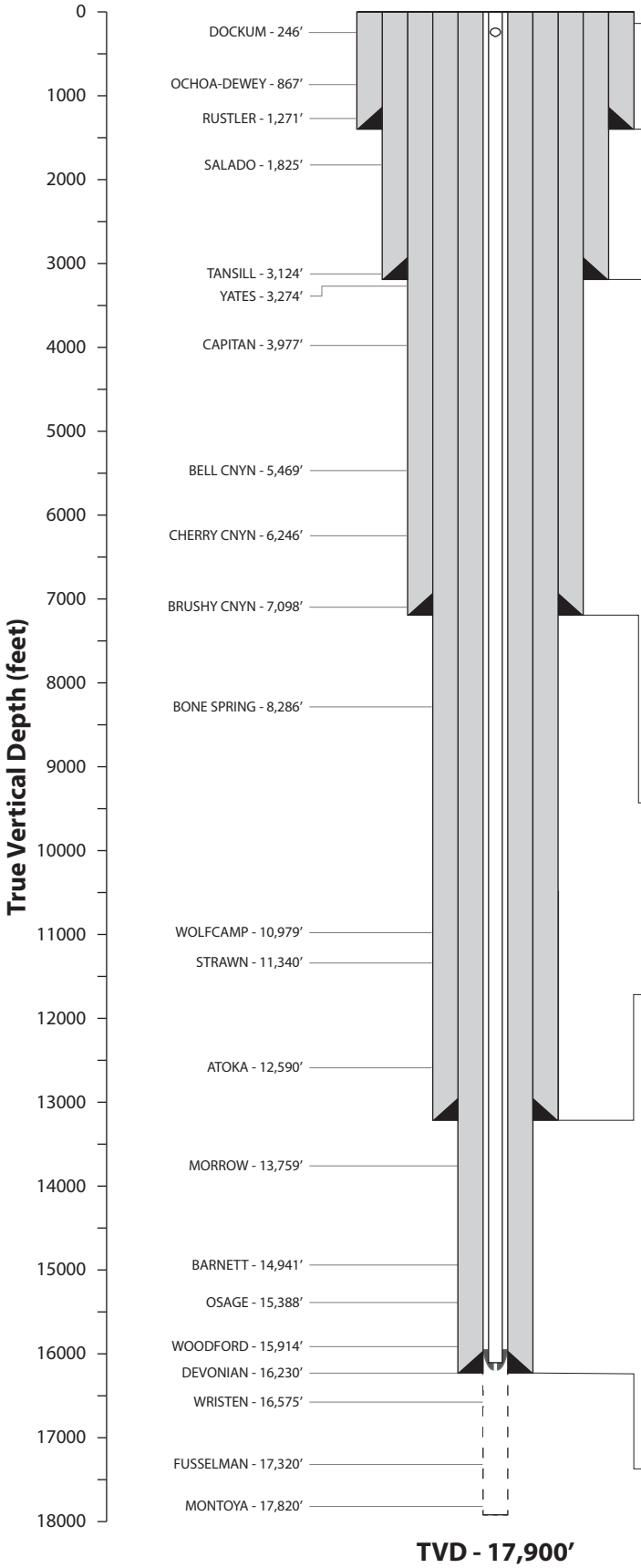
ATTACHMENT B

INDEPENDENCE AGI #1
DETAILED WELL SCHEMATIC

AMEREDEV
Ameredev II, LLC

PROPOSED WELL SCHEMATIC
INDEPENDENCE AGI #1
S20 - T25S - R36E

GEOLEX® INCORPORATED



36" CONDUCTOR PIPE TO 120'

SURFACE CASING
24", 186.4 #/ft., X-65, FJ from 0' to 1,400'
Subsurface Safety Valve set @ approx. 250'

LEAD: 790 sks - EconoCem HLC	12.9 ppg
TAIL: 330 sks - HalCem	14.8ppg

1ST INTERMEDIATE CASING
20", 133 #/ft., NT80, BTC from 0' to 3,200'

LEAD: 1,120 sks - EconoCem	12.9 ppg
TAIL: 255 sks - HalCem	14.8 ppg

2ND INTERMEDIATE CASING
13-5/8", 88.2 #/ft., Q125HC, BTC from 0' to 7,150'
ECP/DVT to isolate Capitan at 3,950' and 5,500'

STAGE 1 CEMENT (5,500' to 7,150')

1,150 sks - NeoCem	13.2 ppg

STAGE 2 CEMENT (3,950' to 5,500')

LEAD: 505 sks - NeoCem	11.0 ppg
TAIL: 100 sks - HalCem	14.8 ppg

STAGE 3 CEMENT (0' to 3,950')

LEAD: 1,995 sks - EconoCem	12.9 ppg
TAIL: 100 sks - HalCem	14.8 ppg

3RD INTERMEDIATE CASING
9-5/8", 47 #/ft., L80HC, BTC from 0' to 9,000'
9-5/8", 47 #/ft., P110HP, BTC from 9,000' to 13,200'

LEAD: 2,030 sks - NeoCem	11.5 ppg
TAIL: 410 sks - VersaCem	14.5 ppg

PRODUCTION CASING
7", 32 #/ft., P110HC, BTC from 0' to 15,930'
7", 32 #/ft., G3 (CRA), VAM from 15,930' to 16,230'

LEAD: 1,435 sks - NeoCem	13.2 ppg
TAIL: 180 sks - LockCem	15.3 ppg

TUBING AND EQUIPMENT
3-1/2", 9.3 #/ft., L80 (or equivalent), VAM from 0' to 15,930'
3-1/2", 9.3 #/ft., Inconel G3 (CRA), VAM from 15,930' to 16,230'

Halliburton BWD Permanent Packer set at approx. 16,180'
Halliburton P/T sensors on mandrel above packer
Inert annular fluid (diesel) with corrosion and biological inhibitors

5-7/8" OPEN-HOLE INTERVAL FROM 16,230' TO 17,900'

All depths are approximate and subject to change based on drilling and geology encountered

10/12/2020

ATTACHMENT C

INDEPENDENCE AGI #1
EXAMPLE DRILLING PROGRAM

EXAMPLE PRELIMINARY DRILLING PROGRAM
INDEPENDENCE AGI #1

Location: Section 20
Township 25 South, Range 36 East
Lea County, New Mexico

Directions: From Jal, NM (intersection of 3rd Street and Highway NM-128), drive west on Highway NM-128 W and continue for 5.4 miles. Turn left (south) on lease road and continue for 1.1 miles. Turn right (west) on lease road to reach well site. Signage indicating direction to Ameredev operations will be posted at worksite access roads and relevant lease road intersections.

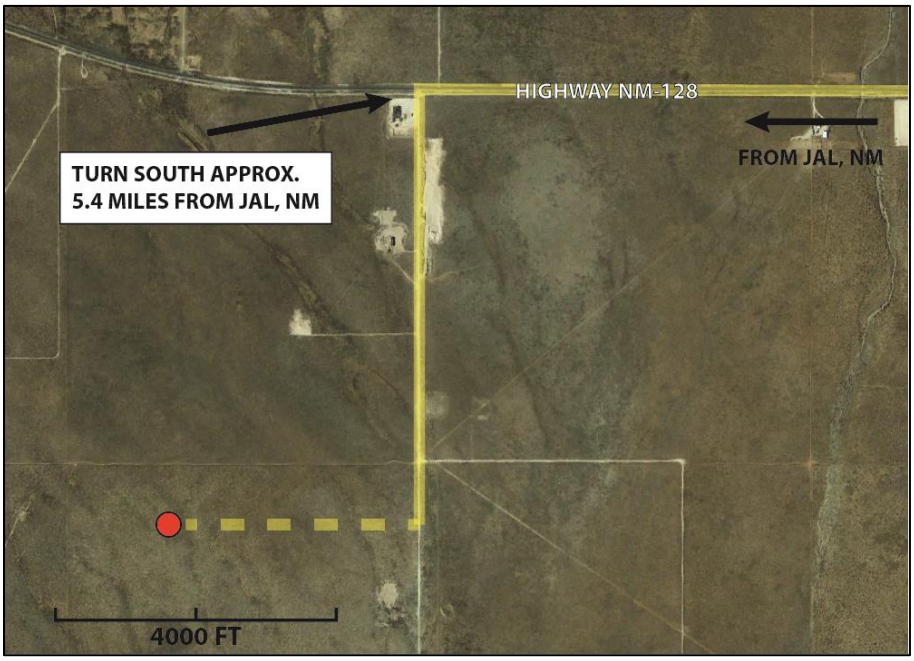


Figure 1. Anticipated access route for drilling & completion of Independence AGI #1

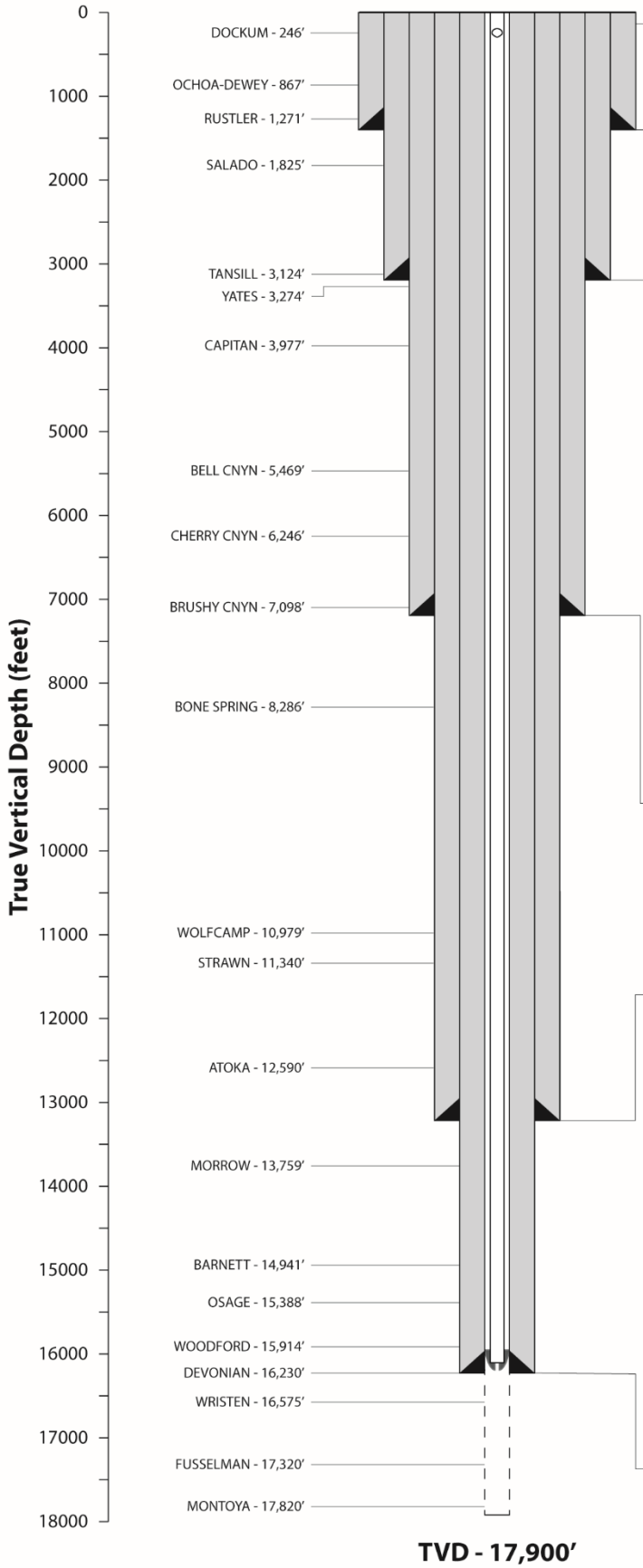
WELL SUMMARY DATA

County:	Lea	**Field**	SWD; DEV-SIL
API:	TBD	**NMOCC Order No.**	TBD
AFE Number:	TBD	**Drilling Rig:**	TBD
Elevation:	3103’	**KB Elevation:**	-
NAD83 Coordinates:	32.120835 -103.291025	**Location:**	829’ FNL, 1443 FWL S20-T25S-R36E

AMEREDEV
Ameredev II, LLC

PROPOSED WELL SCHEMATIC
INDEPENDENCE AGI #1
S20 - T25S - R36E

GEOLEX® INCORPORATED



36" CONDUCTOR PIPE TO 120'

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24", 186.4 #/ft., X-65, FJ from 0' to 1,400'
Subsurface Safety Valve set @ approx. 250'

LEAD: 790 sks - EconoCem HLC	12.9 ppg
TAIL: 330 sks - HalCem	14.8ppg

1ST INTERMEDIATE CASING
20", 133 #/ft., NT80, BTC from 0' to 3,200'

LEAD: 1,120 sks - EconoCem	12.9 ppg
TAIL: 255 sks - HalCem	14.8 ppg

2ND INTERMEDIATE CASING
13-5/8", 88.2 #/ft., Q125HC, BTC from 0' to 7,150'
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STAGE 2 CEMENT (3,950' to 5,500')

LEAD: 505 sks - NeoCem	11.0 ppg
TAIL: 100 sks - HalCem	14.8 ppg

STAGE 3 CEMENT (0' to 3,950')

LEAD: 1,995 sks - EconoCem	12.9 ppg
TAIL: 100 sks - HalCem	14.8 ppg

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9-5/8", 47 #/ft., L80HC, BTC from 0' to 9,000'
9-5/8", 47 #/ft., P110HP, BTC from 9,000' to 13,200'

LEAD: 2,030 sks - NeoCem	11.5 ppg
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7", 32 #/ft., P110HC, BTC from 0' to 15,930'
7", 32 #/ft., G3 (CRA), VAM from 15,930' to 16,230'

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TAIL: 180 sks - LockCem	15.3 ppg

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3-1/2", 9.3 #/ft., L80 (or equivalent), VAM from 0' to 15,930'
3-1/2", 9.3 #/ft., Inconel G3 (CRA), VAM from 15,930' to 16,230'

Halliburton BWD Permanent Packer set at approx. 16,180'
Halliburton P/T sensors on mandrel above packer
Inert annular fluid (diesel) with corrosion and biological inhibitors

5-7/8" OPEN-HOLE INTERVAL FROM 16,230' TO 17,900'

All depths are approximate and subject to change based on drilling and geology encountered

10/12/2020

CASING SUMMARY

Hole Section	Hole Size	Casing	Depth	Depth Criteria
Surface	26”	24”, 186.4 #/ft., X65, FJ	0’ – 1,400’	Competent strata in Rustler Form.
1st Intermediate	22”	20”, 133 #/ft., NT80, BTC	0’ – 3,200’	Competent strata below Salado
2nd Intermediate	17.5”	13.625”, 88.2 #/ft., Q125HC, BTC	0’ – 7,150’	Competent strata in Brush Cnyn.
3rd Intermediate	12.25”	9.625”, 47 #/ft., L80HC, BTC	0’ -9,000’	-
		9.625”, 47 #/ft., P110HP, BTC	9,000 – 13,200’	-
Production	8.5”	7”, 32 #/ft., P110HC, BTC	0’ – 15,930’	-
		7”, 32 #/ft., G3 (CRA), VAM	15,930’ – 16,230’	-

CEMENT PROGRAM

String	Lead/Tail	Type	Yield (ft^3/sk)	# Sacks	Estimated TOC
Surface	Lead	EconoCem HLC (or equivalent)	1.892 (12.9 ppg)	790	Surface
	Tail	HalCem	1.343 (14.8 ppg)	330	
1st Intermediate	Lead	Econocem	1.893 (12.9 ppg)	1120	Surface
	Tail	HalCem	1.348 (14.8 ppg)	255	
2nd Intermediate (Stage 1)	-	NeoCem	1.445 (13.2 ppg)	1150	5500’
DV Tool @ 5500’					
2nd Intermediate (Stage 2)	Lead	NeoCem	2.731 (11ppg)	505	3950’
2nd Intermediate (Stage 2)	Tail	HalCem	1.334 (14.8 ppg)	100	3950’
DV Tool @ 3950’					
2nd Intermediate (Stage 3)	Lead	EconoCem	1.896 (12.9 ppg)	1995	Surface
	Tail	HalCem	1.334 (14.8 ppg)	100	
3rd Intermediate	Lead	NeoCem	2.336 (11.5 ppg)	2030	Surface
	Tail	VersaCem	1.225 (14.5 ppg)	410	
Production	Lead	NeoCem	1.444 (13.2 ppg)	1435	Surface
	Tail	LockCem	1.731 (15.34 ppg)	180	

PRE-SPUD OPERATIONS

Notify regulatory agency (NMOCD – Hobbs District) 24 hours prior to spud. Document notification on IADC and morning report

1. Level and grade the location with caliche or comparable material, as required
2. Install a corrugated steel cellar around well site
3. Auger conductor pipe hole to approximately 120 feet and set 36-inch beveled conductor pipe
4. Cement conductor pipe to the surface using Redi-mix cement
5. Install a 4-inch outlet for draining the conductor pipe after cementing the surface casing
6. Drill a mouse hole per drilling contractor. Ensure rat hole contractor is using correct layout.
7. Prior to moving rig, drive to location and note any road hazards and/or power lines
8. Move in and rig up drilling rig and associated equipment
    a. Move in and rig up a closed-loop system for handling drill cuttings and drilling fluid
    b. Make sure all drill pipe has been inspected with paperwork in hand before spud and all pipe on location is counted prior to spud. Keep an up-to-date and correct account (OD, ID, length) of all tubulars on location at all times, including 3rd-party equipment.
    c. Perform a pre-spud rig inspection prior to accepting the rig on daywork.

26" SURFACE INTERVAL: 0' – 1,400'

Objective: Drill a 26" hole to approximately 1,400' and set 24" casing to protect usable water intervals and to isolate potentially problematic intervals of flowing sand. Casing string will be cemented to surface and cement must be circulated to surface.

Notes: Notify NMOCD – Hobbs District Office 24 hours prior to running and cementing surface casing string.

Procedure:

1. Weld a flange to the 36-inch conductor pipe and install at least a 3K annular blowout preventer (BOP)
2. Install a riser pipe with bell nipple and flowline to the BOP
3. Mix a spud mud for the surface hole
4. Make up a bottom-hole assembly (BHA) with a 26" PDC bit (or equivalent)
5. Drill ahead to 1,400' (top of Rustler Formation) taking deviation surveys at approximately 250' intervals and maintaining deviation below 2°
6. Monitor cellar to ensure ground is not washing out
7. Vary RPM, differential psi, and WOB to optimize ROP. Ream each stand 2-3 times on surface hole.
8. Monitor pickup, slack off, torque, returns, and standpipe pressure to evaluate hole cleaning
9. Sweep the hole with paper/MF-55 sweeps and drop a soap stick every connection.
10. Circulate and condition mud for running casing
11. Sweep the hole with a high-viscosity, fresh gel sweep at surface casing TD and spot a high-viscosity sweep at TD
12. Run fluid caliper
13. TOOH to run surface casing
14. Move in and rig up casing crew and run centralized 24", 186.4 #/ft, X65, FJ surface casing to approximately 1,400'. Run two bow spring centralizers on the float joint (1 in center of joint on a stop ring and 1 on collar) and one centralizer per every third joint at the collars back to surface
15. Dimensional data and minimum performance properties of the surface casing are presented on page 7.
16. Move in and rig up cementing equipment. Cement the surface casing as follows:

a. Pump a freshwater spacer followed by a tuned spacer designed for the rheology of the drilling fluid and lead cement.

b. Pump 790 sks ECONOCEM with additives (yield = 1.892 ft^3/sk) followed by 330 sks HALCEM C with additives (yield = 1.343 ft^3/sk) according to the current cement program

c. Drop wiper plug and displace with drilling fluid according to the cementing program

d. Bump wiper plug and pressurize over final circulating pressure

e. Monitor pressure for five (5) minutes and bleed off to cement unit to ensure floats are holding

f. Wait on cement at least eight (8) hours. Actual cement volumes will be based on calipered hole volume, plus 25% excess)

17. Rig up logging operations to run cement bond log to verify integrity of surface casing cementing operations

18. After waiting at least 8 hours for cement to set, release the 24" surface casing and lift the stack to make a rough cut on the 24" surface casing. Nipple down the bell nipple, flow line, and BOP. If necessary, perform a top out operation between the 36" and 24" casings using a 1" pipe to place up to 200 sks of standard cement. Cut the 36" conductor and make a final cut on the 24" casing. Weld a temporary flange to the 24" casing. Re-install a 10k double ram BOP. Nipple up the bell nipple with flow line and riser pipe to the top of the BOP and test. Pressure test and function test the BOP.

Casing and Cementing – 24" Section

CASING						
Hole Size	**Wt./ft.**	**Grade**	**Connection**	**Top Set**	**Bottom Set**	**Length**
26"	186.4	X65	FJ	0'	1,400'	1,400'

CASING DETAILS			
ID:	22.500 inches	**Internal Yield Pressure:**	3,750 psi
Drift:	N/A	**Pipe Body Strength:**	3,577,000 lbs/ft
Coupling OD:	FJ	**Joint Strength:**	2,450,000 lbs/ft
Collapse:	1083 psi	**Capacity:**	0.4918 bbl/ft

Float Equipment & Accessories				
Item	**Model**	**Depth**	**Qty**	**Remarks**
Float Collar	HOWCO	1,360'	1	
Shoe	HOWCO	1,400'	1	
Casing				
Centralizers	HOWCO		-	2 on float joint, and 1 every 3rd joint to surface
Stop ring		1,359'	1	

Cement	
Spacer:	20 bbl gel spacer with red dye
Type:	EconoCem HLC & Halcem C (1120 sks total)

22" FIRST INTERMEDIATE INTERVAL: 0' – 3,200'

Objective: Drill a 22" hole to 3,200' and set 20" 1st intermediate casing. Open-hole geophysical logs will be run prior to casing from TD to base of surface casing. Commence mudlogging of interval below the surface casing.

Notes: Notify NMOCD – Hobbs District Office 24 hours prior to running and cementing 1st intermediate casing string.

Procedure:

1. RU mud loggers
2. Make up22" PDC drill bit and trip in the hole to the float collar. Drill out the float collar and approximately 30' of cement in the shoe track joint.
3. Trip in hole with 22" bit and BHA which includes a straight-hole motor. Pressure test the 24" surface casing to 1,000 psi for at least 30 minutes and record the test on a chart recorder. Drill the remainder of the shoe track cement and float shoe. Drill 10 feet of formation and perform a Formation Integrity Test (FIT) to 100 psi for 30 minutes.
4. Continue drilling a 22" hole to approximately 3,200', maintaining a low fluid loss mud system as per attached mud program.
5. Move in and rig up geophysical logging crew and run triple combo tool, and sonic from 3,200' to surface casing.
6. Move in and rig up casing crew and run centralized 20", 133 #/ft. casing to 3,200'
7. Run two bow spring centralizers on the float joint (1 in center of joint on a stop ring and 1 on collar) and one centralizer per every third joint at the collars back to surface. The float joint will consist of a float shoe, one joint of casing, and a float collar. Circulate and condition the mud for cementing.
8. Dimensional data and minimum performance properties of the production casing are presented on page 9.
9. Cement the 20" casing back to the surface according to the cement plan outlined on page 3 and page 9.
10. Allow a minimum of 8 hours to wait on cement. After waiting on cement, ND BOP and cut off 20" casing.
11. Rig up logging operations to run cement bond log to verify integrity of 1st intermediate casing cementing operations

Casing and Cementing – 20" Casing Section

CASING						
Hole Size	**Wt./ft.**	**Grade**	**Connection**	**Top Set**	**Bottom Set**	**Length**
22	133	NT80	BTC	0'	3,200'	3,200'

CASING DETAILS			
ID:	18.73 inches	**Internal Yield Pressure:**	3,060 psi
Drift:	18.54 inches	**Pipe Body Strength:**	2,125,000 lbs.
Coupling OD:	21 inches	**Joint Strength:**	1,453,000 lbs
Collapse:	1,600 psi	**Capacity:**	0.3408 bbl/ft

Float Equipment & Accessories				
Item	**Model**	**Depth**	**Qty**	**Remarks**
Float Collar	HOWCO	3,160'	1	
Float Shoe	HOWCO	3,200'	1	
Casing				
Centralizers	HOWCO		-	2 on float joint and 1 every 3rd joint to surface
Stop ring	HOWCO	3,199'	1	

Cement	
Spacer:	20 bbls gel spacer with red dye
Type:	Lead: EconoCem – 1,120 sks Tail: HalCem – 255 sks

17.5" SECOND INTERMEDIATE INTERVAL: 0' – 7,150'

Objective: Drill a 17.5" hole to 7,150' and set 13.625" intermediate casing. Open-hole geophysical logs will be run prior to casing from TD to base of first intermediate casing.

Notes: Notify NMOCD – Hobbs District Office 24 hours prior to running and cementing second intermediate casing string.

Procedure:

1. Make up 17.5" PDC drill bit and trip in the hole to the float collar. Drill out the float collar and approximately 30' of cement in the shoe track joint.

2. Trip in hole with 17.5" bit and BHA which includes a straight-hole motor. Pressure test the 20" casing to 1,000 psi for at least 30 minutes and record the test on a chart recorder. Drill the remainder of the shoe track cement and float shoe. Drill 10 feet of formation and perform a Formation Integrity Test (FIT) to 100 psi for 30 minutes.

3. Continue drilling a 17.5" hole to approximately 7,150', maintaining a low fluid loss mud system as per attached mud program.

4. Move in and rig up Schlumberger ELU and run triple combo tool, and sonic from 7,150' to first intermediate casing shoe at +/- 3200'.

5. Move in and rig up casing crew and run centralized 13.625", 88.2 #/ft. casing to 7,150'with an external casing packer(ECP) and DV tool to be set at base of Capitan (+/- 5500') another ECP and DV tool to land above Capitan (+/- 3,965').

6. Run two bow spring centralizers on the float joint (1 in center of joint on a stop ring and 1 on collar) and one centralizer per every third joint at the collars back to surface. The float joint will consist of a float shoe, one joint of casing, and a float collar. Circulate and condition the mud for cementing.

7. Dimensional data and minimum performance properties of the production casing are presented on page 11.

8. Cement the 13.625" casing back to the surface according to the cement plan outlined on page 3 and page 11. Pump stage 1 through the float collar. Drop plug and flush cement to collar. Pressure up on casing to set ECP at 5500'. Drop dart and open DV tool set just above ECP. Pump stage 2 through DV tool. Drop closing tool and flush cement. Pressure up on casing to set second ECP set at 3,965'. Pump stage 3 through DV tool circulating cement back to surface. Drop closing tool and flush cement to tool.

9. Allow a minimum of 8 hours to wait on cement. After waiting on cement, ND BOP and cut off 13.625" casing.

Casing and Cementing – 13.625" Casing Section

CASING						
Hole Size	**Wt./ft.**	**Grade**	**Connection**	**Top Set**	**Bottom Set**	**Length**
17.5	88.2	HCQ125	BTC	0'	7,150'	7,150'

CASING DETAILS			
ID:	12.375 inches	**Internal Yield Pressure:**	10,040 psi
Drift:	12.250 inches	**Pipe Body Strength:**	2,399,000 lbs.
Coupling OD:	14.375 inches	**Joint Strength:**	3,191,000 lbs
Collapse:	5,650 psi	**Capacity:**	0.1488 bbl/ft

Float Equipment & Accessories				
Item	**Model**	**Depth**	**Qty**	**Remarks**
Float Collar	HOWCO	7,150	1	
Float Shoe	HOWCO	7,110	1	
Casing				
Centralizers	HOWCO		-	2 on float joint and 1 every 3rd joint to surface
Stop ring	HOWCO	7,149	1	

Cement	
Stage 1	
Spacer:	40 bbls gel spacer with red dye
Type:	Lead: EconoCem HLT – 1,120 sks Tail: HalCem C – 255 sks
Stage 2	
Spacer:	40 bbl gel spacer with red dye
Type:	Lead: NeoCem – 505 sacks Tail: HalCem C – 100 scks
Stage 3	
Spacer:	40 bbl gel spacer with red dye
Type:	Lead: EconoCem – 1995 sacks Tail: HalCem C – 100 scks

12.25" THIRD INTERMEDIATE INTERVAL: 0' – 13,200'

Objective: Drill at 12.25" hole to approximately 13,200' and set and cement 9.625" casing string to 13,200'. Mudlogging operations will continue in this interval and, prior to completion of cementing operations, open-hole geophysical logs will be collected for the interval underlying the 2nd intermediate casing string.

Notes: Notify the NMOCD – Hobbs District Office 24 hours prior to running and cementing the second intermediate casing string.

Procedure:

1. Make up a 12.25" PDC drill bit and trip in the hole to the float collar. Drill out the float collar and approximately 30' of cement in the shoe track joint.

2. Pressure test the 13.625" 2nd intermediate casing to 1,000 psi for at least 30 minutes and record the test on a chart recorder. Drill the remainder of the shoe track cement and float shoe. Drill 10 feet of formation and perform a Formation Integrity Test (FIT) to 100 psi for 30 minutes.

3. Continue drilling a 12.25" hole to approximately 13,200', maintaining a low fluid loss mud system as per planned mud program (TBD)

4. Move in and rig up geophysical logging crew and run triple combo tool from 13,200' to base of 2nd intermediate casing interval. Rig down logging personnel.

5. Move in and rig up casing crew and run centralized 9.625", 47 #/ft casing to 13,200'.

6. Run two bow spring centralizers on the float joint (1 in center of joint on a stop ring and 1 on collar) and one centralizer per every third joint at the collars back to 13,200'. The float joint will consist of a float shoe, one joint of casing, and a float collar. Circulate and condition the mud for cementing.

7. Dimensional data and minimum performance properties are presented on page 13.

8. Move in and rig up cementing equipment. Cement the 9.625" third intermediate string as follows:

    a. Lead Cement: NeoCem (11.5 ppg) – 2030 sks
    b. Tail Cement: VersaCem (14.5ppg) – 410 sks

9. Wait on cement at least eight (8) hours (cement volumes are based on bit size plus 100% excess for open-hole section. Actual cement volumes will be based on calipered hole volume, plus 25% excess)

10. Rig up logging operations to run cement bond log to verify integrity of 3rd intermediate casing cementing operations

Casing and Cementing – 9.625" Casing Section

CASING						
Hole Size	**Wt./ft.**	**Grade**	**Connection**	**Top Set**	**Bottom Set**	**Length**
12.25"	47	L80HC	BTC	0'	9,000'	9,000'
12.25"	47	P110HP	BTC	9,000'	13,200'	4,200'

CASING DETAILS (L80HC)			
ID:	8.681 inches	**Internal Yield Pressure:**	6,870 psi
Drift:	8.525 inches	**Pipe Body Strength:**	1,086,000 lbs.
Coupling OD:	10.625 inches	**Joint Strength:**	1,027,000
Collapse:	7,100 psi	**Capacity:**	0.0732 bbl/ft

CASING DETAILS (P110HP)			
ID:	8.681 inches	**Internal Yield Pressure:**	9,440 psi
Drift:	8.525 inches	**Pipe Body Strength:**	1,493,000 lbs.
Coupling OD:	10.625	**Joint Strength:**	TBD
Collapse:	7,100 psi	**Capacity:**	0.0732 bbl/ft

Float Equipment & Accessories				
Item	**Model**	**Depth**	**Qty**	**Remarks**
Float Collar	HOWCO	13,160'	1	
Float Shoe	HOWCO	13,200'	1	
Casing				
Centralizers	HOWCO		-	2 on float joint and 1 every 3rd joint to surface
Stop ring	HOWCO	13,199'	1	

Cement	
Spacer:	20 bbls gel spacer with red dye
Type:	Lead: NeoCem (11.5 ppg) – 2030 sks Tail: VersaCem (14.5 ppg) – 410 sks

8.5" PRODUCTION INTERVAL: 0' – 16,230'

Objective: Drill a 8.5" hole to approximately 16,230' and set and cement 7" production casing at 16,230'. Mudlogging operations will continue in this interval and, prior to completion of cementing operations, open-hole geophysical logs will be collected for the interval underlying the 3rd intermediate casing string.

Notes: Notify the NMOCD – Hobbs District Office 24 hours prior to running and cementing the production string.

Procedure:

1. Make up a 8.5" PDC drill bit and trip in the hole to the float collar. Drill out the float collar and approximately 30' of cement in the shoe track joint.

2. Pressure test the 9.625" 3rd intermediate casing to 1,000 psi for at least 30 minutes and record the test on a chart recorder. Drill the remainder of the shoe track cement and float shoe. Drill 10 feet of formation and perform a Formation Integrity Test (FIT) to 100 psi for 30 minutes.

3. Continue drilling a 8.5" hole to approximately 16,230', maintaining a low fluid loss mud system as per planned mud program (TBD)

4. Move in and rig up geophysical logging crew and run triple combo tool from 16,230' to base of 3rd intermediate casing interval. Rig down logging personnel.

5. Collected geophysical logs will be evaluated to identify sampling points in which collection of cap rock sidewall cores will be completed

6. Move in and rig up sidewall coring personnel and collect sidewall cores in accordance with results of geophysical log evaluation

7. Move in and rig up casing crew and run centralized 7", 32 #/ft G3 corrosion resistant alloy casing from 15,930' to 16,230' and 7", 32 #/ft., P110HC, casing from 0' to 15,930.

8. Run two bow spring centralizers on the float joint (1 in center of joint on a stop ring and 1 on collar) and one centralizer per every third joint at the collars back to surface. The float joint will consist of a float shoe, one joint of casing, and a float collar. Circulate and condition the mud for cementing.

9. Dimensional data and minimum performance properties are presented on page 15.

10. Move in and rig up cementing equipment. Cement the 7" production casing as follows:

    a. Lead Cement: NeoCem (13.2 ppg) – 1435 sks
    b. Tail Cement: LockCem (15.34 ppg) – 180 sks

11. Wait on cement at least eight (8) hours (cement volumes are based on bit size plus 100% excess for open-hole section. Actual cement volumes will be based on calipered hole volume, plus 25% excess)

12. Rig up logging operations to run cement bond log to verify integrity of production casing cementing operations

Casing and Cementing – 7" Casing Section

CASING						
Hole Size	**Wt./ft.**	**Grade**	**Connection**	**Top Set**	**Bottom Set**	**Length**
8.5	32	P110HC	BTC	0'	15,930'	15,930'
8.5	32	G3	VAM	15,930'	16,230'	300'

CASING DETAILS			
ID:	6.094 inches	**Internal Yield Pressure:**	12,450 psi
Drift:	5.969 inches	**Pipe Body Strength:**	1,025,000 lbs.
Coupling OD:	7.65 inches	**Joint Strength:**	1,165,000 lbs.
Collapse:	11,890 psi	**Capacity:**	0.0361 bbl/ft

Float Equipment & Accessories				
Item	**Model**	**Depth**	**Qty**	**Remarks**
Float Collar	HOWCO	16,230'	1	
Float Shoe	HOWCO	15,930	1	
Casing				
Centralizers	HOWCO		-	2 on float joint and 1 every 3rd joint to surface
Stop ring	HOWCO	16,229'	1	

Cement	
Stage 1	
Spacer:	40 bbls gel spacer with red dye
Type:	Lead: NeoCem – 1,435 sks Tail: LockCem – 180 sks

OPEN-HOLE SECTION FROM 16,230' TO 17,900'

Objective: Drill a 5.875" open-hole interval from 16,230' to 17,900'. Mudlogging operations will continue in this interval and open-hole geophysical logs will be collected.

Notes: Potential for lost circulation may be present in upper intervals of the injection zone and at various additional points within the zone.

Procedure:

1. Make up a 5.875" PDC drill bit and trip in the hole to the float collar. Drill out the float collar and approximately 30' of cement in the shoe track joint.

2. Pressure test the 7" production casing to 1,000 psi for at least 30 minutes and record the test on a chart recorder. Drill the remainder of the shoe track cement and float shoe. Drill 10 feet of formation and perform a Formation Integrity Test (FIT) to 100 psi for 30 minutes.

3. Continue drilling a 5.875" hold to approximately 17,900', maintaining a low fluid loss mud system as per planned mud program (TBD)

4. Move in and rig up geophysical logging crew and run planned geophysical logging suite from TD to base of production liner interval (triple-combo, sonic, FMI)

5. Rig down logging crew

6. WO evaluation of geophysical logs to identify sidewall coring points

7. Move in and rig up sidewall coring personnel and collect core samples per results of geophysical log evaluation.

8. Rig down sidewall coring operations

9. Rig down and release drilling rig and all associated equipment

Geophysical Logging and Coring Plans

Casing String	Log Interval	Open-hole Logs	Closed-hole Logs	Sidewall Coring
Surface	0' – 1,400'	1. Fluid Caliper	1. Cement Bond Log	-
1st Intermediate	1,400' – 3,200'	1. Start Mudlogging 2. Triple Combo Tool 3. Sonic Density	1. Cement Bond Log	-
2nd Intermediate	3,200' – 7,150'	1. Mudlogging 2. Triple Combo Tool 3. Sonic Density	1. Cement Bond Log	-
3rd Intermediate	7,150' – 13,200'	1. Mudlogging 2. Triple Combo Tool 3. Sonic Density	1. Cement Bond Log	-
Production	13,200' – 16,230'	1. Mudlog 2. Triple Combo Tool 3. Sonic Density 4. Formation MicroImager	1. Cement Bond Log	1. Cap Rock
Open-hole interval	16,230' – 17,900'	1. Mudlog 2. Triple Combo Tool 3. Sonic Density 4. Formation MicroImager	-	1. Various points within injection reservoir

NOTE: Formation micro-imager log will be recorded along permitted injection interval and overlying caprock only.

ATTACHMENT D

NMOCC ORDER NO. R-21455-A

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

APPLICATION OF AMEREDEV OPERATING, LLC FOR AUTHORIZATION TO INJECT, LEA COUNTY, NEW MEXICO.

CASE No. 21381
ORDER No. R-21455-A

ORDER OF THE COMMISSION

THIS MATTER comes before the New Mexico Oil Conservation Commission ("Commission") on Ameredev Operating, LLC's ("Ameredev") *Application for Authorization to Inject, Lea County, New Mexico* ("Application"). The Commission, having conducted a hearing on October 8, 2020, and having considered the testimony and the record in this case, enters the following findings of fact, conclusions of law, and order.

FINDINGS OF FACT

1. On July 10, 2020, Ameredev filed its Application seeking authorization to inject treated acid gas ("TAG") into the proposed Independence AGI No. 1 well ("Well").

2. The Well is an Underground Injection Control ("UIC") Class II well subject to the requirements of 19.15.26 NMAC.

3. The Well is vertical with an approximate surface and bottom hole location approximately 829 feet from the north line and 1,443 feet from the west line (Unit C) of Section 20, Township 25 South, Range 36 East in Lea County.

4. The target injection zone will be from approximately 16,230 to 17,900 feet deep in the Devonian Thirty-One and Upper Silurian Wristen and Fusselman formations.

5. The Well's maximum daily injection rate is twelve million standard cubic feet per day ("MMSCFD").

6. The Well's maximum surface injection pressure is approximately 4,779 pounds per square inch gauge ("psig").

7. Ameredev gave personal notice of the Application and the Commission's hearing via certified mail, return receipt requested to the State Land Office and all operators, surface owners, and lessees within a one-mile radius of the location for the Well, but did not give notice to the Oil Conservation Division or the City of Jal, which is located approximately six miles from the Well.

8. The Commission gave public notice of the Application and the Commission's hearing by publication in a newspaper of general circulation in Lea County.

9. Tap Rock Operating, LLC ("Tap Rock") filed an Entry of Appearance on September 10, 2020.

10. The OCD filed an Entry of Appearance and Notice of Intervention on September 22, 2020.

11. The Commissioner of Public Lands of the State of New Mexico, Stephanie Garcia Richard, and the New Mexico State Land Office ("SLO") filed an Entry of Appearance on October 1, 2020.

12. OCD filed a Pre-Hearing Statement on October 1, 2020, stating that OCD's witness would testify that OCD does not oppose Ameredev's Application provided that the Order includes the specific and general conditions stated in OCD Exhibits 2 and 3 (collectively, "Conditions"), and contingent on OCD's review of Ameredev's revised plume dispersion modeling which was not completed at the time of filing the Pre-Hearing Statement.

13. SLO filed a Pre-Hearing Statement on October 1, 2020, stating that SLO's witnesses would testify that SLO concurred with the OCD's Conditions, and also would testify regarding the potential effect of injection into the proposed well on state trust resources.

14. No other person filed an objection to the Application or an entry of appearance.

15. The Commission held a hearing on the Application on October 8, 2020.

16. In support of the Application, Ameredev presented the testimony of three witnesses: Mr. Floyd Hammond, Chief Operating Officer, Ameredev; Mr. Alberto Gutierrez, President, Geolex, Inc.; and Mr. David White, Geologist, Geolex, Inc.

17. Mr. Hammond provided background regarding Ameredev, including its future H_2S treating investment plans and proposal for TAG disposal. Mr. Hammond also testified regarding the benefits of disposing of TAG through an acid gas injection ("AGI") well. Specifically, Mr. Hammond testified that authorization for the Well will allow Ameredev to design and construct a gas treating facility and will provide necessary capacity for needed TAG disposal in the area of the proposed injection. Mr. Hammond testified that the proposed treating facility and Well are needed to resume production in at least nine horizontal wells operated by Ameredev that have been shut-in or curtailed due to a lack of TAG disposal capacity in the area and will allow Ameredev to complete six additional horizontal wells and to drill and develop 89 additional horizontal wells, and to provide services to other operators. Mr. Hammond testified that, in his opinion, Ameredev's proposal to dispose of TAG through the Well will increase reliability of production operations in the area, help prevent shut-ins, and prevent waste and protect correlative rights.

18. Mr. Hammond testified that Ameredev agrees to the Conditions. With respect to the redundant well, Mr. Hammond testified that Ameredev would shut in wells to deal with operational or maintenance issues that might arise after the Well begins to operate and before the redundant well begins to operate; that Ameredev factored the cost of the redundant well into its economic analysis for the Well and the proposed natural gas processing plant; and that if Ameredev does not build the redundant well or tries to back out of the agreement to build the redundant well, it must shut down the Well. Mr. Hammond also testified that Ameredev understands that the Conditions give OCD the discretion to decide whether the final design for the Well is acceptable, and that the redundant well must be built in essentially the same manner as approved for the Well.

19. Mr. Gutierrez testified regarding the information contained in the Application and regarding the site geology and hydrogeology and stated that, in his opinion, the proposed injection zone provides a sufficient capacity and geologic seal to contain the injected TAG and prevent its migration into other zones; the injection zone is sufficiently isolated from any protectable groundwater sources; and there is no evidence that injection will impair existing or potential hydrocarbon production in the area.

20. Mr. Gutierrez testified regarding the design and operation of the Well, and observed that Ameredev had made significant changes to the well design as a result of concerns raised by OCD and SLO after the agencies learned about the Application.

21. Mr. Gutierrez testified that Ameredev will submit its H_2S Contingency Plan for OCD approval prior to commencement of injection, and that Ameredev will certify that it coordinated the plan with the State Emergency Response Commission and the local emergency planning committee, including representatives of the City of Jal, and will provide them with regular updates during operation of the Well.

22. Mr. Gutierrez testified that, in his opinion, the Well will not pose health and safety risks, and the Well will not cause waste or damage correlative rights in any formations in the area.

23. Mr. White testified regarding Geolex's evaluation of the potential for induced seismicity, including seismic review of the area and the preparation of fault-slip modeling. Based on this evaluation, Mr. White testified that the Well can be operated under the proposed operating conditions without contributing significantly to the total risk of injection-induced fault slip.

24. Mr. White further testified the injected TAG is not anticipated to present any risk for vertical migration out of the injection zone based on Geolex's evaluation of local subsurface pressure conditions to assess reservoir containment, including the over-pressure conditions overlying the injection interval, drilling-fluid characteristics, and drilling-fluid programs for the Well. Mr. White confirmed that the injected TAG is not expected to migrate vertically out of the injection zone due to the presence of a dense caprock and because the target injection zone is expected to be under-pressured relative to the overlying strata.

25. Mr. White also testified on plume dispersion modeling over a 30-year period of injection, which included the influence of offsetting injection from saltwater disposal wells. Mr.

White testified that the maximum lateral dispersion of TAG from the Well is predicted to be from approximately 1.6 miles to 1.8 miles, with TAG dispersion at 20% saturation extending to approximately one mile to 1.3 miles from the Well. He testified that, based on the data analyzed, the proposed injection zone is a good candidate for the injection of TAG; the TAG plume and pressure front will not reach producing intervals; the TAG plume will be contained within the injection interval; and TAG can safely be injected into the Well. Mr. White concluded that, in his opinion, the Well will not result in waste, impair correlative rights, or have a negative impact on public health or the environment.

26. OCD presented the testimony of one witness, Baylen Lamkin, along with six exhibits in support of his testimony. Mr. Lamkin testified that OCD worked closely with SLO to develop the Conditions, and that Ameredev had told OCD and SLO that it would accept and comply with the Conditions.

27. Mr. Lamkin testified that the condition requiring a redundant well is important to prevent waste associated with flaring as a result of mechanical issues or maintenance on the Well, and that the condition concerning well construction is important to protect hydrologic flows in the Salado formation and the protectable water source in the Capitan Reef given historic problems with cement returns for long intermediate casing strings. Mr. Lamkin also testified that the remaining conditions were the same conditions adopted in orders granting applications for AGI wells in two prior cases, except for the addition of the certification requirement for the H_2S Contingency Plan.

28. Mr. Lamkin testified that OCD does not oppose the Application, provided that the Commission adopt the Conditions, because they would ensure that the Well prevents waste and does not harm correlative rights, public health, or the environment. Mr. Lamkin testified that OCD has residual concerns about certain assumptions used in Ameredev's fault-slip and plume dispersion modeling, such as porosity, permeability, water saturation, zone definitions, and fault sealing, but that these concerns would be somewhat ameliorated by the condition requiring Ameredev to recalculate its models using observed data five years after commencing injection into the Well.

29. The Commission accepted Ameredev's late-filed Exhibit 3–Updated 2. The Commission also adopted the Conditions with certain modifications reflected below.

CONCLUSIONS OF LAW

1. The Commission has jurisdiction over the Parties and the subject matter of this case.

2. Proper public notices of the Application and the Commission's hearing were given, including personal notices to all operators, surface owners, and lessees within a one-mile radius of the Well.

3. The Application is complete.

4. OCD records show that Ameredev Operating, LLC (OGRID No. 372224) is in compliance with Subsection A of 19.15.5.9 NMAC.

5. The Well, if constructed and operated in accordance with the Conditions, as modified by the Commission, will comply with the requirements of 19.15.26 NMAC.

6. Ameredev's injection of TAG, if conducted in accordance with the Conditions, as modified by the Commission, will not cause waste, impair correlative rights, or harm public health or the environment.

ORDER

1. The Application is approved, and Ameredev is authorized to drill and operate the Well with an approximate surface and bottom hole location at approximately 829 feet from the north line and 1,443 feet from the west line (Unit C) of Section 20, Township 25 South, Range 36 East, N.M.P.M., Lea County, New Mexico, to dispose of TAG at a maximum daily injection rate of 12 MMSCFD into the Devonian Thirty-One and Wristen Fusselman formations at depths of approximately 16,230 to 17,900 feet deep and a maximum surface injection pressure not to exceed 4,779 psig, subject to these Conditions.

2. Ameredev shall construct the Independence AGI Well No. 1 in accordance with the design and plan of construction approved by OCD, including the use of corrosion-resistant casing, cement, tubing, and packer, and shall isolate and protect the Salado and Capitan intervals, by (1) installing and cementing an intermediate casing string through the Salado interval before drilling into the Capitan interval; and (2) cementing the subsequent intermediate casing to protect the Capitan interval from the Delaware Mountain Group.

3. Ameredev shall circulate cement for all casing to the surface.

4. Ameredev shall use a corrosion-inhibiting diesel with a biocide component as the annular fluid of the well.

5. Ameredev shall equip the Well with a pressure-limiting device and a one-way safety valve (with the appropriate interior drift diameter) on the tubing approximately 250 feet below the surface.

6. No later than forty-five (45) days after drilling the Well, Ameredev shall submit to OCD's district office the well drilling logs including mudlogs, electric logs, daily reports, static bottom-hole pressure measured at completion of drilling the well, and a written evaluation of the hydrocarbon resource potential for the approved injection interval. If a significant hydrocarbon show occurs during drilling the Well, Ameredev shall submit a Form C-103 and obtain OCD's written approval prior to commencing injection.

7. No later than forty-five (45) days after completing the Well, Ameredev shall submit to OCD the final reservoir evaluation and confirm that the open-hole portion of the Well does not intersect the fault plane of any identified fault that occurs within the approved injection interval.

8. No later than thirty (30) days prior to commencing injection into the Well, Ameredev shall:

a. Obtain OCD's approval of a hydrogen-sulfide contingency plan that complies with Rule 19.15.11.9 NMAC, and that (i) includes a contingency plan for and a GIS mapping layer showing the gathering lines associated with the natural gas processing plant(s) served by the Well; and (ii) certifies that Ameredev has contacted and coordinated with appropriate representatives of the city of Jal, Lea County, the State Emergency Response Commission, and the local emergency preparedness committee and will provide regular updates to the same at least annually;

b. Determine the salinity of the formation fluid from the approved injection interval and submit to OCD either a calculation of the estimated salinity based on open-hole logs or the actual salinity based on a laboratory analysis. If OCD determines that the salinity of the formation fluid from the approved injection interval contains a total dissolved solids (TDS) concentration of 10,000 milligrams or less, the injection authority under this Order shall be suspended and Ameredev shall not commence injection until Ameredev complies with 19.15.26.8(E) NMAC;

c. Conduct step-rate and fall-off tests. Ameredev may adjust the maximum surface injection pressure for the Well after these tests with OCD's written approval; and

d. Obtain OCD's approval of immediate notification parameters for annulus pressure and tubing and casing differential pressure at a set injection temperature.

9. No later than ninety (90) days after commencing injection into the Well, and no less frequently than annually thereafter, Ameredev shall consult with OCD regarding the immediate notification parameters. If OCD determines that the immediate notification parameters should be modified, Ameredev shall provide modified parameters within thirty (30) days of notification for review by OCD.

10. Ameredev shall conduct an annual mechanical integrity test (MIT) on the Well.

11. Ameredev shall conduct continuous monitoring of surface TAG injection pressure, temperature, rate, surface annular pressure, and bottom-hole (or "end of tubing") temperatures and pressures in the tubing and annulus.

12. Ameredev shall maintain a maintenance log, including the volume of annular fluid (diesel) replaced in the annulus of the Well.

13. Ameredev shall establish and submit for OCD approval the temperature parameters for injected fluid, install and maintain temperature-activated controls to govern the temperature of injected fluid, and install and maintain an alarm system for the controls to indicate exceedance of the parameters.

14. Ameredev shall report to OCD on a quarterly basis (unless changed to a biannual basis upon approval of the OCD Director) the summary data for injection parameters monitored pursuant to this Order, and upon request by OCD, shall submit annual reports after each year of operation, which shall include composition and volume of acid gas injected into the Well.

15. No later than thirty (30) days after the fifth (5th) year of injection into the Well, Ameredev shall submit to OCD a report summarizing the Well's performance, including injected volumes by fluid type, change in reservoir pressures, the model originally used in the Application recalibrated using that information, and seismic modeling. Ameredev shall provide an in-person presentation of the report to the Commission at its request.

16. Ameredev shall install, operate, and monitor for the life of this Order a seismic monitoring station or stations. OCD shall be responsible for coordinating with the Manager of the New Mexico Tech Seismological Observatory at the New Mexico Bureau of Geology and Mineral Resources for appropriate specifications for the equipment and the required reporting procedure for the monitoring data.

17. In the event Ameredev transfers ownership of the Well, Ameredev shall seek approval of such change in ownership from OCD pursuant to 19.15.9.9 NMAC.

18. No later than twelve (12) months after issuance of this Order, Ameredev shall file a C-108 with OCD for approval to construct a redundant AGI well ("Redundant Well") in Devonian-Silurian formations that is capable of receiving volumes of TAG that is equal to or greater than the volumes approved for injection into the Independence AGI Well No. 1. No later than twenty (24) months after issuance of this Order, Ameredev will complete the Redundant Well subject to the Conditions this Order. OCD is authorized to review and approve the Redundant Well.

19. If Ameredev fails to timely submit or to diligently prosecute the application for the Redundant Well, fails to construct the Redundant Well by the specified deadline after receiving OCD's approval, or requests an exemption or rescission of the above condition, this Order shall terminate automatically and Ameredev shall plug and abandon the Independence AGI Well No. 1 pursuant to an OCD-approved plan; provided, however, that OCD in its sole discretion may grant an extension of time not to exceed six (6) months to the completion deadline in Paragraph 18 for good cause shown.

20. The injection authority herein granted shall terminate two years after the effective date of this Order if Ameredev has not commenced injection operation. The OCD Director, upon written request of Ameredev submitted prior to the expiration of this Order may extend this time for good cause shown.

21. After 30 years from the date of the Commission's Order in this case, the authority granted by this Order shall terminate unless Ameredev or its successor-in-interest shall make application before the Commission for an extension to inject.

DONE at Santa Fe, New Mexico on the 4th day of November, 2020.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Adrienne Sandoval, M.E., Chair

Dr. Thomas Engler, P.E., Member

Jordan Kessler, Esq., Member

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District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

FORM C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ **AMENDED REPORT**

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1]API Number	[2]Pool Code	[3]Pool Name
30-025-48081	97834	AGI; DEVONIAN-FUSSELMAN

[4]Property Code	[5]Property Name	[6]Well Number
329865	INDEPENDENCE AGI	#1

[7]OGRID No.	[8]Operator Name	[9]Elevation
372224	AMEREDEV OPERATING, LLC.	3103'

[10]Surface Location

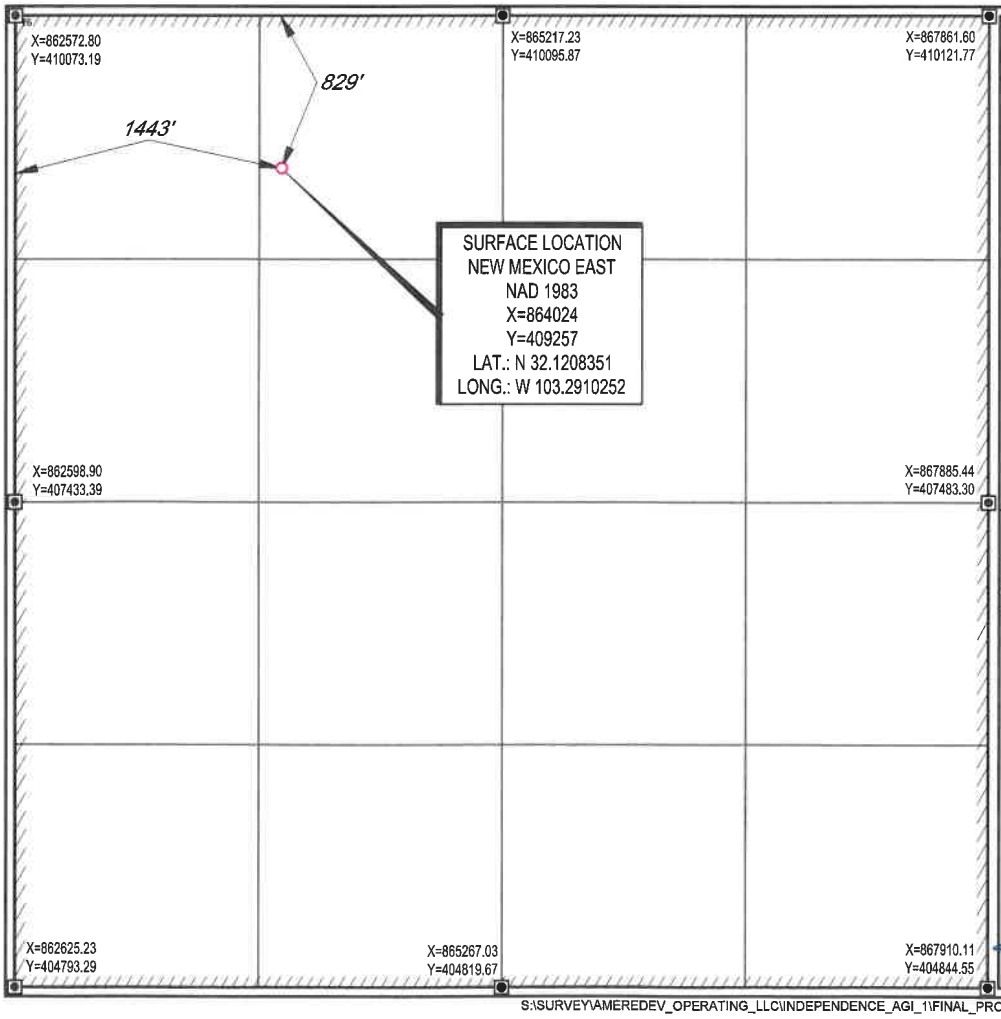
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	20	25-S	36-E	-	829'	NORTH	1443'	WEST	LEA

[11]Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
-	-	-	-	-	-	-	-	-	-

[12]Dedicated Acres	[13]Joint or Infill	[14]Consolidation Code	[15]Order No.

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



[17]OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date: 10/19/2020

Printed Name: Alberto Gutierrez, Consultant to Ameredev Operating, LLC.

E-mail Address: aag@geokx.com

[18]SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief.

09/03/2020

Date of Survey
Signature and Seal of Professional Surveyor

MICHAEL B. BROWN
NEW MEXICO
18329
PROFESSIONAL SURVEYOR

Certificate Number

S:\SURVEY\AMEREDEV_OPERATING_LLC\INDEPENDENCE_AGI_1\FINAL_PRODUCTS\LO_INDEPENDENCE_AGI_1.DWG 9/9/2020 1:03:37 PM bgregory