

Initial Application Part I

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

RECEIVED: 06/14/2019	REVIEWER:	TYPE: SWD	APP NO: PMAM/9165 53 474
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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: Solaris Water Midstream, LLC _____ OGRID Number: 371643 _____
 Well Name: Blue Duck State SWD No. 1 _____ API: _____
 Pool: SWD; Devonian- Silurian _____ Pool Code: 97869 _____

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

2) NOTIFICATION REQUIRED TO: Check those which apply.

A. ☒ Offset operators or lease holders

B. ☐ Royalty, overriding royalty owners, revenue owners

C. ☒ Application requires published notice

D. ☐ Notification and/or concurrent approval by SLO

E. ☐ Notification and/or concurrent approval by BLM

F. ☒ Surface owner

G. ☒ For all of the above, proof of notification or publication is attached, and/or,

H. ☐ No notice required

FOR OCD ONLY

☐ Notice Complete
☐ Application Content Complete

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

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

Ramona Hovey - Agent of Solaris Water Midstream

Print or Type Name

Ramona K Hovey
 Signature

May 30, 2019

Date

(512) 600-1777

Phone Number

ramona@lonquist.com

e-mail Address

LONQUIST & CO. LLC

JUN 14 2019 AM 11:17

PETROLEUM
ENGINEERS

ENERGY
ADVISORS

AUSTIN · HOUSTON · WICHITA · DENVER · CALGARY

June 6, 2019

New Mexico Energy, Minerals, and Natural Resources Department
Oil Conservation Division District IV
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
(505) 476-3440

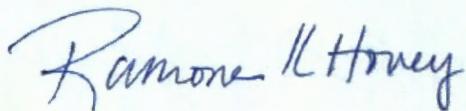
RE: BLUE DUCK STATE SWD NO. 1 AUTHORIZATION TO INJECT

To Whom It May Concern:

Attached for your review is Form C-108, Application for Authorization to Inject, and its supplemental documents prepared for Solaris Water Midstream, LLC's (Solaris") Blue Duck State SWD No. 1. In addition, Forms C-101 and C-102 have also been included with this package. Notices have been sent to offset, operators, leaseholders and the surface owner. Proof of notice will be sent to the OCD upon receipt.

Any questions should be directed towards Solaris Water Midstream, LLC's agent Lonquist & Co., LLC.

Regards,



Ramona K. Hovey
Sr. Petroleum Engineer
Lonquist & Co., LLC

(512) 600-1777
ramona@lonquist.com

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance _____ ☒ Disposal _____ Storage
Application qualifies for administrative approval? _____ ☒ Yes _____ No
- II. OPERATOR: Solaris Water Midstream, LLC
ADDRESS: 701 Tradewinds Blvd., Suite C, Midland, TX 79706
CONTACT PARTY: Whitney McKee PHONE: 432-203-9020
- 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: Ramona Hovey TITLE: Consulting Engineer – Agent for Solaris Water Midstream
SIGNATURE: Ramona K. Hovey DATE: 5/30/2019
E-MAIL ADDRESS: ramona@lonquist.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted.
Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

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

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

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

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

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

XIV. PROOF OF NOTICE

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

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

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

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

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

INJECTION WELL DATA SHEET

OPERATOR: Solaris Water Midstream, LLCWELL NAME & NUMBER: Blue Duck State SWD No. 1WELL LOCATION: 1000' FSL 390' FEL
FOOTAGE LOCATIONP
UNIT LETTER32
SECTION19S
TOWNSHIP29E
RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 18.125"Cemented with: 517 sx.Top of Cement: surfaceCasing Size: 16.00"or _____ ft³Method Determined: circulationIntermediate CasingHole Size: 14.750"Cemented with: 630 sx.Top of Cement: surfaceCasing Size: 13.375"or _____ ft³Method Determined: circulationProduction CasingHole Size: 12.250"Cemented with: 1830 sx.Top of Cement: surfaceCasing Size: 9.625"or _____ ft³Method Determined: circulationLinerHole Size: 8.500"Cemented with: 404 sx.Top of Cement: 9,000'Total Depth: 14,450'Casing Size: 7.625"or _____ ft³Method Determined: calculationInjection Interval12,650 feet to 14,450 feet

(Open Hole)

INJECTION WELL DATA SHEET

Tubing Size: 5.5", 20 lb/ft, HCL-80, BTC from 0' – 8,800' and 5", 18 lb/ft, HCL-80, LTC from 8,800' -12,600'
 Lining Material: Duoline

Type of Packer: Nickel Plated Double Grip Retrievable Packer or Equivalent

Packer Setting Depth: 12,600'

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

Additional Data

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

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

2. Name of the Injection Formation: Devonian, Fusselman
 3. Name of Field or Pool (if applicable): SWD; Devonian-Silurian (97869)

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, new drill.

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

Bone Spring: 5,350'
Wolfcamp: 9,100'
Cisco: 9,850'
Strawn: 10,250'
Atoka: 10,550'
Morrow: 10,750'



Solaris Water Midstream, LLC

Blue Duck State SWD No. 1

FORM C-108 Supplemental Information

III. Well Data

A. Wellbore Information

1.

Well information	
Lease Name	Blue Duck State SWD
Well No.	1
Location	S-32 T-19S R-29E
Footage Location	1000' FSL & 390' FEL

2.

a. Wellbore Description

Casing Information				
Type	Surface	Intermediate	Production	Liner
OD	16"	13.375"	9.625"	7.625"
WT	0.495"	0.480"	0.545"	0.500"
ID	15.010"	12.415"	8.535"	6.625"
Drift ID	14.822"	12.259"	8.379"	6.500"
COD	17.000"	13.375"	10.625"	7.625"
Weight	84 lb/ft	68 lb/ft	53.5 lb/ft	39 lb/ft
Grade	J-55 BTC	L-80, EZ-GO FJ3	HCP-110 BTC	Q-125 EZ-GO FJ3
Hole Size	18.125"	14.75"	12.25"	8.5"
Depth Set	455'	3,380'	9,200'	9,000' – 12,650'

b. Cementing Program

Cement Information					
Casing String	Conductor	Surface	Intermediate	Production	Liner
Lead Cement	EXTENDACEM™	HALCEM™	HALCEM™	NEOCEM™ IL2	NEOCEM™
Lead Cement Volume (sacks)	250	-	436	Stage 1: 833 Stage 2: 309	-
Lead Cement Density (ft3/sack)	1.694	-	1.664	Stage 1: 2.731 Stage 2: 2.732	-
Tail Cement	-	HALCEM™	HALCEM™	NEOCEM™/HALCEM™	VERSACEM™
Tail Cement Volume (sacks)	-	517	194	Stage 1: 475 Stage 2: 213	404
Tail Cement Density (ft3/sack)	-	1.332	1.332	Stage 1: 1.056 Stage 2: 1.336	1.223
Cement Excess	0%	50%	30%	50%, 0%	50%
Total Sacks	250	517	630	1830	404
TOC	Surface	Surface	Surface	Surface	9,000'
Method	Circulate to Surface	Circulate to Surface	Circulate to Surface	Circulate to Surface	Logged

3. Tubing Description

Tubing Information	
OD	5.5"
	5.0"
WT	0.361"
	0.362"
ID	4.778"
	4.276"
Drift ID	4.653"
	4.151"
COD	6.050"
	5.563"
Weight	20 lb/ft
	18 lb/ft
Grade	HCL-80 BTC
	HCL-80 LTC
Depth Set	0-8,800'
	8,800'-12,600'

Tubing will be lined with Duoline.

4. Packer Description

Nickel Plated Double Grip Retrievable Packer or Equivalent

B. Completion Information

1. Injection Formation: Devonian, Fusselman

2. Gross Injection Interval: 12,650'-14,450'

Completion Type: Open Hole

3. Drilled for injection.

4. See the attached wellbore schematic.

5. Oil and Gas Bearing Zones within area of well:

Formation	Depth
Bone Spring	5,350'
Wolfcamp	9,100'
Cisco	9,850'
Strawn	10,250'
Atoka	10,550'
Morrow	10,750'

VI. Area of Review

No wells within the area of review penetrate the proposed injection zone.

VII. Proposed Operation Data

1. Proposed Daily Rate of Fluids to be Injected:

Average Volume: 30,000 BPD

Maximum Volume: 40,000 BPD

2. Closed System

3. Anticipated Injection Pressure:

Average Injection Pressure: 1,898 PSI (surface pressure)

Maximum Injection Pressure: 2,530 PSI (surface pressure)

4. The injection fluid is to be locally produced water. It is expected that the source water will predominantly be from the Artesia, Bone Spring, and Delaware formations. Attached are produced water sample analyses taken from the closest wells that feature samples from the Artesia, Bone Spring, Capitan, CPRF, Delaware, Devonian, Morrow, Queen, Yates, Rustler, San Andreas, Tansill, Wolfcamp, and Yates.
5. The disposal interval is non-productive. No water samples are available from the surrounding area.

VIII. Geological Data

Devonian Formation Lithology:

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 the 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) 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 tremendous Salt Water Disposal horizon.

Fusselman Formation Lithology:

The Silurian/Ordovician Fusselman Formation is stratigraphically below the Wristen Group and is above and separated from the Montoya Formation by the Sylvan Shale. The Sylvan Shale is the lower confining layer for the proposed well. Fusselman facies include a laminated skeletal wackestone in the upper part and a buildup complex in the lower part composed of ooid and bryozoan grainstones. These grainstones can also be potentially prolific zones for disposal.

A. Injection Zone: Devonian- Silurian Formation

Formation	Depth
Salado (Top of Salt)	480'
Salado (Bottom of Salt)	725'
Yates	1,450'
Seven Rivers	1,700'
Queen	2,400'
Grayburg	2,725'
Delaware Mountain Group	3,400'
Bone Spring	5,350'
Bone Spring 1 st Sand	6,200'
Bone Spring 2 nd Sand	7,200'
Bone Spring 3 rd Sand	8,350'
Wolfcamp	9,100'
Cisco	9,850'
Strawn	10,250'
Atoka	10,550'
Morrow	10,750'
Morrow Clastics	11,150'
Lower Morrow	11,350'
Barnett	11,500'
Devonian	12,650'

B. Underground Sources of Drinking Water

Two (2) water wells exist within a one-mile radius of the proposed well. Water wells in the surrounding area have an average depth of 180 feet and an average water depth of 96 feet generally producing from the Capitan Basin. The upper Rustler may also be another USDW and will be protected.

IX. Proposed Stimulation Program

50,000 gallon acid job

X. Logging and Test Data on the Well

There are no logs or test data on the well. During the process of drilling and completion resistivity, gamma ray, and density logs will be run.

XI. Chemical Analysis of Fresh Water Wells

Attached is a map of the two (2) water wells that exist within one-mile of the well location. Samples from the nearest two wells with recoverable samples present are being obtained and analysis results will be provided as soon as possible. A Water Right Summary from the New Mexico Office of the State Engineer is attached for the two (2) water wells within a 1-mile radius.

District I1625 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**Form C-101
Revised July 18, 2013**Energy Minerals and Natural Resources****Oil Conservation Division**☐ AMENDED REPORT**1220 South St. Francis Dr.****Santa Fe, NM 87505****APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

¹ Operator Name and Address SOLARIS WATER MIDSTREAM, LLC 701 TRADEWINDS BLVD., SUITE C MIDLAND, TX 79706		² OGRID Number 371643
		³ API Number TBD
⁴ Property Code	⁵ Property Name BLUE DUCK STATE SWD	⁶ Well No. 1

⁷ Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
P	32	19 S	29 E		1000	S	390	E	EDDY

⁸ Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
-	-	-	-	-	-	-	-	-	-

⁹ Pool Information

Pool Name SWD; Devonian-Silurian	Pool Code 97869
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Additional Well Information

¹¹ Work Type N	¹² Well Type SWD	¹³ Cable/Rotary R	¹⁴ Lease Type Private	¹⁵ Ground Level Elevation 3,302'
¹⁶ Multiple N	¹⁷ Proposed Depth 14,450'	¹⁸ Formation Devonian-Silurian	¹⁹ Contractor TBD	²⁰ Spud Date ASAP
Depth to Ground water 95'		Distance from nearest fresh water well 2,914 feet		Distance to nearest surface water >1 mile

☒ We will be using a closed-loop system in lieu of lined pits**²¹ Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	18.125"	16"	84 lb/ft	455'	517	Surface
Intermediate	14.75"	13.375"	68 lb/ft	3,380'	630	Surface
Production	12.25"	9.625"	53.5 lb/ft	9,200'	1830	Surface
Liner	8.5"	7.625"	39 lb/ft	9,000'-12,650'	404	9,000'
Tubing		5.5" & 5"	20 lb/ft & 18 lb/ft	0' - 8,800' & 8,800' - 12,600'	N/A	

Casing/Cement Program: Additional Comments

See attached schematic.

²² Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Hydraulic/Blinds, Pipe	8,000 psi	10,000 psi	TBD - Schaffer/Cameron

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
 I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☒, if applicable.
 Signature: *Ramona K Hovey*

Printed name: Ramona Hovey

Title: Consulting Engineer

E-mail Address: ramona@lonquist.com

Date: May 30, 2019

Phone: 512-600-1777

OIL CONSERVATION DIVISION

Approved By:

Title:

Approved Date:

Expiration Date:

Conditions of Approval Attached

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (505) 393-8191 Fax: (505) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (505) 745-1253 Fax: (505) 745-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-8178 Fax: (505) 334-8170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3468

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 97869	Pool Name SWD; Devonian-Silurian
Property Code	Property Name BLUE DUCK STATE SWD	Well Number 1
OGRID No. 371643	Operator Name SOLARIS WATER MIDSTREAM	Elevation 3302'

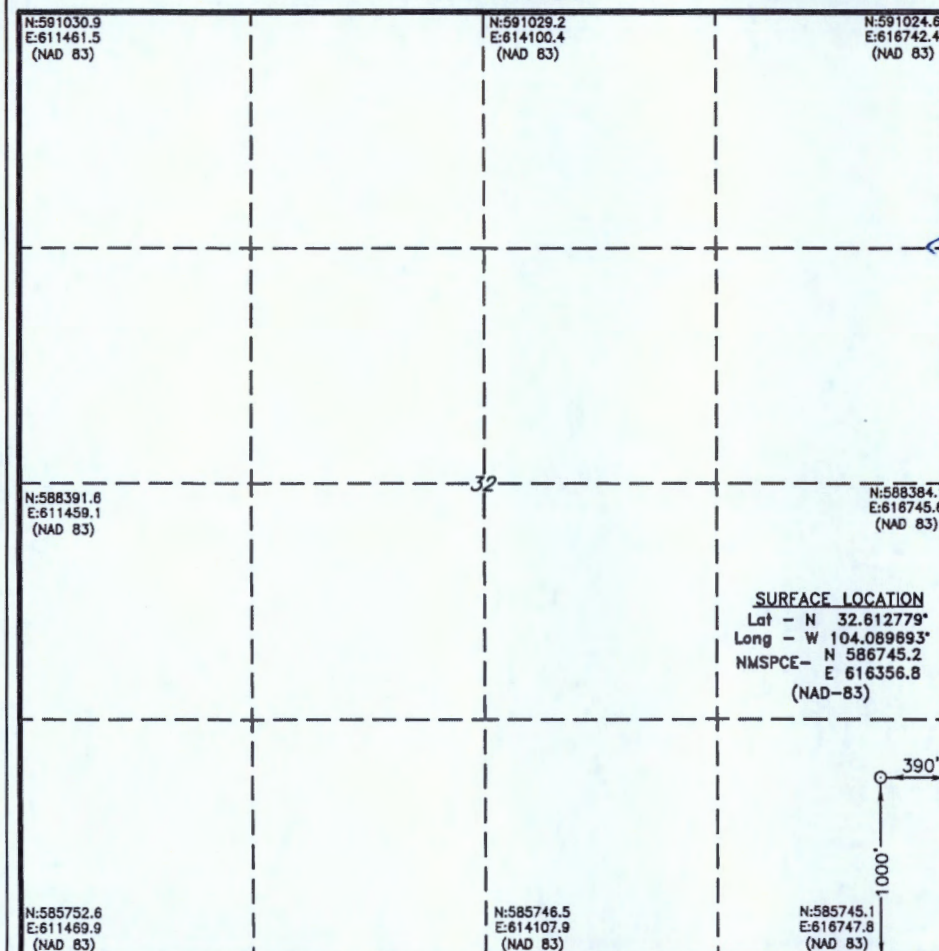
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	32	19 S	29 E		1000	SOUTH	390	EAST	EDDY

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

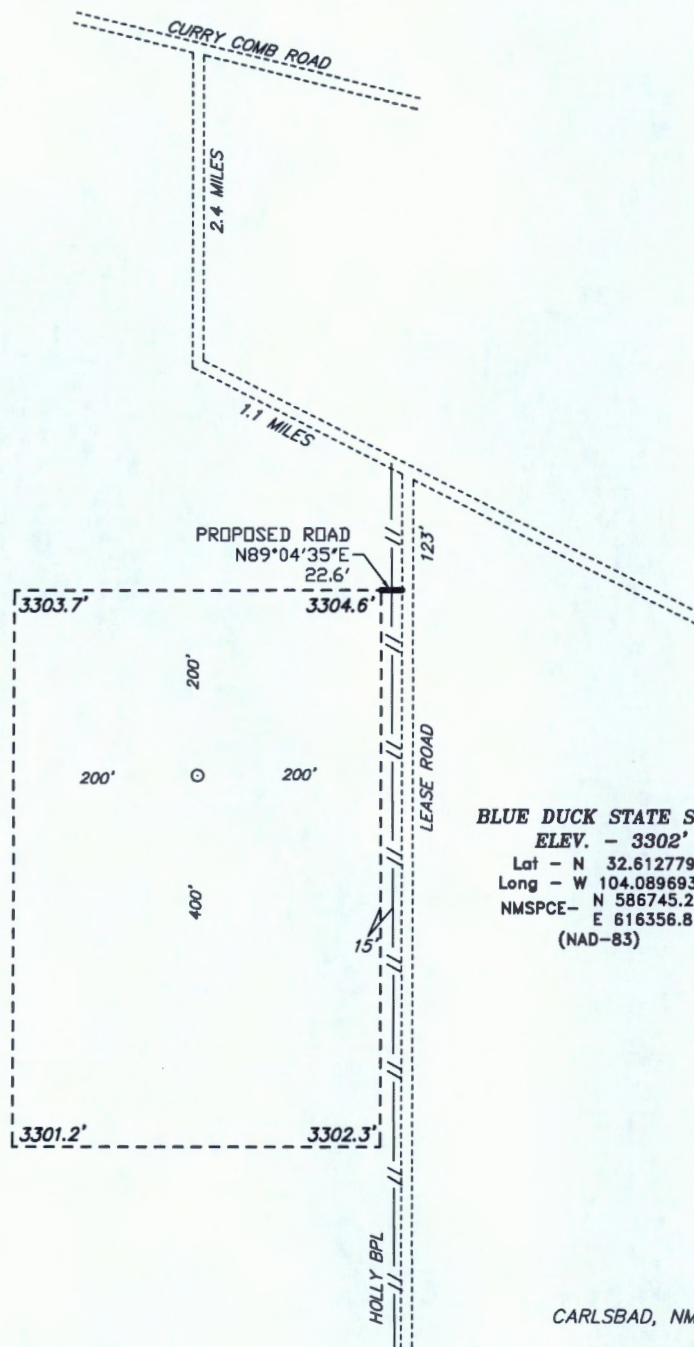
Ramona Huey 10/16/20
Signature Date
RAMONA HUEY
Printed Name
ramona@longquist.com
Email Address

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.

MAJ. J. L. JONES
Date Surveyed
Signature & Seal of Professional Surveyor
7977
Certificate No. 7977
Base Map No. 7977

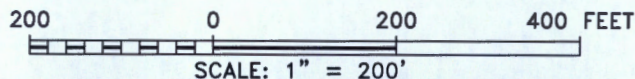
0' 1000' 2000' 3000' 4000'
SCALE: 1" = 2000'
WO Num.: 34543

**SECTION 32 TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.**



BLUE DUCK STATE SWD 1
ELEV. - 3302'
 Lat - N 32.612779°
 Long - W 104.089693°
 NMSPCE- N 586745.2
 E 616356.8
 (NAD-83)

CARLSBAD, NM IS ±16 MILES TO THE SOUTHWEST OF LOCATION.



SOLARIS WATER MIDSTREAM

REF: BLUE DUCK STATE SWD 1 / WELL PAD TOPO

*THE BLUE DUCK STATE SWD 1 LOCATED 1000' FROM
 THE SOUTH LINE AND 390' FROM THE EAST LINE OF
 SECTION 32, TOWNSHIP 19 SOUTH, RANGE 29 EAST,
 N.M.P.M., EDDY COUNTY, NEW MEXICO.*

basin
surveys
 focused on excellence
 in the oilfield

P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (575) 393-7316 - Office
 (575) 392-2206 - Fax
 basin-surveys.com

W.O. Number: 34543

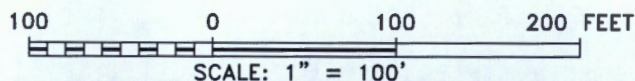
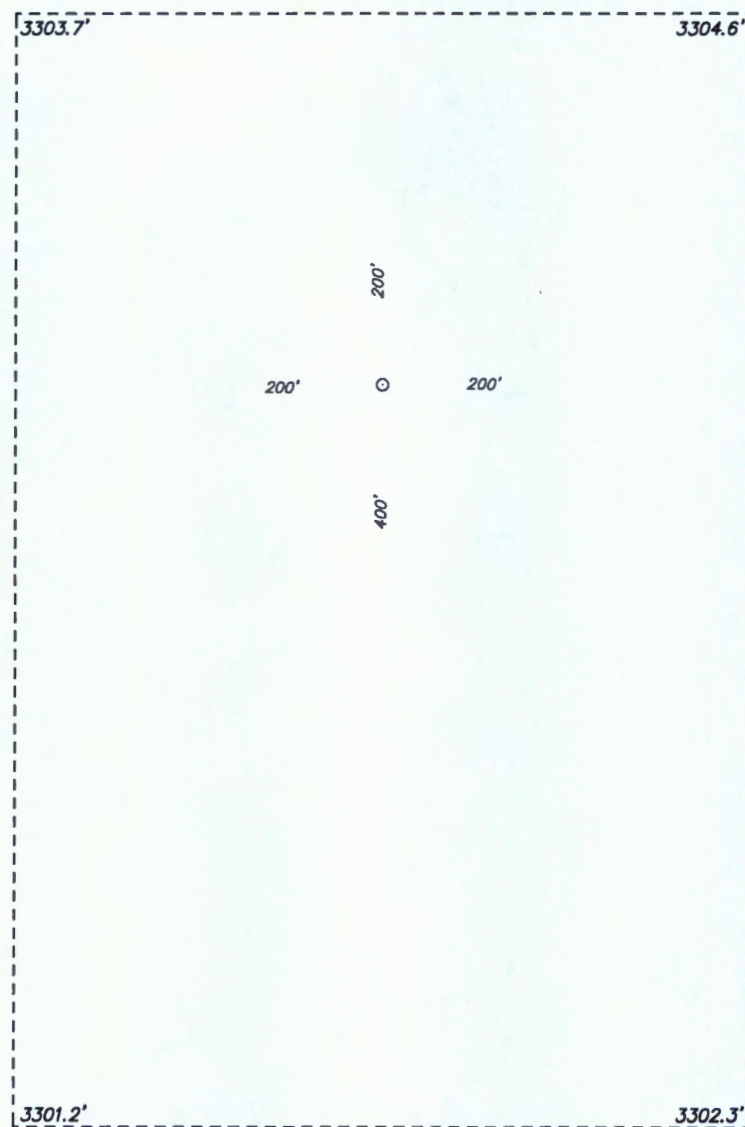
Drawn By: J GOAD

Date: 5-9-2019

Survey Date: 5-3-2019

Sheet 1 of 1 Sheets

**SECTION 32 TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.**



SOLARIS WATER MIDSTREAM

REF: BLUE DUCK STATE SWD 1 / WELL PAD TOPO

*THE BLUE DUCK STATE SWD 1 LOCATED 1000' FROM
THE SOUTH LINE AND 390' FROM THE EAST LINE OF
SECTION 32, TOWNSHIP 19 SOUTH, RANGE 29 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.*



P.O. Box 1786 (575) 393-7316 - Office
1120 N. West County Rd. (575) 392-2206 - Fax
Hobbs, New Mexico 88241 basinsurveys.com

W.O. Number: 34543

Drawn By: J GOAD

Date: 5-9-2019

Survey Date: 5-3-2019

Sheet 1 of 1 Sheets



BLUE DUCK STATE SWD 1

Located 1000' FSL & 390' FEL
 Section 32, Township 19 South, Range 29 East,
 N.M.P.M., Eddy County, New Mexico.



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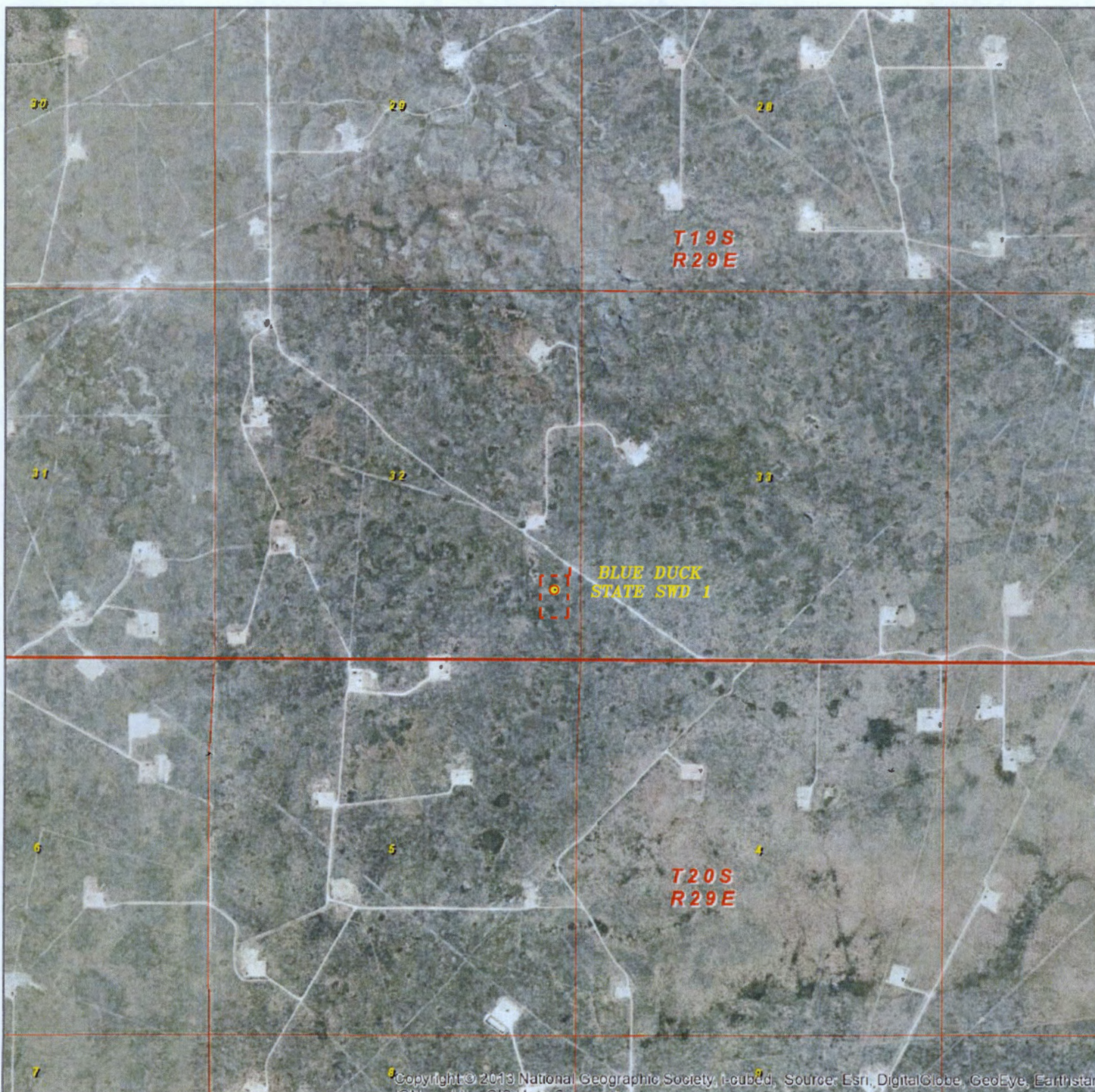
0' 1000' 2000' 3000' 4000'
 SCALE: 1" = 2000'

W.O. Number: JG - 34543

Survey Date: 5-3-2019

YELLOW TINT - USA LAND
 BLUE TINT - STATE LAND
 NATURAL COLOR - FEE LAND





BLUE DUCK STATE SWD 1

Located 1000' FSL & 390' FEL
Section 32, Township 19 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.



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0' 1000' 2000' 3000' 4000'

SCALE: 1" = 2000'

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Survey Date: 5-3-2019

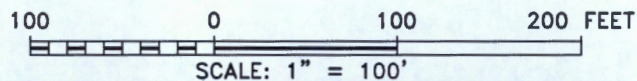
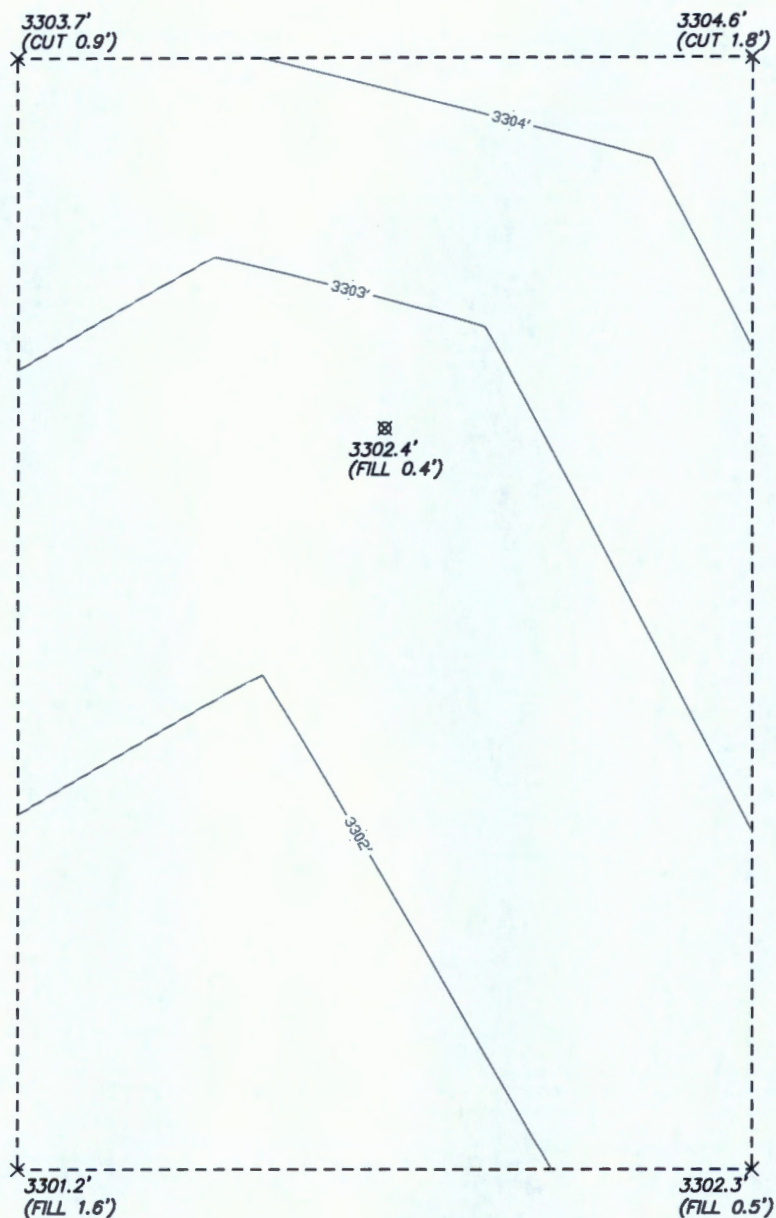
YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND





SOLARIS
WATER MIDSTREAM

**SECTION 32 TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.**



SOLARIS WATER MIDSTREAM

REF: BLUE DUCK STATE SWD 1 / OUT & FILL

THE BLUE DUCK STATE SWD 1 LOCATED 1000' FROM
THE SOUTH LINE AND 390' FROM THE EAST LINE OF
SECTION 32, TOWNSHIP 19 SOUTH, RANGE 29 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.



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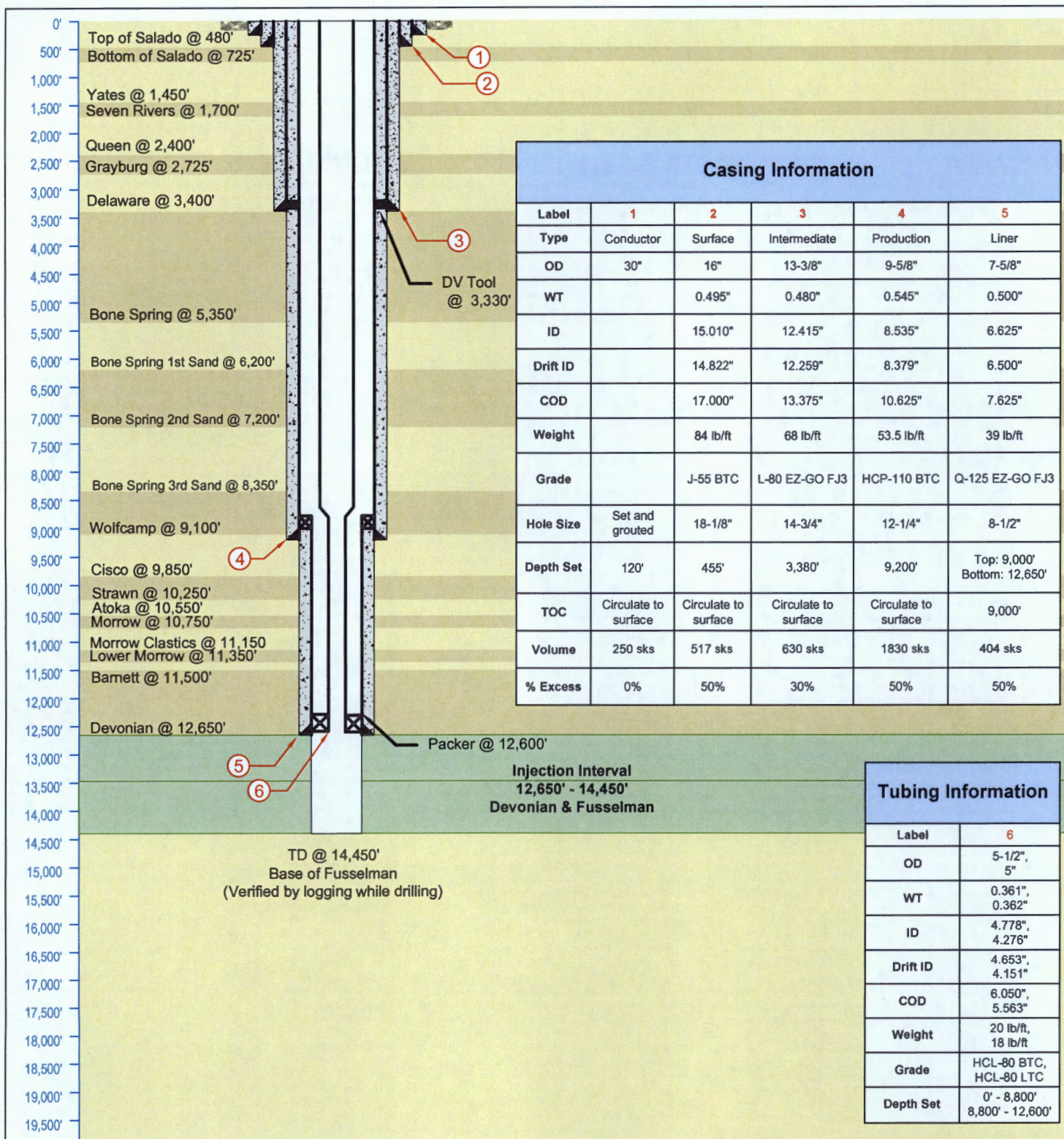
W.O. Number: 34543

Drawn By: J GOAD

Date: 5-9-2019

Survey Date: 5-3-2019

Sheet 1 of 1 Sheets



LONQUIST & CO. LLC PETROLEUM ENGINEERS ENERGY ADVISORS HOUSTON CALGARY AUSTIN WICHITA DENVER Texas License F-9147 12912 Hill Country Blvd. Ste F-200 Austin, Texas 78738 Tel: 512.732.9812 Fax: 512.732.9816	Solaris Water Midstream, LLC		Blue Duck State SWD No. 1	
	Country: USA		State/Province: New Mexico	County/Parish: Eddy
	Location:		Site: 1,000' FSL & 390' FEL	Survey: S32-T19S-R29E
	API No: NA		Field: Devonian-Silurian (Code: 97869)	Well Type/Status: SWD
	NMOC District No: 2		Project No: 1960	Date: 5/29/2019
	Drawn: TFM		Reviewed:	Approved:
	Rev No: 1		Notes:	

SOLARIS WATER MIDSTREAM, LLC
BLUE DUCK STATE SWD #1
PROPOSED TURKEY TRACK #1 SWD
 Section 32-T19S-R29E
 1,000' FSL & 390' FEL
 Eddy County, New Mexico
 11/16/2018
 Jim Brannigan, C.P.G., R.G.

GL: 3,302' (est.)

KB: 3,322' (est.)

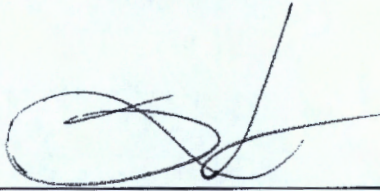
Proposed Injection Interval: 12,650'-14,450'

<u>Tops</u>	<u>Depths (est.)</u>	<u>Subsea (est.)</u>
T/Salt	480'	+2,842
B/Salt	725'	+2,597
T/Yates – Oil	1,450'	+1,872
T/7 Rivers – Oil	1,700'	+1,622
T/Queen – Oil	2,400'	+922
T/Grayburg – Oil	2,725'	+597
T/Delaware – Oil	3,400'	-78
T/Bone Spring	5,350'	-2,028
T/1 st BS Sand – Oil	6,200'	-2,878
T/2 nd BS Sand – Oil	7,200'	-3,878
T/3 rd BS Sand – Oil	8,350'	-5,028
T/Wolfcamp – Oil	9,100'	-5,778
T/Cisco – Gas	9,850'	-6,528
T/Strawn – Gas	10,250'	-6,928
T/Atoka – Gas	10,550'	-7,228
T/Morrow LM – Gas	10,750'	-7,428
T/Morrow Clastics – Gas	11,150'	-7,828
T/Lower Morrow – Gas	11,350'	-8,028
T/Barnett	11,500'	-8,178
T/Devonian	12,650'	-9,328

The Top of the Devonian estimated using GeoMaps tops.

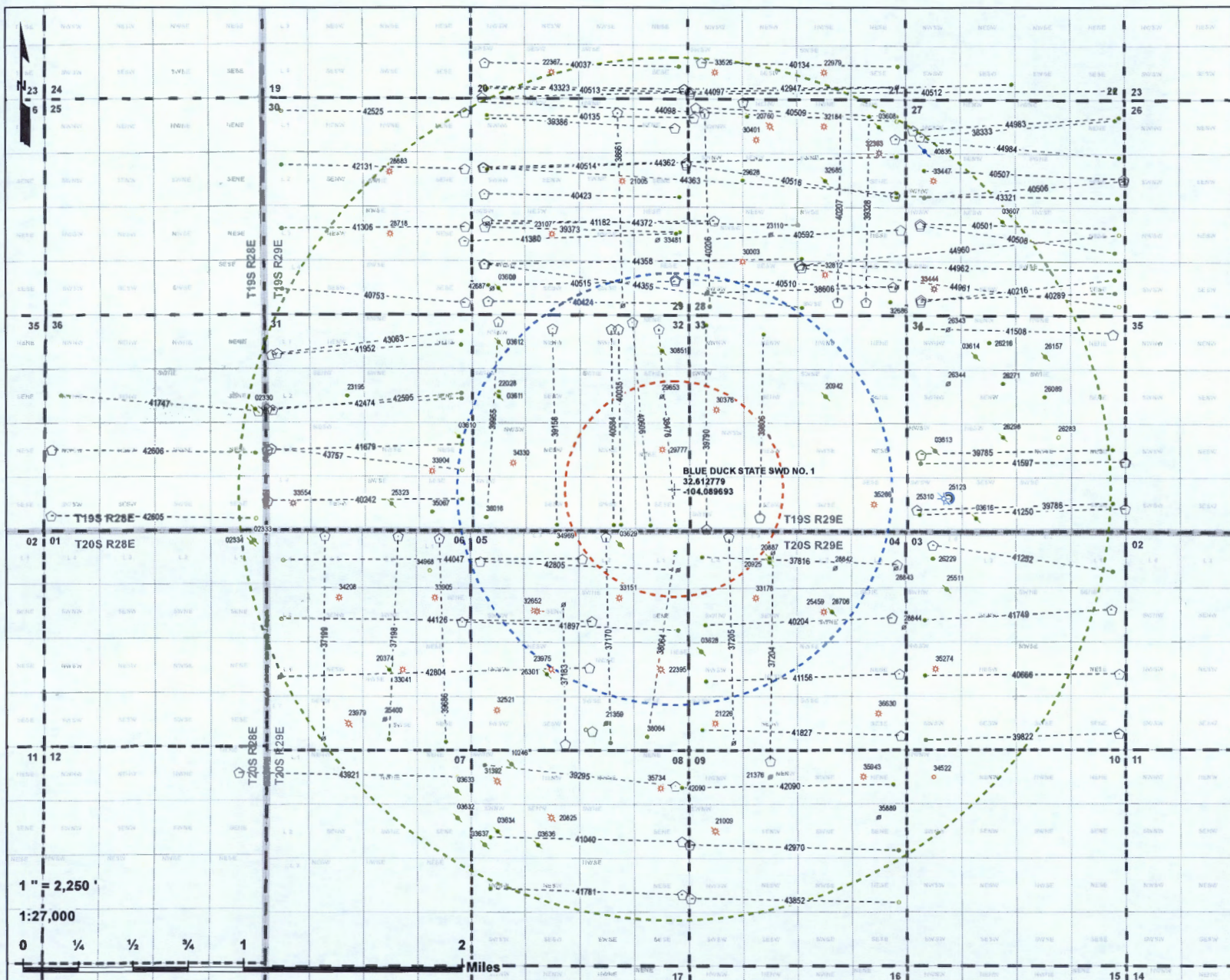
GEOLOGIC AFFIRMATION

I have examined available geologic and engineering data and have found no evidence of open faults or other hydrologic connection between the disposal interval and underground sources of drinking water.

A handwritten signature in black ink, appearing to be 'S. Martinez', written over a horizontal line.

Stephen Martinez
Sr. Vice President of Drilling

Project: Solaris Water Midstream, LLC
 Blue Duck State SWD #1



Blue Duck State SWD No. 1
2 Mile Area of Review
Solaris Water Midstream, LLC
Eddy Co., NM

PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)
Drawn by: ASG Date: 5/21/2019 Approved by: ELR

LONQUIST & CO. LLC

PETROLEUM ENGINEERS **ENERGY ADVISORS**

AUSTIN HOUSTON WICHITA DENVER CALGARY

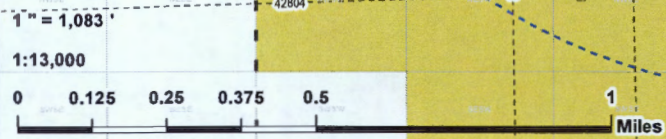
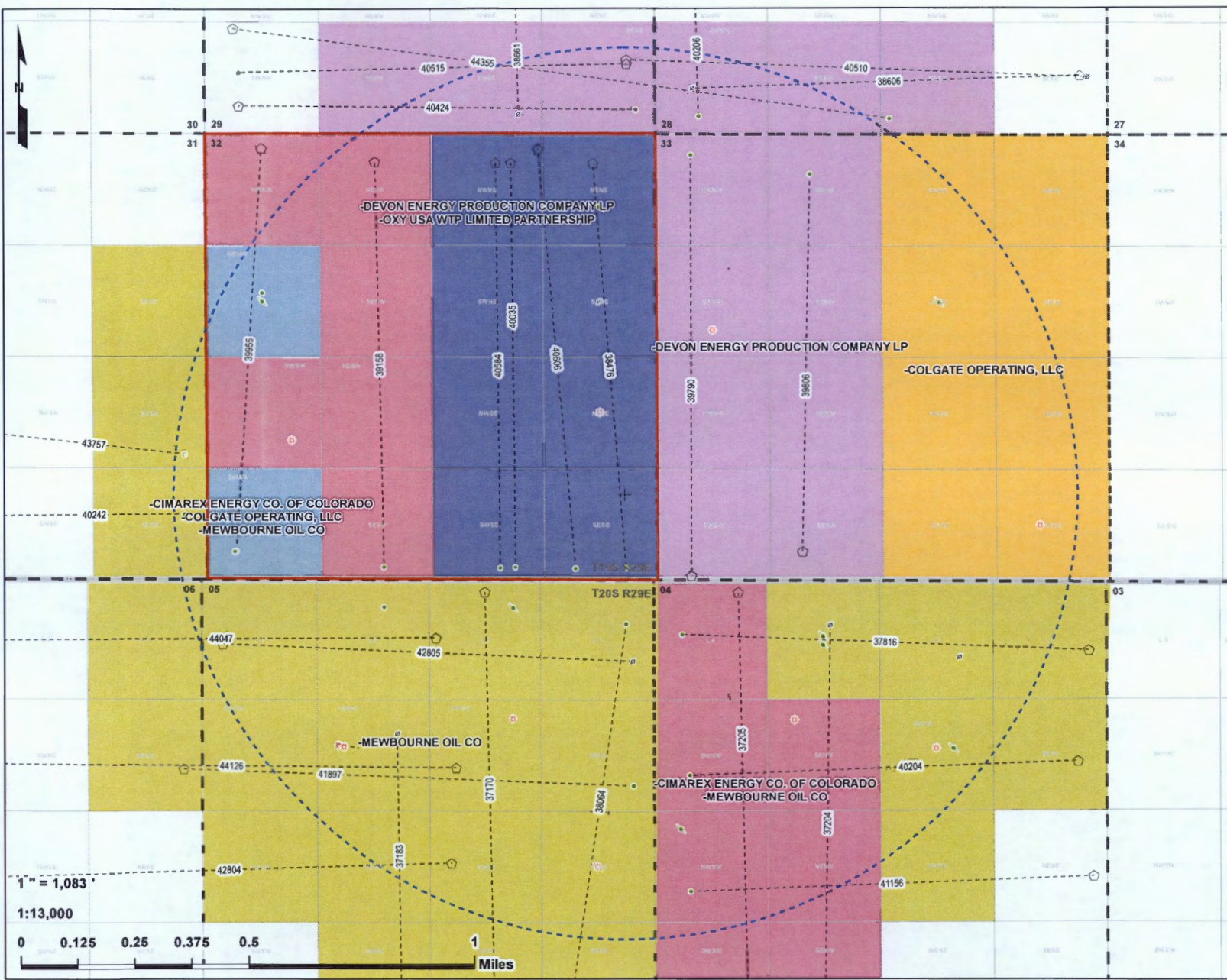
- + Blue Duck State SWD No. 1 SHL
- 1/2-Mile
- 1-Mile
- 2-Mile
- QG-Section (NM-PLSS 2nd Div.)
- Section (NM-PLSS 1st Div.)
- Township/Range (NM-PLSS)
- Laterals
- API (30-015-...) SHL Status-Type (Count)
 - Horizontal Surface Location (108)
 - Active - Gas (3)
 - Active - Oil (13)
 - Active - SWD (1)
 - Cancelled/Abandoned Location (13)
 - Permitted - Gas (1)
 - Permitted - Oil (2)
 - Plugged/Site Released - Gas (7)
 - Plugged/Site Released - Oil (33)
 - Plugged/Site Released - SWD (1)
 - Plugged/Site Released - Water Storage - (1)
- API (30-015-...) BHL Status-Type (Count)
 - Permitted - Oil (11)
 - Active - Gas (1)
 - Active - Oil (79)
 - Cancelled/Abandoned Location (11)

Source: Well SHL Data - NM-OCD (2019)



Blue Duck State SWD No. 1
1 Mile Area of Review List

API (30-015-...)	WELL NAME	WELL TYPE	STATUS	OPERATOR	TVD (FT.)	LATITUDE (NAD83 DD)	LONGITUDE (NAD83 DD)	SPUD DATE	FIELD
3611	STATE "Q" #1	O	P	PRE-ONGARD WELL OPERATOR	3486	32.6191216000	-104.103485100	7/16/1962	WILDCAT
3628	PRE-ONGARD WELL #001	O	P	PRE-ONGARD WELL OPERATOR	0	32.6018946642	-104.087619315	-	-
3629	HONOLULU #1	O	P	PRE-ONGARD WELL OPERATOR	1000	32.6091080000	-104.093994100	6/3/1957	WILDCAT, YATES
20887	FEDERAL 1	O	P	DALTON H. COBB	1092	32.6081619000	-104.082199100	6/28/1973	WILDCAT, YATES
20925	FEDERAL 1-Y	O	P	DALTON H. COBB	1064	32.6078873000	-104.082199100	8/4/1973	WILDCAT, YATES
20942	SUN FEDERAL #1	O	P	THE PETROLEUM CORPORATION	11700	32.6190147000	-104.077743500	9/13/1973	WILDCAT
22028	CHAPARRAL STATE #001	O	A	COLGATE OPERATING, LLC	8000	32.6193962000	-104.103485100	1/30/1977	[65010] WINCHESTER, BONE SPRING
22395	SUPERIOR FEDERAL #004	G	P	CIMAREX ENERGY CO. OF COLORADO	11675	32.6006699000	-104.090789800	5/23/1980	[8355] BURTON FLATS, UPPER STRAWN; [65010] WINCHESTER, BONE SPRING
25459	BURTON 4 FEDERAL COM #001	G	A	MEWBOURNE OIL CO	11744	32.6045113000	-104.077926600	9/21/1985	[73400] BURTON FLAT, STRAWN, EAST (GAS)
28706	PITA 4 FEDERAL #001	O	P	BURLINGTON RESOURCES OIL & GAS CO	5809	32.6045074000	-104.0772781000	11/7/1995	[8345] BURTON, DELAWARE, EAST; [8360] BURTON, YATES
28842	PITA 4 FEDERAL #002	O	C	BURLINGTON RESOURCES OIL & GAS CO	0	32.6074800000	-104.077030000	-	-
29653	MILLMAN 32 STATE COM #001	G	C	PENWELL ENERGY INC	0	32.61907150960	-104.09062219000	-	-
29777	OXY PEARL STATE #001	G	A	OXY USA WTP LIMITED PARTNERSHIP	11550	32.6154633000	-104.090614300	8/19/1997	[82600] PARKWAY, MORROW, WEST (GAS)
30376	MILLMAN SE FEDERAL #001	G	A	DEVON ENERGY PRODUCTION COMPANY, LP	11600	32.6181412000	-104.086326600	9/23/1998	[82600] PARKWAY, MORROW, WEST (GAS)
30851	OXY PEARL STATE #002	O	P	DEVON ENERGY PRODUCTION COMPANY, LP	11575	32.6221466000	-104.090614300	12/9/1999	[65010] WINCHESTER, BONE SPRING; [97280] RATTLESNAKE WELL, STRAWN
32652	GATUNA CANYON 5 FEDERAL COM #002	G	A	MEWBOURNE OIL CO	11650	32.6046104000	-104.100486800	3/6/2003	[73320] BURTON FLAT, MORROW, EAST (GAS)
33151	COLT 5 FEDERAL COM #001	G	A	MEWBOURNE OIL CO	11664	32.6054955000	-104.093994100	1/5/2004	[73200] BURTON FLAT, ATOKA, EAST (GAS); [73320] BURTON FLAT, MORROW, EAST (GAS)
33178	COLT 4 FEDERAL COM #001	G	A	MEWBOURNE OIL CO	11750	32.6054459000	-104.083282500	5/3/2004	[73320] BURTON FLAT, MORROW, EAST (GAS)
34330	MARLIN 32 STATE #001	G	A	MEWBOURNE OIL CO	11550	32.6145973000	-104.102409400	11/4/2005	[77720] GRAYBURG, ATOKA (GAS); [82560] PARKWAY, ATOKA, WEST (PRO GAS); [96542] WILDCAT, GRANITE
34969	GATUNA CANYON 5 FEDERAL #003	O	A	MEWBOURNE OIL CO	8100	32.6091423000	-104.098922700	11/8/2006	[65010] WINCHESTER, BONE SPRING
35266	WESSON 33 FEDERAL #001	G	A	COLGATE OPERATING, LLC	11777	32.6117516000	-104.073959400	12/26/2006	[73320] BURTON FLAT, MORROW, EAST (GAS)
36016	CHAPARRAL STATE #003	O	A	COLGATE OPERATING, LLC	5300	32.6109734000	-104.104553200	2/15/2008	[48900] OUTPOST, DELAWARE
37170	COLT 5 FEDERAL #002H	O	A	MEWBOURNE OIL CO	12461	32.6096230000	-104.095062300	7/31/2009	[65010] WINCHESTER, BONE SPRING
37183	GATUNA CANYON 5 FEDERAL #004E	O	C	MEWBOURNE OIL CO	0	32.59566312920	-104.0983082000	-	[65010] WINCHESTER, BONE SPRING
37204	COLT 4 FEDERAL COM #003E	O	C	MEWBOURNE OIL CO	0	32.5945005652	-104.082200119	-	[49622] PARKWAY, BONE SPRING
37205	COLT 4 FEDERAL COM #002E	O	C	MEWBOURNE OIL CO	0	32.6095862216	-104.085399872	-	[49622] PARKWAY, BONE SPRING
37816	BURTON 4 FEDERAL #003H	O	A	MEWBOURNE OIL CO	7918	32.6077003000	-104.072143600	5/9/2010	[49622] PARKWAY, BONE SPRING
38064	COLT 5 FEDERAL #003H	O	A	MEWBOURNE OIL CO	7927	32.5961380000	-104.091873200	8/27/2010	[65010] WINCHESTER, BONE SPRING
38476	JASPER 32 STATE COM #004H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	7895	32.6235771000	-104.090835600	12/31/2011	[65010] WINCHESTER, BONE SPRING
38606	CORAL PWU 28 #004C	O	C	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.6263736425	-104.072368791	-	[49622] PARKWAY, BONE SPRING
38661	ONYX PWU 29 #003C	O	C	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.6381208099	-104.094010226	-	[55510] SCANLON DRAW, BONE SPRING
39158	CHAPARRAL STATE #020	O	A	CIMAREX ENERGY CO. OF COLORADO	7908	32.6236420000	-104.099189800	5/1/2012	[65010] WINCHESTER, BONE SPRING
39790	BERYL 33 FEDERAL #001H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	7968	32.6101418000	-104.087173500	3/17/2012	[49622] PARKWAY, BONE SPRING
39806	BERYL 33 FEDERAL COM #002H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	7972	32.61091610000	-104.08295440000	5/15/2012	[49622] PARKWAY, BONE SPRING
39955	CHAPARRAL STATE #021H	O	A	CIMAREX ENERGY CO. OF COLORADO	7801	32.6240997000	-104.103485100	6/4/2012	[65010] WINCHESTER, BONE SPRING
40035	JASPER 32 STATE COM #003H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	7858	32.6235924000	-104.093986500	9/21/2013	[65010] WINCHESTER, BONE SPRING
40204	BURTON 4 FEDERAL COM #004H	O	A	MEWBOURNE OIL CO	7926	32.6040993000	-104.072570800	5/27/2012	[49622] PARKWAY, BONE SPRING
40206	CORAL PWU 28 #001H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	7983	32.6380730000	-104.087158200	6/25/2012	[49622] PARKWAY, BONE SPRING; [98199] PARKWAY, BONE SPRING, WEST
40242	RUGER 31 MP FEDERAL #001H	O	A	MEWBOURNE OIL CO	8899	32.6121025000	-104.121757500	2/28/2013	[65010] WINCHESTER, BONE SPRING
40424	ONYX PWU 29 #004H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	7937	32.6254768000	-104.104324300	8/23/2012	[55510] SCANLON DRAW, BONE SPRING; [98199] PARKWAY, BONE SPRING, WEST
40510	CORAL PWU 28 #008H	O	C	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.6269264000	-104.089538600	-	[49622] PARKWAY, BONE SPRING
40515	ONYX PWU 29 #008H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	5909	32.6267891000	-104.089538600	10/5/2013	[55510] SCANLON DRAW, BONE SPRING; [98199] PARKWAY, BONE SPRING, WEST
40584	JASPER 32 STATE COM #007H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	6947	32.6235924000	-104.094558700	10/20/2013	[65010] WINCHESTER, BONE SPRING
40606	JASPER 32 STATE COM #008H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	7011	32.6240387000	-104.092903100	12/15/2013	[65010] WINCHESTER, BONE SPRING
41156	BURTON 4 IL FEDERAL COM #001H	O	A	MEWBOURNE OIL CO	7946	32.6003494000	-104.071991000	4/27/2013	[49622] PARKWAY, BONE SPRING
41897	SAVAGE 5 EH FEDERAL #001H	O	A	MEWBOURNE OIL CO	6922	32.60388950000	-104.10649110000	2/8/2014	[65010] WINCHESTER, BONE SPRING
42804	SIG 5 6 B2KL FEDERAL #001H	O	C	MEWBOURNE OIL CO	0	32.6007978187	-104.096381880	-	[65010] WINCHESTER, BONE SPRING
42805	SAVAGE 5 B1 DA FEDERAL #001H	O	C	MEWBOURNE OIL CO	0	32.6079533003	-104.105028098	-	[65010] WINCHESTER, BONE SPRING
43757	[316198] RUGER 31 B2LI FEDERAL	O	N	MEWBOURNE OIL CO	0	32.3657010000	-104.071824000	-	[65010] WINCHESTER, BONE SPRING
44047	SIG 5 6 B2CD FEDERAL COM #001H	O	N	MEWBOURNE OIL CO	0	32.6081352800	-104.09645100	-	[65010] WINCHESTER, BONE SPRING
44126	SIG 5 6 B2FE FEDERAL COM #001H	O	N	MEWBOURNE OIL CO	0	32.6039010600	-104.096187833	-	[65010] WINCHESTER, BONE SPRING
44355	ONYX PWU 29 28 #012H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	9094	32.6279881000	-104.104529500	11/18/2017	[98199] PARKWAY, BONE SPRING, WEST



Blue Duck State SWD No. 1

1 Mile Offset Operators

Solaris Water Midstream, LLC

Eddy Co., NM

PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)

Drawn by: ASG Date: 5/21/2019 Approved by: ELR

LONGQUIST & CO. LLC

PETROLEUM
ENGINEERS

ENERGY
ADVISORS

AUSTIN · HOUSTON · WICHITA · DENVER · CALGARY

+ Blue Duck State SWD No. 1 SHL
 - 1-Mile
 - QQ-Section (NM-PLSS 2nd Div.)
 - Section (NM-PLSS 1st Div.)
 - Township/Range (NM-PLSS)

API (30-015-...) SHL Status-Type (Count)

- Horizontal Surface Location (29)
- Active - Gas (8)
- Active - Oil (4)
- Cancelled/Abandoned Location (2)
- ✕ Plugged/Site Released - Gas (1)
- ✕ Plugged/Site Released - Oil (8)

API (30-015-...) BHL Status-Type (Count)

- Permitted - Oil (3)
- Active - Gas (1)
- Active - Oil (19)
- Cancelled/Abandoned Location (8)

Offset Operators

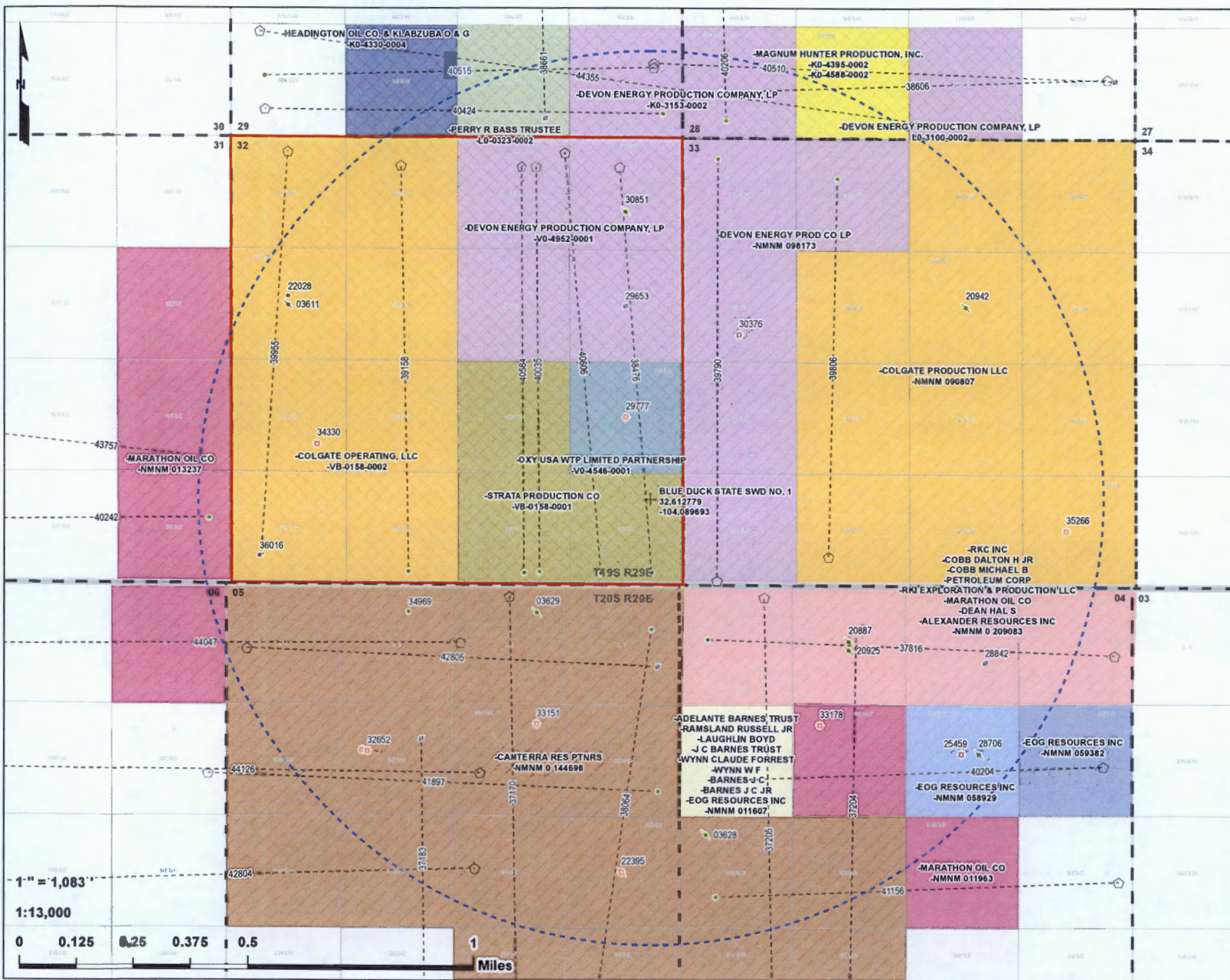
- CIMAREX ENERGY CO. OF COLORADO; - COLGATE OPERATING, LLC; - MEWBOURNE OIL CO
- CIMAREX ENERGY CO. OF COLORADO; - MEWBOURNE OIL CO
- COLGATE OPERATING, LLC
- DEVON ENERGY PRODUCTION COMPANY LP
- DEVON ENERGY PRODUCTION COMPANY LP; - OXY USA WTP LIMITED PARTNERSHIP
- MEWBOURNE OIL CO

Surface Owner

- STATE LAND OFFICE

Source: Well SHL Data - NM-OCD (2019)

Map Extent



Blue Duck State SWD No. 1
1 Mile Lessee(s) - BLM/SLO
Solaris Water Midstream, LLC
Eddy Co., NM

PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)

Drawn by: ASG Date: 5/23/2019 Approved by: ELR

LONGQUIST & CO. LLC

**PETROLEUM
ENGINEERS** **ENERGY
ADVISORS**

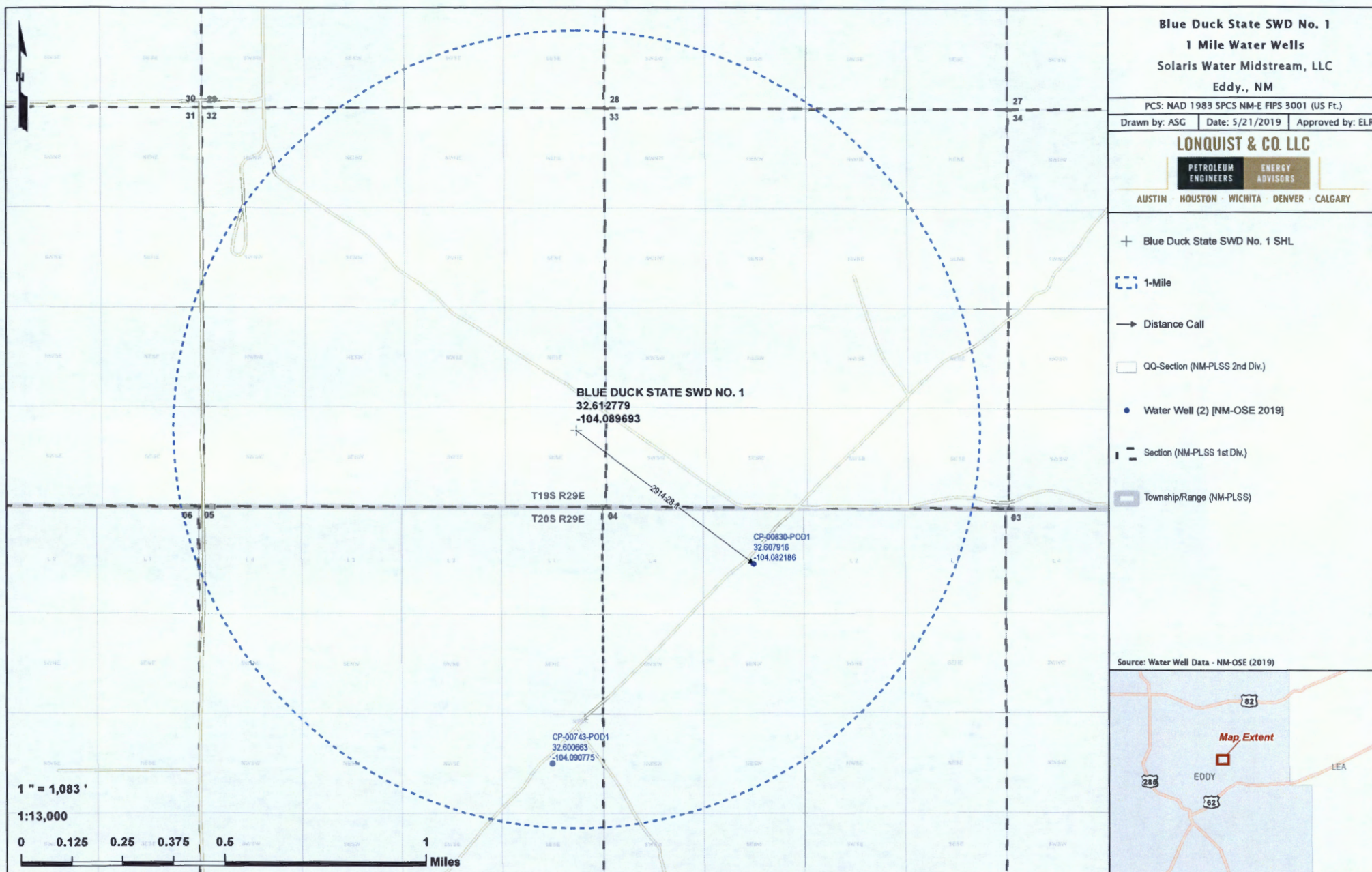
AUSTIN · HOUSTON · WICHITA · DENVER · CALGARY

- + Blue Duck State SWD No. 1 SHL (old)
- NM-SLO
- NM-BLM
- 1-Mile
- QG-Section (NM-PLSS 2nd Div.)
- Section (NM-PLSS 1st Div.)
- Township Range (NM-PLSS)
- Lateral
- API (20-015-...) SHL Status-Type (Count)
- Horizontal Surface Location (29)
- Active - Gas (8)
- Active - Oil (4)
- Cancelled/Abandoned Location (2)
- Plugged/Sealed - Gas (1)
- Plugged/Sealed - Oil (8)
- API (20-015-...) BHL Status-Type (Count)
- Permitted - Oil (3)
- Active - Gas (1)
- Active - Oil (19)
- Cancelled/Abandoned Location (8)
- Lessee(s)
- ADELANTE BARNES TRUST - RAMSLAND RUSSELL JR. - LAUGHLIN BOYD - J C BARNES TRUST - WYNN CLAUDE FORREST - WYNN W F - BARNES J C - BARNES J C JR - EOG RESOURCES INC. - NMNM 011607
- CAMTERRES PTNRS - NMNM 0 144698
- COLGATE OPERATING, LLC - VB-0158-0002
- COLGATE PRODUCTION LLC - NMNM 090807
- DEVON ENERGY PROD CO LP - NMNM 098173
- DEVON ENERGY PRODUCTION COMPANY, LP - KO-3153-0002
- DEVON ENERGY PRODUCTION COMPANY, LP - VB-4952-0001
- DEVON ENERGY PRODUCTION COMPANY, LP - LO-3100-0002
- EOG RESOURCES INC. - NMNM 058929
- EOG RESOURCES INC. - NMNM 059382
- HEADINGTON OIL CO. & KLABZUBA O & G - KO-4330-0004
- MAGNUM HUNTER PRODUCTION, INC. - KO-4395-0002 - KO-4588-0002
- MARATHON OIL CO. - NMNM 011963
- MARATHON OIL CO. - NMNM 013237
- OXY USA WTP LIMITED PARTNERSHIP - VB-4546-0001
- PERRY R BASS TRUSTEE - LO-0323-0002
- RKC INC. - COBB DALTON H JR - COBB MICHAEL B - PETROLEUM CORP.
- RKC EXPLORATION & PRODUCTION LLC - MARATHON OIL CO. - DEAN HAL S - ALEXANDER RESOURCES INC. - NMNM 0 209083
- STRATA PRODUCTION CO - VB-0158-0001
- EOG RESOURCES INC. - NMNM 058929
- MARATHON OIL CO. - NMNM 011963



**Blue Duck State SWD No. 1
1 Mile Offset Operators and Lessees List**

S/T/R	QQ UNIT LETTER(S)	OPERATOR	MINERAL LESSEE	MINERAL OWNER	SURFACE OWNER	ADDRESS 1	ADDRESS 2
28/T19S/R29E	M,N,O	DEVON ENERGY PRODUCTION COMPANY LP	-	-	-	333 WEST SHERIDAN AVE.	OKLAHOMA CITY, OK 73102
	M,O	-	DEVON ENERGY PRODUCTION COMPANY, LP	-	-	333 WEST SHERIDAN AVE.	OKLAHOMA CITY, OK 73102
	N	-	MAGNUM HUNTER PRODUCTION, INC.	-	-	600 N MARIENFELD STREET, SUITE 600	MIDLAND, TX 79701
29/T19S/R29E	N,O,P	DEVON ENERGY PRODUCTION COMPANY LP	-	-	-	333 WEST SHERIDAN AVE.	OKLAHOMA CITY, OK 73102
	P	-	DEVON ENERGY PRODUCTION COMPANY, LP	-	-	333 WEST SHERIDAN AVE.	OKLAHOMA CITY, OK 73102
	N	-	HEADINGTON OIL CO. & KLABZUBA O & G	-	-	7557 RAMBLER ROAD, SUITE 1000	DALLAS, TX 75231
	O	-	PERRY R BASS TRUSTEE	-	-	201 MAIN ST STE 2700	FORT WORTH, TX 761023131
31/T19S/R29E	H,I,P	MEWBOURNE OIL CO	-	-	-	P.O. BOX 5270	HOBBS, NM 88241
	H,I,P	-	MARATHON OIL CO	-	-	PO BOX 3128	HOUSTON TX 772533128
32/T19S/R29E	C,D,E,F,I,K,M,N	CIMAREX ENERGY CO. OF COLORADO	-	-	-	600 N. MARIENFELD STREET SUITE 600	MIDLAND, TX 79701
	C,D,E,F,K,L,M,N	MEWBOURNE OIL CO	-	-	-	P.O. BOX 5270	HOBBS, NM 88241
	E,M	COLGATE OPERATING, LLC	-	-	-	306 W WALL STREET SUITE 500	MIDLAND, TX 79701
	A,B,G,H,I,J,O,P	DEVON ENERGY PRODUCTION COMPANY LP	-	-	-	333 WEST SHERIDAN AVE.	OKLAHOMA CITY, OK 73102
	A,B,G,H,I,J,O,P	OXY USA WTP LIMITED PARTNERSHIP	-	-	-	P.O. BOX 4294	HOUSTON, TX 77210-4294
	A,B,G,H	-	DEVON ENERGY PRODUCTION COMPANY, LP	-	-	333 WEST SHERIDAN AVE.	OKLAHOMA CITY, OK 73102
	C,D,E,F,K,L,M,N	-	COLGATE OPERATING, LLC	-	-	306 W. WALL STREET, SUITE 500	MIDLAND, TX 79701
	I	-	OXY USA WTP LIMITED PARTNERSHIP	-	-	PO BOX 4294	HOUSTON, TX 77210
	J,O,P	-	STRATA PRODUCTION CO	-	-	P. O. BOX 1030	ROSWELL, NM 882021030
33/T19S/R29E	A,B,G,H,I,J,O,P	COLGATE OPERATING, LLC	-	-	-	306 W WALL STREET SUITE 500	MIDLAND, TX 79701
	C,D,E,F,K,L,M,N	DEVON ENERGY PRODUCTION COMPANY LP	-	-	-	333 WEST SHERIDAN AVE.	OKLAHOMA CITY, OK 73102
	C,D,E,I,M	-	DEVON ENERGY PROD CO LP	-	-	333 W SHERIDAN AVE	OKLAHOMA CITY OK 731025010
	A,B,F,G,H,I,J,K,N,O,P	-	COLGATE PRODUCTION LLC	-	-	306 W WALL ST STE 500	MIDLAND TX 797015173
04/T20S/R29E	D,E,F,K,L,M,N	CIMAREX ENERGY CO. OF COLORADO	-	-	-	600 N. MARIENFELD STREET SUITE 600	MIDLAND, TX 79701
	A,B,C,G,H,I	MEWBOURNE OIL CO	-	-	-	P.O. BOX 5270	HOBBS, NM 88241
	A,B,C,D	-	RKC INC	-	-	1527 HILLSIDE RD	FAIRFIELD CT 06490
	A,B,C,D	-	COBB DALTON H JR	-	-	PO BOX 192549	DALLAS TX 752198522
	A,B,C,D	-	COBB MICHAEL B	-	-	44 SANCTUARY LN	DURANGO CO 813016212
	A,B,C,D	-	PETROLEUM CORP	-	-	207 S 4TH ST	ARTESIA NM 88210
	A,B,C,D	-	RKI EXPLORATION & PRODUCTION LLC	-	-	3500 ONE WILLIAMS CTR	TULSA OK 741720135
	A,B,C,D,F,J	-	MARATHON OIL CO	-	-	PO BOX 3128	HOUSTON TX 772533128
	A,B,C,D	-	DEAN HAL S	-	-	1 MIDLAND CTR #1440	MIDLAND TX 79701
	A,B,C,D	-	ALEXANDER RESOURCES INC	-	-	3804 SHADY VALLEY DR	ARLINGTON TX 76013
	E,G,H	-	EOG RESOURCES INC	-	-	PO BOX 4362	HOUSTON TX 772104362
	E	-	ADELANTO BARNES TRUST	-	-	PO BOX 505	MIDLAND TX 797020505
	E	-	RAMSLAND RUSSELL JR	-	-	PO BOX 505	MIDLAND TX 79702
	E	-	LAUGHLIN BOYD	-	-	PO BOX 670	MIDLAND TX 79701
	E	-	J C BARNES TRUST	-	-	PO BOX 505	MIDLAND TX 79702
	E	-	WYNN CLAUDE FORREST	-	-	PO BOX 505	MIDLAND TX 79701
	E	-	WYNN W F	-	-	1603 W DENGAR	MIDLAND TX 79705
	E	-	BARNES J C	-	-	PO BOX 505	MIDLAND TX 79702
	E	-	BARNES J C JR	-	-	PO BOX 505	MIDLAND TX 79702
	L,K,M,N	-	CAMTERRA RES PTNRS	-	-	2615 E END BLVD S	MARSHALL TX 75670
05/T20S/R29E	ENTIRE SECTION	MEWBOURNE OIL CO	-	-	-	P.O. BOX 5270	HOBBS, NM 88241
	ENTIRE SECTION	-	CAMTERRA RES PTNRS	-	-	2615 E END BLVD S	MARSHALL TX 75670
06/T20S/R29E	A,H	MEWBOURNE OIL CO	-	-	-	P.O. BOX 5270	HOBBS, NM 88241
	A,H	-	MARATHON OIL CO	-	-	PO BOX 3128	HOUSTON TX 772533128
Surface Location	32/T19S/R29E (ENTIRE SECTION)	-	-	STATE LAND OFFICE	STATE LAND OFFICE	310 OLD SANTA FE TRAIL	SANTA FE NM 87504



Blue Duck State SWD No. 1

Offsetting Produced Water Analysis

Well Name	API	Section	Township	Range	Unit	County	Field	Formation	ph	tds_mgl	sodium_mgl	calcium_mgl	iron_mgl	magnesium_mgl	manganese_mgl	chloride_mgl	bicarbonate_mgl	sulfate_mgl	co2_mgl
EMERALD PWU 20 #003H	3001539365	20	19S	29E	L	EDDY		BONE SPRING 2ND SAND	7.1	204892.3	66119.5	11032.7	40.5	1821.3	0	123300	134.2	0	40
ONYX PWU 29 #003H	3001539373	29	19S	29E	L	EDDY		BONE SPRING 2ND SAND	7	204175.3	66111.6	11001.5	42.8	1752.1	0	122800	97.6	0	40
AGATE PWU 21 #008H	3001540512	21	19S	29E	M	EDDY		BONE SPRING 1ST SAND	6.1		101408	3045	12	671	0	162925	549	290	780
ONYX PWU 29 #008H	3001540515	29	19S	29E	P	EDDY		BONE SPRING 1ST SAND	6.2		97526	2676	0	586	0	155601	927	310	540
DIAMOND PWU 22 #011H	3001542809	21	19S	29E	I	EDDY		BONE SPRING 3RD SAND	7.7	117584.8	38612.9	4526.1	39.4	774		71782.3		549.7	190
EMERALD PWU 20 #009H	3001542946	20	19S	29E	D	EDDY		BONE SPRING 3RD SAND	6.4	106365.6	34602.3	4236.2	19.1	736		64934.7		702.5	1400
TURKEY TRACK SEC 3 UNIT #007	3001503554	3	19S	29E	F	EDDY	TURKEY TRACK	ARTESIA		6605						1933	246	2296	
JONES-WATKINS ST #001	3001503563	3	19S	29E	F	EDDY	TURKEY TRACK WEST	ARTESIA		200307						118800	1641	2853	
PAN AMERICAN #001	3001503615	34	19S	29E	P	EDDY		ARTESIA		51629						25250	1964	6000	
BURTON FLAT 36 STATE EAST #001	3001510329	36	19S	29E	I	EDDY		ARTESIA		43392						20700	1428	5589	
SOUTH LOCO HILLS UNIT #005	3001503446	20	18S	29E	C	EDDY	LOCO HILLS	ARTESIA	9.3	116920	15960	5110	0	6246		103000	410	2110	
SOUTH LOCO HILLS UNIT #006	3001503448	20	18S	29E	B	EDDY	LOCO HILLS	ARTESIA	7.8	100040	57800	950		1740		95000	410	1790	
SUNKARD UR FEDERAL COM #002	3001524722	11	20S	29E	F	EDDY	BURTON FLAT EAST	STRAWN	6.2			11480	43.8	1197.8		77532	244	12.5	
SUNKARD UR FEDERAL #001	3001523698	11	20S	29E	H	EDDY	BURTON FLAT EAST	STRAWN	6.1	117276		9200	5	1949.2		72846	146	50	
TRIGG AIN FEDERAL #001	3001526697	28	20S	29E	H	EDDY	BURTON FLAT EAST	STRAWN	6.1	90200.5		8440	15	248.5		55380	244	12.5	
SUNKARD UR FEDERAL COM #004	3001526762	12	20S	29E	C	EDDY	BURTON FLAT EAST	STRAWN	6.2	113541		8520	23.8	734.3		69864	171	12.5	
STONEWALL EP STATE COM #004	3001522554	30	20S	28E	H	EDDY	SALADAR	STRAWN	7.2			1000	85	243.5		11502	122	2.5	
ZINNIA BKC FEDERAL #001	3001527939	27	20S	29E	E	EDDY	BURTON FLAT	DELAWARE/WOLFCAMP	5.7	189739		23920	0.3	963.2		116724	427	750	
OXY PUMA FEDERAL COM #001	3001530589	22	18S	29E	F	EDDY	TURKEY TRACK NORTH	MORROW	7.5	12211.1	4287.45	79.79	46.46	19.19		6981.12	335.32	134.33	
MILLMAN SB STATE COM #001	3001523998	16	19S	28E	G	EDDY	MILLMAN SOUTH	MORROW	6.7	56554.5		1680	60	729.8		34080	866	12.5	
OXY BULLDOG STATE #001	3001529234	16	20S	28E	H	EDDY	BURTON FLAT	MORROW	7.15	31642.5	11185.7	919.032	104.856	160.368		19505.3	273.448	87.38	
GOVERNMENT S COM #009	3001528996	3	20S	28E	A	EDDY	WINCHESTER	MORROW	6.74	44978.3	15978.4	1345.45	197.952	251.564		27887.5	467.043	30.93	
NORTH HACKBERRY YATES UNIT #104	3001504624	24	19S	30E	E	EDDY		YATES		23210		1203	0	2004		41145	0	2901	
NORTH HACKBERRY YATES UNIT #109	3001504625	24	19S	30E	K	EDDY		YATES		79905						43785			
EDDY STATE AD #001	3001502406	19	20S	28E	E	EDDY	Wildcat	TANSILL	6.8	3237		228		56			120	2122	
EDDY STATE AD #001	3001502406	19	20S	28E	E	EDDY	Wildcat	TANSILL	6.8	3728	580	570		230			98	2120	
EDDY STATE AD #001	3001502406	19	20S	28E	E	EDDY	Wildcat	TANSILL	6.8	3728	580	570		230			98	2120	
EDDY STATE AD #001	3001502406	19	20S	28E	E	EDDY	Wildcat	TANSILL	6.8	3728	580	570		230			98	2120	
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EDDY STATE AD #001	3001502406	19	20S	28E	E	EDDY	Wildcat	TANSILL	6.8	3728	580	570		230			98	2120	
EDDY STATE AD #001	3001502406	19	20S	28E	E	EDDY	Wildcat	TANSILL	6.8	3728	580	570		230			98	2120	
EDDY STATE AD #001	3001502406	19	20S	28E	E	EDDY	Wildcat	TANSILL	6.8	3728	580	570		230			98	2120	
EDDY STATE AD #001	3001502																		

Water Rights Summary - Blue Duck State SWD No. 1

Well Name	Use	Use of Well	Status	POD Status	Owner Last Name	Owner First Name	Well Depth	Water Depth	UTM Easting	UTM Northing
CP 00743 POD1	PRO	null	PMT	INC	CHEVRON USA INC	null	160	null	585319	3607382
CP 00830 POD1	PLS	null	DCL	ACT	SNYDER RANCHES	null	120	null	586118	3608193



New Mexico Office of the State Engineer

Water Right Summary



WR File Number: CP 00743 **Subbasin:** CP **Cross Reference:** -
Primary Purpose: PRO 72-12-1 PROSPECTING OR DEVELOPMENT OF NATURAL RESOURCE
Primary Status: PMT PERMIT
Total Acres: **Subfile:** - **Header:** -
Total Diversion: 0 **Cause/Case:** -
Owner: CHEVRON USA INC

Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
			1	2					
get images 547949	EXPL	1989-09-08	PMT	APR	CP 00743 (T-EXPIRED) POD3	T	0	0	
get images 547944	EXPL	1989-09-08	PMT	APR	CP 00743 (T-EXPIRED) POD2	T	0	0	
get images 547938	EXPL	1989-08-25	PMT	APR	CP 00743 (T-EXPIRED) POD1	T	0	0	

Current Points of Diversion

POD Number	Well Tag	Source	Q Q Q			(NAD83 UTM in meters)		Other Location Desc
			64	16	4	X	Y	
CP 00743 POD1		Shallow	2	4	05 20S 29E	585319	3607382*	
CP 00743 POD2		Shallow	2	4	05 20S 39E			
CP 00743 POD3		Shallow	2	4	05 20S 39E			

An () after northing value indicates UTM location was derived from PLSS - see Help

Source

Acres	Diversion	CU	Use	Priority	Source Description
0	0		PRO	08/24/1989	GW
0	0		PRO	08/31/1989	GW
0	0		PRO	08/31/1989	GW



New Mexico Office of the State Engineer

Water Right Summary



WR File Number: CP 00830 Subbasin: CP Cross Reference: -
Primary Purpose: PLS NON 72-12-1 LIVESTOCK WATERING
Primary Status: DCL DECLARATION
Total Acres: 0 Subfile: - Header: -
Total Diversion: 3 Cause/Case: -
Owner: SNYDER RANCHES
Contact: LARRY C. SQUIRES

Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
			1	2					
548111	DCL	1993-11-12	DCL	PRC	CP 00830	T	0	3	

Current Points of Diversion

POD Number	Well Tag	Source	Q Q Q Q				X	Y	Other Location Desc
			64	16	4	Sec			
CP 00830 POD1	Shallow		2	1	04	20S 29E	586118	3608193*	

An () after northing value indicates UTM location was derived from PLSS - see Help

Priority Summary

Priority	Status	Acres	Diversion	Pod Number	Source
12/31/1950	DCL	0	3	CP 00830 POD1	Shallow

Place of Use

Q Q Q Q				Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
256	64	16	4							
				0	3		PLS	12/31/1950	DCL	NO PLACE OF USE GIVEN

Source

Acres	Diversion	CU	Use	Priority	Source Description
0	3		PLS	12/31/1950	GW

CARLSBAD
CURRENT-ARGUS

AFFIDAVIT OF PUBLICATION

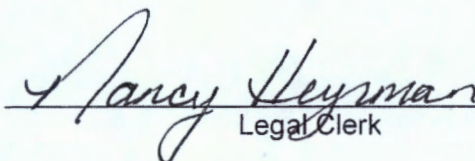
Ad No.
0001287279

LONQUIST FIELD SERVICE
1001 MCKINNEY ST., SUITE 1650

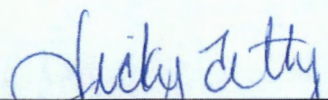
HOUSTON TX 77002

I, a legal clerk of the **Carlsbad Current-Argus**, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

05/30/19


Legal Clerk

Subscribed and sworn before me this
30th of May 2019.


State of WI, County of Brown
NOTARY PUBLIC

9/19-21
My Commission Expires

Legal Notice

Solaris Water Midstream, LLC, 907 Tradewinds Blvd., Suite B, Midland, TX 79706, is filling Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for administrative approval for its salt water disposal well Blue Duck State SWD No. 1. The proposed well will be located 1,000' FSL & 390' FEL in Section 32, Township 19S, Range 29E in Eddy County, New Mexico. Disposal water will be sourced from area production, and will be injected into the Devonian-Silurian formation (determined by offset log analysis) through an open hole completion between a maximum applied for top of 12,650 feet to a maximum depth of 14,450 feet. The maximum surface injection pressure will not exceed 2,530 psi with a maximum rate of 40,000 BWPD. Interested parties opposing the action must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, within 15 days. Additional information can be obtained from the applicant's agent, Lonquist & Co., LLC, at (512) 600-1774.

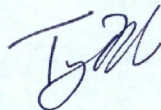
May 30, 2019



Blue Duck State SWD No. 1 - Notice of Affected Parties						
Solaris Water Midstream, LLC						
TRACT ID	COUNTY CLERK	MAILING ADDRESS	PHONE	TRACKING #	DATE SHIPPED	DATE RECEIVED
	OIL CONSERVATION DIVISION DISTRICT II	811 S. FIRST ST., ARTESIA, NM 88210		7018 3090 0002 2009 9527	6/6/2019	
	OIL CONSERVATION DIVISION DISTRICT IV	1220 S ST FRANCIS DR, SANTA FE, NM 87505				
	SURFACE LANDOWNER	MAILING ADDRESS				
	New Mexico State Land Office	310 Old Santa Fe Trail Santa Fe, NM 87501		7018 3090 0002 2009 9534	6/6/2019	
	GOVERNMENT AGENCY	MAILING ADDRESS				
	Bureau of Land Management	620 E Greene Street Carlsbad, NM 88220		7018 3090 0002 2009 9541	6/6/2019	
	AFFECTED PARTIES	MAILING ADDRESS				
	ADELANTE BARNES TRUST	PO BOX 505 MIDLAND TX 797020505		7018 3090 0002 2009 9558	6/6/2019	
	ALEXANDER RESOURCES INC	3804 SHADY VALLEY DR ARLINGTON TX 76013		7018 3090 0002 2009 9565	6/6/2019	
	BARNES J C	PO BOX 505 MIDLAND TX 79702		7018 3090 0002 2009 9572	6/6/2019	
	BARNES J C JR	PO BOX 505 MIDLAND TX 79702		7018 3090 0002 2009 9572	6/6/2019	
	CAMTERRA RES PTNRS	2615 E END BLVD S MARSHALL TX 75670		7018 3090 0002 2009 9589	6/6/2019	
	CIMAREX ENERGY CO. OF COLORADO	600 N. MARIENFELD STREET SUITE 600 MIDLAND, TX 79701		7018 3090 0002 2009 9596	6/6/2019	
	COBB DALTON H JR	PO BOX 192549 DALLAS TX 752198522		7018 3090 0002 2009 9602	6/6/2019	
	COBB MICHAEL B	44 SANCTUARY LN DURANGO CO 813016212		7018 3090 0002 2009 9619	6/6/2019	
	COLGATE OPERATING, LLC	306 W WALL STREET SUITE 500 MIDLAND, TX 79701		7018 3090 0002 2009 9626	6/6/2019	
	COLGATE PRODUCTION LLC	306 W WALL ST STE 500 MIDLAND TX 79701S173		7018 3090 0002 2009 9626	6/6/2019	
	DEAN HAL S	1 MIDLAND CTR #1440 MIDLAND TX 79701		7018 3090 0002 2009 9633	6/6/2019	
	DEVON ENERGY PROD CO LP	333 W SHERIDAN AVE OKLAHOMA CITY OK 731025010		7018 3090 0002 2009 9640	6/6/2019	
	DEVON ENERGY PRODUCTION COMPANY LP	333 WEST SHERIDAN AVE. OKLAHOMA CITY, OK 73102		7018 3090 0002 2009 9640	6/6/2019	
	EOG RESOURCES INC	PO BOX 4362 HOUSTON TX 772104362		7018 3090 0002 2009 9657	6/6/2019	
	HEADINGTON OIL CO. & KLABZUBA O & G	7557 RAMBLER ROAD, SUITE 1000 DALLAS, TX 75231		7018 3090 0002 2009 9664	6/6/2019	
	J C BARNES TRUST	PO BOX 505 MIDLAND TX 79702		7018 3090 0002 2009 9572	6/6/2019	
	LAUGHLIN BOYD	PO BOX 670 MIDLAND TX 79701		7018 3090 0002 2009 9671	6/6/2019	
	MAGNUM HUNTER PRODUCTION, INC.	600 N MARIENFELD STREET, SUITE 600 MIDLAND, TX 79701		7018 3090 0002 2009 9596	6/6/2019	
	MARATHON OIL CO	PO BOX 3128 HOUSTON TX 772533128		7018 3090 0002 2009 9688	6/6/2019	
	MEWBOURNE OIL CO	P.O. BOX 5270 HOBBS, NM 88241		7018 3090 0002 2009 9695	6/6/2019	
	OXY USA WTP LIMITED PARTNERSHIP	P.O. BOX 4294 HOUSTON, TX 77210-4294		7018 3090 0002 2009 9701	6/6/2019	
	PERRY R BASS TRUSTEE	201 MAIN ST STE 2700 FORT WORTH, TX 761023131		7018 3090 0002 2009 9718	6/6/2019	
	PETROLEUM CORP	207 S 4TH ST ARTESIA NM 88210		7018 3090 0002 2009 9725	6/6/2019	
	RAMSLAND RUSSELL JR	PO BOX 505 MIDLAND TX 79702		7018 3090 0002 2009 9572	6/6/2019	
	RKC INC	1527 HILLSIDE RD FAIRFIELD CT 06490		7018 3090 0002 2009 9732	6/6/2019	
	RKI EXPLORATION & PRODUCTION LLC	3500 ONE WILLIAMS CTR TULSA OK 741720135		7018 3090 0002 2009 9749	6/6/2019	
	STRATA PRODUCTION CO	P. O. BOX 1030 ROSWELL, NM 882021030		7018 3090 0002 2009 9756	6/6/2019	
	WYNN CLAUDE FORREST	PO BOX 505 MIDLAND TX 79702		7018 3090 0002 2009 9572	6/6/2019	
	WYNN W F	1603 W DENGAR MIDLAND TX 79705		7018 3090 0002 2009 9763	6/6/2019	

Notices were sent for the Blue Duck State SWD No. 1 application by mailing them a copy of the Form C-108 on 6/7/2019

Sincerely,



Tyler F. Moehlman
Petroleum Engineer / Lonquist & Co., LLC
Agent for Solaris Water Midstream

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

OIL CONSERVATION DIVISION
DISTRICT II
811 S FIRST STREET
ARTESIA NM 88210
1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2867 52

2 Article Number (Transfer from service label)

7018 3090 0002 2009 9527

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- | | |
|--|---|
| ☒ Adult Signature | ☐ Priority Mail Express® |
| ☐ Adult Signature Restricted Delivery | ☐ Registered Mail™ |
| ☒ Certified Mail® | ☐ Registered Mail Restricted Delivery |
| ☐ Certified Mail Restricted Delivery | ☐ Return Receipt for Merchandise |
| ☐ Collect on Delivery | ☐ Signature Confirmation™ |
| ☐ Collect on Delivery Restricted Delivery | ☐ Signature Confirmation Restricted Delivery |
| ☐ Insured Mail | |
| ☐ Insured Mail Restricted Delivery (over \$500) | |

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Extra Services & Fees (check box, add fee as appropriate)

- | | |
|--|----|
| ☐ Return Receipt (hardcopy) | \$ |
| ☐ Return Receipt (electronic) | \$ |
| ☐ Certified Mail Restricted Delivery | \$ |
| ☐ Adult Signature Required | \$ |
| ☐ Adult Signature Restricted Delivery | \$ |

Postage

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Total F

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Sent To

Street

City, St

Postmark
Here

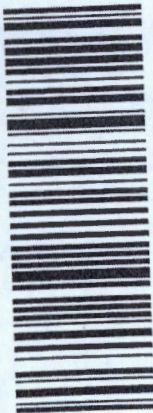
OIL CONSERVATION DIVISION
DISTRICT II
811 S FIRST STREET
ARTESIA NM 88210
1960-BLUE DUCK STATE SWD #1

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT
OF THE RETURN ADDRESS. FOLD AT DOTTED LINE

CERTIFIED MAIL®



7018 3090 0002 2009 9527
7018 3090 0002 2009 9527

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY																	
■ Complete items 1, 2, and 3. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits.		A. Signature X ☐ Agent ☐ Addressee																	
1. NEW MEXICO STATE LAND OFFICE 310 OLD SANTA FE TRAIL SANTA FE NM 87501 1960-BLUE DUCK STATE SWD #1  9590 9402 4809 8344 2867 45		B. Received by (Printed Name) C. Date of Delivery																	
2. Article Number (Transfer from service label) 7018 3090 0002 2009 9534		D. Is delivery address different from item 1? ☐ Yes If YES, enter delivery address below: ☐ No																	
		3. Service Type <table border="0"> <tr> <td>☒ Adult Signature</td> <td>☐ Priority Mail Express®</td> </tr> <tr> <td>☐ Adult Signature Restricted Delivery</td> <td>☐ Registered Mail™</td> </tr> <tr> <td>☒ Certified Mail®</td> <td>☐ Registered Mail Restricted Delivery</td> </tr> <tr> <td>☐ Certified Mail Restricted Delivery</td> <td>☐ Return Receipt for Merchandise</td> </tr> <tr> <td>☐ Collect on Delivery</td> <td>☐ Signature Confirmation™</td> </tr> <tr> <td>☐ Collect on Delivery Restricted Delivery</td> <td>☐ Signature Confirmation Restricted Delivery</td> </tr> <tr> <td>☐ Insured Mail</td> <td></td> </tr> <tr> <td>☐ Insured Mail Restricted Delivery (over \$500)</td> <td></td> </tr> </table>		☒ Adult Signature	☐ Priority Mail Express®	☐ Adult Signature Restricted Delivery	☐ Registered Mail™	☒ Certified Mail®	☐ Registered Mail Restricted Delivery	☐ Certified Mail Restricted Delivery	☐ Return Receipt for Merchandise	☐ Collect on Delivery	☐ Signature Confirmation™	☐ Collect on Delivery Restricted Delivery	☐ Signature Confirmation Restricted Delivery	☐ Insured Mail		☐ Insured Mail Restricted Delivery (over \$500)	
☒ Adult Signature	☐ Priority Mail Express®																		
☐ Adult Signature Restricted Delivery	☐ Registered Mail™																		
☒ Certified Mail®	☐ Registered Mail Restricted Delivery																		
☐ Certified Mail Restricted Delivery	☐ Return Receipt for Merchandise																		
☐ Collect on Delivery	☐ Signature Confirmation™																		
☐ Collect on Delivery Restricted Delivery	☐ Signature Confirmation Restricted Delivery																		
☐ Insured Mail																			
☐ Insured Mail Restricted Delivery (over \$500)																			
PS Form 3811, July 2015 PSN 7530-02-000-9053		Domestic Return Receipt																	

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NEW MEXICO STATE LAND OFFICE 310 OLD SANTA FE TRAIL SANTA FE NM 87501 1960-BLUE DUCK STATE SWD #1	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

**BUREAU OF LAND MGMT
620 E GREENE STREET
CARLSBAD NM 88220**

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2867 38

7018 3090 0002 2009 9541

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

- ☐ Agent
☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

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|--|---|
| ☒ Adult Signature | ☐ Priority Mail Express® |
| ☐ Adult Signature Restricted Delivery | ☐ Registered Mail™ |
| ☒ Certified Mail® | ☐ Registered Mail Restricted Delivery |
| ☐ Certified Mail Restricted Delivery | ☐ Return Receipt for Merchandise |
| ☐ Collect on Delivery | ☐ Signature Confirmation™ |
| ☐ Collect on Delivery Restricted Delivery | ☐ Signature Confirmation Restricted Delivery |
| ☐ Insured Mail | |
| ☐ Insured Mail Restricted Delivery (over \$500) | |

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☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postmark
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Sent To

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City, Sta

**BUREAU OF LAND MGMT
620 E GREENE STREET
CARLSBAD NM 88220**

1960-BLUE DUCK STATE SWD #1

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

ADELANTE BARNES TRUST
 RUSSELL RAMSLAND JR
 PO BOX 505
 MIDLAND TX 79702-0505
 1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2867 21

2. Article Number (Transfer from service label)

7018 3090 0002 2009 9558

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
 If YES, enter delivery address below: ☐ No

3. Service Type

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|--|---|
| ☒ Adult Signature | ☐ Priority Mail Express® |
| ☐ Adult Signature Restricted Delivery | ☐ Registered Mail™ |
| ☒ Certified Mail® | ☐ Registered Mail Restricted Delivery |
| ☐ Certified Mail Restricted Delivery | ☐ Return Receipt for Merchandise |
| ☐ Collect on Delivery | ☐ Signature Confirmation™ |
| ☐ Collect on Delivery Restricted Delivery | ☐ Signature Confirmation Restricted Delivery |
| ☐ Insured Mail | |
| ☐ Insured Mail Restricted Delivery (over \$500) | |

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| ☐ Return Receipt (hardcopy) | \$ |
| ☐ Return Receipt (electronic) | \$ |
| ☐ Certified Mail Restricted Delivery | \$ |
| ☐ Adult Signature Required | \$ |
| ☐ Adult Signature Restricted Delivery | \$ |

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ADELANTE BARNES TRUST
 RUSSELL RAMSLAND JR
 PO BOX 505
 MIDLAND TX 79702-0505
 1960-BLUE DUCK STATE SWD #1

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PS Form 3800, April 2015 PSN 7530-02-000-9047

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7018 3090 0002 2009 9558

SENDER: COMPLETE THIS SECTION

- Complete Items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

**ALEXANDER RESOURCES INC
3804 SHADY VALLEY DR
ARLINGTON TX 76013**

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2867 14

2. Article Number (Transfer from carrier label)

7018 3090 0002 2009 9565

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes

If YES, enter delivery address below: ☐ No

3. Service Type

☒ Adult Signature

☐ Adult Signature Restricted Delivery

☒ Certified Mail®

☐ Certified Mail Restricted Delivery

☐ Collect on Delivery

☐ Collect on Delivery Restricted Delivery

☐ Insured Mail

☐ Insured Mail Restricted Delivery (over \$500)

☐ Priority Mail Express®

☐ Registered Mail™

☐ Registered Mail Restricted Delivery

☐ Return Receipt for Merchandise

☐ Signature Confirmation™

☐ Signature Confirmation Restricted Delivery

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Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$

☐ Return Receipt (electronic) \$

☐ Certified Mail Restricted Delivery \$

☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

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Total F

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Sent To

Street

City, S

**ALEXANDER RESOURCES INC
3804 SHADY VALLEY DR
ARLINGTON TX 76013**

1960-BLUE DUCK STATE SWD #1

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT
OF THE RETURN ADDRESS, FOLD AT DOTTED LINE

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7018 3090 0002 2009 9565

7018 3090 0002 2009 9565

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

J C BARNES, JC BARNES TRUST
J C BARNES JR, CLAUDE F WYNN
PO BOX 505
MIDLAND TX 79702
1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2867 07

2 Article Number (Transfer from service label)

7018 3090 0002 2009 9572

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☒ Adult Signature☐ Adult Signature Restricted Delivery☒ Certified Mail®☐ Certified Mail Restricted Delivery☐ Collect on Delivery☐ Collect on Delivery Restricted Delivery☐ Insured Mail☐ Insured Mail Restricted Delivery (over \$500)☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted Delivery☐ Return Receipt for Merchandise☐ Signature Confirmation™☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053

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☐ Return Receipt (hardcopy)	\$ _____
☐ Return Receipt (electronic)	\$ _____
☐ Certified Mail Restricted Delivery	\$ _____
☐ Adult Signature Required	\$ _____
☐ Adult Signature Restricted Delivery	\$ _____

Postage

\$ _____

Total \$ _____

Sent \$ _____

Street _____

City, _____

J C BARNES, JC BARNES TRUST
J C BARNES JR, CLAUDE F WYNN
PO BOX 505
MIDLAND TX 79702
1960-BLUE DUCK STATE SWD #1

Postmark
Here

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT
OF THE RETURN ADDRESS. FOLD AT DOTTED LINE.

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7018 3090 0002 2009 9572

7018 3090 0002 2009 9572

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
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CAMTERRA RES PTNRS
2615 E END BLVD S
MARSHALL TX 75670

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2866 91

2. Article Number (Transfer from service label)

7018 3090 0002 2009 9589

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

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| ☒ Adult Signature | ☐ Priority Mail Express® |
| ☐ Adult Signature Restricted Delivery | ☐ Registered Mail™ |
| ☒ Certified Mail® | ☐ Registered Mail Restricted Delivery |
| ☐ Certified Mail Restricted Delivery | ☐ Return Receipt for Merchandise |
| ☐ Collect on Delivery | ☐ Signature Confirmation™ |
| ☐ Collect on Delivery Restricted Delivery | ☐ Signature Confirmation Restricted Delivery |
| ☐ Insured Mail | |
| ☐ Insured Mail Restricted Delivery (over \$500) | |

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| ☐ Return Receipt (electronic) | \$ _____ |
| ☐ Certified Mail Restricted Delivery | \$ _____ |
| ☐ Adult Signature Required | \$ _____ |
| ☐ Adult Signature Restricted Delivery | \$ _____ |

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Sent To

Street a

City, St

CAMTERRA RES PTNRS
2615 E END BLVD S
MARSHALL TX 75670

1960-BLUE DUCK STATE SWD #1

Postmark
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PS Form 3800, April 2015 PSN 7530-02-000-9047

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SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

**CIMAREX ENERGY CO OF COLORADO
MAGNUM HUNTER PRODUCTION INC
600 N MARIENFELD ST, STE 600
MIDLAND TX 79701
1960-BLUE DUCK STATE SWD #1**



9590 9402 4809 8344 2866 84

2. Article Number (Transfer from service label)

7018 3090 0002 2009 9596

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☒ Adult Signature

☐ Adult Signature Restricted Delivery

☒ Certified Mail®

☐ Certified Mail Restricted Delivery

☐ Collect on Delivery

☐ Collect on Delivery Restricted Delivery

☐ Insured Mail

☐ Insured Mail Restricted Delivery (over \$500)

☐ Priority Mail Express®

☐ Registered Mail™

☐ Registered Mail Restricted Delivery

☐ Return Receipt for Merchandise

☐ Signature Confirmation™

☐ Signature Confirmation Restricted Delivery

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7018 3090 0002 2009 9596

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Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$

☐ Return Receipt (electronic) \$

☐ Certified Mail Restricted Delivery \$

☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postage

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Total Pi

\$

Sent To

Street a

City, St

CIMAREX ENERGY CO OF COLORADO

MAGNUM HUNTER PRODUCTION INC

600 N MARIENFELD ST, STE 600

MIDLAND TX 79701

1960-BLUE DUCK STATE SWD #1

Postmark
Here

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

**DALTON H COBB JR
PO BOX 192549
DALLAS TX 75219-8522**

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2866 77

2. Article Number (Transfer from service label)

7018 3090 0002 2009 9602

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes

If YES, enter delivery address below: ☐ No

3. Service Type

☒ Adult Signature

☐ Adult Signature Restricted Delivery

☒ Certified Mail®

☐ Certified Mail Restricted Delivery

☐ Collect on Delivery

☐ Collect on Delivery Restricted Delivery

☐ Insured Mail

☐ Insured Mail Restricted Delivery (over \$500)

☐ Priority Mail Express®

☐ Registered Mail™

☐ Registered Mail Restricted Delivery

☐ Return Receipt for Merchandise

☐ Signature Confirmation™

☐ Signature Confirmation Restricted Delivery

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Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy)

☐ Return Receipt (electronic)

☐ Certified Mail Restricted Delivery

☐ Adult Signature Required

☐ Adult Signature Restricted Delivery

Postage

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Total P&C

\$

Sent To

Street &

City, Sta

DALTON H COBB JR

PO BOX 192549

DALLAS TX 75219-8522

1960-BLUE DUCK STATE SWD #1

Postmark
Here

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

**MICHAEL B COBB
44 SANCTUARY LN
DURANGO CO 81301-6212**

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2866 60

Article Number (Transfer from service label)

7018 3090 0002 2009 9619

PS Form 3811, July 2015 PSN 7530-02-000-9000

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☒ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over \$500)

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

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

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

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

- ☐ Return Receipt (hardcopy) \$
- ☐ Return Receipt (electronic) \$
- ☐ Certified Mail Restricted Delivery \$
- ☐ Adult Signature Required \$
- ☐ Adult Signature Restricted Delivery \$

Postage

\$

Total

\$

Sent

Street

City

State

Zip

**MICHAEL B COBB
44 SANCTUARY LN
DURANGO CO 81301-6212**

1960-BLUE DUCK STATE SWD #1

Postmark
Here

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

COLGATE OPERATING LLC
COLGATE PRODUCTION LLC
306 W WALL STREET STE 500
MIDLAND TX 79701
1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2866 53

2 Article Number (Transfer from service label)

7018 3090 0002 2009 9626

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☒ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over \$500)

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

U.S. Postal Service™

CERTIFIED MAIL® RECEIPT

Domestic Mail Only

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

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

- ☐ Return Receipt (hardcopy) \$
- ☐ Return Receipt (electronic) \$
- ☐ Certified Mail Restricted Delivery \$
- ☐ Adult Signature Required \$
- ☐ Adult Signature Restricted Delivery \$

Postage

\$

Total P

\$ Sent To

Street:

City, St

COLGATE OPERATING LLC
COLGATE PRODUCTION LLC
306 W WALL STREET STE 500
MIDLAND TX 79701
1960-BLUE DUCK STATE SWD #1

Postmark
Here

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT
OF THE RETURN ADDRESS, NOT AT DOTTED LINE
CERTIFIED MAIL®



7018 3090 0002 2009 9626

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

HAL S DEAN
1 MIDLAND CTR #1440
MIDLAND TX 79701

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2866 46

2. Article Number (Printed)
7018 3090 0002 2009 9633

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
 If YES, enter delivery address below: ☐ No

3. Service Type

☒ Adult Signature

☐ Adult Signature Restricted Delivery

☒ Certified Mail®

☐ Certified Mail Restricted Delivery

☐ Collect on Delivery

☐ Collect on Delivery Restricted Delivery

☐ Insured Mail

☐ Insured Mail Restricted Delivery (over \$500)

☐ Priority Mail Express®

☐ Registered Mail™

☐ Registered Mail Restricted Delivery

☐ Return Receipt for Merchandise

☐ Signature Confirmation™

☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

U.S. Postal Service™

CERTIFIED MAIL® RECEIPT

Domestic Mail Only

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

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy)

☐ Return Receipt (electronic)

☐ Certified Mail Restricted Delivery

☐ Adult Signature Required

☐ Adult Signature Restricted Delivery

Postage

\$

Total

\$

Sent

Strai

City,

HAL S DEAN
1 MIDLAND CTR #1440
MIDLAND TX 79701

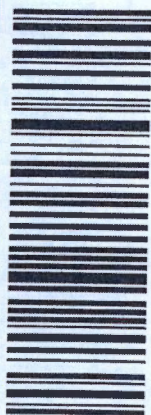
1960-BLUE DUCK STATE SWD #1

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT OF THE RETURN ADDRESS. FOLD AT DOTTED LINE.

CERTIFIED MAIL®



7018 3090 0002 2009 9633

7018 3090 0002 2009 9633

Postmark
Here

SENDER: COMPLETE THIS SECTION

- Complete Items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

DEVON ENERGY PROD CO LP
333 W SHERIDAN AVE
OKLAHOMA CITY OK 73102-5010

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2866 39

2 Article Number (Transfer from service label)

7018 3090 0002 2009 9640

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- | | |
|--|---|
| ☒ Adult Signature | ☐ Priority Mail Express® |
| ☐ Adult Signature Restricted Delivery | ☐ Registered Mail™ |
| ☒ Certified Mail® | ☐ Registered Mail Restricted Delivery |
| ☐ Certified Mail Restricted Delivery | ☐ Return Receipt for Merchandise |
| ☐ Collect on Delivery | ☐ Signature Confirmation™ |
| ☐ Collect on Delivery Restricted Delivery | ☐ Signature Confirmation Restricted Delivery |
| ☐ Insured Mail | |
| ☐ Insured Mail Restricted Delivery (over \$500) | |

Domestic Return Receipt

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

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

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

- | | |
|--|----|
| ☐ Return Receipt (hardcopy) | \$ |
| ☐ Return Receipt (electronic) | \$ |
| ☐ Certified Mail Restricted Delivery | \$ |
| ☐ Adult Signature Required | \$ |
| ☐ Adult Signature Restricted Delivery | \$ |

Postmark
Here

Postage

\$

Total

\$

Sent

Street

City, State

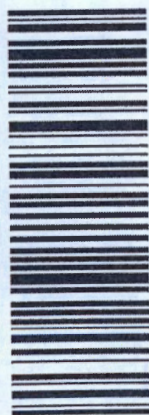
DEVON ENERGY PROD CO LP
333 W SHERIDAN AVE
OKLAHOMA CITY OK 73102-5010
1960-BLUE DUCK STATE SWD #1

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT
OF THE RETURN ADDRESS. FOLD AT DOTTED LINE.

CERTIFIED MAIL®



7018 3090 0002 2009 9640
7018 3090 0002 2009 9640

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

**EOG RESOURCES
PO BOX 4362
HOUSTON TX 77210-4362**

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2866 22

2. Article Number (Transfer from service label)

7018 3090 0002 2009 9657

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☒ Adult Signature

☐ Adult Signature Restricted Delivery

☒ Certified Mail®

☐ Certified Mail Restricted Delivery

☐ Collect on Delivery

☐ Collect on Delivery Restricted Delivery

☐ Insured Mail

☐ Insured Mail Restricted Delivery (over \$500)

☐ Priority Mail Express®

☐ Registered Mail™

☐ Registered Mail Restricted Delivery

☐ Return Receipt for Merchandise

☐ Signature Confirmation™

☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

U.S. Postal Service™

CERTIFIED MAIL® RECEIPT

Domestic Mail Only

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

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$

☐ Return Receipt (electronic) \$

☐ Certified Mail Restricted Delivery \$

☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postage

\$

Total P.

\$

Sent To

Street a

City, St

EOG RESOURCES

PO BOX 4362

HOUSTON TX 77210-4362

1960-BLUE DUCK STATE SWD #1

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT OF THE RETURN ADDRESS. FOLD AT DOTTED LINE

CERTIFIED MAIL®



7018 3090 0002 2009 9657

7018 3090 0002 2009 9657

SENDER: COMPLETE THIS SECTION

- Complete Items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

HEADINGTON OIL CO &
KLABZUBA O & G
7557 RAMBLER ROAD, STE 1000
DALLAS TX 75231
1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2866 15

2. Article Number (Transfer from service label)

7018 3090 0002 2009 9664

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☒ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over \$500)

☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted Delivery☐ Return Receipt for Merchandise☐ Signature Confirmation™☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

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

For delivery information, visit our website at www.usps.com®.**OFFICIAL USE**

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

- ☐ Return Receipt (hardcopy) \$
- ☐ Return Receipt (electronic) \$
- ☐ Certified Mail Restricted Delivery \$
- ☐ Adult Signature Required \$
- ☐ Adult Signature Restricted Delivery \$

Postage

\$

Total P&c

\$

Sent To

Street a

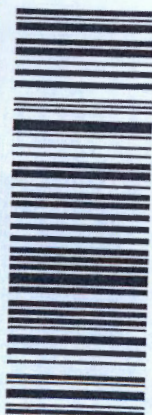
City, Sta.

Postmark
Here

HEADINGTON OIL CO &
KLABZUBA O & G
7557 RAMBLER ROAD, STE 1000
DALLAS TX 75231
1960-BLUE DUCK STATE SWD #1

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT
OF THE RETURN ADDRESS. FOLD AT DOTTED LINE**CERTIFIED MAIL®**

7018 3090 0002 2009 9664

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

**LAUGHLIN BOYD
PO BOX 670
MIDLAND TX 79701**

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2866 08

2. Article Number (Transfer from service label)

7018 3090 0002 2009 9671

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

- ☐ Agent
☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- | | |
|--|---|
| ☒ Adult Signature | ☐ Priority Mail Express® |
| ☐ Adult Signature Restricted Delivery | ☐ Registered Mail™ |
| ☒ Certified Mail® | ☐ Registered Mail Restricted Delivery |
| ☐ Certified Mail Restricted Delivery | ☐ Return Receipt for Merchandise |
| ☐ Collect on Delivery | ☐ Signature Confirmation™ |
| ☐ Collect on Delivery Restricted Delivery | ☐ Signature Confirmation Restricted Delivery |
| ☐ Insured Mail | |
| ☐ Insured Mail Restricted Delivery (over \$500) | |

Domestic Return Receipt

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

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

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

- | | |
|--|----|
| ☐ Return Receipt (hardcopy) | \$ |
| ☐ Return Receipt (electronic) | \$ |
| ☐ Certified Mail Restricted Delivery | \$ |
| ☐ Adult Signature Required | \$ |
| ☐ Adult Signature Restricted Delivery | \$ |

Postmark
Here

Postage

\$

Total P

\$

Sent To

Street

City, St

**LAUGHLIN BOYD
PO BOX 670
MIDLAND TX 79701**

1960-BLUE DUCK STATE SWD #1

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

**MARATHON OIL CO
PO BOX 3128
HOUSTON TX 77253-3128**

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2865 92

2. Article Number (Transfer from service label)

7018 3090 0002 2009 9688

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☒ Adult Signature

☐ Adult Signature Restricted Delivery

☒ Certified Mail®

☐ Certified Mail Restricted Delivery

☐ Collect on Delivery

☐ Collect on Delivery Restricted Delivery

☐ Insured Mail

☐ Insured Mail Restricted Delivery (over \$500)

☐ Priority Mail Express®

☐ Registered Mail™

☐ Registered Mail Restricted Delivery

☐ Return Receipt for Merchandise

☐ Signature Confirmation™

☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

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

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

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy)

☐ Return Receipt (electronic)

☐ Certified Mail Restricted Delivery

☐ Adult Signature Required

☐ Adult Signature Restricted Delivery

Postage

\$

Total 1

\$

Sent 1

Street

City, State

Zip

**MARATHON OIL CO
PO BOX 3128
HOUSTON TX 77253-3128**

1960-BLUE DUCK STATE SWD #1

Postmark
Here

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

**MEWBOURNE OIL CO
PO BOX 5270
HOBBS NM 88241**

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2865 85

2 Article Number (Transfer from service label)

7018 3090 0002 2009 9695

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☒ Adult Signature

☐ Adult Signature Restricted Delivery

☒ Certified Mail®

☐ Certified Mail Restricted Delivery

☐ Collect on Delivery

☐ Collect on Delivery Restricted Delivery

☐ Insured Mail

☐ Insured Mail Restricted Delivery (over \$500)

☐ Priority Mail Express®

☐ Registered Mail™

☐ Registered Mail Restricted Delivery

☐ Return Receipt for Merchandise

☐ Signature Confirmation™

☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

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

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

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$

☐ Return Receipt (electronic) \$

☐ Certified Mail Restricted Delivery \$

☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total \$

\$

Sent to

Street

City, St

**MEWBOURNE OIL CO
PO BOX 5270
HOBBS NM 88241**

1960-BLUE DUCK STATE SWD #1

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT
OF THE RETURN ADDRESS. FOLD AT DOTTED LINE

CERTIFIED MAIL®



7018 3090 0002 2009 9695
7018 3090 0002 2009 9695

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

OXY USA WTP LP
PO BOX 4294
HOUSTON TX 77210-4294

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2865 78

2. Article Number (Transfer from service label)

7018 3090 0002 2009 9701

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent
☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- | | |
|--|---|
| ☒ Adult Signature | ☐ Priority Mail Express® |
| ☐ Adult Signature Restricted Delivery | ☐ Registered Mail™ |
| ☒ Certified Mail® | ☐ Registered Mail Restricted Delivery |
| ☐ Certified Mail Restricted Delivery | ☐ Return Receipt for Merchandise |
| ☐ Collect on Delivery | ☐ Signature Confirmation™ |
| ☐ Collect on Delivery Restricted Delivery | ☐ Signature Confirmation Restricted Delivery |
| ☐ Insured Mail | |
| ☐ Insured Mail Restricted Delivery (over \$500) | |

Domestic Return Receipt

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

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

OFFICIAL USE

Certified Mail Fee

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

Postmark
Here

Postage

\$

Total

\$

Sent To

Street

City, Sta

OXY USA WTP LP
PO BOX 4294
HOUSTON TX 77210-4294

1960-BLUE DUCK STATE SWD #1

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT
OF THE RETURN ADDRESS, FOLD AT DOTTED LINE

CERTIFIED MAIL®



7018 3090 0002 2009 9701

7018 3090 0002 2009 9701

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

PERRY R BASS TRUSTEE
201 MAIN ST STE 2700
FT WORTH TX 76102-3131

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2865 61

2. Article Number (Transfer from service label)

7018 3090 0002 2009 9718

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

- D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☒ Adult Signature

☐ Adult Signature Restricted Delivery

☒ Certified Mail®

☐ Certified Mail Restricted Delivery

☐ Collect on Delivery

☐ Collect on Delivery Restricted Delivery

☐ Insured Mail

☐ Insured Mail Restricted Delivery (over \$500)

☐ Priority Mail Express®

☐ Registered Mail™

☐ Registered Mail Restricted Delivery

☐ Return Receipt for Merchandise

☐ Signature Confirmation™

☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

U.S. Postal Service™

CERTIFIED MAIL® RECEIPT

Domestic Mail Only

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

OFFICIAL USE

Certified Mail Fee

\$

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$

☐ Return Receipt (electronic) \$

☐ Certified Mail Restricted Delivery \$

☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postage

\$

Total \$

\$ Sent \$

Street

City, State

Zip

PERRY R BASS TRUSTEE

201 MAIN ST STE 2700

FT WORTH TX 76102-3131

1960-BLUE DUCK STATE SWD #1

Postmark
Here

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

**PETROLEUM CORP
207 S 4TH ST
ARTESIA NM 88210**

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2865 54

2. Article Number (Transfer from service label)

7018 3090 0002 2009 9725

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☒ Adult Signature

☐ Adult Signature Restricted Delivery

☒ Certified Mail®

☐ Certified Mail Restricted Delivery

☐ Collect on Delivery

☐ Collect on Delivery Restricted Delivery

☐ Insured Mail

☐ Insured Mail Restricted Delivery (over \$500)

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☐ Return Receipt for Merchandise

☐ Signature Confirmation™

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☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postage

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Total

\$

Sent

Street

City

State

Zip

City

**PETROLEUM CORP
207 S 4TH ST
ARTESIA NM 88210**

1960-BLUE DUCK STATE SWD #1

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT OF THE RETURN ADDRESS. FOLD AT DOTTED LINE.

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7018 3090 0002 2009 9725
7018 3090 0002 2009 9725

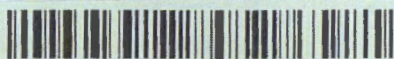
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RKC INC
1527 HILLSIDE RD
FAIRFIELD CT 06490

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2865 47

2. Article Number (Transfer from service label)

7018 3090 0002 2009 9732

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☒ Adult Signature

☐ Adult Signature Restricted Delivery

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Certified Mail Fee

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Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy)

☐ Return Receipt (electronic)

☐ Certified Mail Restricted Delivery

☐ Adult Signature Required

☐ Adult Signature Restricted Delivery

Postage

\$

Total

\$

Sent

Street

City

RKC INC
1527 HILLSIDE RD
FAIRFIELD CT 06490

1960-BLUE DUCK STATE SWD #1

Postmark
Here

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

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RKI EXPLORATION & PRODUCTION LLC
3500 ONE WILLIAMS CTR
TULSA OK 74172-0135

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2865 30

2. Article Number (Transfer from service label)

7018 3090.0002 2009 9749

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
 If YES, enter delivery address below: ☐ No

3. Service Type

☒ Adult Signature

☐ Adult Signature Restricted Delivery

☒ Certified Mail®

☐ Certified Mail Restricted Delivery

☐ Collect on Delivery

☐ Collect on Delivery Restricted Delivery

☐ Insured Mail

☐ Insured Mail Restricted Delivery (over \$500)

☐ Priority Mail Express®

☐ Registered Mail™

☐ Registered Mail Restricted Delivery

☐ Return Receipt for Merchandise

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Extra Services & Fees (check box, add fee as appropriate)

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☐ Return Receipt (electronic) \$

☐ Certified Mail Restricted Delivery \$

☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

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To

\$

Se

St

City

RKI EXPLORATION & PRODUCTION LLC
3500 ONE WILLIAMS CTR
TULSA OK 74172-0135

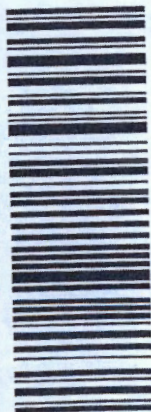
1960-BLUE DUCK STATE SWD #1

PS Form 3800, April 2015 PSN 7530-02-000-9047

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SENDER: COMPLETE THIS SECTION

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- Print your name and address on the reverse so that we can return the card to you.
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**STRATA PRODUCTION CO
PO BOX 1030
ROSWELL NM 88202-1030**

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2865 23

2. Article Number (Transfer from envelope label)
7018 3090 0002 2009 9756

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent
☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from Item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☒ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over \$500)

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

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Extra Services & Fees (check box, add fee as appropriate)

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- ☐ Return Receipt (electronic) \$
- ☐ Certified Mail Restricted Delivery \$
- ☐ Adult Signature Required \$
- ☐ Adult Signature Restricted Delivery \$

Postage

\$

Total F

\$

Sent To

Street

City, S

**STRATA PRODUCTION CO
PO BOX 1030
ROSWELL NM 88202-1030**

1960-BLUE DUCK STATE SWD #1

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

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7018 3090 0002 2009 9756

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- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, *over the front if space permits*

WF WYNN
1603 W DENGAR
MIDLAND TX 79705

1960-BLUE DUCK STATE SWD #1



9590 9402 4809 8344 2865 16

2. Article Number (Transfer from service label)

7018 3090 0002 2009 9763

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☒ Adult Signature

☐ Adult Signature Restricted Delivery

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☐ Collect on Delivery

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☐ Insured Mail

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PS Form 3811, July 2015 PSN 7530-02-000-9053

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Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$

☐ Return Receipt (electronic) \$

☐ Certified Mail Restricted Delivery \$

☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$

Total \$

\$

Sent \$

Street

City, \$

WF WYNN
1603 W DENGAR
MIDLAND TX 79705

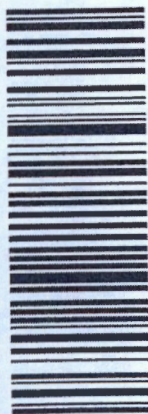
1960-BLUE DUCK STATE SWD #1

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT
OF THE RETURN ADDRESS. FOLD AT DOTTED LINE

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7018 3090 0002 2009 9763

7018 3090 0002 2009 9763

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance X Disposal _____ Storage
Application qualifies for administrative approval? X Yes _____ No
- II. OPERATOR: Solaris Water Midstream, LLC
ADDRESS: 701 Tradewinds Blvd., Suite C, Midland, TX 79706
CONTACT PARTY: Whitney McKee PHONE: 432-203-9020
- 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 X 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: Ramona Hovey TITLE: Consulting Engineer – Agent for Solaris Water Midstream
SIGNATURE: Ramona Hovey DATE: 5/30/2019
E-MAIL ADDRESS: ramona@lonquist.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted.
Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

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

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

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

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

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

XIV. PROOF OF NOTICE

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

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

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

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

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

INJECTION WELL DATA SHEET

OPERATOR: Solaris Water Midstream, LLCWELL NAME & NUMBER: Blue Duck State SWD No. 1WELL LOCATION: 1000' FSL 390' FEL
FOOTAGE LOCATIONP
UNIT LETTER32
SECTION19S
TOWNSHIP29E
RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 18.125"Cemented with: 517 sx.Top of Cement: surfaceCasing Size: 16.00"or _____ ft³Method Determined: circulationIntermediate CasingHole Size: 14.750"Cemented with: 630 sx.Top of Cement: surfaceCasing Size: 13.375"or _____ ft³Method Determined: circulationProduction CasingHole Size: 12.250"Cemented with: 1830 sx.Top of Cement: surfaceCasing Size: 9.625"or _____ ft³Method Determined: circulationLinerHole Size: 8.500"Cemented with: 404 sx.Top of Cement: 9,000'Total Depth: 14,450'Casing Size: 7.625"or _____ ft³Method Determined: calculationInjection Interval12,650 feet to 14,450 feet

(Open Hole)

INJECTION WELL DATA SHEET

Tubing Size: 5.5", 20 lb/ft, HCL-80, BTC from 0' - 8,800' and 5", 18 lb/ft, HCL-80, LTC from 8,800' - 12,600'
 Lining Material: Duoline

Type of Packer: Nickel Plated Double Grip Retrievable Packer or Equivalent

Packer Setting Depth: 12,600'

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

Additional Data

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

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

2. Name of the Injection Formation: Devonian, Fusselman

3. Name of Field or Pool (if applicable): SWD; Devonian-Silurian (97869)

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, new drill.

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

Bone Spring: 5,350'
Wolfcamp: 9,100'
Cisco: 9,850'
Strawn: 10,250'
Atoka: 10,550'
Morrow: 10,750'

District I1625 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**Form C-101
Revised July 18, 2013**Energy Minerals and Natural Resources****Oil Conservation Division**☐ AMENDED REPORT**1220 South St. Francis Dr.****Santa Fe, NM 87505****APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

¹ Operator Name and Address SOLARIS WATER MIDSTREAM, LLC 701 TRADEWINDS BLVD., SUITE C MIDLAND, TX 79706		² OGRID Number 371643
³ Property Code		⁴ API Number TBD
⁵ Property Name BLUE DUCK STATE SWD		⁶ Well No. 1

⁷ Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
P	32	19 S	29 E		1000	S	390	E	EDDY

⁸ Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
-	-	-	-	-	-	-	-	-	-

⁹ Pool Information

Pool Name	Pool Code
SWD; Devonian-Silurian	97869

Additional Well Information

¹¹ Work Type N	¹² Well Type SWD	¹³ Cable/Rotary R	¹⁴ Lease Type Private	¹⁵ Ground Level Elevation 3,302'
¹⁶ Multiple N	¹⁷ Proposed Depth 14,430'	¹⁸ Formation Devonian-Silurian	¹⁹ Contractor TBD	²⁰ Spud Date ASAP
Depth to Ground water 95'		Distance from nearest fresh water well 2,914 feet		Distance to nearest surface water >1 mile

☒ We will be using a closed-loop system in lieu of lined pits**²¹ Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	18.125"	16"	84 lb/ft	455'	517	Surface
Intermediate	14.75"	13.375"	68 lb/ft	3,380'	630	Surface
Production	12.25"	9.625"	53.5 lb/ft	9,200'	1830	Surface
Liner	8.5"	7.625"	39 lb/ft	9,000'-12,650'	404	9,000'
Tubing		5.5" & 5"	20 lb/ft & 18 lb/ft	0' - 8,800' & 8,800' - 12,600'	N/A	

Casing/Cement Program: Additional Comments

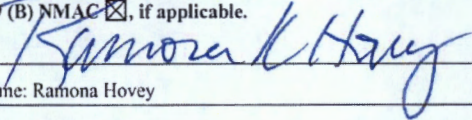
See attached schematic.

²² Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Hydraulic/Blinds, Pipe	8,000 psi	10,000 psi	TBD - Schaffer/Cameron

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☒, if applicable.

Signature:



Printed name: Ramona Hovey

Title: Consulting Engineer

E-mail Address: ramona@lonquist.com

Date: May 30, 2019

Phone: 512-600-1777

OIL CONSERVATION DIVISION

Approved By:

Title:

Approved Date:

Expiration Date:

Conditions of Approval Attached

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (505) 393-8181 Fax: (505) 393-0720
DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (505) 745-1283 Fax: (505) 745-9720
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-8178 Fax: (505) 334-8170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 478-3460 Fax: (505) 478-3468

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 97869	Pool Name SWD; Devonian-Silurian
Property Code	Property Name BLUE DUCK STATE SWD	Well Number 1
OGRID No. 371643	Operator Name SOLARIS WATER MIDSTREAM	Elevation 3302'

Surface Location

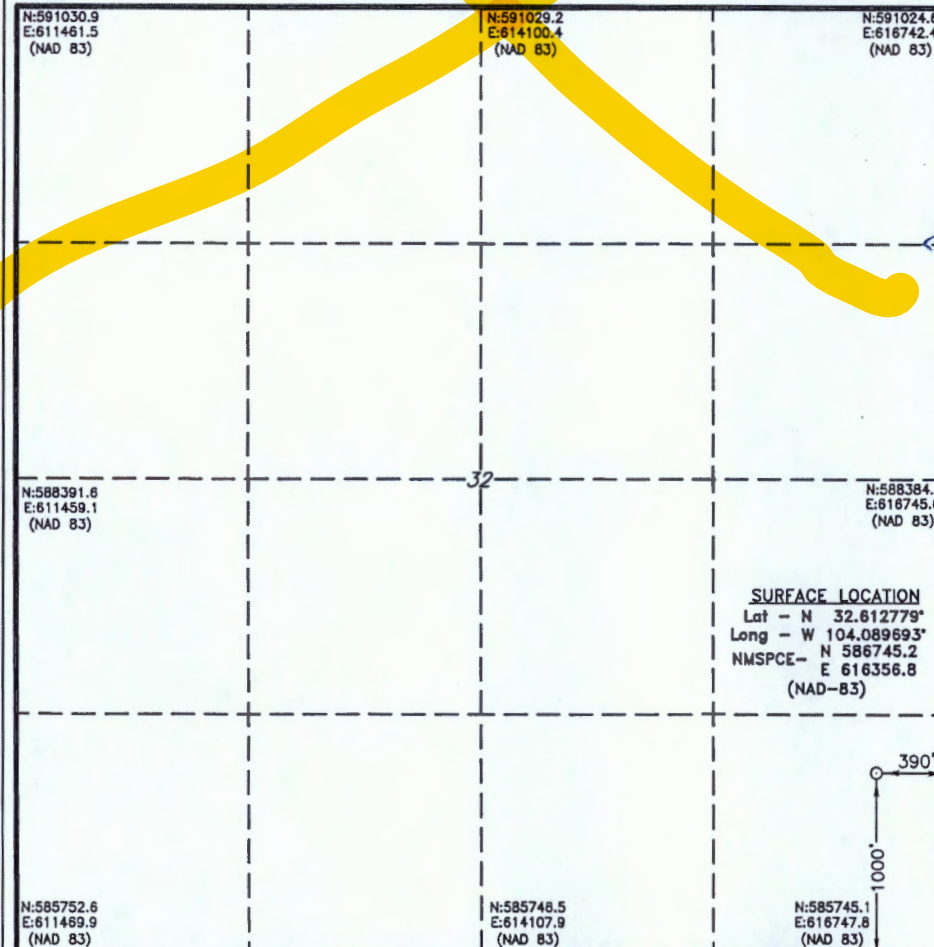
UL or lot No. P	Section 32	Township 19 S	Range 29 E	Lot Idn	Feet from the 1000	North/South line SOUTH	Feet from the 390	East/West line EAST	County EDDY
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Bottom Hole Location If Different From Surface

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

Ramona Hovey 6/6/12
Signature Date
RAMONA HOVEY
Printed Name
ramona@longquist.com
Email 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.

DATE SURVEYED
MAY 3, 2012
Signature of Professional Surveyor
7977
Certificate of Survey 7977
Date of Survey

0' 1000' 2000' 3000' 4000'
SCALE: 1" = 2000'
WO Num.: 34543



Solaris Water Midstream, LLC

Blue Duck State SWD No. 1

FORM C-108 Supplemental Information

III. Well Data

A. Wellbore Information

1.

Well information	
Lease Name	Blue Duck State SWD
Well No.	1
Location	S-32 T-19S R-29E
Footage Location	1000' FSL & 390' FEL

2.

a. Wellbore Description

Casing Information				
Type	Surface	Intermediate	Production	Liner
OD	16"	13.375"	9.625"	7.625"
WT	0.495"	0.480"	0.545"	0.500"
ID	15.010"	12.415"	8.535"	6.625"
Drift ID	14.822"	12.259"	8.379"	6.500"
COD	17.000"	13.375"	10.625"	7.625"
Weight	84 lb/ft	68 lb/ft	53.5 lb/ft	39 lb/ft
Grade	J-55 BTC	L-80, EZ-GO FJ3	HCP-110 BTC	Q-125 EZ-GO FJ3
Hole Size	18.125"	14.75"	12.25"	8.5"
Depth Set	455'	3,380'	9,200'	9,000' – 12,650'

b. Cementing Program

Cement Information					
Casing String	Conductor	Surface	Intermediate	Production	Liner
Lead Cement	EXTENDACEM™	HALCEM™	HALCEM™	NEOCEM™ IL2	NEOCEM™
Lead Cement Volume (sacks)	250	-	436	Stage 1: 833 Stage 2: 309	-
Lead Cement Density (ft3/sack)	1.694	-	1.664	Stage 1: 2.731 Stage 2: 2.732	-
Tail Cement	-	HALCEM™	HALCEM™	NEOCEM™/HALCEM™	VERSACEM™
Tail Cement Volume (sacks)	-	517	194	Stage 1: 475 Stage 2: 213	404
Tail Cement Density (ft3/sack)	-	1.332	1.332	Stage 1: 1.056 Stage 2: 1.336	1.223
Cement Excess	0%	50%	30%	50%, 0%	50%
Total Sacks	250	517	630	1830	404
TOC	Surface	Surface	Surface	Surface	9,000'
Method	Circulate to Surface	Circulate to Surface	Circulate to Surface	Circulate to Surface	Logged

3. Tubing Description

Tubing Information	
OD	5.5" 5.0"
WT	0.361" 0.362"
ID	4.778" 4.276"
Drift ID	4.653" 4.151"
COD	6.050" 5.563"
Weight	20 lb/ft 18 lb/ft
Grade	HCL-80 BTC HCL-80 LTC
Depth Set	0-8,800' 8,800'-12,600'

Tubing will be lined with Duoline.

4. Packer Description

Nickel Plated Double Grip Retrievable Packer or Equivalent

B. Completion Information

1. Injection Formation: Devonian, Fusselman

2. Gross Injection Interval: 12,650'-14,450'

Completion Type: Open Hole

3. Drilled for injection.

4. See the attached wellbore schematic.

5. Oil and Gas Bearing Zones within area of well:

Formation	Depth
Bone Spring	5,350'
Wolfcamp	9,100'
Cisco	9,850'
Strawn	10,250'
Atoka	10,550'
Morrow	10,750'

VI. Area of Review

No wells within the area of review penetrate the proposed injection zone.

VII. Proposed Operation Data

1. Proposed Daily Rate of Fluids to be Injected:

Average Volume: 30,000 BPD

Maximum Volume: 40,000 BPD

2. Closed System

3. Anticipated Injection Pressure:

Average Injection Pressure: 1,898 PSI (surface pressure)

Maximum Injection Pressure: 2,530 PSI (surface pressure)

4. The injection fluid is to be locally produced water. It is expected that the source water will predominantly be from the Artesia, Bone Spring, and Delaware formations. Attached are produced water sample analyses taken from the closest wells that feature samples from the Artesia, Bone Spring, Capitan, CPRF, Delaware, Devonian, Morrow, Queen, Yates, Rustler, San Andreas, Tansill, Wolfcamp, and Yates.
5. The disposal interval is non-productive. No water samples are available from the surrounding area.

VIII. Geological Data

Devonian Formation Lithology:

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 the 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) 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 tremendous Salt Water Disposal horizon.

Fusselman Formation Lithology:

The Silurian/Ordovician Fusselman Formation is stratigraphically below the Wristen Group and is above and separated from the Montoya Formation by the Sylvan Shale. The Sylvan Shale is the lower confining layer for the proposed well. Fusselman facies include a laminated skeletal wackestone in the upper part and a buildup complex in the lower part composed of ooid and bryozoan grainstones. These grainstones can also be potentially prolific zones for disposal.

A. Injection Zone: Devonian- Silurian Formation

Formation	Depth
Salado (Top of Salt)	480'
Salado (Bottom of Salt)	725'
Yates	1,450'
Seven Rivers	1,700'
Queen	2,400'
Grayburg	2,725'
Delaware Mountain Group	3,400'
Bone Spring	5,350'
Bone Spring 1 st Sand	6,200'
Bone Spring 2 nd Sand	7,200'
Bone Spring 3 rd Sand	8,350'
Wolfcamp	9,100'
Cisco	9,850'
Strawn	10,250'
Atoka	10,550'
Morrow	10,750'
Morrow Clastics	11,150'
Lower Morrow	11,350'
Barnett	11,500'
Devonian	12,650'

B. Underground Sources of Drinking Water

Two (2) water wells exist within a one-mile radius of the proposed well. Water wells in the surrounding area have an average depth of 180 feet and an average water depth of 96 feet generally producing from the Capitan Basin. The upper Rustler may also be another USDW and will be protected.

IX. Proposed Stimulation Program

50,000 gallon acid job

X. Logging and Test Data on the Well

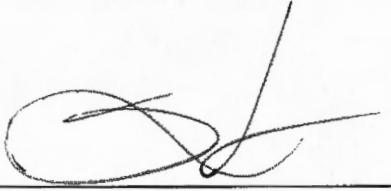
There are no logs or test data on the well. During the process of drilling and completion resistivity, gamma ray, and density logs will be run.

XI. Chemical Analysis of Fresh Water Wells

Attached is a map of the two (2) water wells that exist within one-mile of the well location. Samples from the nearest two wells with recoverable samples present are being obtained and analysis results will be provided as soon as possible. A Water Right Summary from the New Mexico Office of the State Engineer is attached for the two (2) water wells within a 1-mile radius.

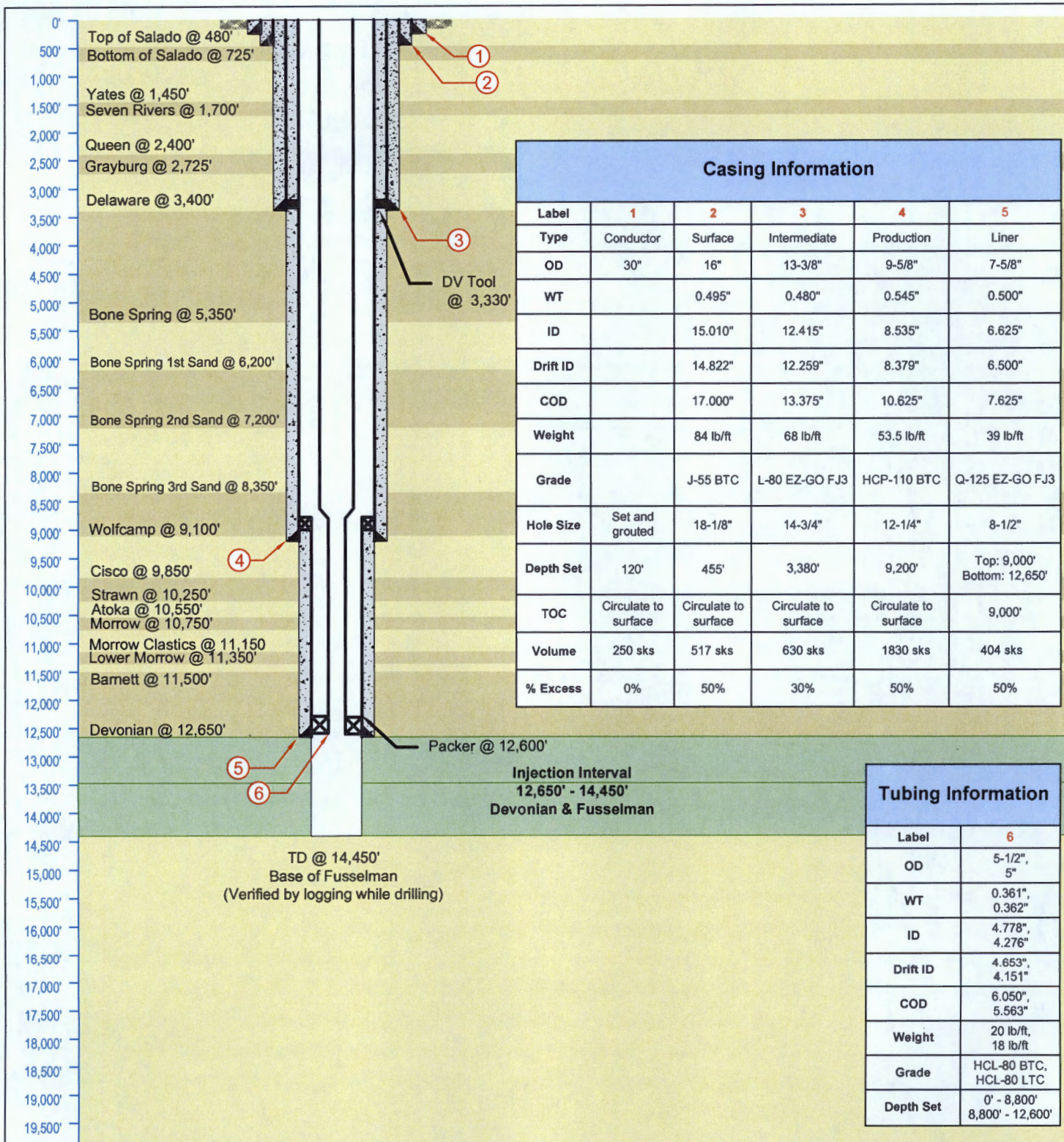
GEOLOGIC AFFIRMATION

I have examined available geologic and engineering data and have found no evidence of open faults or other hydrologic connection between the disposal interval and underground sources of drinking water.

A handwritten signature in black ink, appearing to be 'S. Martinez', written over a horizontal line.

Stephen Martinez
Sr. Vice President of Drilling

Project: Solaris Water Midstream, LLC
Blue Duck State SWD #1



LONQUIST & CO. LLC PETROLEUM ENGINEERS ENERGY ADVISORS HOUSTON CALGARY AUSTIN WICHITA DENVER Texas License F-9147 12912 Hill Country Blvd. Ste F-200 Austin, Texas 78738 Tel: 512.732.9812 Fax: 512.732.9816	Solaris Water Midstream, LLC		Blue Duck State SWD No. 1	
	Country: USA	State/Province: New Mexico	County/Parish: Eddy	
	Location:	Site: 1,000' FSL & 390' FEL	Survey: S32-T19S-R29E	
	API No: NA	Field: Devonian-Silurian (Code: 97869)	Well Type/Status: SWD	
	NMOC District No: 2	Project No: 1960	Date: 5/29/2019	
	Drawn: TFM	Reviewed:	Approved:	
	Rev No: 1	Notes:		

McClure, Dean, EMNRD

From: Tyler Moehlman <tyler.moehlman@lonquist.com>
Sent: Friday, October 18, 2019 9:24 AM
To: McClure, Dean, EMNRD
Subject: [EXT] Amended Relocation Package - Blue Duck State SWD No. 1
Attachments: Amended Relocation Package_Blue Duck State SWD No. 1.pdf

Dean,

Good chatting with you yesterday. FYI, the Astros won yesterday so I'm a happy fan!! You should join the bandwagon for the World Series.

Attached for you is the Amended Package for the Blue Duck State SWD No. 1 for Solaris Water Midstream. The proposed relocation of this well has moved approximately 1,920 feet northwest from the previous location. The well picked up no newly affected parties and we have proof of delivery for the original notices.

Please contact me if you have any questions.

Tyler F. Moehlman,
Petroleum Engineer

LONQUIST & CO. LLC

PETROLEUM
ENGINEERS

ENERGY
ADVISORS

Office: 713-987-4144 Cell: 713-494-0340

1001 McKinney, Suite 1650, Houston, Texas, 77002

tyler.moehlman@lonquist.com · www.lonquist.com

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6/14/19

LONQUIST & CO. LLC

PETROLEUM
ENGINEERS

ENERGY
ADVISORS

AUSTIN · HOUSTON · WICHITA · DENVER · CALGARY

October 17, 2019

New Mexico Energy, Minerals, and Natural Resources Department
Oil Conservation Division District IV
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
(505) 476-3440

**RE: BLUE DUCK STATE SWD NO. 1 AUTHORIZATION TO INJECT
UPDATED WELL LOCATION and NOTICE PARTY DETERMINATION
SOLARIS WATER MIDSTREAM, LLC**

To Whom It May Concern:

To accommodate the operations of an offset oil and gas operator, Solaris Water Midstream is requesting to modify the proposed location to the following coordinates:

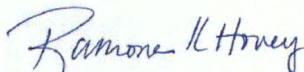
2,620' FSL, 1,430' FEL
UNIT J, SEC 32, T19S, R29E
LAT 32.617239, LONG -104.093061 (NAD83)

The Blue Duck State SWD No. 1 well has been relocated approximately one thousand nine hundred and twenty (1,920) feet northwest from the previous location submitted to the New Mexico Oil Conservation Division on June 6, 2019. The new location is shown in the attached C-102.

The 1-Mile AOR was evaluated for offset wellbores penetrating the injection formation and to determine notice parties, the revised maps and list are attached. **Relocation of the proposed wellbore resulted no additional notice parties.** All affected parties from the original location have received their respective notice packages. The 1-Mile AOR captures a wellbore that previously penetrated the injection formation. A detailed plugging schematic is provided in the attached C-108 Support.

Any questions should be directed towards Solaris Water Midstream, LLC's agent Lonquist & Co., LLC.

Regards,



Ramona K. Hovey
Sr. Petroleum Engineer
Lonquist & Co., LLC

(512) 600-1777
ramona@lonquist.com

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage
Application qualifies for administrative approval? X Yes No
- II. OPERATOR: Solaris Water Midstream, LLC
ADDRESS: 701 Tradewinds Blvd., Suite C, Midland, TX 79706
CONTACT PARTY: Whitney McKee PHONE: 432-203-9020
- 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 X 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: Ramona Hovey TITLE: Consulting Engineer – Agent for Solaris Water Midstream
SIGNATURE: Ramona K Hovey DATE: 10/17/2019
E-MAIL ADDRESS: ramona@lonquist.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted.
Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

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

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

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

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

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

XIV. PROOF OF NOTICE

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

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

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

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

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

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Solaris Water Midstream, LLC

WELL NAME & NUMBER: Blue Duck State SWD No. 1

WELL LOCATION: 2,620' FSL 1,430' FEL
FOOTAGE LOCATION

J
UNIT LETTER

32
SECTION

19S
TOWNSHIP

29E
RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 26.000"

Cemented with: 1,244 sx.

Top of Cement: surface

Casing Size: 20.000"

or _____ ft³

Method Determined: circulation

Intermediate 1 Casing

Hole Size: 18.125"

Cemented with: 583 sx.

Top of Cement: surface

Casing Size: 16.000"

or _____ ft³

Method Determined: circulation

Intermediate 2 Casing

Hole Size: 14.750"

Cemented with: 528 sx.

Top of Cement: surface

Casing Size: 13.375"

or _____ ft³

Method Determined: circulation

Production Casing

Hole Size: 12.250"

Cemented with: 1,757 sx.

Top of Cement: surface

Casing Size: 9.625"

or _____ ft³

Method Determined: circulation

Liner

Hole Size: 8.500"

Cemented with: 285 sx.

Top of Cement: 9,000'

Total Depth: 14,450'

Casing Size: 7.625"

or _____ ft³

Method Determined: calculation

Injection Interval

12,650 feet to 14,450 feet

(Open Hole)

INJECTION WELL DATA SHEET

Tubing Size: 5.5", 20 lb/ft, HCL-80, BTC from 0' – 8,800' and 5", 18 lb/ft, HCL-80, LTC from 8,800' -12,600'
 Lining Material: Duoline

Type of Packer: Nickel Plated Double Grip Retrievable Packer or Equivalent

Packer Setting Depth: 12,600'

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

Additional Data

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

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

2. Name of the Injection Formation: Devonian, Fusselman
 3. Name of Field or Pool (if applicable): SWD; Devonian-Silurian (97869)

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, new drill.

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

Bone Spring: 5,350'
Wolfcamp: 9,100'
Cisco: 9,850'
Strawn: 10,250
Atoka: 10,550'
Morrow: 10,750'

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (505) 393-6181 Fax: (505) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (505) 746-1253 Fax: (505) 746-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3450 Fax: (505) 476-3482

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-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 97869	Pool Name DEVONIAN-SILUIRAN
Property Code	Property Name BLUE DUCK STATE SWD	Well Number 1
OGRID No.	Operator Name SOLARIS WATER MIDSTREAM	Elevation 3314'

Surface Location

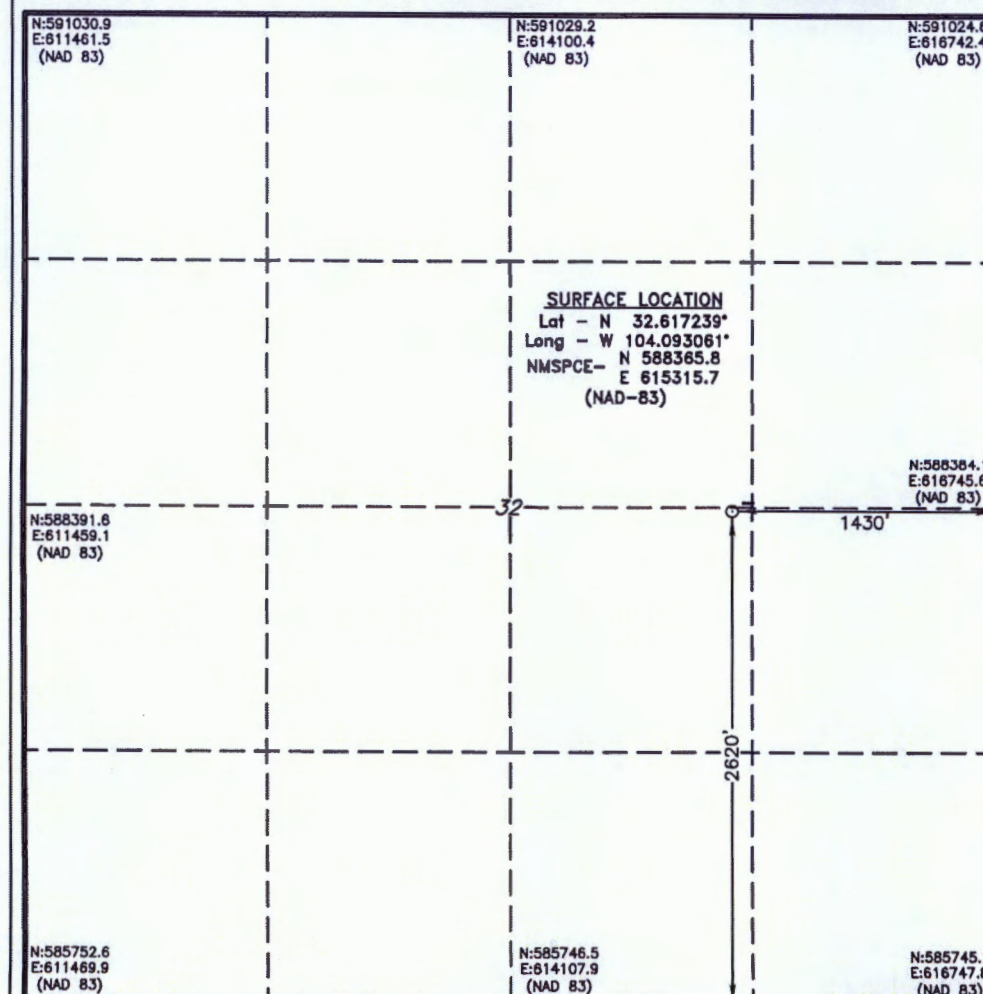
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	32	19 S	29 E		2620	SOUTH	1430	EAST	EDDY

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

Ramona Hovey 10/17/19
Signature Date

RAMONA HOVEY
Printed Name

ramona@longquist.com
Email 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.

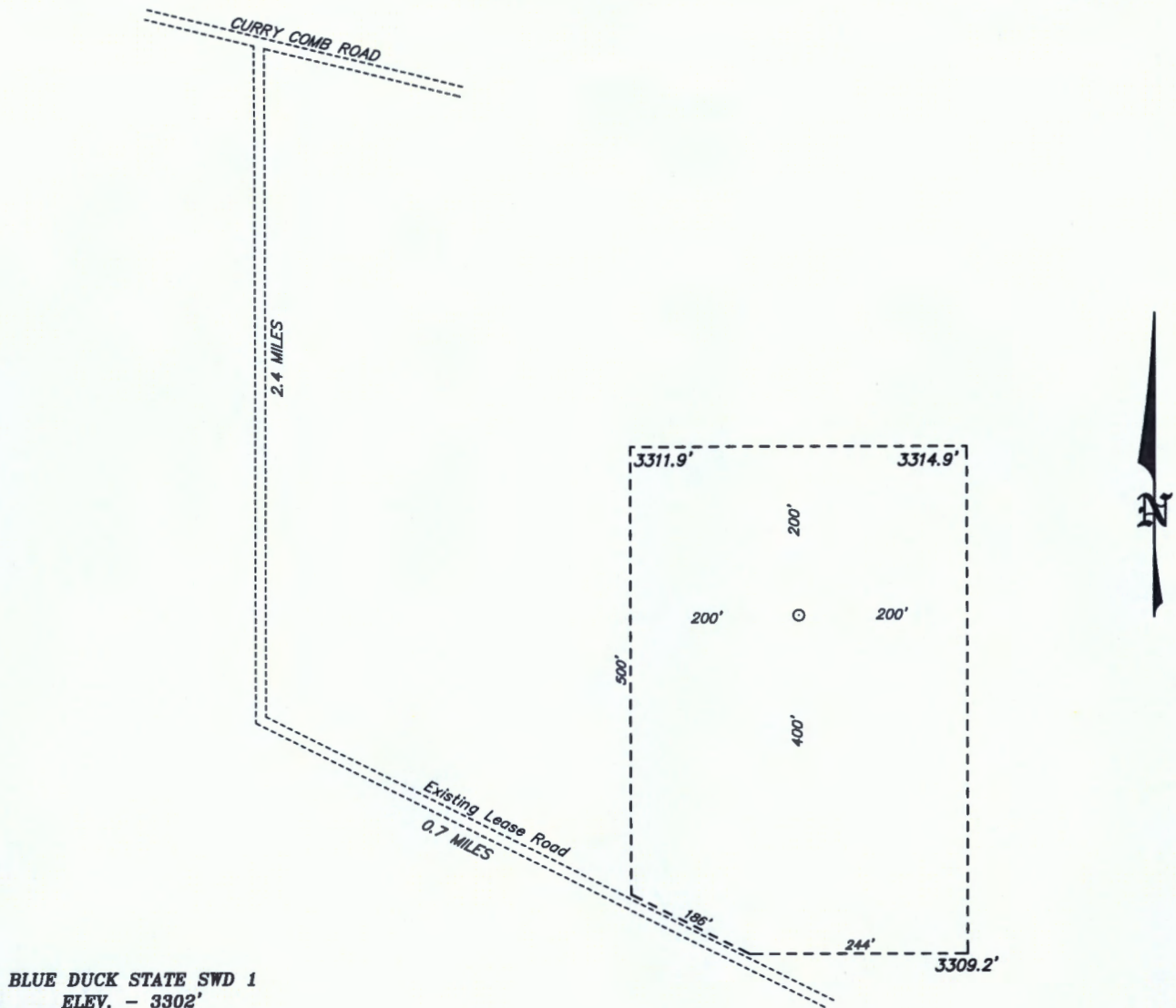
AUGUST 23, 2019

Date Surveyed
Signature & Seal of
Professional Surveyor

Certificate No. 7977
Surveyor's Name Gary L. Jones
Date Surveyed 10/17/19

0' 1000' 2000' 3000' 4000'
SCALE: 1" = 2000'
WO Num.: 34812

**SECTION 32 TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.**

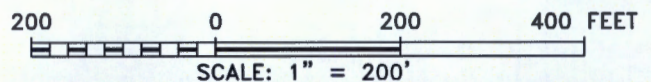


**BLUE DUCK STATE SWD 1
ELEV. - 3302'**

Lat - N 32.617239°
Long - W 104.093061°
NMSPCE- N 588365.8
E 615315.7
(NAD-83)

DIRECTIONS TO LOCATION
FROM CURRY COMB ROAD AND STATE HWY 360, GO
WESTERLY ON CURRY COMB ROAD FOR APPROX. 0.9
MILES TO LEASE ROAD, THEN GO SOUTH ON LEASE ROAD
FOR 2.4 MILES AND SOUTHEAST FOR 0.7 MILES TO
PROPOSED PAD.

CARLSBAD, NM IS ±16 MILES TO THE SOUTHWEST OF LOCATION.

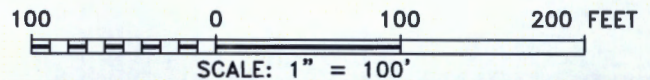
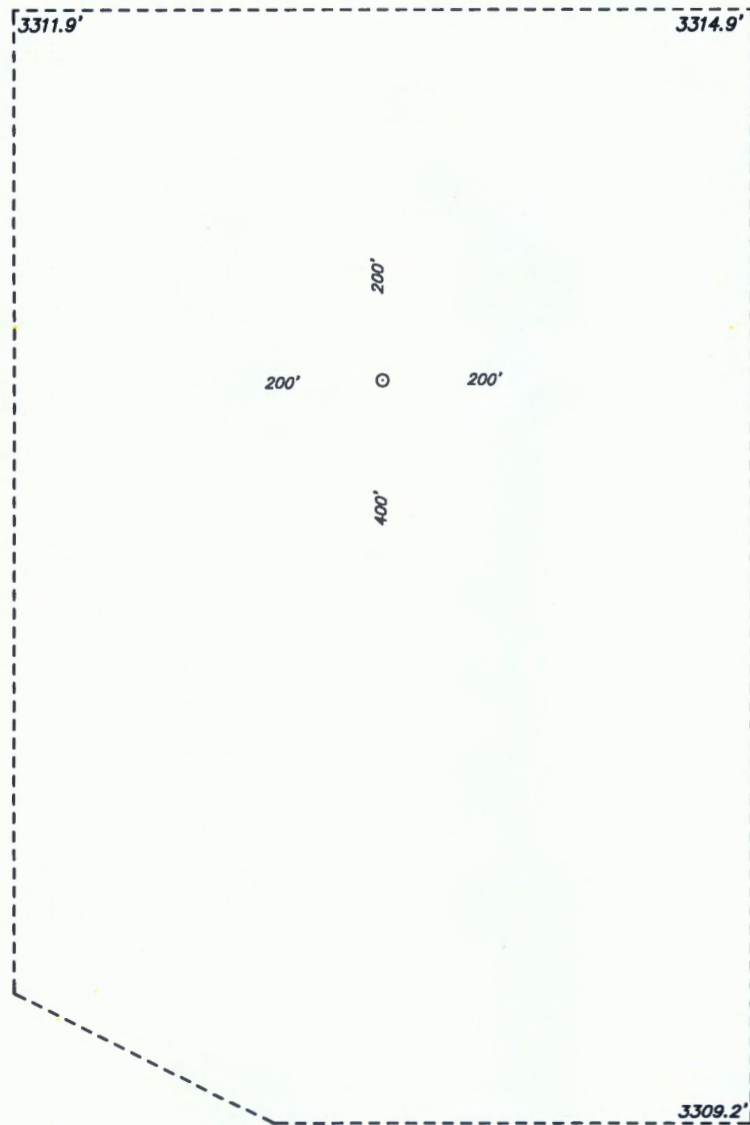


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Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

	SOLARIS WATER MIDSTREAM
	REF: BLUE DUCK STATE SWD 1 / WELL PAD TOPO
	THE BLUE DUCK STATE SWD 1 LOCATED 2620' FROM THE SOUTH LINE AND 1430' FROM THE EAST LINE OF SECTION 32, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

SECTION 32 TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



SOLARIS WATER MIDSTREAM

REF: BLUE DUCK STATE SWD 1 / WELL PAD TOPO

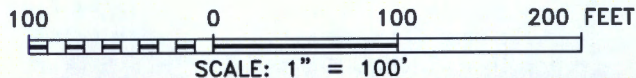
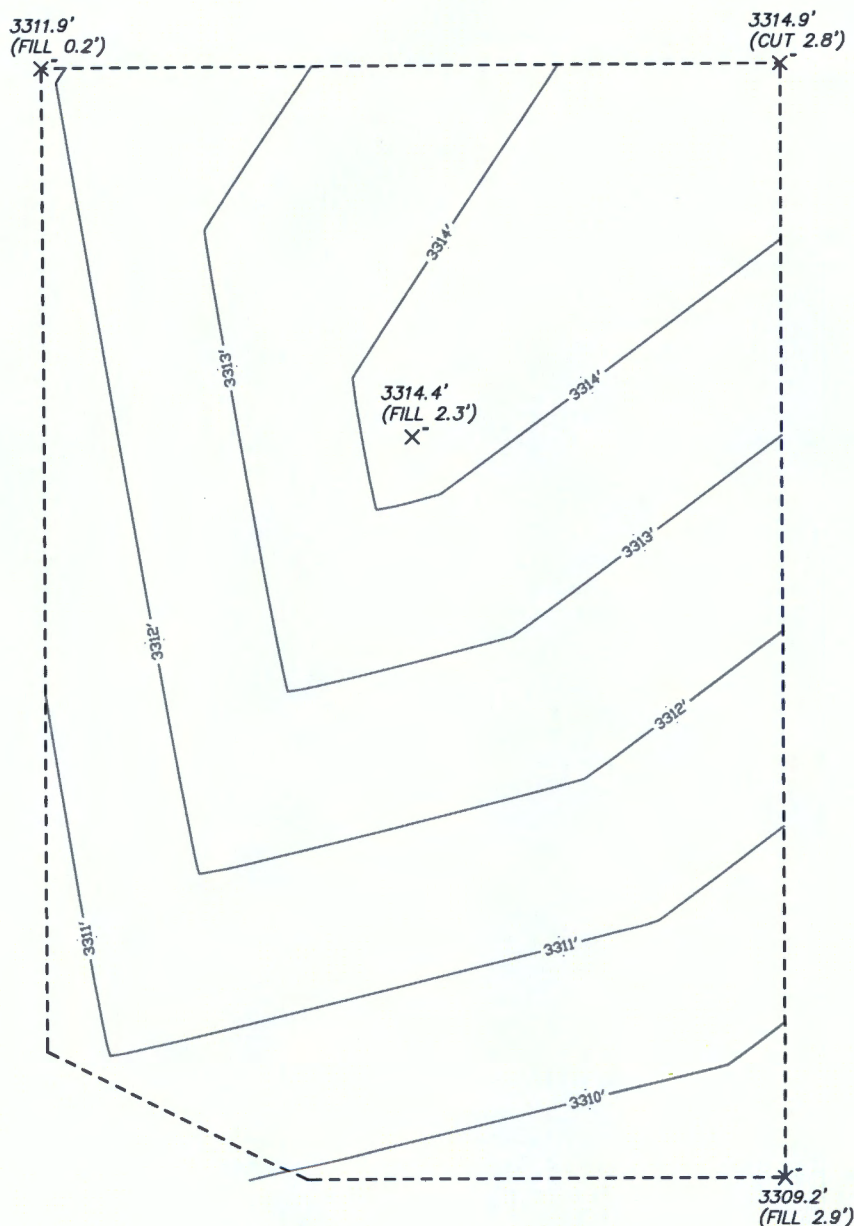
THE BLUE DUCK STATE SWD 1 LOCATED 2620' FROM
THE SOUTH LINE AND 1430' FROM THE EAST LINE OF
SECTION 32, TOWNSHIP 19 SOUTH, RANGE 29 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

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1120 N. West County Rd. (575) 392-2206 - Fax
Hobbs, New Mexico 88241 basinsurveys.com

W.O. Number: 34812 | Drawn By: K. GOAD | Date: 08-26-2019 | Survey Date: 08-23-2019 | Sheet 1 of 1 Sheets

**SECTION 32 TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.**



SOLARIS WATER MIDSTREAM

REF: BLUE DUCK STATE SWD 1 / OUT & FILL

THE BLUE DUCK STATE SWD 1 LOCATED 2620' FROM
THE SOUTH LINE AND 1430' FROM THE EAST LINE OF
SECTION 32, TOWNSHIP 19 SOUTH, RANGE 29 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

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Hobbs, New Mexico 88241 basin-surveys.com

W.O. Number: 34812

Drawn By: K. GOAD

Date: 08-26-2019

Survey Date: 08-23-2019

Sheet 1 of 1 Sheets



BLUE DUCK STATE SWD 1

Located 2620' FSL & 1430' FEL
 Section 32, Township 19 South, Range 29 East,
 N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (575) 393-7316 - Office
 (575) 392-2206 - Fax
basinsurveys.com

0' 1000' 2000' 3000' 4000'

SCALE: 1" = 2000'

W.O. Number: JG - 34812

Survey Date: 08-23-2019

YELLOW TINT - USA LAND
 BLUE TINT - STATE LAND
 NATURAL COLOR - FEE LAND





BLUE DUCK STATE SWD 1

Located 2620' FSL & 1430' FEL
Section 32, Township 19 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

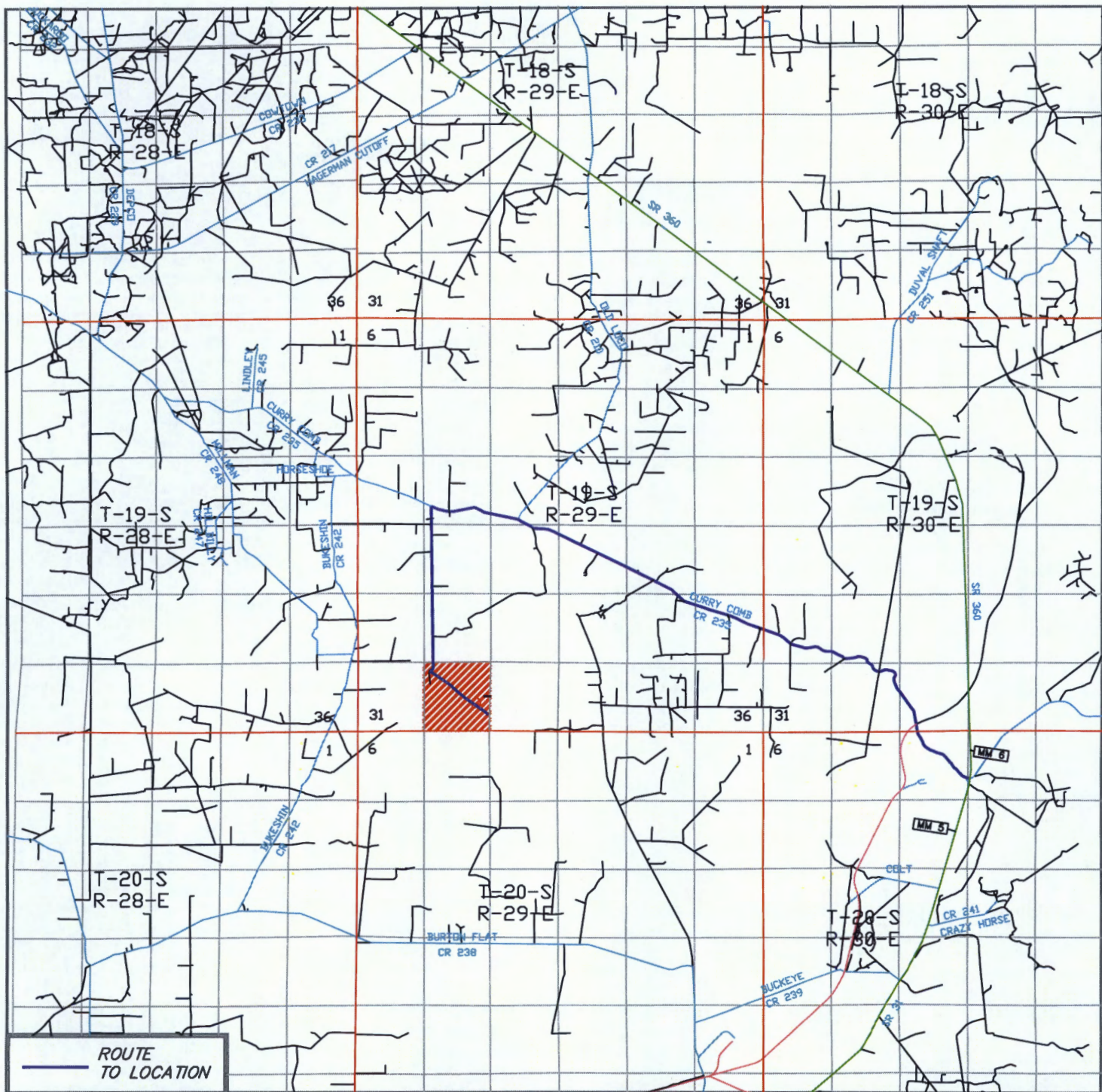
0' 1000' 2000' 3000' 4000'
SCALE: 1" = 2000'

W.O. Number: JG - 34812

Survey Date: 08-23-2019

YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND





BLUE DUCK STATE SWD 1

Located 2620' FSL & 1430' FEL
 Section 32, Township 19 South, Range 29 East,
 N.M.P.M., Eddy County, New Mexico.

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 in the oilfield

P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (575) 393-7316 - Office
 (575) 392-2206 - Fax
basinsurveys.com

0 1 MI 2 MI 3 MI 4 MI
 SCALE: 1" = 2 MILES

W.O. Number: JG - 34812

Survey Date: 08-23-2019

YELLOW TINT - USA LAND
 BLUE TINT - STATE LAND
 NATURAL COLOR - FEE LAND





Solaris Water Midstream, LLC

Blue Duck State SWD No. 1

FORM C-108 Supplemental Information

III. Well Data

A. Wellbore Information

1.

Well information	
Lease Name	Blue Duck State SWD
Well No.	1
Location	S-32 T-19S R-29E
Footage Location	2,620' FSL & 1,430' FEL

2.

a. Wellbore Description

Casing Information					
Type	Surface	Intermediate 1	Intermediate 2	Production	Liner
OD	20"	16"	13.375"	9.625"	7.625"
WT	0.438"	0.495"	0.480"	0.545"	0.500"
ID	19.124"	15.010"	12.415"	8.535"	6.625"
Drift ID	18.936"	14.822"	12.259"	8.379"	6.500"
COD	21.000"	17.000"	13.375"	10.625"	7.625"
Weight	94 lb/ft	84 lb/ft	68 lb/ft	53.5 lb/ft	39 lb/ft
Grade	J-55 BTC	J-55 BTC	L-80, EZ-GO FJ3	HCP-110 BTC	Q-125 EZ-GO FJ3
Hole Size	26"	18.125"	14.75"	12.25"	8.5"
Depth Set	490'	1,610'	3,360'	9,200'	9,000' – 12,650'

b. Cementing Program

Cement Information					
Casing String	Surface	Intermediate 1	Intermediate 2	Production	Liner
Lead Cement	HALCEM™	HALCEM™	HALCEM™	NEOCEM™ IL2	NEOCEM™
Lead Cement Volume (sacks)	207	274	353	Stage 1: 745 Stage 2: 385	-
Lead Cement Density (ft3/sack)	1.682	2.767	2.767	Stage 1: 2.731 Stage 2: 2.731	-
Tail Cement	HALCEM™	HALCEM™	HALCEM™	NEOCEM™/HALCEM™	VERSACEM™
Tail Cement Volume (sacks)	1,037	308	175	Stage 1: 577 Stage 2: 50	285
Tail Cement Density (ft3/sack)	1.347	1.441	1.441	Stage 1: 1.222 Stage 2: 1.334	1.223
Cement Excess	150%	75%	75%	50%, 0%	25%
Total Sacks	1,244	583	528	1,757	285
TOC	Surface	Surface	Surface	Surface	9,000'
Method	Circulate to Surface	Circulate to Surface	Circulate to Surface	Circulate to Surface	Logged

3. Tubing Description

Tubing Information	
OD	5.5"
	5.0"
WT	0.361"
	0.362"
ID	4.778"
	4.276"
Drift ID	4.653"
	4.151"
COD	6.050"
	5.563"
Weight	20 lb/ft
	18 lb/ft
Grade	HCL-80 BTC
	HCL-80 LTC
Depth Set	0-8,800'
	8,800'-12,600'

Tubing will be lined with Duoline.

4. Packer Description

Nickel Plated Double Grip Retrievable Packer or Equivalent

B. Completion Information

1. Injection Formation: Devonian, Fusselman

2. Gross Injection Interval: 12,650'-14,450'

Completion Type: Open Hole

3. Drilled for injection.

4. See the attached wellbore schematic.

5. Oil and Gas Bearing Zones within area of well:

Formation	Depth
Bone Spring	5,350'
Wolfcamp	9,100'
Cisco	9,850'
Strawn	10,250'
Atoka	10,550'
Morrow	10,750'

VI. Area of Review

One (1) well previously penetrated the injection formation. The New Mexico State "Q" No. 1, API No. 42-015-03612, was spudded on September 22, 1959 by Sunray Mid-Continental Oil Company. This well penetrated approximately 100' of the Devonian formation. The well was then plugged back and produced from overlaying formations until its eventual plug and abandonment in 2000.

VII. Proposed Operation Data

1. Proposed Daily Rate of Fluids to be Injected:

Average Volume: 30,000 BPD

Maximum Volume: 40,000 BPD

2. Closed System

3. Anticipated Injection Pressure:

Average Injection Pressure: 1,898 PSI (surface pressure)

Maximum Injection Pressure: 2,530 PSI (surface pressure)

4. The injection fluid is to be locally produced water. It is expected that the source water will predominantly be from the Artesia, Bone Spring, and Delaware formations. Attached are produced water sample analyses taken from the closest wells that feature samples from the Artesia, Bone Spring, Capitan, CPRF, Delaware, Devonian, Morrow, Queen, Yates, Rustler, San Andreas, Tansill, Wolfcamp, and Yates.

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

VIII. Geological Data

Devonian Formation Lithology:

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 the 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) 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 tremendous Salt Water Disposal horizon.

Fusselman Formation Lithology:

The Silurian/Ordovician Fusselman Formation is stratigraphically below the Wristen Group and is above and separated from the Montoya Formation by the Sylvan Shale. The Sylvan Shale is the lower confining layer for the proposed well. Fusselman facies include a laminated skeletal wackestone in the upper part and a buildup complex in the lower part composed of ooid and bryozoan grainstones. These grainstones can also be potentially prolific zones for disposal.

A. Injection Zone: Devonian- Silurian Formation

Formation	Depth
Salado (Top of Salt)	480'
Salado (Bottom of Salt)	725'
Top of Capitan Reef	1,602'
Bottom of Capitan Reef	3,352'
Bone Spring	5,350'
Bone Spring 1 st Sand	6,200'
Bone Spring 2 nd Sand	7,200'
Bone Spring 3 rd Sand	8,350'
Wolfcamp	9,100'
Cisco	9,850'
Strawn	10,250'
Atoka	10,550'
Morrow	10,750'
Morrow Clastics	11,150'
Lower Morrow	11,350'
Barnett	11,500'
Devonian	12,650'

B. Underground Sources of Drinking Water

One (1) water well exists within a one-mile radius of the proposed well. Water wells in the surrounding area have an average depth of 180 feet and an average water depth of 96 feet generally producing from the Capitan Basin. The upper Rustler may also be another USDW and will be protected.

IX. Proposed Stimulation Program

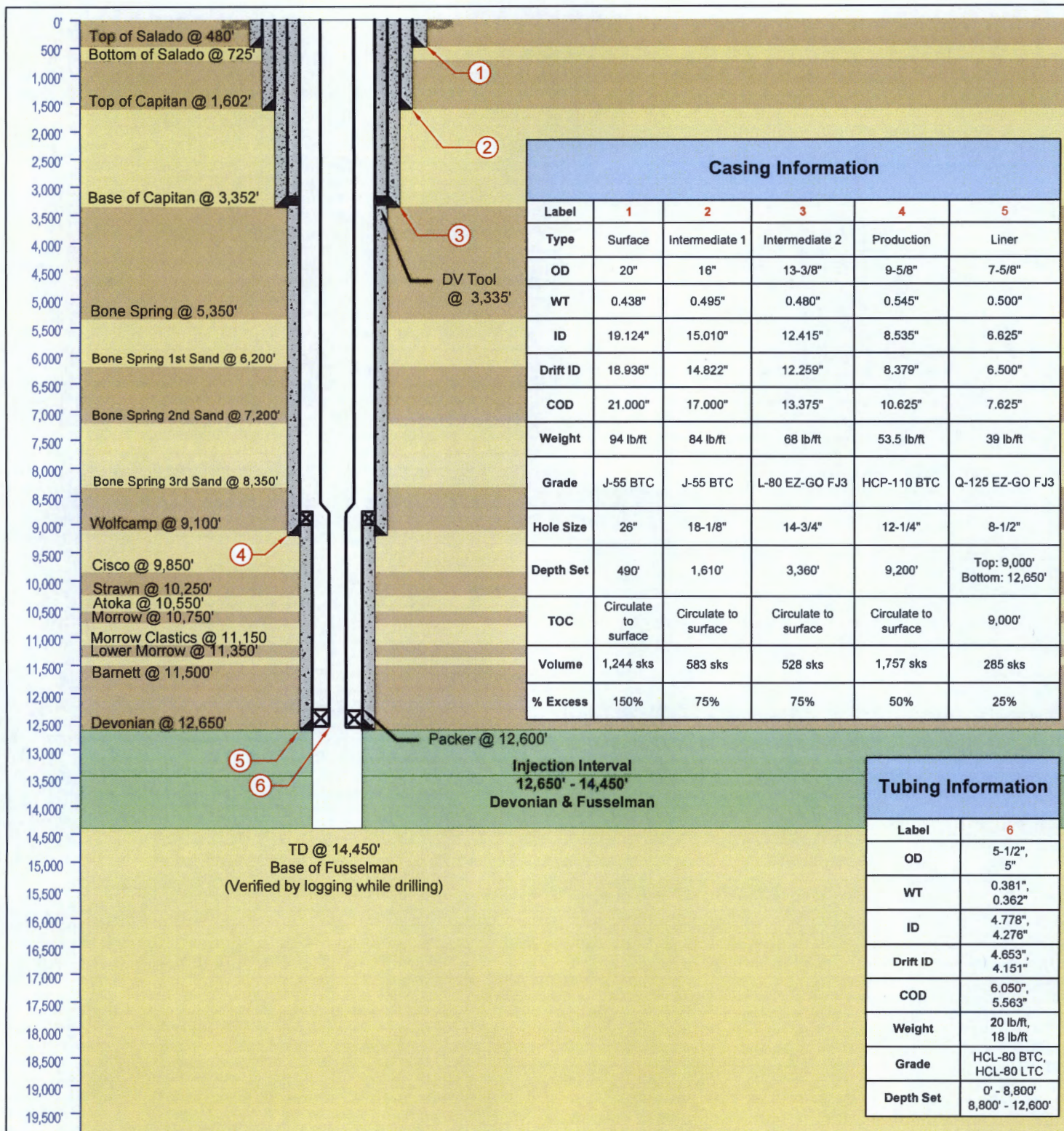
50,000 gallon acid job

X. Logging and Test Data on the Well

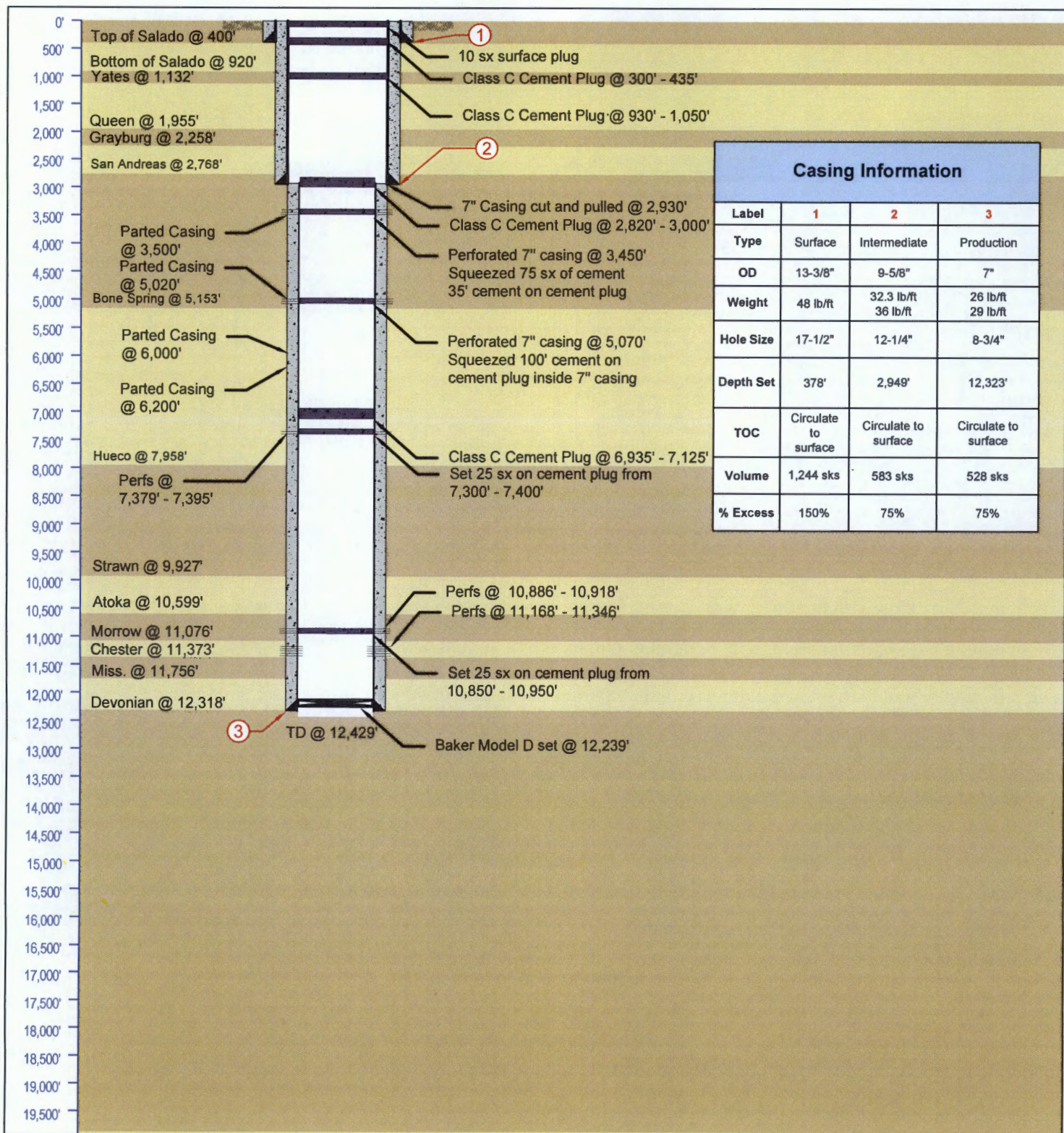
There are no logs or test data on the well. During the process of drilling and completion resistivity, gamma ray, and density logs will be run.

XI. Chemical Analysis of Fresh Water Wells

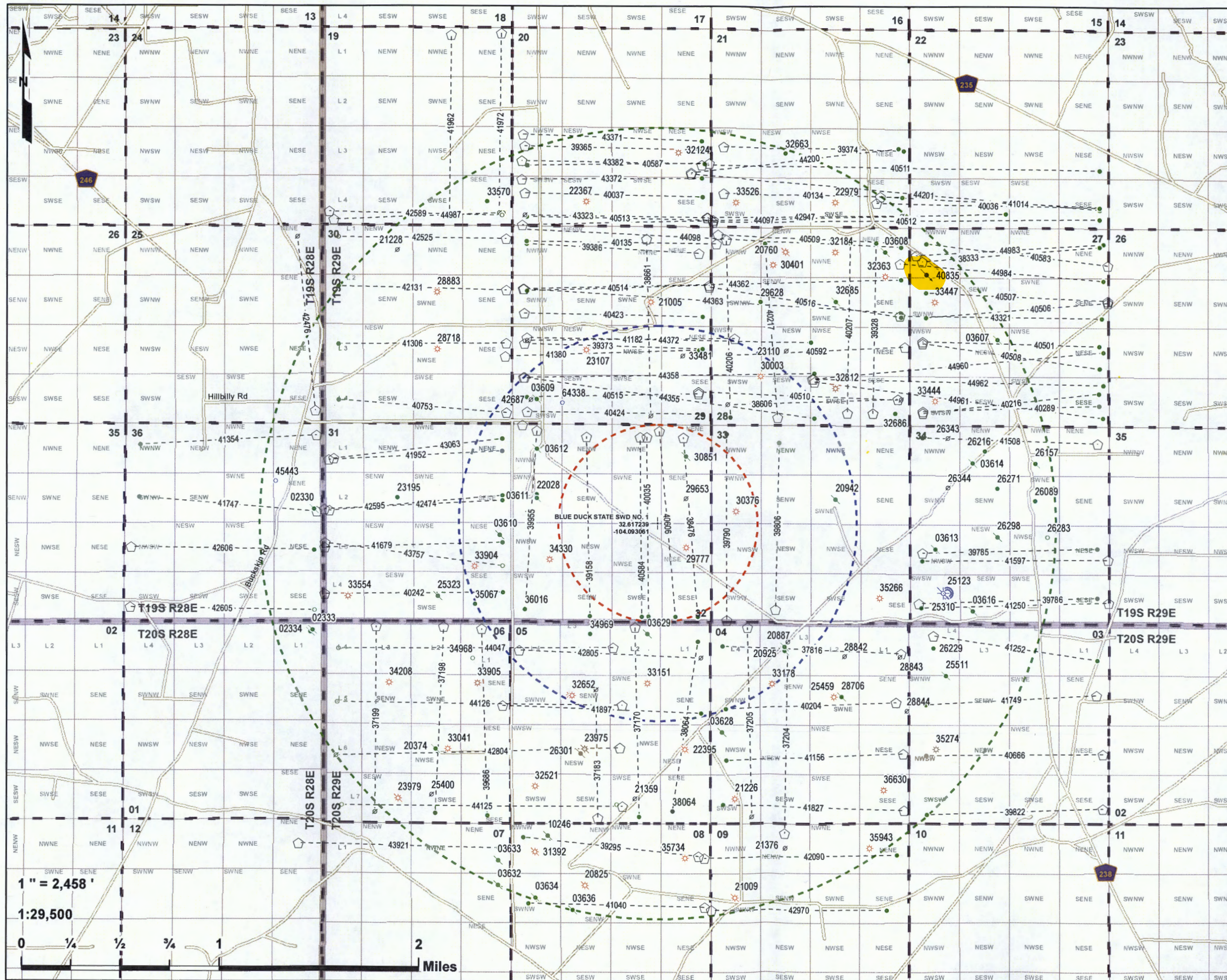
Attached is a map of the one (1) water well that exists within one-mile of the well location, CP-00830-POD1. In June 2019, Cardinal Laboratories delivered a water sample analysis of CP-00743-POD1. This well previously fell within a one-mile radius of the proposed Blue Duck SWD No. 1 well. As a result of the location change, the only water well within a one-mile radius is plugged and abandoned. However, attached in this amended package is the water analysis for CP-00743-POD1 for the OCD freshwater well records purely for records.



LONQUIST & CO. LLC PETROLEUM ENGINEERS ENERGY ADVISORS HOUSTON CALGARY AUSTIN WICHITA DENVER Texas License F-9147 12912 Hill Country Blvd. Ste F-200 Austin, Texas 78738 Tel: 512.732.9812 Fax: 512.732.9816	Solaris Water Midstream, LLC		Blue Duck State SWD No. 1	
	Country: USA	State/Province: New Mexico	County/Parish: Eddy	
	Coords: 32.617239, -104.093061 NAD83	Location: 2,620' FSL & 1,430' FEL	Survey: S32-T19S-R29E	
	API No: NA	Field: Devonian-Silurian (Code: 97869)	Well Type/Status: SWD	
	NMOCD District No: 2	Project No: 1960	Date: 10/16/2019	
	Drawn: TFM	Reviewed:	Approved:	
	Rev No: 1	Notes:		



LONQUIST & CO. LLC PETROLEUM ENGINEERS ENERGY ADVISORS HOUSTON CALGARY AUSTIN WICHITA DENVER Texas License F-9147 12912 Hill Country Blvd. Ste F-200 Austin, Texas 78738 Tel: 512.732.9812 Fax: 512.732.9816	Sunray Mid-Continent Oil Co.		New Mexico State "Q" #1	
	Country: USA		State/Province: New Mexico	County/Parish: Eddy
	Coords: 32.6227493, -104.1034851		Location: 660' FNL & 660' FWL	Survey: S32-T19S-R29E
	API No: 42-015-03612		Field: Wildcat	Well Type/Status: P&A
	NMOCD District No: 2		Project No: 1960	Date: 10/16/2019
Drawn: TFM		Reviewed:		Approved:
Rev No: 1		Notes:		



Blue Duck State SWD No. 1
2 Mile Area of Review
Solaris Water Midstream, LLC
Eddy Co., NM

PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)

Drawn by: ASG Date: 9/30/2019 Approved by: ELR

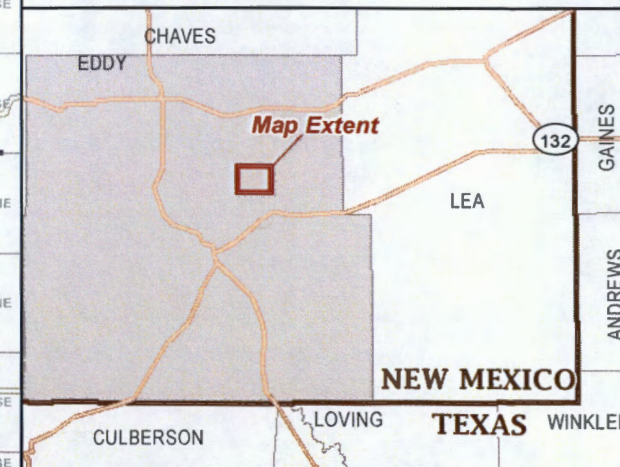
LONQUIST & CO. LLC

PETROLEUM
ENGINEERS

ENERGY
ADVISORS

AUSTIN · HOUSTON · WICHITA · DENVER · CALGARY

- + Blue Duck State SWD No. 1 SHL
- 1/2-Mile
- 1-Mile
- 2-Mile
- QQ-Section (NM-PLSS 2nd Div.)
- Section (NM-PLSS 1st Div.)
- Township/Range (NM-PLSS)
- Lateral
- API (30-015-...) SHL Status-Type (Count)**
 - Horizontal Surface Location (17)
 - Active - Gas (34)
 - Active - Oil (14)
 - Active - SWD (1)**
 - Cancelled/Abandoned Location (13)
 - Permitted - Oil (2)
 - Permitted - SWD (2)
 - Plugged/Site Released - Gas (7)
 - Plugged/Site Released - Oil (1)
 - Plugged/Site Released - SWD (1)
 - Plugged/Site Released - Water Source (1)
- API (30-015-...) BHL Status-Type (Count)**
 - Active - Gas (1)
 - Active - Oil (92)
 - Cancelled/Abandoned Location (15)
 - Permitted - Oil (9)
- Source: Well SHL Data - NM-OCD (2019)

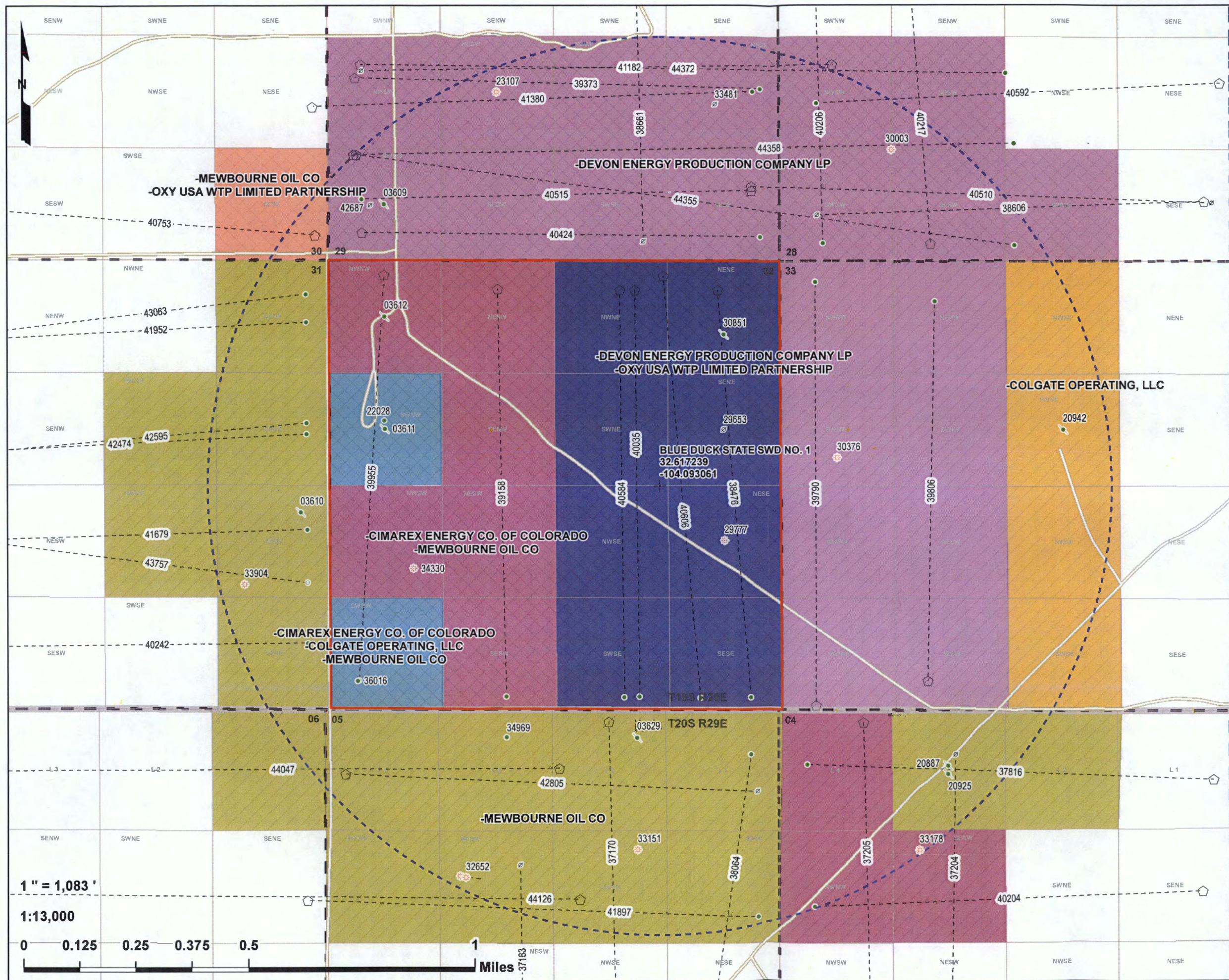


Blue Duck State SWD No. 1
1 Mile Area of Review List

API (30-015-...)	WELL NAME	WELL TYPE	STATUS	OPERATOR	TVD (FT.)	LATITUDE (NAD83 DD)	LONGITUDE (NAD83 DD)	SPUD DATE	FIELD
03609	N. MEX. STATE "AD" #1	O	P	SUNRAY MID-CONTINENT OIL COMPANY	7405	32.6263809000	-104.103485100	9/6/1961	WILDCAT
03610	FEDERAL #1-31	O	P	CAMPANA PETROLEUM COMPANY	1489	32.6164246000	-104.106697100	10/29/1962	SEVEN RIVERS
03611	STATE "Q" #1	O	P	CAMPANA PETROLEUM COMPANY	5100	32.6191216000	-104.103485100	7/16/1962	-
03612	N.M. STATE "Q" #1	O	P	SUNRAY MID-CONTINENT OIL COMPANY	12429	32.6227493000	-104.103485100	9/22/1959	ATOKA
03629	HONOLULA-FEDERAL #11	O	P	REBEL OIL COMPANY	1515	32.6091080000	-104.093994100	7/26/1957	-
20887	FEDERAL #1	O	P	DALTON H. COBB	1092	32.6081619000	-104.082199100	6/28/1973	-
20925	FEDERAL #1-Y	O	P	DALTON H. COBB	450	32.6078873000	-104.082199100	8/4/1973	-
20942	THE PETROLEUM CORPORATION	O	P	SUN FEDERAL #1	11700	32.6190147000	-104.077743500	9/13/1973	-
22028	CHAPARRAL STATE #001	O	A	COLGATE OPERATING, LLC	8000	32.61939620000	-104.10348510000	1/30/1977	[65010] WINCHESTER, BONE SPRING
23107	PARKWAY WEST UNIT #003	G	A	DEVON ENERGY PRODUCTION COMPANY, LP	11434	32.6299896000	-104.099197400	11/19/1981	[82560] PARKWAY, ATOKA, WEST (PRO GAS); [82600] PARKWAY, MORROW, WEST (GAS)
29653	MILLMAN 32 STATE COM #001	G	C	PENWELL ENERGY INC	0	32.61907150960	-104.09062219000	-	-
29777	OXY PEARL STATE #001	G	A	OXY USA WTP LIMITED PARTNERSHIP	11550	32.6154633000	-104.090614300	8/19/1997	[82600] PARKWAY, MORROW, WEST (GAS)
30003	PARKWAY WEST 28 UNIT #003	G	A	DEVON ENERGY PRODUCTION COMPANY, LP	11550	32.6280861000	-104.084205600	3/25/1998	[82600] PARKWAY, MORROW, WEST (GAS); [82640] PARKWAY, STRAWN, WEST (GAS)
30376	MILLMAN SE FEDERAL #001	G	A	DEVON ENERGY PRODUCTION COMPANY, LP	11600	32.6181412000	-104.086326600	9/23/1998	[82600] PARKWAY, MORROW, WEST (GAS)
30851	OXY PEARL STATE #002	O	P	DEVON ENERGY PRODUCTION COMPANY, LP	11575	32.6221466000	-104.090614300	12/9/1999	[65010] WINCHESTER, BONE SPRING; [97280] RATTLESNAKE WELL, STRAWN
32652	GATUNA CANYON 5 FEDERAL COM #002	G	A	MEWBOURNE OIL CO	11650	32.6046104000	-104.100486800	3/6/2003	[73320] BURTON FLAT, MORROW, EAST (GAS)
33151	COLT 5 FEDERAL COM #001	G	A	MEWBOURNE OIL CO	11664	32.6054955000	-104.093994100	1/5/2004	[73200] BURTON FLAT, ATOKA, EAST (GAS); [73320] BURTON FLAT, MORROW, EAST (GAS)
33178	COLT 4 FEDERAL COM #001	G	A	MEWBOURNE OIL CO	11750	32.6054459000	-104.083282500	5/3/2004	[73320] BURTON FLAT, MORROW, EAST (GAS)
33481	PARKWAY WEST UNIT #023	G	C	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.6295727510	-104.090911487	-	[82600] PARKWAY, MORROW, WEST (GAS)
33904	RUGER 31 FEDERAL #002	G	A	MEWBOURNE OIL CO	11516	32.6140976000	-104.108840900	6/25/2005	[73200] BURTON FLAT, ATOKA, EAST (GAS); [73320] BURTON FLAT, MORROW, EAST (GAS); [87600] WINCHESTER, MORROW (GAS)
34330	MARLIN 32 STATE #001	G	A	MEWBOURNE OIL CO	11550	32.6145973000	-104.102409400	11/4/2005	[77720] GRAYBURG, ATOKA (GAS); [82560] PARKWAY, ATOKA, WEST (PRO GAS); [96542] WILDCAT, GRANITE
34969	GATUNA CANYON 5 FEDERAL #003	O	A	MEWBOURNE OIL CO	8100	32.6091423000	-104.098922700	11/8/2006	[65010] WINCHESTER, BONE SPRING
36016	CHAPARRAL STATE #003	O	A	COLGATE OPERATING, LLC	5300	32.61097340000	-104.10455320000	2/15/2008	[48900] OUTPOST, DELAWARE
37170	COLT 5 FEDERAL #002H	O	A	MEWBOURNE OIL CO	12461	32.6096230000	-104.095062300	7/31/2009	[65010] WINCHESTER, BONE SPRING
37183	GATUNA CANYON 5 FEDERAL #004E	O	C	MEWBOURNE OIL CO	99999	32.5956631292	-104.098308220	-	[65010] WINCHESTER, BONE SPRING
37204	COLT 4 FEDERAL COM #003E	O	C	MEWBOURNE OIL CO	0	32.5945005652	-104.082200119	-	[49622] PARKWAY, BONE SPRING
37205	COLT 4 FEDERAL COM #002E	O	C	MEWBOURNE OIL CO	0	32.6095862216	-104.085399872	-	[49622] PARKWAY, BONE SPRING
37816	BURTON 4 FEDERAL #003H	O	A	MEWBOURNE OIL CO	7918	32.6077003000	-104.072143600	5/9/2010	[49622] PARKWAY, BONE SPRING
38064	COLT 5 FEDERAL #003H	O	A	MEWBOURNE OIL CO	7927	32.5961380000	-104.091873200	8/27/2010	[65010] WINCHESTER, BONE SPRING
38476	JASPER 32 STATE COM #004H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	9	32.6235771000	-104.090835600	12/31/2011	[65010] WINCHESTER, BONE SPRING
38606	CORAL PWU 28 #004C	O	C	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.6263736425	-104.072368791	-	[49622] PARKWAY, BONE SPRING
38661	ONYX PWU 29 #003C	O	C	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.6381208099	-104.094010226	-	[55510] SCANLON DRAW, BONE SPRING
39158	CHAPARRAL STATE #020	O	A	CIMAREX ENERGY CO. OF COLORADO	7908	32.62364200000	-104.09918980000	5/1/2012	[65010] WINCHESTER, BONE SPRING
39373	ONYX PWU 29 #003H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	7934	32.6304665000	-104.104560900	11/30/2011	[55510] SCANLON DRAW, BONE SPRING; [98199] PARKWAY, BONE SPRING, WEST
39790	BERYL 33 FEDERAL #001H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	7968	32.6101418000	-104.087173500	3/17/2012	[49622] PARKWAY, BONE SPRING
39806	BERYL 33 FEDERAL COM #002H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	7972	32.6109161000	-104.082954400	5/15/2012	[49622] PARKWAY, BONE SPRING
39955	CHAPARRAL STATE #021H	O	A	CIMAREX ENERGY CO. OF COLORADO	7801	32.6240997000	-104.103485100	6/4/2012	[65010] WINCHESTER, BONE SPRING
40035	JASPER 32 STATE COM #003H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	9	32.6235924000	-104.093986500	9/21/2013	[65010] WINCHESTER, BONE SPRING
40204	BURTON 4 FEDERAL COM #004H	O	A	MEWBOURNE OIL CO	7926	32.6040993000	-104.072570800	5/27/2012	[49622] PARKWAY, BONE SPRING
40206	CORAL PWU 28 #001H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	7983	32.6380730000	-104.087158200	6/25/2012	[49622] PARKWAY, BONE SPRING; [98199] PARKWAY, BONE SPRING, WEST
40217	CORAL PWU 28 #002H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	8020	32.6388168000	-104.084137000	9/17/2012	[49622] PARKWAY, BONE SPRING; [98199] PARKWAY, BONE SPRING, WEST
40242	RUGER 31 MP FEDERAL #001H	O	A	MEWBOURNE OIL CO	8899	32.6121025000	-104.121757500	2/28/2013	[65010] WINCHESTER, BONE SPRING
40424	ONYX PWU 29 #004H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	7937	32.6254768000	-104.104324300	8/23/2012	[55510] SCANLON DRAW, BONE SPRING; [98199] PARKWAY, BONE SPRING, WEST
40510	CORAL PWU 28 #008H	O	C	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.6269264000	-104.089538600	-	[49622] PARKWAY, BONE SPRING
40515	ONYX PWU 29 #008H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	9	32.62678910000	-104.08953860000	10/5/2013	[55510] SCANLON DRAW, BONE SPRING; [98199] PARKWAY, BONE SPRING, WEST
40584	JASPER 32 STATE COM #007H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	6947	32.6235924000	-104.094558700	10/20/2013	[65010] WINCHESTER, BONE SPRING
40592	CORAL PWU 28 #007H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	7020	32.6302032000	-104.071746800	3/8/2013	[49622] PARKWAY, BONE SPRING; [98199] PARKWAY, BONE SPRING, WEST
40606	JASPER 32 STATE COM #008H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	7011	32.6240387000	-104.092903100	12/15/2013	[65010] WINCHESTER, BONE SPRING
40753	MIRAGE 30 PM STATE COM #001H	O	A	MEWBOURNE OIL CO	7658	32.6254005000	-104.106117200	1/29/2013	[65010] WINCHESTER, BONE SPRING
41182	ONYX PWU 29 #007C	O	C	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.6308459185	-104.086439674	-	[49622] PARKWAY, BONE SPRING
41380	ONYX PWU 29 #007H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	7040	32.6295242000	-104.106201200	3/3/2014	[49622] PARKWAY, BONE SPRING; [98199] PARKWAY, BONE SPRING, WEST
41679	RUGER 31 LI FEDERAL #001H	O	A	MEWBOURNE OIL CO	8909	32.6154976000	-104.121765100	6/27/2014	[65010] WINCHESTER, BONE SPRING
41897	SAVAGE 5 EH FEDERAL #001H	O	A	MEWBOURNE OIL CO	6922	32.6038895000	-104.106491100	2/8/2014	[65010] WINCHESTER, BONE SPRING
41952	RUGER 31 DA FEDERAL COM #001H	O	A	MEWBOURNE OIL CO	7722	32.6219368000	-104.121398900	2/3/2014	[65010] WINCHESTER, BONE SPRING
42474	RUGER 31 B2EH FEDERAL #001H	O	A	MEWBOURNE OIL CO	7735	32.61830900000	-104.12178040000	9/1/2014	[65010] WINCHESTER, BONE SPRING
42595	RUGER 31 B3EH FEDERAL #002H	O	A	MEWBOURNE OIL CO	8910	32.6182137000	-104.121337900	10/6/2014	[65010] WINCHESTER, BONE SPRING
42687	PARKWAY SWD #002	O	C	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.6263553135	-104.103995600	-	[96103] SWD, ELLENBURGER
42805	SAVAGE 5 B1 DA FEDERAL #001H	O	C	MEWBOURNE OIL CO	0	32.60795330030	-104.10502809800	-	[65010] WINCHESTER, BONE SPRING
43063	RUGER 31 B3DA FEDERAL #002H	O	A	MEWBOURNE OIL CO	8194	32.6220320000	-104.120957600	5/5/2015	[65010] WINCHESTER, BONE SPRING
43757	RUGER 31 B2LI FEDERAL #002H	O	N	MEWBOURNE OIL CO	0	32.61583620000	-104.12173440000	-	[65010] WINCHESTER, BONE SPRING
44047	SIG 5 6 B2CD FEDERAL COM #001H	O	N	MEWBOURNE OIL CO	0	32.6081352800	-104.096945100	-	[65010] WINCHESTER, BONE SPRING
44126	SIG 5 6 B2FE FEDERAL COM #001H	O	N	MEWBOURNE OIL CO	0	32.6039010600	-104.096187833	-	[65010] WINCHESTER, BONE SPRING
44355	ONYX PWU 29 28 #012H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	9094	32.6279881000	-104.104529500	11/18/2017	[98199] PARKWAY, BONE SPRING, WEST

Blue Duck State SWD No. 1
1 Mile Area of Review List

44358	ONYX PWU 29 28 #062H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	9009	32.6279883000	-104.104626900	11/17/2017	[98199] PARKWAY, BONE SPRING, WEST
44372	ONYX PWU 29 28 #011H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	9062	32.63090060000	-104.10434740000	11/29/2017	[98199] PARKWAY, BONE SPRING, WEST



Blue Duck State SWD No. 1
1 Mile Offset Operators
Solaris Water Midstream, LLC
Eddy Co., NM

PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)

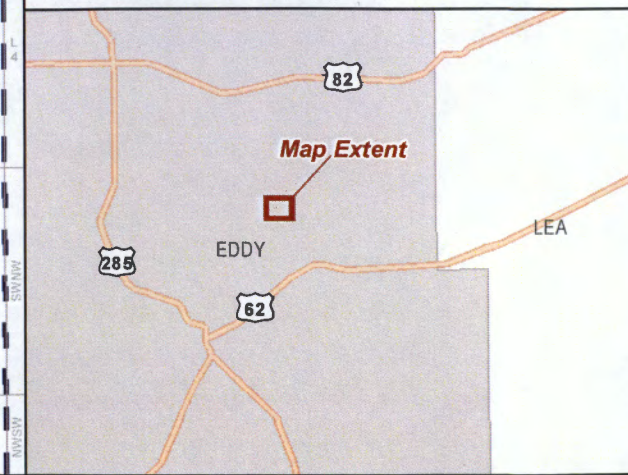
Drawn by: ASG Date: 10/1/2019 Approved by: ELR

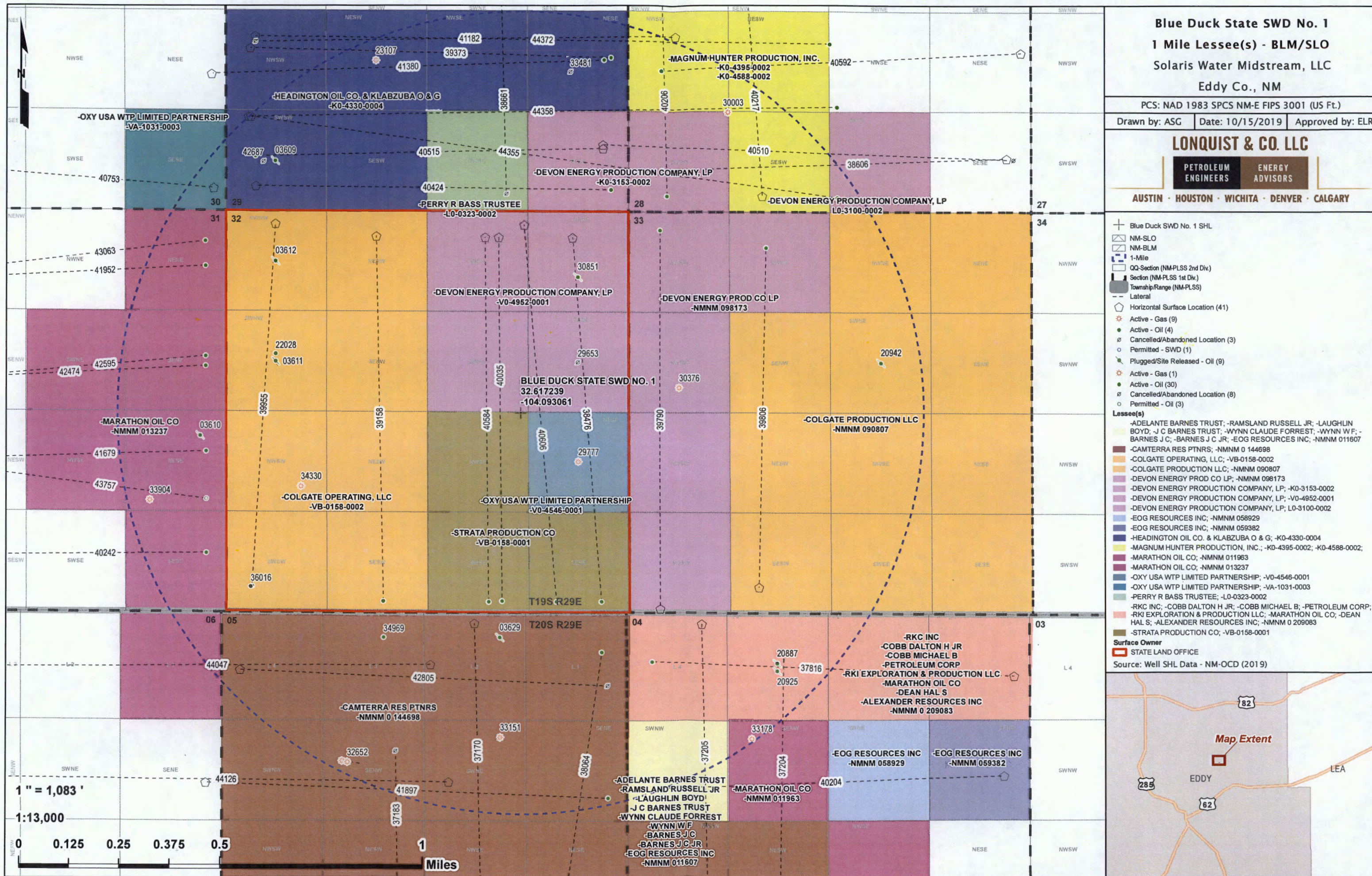
LONQUIST & CO. LLC

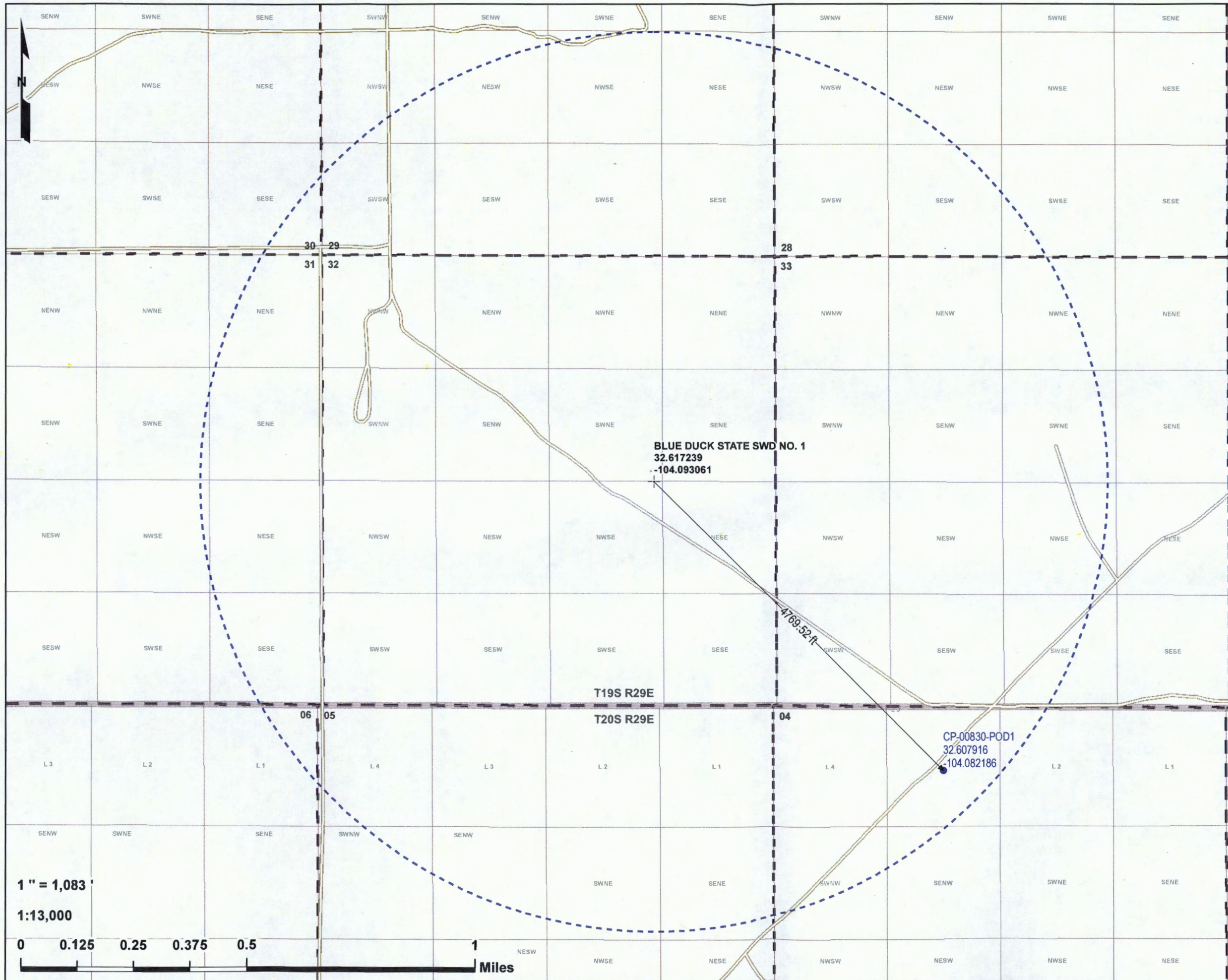
PETROLEUM ENGINEERS **ENERGY ADVISORS**

AUSTIN · HOUSTON · WICHITA · DENVER · CALGARY

- Blue Duck SWD No. 1 SHL
 - 1-Mile
 - NM-BLM
 - NM-SLO
 - Lateral
 - QQ-Section (NM-PLSS 2nd Div.)
 - Section (NM-PLSS 1st Div.)
 - Township/Range (NM-PLSS)
 - API (30-015-...) SHL Status-Type (Count)**
 - Horizontal Surface Location (41)
 - Active - Gas (9)
 - Active - Oil (4)
 - Cancelled/Abandoned Location (3)
 - Permitted - SWD (1)
 - Plugged/Site Released - Oil (9)
 - API (30-015-...) BHL Status-Type (Count)**
 - Active - Gas (1)
 - Active - Oil (30)
 - Cancelled/Abandoned Location (8)
 - Permitted - Oil (3)
 - Offset Operators**
 - CIMAREX ENERGY CO. OF COLORADO; -COLGATE OPERATING, LLC; -MEWBOURNE OIL CO
 - CIMAREX ENERGY CO. OF COLORADO; -MEWBOURNE OIL CO
 - COLGATE OPERATING, LLC
 - DEVON ENERGY PRODUCTION COMPANY LP
 - DEVON ENERGY PRODUCTION COMPANY LP; -OXY USA WTP LIMITED PARTNERSHIP
 - MEWBOURNE OIL CO
 - MEWBOURNE OIL CO; -OXY USA WTP LIMITED PARTNERSHIP
 - Surface Owner**
 - STATE LAND OFFICE
- Source: Well SHL Data - NM-OCD (2019)







Blue Duck State SWD No. 1
1 Mile Water Wells
Solaris Water Midstream, LLC
Eddy., NM

PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)
Drawn by: ASG | Date: 9/30/2019 | Approved by: ELR

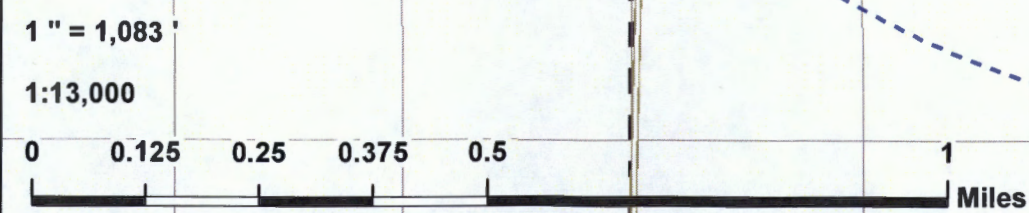
LONQUIST & CO. LLC

PETROLEUM ENGINEERS **ENERGY ADVISORS**

AUSTIN · HOUSTON · WICHITA · DENVER · CALGARY

- + Blue Duck SWD No. 1 SHL
- 1-Mile
- Distance Call
- QQ-Section (NM-PLSS 2nd Div.)
- Water Well (1) [NM-OSE 2019]
- Section (NM-PLSS 1st Div.)
- Township/Range (NM-PLSS)

Source: Water Well Data - NM-OSE (2019)





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

June 20, 2019

TYLER MOEHLMAN

Lonquist Field Services, LLC

12912 HILL COUNTRY BLVD., SUITE F-200

Austin, TX 78738

RE: BLUE DUCK STATE SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 06/13/19 8:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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 accredited 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

Lab Director/Quality Manager

Analytical Results For:

Lonquist Field Services, LLC
12912 HILL COUNTRY BLVD., SUITE F-200
Austin TX, 78738

Project: BLUE DUCK STATE SWD #1
Project Number: 32.2012779 / -104.089693
Project Manager: TYLER MOEHLMAN
Fax To: (512) 732-9816

Reported:
20-Jun-19 11:32

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CP-00743 - POD #1	H902047-01	Water	12-Jun-19 13:22	13-Jun-19 08:15

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Lonquist Field Services, LLC
12912 HILL COUNTRY BLVD., SUITE F-200
Austin TX, 78738

Project: BLUE DUCK STATE SWD #1
Project Number: 32.2012779 / -104.089693
Project Manager: TYLER MOEHLMAN
Fax To: (512) 732-9816

Reported:
20-Jun-19 11:32

CP-00743 - POD #1
H902047-01 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories

Inorganic Compounds

Alkalinity, Bicarbonate	20.0		5.00	mg/L	1	9061405	AC	14-Jun-19	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	9061405	AC	14-Jun-19	310.1	
Chloride*	2100		4.00	mg/L	1	9061310	AC	18-Jun-19	4500-Cl-B	
Conductivity*	7170		1.00	uS/cm	1	9061403	AC	14-Jun-19	120.1	
pH*	7.52		0.100	pH Units	1	9061403	AC	14-Jun-19	150.1	
Resistivity	1.39			Ohms/m	1	9061403	AC	14-Jun-19	120.1	
Specific Gravity @ 60° F	1.008		0.000	[blank]	1	9061413	AC	14-Jun-19	SM 2710F	
Sulfate*	1870		250	mg/L	25	9061708	AC	17-Jun-19	375.4	
TDS*	5680		5.00	mg/L	1	9061308	AC	14-Jun-19	160.1	
Alkalinity, Total*	16.0		4.00	mg/L	1	9061405	AC	14-Jun-19	310.1	
Sulfide, total	<0.0100		0.0100	mg/L	1	9061706	AC	17-Jun-19	376.2	

Green Analytical Laboratories

Total Recoverable Metals by ICP (E200.7)

Barium*	<0.250		0.250	mg/L	5	B906147	AES	19-Jun-19	EPA200.7	
Calcium*	678		0.500	mg/L	5	B906147	AES	19-Jun-19	EPA200.7	
Iron*	0.550		0.250	mg/L	5	B906147	AES	19-Jun-19	EPA200.7	
Magnesium*	119		0.500	mg/L	5	B906147	AES	19-Jun-19	EPA200.7	
Potassium*	15.7		5.00	mg/L	5	B906147	AES	19-Jun-19	EPA200.7	
Sodium*	705		5.00	mg/L	5	B906147	AES	19-Jun-19	EPA200.7	

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Lonquist Field Services, LLC
 12912 HILL COUNTRY BLVD., SUITE F-200
 Austin TX, 78738

 Project: BLUE DUCK STATE SWD #1
 Project Number: 32.2012779 / -104.089693
 Project Manager: TYLER MOEHLMAN
 Fax To: (512) 732-9816

 Reported:
 20-Jun-19 11:32

Inorganic Compounds - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9061308 - Filtration

Blank (9061308-BLK1)		Prepared: 13-Jun-19 Analyzed: 14-Jun-19								
TDS	ND	5.00	mg/L							
LCS (9061308-BS1)		Prepared: 13-Jun-19 Analyzed: 14-Jun-19								
TDS	436		mg/L	527		82.7	80-120			
Duplicate (9061308-DUP1)		Source: H902024-03		Prepared: 13-Jun-19 Analyzed: 14-Jun-19						
TDS	436	5.00	mg/L		439			0.686	20	

Batch 9061310 - General Prep - Wet Chem

Blank (9061310-BLK1)		Prepared: 13-Jun-19 Analyzed: 18-Jun-19								
Chloride	ND	4.00	mg/L							
LCS (9061310-BS1)		Prepared: 13-Jun-19 Analyzed: 18-Jun-19								
Chloride	96.0	4.00	mg/L	100		96.0	80-120			
LCS Dup (9061310-BSD1)		Prepared: 13-Jun-19 Analyzed: 18-Jun-19								
Chloride	100	4.00	mg/L	100		100	80-120	4.08	20	

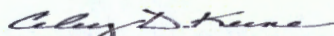
Batch 9061403 - General Prep - Wet Chem

LCS (9061403-BS1)		Prepared & Analyzed: 14-Jun-19								
Conductivity	45800		uS/cm	50000		91.6	80-120			
pH	7.09		pH Units	7.00		101	90-110			
Duplicate (9061403-DUP1)		Source: H902047-01		Prepared & Analyzed: 14-Jun-19						
pH	7.48	0.100	pH Units		7.52			0.533	20	
Conductivity	7110	1.00	uS/cm		7170			0.840	20	
Resistivity	1.41		Ohms/m		1.39			0.840	20	

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Lonquist Field Services, LLC
 12912 HILL COUNTRY BLVD., SUITE F-200
 Austin TX, 78738

 Project: BLUE DUCK STATE SWD #1
 Project Number: 32.2012779 / -104.089693
 Project Manager: TYLER MOEHLMAN
 Fax To: (512) 732-9816

 Reported:
 20-Jun-19 11:32

Inorganic Compounds - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9061405 - General Prep - Wet Chem
Blank (9061405-BLK1)

Prepared & Analyzed: 14-Jun-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 (9061405-BS1)

Prepared & Analyzed: 14-Jun-19

Alkalinity, Carbonate	ND	2.50	mg/L				80-120			
Alkalinity, Bicarbonate	305	12.5	mg/L				80-120			
Alkalinity, Total	250	10.0	mg/L	250		100	80-120			

LCS Dup (9061405-BSD1)

Prepared & Analyzed: 14-Jun-19

Alkalinity, Carbonate	ND	2.50	mg/L				80-120		20	
Alkalinity, Bicarbonate	318	12.5	mg/L				80-120	4.02	20	
Alkalinity, Total	260	10.0	mg/L	250		104	80-120	3.92	20	

Batch 9061413 - General Prep - Wet Chem
Duplicate (9061413-DUP1)

Source: H902047-01

Prepared & Analyzed: 14-Jun-19

Specific Gravity @ 60° F	1.006	0.000	[blank]		1.008			0.148	20	
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Batch 9061706 - General Prep - Wet Chem
Blank (9061706-BLK1)

Prepared & Analyzed: 17-Jun-19

Sulfide, total	ND	0.0100	mg/L							
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Duplicate (9061706-DUP1)

Source: H901413-01

Prepared & Analyzed: 17-Jun-19

Sulfide, total	0.0600	0.0100	mg/L		0.0640			6.45	20	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Lonquist Field Services, LLC
12912 HILL COUNTRY BLVD., SUITE F-200
Austin TX, 78738

Project: BLUE DUCK STATE SWD #1
Project Number: 32.2012779 / -104.089693
Project Manager: TYLER MOEHLMAN
Fax To: (512) 732-9816

Reported:
20-Jun-19 11:32

Inorganic Compounds - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9061708 - General Prep - Wet Chem										
Blank (9061708-BLK1)				Prepared & Analyzed: 17-Jun-19						
Sulfate	ND	10.0	mg/L							
LCS (9061708-BS1)				Prepared & Analyzed: 17-Jun-19						
Sulfate	16.2	10.0	mg/L	20.0		81.2	80-120			
LCS Dup (9061708-BSD1)				Prepared & Analyzed: 17-Jun-19						
Sulfate	16.1	10.0	mg/L	20.0		80.4	80-120	1.11	20	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Lonquist Field Services, LLC
 12912 HILL COUNTRY BLVD., SUITE F-200
 Austin TX, 78738

 Project: BLUE DUCK STATE SWD #1
 Project Number: 32.2012779 / -104.089693
 Project Manager: TYLER MOEHLMAN
 Fax To: (512) 732-9816

 Reported:
 20-Jun-19 11:32

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
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Batch B906147 - Total Rec. 200.7/200.8/200.2
Blank (B906147-BLK1)

Prepared: 17-Jun-19 Analyzed: 19-Jun-19

Calcium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Barium	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Sodium	ND	1.00	mg/L							
Iron	ND	0.050	mg/L							

LCS (B906147-BS1)

Prepared: 17-Jun-19 Analyzed: 19-Jun-19

Sodium	3.63	1.00	mg/L	3.24		112	85-115			
Potassium	8.34	1.00	mg/L	8.00		104	85-115			
Magnesium	20.2	0.100	mg/L	20.0		101	85-115			
Iron	4.05	0.050	mg/L	4.00		101	85-115			
Calcium	4.15	0.100	mg/L	4.00		104	85-115			
Barium	2.07	0.050	mg/L	2.00		104	85-115			

LCS Dup (B906147-BSD1)

Prepared: 17-Jun-19 Analyzed: 19-Jun-19

Magnesium	19.9	0.100	mg/L	20.0		99.3	85-115	1.67	20	
Potassium	8.19	1.00	mg/L	8.00		102	85-115	1.81	20	
Calcium	4.04	0.100	mg/L	4.00		101	85-115	2.61	20	
Sodium	3.48	1.00	mg/L	3.24		107	85-115	4.43	20	
Barium	2.03	0.050	mg/L	2.00		101	85-115	2.12	20	
Iron	3.99	0.050	mg/L	4.00		99.7	85-115	1.65	20	

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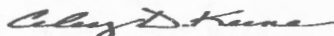
Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

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Celey D. Keene, Lab Director/Quality Manager

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

Cardinal cannot prevent verbal changes Please for written changes to (K75) 202.2226

CARDINAL LABORATORIES

SCALE INDEX WATER ANALYSIS REPORT

Company : LONQUIST FIELD SERVICES
 Lease Name : BLUE DUCK STATE SWD #1
 Well Number : CP-00743-POD #1 (H902047-01)
 Location : 32.2012779 / -104.089693

Date Sampled : 06/12/19
 Company Rep. : TYLER MOEHLMAN

ANALYSIS

1. pH	7.52	
2. Specific Gravity @ 60/60 F.	1.0080	
3. CaCO3 Saturation Index @ 80 F.	-0.315	
@ 140 F.	+0.385	'Calcium Carbonate Scale Possible'

Dissolved Gasses

4. Hydrogen Sulfide	0.000	PPM
5. Carbon Dioxide	ND	PPM
6. Dissolved Oxygen	ND	PPM

Cations

		/	Eq. Wt.	=	MEQ/L
7. Calcium (Ca++)	678.00	/	20.1	=	33.73
8. Magnesium (Mg++)	119.00	/	12.2	=	9.75
9. Sodium (Na+)	705	/	23.0	=	54.32
10. Barium (Ba++)	0.000	/	68.7	=	0.00

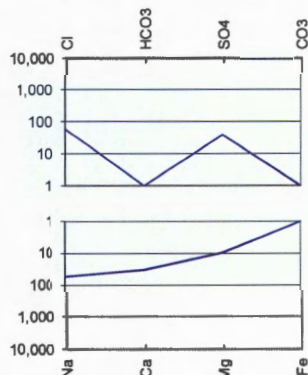
Anions

11. Hydroxyl (OH-)	0	/	17.0	=	0.00
12. Carbonate (CO3=)	0	/	30.0	=	0.00
13. Bicarbonate (HCO3-)	20	/	61.1	=	0.33
14. Sulfate (SO4=)	1,870	/	48.8	=	38.32
15. Chloride (Cl-)	2,100	/	35.5	=	59.15

Other

16. Total Iron (Fe)	0.550	/	18.2	=	0.03
17. Total Dissolved Solids	5,680				
18. Total Hardness As CaCO3	2,183.0				
19. Calcium Sulfate Solubility @ 90 F.	2,294				
20. Resistivity (Measured)	1.390	Ohm/Meters	@ 77	Degrees (F)	

Logarithmic Water Pattern



PROBABLE MINERAL COMPOSITION

COMPOUND	Eq. Wt.	X	MEQ/L	=	mg/L
Ca(HCO3)2	81.04	X	0.33	=	27
CaSO4	68.07	X	33.40	=	2,274
CaCl2	55.50	X	0.00	=	0
Mg(HCO3)2	73.17	X	0.00	=	0
MgSO4	60.19	X	4.92	=	296
MgCl2	47.62	X	4.84	=	230
NaHCO3	84.00	X	0.00	=	0
NaSO4	71.03	X	0.00	=	0
NaCl	58.46	X	54.32	=	3,175

ND = Not Determined

LONQUIST & CO. LLC

PETROLEUM
ENGINEERS

ENERGY
ADVISORS

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AFFECTED PARTIES STATEMENT

I have examined the updated Area of Review ("AOR") for the proposed Blue Duck State SWD No. 1. I discovered no new affected parties that would require notification. Furthermore, I have identified one (1) well within a one-mile AOR that penetrate the proposed injection zone, New Mexico State "Q" No. 1 (API No. 42-015-03612). This well was plugged and abandoned in 2000, a detailed plugging schematic is shown in this amended package.



Tyler Moehlman
Petroleum Engineer

Project: Solaris Water Midstream, LLC
Blue Duck State SWD No. 1
October 17, 2019