

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

UCD-HOBBS

HOBBS OGD

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

NOV 30 2017

SUBMIT IN TRIPLICATE - Other instructions on page 2

RECEIVED

1. Type of Well ☐ Oil Well ☐ Gas Well ☒ Other: INJECTION	5. Lease Serial No. NMLC063798
2. Name of Operator LUCID ENERGY DELAWARE, LLC	6. If Indian, Allottee or Tribe Name
Contact: JARED R SMITH E-Mail: jsmith@geolex.com	7. If Unit or CA/Agreement, Name and/or No.
3a. Address 3100 MCKINNON STREET, # 800 SUITE 800 DALLAS, TX 75201	8. Well Name and No. RED HILLS AGI 1
3b. Phone No. (include area code) Ph: 505-842-8000	9. API Well No. 30-025-40448
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 13 T24S R33E 1600FSL 150FEL	10. Field and Pool or Exploratory Area EXPLORATORY CHERRY CANYON
	11. County or Parish, State LEA COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Well Completion Notice of Intent

In 2014 Agave Energy Corp received permission from NMOCD to temporarily abandon the Red Hills AGI #1 after drilling it and cementing all the casing until gas quality changes require the completion of compression facilities at the gas plant. All the casing was installed and cemented as approved by BLM and NMOCD, but it was never completed with the proposed perforations, testing, and tubing and equipment installation because at the time the plant was at capacity with sweet gas. Lucid Energy Delaware LLC (Lucid) acquired Agave and all its assets, including the Red Hills plant, and now requires the completion of the well to perform the treatment of increasingly sour gas at the plant.

Lucid respectfully requests permission to complete the Red Hills AGI #1 well with no changes to the

SEE ATTACHED FOR
CONDITIONS OF APPROVSUBJECT TO LIKE
APPROVAL BY STATE

APPROVED

14. I hereby certify that the foregoing is true and correct. Electronic Submission #390905 verified by the BLM Well Information System For LUCID ENERGY DELAWARE, LLC, sent to the Hobbs Committed to AFMSS for processing by PAUL SWARTZ on 10/05/2017 ()	
Name (Printed/Typed) JARED R SMITH	Title CONSULTANT TO LUCID ENERGY
Signature (Electronic Submission)	Date 10/05/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <i>Paul R Swartz</i> 11/08/2017	Title <i>TPET</i>	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

MJBrown/OGD 11/30/2017

Additional data for EC transaction #390905 that would not fit on the form

32. Additional remarks, continued

original completion as approved by NMOCC and NMOCD.

Attached is a document outlining the proposed completion procedures for Red Hills AGI #1, including a well schematic and completion equipment.

Per the original BLM COA, Section D, attached is a report that includes data from the sidewall cores and logs that details the reservoirs seal depth related to the perforated interval and the packer setting depth.

Prior to beginning Acid Gas Injection at Red Hills AGI #1, Lucid will provide all Operators of existing wells within a 1-mile radius with a notice of beginning injection operations and include a map of the possible worst case scenario H2S exposure area(s). The BLM will be copies on this notice mailing

Red Hills AGI #1 Completion Procedures Outline
Lucid Energy Delaware, LLC

- 1) Install 5,000 psi manual BOP
- 2) Drill out cement and packer stage too set at 5,539 feetl. Circulate clean and test casing to 3,000 psi
- 3) TIH and clean out casing to 6,585' (right below lower most perf.). Circulate clean and test casing to 3,000 psi.
- 4) RU Wireline. Run GR/CCL/CBL (360° Radial) and Corrosion Evaluation Baseline Log from PBTD to 5,500' without pressure and from PBTD to surface with 1,000 psi
- 5) Perforate using casing gun (6 spf at 60° radial spacing) as follows: (243' net ft. – 1,458 holes)
 - a. 6,230' – 6,250'
 - b. 6,260' – 6,280'
 - c. 6,295' – 6,335'
 - d. 6,355' – 6,380'
 - e. 6,400' – 6,415'
 - f. 6,435' – 6,500'
 - g. 6,525' – 6,583'
- 6) RU w/ 2-7/8" tbg sub, 7" x 2-7/8" Retrievable packer, SN, and 2-7/8" tbg workstring. Set pkr at ~6,180' (50'-75' above top perf).
- 7) While under static conditions, run fiber optic slick line and bottom-hole pressure gauges to record static bottom hole pressure (BHP) and temperature profile
- 8) Swab approximately 500 bbls of fluid into the swab tanks while monitoring for recoverable hydrocarbons and recover appropriate formation water samples for laboratory analysis (10 composite samples of last 100 bbls)
- 9) Acidize injection zone with 14,500 gallons of double inhibited NE Fe 15% HCl, flush with fresh water, and leave shut in overnight
- 10) Install BHP gauges on slick line, leave hanging as deep as possible, and allow 2 hours for BHP to stabilize. The BHP will transmit real-time data in order to synchronize surface pressures for step-rate test
- 11) Conduct a Step-Rate Test (SRT) with fresh water over the injection zone in accordance with BLM SRT form. This test is to be conducted as an Injection Potential Test to provide data to the operator and NMOCD.
- 12) Following the SRT, shut in the well for a 10-day fall-off test

13) Upon completion of the fall-off test and evaluation of the results, the temporary packer will be unseated and removed on the work string tubing

14) A bit and casing scrapper will be run on the work string to approximately 6,220 feet. The work string will then be removed and laid down

15) A wire line junk basket/gauge ring/dummy packer will be run to approximately 6,200 feet

16) The Halliburton BWD Nickel Alloy 925 permanent packer assembly will be set on a wire line packer setting tool/GR/CCL at approximately 6,170 feet (approximately 60 feet above the uppermost perf)

17) Assemble and install Incoloy 925 packer seats and pressure sensors with approximately 300 feet of 3.5-inch, 9.2 lb/ft, SM2550, VAM Top injection tubing and 3.5-inch 9.3 lb/ft L-80 VAM Top tubing as needed to approximately 250 feet below the surface

18) Assemble, test, and install subsurface safety valve on 3.5-inch 9.2 lb/ft L-80 VAM Top tubing as needed to surface

19) Prior to stringing into the packer, the tubing and annulus will be filled with diesel and corrosion inhibitor biocide

20) The tubing will be seated into the packer and the injection tree/tubing hanger will be installed and pressure tested up to 250 psi for 10 minutes followed by 5000 psi for 10 minutes

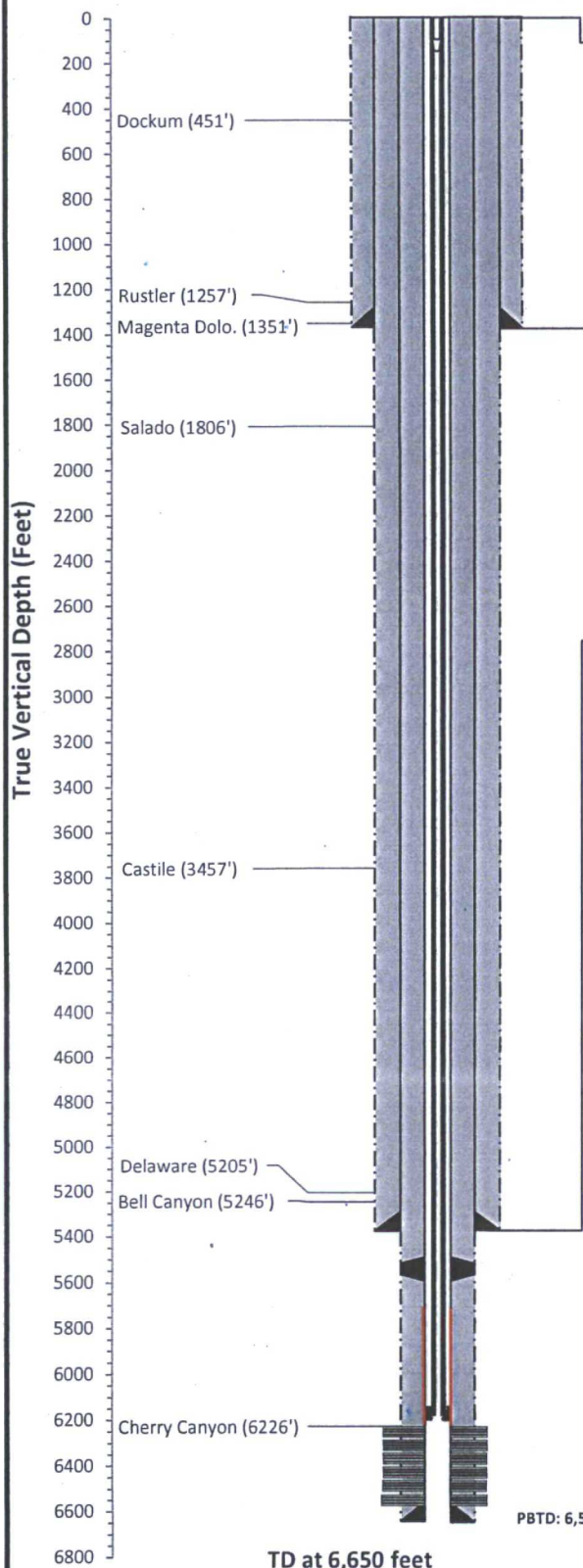
21) A Mechanical Integrity Test (MIT) witnessed by the BLM and NMOCD will be performed to verify that all components are properly installed and working.

Twenty-four hours prior to conducting the SRT and the MIT, notice will be provided to both the BLM and NMOCD so that these procedures can be witnessed. Well completion activities are tentatively scheduled to begin in November, 2017.

Lucid Energy Red Hills AGI #1 Well Schematic with Proposed Completion

Well Name: Red Hills AGI #1
API: 30-025-40448
STR: Sec. I-13, T24S-R33E
County, St. Lea County, New Mexico

Footage 1600' FSL & 150' FEL
Well Type AGI Exploratory Cherry Canyon
KB/GL: 3596/3580
Lat, Long: 32.214586, -103.517520



20" CONDUCTOR PIPE to 40 ft.

13 3/8" SURFACE CASING to 1,372 ft.

17.5" OH

13 3/8", 48 #/ft., H-40, STC
 Cmnt to surface - 90 bbls returned
 Lead Cmnt: 820 sx C Lite
 Tail Cmnt: 180 sx Class C

SSSV @ 250'

9 5/8" INTERMEDIATE CASING to 5,346 ft.

12.25" OH

9 5/8", 40 #/ft., J-55, LT&C 0-100'
 9 5/8", 36 #/ft., J-55, LT&C 100-3,300'
 9 5/8", 40 #/ft., J-55, LT&C 3,300'-4,200'
 9 5/8", 40 #/ft., HCK-55, LT&C 4,200'-5,346'
 Cmnt to surface - 60 bbls returned
 Lead Cmnt: 1,280 sx C Lite
 Tail Cmnt: 180 sx Class C

7" PRODUCTION CASING to 6,650 ft.

8.75" OH

7" 26 #/ft., L80, LT&C from 0'-5,702'
 w/ 7" G-3, 26 #/ft. VAMTOP, from 5,702'-6,239'
 7" 26 #/ft., L80, LT&C from 6,239' - 6,650'
 Cmnt to surface both stages - 1.5 bbls
 Stage 1 - Lead: 250 sx EverCrete
Stage Tool in 7-in casing @ 5,539'
 Stage 2 - Lead: 490 sx C Lite
 Stage 2 - Tail: 100 sx Class C

TUBING AND EQUIPMENT

Halliburton Retrievable SSSV set @ 250 ft.
 3.5", 9.3 #/ft, L80, VAMTOP from 0'-5,870'
 3.5", SM2550, VAMTOP from 5,870'-6,167'
 Bottom Hole P/T Gauge set above packer @ 6,167'-6,170'
 Permanent Production-Packer set @ 6,170'
 Check Valve and Choke (optional)
 Annulus filled w/ diesel mixed with corrosion inhibitor/biocide

PERFORATIONS

Primary Target:
 Upper Cherry Canyon (6 spf @ 60°)
 6,230' - 6,250'
 6,260' - 6,280'
 6,295' - 6,335'
 6,355' - 6,380'
 6,400' - 6,415'
 6,435' - 6,500'
 6,525' - 6,583'

TD at 6,650 feet

PBD: 6,585'

Schematic is properly scaled

Prepared For:



Prepared By:

GEOLEX
INCORPORATED

HALLIBURTON



Red Hills AGI #1
Lea County New Mexico
8/8/17

Company Rep.
Sales Rep.
Office

GEOLEX
INCORPORATED

Jared Smith
Lynn Talley
432-682-4305

Installation		Depth	Length	Jts.	Description	OD	ID	
Installation								
	22				KB Correction			
	21				Tubing Hanger			
	20				22) 3 1/2" 9.2# L-80 VAMTOP L-80 Tubing	3.540	2.992	
	19				21) Double Pin Sub	3.540	2.992	
					20) Tubing Subs (As Required)	3.540	2.992	
					19) 3 1/2" 9.2# L-80 VAMTOP L-80 Tubing	3.540	2.992	
	18							
	17				18) 6' x 3 1/2" 9.2# L-80 VAMTOP Box x Pin Tubing Sub	3.540	2.992	
	16				17) 3 1/2" NE HES SSSV w/Alloy 825 Control Line	5.300	2.813	102309760
					16) 6' x 3 1/2" 9.2# L-80 VAMTOP Box x Pin Tubing Sub	3.540	2.992	
	15							
					15) 3 1/2" 9.2# L-80 VAMTOP Tubing	3.540	2.992	
	14							
					14) 3 1/2" 9.2# SM2550, VAMTOP Tubing	3.540	2.992	
	13				13) 2.75" X Nipple 3 1/2" 9.2# VAMTOP Box x Pin NI 925	3.937	2.750	102105079
	12				12) 6' x 3 1/2" 9.2# VAMTOP Box x Pin Nickel Alloy 925 Sub	3.540	2.992	
	11				11) ROC® Gauge Mandrel 3 1/2" 9.2# VAMTOP NI 925	4.66	2.992	
	10				10) 6' x 3 1/2" 9.2# VAMTOP Box x Pin Nickel Alloy 925 Sub	3.540	2.992	
	9				9) 4.00" Landed Seal Asmbly 9.2# VAMTOP Nickel Alloy 925	4.470	2.883	
	8				8) 7" 26-32# x 4.00" BWD Packer Nickel Alloy 925	5.875	4.000	101303583
	7							
					7) 4.00" x 8' PBR Nickel Alloy 925	5.032	2.992	120051359
	6				6) 4.00" PBR Adapter x 9.2# VAMTOP BxP Nickel Alloy 925	5.680	2.963	101719647
	5				5) 8' x 3 1/2" 9.2# VAMTOP BxP Tbg Sub Nickel Alloy 925	3.540	2.992	
	4				4) 2.562" R Nipple 3 1/2" 9.2# VAMTOP Box x Pin NI 925	3.937	2.562	102204262
	3				3) 8' x 3 1/2" 9.2# VAMTOP BxP Tbg Sub Nickel Alloy 925	3.540	2.992	
	2				2) 2.562" RN Nipple 3 1/2" 9.2# VAMTOP Box x Pin NI 925	3.937	2.329	
	1				1) 3 1/2" 9.2# VAMTOP NI 925 Pump Out Plug w/Std Insert	3.937	2.992	

SIDEWALL CORE AND LOG ANALYSES USED FOR SELECTING PERFORATED INTERVALS AND PACKER LOCATION



Lucid Energy Delaware, LLC
RED HILLS AGI #1
API NO. 30-025-40448

LOCATION: 1600' FSL, 150 FEL, SECTION 13, T24S, R33E
LEA COUNTY, NM

JANUARY 2014

RESOURCES USED TO PICK INJECTION INTERVALS

- ▶ Core Analysis Results
- ▶ Geophysical Logs
 - Caliper Log
 - X-Multipole Acoustilog
 - Compensated Z-Densilog, Neutron Log, Gamma Ray Log
 - Dual Lateral Log – Micro Laterolog
 - X-Multipole Array Acoustics – Compressional & Shear Wave Slowness
 - STAR/CBIL Microimage logs (FMI)
- ▶ Mudlog

**CORE ANALYSIS RESULTS
AGAVE REDHILLS AGI #1**

SAMPLE NO.	DEPTH ft	GRAIN DENSITY	POR %	PERM mD	SATURATIONS		GAS UNITS	FLUORESCENCE		LITHOLOGY
					Sw	So		%		
1	6021.0	2.68	4.7	0.026	83.4	0.0	0	0	Mf	Ss gy-tn-opaq vf-lgr sbang-sbrmd vcalc sc slty intrbd lam
2	6055.0	2.69	4.2	0.064	83.4	0.0	0	0	Mf	Ss gy-tn-opaq vf-lgr sbang-sbrmd vcalc tr slty intrbd
3	6063.0	2.70	1.2	0.077	91.1	0.0	0	0	DI mf	Ls dk gy-gy-tn ssly sc slty intrbd
4	6068.0	2.71	0.5	0.003	84.9	0.0	0	0	DI mf	Ls gy-tn ssly sc slty intrbd tr hl frac
5	6078.0	2.72	17.4	0.174	84.9	0.0	0	0	DI yl mf	Ls tn-crm sucro ssly sc slty intrbd abd sc sml vug ool
6	6089.0	2.71	16.4	0.109	87.9	0.0	0	0	DI yl mf	Ls tn-crm sucro ssly sc slty intrbd abd sc sml vug ool
7	6151.0	2.70	2.7	0.070	74.1	0.0	0	0	yl mf	Ls gy-tn ssly sc slty intrbd abd sc calc fd vug ool
8	6157.0	2.71	2.0	0.031	61.1	0.0	0	0	yl mf	Ls gy-tn ssly sc slty intrbd sc calc fd vug frac
9	6170.0	2.71	6.5	<0.01	61.1	0.0	0	0	yl mf	Ls tn-crm ssly sc slty intrbd sc calc fd vug ool foss
10	6196.0	2.69	6.0	tbfa	81.4	0.0	5	20	DI bm	Sh blk-dk gy-gy ssly sc slty intrbd sc bent intrbd sc pyr
11	6232.0	2.68	11.6	0.312	82.3	0.0	0	0		Ss gy-tn-opaq vf-lgr sbang-sbrmd vcalc sc slty intrbd
12	6239.0	2.68	19.0	3.269	88.5	0.0	1	0		Ss gy-tn-opaq vf-lgr sbang-sbrmd scale sc slty intrbd tr hal
13	6247.0	2.66	20.4	3.099	92.3	0.0	0	0		Ss gy-tn-opaq vf-lgr sbang-sbrmd mcalc sc slty intrbd sc hal
14	6255.0	2.71	1.0	0.076	84.9	0.0	0	0	mf	Ls gy-tn ssly sc slty intrbd sc calc fd vug ool
15	6266.0	2.77	24.2	tbfa	65.6	0.0	0	0	DI mf	Ss gy-tn-opaq vf-lgr sbang-sbrmd vcalc sc slty intrbd
16	6270.5	2.66	21.2	38.396	88.9	0.0	0	0	DI mf	Ss gy-tn-opaq vf-lgr sbang-sbrmd vcalc sc slty intrbd tr hal
17	6277.0	2.68	16.9	0.841	90.1	0.0	0	0	DI mf	Ss gy-tn-opaq vf-lgr sbang-sbrmd scale sc slty intrbd tr hal
18	6289.0	2.69	7.9	0.049	84.9	0.0	0	0	mf	Ss gy-tn-opaq vf-lgr sbang-sbrmd vcalc sc slty intrbd sc hal
19	6300.0	2.71	4.0	0.036	85.7	0.0	0	0	DI mf	Ss gy-tn-opaq vf-lgr sbang-sbrmd vcalc sc slty intrbd sc hal
20	6309.5	2.67	20.4	1.386	93.5	0.0	0	0		Ss tn-gy-opaq vf-lgr sbang-sbrmd mcalc sc slty intrbd sc hal
21	6320.0	2.68	20.1	1.532	93.7	0.0	0	0		Ss tn-gy-opaq vf-lgr sbang-sbrmd mcalc sc slty intrbd sc hal
22	6330.0	2.68	19.5	1.072	93.0	0.0	0	0		Ss tn-gy-opaq vf-lgr sbang-sbrmd scale tr slty intrbd sc hal
23	6340.0	2.68	16.9	0.894	93.0	0.0	0	0		Ss tn-gy-opaq vf-lgr sbang-sbrmd scale tr slty intrbd sc hal
24	6350.0	2.71	4.6	0.037	84.9	0.0	0	0	mf	Ss tn-gy-opaq vf-lgr sbang-sbrmd vcalc sc slty intrbd sc hal
25	6358.0	2.67	18.6	0.925	93.5	0.0	0	0		Ss tn-gy-opaq vf-lgr sbang-sbrmd scale sc slty intrbd sc hal
26	6365.0	2.69	16.6	2.184	91.2	0.0	1	0		Ss tn-gy-opaq vf-lgr sbang-sbrmd scale sc slty intrbd lam sc hal
27	6370.5	2.65	24.1	11.782	95.6	0.0	0	0		Ss tn-gy-opaq vf-lgr sbang-sbrmd scale tr slty intrbd sc hal

High porosity
Good perm

High porosity
Good perm

High porosity
Good perm

High porosity
Good perm

Low Permeability

Very low Permeability

Low Permeability

Very low Permeability

Low Permeability

Low Permeability

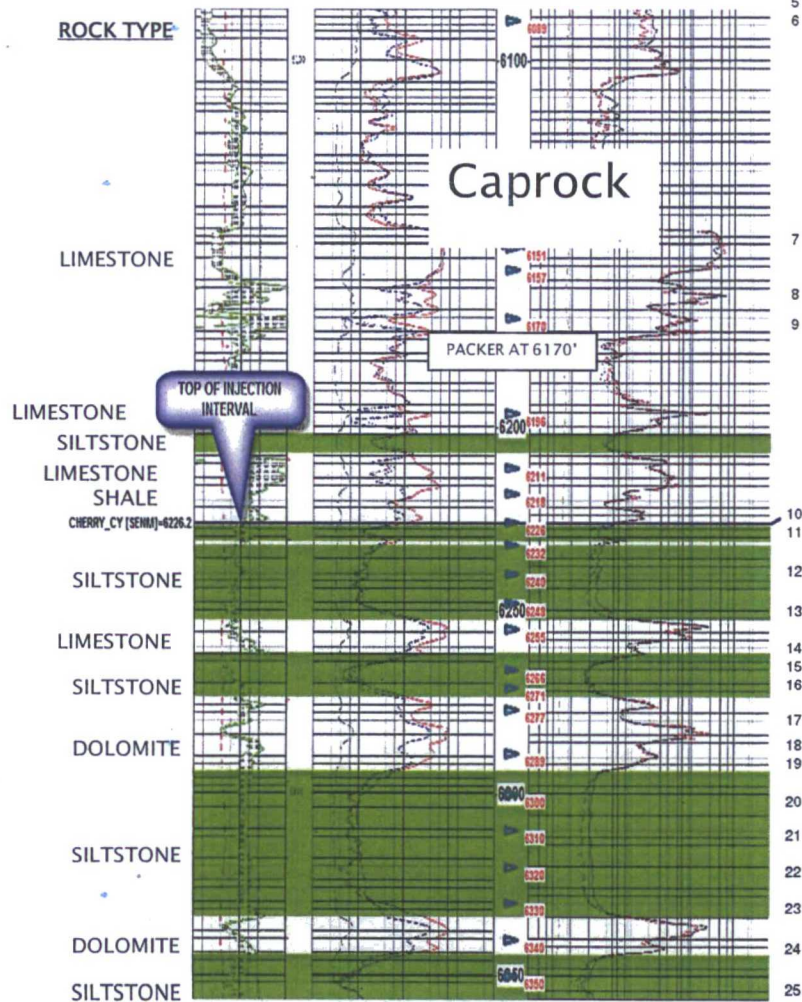
Low Permeability

**CORE ANALYSIS RESULTS
AGAVE REDHILLS AGI #1**

	SAMPLE NO.	DEPTH ft	GRAIN DENSITY	POR %	PERM mD	SATURATIONS		GAS FLUORESCENCE		LITHOLOGY
						Sw	So	UNITS	%	
High porosity Good perm	28	6381.0	2.72	1.1	0.022	Low Permeability		DI mf		Ls gy-tn ssly sc slty intrbd tr calc fd frac
	29	6404.0	2.67	15.4	9.465	89.7	0.0	0	0	Ss tn-gy-opaq vf-fgr sbang-sbmd scalc tr slty intrbd sc hal
	30	6410.0	2.68	14.8	2.269	Low Permeability				Ss tn-gy-opaq vf-fgr sbang-sbmd scalc tr slty intrbd sc hal
	31	6420.0	2.77	4.1	0.015	Low Permeability		DI mf		Dol gy-tn ssly sc slty intrbd tr sml vug
High porosity Good perm	32	6430.0	2.81	4.1	0.005	Very low Permeability				Dol gy-tn ssly sc slty intrbd tr sml vug sc A/I
	33	6440.0	2.66	18.4	3.390	91.0	0.0	0	0	Ss gy-tn-opaq vf-fgr sbang-sbmd scalc tr slty intrbd tr hal
	34	6450.0	2.66	20.6	9.099	92.1	0.0	0	0	Ss gy-tn-opaq vf-fgr sbang-sbmd mcalc tr slty intrbd sc hal
	35	6460.0	2.66	23.2	2.325	93.3	0.0	0	0	Ss gy-tn-opaq vf-fgr sbang-sbmd mcalc tr slty intrbd sc hal
	36	6469.0	2.66	18.8	1.909	92.2	0.0	0	0	Ss gy-tn-opaq vf-fgr sbang-sbmd scalc tr slty intrbd sc hal
	37	6470.0	2.67	15.1	0.489	93.1	0.0	0	0	Ss gy-tn-opaq vf-fgr sbang-sbmd scalc tr slty intrbd tr hal
	38	6480.0	2.67	19.2	0.657	89.5	0.0	0	0	Ss gy-tn-opaq vf-fgr sbang-sbmd mcalc tr slty intrbd sc hal
	39	6490.0	2.67	21.3	0.892	92.3	0.0	0	0	Ss gy-tn-opaq vf-fgr sbang-sbmd scalc tr slty intrbd tr hal
High porosity Good perm	40	6508.0	2.84	5.2	0.049	Low Permeability		DI yl mf		Dol gy-tn ssly sc slty intrbd sc A/I nod
	41	6517.0	2.78	5.0	0.036	Low Permeability		DI yl mf		Dol tn-crm ssly sc slty intrbd abd sc A/I
	42	6518.0	2.82	5.3	<.001	Very low Permeability				Dol tn-gy ssly sc slty intrbd tr A/I
	43	6530.5	2.65	18.6	0.711	87.1	0.0	0	0	DI mf Ss gy-tn-opaq vf-fgr sbang-sbmd mcalc tr slty intrbd tr sml vug
	44	6540.0	2.67	14.3	0.174	88.3	0.0	0	0	DI mf Ss gy-tn-opaq vf-fgr sbang-sbmd scalc tr slty intrbd sc hal
	45	6545.0	2.67	21.6	1.312	90.7	0.0	0	0	DI mf Ss gy-tn-opaq vf-fgr sbang-sbmd scalc tr slty intrbd tr hal
	46	6556.0	2.66	21.5	1.356	92.4	0.0	0	0	DI mf Ss gy-tn-opaq vf-fgr sbang-sbmd mcalc tr slty intrbd sc hal
	47	6570.0	2.67	16.4	0.598	90.5	0.0	0	0	DI mf Ss tn-gy-opaq vf-fgr sbang-sbmd mcalc tr slty intrbd tr hal
High porosity Good perm	48	6576.0	2.69	9.5	0.137	88.5	0.0	0	0	DI mf Ss gy-tn-opaq vf-fgr sbang-sbmd scalc sc slty intrbd sc hal
	49	6586.0	2.74	3.8	0.143	86.5	0.0	0	0	DI mf Ss gy-tn-opaq vf-fgr sbang-sbmd scalc sc slty lam intrbd tr hal
	50	6594.0	2.70	6.8	0.043	86.3	0.0	0	0	Ss gy-tn-opaq vf-fgr sbang-sbmd scalc sc slty intrbd sc hal
	51	6610.0	2.70	7.5	0.044	Low Permeability				Ss gy-tn-opaq vf-fgr sbang-sbmd scalc sc slty intrbd sc hal
	52	6620.0	2.69	9.1	0.019	87.9	0.0	0	0	Ss gy-tn-opaq vf-fgr sbang-sbmd scalc sc slty intrbd tr hal
	53	6630.0	2.66	21.1	2.036	90.0	0.0	0	0	Ss gy-tn-opaq vf-fgr sbang-sbmd scalc tr slty intrbd sc hal

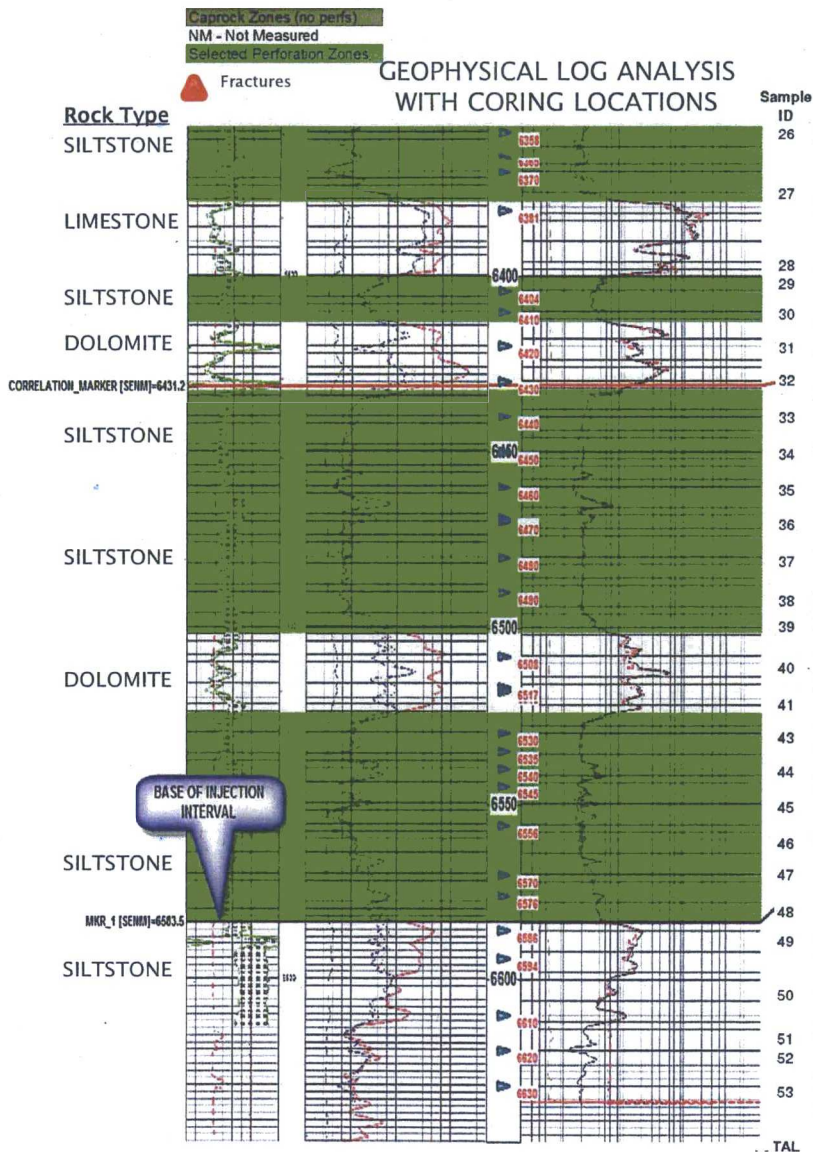
Caprock Zones (no perfs)
 NM - Not Measured
 Selected Perforation Zones
 Fractures

GEOPHYSICAL LOG ANALYSIS WITH CORING LOCATIONS



CORE SAMPLE ANALYSIS

Sample ID	Net Porosity/ Zone (ft)	Avg Zone Porosity (%)	Zone	Depth (ft)	Porosity (%)	Perm (mD)
1				6021	4.7	0.0260
2	2.65			6055	4.2	0.0639
3				6063	1.2	0.0767
4				6068	0.5	0.0033
5				6078	17.4	0.1736
6				6089	16.4	0.1087
7	4.30		6090' - 6230' 170 FEET	6151	2.7	0.0697
8				6157	2.0	0.0312
9				6170	6.5	0.0005
				6198	6.0	NM
10						
11				6232	11.6	0.3124
12	3.400	17.000	6230' - 6250' 20 FEET	6239	19.0	3.2686
13				6247	20.4	3.0992
14	1.000		6250' - 6260' 10 FEET	6255	1.0	0.0758
15				6266	24.2	NM
16	4.153	20.767	6260' - 6280' 20 FEET	6271	21.2	38.3957
17				6277	16.9	0.8406
18	5.950		6280' - 6295' 15 FEET	6289	7.9	0.0489
19				6300	4.0	0.0363
20				6309	20.4	1.3964
21	7.690	19.225	6295' - 6335' 40 FEET	6320	20.1	1.5320
22				6330	19.5	1.0723
23				6340	16.9	0.8936
24	4.800		6342' - 6352 10 FEET	6350	4.8	0.0365
25				6358	18.6	0.9246



CORE SAMPLE ANALYSIS

Net Porosity/ Zone (ft)	Avg Zone Porosity (%)	Zone	Depth (ft)	Porosity (%)	Perm (mD)
10.872	18.120	6355'-6380' 25 FEET	6365	16.6	2.1841
			6370	24.1	11.7823
1.100		6380' - 6400 20 FEET	6381	1.1	0.0223
2.285	15.100	6400' - 6415' 15 FEET	6404	15.4	9.4853
			6410	14.8	2.2894
4.100		6415' - 6435' 20 FEET	6420	4.1	0.0154
			6430	4.1	0.0052
			6440	18.4	3.3897
			6450	20.6	9.0986
			6460	23.2	2.3253
12.684	19.514	6435'-6500' 65 FEET	6469	18.80	1.9095
			6470	15.10	0.4888
			6480	19.20	0.6569
			6490	21.30	0.8922
3.400		6500' - 6525' 25 FEET	6508	5.20	0.0494
			6517	5.00	0.0358
			6530	18.6	0.7110
			6540	14.3	0.1740
9.850	16.983	6525'-6583' 58 FEET	6545	21.6	1.3120
			6556	21.5	1.3558
			6570	16.4	0.5977
			6576	9.5	0.1368
			6586	3.8	0.1434
7.800		6583' - 6625' 42 FEET	6594	6.8	0.0426
			6610	7.5	0.0439
			6620	9.1	0.0195
This zone not perforated and remains behind pipe			6630	21.1	2.0364
Net Porosity (ft)	Inj. Zone Avg Porosity (%)	Feet of Perfs			
50.915	18.10132653	243			

**BOTTOM OF INJECTION
ZONE AT 6583'**

SELECTED PERFORATION INTERVALS
AGAVE REDHILLS AGI #1

<u>Perforation Interval (ft)</u>	<u>Thickness (ft)</u>	<u>Net Porosity (ft)</u>
6230 - 6250	20	3.4
6260 - 6280	20	3.81
6295 - 6335	40	7.69
6355 - 6380	25	10.872
6400 - 6415	15	2.265
6435 - 6500	65	12.684
<u>6525 - 6583</u>	<u>58</u>	<u>9.85</u>
Totals	250	50.571

Each interval perforated with six shots per foot at 60°
for a total of 1,500 shots

SUMMARY

- ▶ Based upon the geology of the injection zone, Red Hills AGI #1 should easily accept the permitted amount of 13 MMSCFD of TAG.
- ▶ 50+ feet of net porosity is a sufficient amount that should accept the injected TAG for a minimum of 30 years.
- ▶ Approximately 175 feet of tight shale, limestone and mudstone with low to very low permeability reside above the injection interval, based on sidewall core and logs. This is sufficient caprock to constrain the injected TAG to the reservoir and not allow for upward migration.
- ▶ A permanent packer set at 6,170 feet, 60 feet above the top perf, will allow for the safe disposal of TAG to the injection reservoir, and will not allow any upward movement of TAG into the annulus.
- ▶ 1500 shots should adequately perforate the 243 feet of injection intervals.
- ▶ Fracturing is very limited and does not provide much of an increase in porosity.

Conditions of Approval

**Lucid Energy Delaware, LLC
Red Hills AGI - 01, API 3002540448
T24S-R33E, Sec 13, 1600FSL & 150FEL
November 8, 2017**

1. **Begin wellbore operations within 90 days of these conditions of approval for the processed Electronic Submission #390905 notice of intent or request an extension.**
2. **Operator is required to have the BLM approved NOI procedure with applicable conditions of approval on location for this workover operation.**
3. Subject to like approval by the New Mexico Oil Conservation Division.
4. Prior BLM approval of the design is required to add, replace, or repair casing or a liner. Use notice of intent Form 3160-5.
5. Surface disturbance beyond the existing pad shall have prior BLM approval.
6. A closed loop system is required. The operator shall properly dispose of drilling/circulating contents at an authorized disposal site. Tanks are required for all operations, no excavated pits.
7. Functional H₂S monitoring equipment shall be on location.
8. Blow Out Prevention Equipment 2000 (2M) to be used. All BOPE and workover procedures shall establish failsafe well control. Ram(s) for the work string(s) used is required equipment. Manual BOP closure system including a blind ram and pipe ram(s) designed to close on all (hand wheels or automatic locking devices) equipment installed regardless of BOP design. Function test the installed BOPE to 500psig when well conditions allow. Related equipment, (choke manifolds, kill trucks, gas vent or flare lines, etc.) employed when needed for reasonable well control requirements.
9. All waste (i.e. trash, salts, chemicals, sewage, gray water, etc.) resulting from work over operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Portojohns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
10. **Provide BLM with an electronic copy (Adobe Acrobat Document) record from the 7" PBTD taken with 0psig casing pressure to TOC. Attach the CBL to a pswartz@blm.gov email.**
11. **Include stimulation injection pressures on subsequent report. Report maximum/minimum injection rate (BPM) and max/min stimulation injection pressures (psig).**
12. **The well considered a commercial hydrocarbon producer until proven otherwise. Offer an electronic copy of the well's mudlog, and an estimated insitu water salinity based on copies of open hole logs as evidence.**

13. **A minimum of 1000 barrels is to be withdrawn from the proposed disposal formation after NOI Step 8 stimulation load volumes recovered. A composite report of ten samples from the last 200bbls analyzed for hydrocarbons and insitu salinity by a reputable laboratory. Notify pswartz@blm.gov, 575-200-7902 24 hours prior to sampling.**
14. **Operator will provide BLM a summary report of all documented evidence demonstrating the presence of commercial recoverable hydrocarbons volumes that are present in the targeted disposal formation prior to disposal of fluid into the well.**
15. **Real-time formation pressure monitoring records collected continuously during all acid gas disposal are to be available to BLM.**
16. **After the wellbore equipment intended for acid gas injection/disposal installed, conduct the proposed Mechanical Integrity Test of the NOI Step 21.**
Notify pswartz@blm.gov, 575-200-7902 24 hours prior to the MIT.
17. The minimum test pressure is 500 psig for 30 minutes with a minimum 200 psig differential between tubing and casing pressure (at test time) but no more than 70% of casing burst pressure as described by Onshore Order 2.III.B.1.h. Verify all annular casing vents are plumbed to surface and those valves open to the surface during this pressure test.
18. Document the pressure test on a one hour full rotation chart recorder (calibrated within the last 6 months) registering within 35 to 75 per cent of its full range. Greater than 10% pressure leakoff viewed as a failed MIT. Less than 10% pressure leakoff will be evaluated site specifically and may restrict injection approval.
19. **The proposed Step 11 (Step Rate Test) conducted as an "Injection Potential Test" to provide data to the operator and NMOCD, not for requesting a pressure increase.**
20. **Control Step Rate Test flow rates of the fluid (fresh water or brine) with a constant flow regulator and measured with a turbine flow meter calibrated within 0.1 bbl/min.**
21. **A down hole transmitting pressure device and a surface pressure device with accuracies of ± 10 psig are required for the Step Rate Test.**
22. **Synchronize (real-time) BLM approved rate changes with SRT formation and surface pressures.**
23. Record the indicated information of a "STEP RATE TEST DATA for BLM, CFO" data sheet. Provide BLM with the tabulated data and supporting documentation.
24. Submit a (BLM Form 3160-5 subsequent report via BLM's Well Information System; <https://www.blm.gov/wispermits/wis/SP> describing (dated daily) all wellbore activity and the Mechanical Integrity Test. Include descriptions of and the setting depths of all installed equipment. File intermediate Form 3160-5 within 30 days of any interrupted workover procedures and a complete workover subsequent sundry.