Initial Application Part I

Received: **01/03/2020**

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

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:

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: _____ **OGRID Number:** _____
Well Name: _____ **API:** _____
Pool: _____ **Pool Code:** _____

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

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

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

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

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.

_____ Date

_____ Print or Type Name

_____ Phone Number

_____ Signature

_____ e-mail Address

BC&D Operating, Inc

P.O. Box 302 Hobbs, NM 88241
(405) 837-8147

December 28, 2019

Jal Public Library Trust 9-24-35 SWD

1,200' FNL & 1,990 FEL, Sec 9, T24S, R35E, Lea Co, NM

Contents:

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance ___✓___Disposal _____Storage
Application qualifies for administrative approval? ___✓___Yes _____No

II. OPERATOR: BC&D Operating, Inc. (25670)

ADDRESS: P.O Box 302 Hobbs, New Mexico 88241

CONTACT PARTY: Richard Hill PHONE: (405) 837-8147

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 ___✓___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:

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).

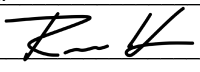
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

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: Richard Hill TITLE: SVP Engineering

SIGNATURE:  DATE: 12/28/2019

E-MAIL ADDRESS: rhill@wellconsultant.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: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

Side 2

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.

Side 1

INJECTION WELL DATA SHEET

OPERATOR: BC&D Operating, Inc. (25670)

WELL NAME & NUMBER: Jal Public Library Trust 9-24-35 SWD

WELL LOCATION:	1,200' FNL & 1,990' FEL	B	9	24S	35E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

Please see attached wellbore schematic in the following pages.

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: _____ Casing Size:_____

Cemented with: _____ sx. ***or*** _____ ft^3

Top of Cement: _____ Method Determined: _____

Intermediate Casing

Hole Size: _____ Casing Size:_____

Cemented with: _____ sx. ***or*** _____ ft^3

Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: _____ Casing Size:_____

Cemented with: _____ sx. ***or*** _____ ft^3

Top of Cement: _____ Method Determined: _____

Total Depth: _____

Injection Interval

15,500' feet to 17,500

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 4-1/2" Lining Material: Duoline

Type of Packer: 4-1/2" TCPC Permanent Packer w/ High Temp Elastomer & Full Inconel

Packer Setting Depth: 15,850'

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

Additional Data

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

   If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: Dev - Fuss

3. Name of Field or Pool (if applicable): SWD; Dev - Fuss

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. No

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

   Yates - Seven Rivers @ 3,589', Bone Spring at 8,050', Wolfcamp @ 11,800'

   Atoka @ 13,120', Marrow @ 13,560'

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(405) 837-8147

III. Well Data

A. The following 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.

- Jal Public Library Trust 9-24-35 SWD, Sec 9, T24S, R35E, 1,200’ FNL & 1,990’ FEL.

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.

Casing Size	Setting Depth	Sack of Cement	Hole Size	Top of Cement	Determined
20"	1,250'	1,205	26"	Surface	Circulate
13-3/8"	5,200'	1,970	17-1/2"	Surface	Circulate
9-5/8"	12,650'	2,050	12-1/4"	Surface	Circulate
7"	12,450' - 15,900'	350	8-1/2"	12,450'	Circulate

3. A description of the tubing to be used including its size, lining material, and setting depth.

- 4-1/2” (0 – 15,800’) OD, Internally Plastic-Coated tubing set 50’ – 100’ above open hole.

4. The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

- 4-1/2” TCPC Permanent packer w/ high temp elastomer & full Inconel.

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.

- Injection Formation Devonian-Silurian Formations
- Pool Name: SWD (Devonian-Fusselman)

2. The injection interval and whether it is perforated or open-hole.

- 15,500’ – 17,500’ (15,500 - 15,900 cased hole and not perforated), (15,900' - 17,500' OH)

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3. **State if the well was drilled for injection or, if not, the original purpose of the well.**

   - New well drilled for injection.

4. **Give the depths of any other perforated intervals and detail on the sacks of cementor bridge plugs used to seal off such perforations.**

   - N/A

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.**

   - Next Higher:

     - Morrow 13,560'
     - Atoka 13,120'
     - Wolfcamp 11,800'
     - Bone Spring/Avalon 8,050'
     - Yates 3,589'.

   - Next Lower:

     - None

IV.

1. **Is this an expansion of an existing project? _____Yes _____x____No**

V.

1. **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.**

   - See attached map.

VI.

1. **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.**

   - See attachment.

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VII. Attach data on the proposed operation, including:

1. **Proposed average and maximum daily rate and volume of fluids to be injected;**

   - Average 30,000 BWPD, Max 40,000 BWPD.
   - Rate will also be determined by maximum pressure. (.2 psi/ft to top of injection interval).

2. **Whether the system is open or closed;**

   - Closed System, Commercial SWD

3. **Proposed average and maximum injection pressure;**

   - Average injection pressure: 2,500 psi (surface pressure).
   - Maximum injection pressure: 3,100 psi (surface pressure).

4. **Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,**

   - The injection fluid is to be locally produced water. It is expected that the source water will predominantly be from the Bone Spring and Wolfcamp formations. Attached are produced water sample analyses that feature samples from the Delaware, Bone Spring, and Wolfcamp formations.

5. **If injection is for disposal purposes into a zone not productive of oil and 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.)**

   - The disposal interval is non-productive. No water samples are available from the surrounding are

VIII.

1. **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. Underground sources of drinking water within 1-mile of the proposed location.**

   - The Devonian formation is a dolomitic ramp carbonate that occurs below the Woodford shale and above the Fusselman formation. Strata found in the Devonian formation include two major groups, the Wristen Buildups and Thirtyone Deepwater Chert, with the Wristen being more abundant. The Wristen Groups is composed of mixed limestone and dolomites with mudstone to grainstone and boundstone textures. Porosity in the Wristen group is a result of both primary and secondary development. Present are moldic, vugular, karstic (including collapse breccia)

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features that allow for higher porosities and permeabilities. The Thirtyone Formation contains two end-member reservoir facies, skeletal packstones/grainstones and spiculitic chert, with most of the porosity and permeability found in the coarsely crystalline cherty dolomite. These particular characteristics allow for this formation to be a salt water disposal horizon.

- There is one well within one mile of the proposed location. Water wells in the surrounding area have an average depth of 507’ and an average water depth of 300’ generally producing from the Santa Rosa. The upper Rustler may also be another USDW and will be protected.
- The Santa Rosa Sandstone consists primarily of red, white, gray or greenish-gray and varies from a fine grain to coarse grain sandstone. In the vicinity of the Jal Public Library Trust 9-24-35 SWD it occurs at a depth of around 700’ to 900’. In this area the Santa Rosa is of minor hydrological significance and there are no Santa Rosa water wells in the vicinity of the well in application. Consequently, the Santa Rosa quality in this area is not known. However, over southern Lea County it yields small quantities of water, with some reports of wells producing 100 gpm. Santa Rosa water in the southern part of the county usually has high sulfate content.

Formation Tops	Depth (TVD)
Rustler	1,190'
Top Salt	1,280'
Base Salt	3,700'
Top Capitan Reef	3,728'
Base Capitan Reef	5,050'
Delaware	5,220'
Bell Canyon	5,300'
Cherry Canyon	6,200'
Brushy Canyon	7,720'
Bone Spring	8,920'
Wolfcamp	11,800'
Strawn	12,622'
Atoka	13,120'
Morrow Lime	13,564'
Barnet	14,485'
Chester	15,115'
Mississippian Lime	15,226'
Woodford	15,632'
Devonian	15,882'
Fusselman	16,920'
Montoya	17,700'

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IX.

1. **Describe the proposed stimulation program, if any.**

- Stimulate with up to 50,000 gallons of acid.

X.

1. **Attach appropriate logging and test data on the well. (If well logs have been filed with the division, they need not resubmitted.**

- There are no logs or test data on the well.
- During drilling operations.
  - 0 – 1,250' mudlogging.
  - 1,250' – 5,200' mudlogging and full suite of logs consisting of GR/CNL/CDN/CBL to identify the Capitan Reef.
  - 5,200' – 12,650' mudlogging, gamma and CBL.
  - 12,650' – 15,900' mudlogging, gamma and CBL.
  - 15,900' – 17,700' mudlogging an GR/CNL/CDN/CBL.

XI.

1. **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.**

- There is one well producing within one mile of the proposed location.
- Please attached water analysis.

XII.

1. **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.**

- BC&D Operating, Inc. has reviewed and examined geologic and engineering data in the area of interest for the Jal Public Library Trust 9-24-35 SWD and have found no evidence of faults or other hydrologic connections between Devonian disposal zones and underground sources of drinking water.

XIII.

1. **Applicants must complete the "Proof of Notice" section on the reverse side of this form.**

- Please see "Proof of Notice" attachments.

Custer Mountain Unit #1
1,980' FSL & 1,980' FWL, Sec 9 T24S R35E

Formation	Tops
Lamar	5,320'
Delaware Sand	5,367'
Cherry Canyon	6,261'
Bonespring Shale	8,905'
Bonespring Lime	9,075'
Barnet	14,485'
Chester	15,115'
Mississippi	15,226'
Woodford	15,632'
Devonian	15,882'

Aztec State
1,650' FNL & 1,980' FEL, Sec 16 T24S R35E

Formation	Tops
Anhydrite	820'
Salt	1250'
Delaware	5245'
Wolfcamp	10,718'
Atoka	12,980'

Cinta Roja 10 #1
1,980' FNL & 1,650' FWL, Sec 10 T24S R35E

Formation	Tops
Rustler	1,190'
Tansill (Capitan)	3,728'
Cherry Canyon	6,542'
Brushy Canyon	7,743'
Bone Spring	9,048'
1st Bone Spring Sd	9,920'
Wolfcamp	11,767'
Strawn	12,622'
Atoka	13,120'
Morrow Lime	13,750'
Morrow Clastics	14,070'
Morrow "D" Marker	14,600'

Cinta Roja 17 Federal #1
1,980' FNL & 2,310' FEL, Sec 17 T24S R35E

Formation	Tops
Delaware	5,322'
Cherry Canyon	6,382'
Brushy Canyon	7,708'
Bone Spring Lime	9,306'
Wolfcamp Shale	12,150'
Strawn	13,000'
Atoka Shale	13,376'
Morrow Lime	13,870'
Morrow Clastics	14,132'
Middle Morrow	14,776'
Lower Morrow	15,287'

COUNTY LEA FIELD Wildcat STATE N.M.

WC OPR MIDWEST OIL CORP. MAP

1 Custer Mountain Unit-Federal

Sec. 9, T-24-S, R-35-E CO-ORD

1980' fr S & W Line of Sec.

Spud 8-29-63 CLASS EL 3403

Comp. 5-18-64

FORMATION	DATUM	FORMATION	DATUM
LOG:			
Lamar 5320			
DelSd.5367			
ChCyn 6261			
BSpgSh 8905			
BSpgLm 9075			
Barnett14485'			
TD 16590', PB 15090'			

CSG & SX - TUBING

13 3/8" 390' 580

9 5/8" 5240' 4709

7" Liner 12118-15360' - 533

LOGS EL GR RA IND HC A

IP Morrow Perfs 13968-14288', CAOF 8000 MCFGPD. Pot. Based on 4 -point test.

CONT. Rowan Drlg. Co. PROP DEPTH 15,500' TYPE

DATE

F. R. 8-29-63; Oper's Elev. 3404' KB.
PD 15,500' - Devonian.
Contractor - Rowan Drlg. Co.

9-3-63 Drlg. 1475' anhy. Lost Circ. @ 1100'.
9-9-63 Drlg. 4220' lm & anhy.
9-16-63 Drlg. 5232' anhy.
9-23-63 Coring @ 5292'.
Cored 5253-82', rec. 29' shly lm w/NS.
9-30-63 Drlg. 7435' lm & sd.
Cored 5282-97', rec. 15' lm w/NS.
Cored 5300-50', rec. 50' lm & sd. w/odor.
in sd. 5315-45', tr. fluor. in top 5'.
DST 5310-50', open 2 hrs.
Rec. 2500' salt wtr.
30 min. ISIP 2101#, FP 172-1143#,
30 min. FSIP 1981#.

F 3160-4
(November 1983)
(formerly 9-330)

UNITED STATES SUBMIT IN DUPLICATE*
DEPARTMENT OF THE INTERIOR (See other instructions on reverse side)
BUREAU OF LAND MANAGEMENT

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: NM 42163
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Cinta Roja 17 Federal Com.
9. WELL NO.: 1
10. FIELD AND POOL, OR WILDCAT: Und. Cinta Roja Morrow
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 17, T24S, R35E

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☒ Other
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

2. NAME OF OPERATOR: Enron Oil & Gas Company
3. ADDRESS OF OPERATOR: P. O. Box 2267, Midland, Texas 79702
4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 1980' FNL & 2310' FEL
At top prod. interval reported below
At total depth (See attached Directional Survey)

BUREAU OF LAND MANAGEMENT RECEIVED FEB 26 1988 DIST. 6 N.M. Carlsbad, New Mexico

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
-	9-23-87	Lea	NM

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
12-6-87	2-6-88	P&A 2-13-88	3369.2' GR	3369.2'

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
15,350'	-		→	X	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: NA

25. WAS DIRECTIONAL SURVEY MADE: Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: CNL/LDT, BHC, DLL/MSFL, DIL, RFT

27. WAS WELL CORED: No

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8"	54.50#	648'	17-1/2"	265 HLW & 265 Cl C	Circulated
9-5/8"	36# & 40#	5080'	12-1/4"	1900 HLW & 475 Cl C	Circulated
7"	26#	12465'	8-1/2"	600 HLW & 350 Cl H	6065'

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (*Interval, size and number*)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

MAR 3 1988 SDS CARLSBAD, NEW MEXICO

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
		P&A

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)
TEST WITNESSED BY

35. LIST OF ATTACHMENTS: Logs, Inclination, Directional Survey

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Betty Gildon TITLE Regulatory Analyst DATE 2/25/88

*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes 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.

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
	0	757	Surface Rock & Red Bed
	757	1565	Anhy & Red Bed
	1565	4305	Anhy & Salt
	4305	5001	Anhy & Shale
	5001	5531	Anhy & Salt
	5531	7445	Sand
	7445	8168	Sand, Shale
	8168	13908	Lime, Sh, Sd
	13908	13970	Lm, Sh, Chert
	13970	14114	Sh, Sd
	14114	14220	Ch, Lm
	14220	14484	Lm, Sh, Sd
	14484	14541	Ch, Lm, Sh
	14541	14630	Ch, Lm, Sd, Sh
	14630	14679	Lm, Sh
	14679	14712	Sd, Sh, Lm
	14712	14778	Sh, Lm, Sd
	14778	14859	Lm, Sd, Ch, Sh
	14859	15188	Sd, Sh, Lm
	15188	15350	Shale

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Delaware	5322	
Cherry Canyon	6382	
Brushy Canyon	7708	
Bone Spring Lime	9306	
Wolfcamp Shale	12150	
Strawn	13000	
Atoka Shale	13376	
Morrow Lime	13870	
Morrow Clastics	14132	
Middle Morrow Shale	14776	
Lower Morrow	15287	

Page 2
Cinta Roja 10 #1
C-105

No. 26 Dresser Atlas ran: Neutron-Density surface-TD, Acoustilog 5394'-TD, Dual Laterolog-Micro Laterolog 5394-TD, and Density-Neutron, BHC Acoustilog, and Dual Laterolog-Micro Laterolog 12,150-14,598'.

Schlumberger ran Gamma Ray and Spectroscopy Log (TD) 14,481-13,900' and Cement Bond Log 14,476-11,388'.

Cardinal ran Production Log, Fluid Denisty, Temperature Log, and Radioactive Tracer.

FORMATION TOPS

Permian		
Russler	1,190	
Tansill (Capitan)	3,728	
Cherry Canyon	6,542	
Brashy Canyon	7,743	
Bone Springs	9,048	
1st Bone Springs Sd	9,920	
Wolfcamp	11,767	
Penn.		
Strawn		12,622
Atoka		13,120
Morrow Lime		13,564
Morrow Clastics		13,750
Morrow "D" Marker		14,070
Total Depth		14,600

RECEIVED
JAN 3 1980
OIL CONSERVATION DIV

CINCO ROJO WELL NO. 1

		Thickness in Feet
0-422	Redbed	422
422-862	Redbed-Anhydrite	440
862-1114	Anhydrite-Salt	252
1114-1520	Redbed-Anydrite-Salt	406
1520-3581	Anhydrite-Salt	2061
3581-3663	Anhhydrite-Salt-Trace Lime	82
3663-3800	Lime	137
3800-3893	10% Anhydrite-40% Dolomite-40% Lime-10% Shale	93
3893-5624	Lime-Dolomite-Shale	1731
5624-5690	Lime-Sand	66
5690-6085	Dolomite-Sand-Lime	395
6085-6503	Dolomite-Sand-Lime-Shale	418
6503-8240	Dolomite-Sand-Lime	1737
8240-8693	Dolomite-Sand-Lime-Shale	453
8693-9078	Shale-Lime-Sand	385
9078-9793	Shale-Lime-Sand-Trace Chert	715
9793-10820	Shale-Lime-Chert	1027
10820-10914	Lime-Shale	94
10914-11060	Shale-Lime-Sand	146
11060-11136	Lime-Shale-Chert	76
11136-12834	Lime-Shale	1698
12834-12839	Lime-Shale-Chert	5
12839-12918	Lime-Shale	79
12918-12927	Shale	9
12927-13195	60% Shale-30% Lime-10% Chert	268
13195-13318	Shale-Lime	123
13318-13384	Chert-Lime-Shale	66
13384-13476	Lime-Shale	92
13476-13576	Chert-Lime-Shale	100
13576-13596	Lime-Shale	20
13596-13608	Chert-Lime	12
13608-13612	Shale-Lime	4
13612-13646	Chert-Lime-Shale	34
13646-13654	Shale-Lime	8
13654-13659	Chert-Lime-Shale	5
13659-13662	Shale	3
13662-13674	Lime-Shale-Chert	12
13674-13692	Lime-Shale-Chert-Sand	18
13692-13724	Chert-Lime-Shale	32
13724-13771	Lime-Shale	47
13771-13785	Chert-Lime-Shale	14
13785-13914	Shale-Lime	129
13914-13925	Chert-Sand-Lime-Shale	11
13925-13931	Lime-Sand-Shale	6
13931-13959	Lime-Chert-Sand	28
13959-13976	Shale-Lime	17
13976-13980	Chert-Dolomite-Lime-Shale	4
13980-13986	Shale-Dolomite-Lime	6
13986-14035	Shale-Lime	49

BC&D Operating, Inc
Jal Public Library Trust 9-24-35 SWD
1,200' FNL & 1,990' FEL
Sec 9, T24S, R35E
Lea County, NM

Surface - (Conventional)

Hole Size	26"
Casing	20" - 94# J-55 BTC Casing
Depth Top:	Surface
Depth Bottom:	1,250'
Cement:	560 sxs tail, 1.35 yield, class C + additives
	645 sxs lead, 1.75 yield, class C + additives
Cement Top:	Surface - (circulated)

Intermediate #1 - (Conventional)

Hole Size	17.5"
Casing	13-3/8" - 61# L-80HC BTC Casing
Depth Top:	Surface
Depth Bottom:	5,220'
Cement:	490 sxs tail, 1.33 yield, Class C 50/50 + additives
	1480 sxs lead, 1.75 yield, Class C + additives
Cement Top:	Surface - (circulated)

Intermediate #2 - (Conventional)

Hole Size	12.25"
Casing	9-5/8" - 40# L-80HC BTC Casing
Depth Top:	Surface
Depth Bottom:	12,650'
Cement:	Stage 1 - 520 sxs tail, 1.2 yield, Class H + additives
	Stage 1 - 620 sxs lead, 2.0 yield, Class H 50/50 + additives
	Stage 2 - 260 sxs tail, 1.33 yield, Class C + additives
	Stage 2 - 650 sxs lead, 2.5 yield, Class C 50/50 + additives
Cement Top:	Surface - (circulated)
ECP/DV Tool:	5,500'

Intermediate #3 - (Liner)

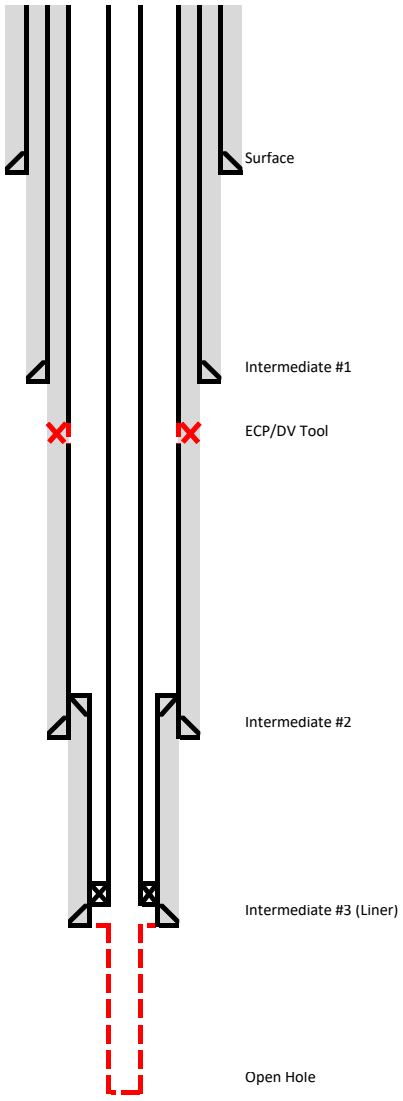
Hole Size	8.5"
Casing	7" - 32# P-110HC BTC SpCL Casing
Depth Top:	12,450'
Depth Bottom:	15,900
Cement:	350 sxs tail, 1.33 yield, Class H 50/50 + additives
Cement Top:	12,450' - (Volumetric)

Intermediate #4 - (Open Hole)

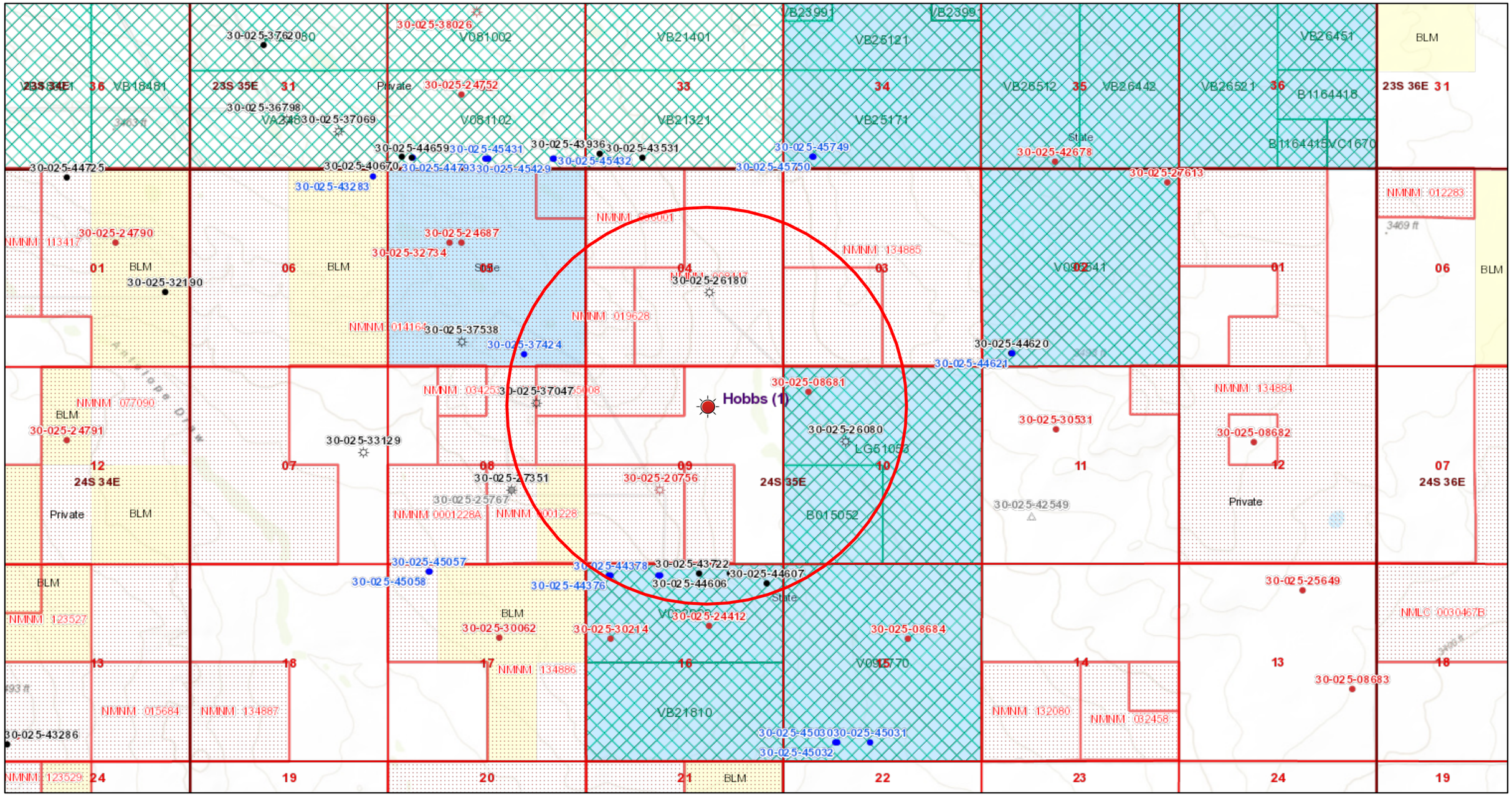
Hole Size	6"
Casing	Open Hole
Depth Top:	15,900'
Depth Bottom:	17,700'
Inj Interval:	15,500' - 15,900' (Cased hole non perforated)
	15,900' - 17,500' (Open-Hole Completion)

Tubing

Tubing Depth:	15,800'
Tubing:	4-1/2" 11.6# N-80 Duoline
Packer Depth:	15,850'
Packer:	4-1/2" TCPC Permanent packer w/ high temp elastomer & full



Jal Public Library Trust 9-24-35 SWD



11/30/2019, 8:29:18 AM

Override 1

Override 1

Well Locations - Small Scale

Active

New

Plugged

Cancelled

1:36,112

0 0.38 0.75 1.5 mi

0 0.5 1 2 km

U.S. BLM, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/: New Mexico Oil Conservation Division

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, New Mexico 87505

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

☐AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name

Property Code	Property Name	Well Number
	JAL PUBLIC LIBRARY TRUST 9-24-35 SWD	1

OGRID No.	Operator Name	Elevation
	BC & D OPERATING, INC	3376'

Surface Location

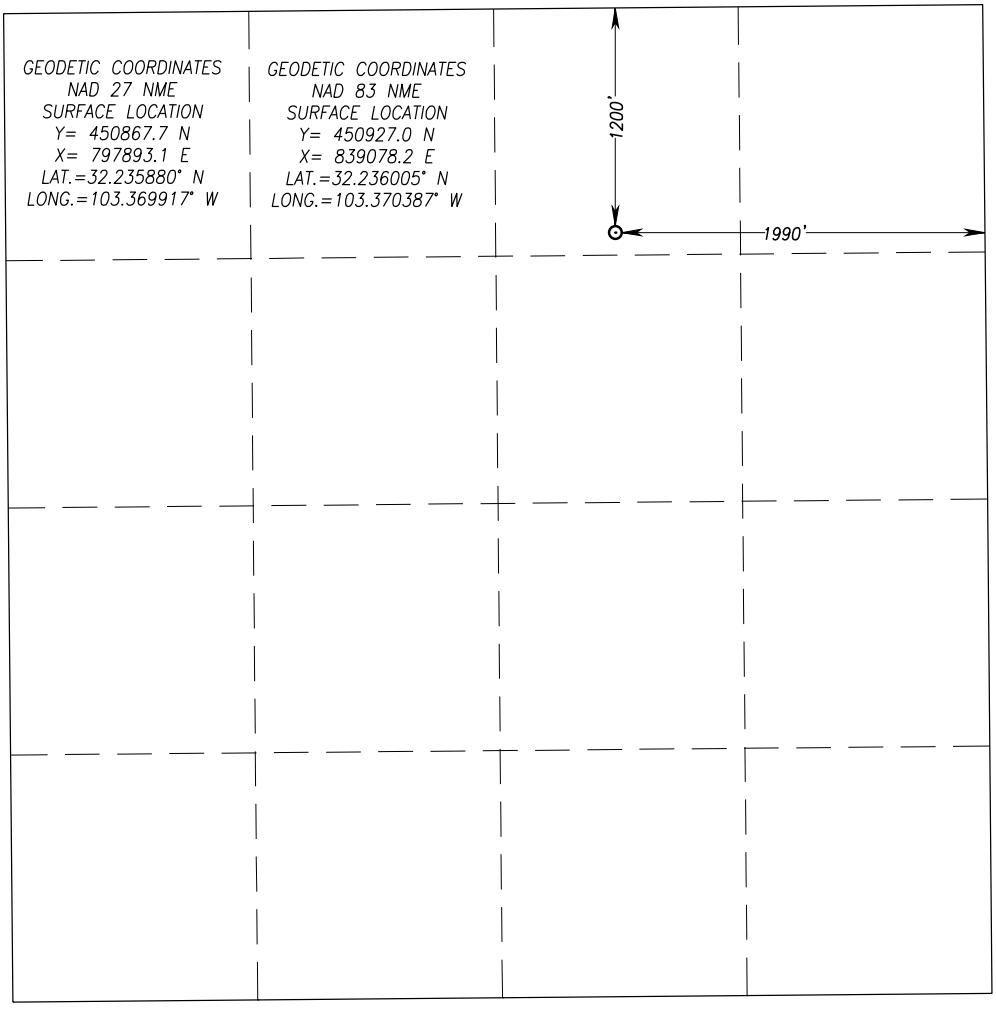
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	9	24-S	35-E		1200	NORTH	1990	EAST	LEA

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

Dedicated Acres	Joint or Infill	Consolidation Code	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



OPERATOR CERTIFICATION

I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

12/28/2019
Signature Date

Richard Hill
Printed Name

rhill@wellconsultant.com
E-mail Address

SURVEYOR CERTIFICATION

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

NOVEMBER 11, 2019
Date of Survey
Signature & Seal of Professional Surveyor:

RONALD J. EIDSON NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

Ronald J Eidson 12/26/2019
Certificate Number Gary G. Eidson 12641
Ronald J. Eidson 3239

LSL JWSC W.O.: 19.11.1238

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

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

☐AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name

Property Code	Property Name	Well Number
	JAL PUBLIC LIBRARY TRUST 9-24-35 SWD	1
OGRID No.	Operator Name	Elevation
	BC & D OPERATING, INC	3376'

Surface Location

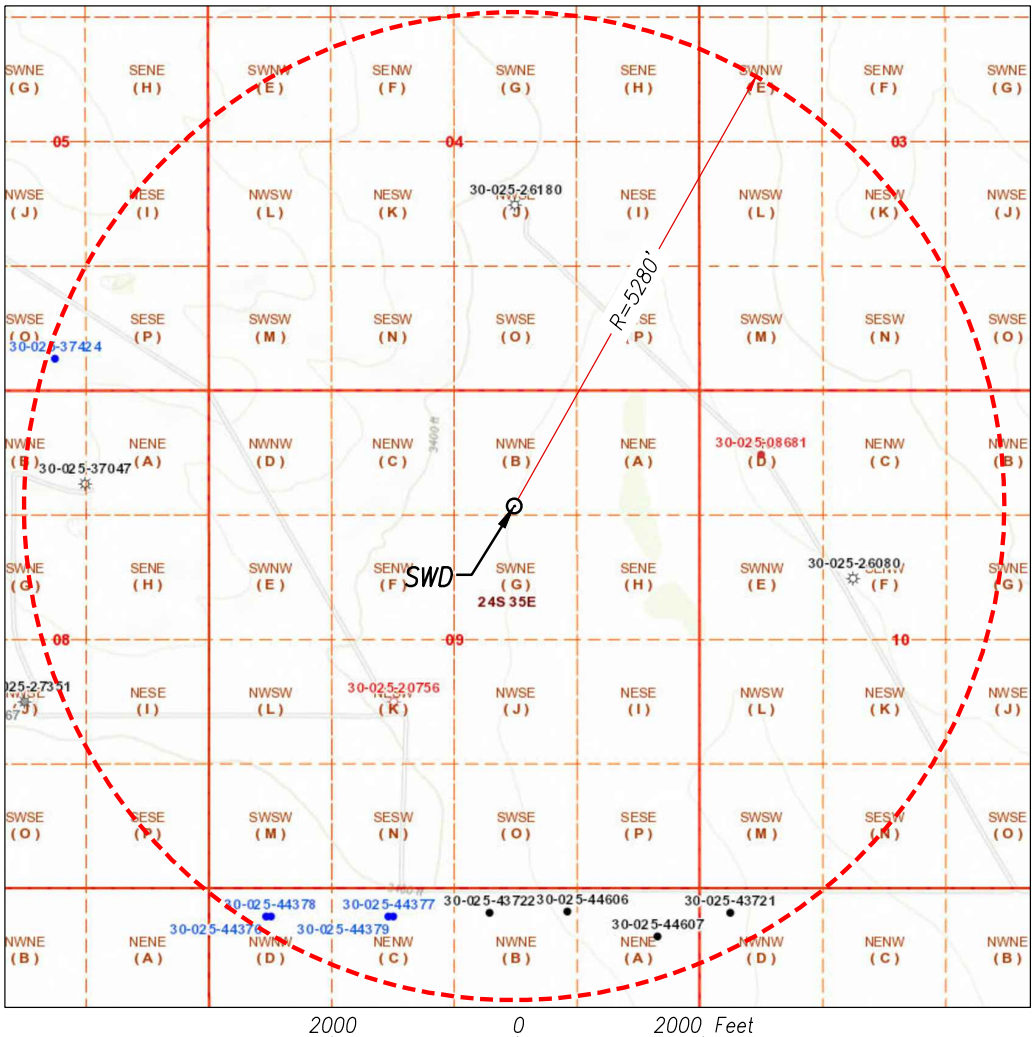
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	9	24-S	35-E		1200	NORTH	1990	EAST	LEA

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

Dedicated Acres	Joint or Infill	Consolidation Code	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



Scale:1"=2000'

LEGEND
⊙ DENOTES PROPOSED WELL

SURVEYOR CERTIFICATION

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

NOVEMBER 01, 2019
Date of Survey

Signature & Seal of Professional Surveyor:

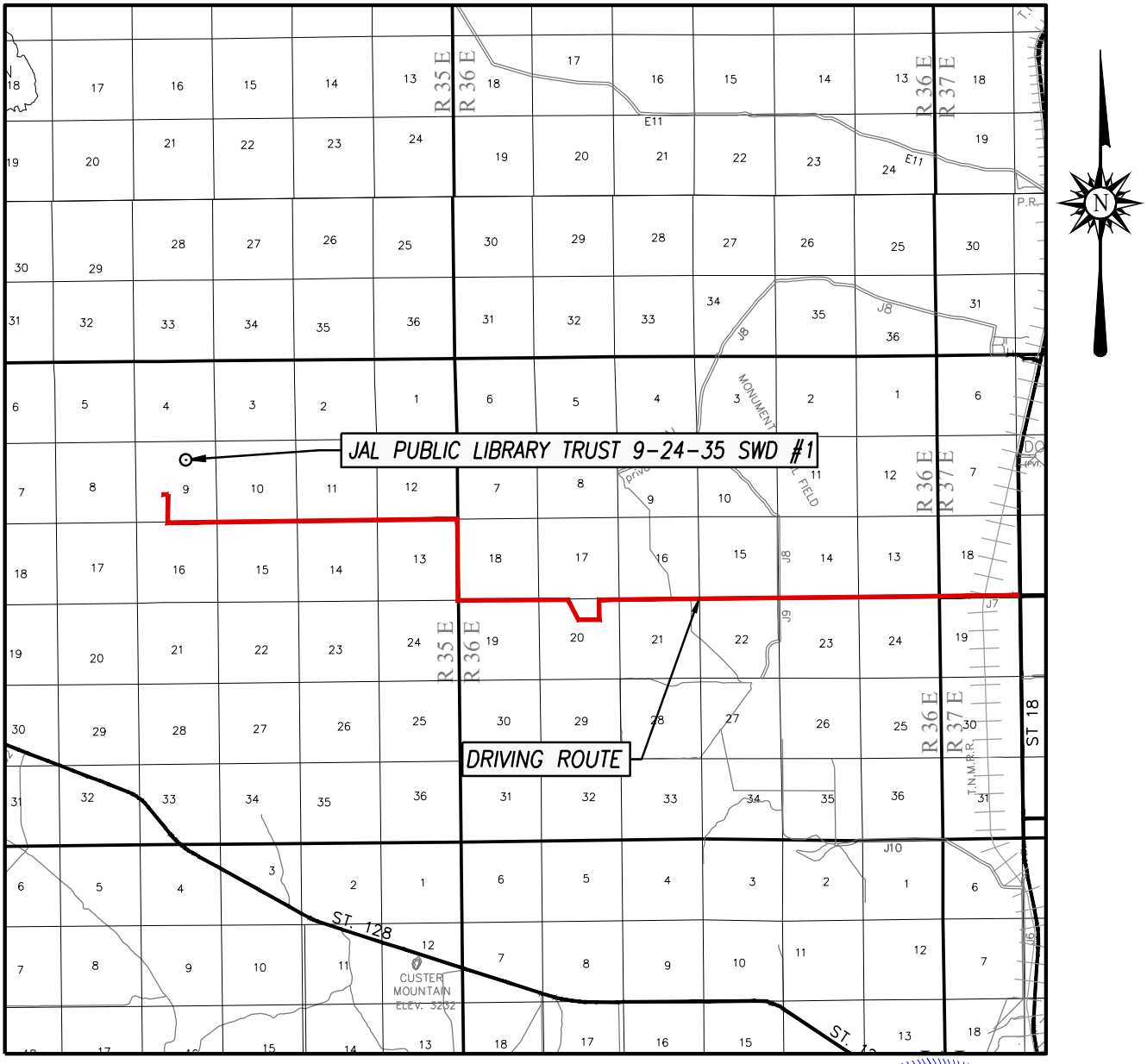
RONALD J. EIDSON
NEW MEXICO
3239
REGISTERED PROFESSIONAL SURVEYOR

Ronald J Eidson 12/26/2019

Certificate Number	Gary G. Eidson	12641
	Ronald J. Eidson	3239

LSL JWSC W.O.: 19.11.1238

VICINITY MAP



SCALE: 1" = 2 MILES

NOTE:

1) SEE "TOPOGRAPHICAL AND ACCESS ROAD MAP" FOR ACCESS ROAD LOCATION.

SEC. 9 TWP. 24-S RGE. 35-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 1200' FNL & 1990' FEL

ELEVATION 3376'

OPERATOR BC & D OPERATING, INC

LEASE JAL PUBLIC LIBRARY TRUST 9-24-35 SWD

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

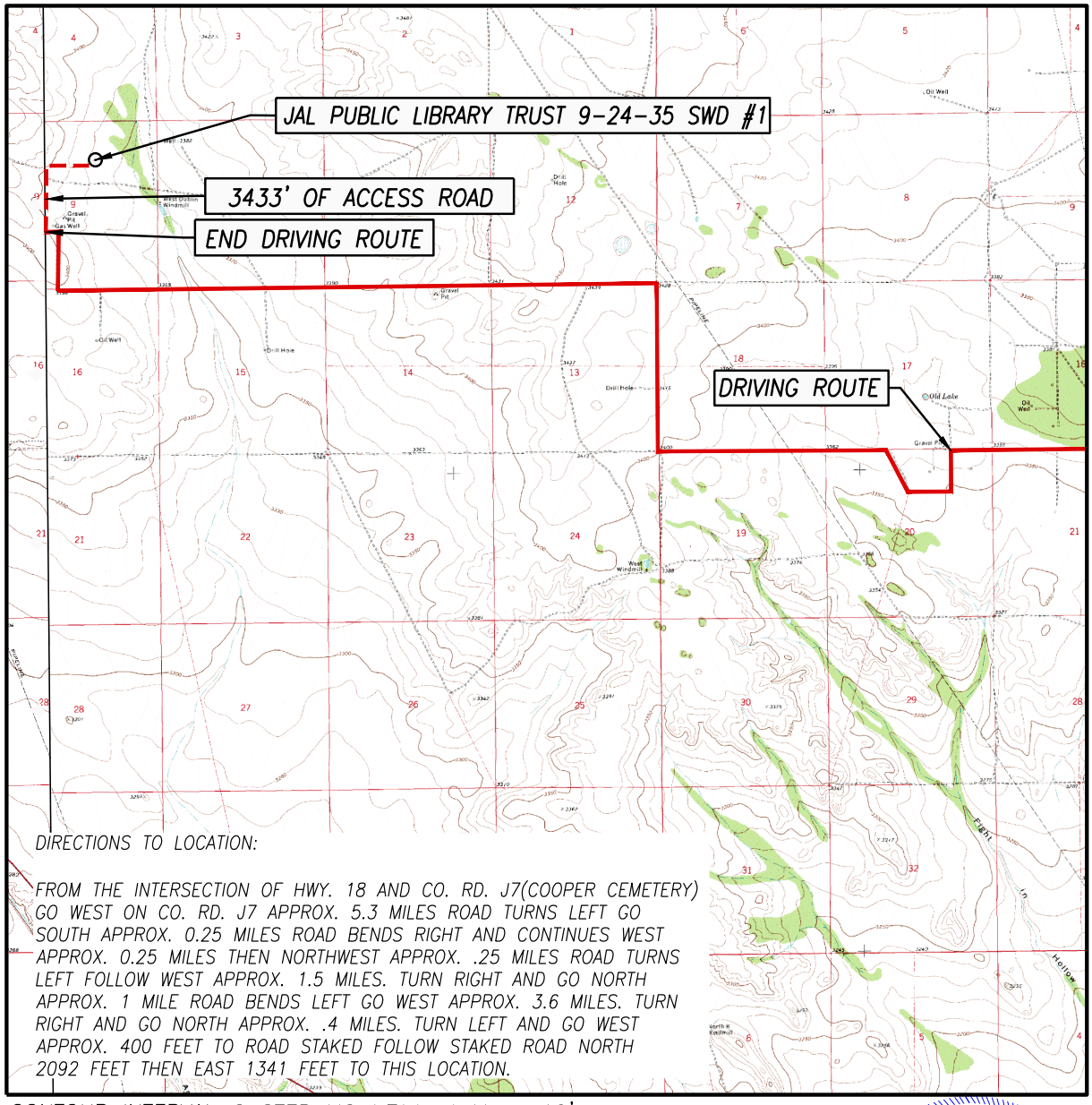
RONALD J. EIDSON Ronald J Eidson

DATE: 12/26/2019

RONALD J. EIDSON NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

TOPOGRAPHIC AND ACCESS ROAD MAP



DIRECTIONS TO LOCATION:

FROM THE INTERSECTION OF HWY. 18 AND CO. RD. J7(COOPER CEMETERY) GO WEST ON CO. RD. J7 APPROX. 5.3 MILES ROAD TURNS LEFT GO SOUTH APPROX. 0.25 MILES ROAD BENDS RIGHT AND CONTINUES WEST APPROX. 0.25 MILES THEN NORTHWEST APPROX. .25 MILES ROAD TURNS LEFT FOLLOW WEST APPROX. 1.5 MILES. TURN RIGHT AND GO NORTH APPROX. 1 MILE ROAD BENDS LEFT GO WEST APPROX. 3.6 MILES. TURN RIGHT AND GO NORTH APPROX. .4 MILES. TURN LEFT AND GO WEST APPROX. 400 FEET TO ROAD STAKED FOLLOW STAKED ROAD NORTH 2092 FEET THEN EAST 1341 FEET TO THIS LOCATION.

CONTOUR INTERVAL: CUSTER MOUNTAIN, N.M. – 10'
SCALE: 1" = 5280'

SEC. 9 TWP. 24-S RGE. 35-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 1200' FNL & 1990' FEL

ELEVATION 3376'

OPERATOR BC & D OPERATING, INC

LEASE JAL PUBLIC LIBRARY TRUST 9-24-35 SWD

U.S.G.S. TOPOGRAPHIC MAP
CUSTER MOUNTAIN, N.M.

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR NO. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON Ronald J Eidson

DATE: 12/26/2019

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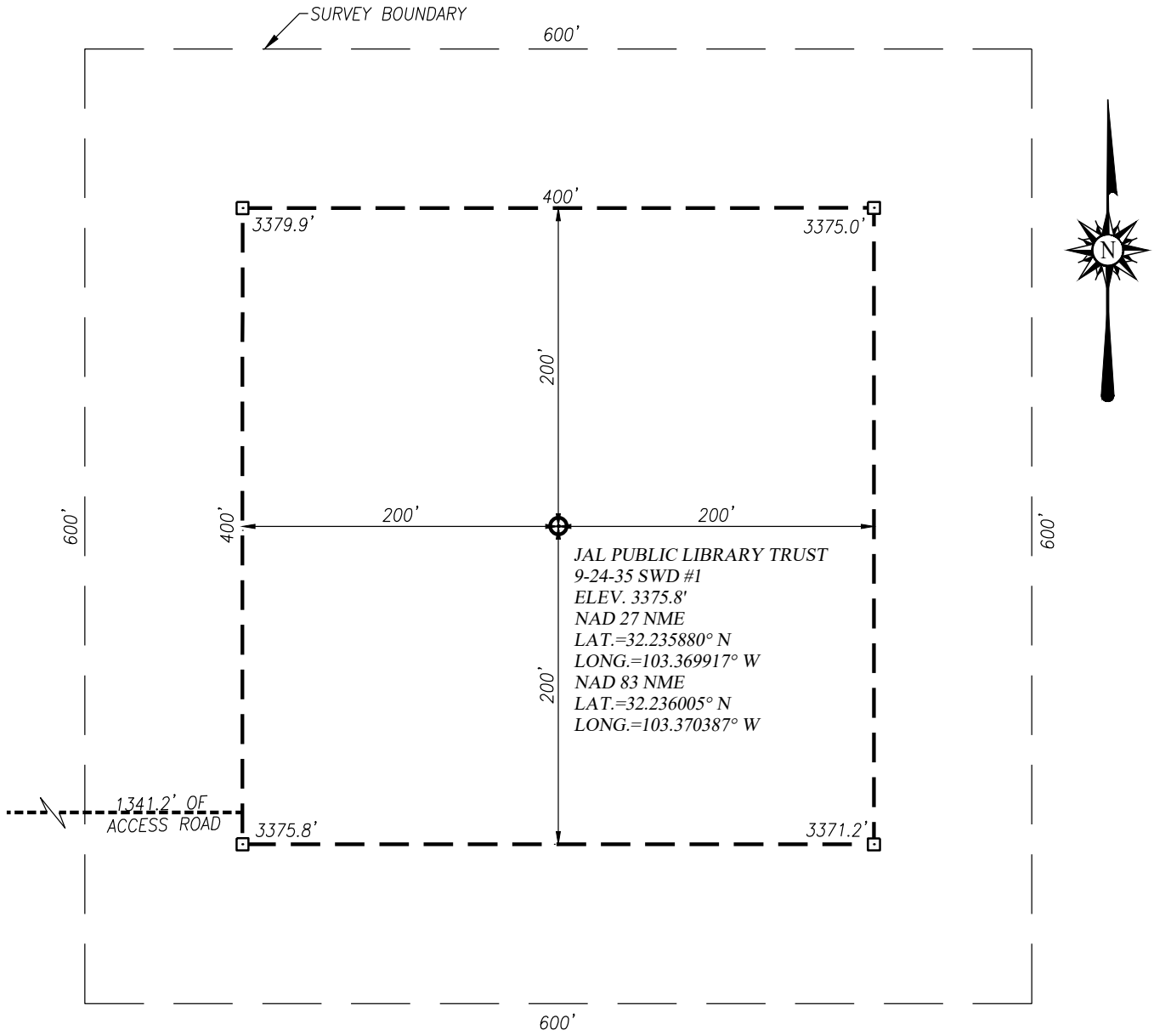
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

WELL SITE PLAN



NOTE:
1) SEE "TOPOGRAPHICAL AND ACCESS ROAD MAP" FOR ACCESS ROAD LOCATION.

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR NO. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON Ronald J Eidson

DATE: 12/26/2019

RONALD J. EIDSON NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

100 0 100 200 Feet

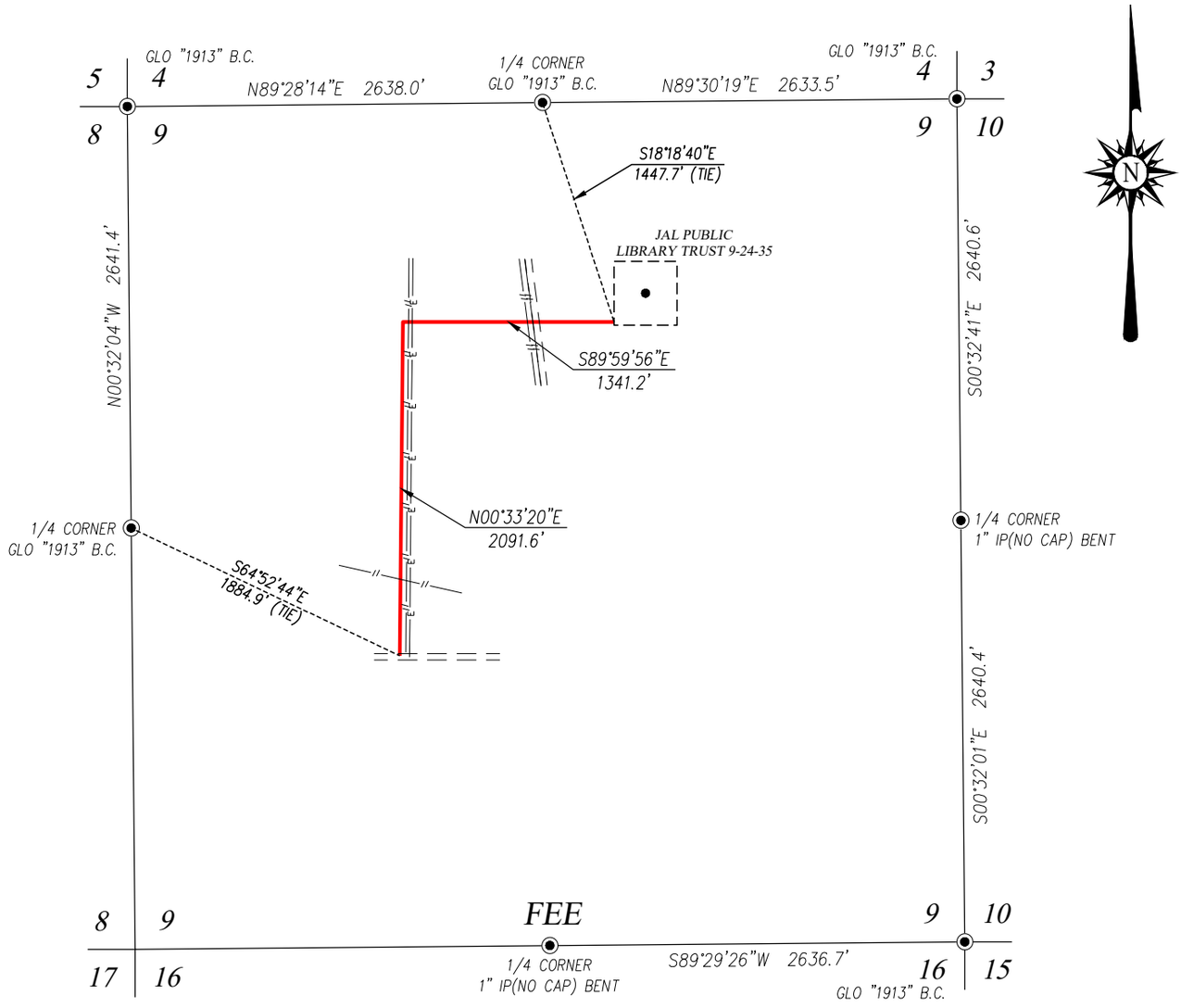
Scale: 1"=100'

BC & D OPERATING, INC

JAL PUBLIC LIBRARY TRUST 9-24-35 SWD #1 WELL LOCATED 1200 FEET FROM THE NORTH LINE AND 1990 FEET FROM THE EAST LINE OF SECTION 9, TOWNSHIP 24 SOUTH, RANGE 35 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Survey Date: 11/11/19	CAD Date: 12/24/19	Drawn By: LSL
W.O. No.: 19111238	Rev: .	Rel. W.O.:	Sheet 1 of 1

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000



DESCRIPTION

SURVEY FOR ACCESS ROAD CROSSING SECTION 9, TOWNSHIP 24 SOUTH, RANGE 35 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE SOUTHWEST QUARTER, WHICH LIES S64°52'44"E 1884.9 FEET FROM THE WEST QUARTER CORNER; THEN N00°33'20"E 2091.6 FEET; THEN S89°59'56"E 1341.2 FEET TO A POINT ON THE NORTH LINE, WHICH LIES S18°18'40"E 1447.7 FEET FROM THE NORTH QUARTER CORNER.

TOTAL LENGTH EQUALS 3432.8 FEET OR 208.05 RODS.

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON Ronald J Eidson

DATE: 12/27/2019

RONALD J. EIDSON NEW MEXICO 3239 PROFESSIONAL SURVEYOR

LEGEND

◉ – DENOTES FOUND CORNER AS NOTED

——— – DENOTES CENTERLINE SURVEY

1000 0 1000 2000 FEET

Scale: 1"=1000'

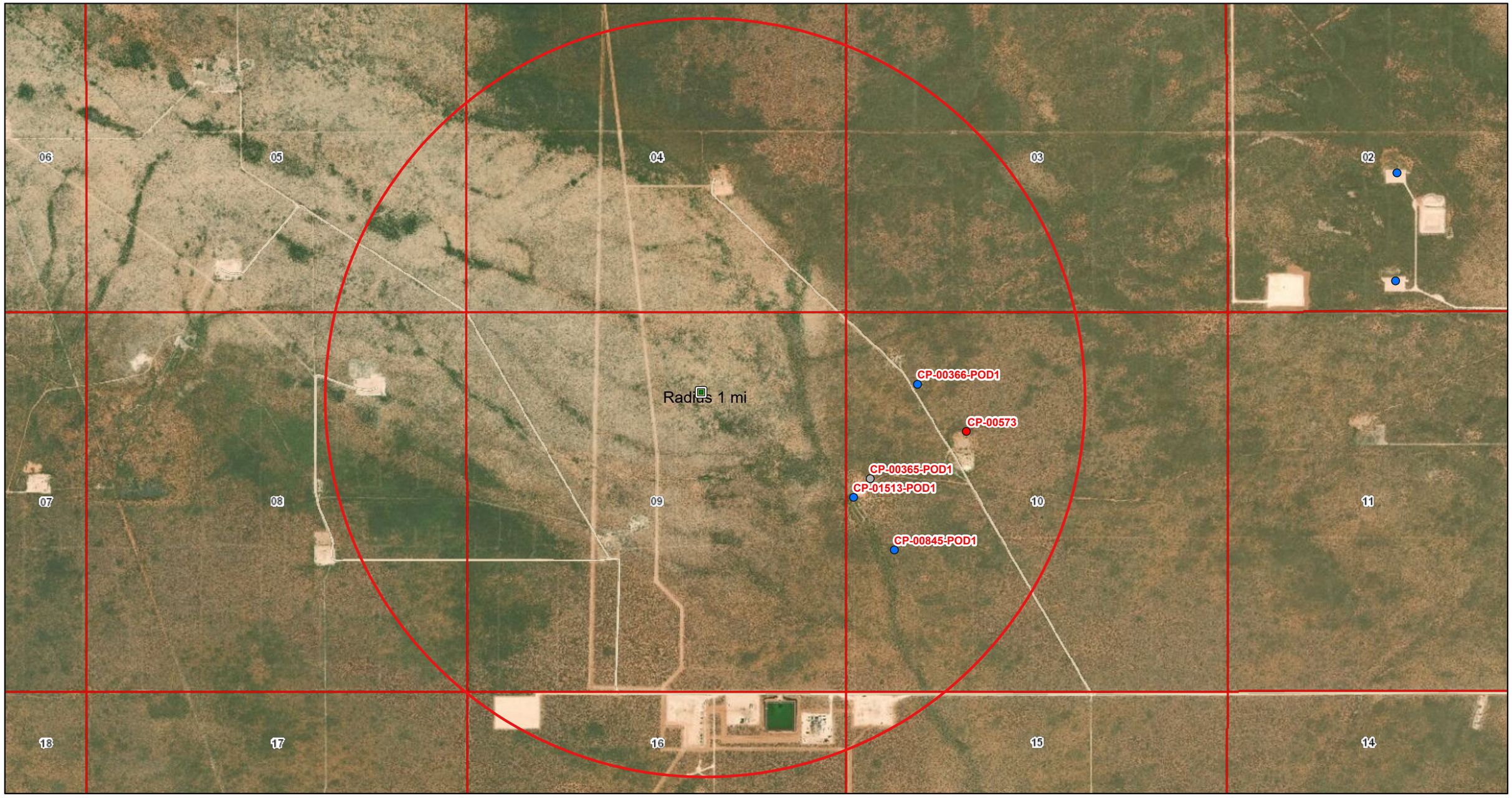
PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

BC & D OPERATING, INC

SURVEY FOR AN ACCESS ROAD CROSSING SECTION 9, TOWNSHIP 24 SOUTH, RANGE 35 EAST, N.M.P.M. LEA COUNTY, NEW MEXICO

Survey Date: 11/11/19	CAD Date: 12/27/19	Drawn By: LSL
W.O. No.: 19111238	Rev: .	Rel. W.O.:	Sheet 1 of 1

OSE PUBLIC PRINT



11/22/2019, 9:17:10 AM

Override 1

Override 1

OSE District Boundary

GIS WATERS PODs

Active

Plugged

PLSSFirstDivision

PLSSTownship

BLM Land Grant

1:18,799

0 0.2 0.4 0.8 mi

0 0.3 0.6 1.2 km

Printed from Public Web Map
Unofficial Map from OSE POD Locations Web Application

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

December 17, 2019

DONNIE HILL JR.

BC & D OPERATING

P. O. BOX 302

HOBBS, NM 88241

RE: CP 01513 POD 1

Enclosed are the results of analyses for samples received by the laboratory on 12/09/19 11:32.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

BC & D OPERATING P. O. BOX 302 HOBBS NM, 88241	Project: CP 01513 POD 1 Project Number: NOT GIVEN Project Manager: DONNIE HILL JR. Fax To: (575) 942-2005	Reported: 17-Dec-19 09:33

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CP 01513 POD 1	H904102-01	Water	08-Dec-19 16:00	09-Dec-19 11:32

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

BC & D OPERATING P. O. BOX 302 HOBBS NM, 88241	Project: CP 01513 POD 1 Project Number: NOT GIVEN Project Manager: DONNIE HILL JR. Fax To: (575) 942-2005	Reported: 17-Dec-19 09:33

CP 01513 POD 1

H904102-01 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**249**		5.00	mg/L	1	9112607	AC	10-Dec-19	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	9112607	AC	10-Dec-19	310.1	
Chloride*	**76.0**		4.00	mg/L	1	9120305	AC	11-Dec-19	4500-Cl-B	
Conductivity	**807**		1.00	uS/cm	1	9121003	AC	10-Dec-19	120.1	
pH*	**6.92**		0.100	pH Units	1	9121003	AC	10-Dec-19	9045	
Sulfate*	**71.1**		25.0	mg/L	2.5	9121201	AC	12-Dec-19	375.4	
TDS*	**477**		5.00	mg/L	1	9120506	AC	13-Dec-19	160.1	
Alkalinity, Total*	**204**		4.00	mg/L	1	9112607	AC	10-Dec-19	310.1	
Green Analytical Laboratories										
Total Recoverable Metals by ICP (E200.7)										
Calcium*	**78.1**		1.00	mg/L	10	B912102	AES	13-Dec-19	EPA200.7	
Magnesium*	**30.8**		1.00	mg/L	10	B912102	AES	13-Dec-19	EPA200.7	
Potassium*	**2.94**	0.677	10.0	mg/L	10	B912102	AES	13-Dec-19	EPA200.7	J
Sodium*	**32.5**		10.0	mg/L	10	B912102	AES	13-Dec-19	EPA200.7	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

BC & D OPERATING P. O. BOX 302 HOBBS NM, 88241	Project: CP 01513 POD 1 Project Number: NOT GIVEN Project Manager: DONNIE HILL JR. Fax To: (575) 942-2005	Reported: 17-Dec-19 09:33

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9112607 - General Prep - Wet Chem										
Blank (9112607-BLK1)				Prepared & Analyzed: 02-Dec-19						
Alkalinity, Carbonate	ND	1.00	mg/L							
Alkalinity, Bicarbonate	5.00	5.00	mg/L							
Alkalinity, Total	4.00	4.00	mg/L							
LCS (9112607-BS1)				Prepared & Analyzed: 02-Dec-19						
Alkalinity, Carbonate	ND	2.50	mg/L				80-120			
Alkalinity, Bicarbonate	318	12.5	mg/L				80-120			
Alkalinity, Total	260	10.0	mg/L	250		104	80-120			
LCS Dup (9112607-BSD1)				Prepared & Analyzed: 02-Dec-19						
Alkalinity, Carbonate	ND	2.50	mg/L				80-120		20	
Alkalinity, Bicarbonate	318	12.5	mg/L				80-120	0.00	20	
Alkalinity, Total	260	10.0	mg/L	250		104	80-120	0.00	20	
Batch 9120305 - General Prep - Wet Chem										
Blank (9120305-BLK1)				Prepared & Analyzed: 03-Dec-19						
Chloride	ND	4.00	mg/L							
LCS (9120305-BS1)				Prepared & Analyzed: 03-Dec-19						
Chloride	104	4.00	mg/L	100		104	80-120			
LCS Dup (9120305-BSD1)				Prepared & Analyzed: 03-Dec-19						
Chloride	104	4.00	mg/L	100		104	80-120	0.00	20	
Batch 9120506 - Filtration										
Blank (9120506-BLK1)				Prepared: 05-Dec-19 Analyzed: 09-Dec-19						
TDS	ND	5.00	mg/L							

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

BC & D OPERATING P. O. BOX 302 HOBBS NM, 88241	Project: CP 01513 POD 1 Project Number: NOT GIVEN Project Manager: DONNIE HILL JR. Fax To: (575) 942-2005	Reported: 17-Dec-19 09:33

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9120506 - Filtration										
LCS (9120506-BS1)				Prepared: 05-Dec-19 Analyzed: 09-Dec-19						
TDS	540		mg/L	527		102	80-120			
Duplicate (9120506-DUP1)	**Source: H904051-01**			Prepared: 05-Dec-19 Analyzed: 09-Dec-19						
TDS	2440	5.00	mg/L		2370			2.96	20	
Batch 9121003 - General Prep - Wet Chem										
LCS (9121003-BS1)				Prepared & Analyzed: 10-Dec-19						
Conductivity	105000		uS/cm	100000		105	80-120			
pH	7.11		pH Units	7.00		102	90-110			
Duplicate (9121003-DUP1)	**Source: H904102-01**			Prepared & Analyzed: 10-Dec-19						
pH	6.92	0.100	pH Units		6.92			0.00	20	
Conductivity	811	1.00	uS/cm		807			0.494	20	
Batch 9121201 - General Prep - Wet Chem										
Blank (9121201-BLK1)				Prepared & Analyzed: 12-Dec-19						
Sulfate	ND	10.0	mg/L							
LCS (9121201-BS1)				Prepared & Analyzed: 12-Dec-19						
Sulfate	21.3	10.0	mg/L	20.0		106	80-120			
LCS Dup (9121201-BSD1)				Prepared & Analyzed: 12-Dec-19						
Sulfate	18.9	10.0	mg/L	20.0		94.4	80-120	11.9	20	

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CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

BC & D OPERATING P. O. BOX 302 HOBBS NM, 88241	Project: CP 01513 POD 1 Project Number: NOT GIVEN Project Manager: DONNIE HILL JR. Fax To: (575) 942-2005	Reported: 17-Dec-19 09:33

Total Recoverable Metals by ICP (E200.7) - Quality Control

Green Analytical Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B912102 - Total Rec. 200.7/200.8/200.2										
Blank (B912102-BLK1)				Prepared: 12-Dec-19 Analyzed: 13-Dec-19						
Potassium	ND	1.00	mg/L							
Sodium	ND	1.00	mg/L							
Magnesium	ND	0.100	mg/L							
Calcium	ND	0.100	mg/L							
LCS (B912102-BS1)				Prepared: 12-Dec-19 Analyzed: 13-Dec-19						
Calcium	4.06	0.100	mg/L	4.00		102	85-115			
Magnesium	20.5	0.100	mg/L	20.0		103	85-115			
Sodium	3.05	1.00	mg/L	3.24		94.0	85-115			
Potassium	8.08	1.00	mg/L	8.00		101	85-115			
LCS Dup (B912102-BSD1)				Prepared: 12-Dec-19 Analyzed: 13-Dec-19						
Sodium	2.97	1.00	mg/L	3.24		91.7	85-115	2.55	20	
Potassium	7.85	1.00	mg/L	8.00		98.1	85-115	2.90	20	
Calcium	3.91	0.100	mg/L	4.00		97.7	85-115	3.85	20	
Magnesium	19.9	0.100	mg/L	20.0		99.6	85-115	2.98	20	

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CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

J	Estimated conentration. Analyte concentration between MDL and RL.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	BC&D
Project Manager:	Donnie Hill
Address:	P.O. Box 302
City:	Hobbs
State:	NM
Zip:	88241
Phone #:	
Fax #:	
Project #:	CP 01513 Pad 1
Project Owner:	
Project Name:	
Project Location:	Lea County, NM
Sampler Name:	Donnie

BILL TO

P.O. #:	
Company:	
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

Cation / Anion

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	
H904102															
1	CP 01513 Pad 1												12/8/19	16:00	✓

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 12/9/19	Received By:	Jodi Henson
	Time: 11:32		
Relinquished By:	Date:	Received By:	
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 17.2°c / 17.6°c #97

Sample Condition: Cool ☐ Yes ☐ No; Intact ☑ Yes ☐ No

CHECKED BY: (Initials)

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:
dhilljr@wellconsultant.com

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(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	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00366 POD1		CP	LE	4	1	1	10	24S	35E	654447	3567834*	1250		
CP 00573		CP	LE	1	4	1	10	24S	35E	654657	3567638*	405	300	105
CP 00845 POD1		CP	LE		1	3	10	24S	35E	654360	3567130*	190		
CP 01513 POD1		CP	LE	3	3	1	10	24S	35E	654184	3567350	186		

Average Depth to Water: **300 feet**

Minimum Depth: **300 feet**

Maximum Depth: **300 feet**

Record Count: 4

Basin/County Search:

Basin: Capitan **County:** Lea

PLSS Search:

Section(s): 3, 4, 5, 8, 9, 10, 15, 16, 17 **Township:** 24S **Range:** 35E

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twss	Rng	X	Y
	CP 00366 POD1	4	1	1	10	24S	35E	654447	3567834*

Driller License: **Driller Company:**

Driller Name: GULF OIL CORP.

Drill Start Date: **Drill Finish Date:** 10/26/1961 **Plug Date:**

Log File Date: **PCW Rcv Date:** **Source:**

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 50 GPM

Casing Size: 13.63 **Depth Well:** 1250 feet **Depth Water:**

***UTM location was derived from PLSS - see Help**

474 6000

Revised June 1972

SANTA FE

STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

Cinta Rojo State # 1

(A) Owner of well Getty Oil Co. Owner's Well No. _____

Street or Post Office Address P.O. Box 730

City and State Hobbs, New Mexico 88240

Well was drilled under Permit No. CP-573 and is located in the:

a. _____ ¼ ~~NW~~ SW ¼ SE ¼ NW ¼ of Section 10 Township 24S Range 35E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in Lea County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Abbott Bros. License No. WD-46

Address P.O. Box 637, Hobbs, New Mexico 88240

Drilling Began 9/28/78 Completed 10/12/78 Type tools Cable Size of hole 8½ in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 405 ft.

Completed well is [X] shallow [ ] artesian. Depth to water upon completion of well 300 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
300	405	105	Sand	20

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
5½		Welded	0	406	406	None	355	405

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

STATE ENGINEER OFFICE
SANTA FE, N.M. 87501
'78 SEP 11 PM 1 11

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

_____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received October 19, 1978

Quad _____ FWL _____ FSL _____

File No. CP-573 Use OWD Location No. 24.35.10. 14311

Dry Hole - Not used

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	4	4	Topsoil
4	15	11	Caliche
15	122	107	Sand and sandstone
122	350	228	Red bed
350	394	44	Sand and sandstone
394	405	11	Red bed

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Murrell Abbott
Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

L-764400

Revised June 1972

S.F.

STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well GETTY OIL COMPANY Owner's Well No. _____

Street or Post Office Address P.O. Box 730

City and State Hobbs, New Mexico 88240

Well was drilled under Permit No. CP-573 and is located in the:

a. _____ ¼ SW ¼ SE ¼ NW ¼ of Section 10 Township 24 S Range 35 E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in _____ Lea _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor _____ License No. _____

Address _____

Drilling Began _____ Completed _____ Type tools _____ Size of hole _____ in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well _____ ft.

Completed well is ☐ shallow ☐ artesian. Depth to water upon completion of well _____ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

'80 SEP 11 PM 1 17
STATE ENGINEER OFFICE
SANTA FE, N.M. 87501

Section 5. PLUGGING RECORD

Plugging Contractor GETTY OIL COMPANY

Address P.O. Box 730, Hobbs, N.M. 88240

Plugging Method Redi-Mix *

Date Well Plugged 11/1/78

Plugging approved by: _____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1	Surface	TD	54
2		(406')	
3			
4	*Filled casing with redi-mix concrete		2 yds of

FOR USE OF STATE ENGINEER ONLY

Date Received August 29, 1980

Quad _____ FWL _____ FSL _____

File No. CP-573 Use OWD Location No. 24.35.10. 14311

Section 6. LOG OF HOLE

Depth in Feet		Thickness in Feet	Color and Type of Material Encountered
From	To		

Section 7. REMARKS AND ADDITIONAL INFORMATION

STATE ENGINEER OFFICE
ROSWELL, N.M.
'80 AUG 29 AM 8 08

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

ORIGINAL DOCUMENT IS OF POOR QUALITY
FOR LEGIBLE MICROFILM

Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	CP 00573	1	4	1	10	24S	35E	654657	3567638*

Driller License: 46 **Driller Company:** ABBOTT BROTHERS COMPANY

Driller Name: ABBOTT, MURRELL

Drill Start Date:	09/28/1978	**Drill Finish Date:**	10/12/1978	**Plug Date:**	11/01/1978
Log File Date:	10/19/1978	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	20 GPM
Casing Size:	5.50	**Depth Well:**	405 feet	**Depth Water:**	300 feet

Water Bearing Stratifications:	Top	Bottom	Description
	300	405	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	355	405

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twss	Rng	X	Y
	CP 00845 POD1		1	3	10	24S	35E	654360	3567130*

Driller License: 122 **Driller Company:** UNKNOWN

Driller Name: WAGNER DRILLING

Drill Start Date: **Drill Finish Date:** 01/01/1962 **Plug Date:**

Log File Date: **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 6.00 **Depth Well:** 190 feet **Depth Water:**

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	CP 01513 POD1	3	3	1	10	24S	35E	654184	3567350

Driller License: 1607 **Driller Company:** DURAN DRILLING

Driller Name: DURNA, LUIS A. (TONY)

Drill Start Date: 06/29/2015 **Drill Finish Date:** 06/30/2015 **Plug Date:**

Log File Date: 07/13/2015 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 1 GPM

Casing Size: 6.00 **Depth Well:** 186 feet **Depth Water:**

Water Bearing Stratifications:	Top	Bottom	Description
	178	181	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	165	185

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER): 1	OSE FILE NUMBER(S): CP-1513
WELL OWNER NAME(S): JAL PUBLIC LIBRARY FUND / JONH WILBANKS	PHONE (OPTIONAL): 575-395-2464
WELL OWNER MAILING ADDRESS: P.O. BOX 178	CITY: JAL STATE: NM ZIP: 88252

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	13	56	N
LONGITUDE	103	21	49	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SW 1/4, SW 1/4, NW 1/4, SECTION 10, TOWNSHIP 24S, RANGE 35E

2. DRILLING & CASING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1607	LUIS A. (TONY) DURAN	DURAN DRILLING

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
6-29-15	6-30-15	186	185	178

STATIC WATER LEVEL IN COMPLETED WELL (FT)

COMPLETED WELL IS: ○ ARTESIAN ○ DRY HOLE ◉ SHALLOW (UNCONFINED)

DRILLING FLUID: ○ AIR ○ MUD ADDITIVES – SPECIFY: DRILLING MUD

DRILLING METHOD: ◉ ROTARY ○ HAMMER ○ CABLE TOOL ○ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	165	8 3/4	PVC	PVC PERF	6	1/4	-
165	185	8 3/4	PVC PERF	PVC	6	1/4	.035

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	20	8 3/4	12 BGS 80 LBS CEMENT		MIXER
20	185	8 3/4	4 YARDS, 3/8 GRAVEL PACK		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	POD NUMBER	TRN NUMBER
CP-1513	1	569371

LOCATION 24S.10.35E.1.3.3

PAGE 1 OF 2

DOM-

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	1	1	TOPSOIL	○ Y ◉ N	
1	20	19	CALICHE	○ Y ◉ N	
20	51	31	SAND	○ Y ◉ N	
51	54	3	ROCK	○ Y ◉ N	
54	58	4	SAND	○ Y ◉ N	
58	158	100	ROCK	○ Y ◉ N	
158	160	2	CLAY	○ Y ◉ N	
160	174	14	SAND / GRAVEL	○ Y ◉ N	
174	178	4	CLAY	○ Y ◉ N	
178	181	3	SAND / GRAVEL	◉ Y ○ N	1
181	183	2	BLUE CLAY	○ Y ◉ N	
183	185	2	RED CLAY	○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ○ PUMP ○ AIR LIFT ◉ BAILER ○ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 1

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:
LUIS A. DURAN

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Luis A. Duran / LUIS A. DURAN — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

6-30-15 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	CP-1513	POD NUMBER	1	TRN NUMBER	569374
LOCATION	24S.10.35E.1.3.3				PAGE 2 OF 2

Dom-

Water Sample Analysis

Pool	Location Section	Township	Range	Chlorides
North Justis Montoya	2	25S	37E	45440
North Justis McKee	2	25S	37E	58220
North Justis Fusselman	2	25S	37E	68533
North Justis Ellenburger	2	25S	37E	34151
Fowler Blinebry	22	24S	37E	116085
Skaggs Grayburg	18	20S	38E	84845
Warren McKee	18	20S	38E	85910
Warren Abo	19	20S	39E	91600
DK Drinkard	30	20S	39E	106855
Littman San Andres	8	21S	38E	38695
East Hobbs grayburg	29	18S	39E	6461
Halfway Yates	16	20S	32E	14768
Arkansas Junction San Andres	12	18S	36E	7171
Pearl Queen	28	19S	35E	114310
Midway Abo	17	17S	37E	36494
Lovinton Abo	31	16S	37E	22933
Lovington San Andres	3	16S	37E	4899
Lovington Paddock	31	16S	37E	93720
Mesa Queen	17	16S	32E	172530
Kemnitz Wolfcamp	27	16S	34E	49345
Hume Queen	9	16S	34E	124960
Anderson Ranch Wolfcamp	2	16S	32E	11040
Anderson Ranch Devonian	11	16S	32E	25702
Anderson Ranch Unit	11	16S	32E	23786
Caudill Devonian	9	15S	36E	20874
Townsend Wolfcamp	6	16S	36E	38695
Dean Permo Penn	5	16S	37E	44730
Dean Devonian	35	15S	36E	19525
South Denton Wolfcamp	26	15S	37E	54315
South Denton Devonian	36	15S	37E	34080
Medicine Rock Devonian	15	15S	38E	39760
Little Lucky Lake Devonian	29	15S	30E	23288
Wantz Abo	26	21S	37E	132770
Crosby Devonian	18	25S	37E	58220
Scarborough Yates Seven Rivers	7	26S	37E	3443(Reef)
Teague Simpson	34	23S	37E	114665
Teague Ellenburger	34	23S	37E	120345
Rhodes Yates 7 Rivers	27	26S	37E	144485
House SA	11	20S	38E	93365
House Drinkard	12	20S	38E	49700
South Leonard Queen	24	26S	37E	115375
Elliot Abo	2	21S	38E	55380
Scharb Bone Springs	5	19S	35E	30601
EK Queen	13	18S	34E	41890
East EK Queen	22	18S	34E	179630
Maljamar Grayburg SA	22	17S	32E	46079
Maljamar Paddock	27	17S	32E	115375
Maljamar Devonian	22	17S	32E	25418

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BC&D OPERATING
PO BOX 302
HOBBS , NM 88241

Cust#: 67115820
Ad #: 00236120
Phone: (405)837-8147
Date: 11/14/2019
Salesperson: Ad Taker: Kayla

Sort Line: LEGAL NOTICE NOVEMBER 17, 201 Class: 672

Description	Start	Stop	Ins.	Cost/Day	Amount
AFF2 Affidavits (Legals)					6.25
BOLD bold					1.00
07 07 Daily News-Sun	11/17/2019	11/17/2019	1	43.56	43.56

Ad Text:

LEGAL NOTICE
NOVEMBER 17, 2019

BC&D Operating, INC, P.O. BOX 302 Hobbs, NM 88241, is filing a form C-108 (Application for Authorization to inject) with the Oil Conservation Division seeking administrative approval to utilize the Jal Public Library Trust 9-24-35 SWD as a Commercial Salt Water Disposal well.

The Jal Public Library Trust 9-24-35 SWD is located at 1,200' FNL & 1,990 FEL, Sec. 9, T24S, R35E, Lea County New Mexico. The well will dispose of water produced from oil and gas wells into the

Payment Reference:

Total:	50.81
Tax:	3.46
Net:	54.27
Prepaid:	0.00
Total Due	**54.27**

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
November 17, 2019
and ending with the issue dated
November 17, 2019.

Publisher

Sworn and subscribed to before me this 17th day of November 2019.

Business Manager

My commission expires
January 29, 2023
(Seal)

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires 1-29-23

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGAL LEGAL

LEGAL NOTICE
NOVEMBER 17, 2019

BC&D Operating, INC, P.O. BOX 302 Hobbs, NM 88241, is filing a form C-108 (Application for Authorization to inject) with the Oil Conservation Division seeking administrative approval to utilize the Jal Public Library Trust 9-24-35 SWD as a Commercial Salt Water Disposal well.

The Jal Public Library Trust 9-24-35 SWD is located at 1,200' FNL & 1,990 FEL, Sec. 9, T24S, R35E, Lea County New Mexico. The well will dispose of water produced from oil and gas wells into the Devonian-Silurian Formations from 15,500' – 17,500' at a maximum rate of 40,000 barrel of water per day with a maximum pressure of 3,100 psi.

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.

Additional information can be obtained by contacting BC&D Operating, Inc at (405) 837-8147.
#34867

67115835 00236120

RICHARD HILL
BC&D OPERATING
PO BOX 302
HOBBS , NM 88241

BC&D Operating, Inc

P.O. Box 302 Hobbs, NM 88241
(405) 837-8147

November 14, 2019

BC&D Operating, INC, P.O. BOX 302 Hobbs, NM 88241, is filing a form C-108 (Application for Authorization to inject) with the Oil Conservation Division seeking administrative approval to utilize the Jal Public Library Trust 9-24-35 SWD as a Commercial Salt Water Disposal well.

The Jal Public Library Trust 9-24-35 SWD is located at 1,200' FNL & 1,990 FEL, Sec. 9, T24S, R35E, Lea County New Mexico. The well will dispose of water produced from oil and gas wells into the Devonian-Silurian Formations from 15,500' – 17,500' at a maximum rate of 40,000 barrel of water per day with a maximum pressure of 3,100 psi.

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.

Additional information can be obtained by contacting BC&D Operating, Inc at (405) 837-8147.

BC&D Operating, Inc

P.O. Box 302 Hobbs, NM 88241
(405) 837-8147

November 29, 2019

Surface Owner / Offset Operators

Re: Notification of Application for Authorization to Inject into the Jal Public Library Trust 9-24-35 SWD.

Ladies and Gentlemen:

BC&D Operating, Inc is seeking administrative approval to utilize the Jal Public Library Trust 9-24-35 SWD (new drill) as a Salt Water Disposal well. As required by the New Mexico Oil Conservation Division Rules, we are notifying you of the following proposed salt water disposal well. This letter is a notice only and no action is required unless you have questions or objections.

Well:	Jal Public Library Trust 9-24-35 SWD
Proposed Disposal Zone:	Devonian Formation (15,500' – 17,500')
Location:	1,200' FNL & 1,990 FEL, Sec. 9, T24S, R35E, Lea Co., NM
Applicants Name:	BC&D Operating, Inc
Applicants Address:	P.O. Box 302, Hobbs, NM 88241

This application for water disposal well will be filed with the New Mexico Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Conservation Division address is 1220 South St. Francis Dr., Santa Fe NM 87505 and their phone number is (505) 476-3460.

Please call Richard Hill with BC&D Operating, Inc if you have any questions at (405) 837-8147.

Sincerely,

Richard Hill

BC&D Operating, Inc

P.O. Box 302 Hobbs, NM 88241
(405) 837-8147

U.S. – BLM
620 E. Green St.
Carlsbad, NM 88220

NM State Land Office
310 Old Santa Fe Trail
Santa Fe, NM 87501

Jal Public Library Fund
P.O. Box 178
Jal NM 88252-0178

Rubert F. Madera
P.O. Box 2795
Ruidoso NM 88355

Chevron Midcontinent, L.P
6301 Deauville Blvd.
Midland, Tx 79706

BTA Oil Producers, LLC
104 S. Pecos St
Midland, Tx 79701

Magnum Hunter Production
600 N Marienfeld Street
Midland, Tx 79701

McKay Petroleum Corp
P.O. Box 2014
Roswell, NM 88202

Blackbeard Operating
200 N. Loraine, Suite 300
Midland, Tx 79701

COG Operating, LLC
One Concho Center
600 W Illinois Ave
Midland, Tx 79701

BC&D Operating, Inc

P.O. Box 302 Hobbs, NM 88241
(405) 837-8147

Devon Energy Production Co LP
333 West Sheridan Avenue
Oklahoma City, OK 73102

Diamondback Energy
500 W Texas Ave #1200
Midland, Tx 79701

Robert E. Landreth
110 W. Louisiana
Midland, Tx 79701

Franklin Mountain Energy
2401 E 2nd Ave, Suite 300
Denver, Co 80206

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Street and Apt. No.: P.O. Box 178
City, State, ZIP+4®: Jal, NM 88252-0178

Jal Public Library TRUST 9-24-35 SWD

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

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City, State, ZIP+4®: Midland, Tx 79701

Jal Public Library TRUST 9-24-35 SWD

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Street and Apt. No.: 104 S. Pecos St.
City, State, ZIP+4®: Midland, Tx 79701

Jal Public Library TRUST 9-24-35 SWD

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Street and Apt. No.: One Concho Center
City, State, ZIP+4®: 600 W Illinois Ave
Midland, Tx 79701

JAL Public Library TRUST
9-24-35 SWD

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Street and Apt. No.: 333 West Sheridan Avenue
City, State, ZIP+4®: Oklahoma City, OK 73102

JAL Public Library TRUST
9-24-35 SWD

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9-24-35 SWD

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JAL Public Library TRUST
9-24-35 SWD

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9-24-35 SWD

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McKay Petroleum Corp
P.O. 2014
Roswell, NM 88202

Jal Public
Library TRUST
9-24-35 SWD

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Robert E. Landreth
110 W. Louisiana
Midland, Tx 79701

Jal Public
Library TRUST
9-24-35 SWD

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

API	Well Name	Well Number	Operator	County	Target Formation	TD (MD)	TD (TVD)	Well Status	Spud Date	Drill Type	Section	Township	Range
30025207560000	Custer Mountain Unit	1	Chesapeake Energy	Lea	Morrow	16590	16590	P&A	8/29/1963	V	9	24S	35E
30002526080000	Cinta Rojo	10	Concho Resources	Lea	Morrow	14600	14600	Active	11/4/1978	V	10	24S	35E
30025273510000	Cinta Rojo	8	Chevron	Lea	Morrow	14552	14552	Active	5/6/1981	V	8	24S	35E
30025370470000	Cinta Rojo	8	Chevron	Lea	Morrow	14400	14400	Active	1/24/2005	V	8	24S	35E
30025375380000	Cinta Rojo	3	Occidental Petro	Lea	Morrow	14404	14404	Active	11/27/2005	V	5	24S	35E
30025261800000	Cinta Rojo	4	Franklin Mountain Energy	Lea	Morrow	14340	14340	Active	2/24/1979	V	4	24S	35E
30025300620000	Cinta Rojo 17 Fed Com	1	Enron Oil & Gas	Lea	Morrow	15350	15350	P&A	12/6/1987	V	17	24S	35E

Custer Mountain Federal Unit 1
1,980' FSL & 1,980' FWL
Sec 9, T24S, R35E
Lea County, NM

Surface - (Conventional)

Hole Size	
Casing	20" - 94# H-40 Casing
Depth Top:	Surface
Depth Bottom:	390
Cement:	580 sxs
Cement Top:	Surface - (circulated)

Intermediate #1 - (Conventional)

Hole Size	
Casing	13-3/8" - 61# N-80 Casing
Depth Top:	Surface
Depth Bottom:	5,240'
Cement:	4,709 sxs
Cement Top:	Surface - (circulated)

Intermediate #2 - (Conventional)

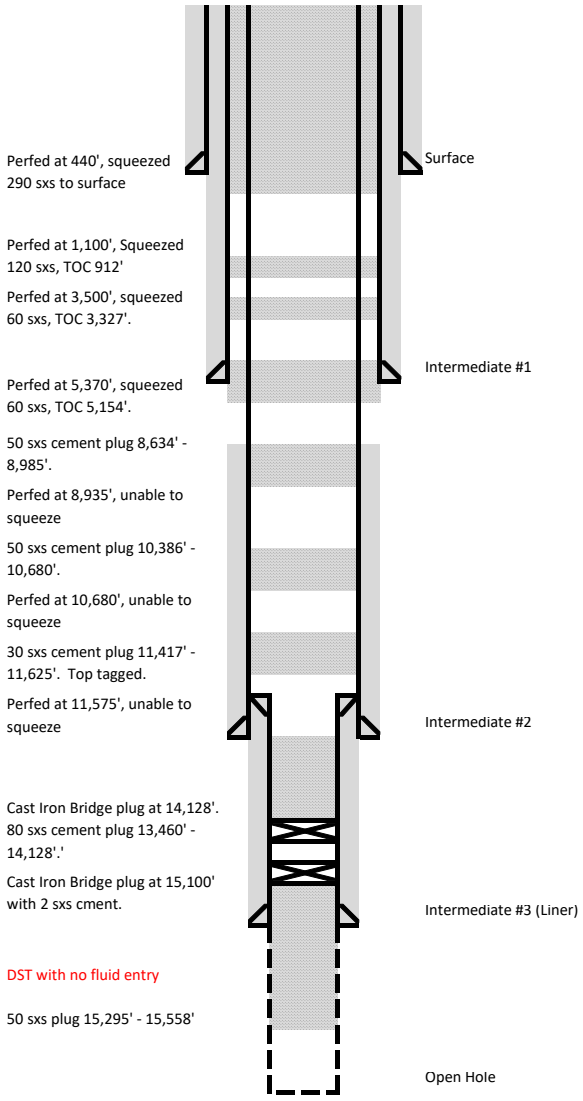
Hole Size	
Casing	9-5/8" - 47# P-110 Casing
Depth Top:	Surface
Depth Bottom:	12,456'
Cement:	
Cement Top:	

Intermediate #3 - (Liner)

Hole Size	
Casing	7"
Depth Top:	12,118'
Depth Bottom:	15,360'
Cement:	
Cement Top:	12,118'

Intermediate #4 - (Open Hole)

Hole Size	
Casing	Open Hole
Depth Top:	
Depth Bottom:	16,590'



Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

HOBBS OFFICE O. C. C.
MAY 5 10 19 AM '64

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR
Midwest Oil Corporation

3. ADDRESS OF OPERATOR
1500 Wilco Bldg., Midland, Texas

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
1980' FSL & 1980' FWL of Sec. 9, T-24-S, R-35-E, Lea County, New Mexico

5. LEASE DESIGNATION AND SERIAL NO.
NM 01228-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Custer Mountain Unit

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 9, T-24-S, R-35-E

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
3389 DF

12. COUNTY OR PARISH
Lea County

13. STATE
New Mexico

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other) **Plug Back to 15,090**			☒
(Other)	☐			(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

3-1-64 **Spotted 50 sax cement plug from 15,295 to 15,558. Set Baker cast Iron Bridge Plug at 15,100; spotted 2 sax of cement on top of plug. This well was Drill Stem Tested over the interval 15,360' to 16,590'. There was no fluid entry into the borehole from any zone within this interval.**

18. I hereby certify that the foregoing is true and correct

SIGNED [signature] TITLE **District Clerk** DATE **4-22-64**

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

OCD- Hobbs

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OCD
JUL 11 2011
RECEIVED

FORM APPROVED
OMB NO 1004-0135
Expires. July 31, 2010

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.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

5. Lease Serial No.
NMNM01228A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
CUSTER MOUNTAIN 01

2. Name of Operator
CHESAPEAKE OPERATING INC
Contact: LYNDEE SONGER
E-Mail: lyndee.songer@chk.com

9. API Well No.
30-025-20756-00-S1

3a. Address
OKLAHOMA CITY, OK 73154-0496

3b. Phone No (include area code)
Ph: 405.935.2411

10. Field and Pool, or Exploratory
CINTA ROJO

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 9 T24S R35E NESW 1980FSL 1980FWL

11. County or Parish, and State
LEA COUNTY, NM

12. CHECK 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	☐ Fracture Treat	☐ 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 recomplete 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 shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

5/20/2011 SET 5 1/2 CIBP @ 14,128'.

RECLAMATION
DUE 12-13-11

Accepted as to plugging of the well bore. Liability under bond is retained until surface restoration is completed.

5/23/2011 TBG @ 14,128' CIRC HOLE W/MLF.

5/24/2011 TBG @ 14,218' AS PER MARLIN DEATON COMBINE PLUGS 14,128'-13,460'. SPOT 80 SXS CLASS H CMT DISPLACE TOC TO 13,416'.

5/25/2011 PERF @ 11,575' PKR @ 9,115 UNABLE TO SQUEEZE.

5/31/2011 TBG @ 11,625' SPOT 30 SXS CMT H DISP TOC TO 11,358' TAG @ 11,417'.

6/1/2011 PERF @ 10,680' PKR @ 8,725' UNABLE TO SQUEEZE. TBG @ 10,680' SPOT 30 SXS CMT H DISP TOC

14. I hereby certify that the foregoing is true and correct

Electronic Submission #110881 verified by the BLM Well Information System
For CHESAPEAKE OPERATING INC, sent to the Hobbs
Committed to AFMSS for processing by DEBORAH MCKINNEY on 06/20/2011 (11KMS0016SE)

Name *(Printed/Typed)* LYNDEE SONGER — Title REGULATORY COMPLIANCE ANALYST

Signature (Electronic Submission) — Date 06/20/2011

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ACCEPTED — JAMES A AMOS — Title SUPERVISOR EPS — Date 07/06/2011

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 Hobbs

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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

JUL 11 2011

Additional data for EC transaction #110881 that would not fit on the form

32. Additional remarks, continued

TO 10,463' TAG @ 10,546'.

6/2/2011 TBG @ 10,564' SPOT 20 SXS CMT H DISP TOC TO 10,386'. PERF @ 8,935' PKR @ 7,859' UNABLE TO SQUEEZE PRESSURE HOLDING 600#. TBG @ 8,985' SPOT 35 SXS CMT H DISP TOC TO 8,675' TAG @ 8,802'.

6/3/2011 TBG @ 8,802' SPOT 20 SXS H CMT DISP TOC 8,634'. PERF @ 5,370' PKR @ 4,960' SQUEEZE 60 SXS CMT DISP TOC TO 5,190' TAG @ 5,154'.

6/7/2011 PERF @ 3,500' PKR @ 3,124' SQUEEZE 60 SXS CMT DISP TOC TO 3,330' TAG @ 3,327'.

6/8/2011 PERF @ 1,100' SQUEEZE 120 SXS DISP TOC TO 960' TAG @ 912'.

6/9/2011 PERF @ 440' PKR 30' CIRC 290 SXS CMT TO SURF 5 1/2 X 9 5/8 & 9 5/8 X 13 7/8 ANNULUS.

6/16/2011 BASIC CUT OFF WELLHEAD AND INSTALLED DRY HOLE MARKER. FINAL REPORT.

BIDS ARE BEING CONDUCTED TO BEGIN REMEDIATING SITE.

(CHK PN 890689)

BC&D Operating, Inc

Well: Jal Public Library Trust 9-24-35 SWD

Casing Assumptions

Section	Hole Size	Csg Size	Drift	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/Buoyant	Mud Weight (ppg)
Surface	26.000	20	18.937	0	1250	0	1250	No	94	J-55	BTC	520	2110	1480	1402	Dry	8.4
Intermediate #1	17.500	13.375	12.359	0	5200	0	5200	No	61	HCL-80	BTC	2060	4500	1399.00	1399	Dry	9.7
Intermediate #2	12.250	9.625	8.679	0	12650	0	12650	No	40	HCL-80	BTC	3870	5750	916.00	947	Dry	9.2
Intermediate #3	8.500	7	6	12450	15900	12450	15900	No	32	P110HC	SpCL BTC	11890	12450	1025.00	1053	Dry	12.5

Safety Factors

Section	Csg Size	Weight (lbs)	Grade	Collapse	Burst	Body Tension	Joint Tension
Surface	20	94	J-55	1.919	7.786	12.596	11.932
Intermediate #1	13.375	61	HCL-80	1.393	3.043	4.410	4.410
Intermediate #2	9.625	40	HCL-80	1.184	1.759	1.810	1.872
Intermediate #3	7	32	P110HC	1.739	1.821	2.015	2.070

Clearance

Hole Size	Conn.	Tube OD	Drift	Conn. OD	Tube Clearance	Conn. Clearance
26.000	BTC	20.000	18.937	21.000	3.000	2.500
17.500	BTC	13.375	12.359	14.375	2.063	1.563
12.250	BTC	9.625	8.679	10.625	1.313	0.813
8.500	SpCL BTC	7.000	6.000	7.375	0.750	0.563

Criteria	
Collapse	1.125
Burst	1.125
Body Tension	2
Joint Tension	2

Engineering Notes:

Please see the the special clearance BTC conn. Being used with 7" casing. It has a coupling OD of 7.375" and will yield a 0.563" clearance inside of open hole. All collapse values assume vacated pipe with a gas gradient of .22 psi/ft. Body and joint tension values assume vacated pipe with no bouyancy factors.

BC&D Operating, Inc

Well: **Jal Public Library Trust 9-24-35 SWD**

Circulating Medium Table

Section	Hole Size	Top Depth	Bottom Depth	Mud Type	Min Mud Weight (ppg)	Max Mud Weight (ppg)	Gel Strength (lbs/100 sqft)	PH	Viscosity	Salinity (ppm)	Filtration	Additional Characteristics
Surface	26.000	0	1250	Fresh Water	8.4	8.4	-	7.5-8.5	28-36	-	N/C	
Intermediate #1	17.500	1250	5300	Brine Water	9.7	10	-	10-10.5	28-36	-	N/C	Lost Circulation Control
Intermediate #2	12.250	5300	12650	Cut Brine	9	9.3	-	10-10.5	28-36	-	N/C	Lost Circulation Control
Intermidiate #3	8.500	12650	15900	Oil Based Mud	11.3	11.3			55-65		N/C	70/30%
Production	6.000	15900	17700	Cut Brine	9	9	-	9	28-36	-	-	

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Jal Public Library Trust 9-24-35 SWD
Drilling plan

Surface Hole

- Drill 26" hole to 1,250' and R&C 20" 94# J-55 BTC casing. A lead and a tail slurry will be pumped with top of cement at surface (150% excess on lead and 50% excess on tail). Directional surveys will be take taken for directional control. The mud will be a freshwater system with a weight of 8.4 ppg. A 5M BOPE system will be installed and tested before drilling out the 20" casing shoe. Casing shoe depth will be 25' into the rustler and determined by mud logger.

Intermediate 1

- Drill 17-1/2" hole to 5,220' and R&C 13-3/8" 61# HCL-10 BTC casing. A lead and a tail slurry will be pumped with top of cement at surface (150% excess on lead and 100% excess on tail). Directional surveys will be take taken for directional control. The mud will be a cut brine system with weight of 8.4 – 8.9 ppg using loss circulation control. Any broken connection will be tested for well control. Casing shoe depth will be 100' past the base of the Capitan Reef and determined by mud logger. Full suite of logs consisting on GR/CNL/CDN will be ran to identify Capitan Reef. A cement bond log will be ran after casing is cemented in place. All information gathered on the Capitan Reef will be shared with NMOCD for future study and analysis.

Intermediate 2

- Drill 12-1/4" hole to 12,650' and R&C 9-5/8" 40# HCL-80 BTC casing. A Two stage cement job will be performed with the DV tool at 5,500'. A lead and a tail cement will be pumped on both stages. Stage 2 cement will be circulated to surface (150% excess on lead and 100% excess on tail). Directional surveys will be take taken for directional control. The mud will be a cut brine system with a weight of 9.4 – 10 ppg using loss circulation control. A 10M BOPE system will be installed and tested before drilling out the shoe. Casing set depth will be identified with mud logger and Gamma. The casing will be set 150' into the Strawn. Cement bond log will be ran after casing is cemented in place.

Intermediate 3

- Drill 8-1/2" hole to 15,900' and R&C 7" 32# HCP-110 BTC drilling liner. One slurry of cement will be pumped with the top of cement covering the liner top (50% excess). Directional surveys will be take taken for directional control. The mud will be a 70/30 oil base mud system with a weight of 12 – 12.5 ppg. Any broken connections will be tested for well control. Casing set depth will be identified with mud logger ang Gamma. The casing shoe will be 50' past the base of the Woodford shale. Cement bond log will be ran after casing is cemented in place.

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Open Hole

- Drill 6” hole to 17,700’ and will be left open hole for the injection interval. Directional surveys will be taken for directional control. The mud will be a cut brine system with a weight of 9 –9.8 ppg using loss circulation control. TD will be defined by mud logger 100’ into the Montoya. Full suite of logs will be ran. The Montoya will be plugged back with the cement top no less than a 100’ above its top.

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Jal Public Library Trust 9-24-35 SWD
Well Control Plan

BOP Equipment

- A BOP consisting of 3 rams with 2 pipe rams, 1 blind ram and one annular preventer. The BOP will be utilized below surface casing to TD. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating on the BOP stack. A rotating head will also be installed as needed. BOP will be inspected and operated as recommended in Onshore Order #2. A Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

Testing Procedure 10M System

- Pressure tests will be conducted before drilling out from under all casing strings. BOP will be inspected and operated as required by Onshore Order #2. Kelly cock sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position. A third-party company will test the BOP's. After setting the surface casing, and before drilling the surface casing shoe, a minimum of 5M BOPE system will be installed. It will be tested to 250 psi low and 5000 psi high. Annular will be tested to 250 psi low and 3500 psi high. After setting intermediate 1 casing, a minimum 5M BOPE system will be installed and tested to 250 psi low and 5000 psi high. Annular will be tested to 250 psi low and 3500 psi high. After setting Intermediate #2, a 10M system will be installed and tested to 250 psi low and 8500 psi high with the annular being tested to 250 psi low and 3500 psi high. The 13-3/8" 10M flange on the wellhead will also be tested to 10,000 psi at this time.

Variance Request

- BC&D Operating requests a variance to have the option of running a speed head for the setting of intermediate 1 and 2 strings. If running speed head with landing mandrel for the 13-3/8" and 9-5/8" casing, then a minimum 5M BOPE system will be installed after surface casing is set. BOP test pressures will be 250 psi low and 5000 psi high. Annular will be tested to 250 psi low and 3500 psi high before drilling below the surface shoe. After 9-5/8" casing is set in the speed head the BOP will then be lifted to install another casing head section for the production casing. BC&D Operating will nipple up the casing head and BOP and a minimum 10M BOPE system will be installed. Pressure tests will be made to 250 psi low and 8500 psi high. BC&D Operating requests a variance to have a 5M Annular on top of a 10M BOP and will be tested to 250 psi low and 3500 psi high. A diagram of the speed head and BOP is attached. BC&D Operating requests

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a variance to drill this well using a co-flex line between the BOP and Choke manifold. Certification for the proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. If the specific hose is not available, then one of equal or higher rating will be used.

A. Component and Preventer Compatibility Table

The table below, which cover the drilling and casing of the 10M MASP portion of the well, outlines the tubulars and the compatible preventers in use. This table, combined with the mud program, documents and that two barriers to flow can be maintained at all times, independent of the rating of the annular preventer.

8-1/2" Production hole section, 10M requirement

	OD	Preventer	RWP
Drill Pipe	5"	Fixer lower 5" Upper 4.5 - 7" VBR	10M
HWDP	5"	Fixed Lower 5" Upper 4.5 - 7" VBR	10M
Jars	5"	Fixed Lower 5" Upper 4.5 - 7" VBR	10M
Drill Collars and MWD tools	6.25" - 6.75"	Upper 4.5 - 7" VBR	10M
Mud Motor	6.75"	Upper 4.5 - 7" VBR	10M
Production Casing	7"	Upper 4.5 - 7" VBR	10M
All	0 - 13-5/8"	Annular	5M
Open hole	-	Blind Rams	10M

6” Production hole section, 10M requirement.

Component	OD	Preventer	RWP
Drill Pipe	4"	Upper 3.5" - 5.5" VBR Lower 3.5 - 5.5" VBR	10M
HWDP	4"	Upper 3.5" - 5.5" VBR Lower 3.5 - 5.5" VBR	10M
Jars	4"	Upper 3.5" - 5.5" VBR Lower 3.5 - 5.5" VBR	10M
Drill Collars and MWD tools	4" - 5"	Upper 4.5 - 5.5" VBR	10M
Mud Motor	4.75" - 5"	Upper 4.5 - 5.5" VBR	10M
Production Casing	NA	Upper 4.5 - 5.5" VBR	10M
All	1" - 13-5/8"	Annular	5M
Open hole	-	Blind Rams	10M

VBR = Variable Bore Ram. Compatible range listed in chart.
HWDP = Heavy Weight Drill Pipe
MWD = Measurement While Drilling

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B. Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), the pressure at which control is swapped from the annular to another compatible ram is variable, but the operator will document in the submission of their well control plan what their operating pressure limit is for the 5M annular preventer. The operator may choose an operating pressure less than or equal to RWP, but in no case will it exceed the Rated Working Pressure (RWP) of the annular preventer.

General Procedure While Drilling

- Sound alarm (alert crew).
- Space out drill string.
- Shut down pumps (stop pumps and rotary).
- Shut-in well (uppermost applicable BOP, typically annular preventer first. The hydraulic Control Remote (HCR) valve and choke will already be in the closed position).

- Confirm shut-in.
- Notify tool pusher/onsite supervisor.
- Read and record the following:
    - SIDPP and SICP
    - Pit gain
    - Time
- Regroup and identify forward plan.
- If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to the upper pipe ram.

General Procedure While Tripping

- Sound alarm (alert crew).
- Stab full opening safety valve and close.
- Space out drill string.
- Shut-in (uppermost applicable BOP, typically annular preventer first. The HCR and choke will already be in the closed position.
- Confirm shut-in.
- Notify tool pusher/onsite supervisor.
- Read and record the following.
    - SIDPP and SICP
    - Pit gain
    - Time

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- Regroup and identify forward plan.
- If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to the upper pipe ram.

General Procedure While Running Casing

- Sound alarm (alert crew).
- Stab crossover and full opening safety valve and close.
- Space out string.
- Shut-in (uppermost applicable BOP, typically annular preventer first. The HCR and choke will already be in the closed position.
- Confirm shut-in.
- Notify tool pusher/onsite supervisor.
- Read and record the following.
  - SIDPP and SICP
  - Pit Gain
  - Time
  - Regroup and identify forward plan.
  - If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to compatible pipe ram.

General Procedure with No Pipe in Hole (Open Hole)

- Sound alarm (alert crew).
- Shut-in with blind rams or BSR. (The HCR and choke will already be in the closed position).
- Confirm shut-in
- Notify tool pusher/company representative.
- Read and record the following.
  - SICP
  - Pit gain
  - Time
- Regroup and identify forward plan.

General Procedures While Pulling BHA thru Stack

- PRIOR to pulling last joint of drill pipe thru the stack.
  - Perform flow check, if flowing:
  - Sound alarm (alert crew).
  - Stab full opening safety valve and close.
  - Space out drill string with tool joint just beneath the upper pipe ram.

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- Shut-in using upper pipe ram. (The HCR and choke will already be in the closed position.
- Confirm shut-in.
- Notify tool pusher/onsite supervisor.
- Read and record the following.
  - SIDPP and SICP
  - Pit gain
  - Time
  - Regroup and identify forward plan.

- With BHA in the stack and compatible ram preventer and pipe combo immediately available.
  - Sound alarm (alert crew).
  - Stab crossover and full opening safety valve and close.
  - Space out drill string with upset just beneath the compatible pipe ram.
  - Shut-in using compatible pipe ram. (The HCR and choke will already be in the closed position.)
  - Confirm shut-in.
  - Notify tool pusher/onsite supervisor.

- With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
  - Sound alarm (alert crew).
  - If possible to pick up high enough, pull string clear of the stack and follow “Open Hole” scenario.
  - If impossible to pick up high enough to pull the string clear of the stack.
  - Stab crossover, make up one joint/stand of drill pipe, and full opening safety valve and close.
  - Space out drill string with tool joint just beneath the upper pipe ram.
  - Shut-in using upper pipe ram. (The HCR and choke will already be in the closed position).
  - Confirm shut-in.
  - Notify tool pusher/company representative.
  - Read and record the following:
    - SIDPP and SICP
    - Pit gain
    - Time
  - Regroup and identify forward plan.

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Hydrogen Sulfide Drilling Operations Plan

1. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this will:

- The hazards and characteristics of hydrogen sulfide (H2S).
- The proper use and maintenance of personal protective equipment and life support systems.
- The proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- The contents and requirements of the H2S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500') and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

2. H2S Safety Equipment and systems

Note: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500' above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S. If H2S greater than 100 ppm is encountered in the gas stream, we will shut in the install H2S equipment.

- Well Control Equipment:
  - Flare Line.
  - Choke manifold with remotely operated choke.
  - Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
  - Auxiliary equipment to include: annular preventer, mud-gas, separator, rotating head.

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- Protective equipment for essential personnel:
  - Mark II Surviveair 30 minute units located in the dog house and at briefing areas.
- H2S detection and monitoring equipment:
  - 2 portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.
- Visual warning systems:
  - Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate.
- Mud program:
  - The mud program has been designed to minimize the volume of H2S circulated to the surface.

BC&D Operating, Inc has conducted a review to determine if an H2S contingency plan is required for the above referenced well. We were able to conclude that any potential hazardous volume would be minimal.

BC&D Operating

Contact Information

In at this time the supervising person determines the release of H2S cannot be contained to the site loction and the general public is in harm's way he will take the necessary steps to protect the workers and the public.

Key Personnel	Title	Office	Mobile
Donnie Hill	Owner/President		575-390-7626
Richard Hill	Drilling	405-837-8147	405-837-8147

Lea County	Contact
Ambulance	911
Nor Lea General Hospital (Hobbs)	575-397-0560
State Police (Hobbs)	575-392-5580
City Police (Hobbs)	575-397-9625
Sheriff's Office (Lovington)	575-396-3611
Fire Marshall (Lovington)	575-391-2983
Volunteer Fire Dept. (Jal)	575-395-2221
Emergency Management (Lovington)	575-391-2983
New Mexico Oil Conservation Division (Hobbls)	575-393-6161
BLM (Hobbs)	575-393-3612
Hobbs Animal Clinic	575-392-5563
Dal Paso Animal Hospital (Hobbs)	575-397-2286
Mountain States Equine (Hobbs)	575-392-7488
Carlsbad	
BLM	575-234-5972
Santa Fe	
New Mexico Emergency Response Commission	505-476-9600
New Mexico Emergency Response Commission (24 hrs)	505-827-9126
New Mexico State Emergency Operations Center	505-476-9635
National	
National Emergency Response Center (Washington, D.C.)	800-424-8802
Medical	
Flight for Life - 4000 24th Lubbock, Tx	806-743-9911
Aerocare - R3, Box 49F; Lubbock, Tx	806-747-8923
Med Flight Air Amb - 2301 Yale Blvd SD, D3; Albuquerque, NM	505-842-4433
SB Air Med Service - 2505 Clark Carr Loop SE; Albuquerque, NM	505-842-4949
Other	
Boots & Coots IWC	800-256-9688
Cudd Pressure Control	432-699-0139
NM Dept. of Transportation (Roswell)	575-637-7200