

Initial Application Part I

Received: 7/23/22

This application is placed in file for record. It MAY or MAY NOT have been reviewed to be determined Administratively Complete

M02QK-220723-C-1080

RECEIVED: 7/23/2022	REVIEWER:	TYPE: SWD	APP NO: pJZT2220953349
---------------------	-----------	-----------	------------------------

ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Geological & Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505

**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND
 REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Applicant: Longfellow Energy, LP **OGRID Number:** 372210
Well Name: AID State Com I **API:** 30-015-24076
Pool: SWD; Cisco-Canyon **Pool Code:** 96186

**SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION
 INDICATED BELOW**

1) **TYPE OF APPLICATION:** Check those which apply for [A] SWD-2501

A. Location - Spacing Unit - Simultaneous Dedication

☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD

B. Check one only for [I] or [II]

[I] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[II] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

2) **NOTIFICATION REQUIRED TO:** Check those which apply.

- A. ☒ Offset operators or lease holders
 B. ☒ Royalty, overriding royalty owners, revenue owners
 C. ☒ Application requires published notice
 D. ☒ Notification and/or concurrent approval by SLO
 E. ☒ Notification and/or concurrent approval by BLM
 F. ☒ Surface owner
 G. ☒ For all of the above, proof of notification or publication is attached, and/or,
 H. ☐ No notice required

FOR OCD ONLY

☐ Notice Complete
☐ Application
 Content
 Complete

3) **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Brian Wood

Print or Type Name

Signature

7-23-22

Date


505 466-8120

Phone Number

brian@permitswest.com

e-mail Address

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance XXX Disposal _____ Storage
Application qualifies for administrative approval? XXX Yes _____ No
- II. OPERATOR: LONGFELLOW ENERGY, LP
ADDRESS: 8115 PRESTON RD., SUITE 800, DALLAS TX 75225
CONTACT PARTY: BRIAN WOOD (PERMITS WEST, INC.) PHONE: 505 466-8120
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? _____ Yes XXX No
If yes, give the Division order number authorizing the project: _____
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
- AID STATE COM 1**
30-015-24076
SWD-2411
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: BRIAN WOOD  TITLE: CONSULTANT
SIGNATURE: _____ DATE: JULY 18, 2022
E-MAIL ADDRESS: brian@permitswest.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.



EXHIBIT J

NM Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 8705

Re: Geology Statement
Longfellow Energy LP
AID State Com No. 1
Section 13, T. 17S, R. 28E
Eddy County, New Mexico

To whom it may concern:

Publicly available geologic and engineering data related to the proposed well have been thoroughly reviewed, and no evidence for open faults or any other hydrologic connection between the proposed Cisco and Canyon injection zone and any underground sources of drinking water has been found. Please see the attached geologic assessment for additional information.

Sincerely,

Cory Walk, M.S.
Geologist

Geologic Assessment
Longfellow Energy L.P.
AID State Com No. 1
Section 13, Township 17 South, Range 28 East
Eddy County, New Mexico

Cory Walk

A handwritten signature in cursive script that reads "Cory Walk".

B.S., M.S.

Geologist

Permits West Inc.

January 11, 2021

General Information

Longfellow Energy proposes to convert the AID State Com 1 gas well to a saltwater disposal (SWD) well in the SE 1/4, section 13, T17S, R28E, about 16 miles east of Artesia, NM in the Permian Basin. The proposed injection zone is within the Cisco and Canyon formations from 8,750'-8,965' below ground surface. This report assesses any potential concerns relating to the connection between the injection zone and known underground potable water sources.

Groundwater Sources

Quaternary Alluvium acts as the principal aquifer used for potable ground water near the AID State Com 1 location (Hendrickson and Jones, 1952). Nicholson and Clebsch (1961) state, "Potable ground water is not available below the Permian and Triassic unconformity but, because this boundary is not easily defined, the top of the Rustler anhydrite formation is regarded as the effective lower limit of 'potable' ground water." Around the AID State Com 1, the Rustler Formation lies at a depth of ~360 feet bgs.

Faults and Fractures

The Geologic Map of New Mexico (2003) shows the nearest fault to the SWD location is found 17 miles to the northwest (Figure 1). A large accumulation of northwest trending Basin and Range style normal faults lie ~65 miles from the proposed water injection well. This fault zone is interpreted to be a southeastern extension of the Rio Grande Rift zone (Muehlberger et al., 1978) and is the only area in which deeply penetrating faults exist throughout the region.

A structure contour map of the Precambrian Basement shows the AID State Com 1 well is approximately 13 miles to the nearest Precambrian basement fault (Figure 1; Modified from Ruppel et al., 2009). However, Montgomery (1997) shows that these faults remain deep below the surface and do not act as conduits between the Pennsylvanian Cisco and Canyon formations and aquifers near the surface (Figure 2).

Stratigraphy

Well data indicates ~8,390 ft of rock separating the top of the injection zone within the Cisco and Canyon formation from the previously stated lower limit of potable water at the top of the Rustler anhydrite formation. Within the separating ~8,390 feet of strata include several horizons of impermeable formations including the Rustler anhydrite and Salado halite formations.

Concluding Statement

After examination of publically available geologic and engineering data, there is no evidence of open faults or any other hydrologic connection between the proposed injection zone and any underground sources of drinking water.

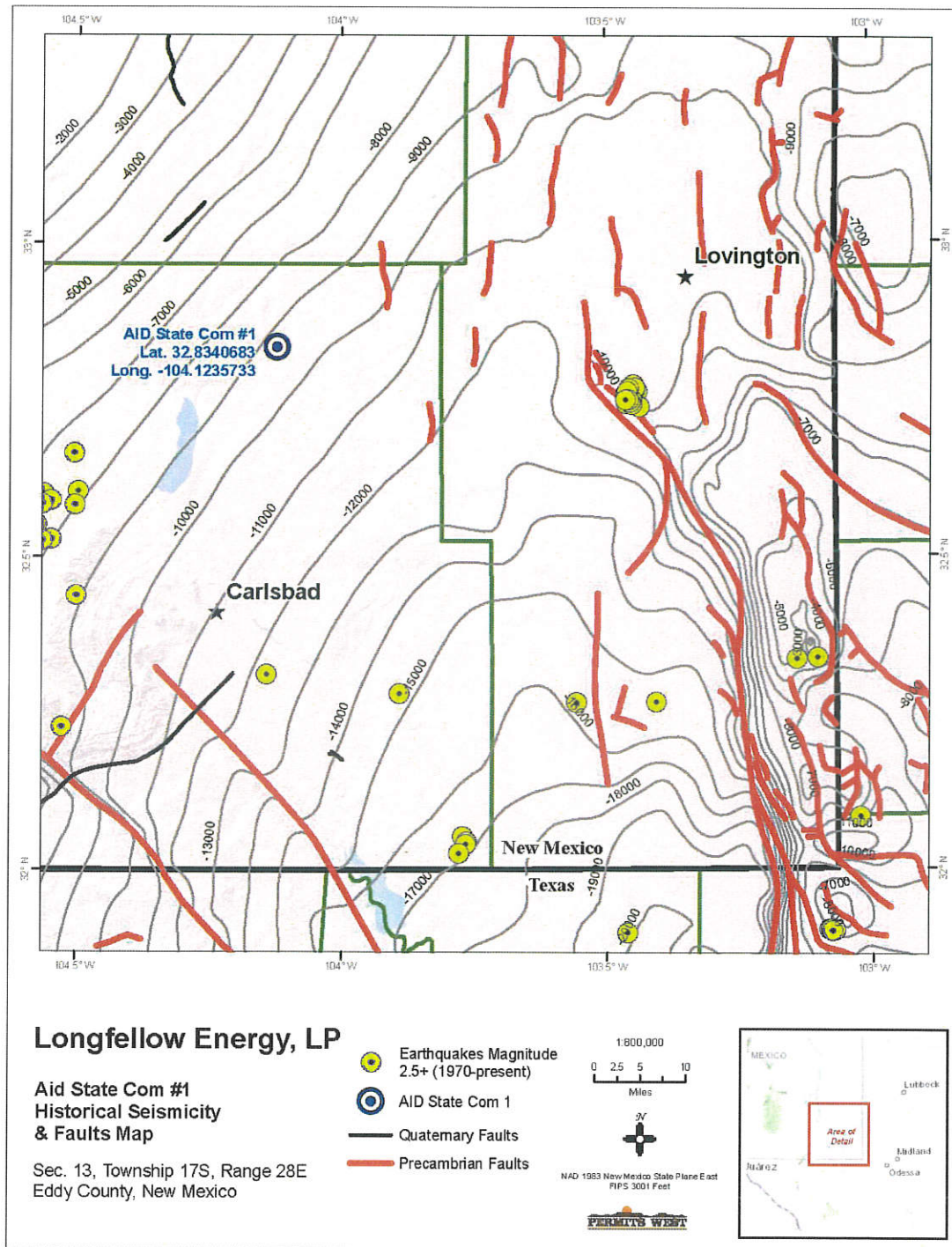


Figure 1. Structural contour map of the Precambrian Basement. Thick red lines represent the locations of deep Precambrian basement faults and black lines represent Quaternary surface faults.

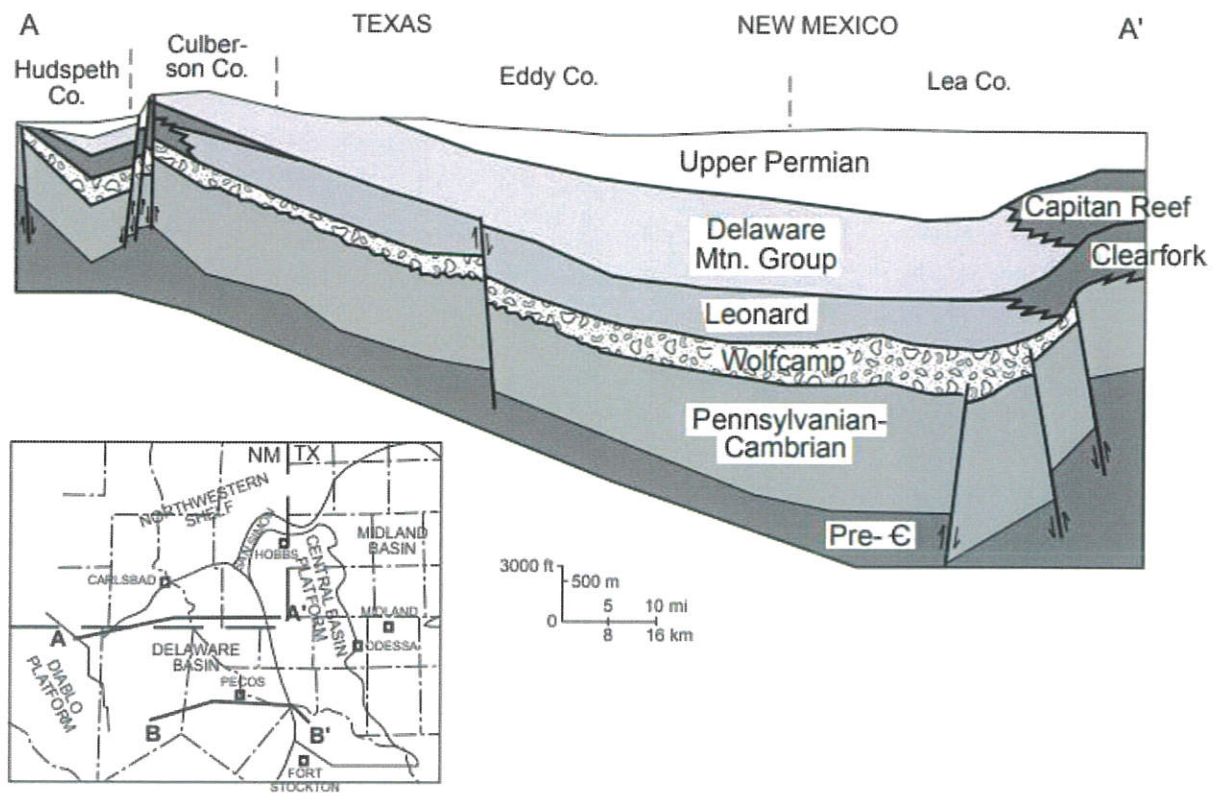


Figure 2. Cross section of the Permian Basin from Montgomery (1997). Notice the basement faults within the basin do not reach the surface and therefore do not act as conduits to near surface aquifers.

References Cited

- Geologic Map of New Mexico, New Mexico Bureau of Geology and Mineral Resources, 2003, Scale 1:500,000.
- Hendrickson, G. E., and Jones, R. S., 1952, Geology and Ground-Water Resources of Eddy County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Ground-Water Report 3, 179 pp., 6 plates.
- Montgomery, S. L., 1997, Permian Bone Spring Formation: Sandstone play in the Delaware basin: Part I. Slope: AAPG Bulletin, v. 81, p. 1239–1258.
- Muehlberger, W.R., Belcher, R.C., and Goetz, L.K., 1978, Quaternary faulting in Trans-Pecos Texas: Geology, v. 6, p. 337–340.
- Nicholson, A., Jr., and Clebsch, A., Jr., 1961, Geology and ground-water conditions in southern Lea County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Ground-Water Report 6, 123 pp., 2 plates.
- Ruppel, S.C., 2009, Integrated synthesis of the Permian basin: data and models for recovering existing and undiscovered oil resources from the largest oil-bearing basin: U.S. Oil & Natural Gas Technology, Bureau Economic Geology, The University of Texas at Austin, p. 1-959.

LONGFELLOW ENERGY, LP
AID STATE COM 1
30-015-24076
SWD-2411

PAGE 1

1980' FSL & 660' FEL, SEC. 13, T. 17 S., R. 28 E., EDDY COUNTY, NM

I. Plan is to convert a shut-in 10,670' deep Morrow gas well to a SWD; Cisco-Canyon (96186) saltwater disposal well. Disposal will be from 8750' to 8965' in the Cisco and Canyon zones. Conversion was previously approved (SWD-2411) on March 3, 2021, but approval expired due to a "continuous one-year period of non-injection". The well is on NM State Land Office surface (SW-477) and minerals. See Exhibit A for a USGS map and C-102 forms. One Mcfd was produced in December, 2020 before being shut-in.

II. Operator: Longfellow Energy, LP (OGRID 372210)
Operator phone number: (972) 590-9900
Operator address: 8115 Preston Rd., Suite 800, Dallas TX 75225
Contact for Application: Brian Wood (Permits West, Inc.)
Phone: (505) 466-8120

III. A. (1) Lease: NMSLO LG-3782-0000
Lease Size: 240.00 acres
Closest Lease Line: 660'
Lease: SE4, NESW, & SWSW Section 13, T. 17 S., R. 28 E.

A. (2) Surface casing (13.375", 54#) is set at 350' in a 17.5" hole and cemented to GL with 400 sacks (circulated unknown amount).

Intermediate casing (8.625", 24# & 28#) is set at 2650' in an 11" hole and cemented to GL with 1200 sacks (circulated 100 sacks).

Production casing (5.5", 17#) is set at 10,670' in a 7.875" hole and cemented to 6,600' (CBL) with 1,600 sacks. A CIBP will be set @ 9065' and topped with $\geq 35'$ of cement to isolate the deeper zones.

A. (3) IPC tubing (flush joint 3.5", 9.3#, J-55, BT&C) will be set @ $\approx 8700'$. (Disposal interval will be 8750' - 8965'.)

1980' FSL & 660' FEL, SEC. 13, T. 17 S., R. 28 E., EDDY COUNTY, NM

- A. (4) A 5.5" ASI-X packer will be set @ $\approx 8700'$ (or in any event, $\leq 100'$ above the top perforation (8750')).
- B. (1) Disposal zone will be carbonates in the SWD; Cisco-Canyon (96186).
- B. (2) Disposal interval (8750' to 8965') will be perforated.
- B. (3) This existing well was drilled as a Morrow gas well in 1982.
- B. (4) Morrow is perforated from 10,408' to 10,553'
- B. (5) Next higher oil or gas zone in the area of review is the Tubb. Tubb bottom is at $\approx 5916'$, or $\approx 2646'$ above the Cisco. Morrow is the only producing oil or gas zone in the area of review below the Canyon. Highest Morrow perforation is at 10,408', or 968' below the bottom of the Canyon. No Cisco or Canyon producer is within 2-1/2 miles. Closest existing Cisco; SWD well (30-015-28759) is 5048' north in J-12-17s-28e. Closest existing SWD; Cisco-Canyon well (30-015-32216) is 6830' north in H-12-17s-28e. Closest existing Canyon; SWD well (30-015-29260) is 14,796' northeast in I-5-17s-29e.

IV. This is not an expansion of an existing injection project. It is disposal only.

V. Exhibit B shows and tabulates 18 wells (15 producers + 3 P&A) within a half-mile (2640') radius. Three of the wells within a half-mile penetrated the Cisco and Canyon, two of which are P&A and the third is an active Morrow gas well. Exhibit C shows 581 existing wells (468 oil or gas + 104 P&A + 8 water injectors or disposers + 1 water) within a 2-mile radius.

Exhibit D maps and tabulates all well operators (regardless of depth), leases, and lessors (only NMSLO & BLM) within a half-mile radius. Exhibit E shows all leases (NMSLO, fee, & BLM) within a 2-mile radius.

VI. Three (Exhibit F) of the 18 wells within a half-mile (2640') radius penetrated the Cisco and Canyon. Well construction abstracts are in Exhibit F. Diagrams of the two P&A penetrator wells are also in Exhibit F.

- VII. 1. Average injection rate will be $\approx 15,000$ bwpd.
Maximum injection rate will be 20,000 bwpd.
2. System will be closed and open.
3. Average injection pressure will be ≈ 1500 psi. Maximum injection pressure will be 1750 psi ($= 0.2$ psi/ft \times 8750' (highest perforation)).
4. Water source will be produced water from Permian Basin wells. Longfellow expects an increase of produced water from the Glorieta-Yeso. Exhibit G tabulates T. 17 S., R. 28 & 29 E. produced water analyses from New Mexico Produced Water Quality Database v.2. No compatibility problems have been reported from the closest Cisco, Canyon, or Cisco-Canyon SWD wells.

Well	Distance	Location	Disposal Zone	bwpd disposed
30-015-28759	5048'	J-12-17s-28e	Cisco	14,493,586
30-015-32216	6830'	H-12-17s-28e	Cisco-Canyon	1,113,816
30-015-29260	14796'	I-5-17s-29e	Canyon	14,271,471

5. Neither the Cisco nor the Canyon have been found productive of oil and gas within a mile. WAIDS analysis (Exhibit H) shows Cisco TDS at 216,236 mg/l.

VIII. The Cisco (416' thick) is comprised of limestone, dolomite, shale, and sandstone. The Canyon (462' thick) is composed of dolomite. Closest possible underground source of drinking water above the proposed disposal interval are the red beds in the top $\approx 300'$. Deepest water well within 2-miles is 140'. The 1.5-mile interval between the bottom of the red beds and the top of the Cisco includes multiple confining layers of anhydrite, salt, and shale.

AID STATE COM 1

30-015-24076

SWD-2411

1980' FSL & 660' FEL, SEC. 13, T. 17 S., R. 28 E., EDDY COUNTY, NM

State Engineer records (Exhibit I) show the only water well (RA 12307 POD 1) within 2-miles is 1.05 miles northwest in A-14-17s-28e. It was sampled (Exhibit I) October 9, 2020. AID State Com 1 is 14 miles north of the Capitan and 16 miles west of the Ogallala.

No underground source of drinking water is below the proposed disposal interval. Produced water is currently being injected in 30 wells (Grayburg, Queen, San Andres, Seven Rivers, and Yates) and disposed in 13 wells (Abo, Canyon, Cisco, Permo-Penn, Wolfcamp) within 17s-28e.

Formation tops are:

Quaternary = 0'
Salt = 335'
Yates = 810'
Seven Rivers = 1065'
Queen = 1629'
Grayburg = 2048'
San Andres = 2373'
Glorieta = 3760'
Yeso = 3837'
Blaine = 4505'
Tubb = 5262'
Abo = 5917'
Wolfcamp = 7026'
Cisco = 8562'
Proposed Disposal Zone = 8750' - 8965'
Canyon: 8958'
Proposed CIBP: 9065' + 35' of cement
Strawn = 9440'
Morrow = 10400'
PBTD = 10621'
TD = 10670'

IX. The well will be stimulated with acid to clean out scale or fill.

LONGFELLOW ENERGY, LP

PAGE 5

AID STATE COM 1

30-015-24076

SWD-2411

1980' FSL & 660' FEL, SEC. 13, T. 17 S., R. 28 E., EDDY COUNTY, NM

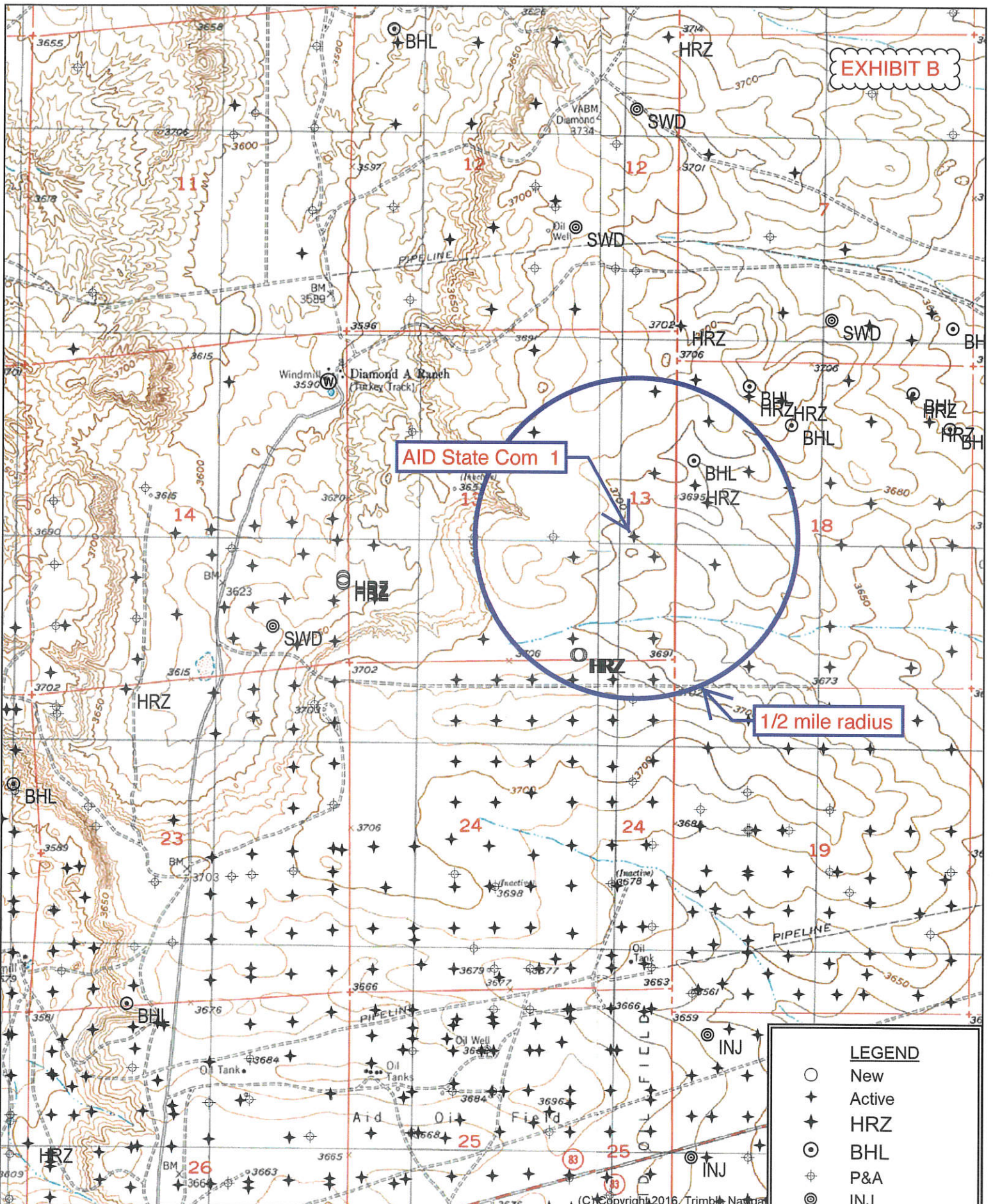
X. DLL/MLL, CDN, and GR logs are on file with NMOCD.

XI. No water well is within a mile. A water well 1.05 miles northwest was sampled (Exhibit I) on October 9, 2020.

XII. Longfellow Energy, LP is not aware of any geologic or engineering data (Exhibit J) that may indicate the Cisco or Canyon are in hydrologic connection with any underground source of water. Twenty-one SWD; Cisco wells, twelve SWD; Canyon wells, and fourteen SWD; Cisco-Canyon wells are active in New Mexico.

XIII. Legal ad (Exhibit K) was published in the Artesia newspaper on June 30, 2022. Notice (this application) is being sent (Exhibit L) to the surface owner (NMSLO), lessors, lessees of record, operating right holders, and well operators within a half-mile.

EXHIBIT B



LEGEND	
○	New
+	Active
✦	HRZ
⊙	BHL
⊕	P&A
⊙	INJ
⊙	SWD
⊙	Brine
⊙	Water



Quad: RED LAKE
Scale: 1 inch = 2,000 ft.

© Copyright 2016, Trimble Navigation

SORTED BY DISTANCE FROM AID STATE COM 1

API	OPERATOR	WELL	WELL STATUS	UNIT-SECTION	TVD	ZONE @ TVD	FEET FROM AID STATE
3001537790	Longfellow	Aid State 004	O	I-13	5400	Tubb	465
3001537791	Longfellow	Aid State 005	O	J-13	5363	Tubb	1053
3001537845	Longfellow	Aid State 006	O	H-13	5400	Tubb	1078
3001539055	Spur	Pere Marquette 18 Federal 009H	O	E-18	4848	Blainebry	1294
3001539059	Spur	Pere Marquette 18 Federal 012	O	E-18	5242	Tubb	1315
3001501363	Kincaid & Watson	Superior ST 001	P&A	J-13	2485	San Andres	1328
3001531399	Mewbourne	Empire 18 Federal Com 002	G	L-18	10800	Chester Barnett	1398
3001537067	Longfellow	Aid State Com 003	O	P-13	5294	Tubb	1680
3001537068	Longfellow	Aid State Com 002	O	O-13	5335	Tubb	1935
3001538998	Spur	Pere Marquette 18 Federal 010	O	F-18	5282	Tubb	2157
3001539023	Spur	Pere Marquette 18 Federal 008	O	D-18	5250	Tubb	2230
3001536483	Spur	Kool Aid State 006	O	A-24	5410	Tubb	2331
3001537545	Spur	Kool Aid State 020	O	A-24	5410	Tubb	2337
3001538462	Longfellow	Aid State 010	O	G-13	5325	Tubb	2360
3001538142	Longfellow	Aid State 008	O	A-13	5380	Tubb	2369
3001536485	Spur	Kool Aid State 008	O	B-24	5395	Tubb	2524
3001525192	EOG	Woodchuck ABW State Com 001	P&A	K-13	10760	Chester Barnett	2594
3001520361	Pennzoil	Aid State Com 001	P&A	A-24	10796	Barnett	2640
3001539056	Spur	Pere Marquette 18 Federal 011	O	F-18	4722	Blainebry	2667

EXHIBIT C

AID State Com 1

2 mile radius

LEGEND

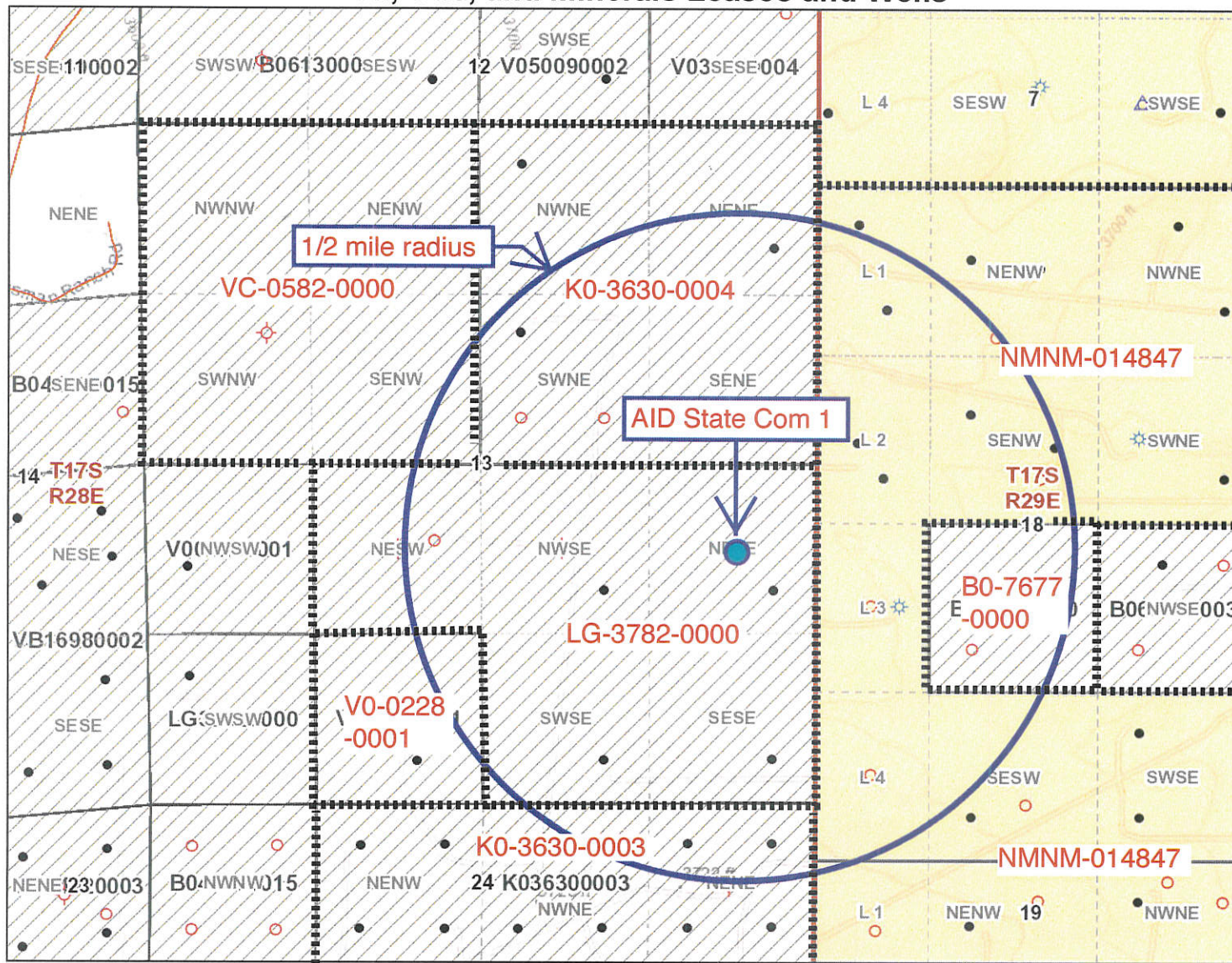
- New
- ★ Active
- ✦ HRZ
- ⊙ BHL
- ⊕ P&A
- ⊗ INJ
- ⊙ SWD
- ⊙ Brine
- ⊙ Water

Quad: ARTESIA
Scale: 1 inch = 3,333 ft.

© Copyright 2016, Trimble Navigation



Oil, Gas, and Minerals Leases and Wells



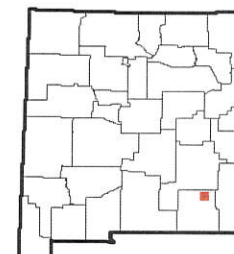
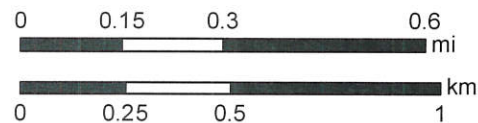
- Subdivisions
- Active Wells
 - Water Storage
 - Miscellaneous
 - Salt Water Disposal
 - Injection
 - Carbon Dioxide
 - Gas
 - Oil
- Inactive Wells
 - Plugged / Dry / Abandoned
 - Cancelled / Not Drilled
- Highway Mileposts
- Detailed Roads
- Unit Agreement Boundaries
- Participating Areas in Units
- Oil and Gas Leases
- Federal Minerals Ownership
 - All Minerals
 - Coal Only
 - Oil and Gas Only
 - Oil, Gas and Coal Only
 - Other Minerals

EXHIBIT D

Disclaimer:
The New Mexico State Land Office assumes no responsibility or liability for, or in connection with the accuracy, reliability or use of the information provided herein with respect to State Land Office data or data from other sources.

Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.

Created: 1/9/2021



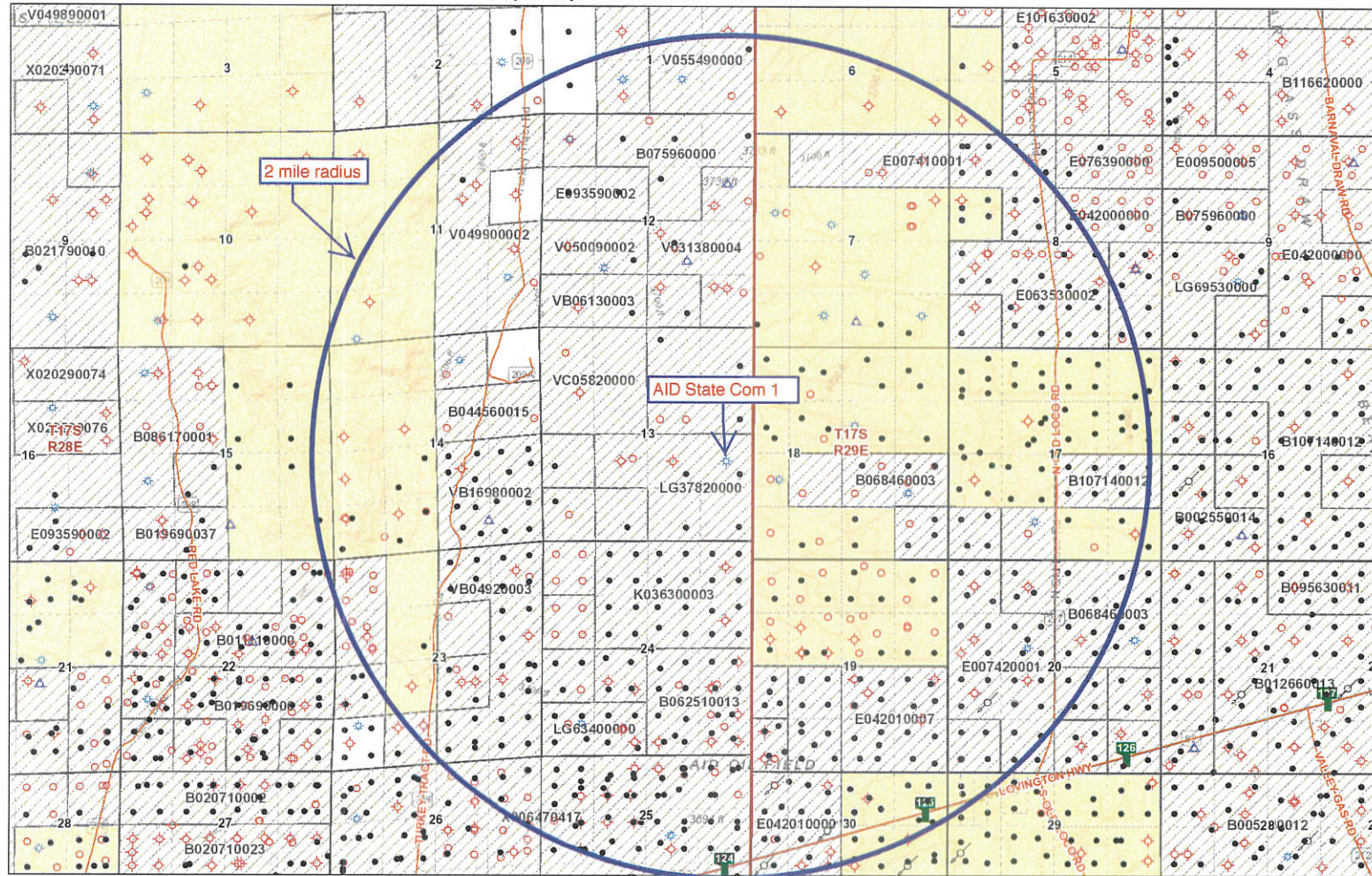
AID STATE COM 1 AREA OF REVIEW LEASES

Aliquot Parts in Area of Review (T. 17 S., R. 28 E.)	Lessor	Lease	Lessee of Record	Well Operators (none Cisco or Canyon)
NE4 Sec. 13	NMSLO	K0-3630-0004	Longfellow	Longfellow
SE4 Sec. 13	NMSLO	VC-0582-0000	St. Devote	Longfellow
SE4 & NESW Sec. 13	NMSLO	LG-3782-0000	MRC Delaware	Longfellow
SESW Sec. 13	NMSLO	VO-0228-0002	Longfellow	Longfellow
N2NE4 Sec. 24	NMSLO	K0-3630-0003	Fasken	Spur & Longfellow
Aliquot Parts in Area of Review (T. 17 S., R. 29 E.)	Lessor	Lease	Lessee of Record	Well Operators (none Cisco or Canyon)
Lots 1-4, E2NW4, & SESW Sec. 18	BLM	NMNM-014847	ConocoPhillips	Maverick, Longfellow, & Spur
NESW Sec. 18	NMSLO	B0-7677-0000	ConocoPhillips	Longfellow & Mewbourne
Lot 1 Sec. 19	BLM	NMNM-014847	ConocoPhillips	Longfellow



New Mexico State Land Office

Oil, Gas, and Minerals Leases and Wells

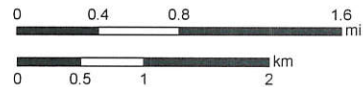


Legend

- Townships
- Sections
- Subdivisions
- Active Wells**
 - Water Storage
 - Miscellaneous
 - Salt Water Disposal
 - Injection
 - Carbon Dioxide
 - Gas
 - Oil
- Inactive Wells**
 - Plugged / Dry / Abandoned
 - Cancelled / Not Drilled
- Highway Mileposts
- Detailed Roads
- Federal Minerals Ownership**
 - All Minerals
 - Coal Only
 - Oil and Gas Only
 - Oil, Gas and Coal Only
 - Other Minerals

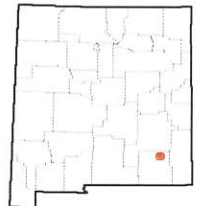
Disclaimer:
The New Mexico State Land Office assumes no responsibility or liability for, or in connection with the accuracy, reliability or use of the information provided herein with respect to State Land Office data or data from other sources.

Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.



Map Created: 1/9/2021

EXHIBIT E



CISCO CANYON PENETRATORS

WELL	SPUD	TVD	FORMATION @ TVD	STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW TOC DETERMINED
Empire 18 Federal Com 002	12/11/00	10800	Barnett	G	17.5	13.375	408	360	Surface	Circ 50 sx
30-015-31399					12.25	8.625	2630	1150	Surface	Circ 125 sx
L-18-17S-29E					7.875	5.5	10800	1760	230	no report
Woodchuck ABW State Com 001	2/27/85	10760	Barnett/Chester	P&A	17.5	13.375	350	650 sx	Surface	Circ to Surface
30-015-25192					11	8.625	2655	2235 sx	Surface	Circ 21 sx
K-13-17S-28E					7.875	4.5	10760	1370 sx	5900	CBL
AID State Com 001	12/18/70	10796	Barnett	P&A	17.5	13.375	420	450 sx	Surface	Circ to Surface
30-015-20361					11.75	8.625	1982	250 sx	Surface	Circ to Surface
A-24-17S-28E					7.875	5.5	10796	1000 sx	5430	Temp Survey

WELL NAME: Woodchuck ABW State Com #1 FIELD: _____LOCATION: 1980' FSL & 1980' FWL of Section 13-17S-28E Eddy Co., NMGL: 3,697' ZERO: _____ KB: 3,711'SPUD DATE: 2/27/85 COMPLETION DATE: 8/1/85 P&A 9-9-17COMMENTS: API No.: 30-015-25192

CASING PROGRAM

13-3/8" 54.5# J-55	350'
8-5/8" 24# & 32# J-55	2,655'
4-1/2" 11.6# N-80 & K-55	10,760'

Formation Tops

Queen	1,600'
Grayburg	2,020'
San Andres	2,360'
Glorieta	3,735'
Wolfcamp	6,975'
Penn	8,390'
Strawn	9,410'
Atoka	9,985'
Morrow	10,305'
Chester	10,520'

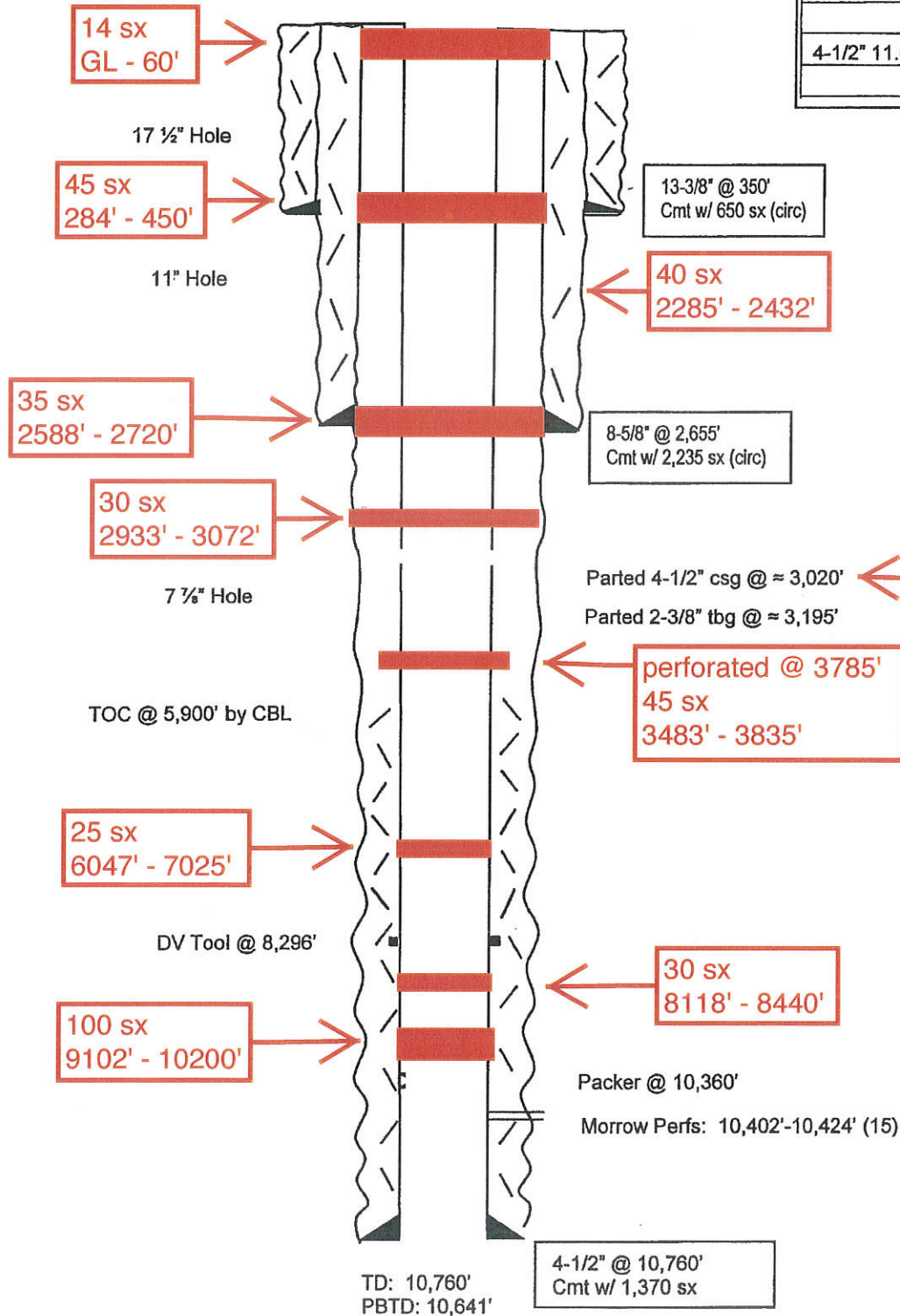
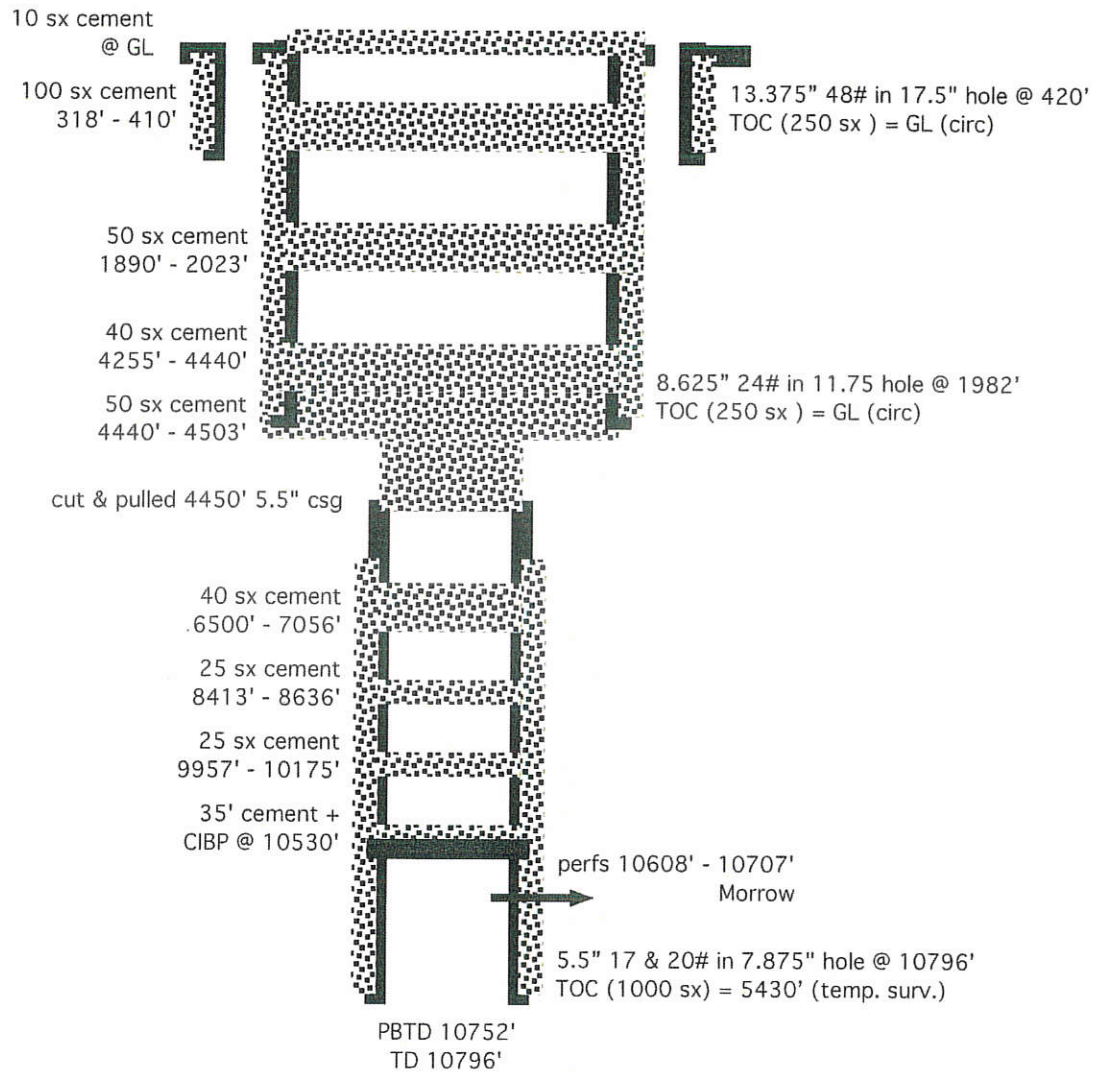


EXHIBIT F

AID State Com 1
30-015-20361
A-24-17s-28e
spud: 12-18-70
P&A: 1-22-86



(not to scale)

Affidavit of Publication

No. 26212

State of New Mexico

County of Eddy:

Danny Scott

being duly sworn says that he is the **Publisher**
of the Artesia Daily Press, a daily newspaper of General
circulation, published in English at Artesia, said county
and state, and that the hereto attached

Legal Ad

was published in a regular and entire issue of the said
Artesia Daily Press, a daily newspaper duly qualified
for that purpose within the meaning of Chapter 167 of
the 1937 Session Laws of the state of New Mexico for
1 Consecutive weeks/day on the same

day as follows:

First Publication June 30, 2022

Second Publication

Third Publication

Fourth Publication

Fifth Publication

Sixth Publication

Seventh Publication

Subscribed and sworn before me this

30th day of June 2022

STATE OF NEW MEXICO
NOTARY PUBLIC
Latisha Romine
Commission Number 1076338
My Commission Expires May 12, 2023

Latisha Romine

Latisha Romine

Notary Public, Eddy County, New Mexico

Copy of Publication:

EXHIBIT K

Legal Notice

Longfellow Energy, LP will apply to plug back and convert the AID State Com 1 gas well to a saltwater disposal well. The well will dispose into the Cisco and Canyon formations from 8,750' to 8,965'. It is 8 miles west of Loco Hills, NM and 16 miles east of Artesia, NM at 1980' FSL & 660' FEL Sec. 13, T. 17 S., R. 28 E., Eddy County, NM. Maximum disposal rate will be 20,000 bwpd. Maximum injection pressure will be 1,750 psi. Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505, or ocd.engineer@state.nm.us, within 15 days. Additional information can be obtained by contacting: Brian Wood, Permits West, Inc., 37 Verano Loop, Santa Fe, NM 87508. Phone number is (505) 466-8120.

Published in the Artesia Daily Press, Artesia, N.M.,
June 30, 2022 Legal No. 26212.

July 18, 2021

NM State Land Office
PO Box 1148
Santa Fe NM 87504

TYPICAL NOTICE

Longfellow Energy, LP is applying (see attached application) to plug back and convert the AID State Com 1 gas well to a saltwater disposal well. As required by NM Oil Conservation Division (NMOCD) rules, I am notifying you of the following proposal. This letter is a notice only. No action is needed unless you have questions or objections. (The project was previously approved by NMOCD on March 3, 2021, but the approval expired before the well was converted.)

Well: AID State Com 1 ID = 10670'

Proposed Disposal Zones: Cisco & Canyon (8750' - 8965')

Location: 1980' FSL & 660' FEL Sec. 13, T. 17 S., R. 28 E., Eddy County, NM

Approximate Location: 16 miles east of Artesia, NM

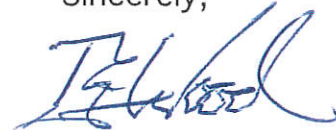
Applicant Name: Longfellow Energy, LP (972) 590-9900

Applicant's Address: 8115 Preston Rd., Suite 800, Dallas TX 75225

Submittal Information: Application for a saltwater disposal well will be filed with the NMOCD. If you have an objection, or wish to request a hearing, then it must be filed with the NMOCD within 15 days of receipt of this letter. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,



Brian Wood

7021 1970 0001 8901 2846

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$

COG Operating LLC
600 W Illinois Ave
Midland TX 79701
Sent To
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 1970 0001 8901 2855

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$

ConocoPhillips
Attn. Lakeiva Noel
PO Box 2197
Houston TX 77252
Sent To
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 1970 0001 8901 2862

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$

Endurance Properties
4900 Airport Parkway
Suite 2805
Addison TX 75001
Sent To
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 1970 0001 8901 2879

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$

EOG Resources Inc
1111 Bagby St
Lobby 2
Houston TX 77002
Sent To
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 1970 0001 8901 2886

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$

Fasken Acquisitions 02, LTD
6101 Holiday Hill Rd.
Midland TX 79701
Sent To
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 1970 0001 8901 2893

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$

Jim & Patricia Ikar
PO Box 331
Carlsbad NM 88220
Sent To
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 1970 0001 8901 2909

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$

John & Alice Sharp
104 Northwind LP
Roswell NM 88201
Sent To
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 1970 0001 8901 2916

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$

Legacy Reserves Operating LP
15 Smith Rd. Suite 3000
Midland TX 79705
Sent To
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 1970 0001 8901 2923

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$

Mack C Chase Trustee
2103 W. Main St.
Artesia NM 88210
Sent To
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 1970 0001 8901 2930

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$

Mack Energy Corp.
PO Box 960
Artesia NM 88211
Sent To
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 1970 0001 8901 2947

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$

Magnum Hunter c/o Cimarex
600 N Marientfeld St
Suite 600
Midland TX 79701
Sent To
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 1970 0001 8901 2954

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$

Magnum Hunter c/o Blue Ridge
122 W. John Carpenter Fwy
Irving TX 75039
Sent To
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

EXHIBIT L

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Sent To **Maverick Permian LLC**
1111 Bagby St.
Suite 1800
Houston TX 77002
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Sent To **Mewbourne Oil Co.**
P. O. Box 5270
Hobbs NM 88241
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Sent To **MRC Delaware Resources**
108 S. 4th St.
Artesia NM 88210
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Sent To **MRC Delaware Resources**
5400 LBJ Freeway
Suite 1500
Houston TX 75240
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Sent To **Noble Energy Inc**
1001 Noble Energy Way
Houston TX 77070
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Sent To **Noble Energy Inc c/o Chevron**
6301 Deauville Blvd.
Midland TX 79706
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Sent To **NM State Land Office**
P. O. Box 1148
Santa Fe NM 87504
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Sent To **Rayen Resources LLC**
3325 Enterprise
Hobbs NM 88240
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Sent To **Keever Operating LLC**
17304 Preston Rd Suite 740
Dallas TX 75252
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Sent To **Sullivan & Fulton LLC**
PO Box 1176
Artesia NM 88211
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Sent To **SEP Permian-Holding Corp**
9655 Katy FWY Suite 500
Houston TX 77024
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Sent To **SEP Permian LLC**
9655 Katy FWY Suite 500
Houston TX 77024
Longfellow Aid State Com 1
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

EXHIBIT L

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
PO Box 2523
Sent To Roswell NM 88201
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Southwest Royalties Inc
200 N. Lorraine Suite 400
Sent To Midland TX 79701
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Spur Energy Partners
9655 Katy Freeway Suite 500
Sent To Houston TX 77024
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
St. Devote LLC
919 Milam St Suite 2475
Sent To Houston TX 77002
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
SWN Production Company LLC
PO Box 12359
Sent To Spring TX 77391
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Tritex Energy A.L.P.
15455 Dallas PWKY Suite 600
Sent To Addison TX 75001
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Wersen OG Co
P.O. Box 702708
Sent To Tulsa OK 74170
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Warren Hanson
PO Box 9
Sent To Glencoe NM 88324
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
Westall Oil & Gas LLC
PO Box 4
Sent To Loco Hills NM 88255
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

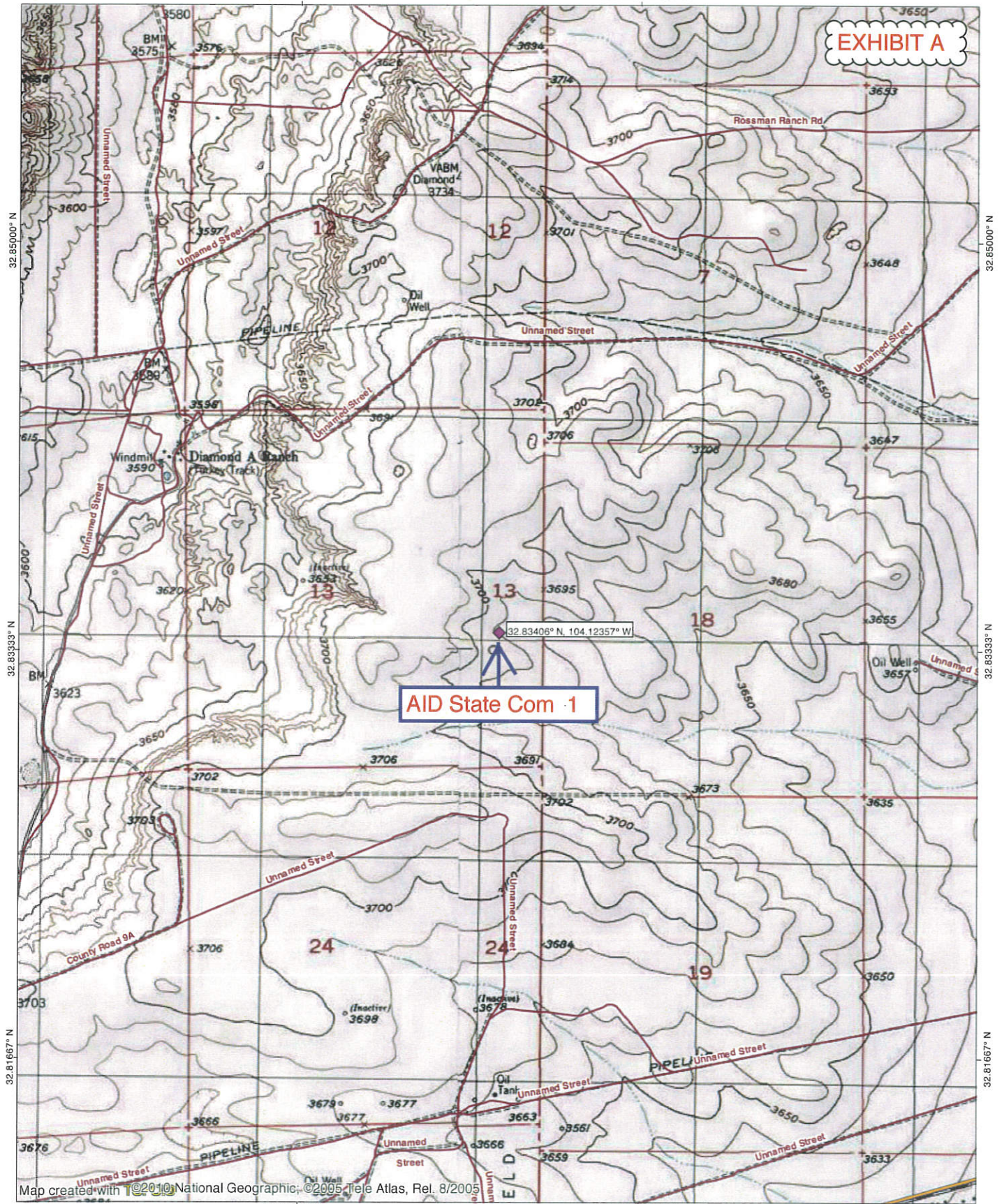
For delivery information, visit our website at www.usps.com™.

OFFICIAL USE

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$
Postage \$
Total Postage and Fees \$
BLM
620 E. Greene
Sent To Carlsbad NM 88220
Street and Apt. No., or PO Box No.
City, State, ZIP+4®
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

EXHIBIT L

EXHIBIT A



Map created with ©2010 National Geographic, ©2005 Tele Atlas, Rel. 8/2005

MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

EXHIBIT A

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

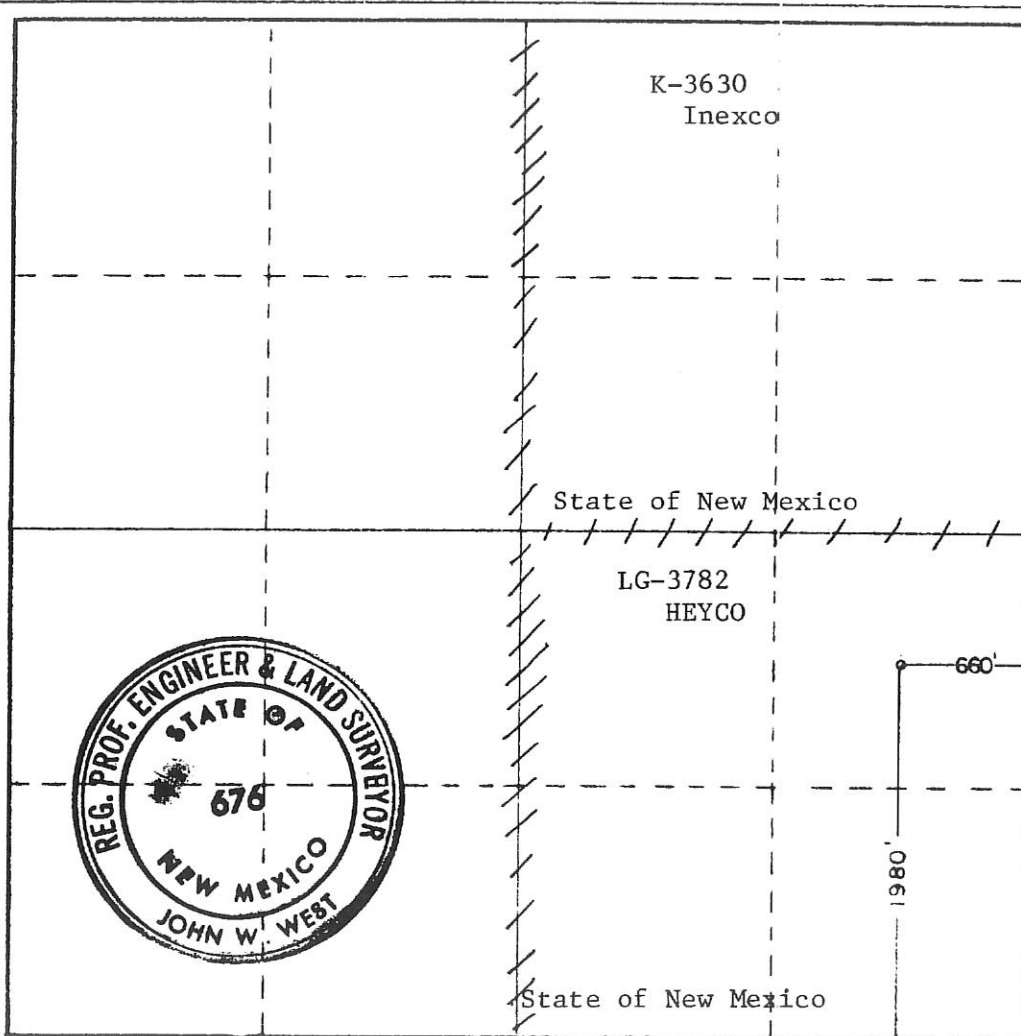
Operator HARVEY E. YATES CO.			Lease AID STATE Com.		Well No. 1
Unit Letter I	Section 13	Township 17 SOUTH	Range 28 EAST	County EDDY	
Actual Footage Location of Well: 1980 feet from the SOUTH line and 660 feet from the EAST line					
Ground Level Elev. 3692.0	Producing Formation Morrow		Pool Und. S. Empire Morrow Willist		Dedicated Acreage: 320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes," type of consolidation Communitization

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Peck Hardee

Name
Peck Hardee
Position
Engineer
Company
Harvey E. Yates Company
Date
January 28, 1982

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 and correct to the best of my knowledge and belief.

Date Surveyed
1-22-82
Registered Professional Engineer and/or Land Surveyor

John W. West
Certificate No. **JOHN W. WEST 676**
PATRICK A. ROMERO 6883
Ronald J. Eidsen 3239

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

EXHIBIT A

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☒ AMENDED REPORT
(change pool)

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-24076	² Pool Code 96186	³ Pool Name SWD; CISCO-CANYON
⁴ Property Code	⁵ Property Name AID STATE COM	⁶ Well Number 1
⁷ OGRID No. 372210	⁸ Operator Name LONGFELLOW ENERGY, LP	⁹ Elevation 3692'

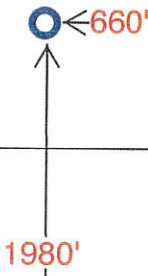
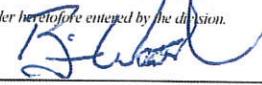
¹⁰ Surface Location

UL or lot no. I	Section 13	Township 17 S	Range 28 E	Lot Idn	Feet from the 1980	North/South line SOUTH	Feet from the 660	East/West line EAST	County EDDY
---------------------------	----------------------	-------------------------	----------------------	---------	------------------------------	----------------------------------	-----------------------------	-------------------------------	-----------------------

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.						

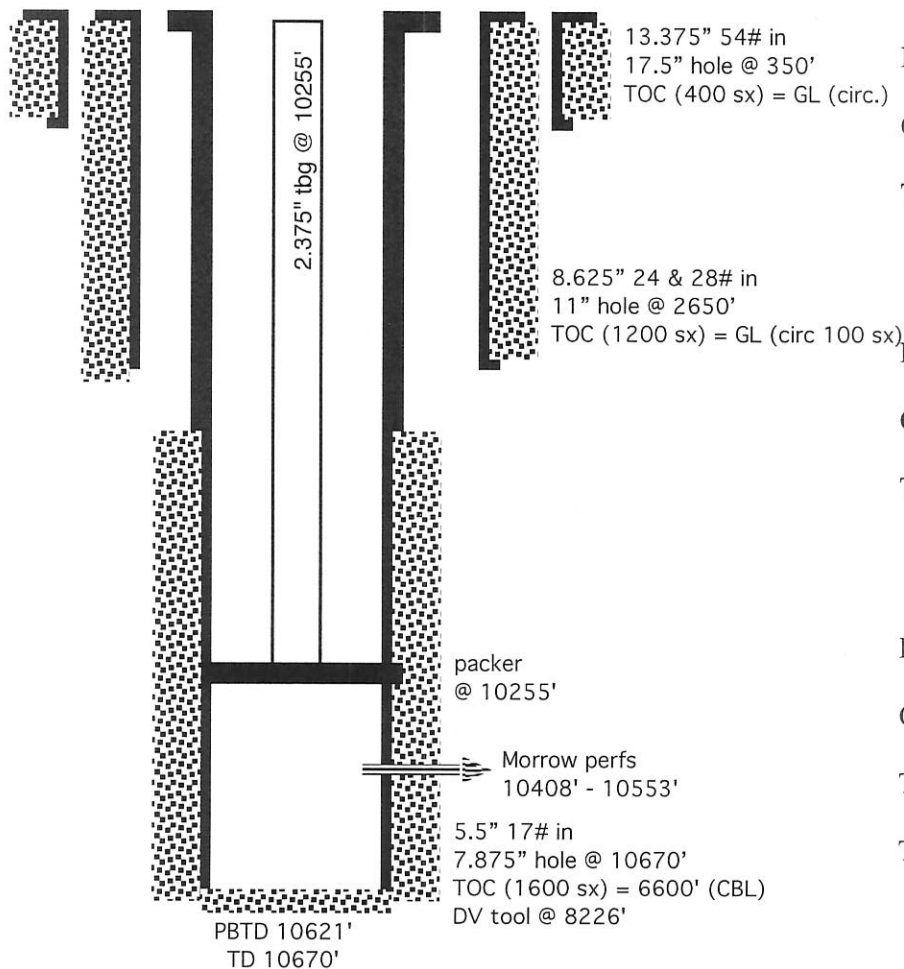
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

¹⁶ 	¹⁷ OPERATOR CERTIFICATION <i>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.</i>  11-8-20 Signature Date BRIAN WOOD Printed Name brian@permitswest.com E-mail Address 505 466-8120	
	¹⁸ SURVEYOR CERTIFICATION <i>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 and correct to the best of my belief.</i> 1-22-82 Date of Survey Signature and Seal of Professional Surveyor: Original survey by John W. West #676 is on file with NMOCD. Certificate Number	

INJECTION WELL DATA SHEET

OPERATOR: LONGFELLOW ENERGY, LPWELL NAME & NUMBER: AID STATE COM 1WELL LOCATION: 1980' FSL & 660' FEL
FOOTAGE LOCATIONUNIT LETTER
ISECTION
13TOWNSHIP
17 SRANGE
28 EWELLBORE SCHEMATIC"AS IS"

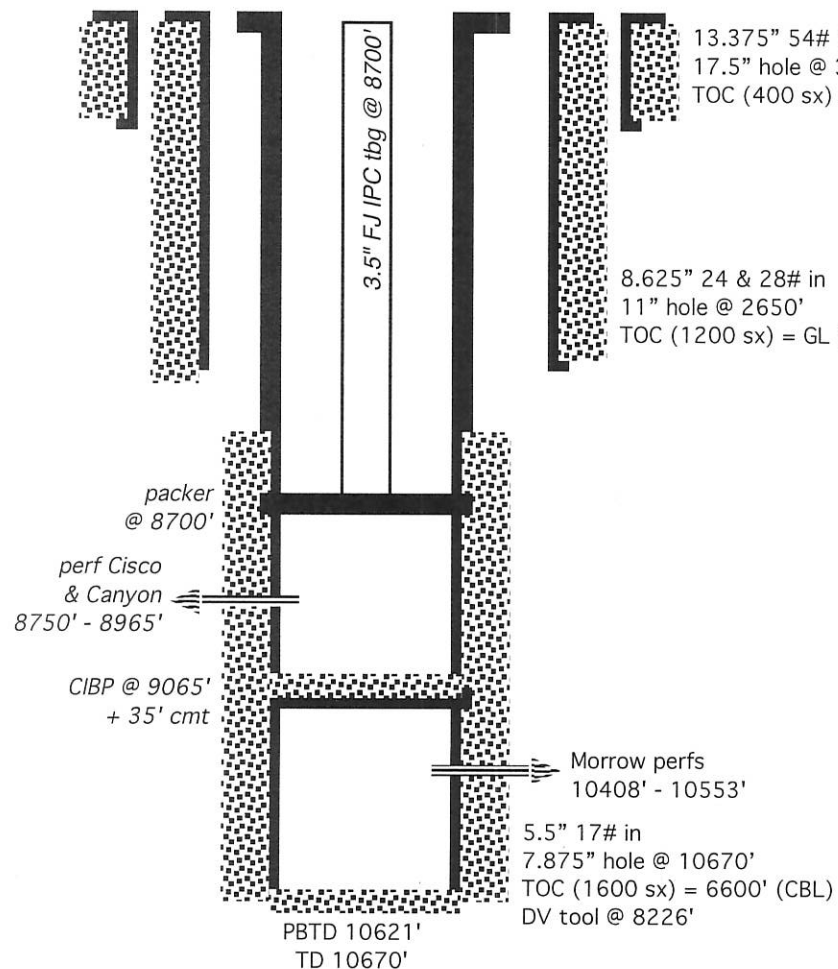
(not to scale)

WELL CONSTRUCTION DATASurface CasingHole Size: 17.5" Casing Size: 13.375"Cemented with: 400 sx. *or* _____ ft³Top of Cement: GL Method Determined: CIRC.Intermediate CasingHole Size: 11" Casing Size: 8.625"Cemented with: 1200 sx. *or* _____ ft³Top of Cement: GL Method Determined: CIRC 100 SXProduction CasingHole Size: 7.875" Casing Size: 5.5"Cemented with: 1600 sx. *or* _____ ft³Top of Cement: 6600' Method Determined: CBLTotal Depth: 10670'Injection Interval8750 feet to 8965'

(Perforated or Open Hole; indicate which)

■■■■■■■■■■

INJECTION WELL DATA SHEET

OPERATOR: LONGFELLOW ENERGY, LPWELL NAME & NUMBER: AID STATE COM 1WELL LOCATION: 1980' FSL & 660' FEL
FOOTAGE LOCATIONUNIT LETTER
ISECTION
13TOWNSHIP
17 SRANGE
28 EWELLBORE SCHEMATIC"Proposed"
(not to scale)WELL CONSTRUCTION DATASurface CasingHole Size: 17.5" Casing Size: 13.375"Cemented with: 400 sx. *or* ft³Top of Cement: GL Method Determined: CIRC.Intermediate CasingHole Size: 11" Casing Size: 8.625"Cemented with: 1200 sx. *or* ft³Top of Cement: GL Method Determined: CIRC 100 SXProduction CasingHole Size: 7.875" Casing Size: 5.5"Cemented with: 1600 sx. *or* ft³Top of Cement: 6600' Method Determined: CBLTotal Depth: 10670'Injection Interval8750 feet to 8965'

(Perforated or Open Hole; indicate which)

■■■■■■■■■■

INJECTION WELL DATA SHEETTubing Size: FJ 3.5" J-55 9.3# Lining Material: INTERNAL PLASTIC COATType of Packer: ASI-XPacker Setting Depth: ≈8700'

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____ Yes XXX No

If no, for what purpose was the well originally drilled? MORROW GAS WELL

2. Name of the Injection Formation: CISCO & CANYON

3. Name of Field or Pool (if applicable): SWD; CISCO-CANYON (96186)

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. YES

MORROW PERFORATED 10408' - 10553' & WILL ISOLATE W/ CIBP @ 9065' + 35' CMT

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

OVER: SAN ANDRES (2373'), GLORIETA (3760'), YESO (3837'),
BLINEBRY (4505'), TUBB (5262')

UNDER: MORROW (10400')

PRODUCED WATER ANALYSES (in mg/l) T. 17 S., R. 28 and 29 E.

API	Section	Township	Range	Formation	TDS	Chloride	Bicarbonate	Sulfate
3001501583	27	17S	28E	Abo	224062	135900	378	699
3001501673	32	17S	28E	Abo	34958	19380	2217	1980
3001503083	25	17S	29E	Abo	59305	28980	1677	6934
3001503083	25	17S	29E	Abo	65091	38030	995	2069
3001503183	29	17S	29E	Abo	29400	13700	2520	2800
3001501595	28	17S	28E	Artesia	237482	147300	46	1044
3001501595	28	17S	28E	Artesia	230189	143300	35	925
3001501595	28	17S	28E	Artesia	217219	133800	137	1030
3001501595	28	17S	28E	Artesia	241926	149300	35	1162
3001501595	28	17S	28E	Artesia	30400	12800	2320	4500
3001501595	28	17S	28E	Artesia	222174	137000	109	922
3001501652	31	17S	28E	Artesia	187566	109300	575	4910
3001530889	32	17S	28E	Artesia	163842	111692	836	44
3001530889	32	17S	28E	Artesia	97568	61161	245	2111
3001530299	33	17S	28E	Artesia	194617	129205	674	4405
3001502886	4	17S	29E	Artesia	38560	21670	668	2157
3001502891	4	17S	29E	Artesia	227185	140700	47	900
3001502912	7	17S	29E	Artesia	267895	166300	47	625
3001502996	16	17S	29E	Artesia	102782	57400	450	5600
3001502996	16	17S	29E	Artesia	120438	71800	989	653
3001502996	16	17S	29E	Artesia	1751	799	200	210
3001502996	16	17S	29E	Artesia	138560	75600	1200	9000
3001503019	21	17S	29E	Artesia	237424			
3001503019	21	17S	29E	Artesia	68550	39100	850	2500
3001503019	21	17S	29E	Artesia	69875	41200	485	1800
3001503019	21	17S	29E	Artesia	132353	78840	332	2628
3001503019	21	17S	29E	Artesia	37260	17200	1610	4800
3001503042	22	17S	29E	Artesia	178711	104425	402	4600
3001503034	22	17S	29E	Artesia	56179	31824	716	2350
3001503042	22	17S	29E	Artesia	146796	88400	69	2030
3001503170	28	17S	29E	Artesia	195904	129855	587	4825
3001531125	28	17S	29E	Artesia	240561	176450	91	1054
3001531125	28	17S	29E	Artesia	174045	120583	433	2087
3001503172	28	17S	29E	Artesia	29210	12500	2370	3950
3001503172	28	17S	29E	Artesia	29961	13360	1387	4284
3001503196	33	17S	29E	Artesia	277375	172900	194	1384
3001530334	33	17S	28E	Glorieta/Yeso	206471	137940	504	4742
3001502866	2	17S	29E	Grayburg/San Andres	1406	780	10	550

PRODUCED WATER ANALYSES (in mg/l) T. 17 S., R. 28 and 29 E.

3001502873	3	17S	29E	Grayburg/San Andres	109000	63070	339	3538
API	Section	Township	Range	Formation	TDS	Chloride	Bicarbonate	Sulfate
3001521279	31	17S	29E	Morrow	35148	19800	1510	450
3001521279	31	17S	29E	Morrow	33627	19300	900	540
3001502933	9	17S	29E	Permo-Penn	310744	192950	179	1259
3001537329	5	17S	28E	Wolfcamp	92636	54800	207	0
3001537429	5	17S	28E	Wolfcamp	84981	50400	171	0
3001538084	5	17S	28E	Wolfcamp	84923	49800	635	0
3001537429	5	17S	28E	Wolfcamp	91974	55168	439	0
3001538084	5	17S	28E	Wolfcamp	93671	54565	427	0
3001538084	5	17S	28E	Wolfcamp	67849	39804	98	2172
3001530915	19	17S	29E	Yeso	192637	130436	822	2724
3001530916	19	17S	29E	Yeso	212361	142111	945	4613
3001530944	19	17S	29E	Yeso	215197	144157	409	4785
3001530917	19	17S	29E	Yeso	213384	142829	448	4903
3001530307	29	17S	29E	Yeso	208172	140286	612	3456
3001530451	29	17S	29E	Yeso	182240	121966	933	3445
3001530307	29	17S	29E	Yeso	200501	133638	822	4560
3001530931	29	17S	29E	Yeso	207695	138951	495	4750
3001530305	29	17S	29E	Yeso	207078	137913	660	5163
3001530694	29	17S	29E	Yeso	194357	152244	1112	5958
3001530575	30	17S	29E	Yeso	9557	3819	806	1616
3001530575	30	17S	29E	Yeso	8483	3308	448	1711

ANALYSES IN MG/L

API	Section	Township	Range	Formation	TDS	Calcium	Magnesium	Chloride	Bicarbonate	Sulfate
3001526468	14	20S	24E	CISCO	216236	4576	463	53321	72619	952



sample

AID State Com 1

1 mile radius



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

EXHIBIT I

(A CLW#### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,

O=orphaned,

C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Code	Sub-basin	County	Q	Q	Q	Sec	Tws	Rng	X	Y	Distance	Depth	Well	Depth	Water	Column
RA 12307 POD1		RA	ED	4	2	2	14	17S	28E	580495	3633981	1705	140	58	82		

Average Depth to Water: **58 feet**

Minimum Depth: **58 feet**

Maximum Depth: **58 feet**

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 582026

Northing (Y): 3633231

Radius: 3220

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/16/22 10:38 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West

Client Sample ID: RA 12307

Project: AID State Com 1

Collection Date: 10/9/2020 10:35:00 AM

Lab ID: 2010548-001

Matrix: AQUEOUS

Received Date: 10/9/2020 4:13:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 1664B							Analyst: KMN
N-Hexane Extractable Material	ND	9.42		mg/L	1	10/14/2020 11:31:00 AM	55792
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	960	50	*	mg/L	100	10/22/2020 5:48:58 PM	R72867
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: MH
Total Dissolved Solids	3520	20.0	*	mg/L	1	10/15/2020 3:10:00 PM	55818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

EXHIBIT I

WO#: 2010548

26-Oct-20

Client: Permits West
Project: AID State Com I

Sample ID: MB-55792	SampType: MBLK	TestCode: EPA Method 1664B
Client ID: PBW	Batch ID: 55792	RunNo: 72635
Prep Date: 10/13/2020	Analysis Date: 10/14/2020	SeqNo: 2550799 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
N-Hexane Extractable Material	ND	10.0

Sample ID: LCS-55792	SampType: LCS	TestCode: EPA Method 1664B
Client ID: LCSW	Batch ID: 55792	RunNo: 72635
Prep Date: 10/13/2020	Analysis Date: 10/14/2020	SeqNo: 2550800 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
N-Hexane Extractable Material	38.4	10.0 40.00 0 96.0 78 114

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

EXHIBIT I
WO#: 2010548
26-Oct-20

Client: Permits West
Project: AID State Com 1

Sample ID: MB	SampType: mblk	TestCode: EPA Method 300.0: Anions
Client ID: PBW	Batch ID: R72867	RunNo: 72867
Prep Date:	Analysis Date: 10/22/2020	SeqNo: 2561188 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	0.50

Sample ID: LCS	SampType: lcs	TestCode: EPA Method 300.0: Anions
Client ID: LCSW	Batch ID: R72867	RunNo: 72867
Prep Date:	Analysis Date: 10/22/2020	SeqNo: 2561189 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	4.6	0.50 5.000 0 92.3 90 110

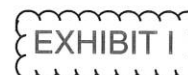
Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.



WO#: 2010548

26-Oct-20

Client: Permits West
Project: AID State Com 1

Sample ID: MB-55818	SampType: MBLK	TestCode: SM2540C MOD: Total Dissolved Solids
Client ID: PBW	Batch ID: 55818	RunNo: 72677
Prep Date: 10/14/2020	Analysis Date: 10/15/2020	SeqNo: 2552764 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Total Dissolved Solids	ND	20.0

Sample ID: LCS-55818	SampType: LCS	TestCode: SM2540C MOD: Total Dissolved Solids
Client ID: LCSW	Batch ID: 55818	RunNo: 72677
Prep Date: 10/14/2020	Analysis Date: 10/15/2020	SeqNo: 2552765 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Total Dissolved Solids	999	20.0 1000 0 99.9 80 120

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit