



EOG Resources, Inc.
5509 Champions Drive
Midland, Texas 79706

December 14, 2022

EMNRD/OCD
Attn: Victoria Venegas,
Environmental Specialist
506 W. Texas
Artesia, NM 88210

Re: Form C-147 with accompanying documentation
Streetcar Reuse Water Facility and Containment Pit

Dear Ms. Venegas,

Thank you for allowing EOG to continue to promote water reuse in the State of New Mexico for our operations. Please find attached C-147 form with accompanying documentation for the Streetcar Reuse Water Facility and Containment Pit previously approved under permit # 1RF-28. Facility is expected to be built by 2Q2023.

Surface owners have been notified via certified mail.

Please do not hesitate to contact me with any questions, comments or concerns.

Sincerely,

Patricia Donald

Patricia Donald
EOG Resources, Regulatory Specialist

energy opportunity growth

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-147
Revised April 3, 2017

Recycling Facility and/or Recycling Containment

Type of Facility: ☒ Recycling Facility ☒ Recycling Containment*

Type of action: ☒ Permit ☒ Registration
☐ Modification ☐ Extension
☐ Closure ☐ Other (explain) _____

* At the time C-147 is submitted to the division for a Recycling Containment, a copy shall be provided to the surface owner.

Be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.

Operator: EOG Resources, Inc. (For multiple operators attach page with information) OGRID #: 7377
Address: 5509 Champions Dr. Midland Texas 79706
Facility or well name (include API# if associated with a well): Streetcar Reuse Water Recycling Facility and Containment Pit
OCD Permit Number: 1RF-500 (For new facilities the permit number will be assigned by the district office)
U/L or Qtr/Qtr NE/NW Section 16 Township 25S Range 33E County: Lea
Surface Owner: ☐ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.

☒ **Recycling Facility:**

Location of recycling facility (if applicable): Latitude 32.1365064 Longitude -103.5802196 NAD83

Proposed Use: ☐ Drilling* ☒ Completion* ☐ Production* ☐ Plugging *

**The re-use of produced water may NOT be used until fresh water zones are cased and cemented*

☐ Other, requires permit for other uses. Describe use, process, testing, volume of produced water and ensure there will be no adverse impact on groundwater or surface water.

☒ Fluid Storage

☒ Above ground tanks ☒ Recycling containment ☐ Activity permitted under 19.15.17 NMAC explain type _____

☐ Activity permitted under 19.15.36 NMAC explain type: _____ ☐ Other explain _____

☐ For multiple or additional recycling containments, attach design and location information of each containment

☐ Closure Report (required within 60 days of closure completion): ☐ Recycling Facility Closure Completion Date: _____

3.

☒ **Recycling Containment:**

☐ Annual Extension after initial 5 years (attach summary of monthly leak detection inspections for previous year)

Center of Recycling Containment (if applicable): Latitude _____ Longitude _____ NAD83

☐ For multiple or additional recycling containments, attach design and location information of each containment

☒ Lined ☐ Liner type: Thickness 60 mil ☐ LLDPE ☒ HDPE ☐ PVC ☐ Other _____

☐ String-Reinforced

Liner Seams: ☒ Welded ☐ Factory ☐ Other _____ Volume: 1MM bbl Dimensions: L 600 x W 600 x D 16

☐ Recycling Containment Closure Completion Date: _____

4.

Bonding:

- ☒ Covered under bonding pursuant to 19.15.8 NMAC per 19.15.34.15(A)(2) NMAC (These containments are limited to only the wells owned or operated by the owners of the containment.)
- ☐ Bonding in accordance with 19.15.34.15(A)(1). Amount of bond \$ _____ (work on these facilities cannot commence until bonding amounts are approved)
- ☐ Attach closure cost estimate and documentation on how the closure cost was calculated.

5.

Fencing:

- ☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
- ☒ Alternate. Please specify _____

6.

Signs:

- ☒ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- ☐ Signed in compliance with 19.15.16.8 NMAC

7.

Variances:

Justifications and/or demonstrations that the proposed variance will afford reasonable protection against contamination of fresh water, human health, and the environment.

Check the below box only if a variance is requested:

☒ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval. If a Variance is requested, include the variance information on a separate page and attach it to the C-147 as part of the application.

If a Variance is requested, it must be approved prior to implementation.

8.

Siting Criteria for Recycling Containment

Instructions: The applicant must provide attachments that demonstrate compliance for each siting criteria below as part of the application. Potential examples of the siting attachment source material are provided below under each criteria.

General siting**Ground water is less than 50 feet below the bottom of the Recycling Containment.**

NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☒ No
☐ NA

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

☐ Yes ☒ No
☐ NA

- Written confirmation or verification from the municipality; written approval obtained from the municipality

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Minerals Division

☐ Yes ☒ No

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; topographic map

☐ Yes ☒ No

Within a 100-year floodplain. FEMA map

☐ Yes ☒ No

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

☐ Yes ☒ No

- Topographic map; visual inspection (certification) of the proposed site

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

☐ Yes ☒ No

- Visual inspection (certification) of the proposed site; aerial photo; satellite image

Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.

☐ Yes ☒ No

- NM Office of the State Engineer - iWATERS database search; visual inspection (certification) of the proposed site

Within 500 feet of a wetland.

☐ Yes ☒ No

- US Fish and Wildlife Wetland Identification map; topographic map; visual inspection (certification) of the proposed site

9.

Recycling Facility and/or Containment Checklist:

Instructions: Each of the following items must be attached to the application. Indicate, by a check mark in the box, that the documents are attached.

- ☒ Design Plan - based upon the appropriate requirements.
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements.
- ☒ Closure Plan - based upon the appropriate requirements.
- ☒ Site Specific Groundwater Data -
- ☒ Siting Criteria Compliance Demonstrations --
- ☒ Certify that notice of the C-147 (only) has been sent to the surface owner(s)

10.

Operator Application Certification:

I hereby certify that the information and attachments submitted with this application are true, accurate and complete to the best of my knowledge and belief.

Name (Print): Patricia Donald Title: Regulatory Specialist

Signature: Patricia Donald Date: 12/14/2022

e-mail address: Patricia_Donald@cogresources.com Telephone: 432-488-7684

11.

OCD Representative Signature: Victoria Venegas Approval Date: 12/27/2022

Title: Environmental Specialist OCD Permit Number: 1RF-500

- ☒ OCD Conditions
- ☒ Additional OCD Conditions on Attachment



Variance Request for Bird Deterrent

Re: Streetcar Reuse Water Recycling Facility and Containment Pit

EOG Resources, Inc. would like to request the OCD's approval for a variance regarding bird deterrents at the location described above. EOG proposes to utilize the Bird-X Mega Blaster Pro, creating intermittent distress calls to create a "danger zone" that frightens native and or migrating birds and wildlife from the water recycling facility and containment pit area. Two units would be installed, each containing 2 built-in high output amplifiers and houses 20 speakers, capable of producing up to 125 decibels and a frequency range from 2,000 – 10,000 Hz.

Please note that EOG Resources, Inc. is currently utilizing this same bird deterrent, which was approved on OCD Permit No. 12

Please see details below.

Mega Blaster Pro – Specs:

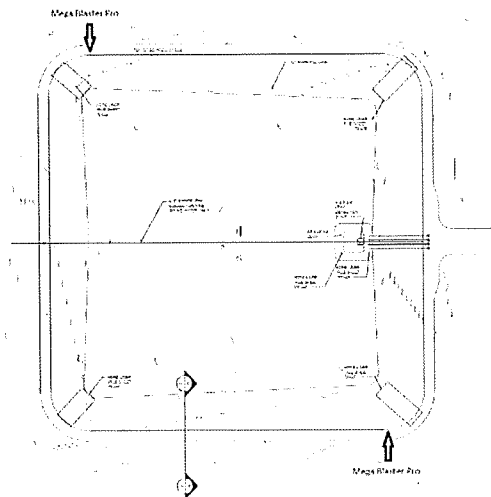
- Coverage: Up to 30 acres from single unit
- Box dimensions: Box 1: 23" x 18" x 16" (23 lbs., unit & speaker), Box 2: 32" x 24" x 5" (17 lbs., solar panel)
- Power Input: 12vDC (3 amps) via solar panel and battery
- Sound Pressure: up to 125 decibels
- Frequency: 2,000–10,000 Hz
- Library of predator calls



- Full customizable to the species of bird in our area of operation
- Compliance: UL & CE listed
- EPA Est. 075310-OR-001
- Included: Generating unit with two built-in high-output amplifiers, 20-speaker tower with audio cables, 40 watt solar panel, battery clips, & all mounting hardware
- The unit is typically mounted with a tripod pole setup. The tripod would be a typical sturdy tripod that would be used to support a large PA speaker. The pole that would fit into the top of the tripod that the speaker tower, control box and solar panel would mount to should be $\frac{3}{4}$ " diameter and be 6-12 feet tall. The taller the pole the greater the distance the sound will travel.
- The effective range of the Mega Blaster Pro is 30 acres, in a circular coverage pattern around the 20-speaker tower with a radius of about 666 feet. The 20-speaker tower features 5 speakers pointing in each direction to create the even dispersal



This is the typical configuration EOG Resources is currently utilizing at the Southern Red Hills Water Recycling Facility and Containment Pit.





Variance Request for Fencing

Re: Streetcar Reuse Water Recycling Facility and Containment Pit

EOG Resources, Inc. would like to request the OCD's approval for a variance regarding fencing at the location described above. EOG proposes to utilize a 6 foot galvanized chain link fence with 3 strands of barb wire on the top of the chain link fencing. The 3 strands of barb wire will be mounted on a galvanized barb bracket with a 45 degree angle pointing towards the outside of the location. Each post hole will be drilled via auger to ensure a consistent and accurate depth and will be set in concrete. Six 18" x 18" swinging gates will be installed at ground level for temporary waterlines to pass through. The gates will remain closed as depicted in the pictures below to ensure no wildlife can access the containment site when no waterlines are present.

Please note that EOG Resources, Inc. is currently utilizing this same fence design, which was approved on OCD Permit No. 12

Please see details below.



This is the typical configuration EOG Resources is currently utilizing at the Southern Red Hills Water Recycling Facility and Containment Pit.





Streetcar Reuse Water Recycling Facility and Containment Pit

NMOCD Submittal – C147 Registration Application

January 22, 2018

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 Recycling Facility and Containment Checklist

III. **List of Attachments 6**

 Attachments and Supporting Documents

Introduction

EOG Resources respectfully requests registration of the herein described Reuse Water Recycling Facility and Containment Pit located in Lea County, New Mexico. The enclosed/attached information will demonstrate compliance with all rules as outlined in 19.15.34 NMAC.

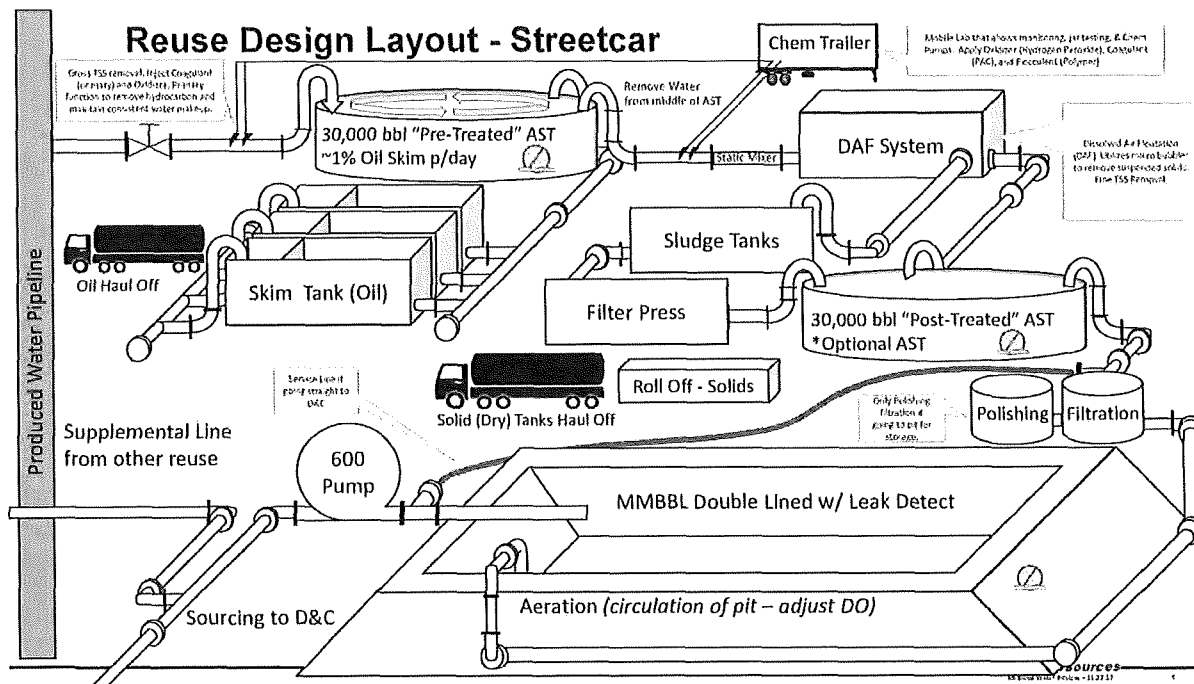
C-147 Detail

Operator and Facility / Location Detail

The proposed reuse water containment facility & containment pit, referred to as the Streetcar Reuse Water Recycling Facility and Containment Pit, will be owned and operated by EOG Resources, Inc. (EOG) and located in Township 25 South, Range 33 East, and Section 16 in southwestern Lea County.

Recycling Facility Detail

The proposed containment pit will be located adjacent to the Streetcar Water Recycling Facility and will hold treated water for use in EOG hydraulic fracturing operations. As depicted in the attached schematic, the adjacent recycling facility will utilize advanced water treatment technologies to produce a clean brine effluent prior to storage and subsequent reuse. An oxidation and solids removal/filtering system will treat the incoming influent stream to internal standards sufficient for hydraulic fracturing reuse applications.



Recycling Containment Detail

EOG Resources is proposing to construct a multi-liner containment pit utilizing leak detection systems to ensure an intact leak free barrier system. As depicted in the attached design plan and schematics, *Streetcar_Pond_NAD83*, the proposed pit will incorporate standards that meet or exceed the required standards per 19.15.34.12 NMAC. The proposed recycle containment will be approximately 600 x 600 inside floor dimensions with 4:1 inside and outside berm grades. Approximate wall height will average 11ft from outside ground level to ensure no surface water run on will occur. The top of levee shall be approximately 20ft wide 2% outside sloping grade to ensure no surface water run on will occur. The containment pit floor and wall preparation will include laser finished grade free of rocks, debris and sharp edges, compacted to a density to ensure an unyielding base. At onset of pit construction, all vegetative material and top soil will be removed and stockpiled at the outside toe of the levee slopes. The interior liner system of the containment pit will

consist of a 10 ounce geotextile felt base layer to protect the secondary geomembrane liner from any protruding floor irregularities. The secondary geomembrane liner will be composed of 40 mil HDPE. Between the secondary and primary liners will consist of 200 mil geonet sloping to the leak detection trough. The primary liner consist of 60 mil HDPE liner. All liners will meet or exceed EPA SW-846 method 9090A. All seams will be oriented vertically with 4-6 inch liner overlap and all seam testing shall exceed all guidelines. As depicted in the attached design plan, *Streetcar_Pond_NAD83*, the proposed containment pit will include a center aligned leak detection trough and collection sump completed with perforated pipe and pump casing allowing for installation of a leak detection pump system. Both inlet and discharge manifold systems, depicted in *Streetcar_Pond_NAD83*, will be installed to prevent any liner damage from water entrance velocity or hose installation. Two audible bird deterrents will be utilized to deter any native birds and wildlife from the containment pit area.

Bonding

EOG Resources will source and distribute reuse water for the Streetcar Reuse Water Recycling Facility and Containment Pit from wells solely operated by EOG. Therefore, attached are the details of Bond Number SUR0013939 – Megabond #OGB0959 – State of New Mexico Land Office Oil and Gas Minerals Division.

Fencing

Please see Variance detail.

Signage

As shown in the attached example sign, EOG shall place the appropriate signage along the water recycling facility and containment pit perimeter that meets all guidelines established in 19.15.34.12 C NMAC.

See List of Attachments

Variances

EOG Resources is seeking two variances as indicated in Section 7 of the C-147 registration form, to install two audible Mega Blaster Pro bird deterrents capable of covering up to 30 acres each. The second request is to enclose the perimeter with a 6 foot galvanized chain link fence with 3 strand 45 degree barbed wire arm toppers.

Siting Criteria for Recycling Containment

Enclosed within this submittal are comprehensive third party reports detailing conformity to siting criteria described in Section 8 of the C-147 registration form; a detailed list and description of these attachments can be found in the subsequent section: *List of Attachments*.

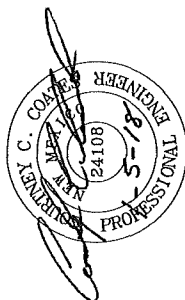
Recycling Facility and Containment Checklist

As indicated in Section 9 on the attached C-147 form, all the required attachments have been included on the submittal and certification of C-147 delivery to the landowner is acknowledged.

List of Attachments

Attachments and Supporting Documents

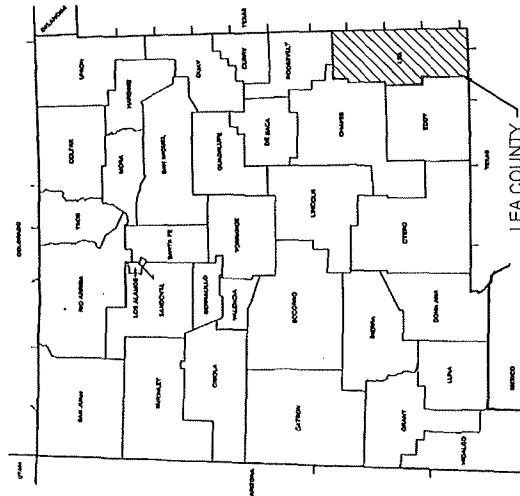
- Water Containment Design and Engineered Drawing
- Water Containment Liner / Leak Detection Detail
- Bond Detail
- Signage Sample



EOG RESOURCES STREETCAR AREA CONTAINMENT POND PRELIMINARY PLAN LEA COUNTY, NEW MEXICO

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SHEET 3	OPTION I POND LAYOUT
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SHEET 7	POND CROSS SECTION PROFILES
SHEET 8	DETAILS 1 OF 3
SHEET 9	DETAILS 2 OF 3
SHEET 10	DETAILS 3 OF 3

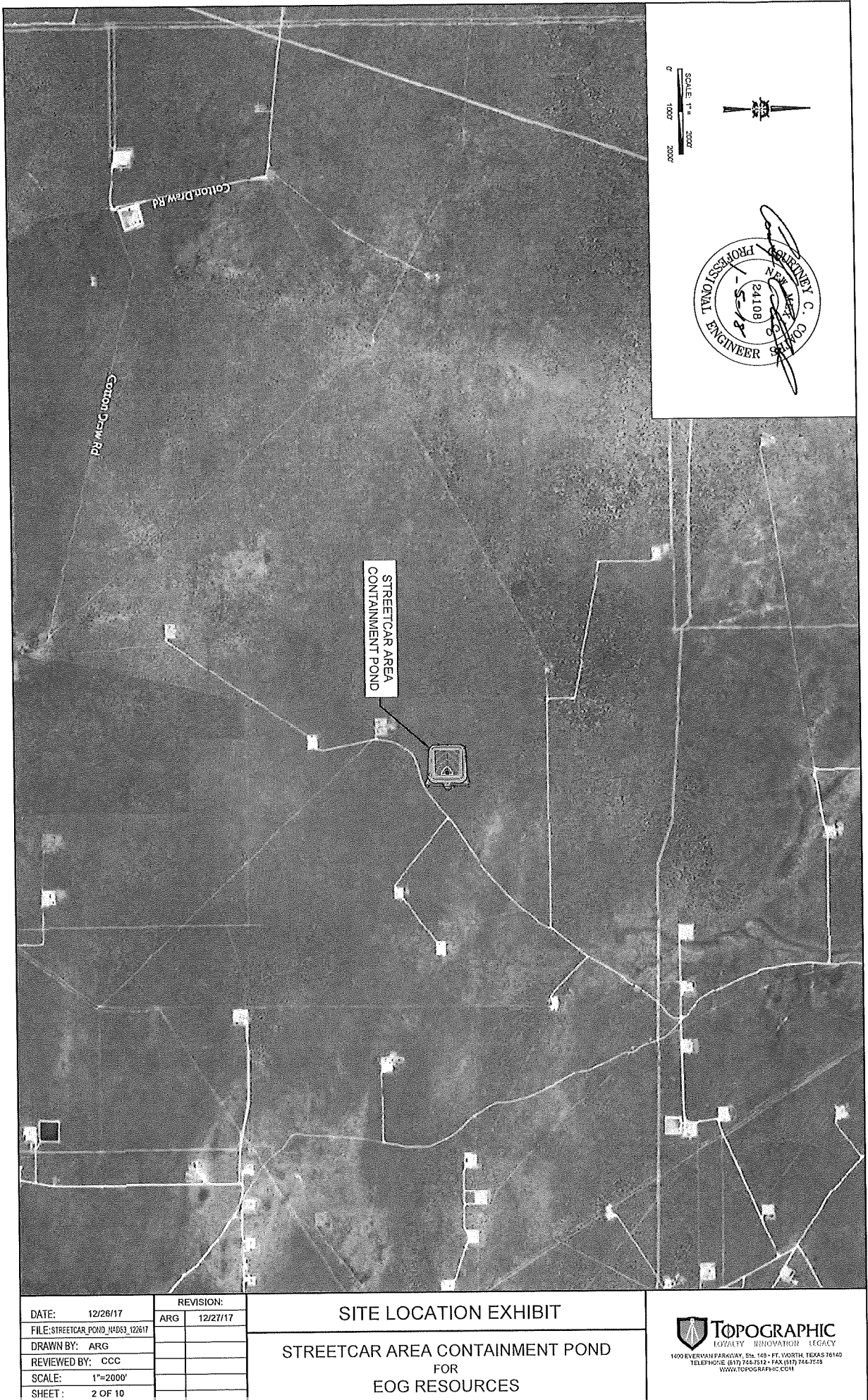
- GENERAL NOTES**
- COORDINATE INFORMATION ARE BASED ON STATE PLANES COORDINATE, NEW MEXICO EAST ZONE (4726), NAD 83. THE CONTRACTOR SHALL IDENTIFY ANY DISCREPANCIES PRIOR TO PROCEEDING WITH CONSTRUCTION.
 - THE CONTRACTOR SHALL IDENTIFY AND LOCATE UTILITY LINES, MONITORING WELLS, SURVEY MONUMENTS, AND OTHER NEARBY STRUCTURES PRIOR TO PERFORMING WORK. UTILITIES, MONITORING WELLS, SURVEY MONUMENTS AND OTHER NEARBY STRUCTURES SHALL BE PROTECTED FROM DAMAGE DURING THIS WORK. ANY DAMAGE TO UTILITY LINES, MONITORING WELLS, SURVEY MONUMENTS, AND OTHER NEARBY STRUCTURES DURING THE WORK SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY ACTUAL, REPAIR COSTS AND ANY ENGINEER OR SURVEY COSTS NECESSARY TO COMPLETE THE REPAIR.



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LOYALTY INNOVATION LEGACY
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WWW.TOPOGRAPHIC.COM

COVER SHEET
FOR
STREETCAR AREA CONTAINMENT POND
EOG RESOURCES

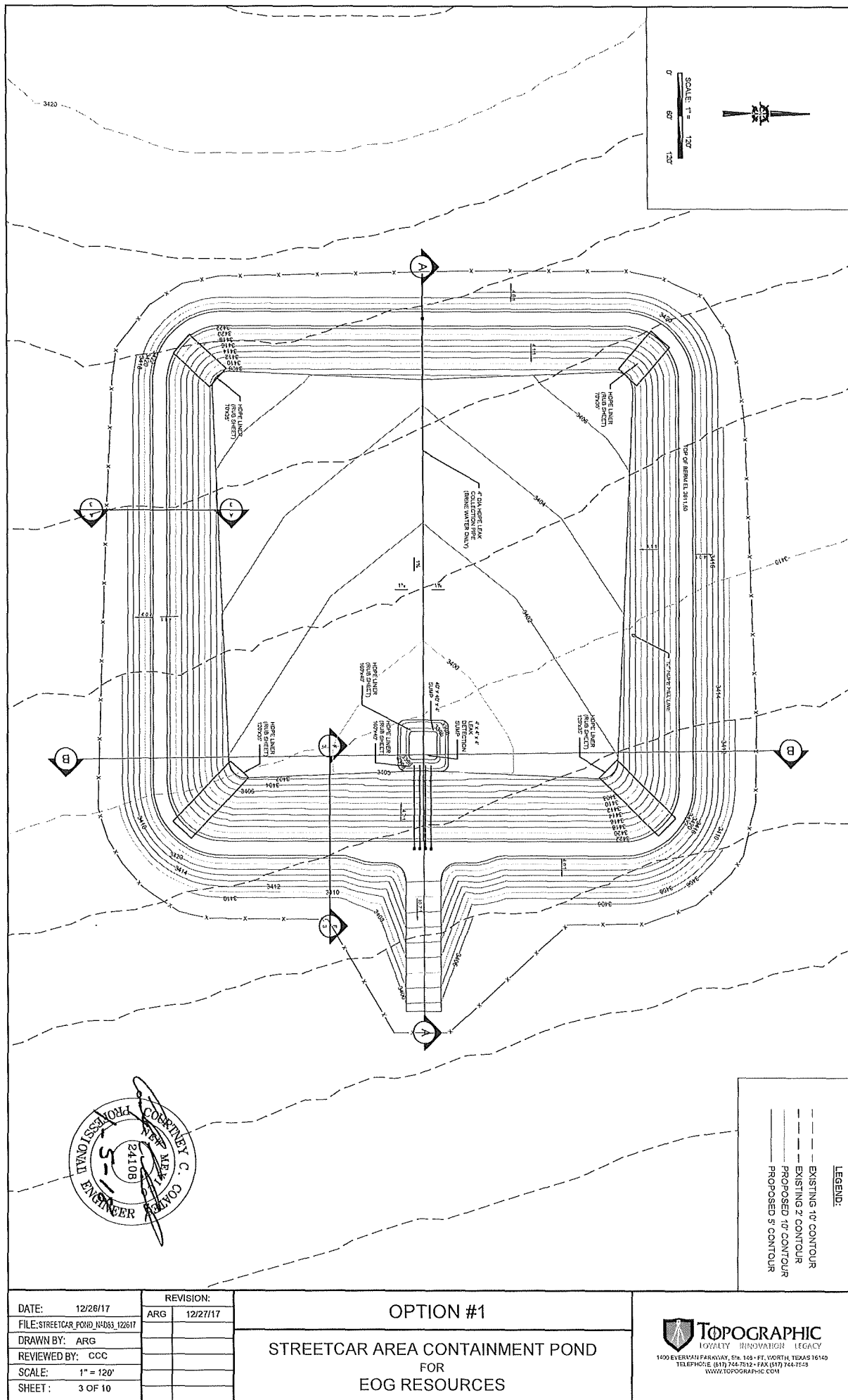
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REVIEWED BY:	CCC
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SHEET:	1 OF 10
REVISION:	ARG 12/27/17

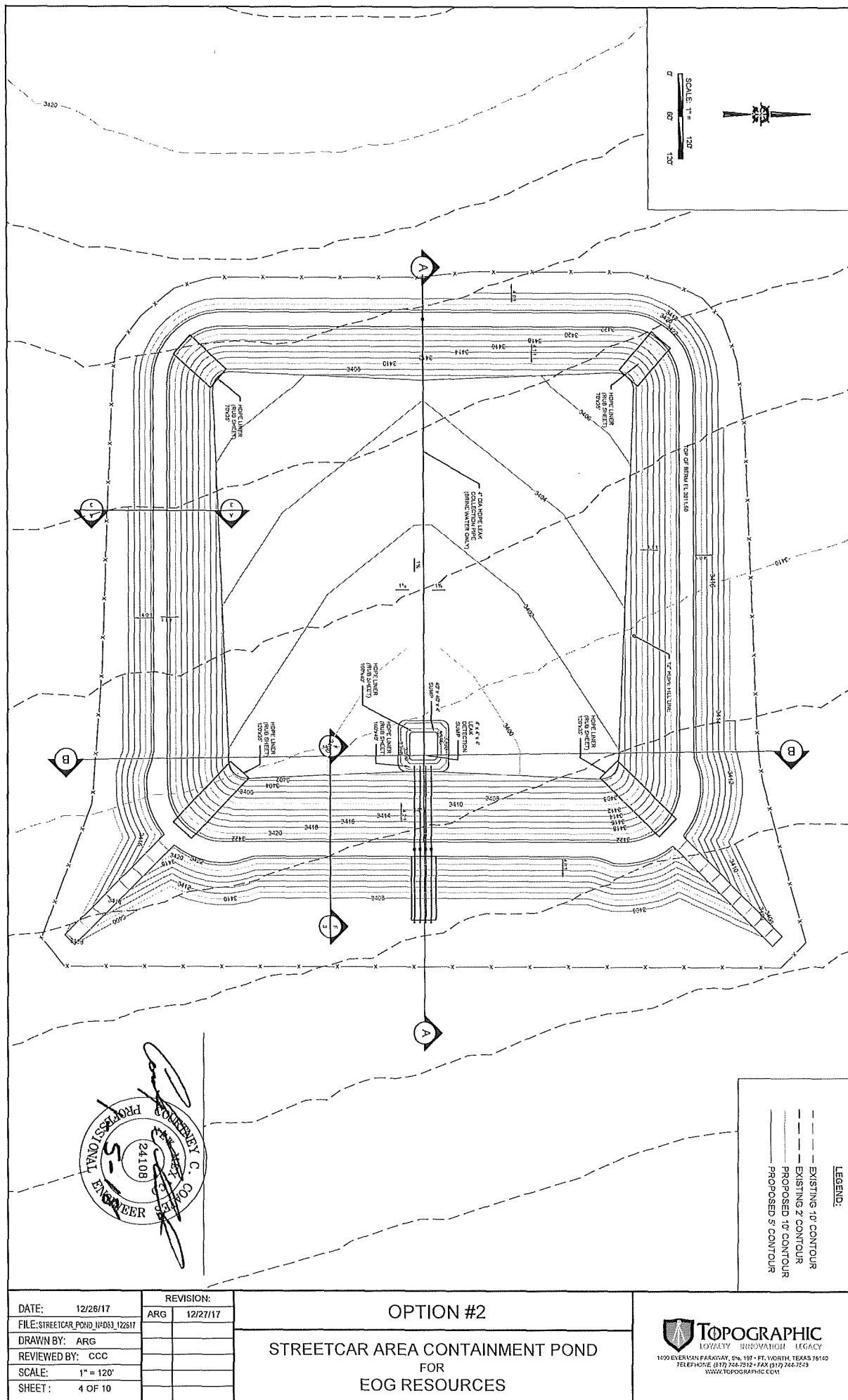


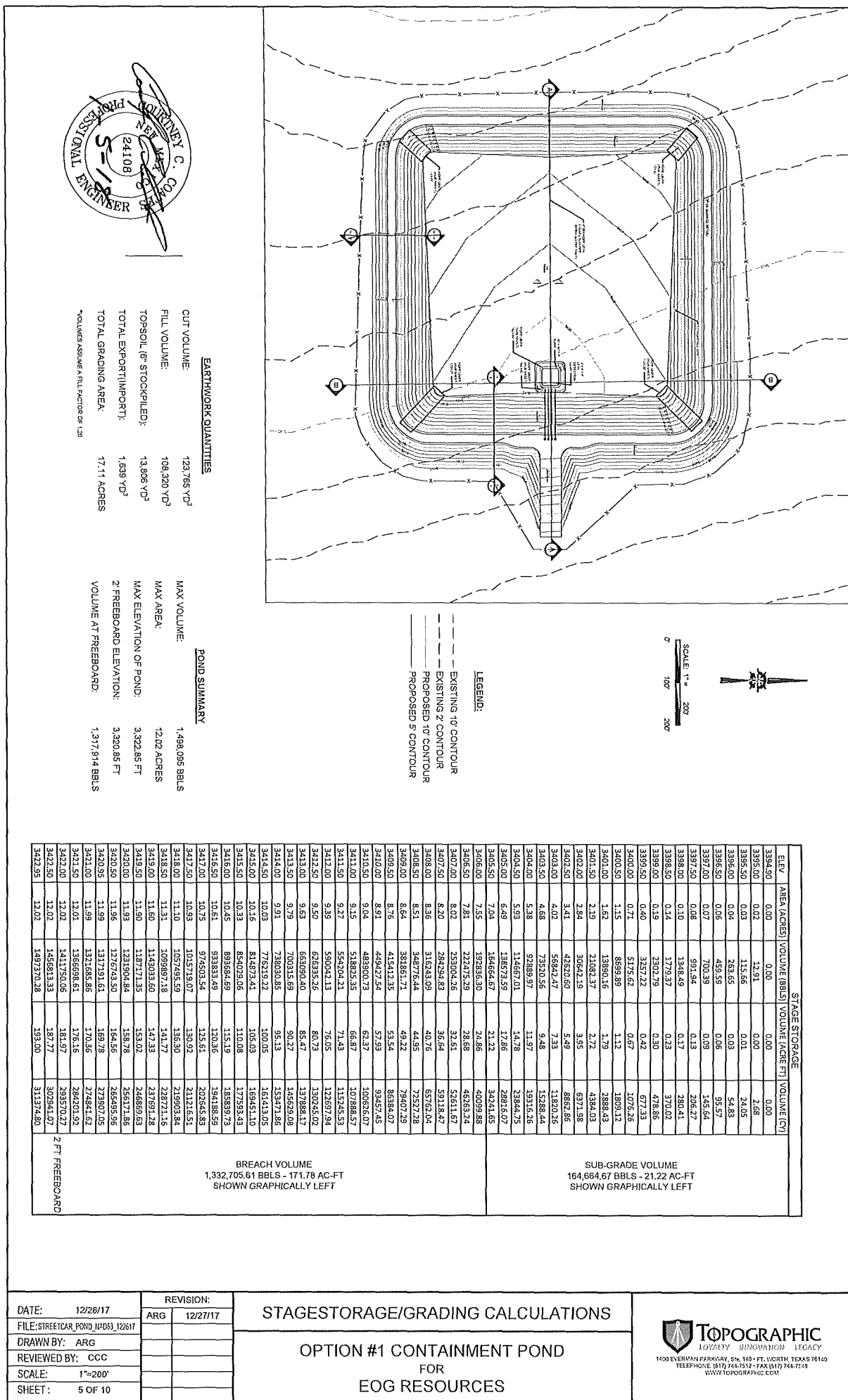
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REVIEWED BY:	CCC		
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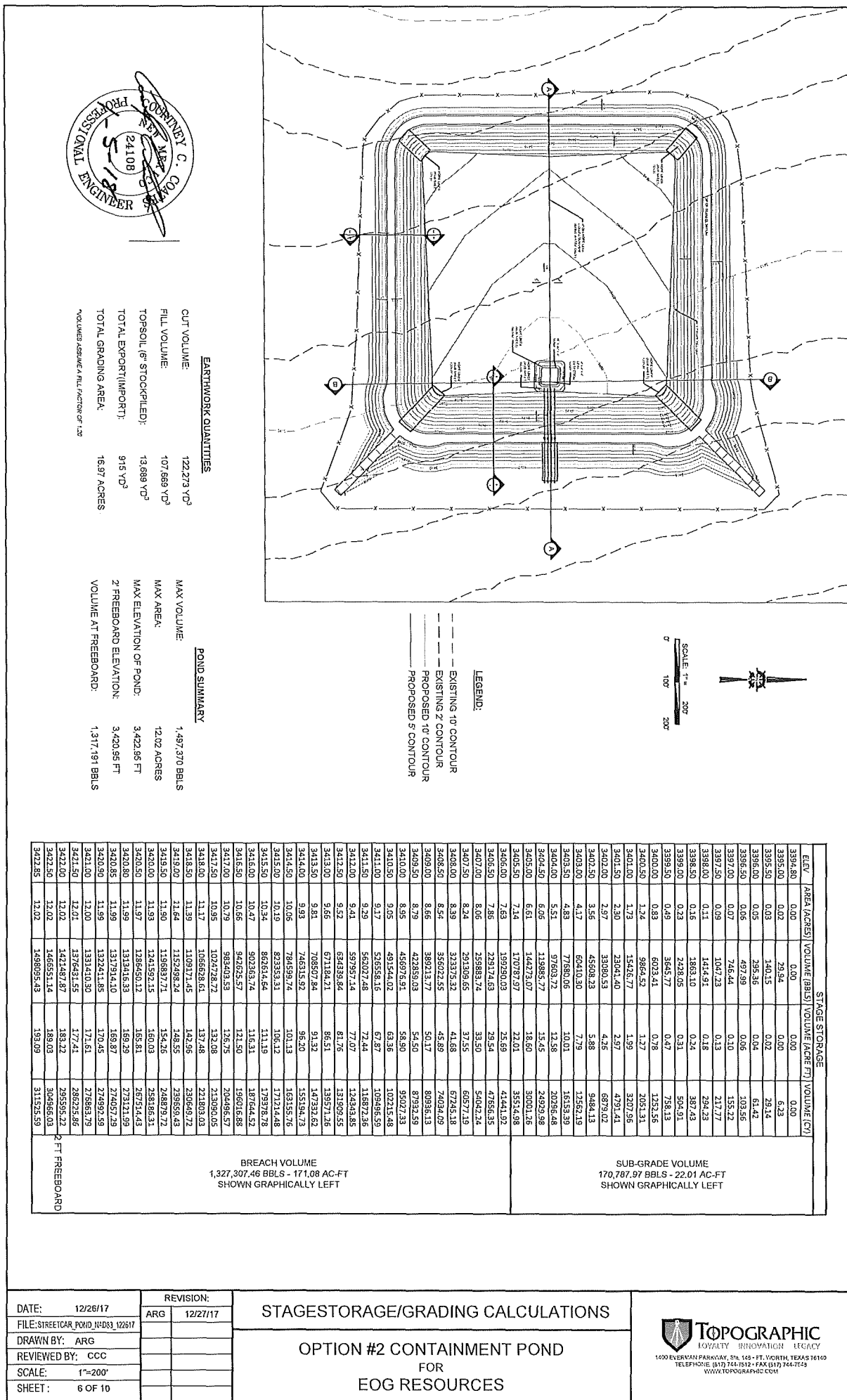
SITE LOCATION EXHIBIT
STREETCAR AREA CONTAINMENT POND
FOR
EOG RESOURCES

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LOYALTY INNOVATION LEGACY
1600 EVERMAN PARKWAY, Ste. 100 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7312 • FAX: (817) 744-7325
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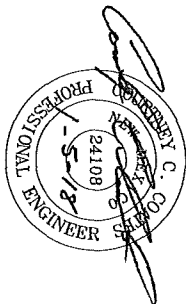
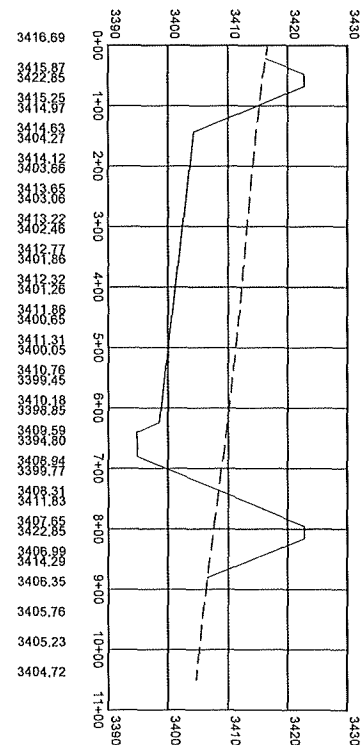
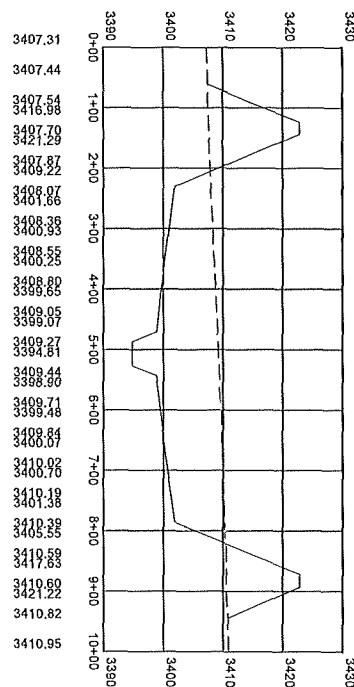
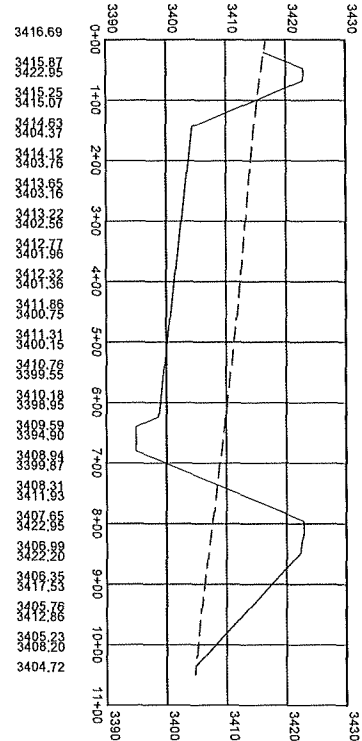
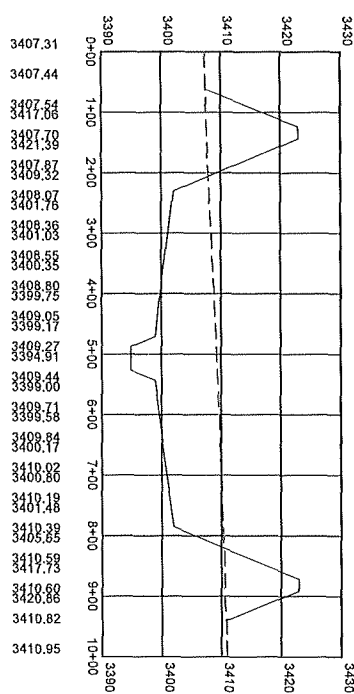
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 REVIEWED BY: CCC
 SCALE: 1"=200'
 SHEET: 6 OF 10

REVISION:
 ARG 12/27/17

STAGE STORAGE/GRADING CALCULATIONS
 OPTION #2 CONTAINMENT POND
 FOR
 EOG RESOURCES

TOPOGRAPHIC
 LOYALTY INNOVATION UTILITY
 1600 EVERMAN PARKWAY, SUITE 160 - FT. WORTH, TEXAS 76160
 TELEPHONE: (817) 764-1512 • FAX: (817) 764-7725
 WWW.TOPOGRAPHIC.COM

SCALE: 1" = 200'
 0 100 200
 SCALE: 1" = 20'
 0 10 20
 HORIZONTAL SCALE
 VERTICAL SCALE

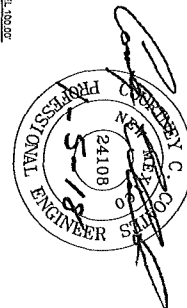
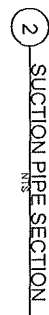


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 REVIEWED BY: CCC
 SCALE: 1"=100'
 SHEET: 7 OF 10

REVISION:
 ARG 12/27/17

PROPOSED CROSS SECTIONS
 STREETCAR AREA CONTAINMENT POND
 FOR
 EOG RESOURCES

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 LOYALTY INNOVATION LEGACY
 1000 EVERMAN PARKWAY, S.W. 145 • FT. WORTH, TEXAS 76140
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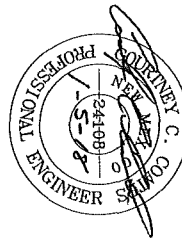
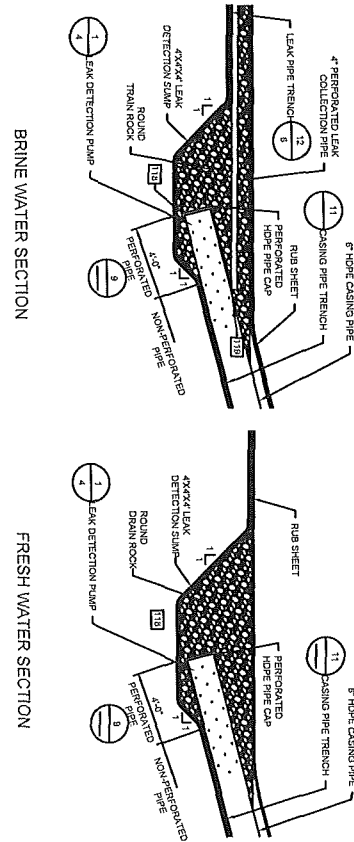
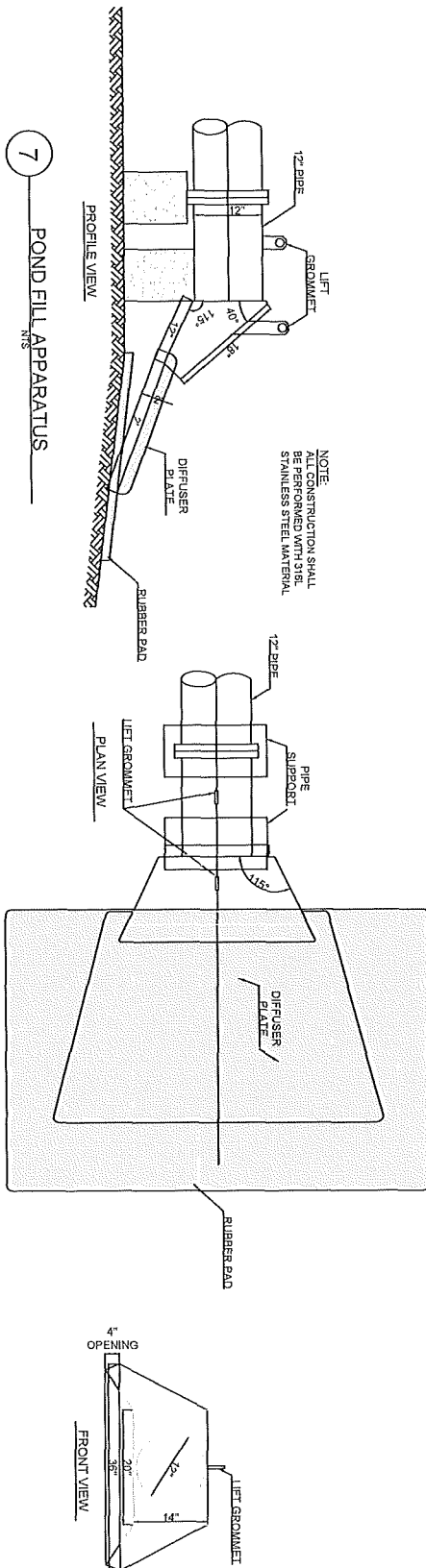


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REVIEWED BY: CCC			
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DETAILS 1 OF 3

STREETCAR AREA CONTAINMENT POND
FOR
EOG RESOURCES





DATE:	12/26/17	REVISION:	
FILE:	STREETCAR_POND_IPD03_122617	ARG	12/27/17
DRAWN BY:	ARG		
REVIEWED BY:	CCC		
SCALE:	N/A		
SHEET:	9 OF 10		

DETAILS 2 OF 3

STREETCAR AREA CONTAINMENT POND
FOR
EOG RESOURCES

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LOYALTY INNOVATION LEGACY
1200 EVERMAN PARKWAY, Ste. 100 • FT. WORTH, TEXAS 76110
TELEPHONE: (817) 744-7512 • FAX: (817) 744-7445
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- (1) Acceptance of pit construction for liner install:
 - a. Pit foundation and laterals properly compacted, smooth, and free of rocks/debris/sharp edges
 - b. Pit top wide enough to install an anchor trench, and provide adequate room for inspection/maintenance
 - c. Slope of interior subgrade, drainage lines and laterals per specs
- (2) Geomembrane Liner Layers
 - a. Geotextile
 - b. Secondary (lower) liner
 - c. Leak detection system
 - d. Primary (upper) liner
 - e. Anchor trench- Liner edges anchored in the bottom of a compacted earth-filled trench >18"deep
- (3) Geomembrane Properties
 - a. Primary: 60 mil HDPE, equivalent, or better
 - b. Secondary: 40 mil HDPE, equivalent, or better
 - c. Impervious, synthetic material resistant to UV, petroleum hydrocarbons, salts, and acidic and alkaline solutions
 - d. Comply with EPA SW-846 Method 9090A, or subsequent relevant publication
- (4) Geomembrane Install
 - a. Field- Welded Liner seams
 - i. Performed by Qualified Personnel
 - ii. Thermally seamed (hot wedge) with a double track weld to create air pocket
 - iii. 4-6" liner overlap
 - iv. Number of seams minimized
 - v. Seams oriented seams up and down slopes
 - vi. No horizontal seams <5' of the slope toe
 - b. Geomembrane Testing
 - i. Performed by Qualified Personnel
 - ii. Non-destructive Air Channel Testing
 - iii. Destruct testing
 - iv. Vacuum Testing
 - v. Spark Testing

PO Box 1806
Aledo, TX 76008
P: (817) 441-1235
F: (817) 441-1270
www.mustangenergyservices.com

(5) Other installed items

- i. Vents
- ii. Rub Sheets
- iii. Boots
- iv. Sump aggregate
- v. Solid/perforated pipes
- vi. Escape Ladders
- vii. Height Markers
- viii. Conductive Liner

(6) Leak Detection System

- a. 200 mil or greater Geonet or Geocomposite drainage liner
- b. Installed between upper/lower geomembrane liners
- c. Piping collection system
- d. Drainage, collection, and removal system sloped to facilitate the earliest possible leak detection
- e. Pipe to convey collected fluids to a collection/disposal system located outside the permanent pit's perimeter

PO Box 1806
Aledo, TX 76008
P: (817) 441-1235
F:(817)4411270
www.mustangenergyservices.com



**Aubrey Dunn, Commissioner of Public Lands
State of New Mexico**

RECLAMATION BOND FOR COMMERCIAL LEASES

File with:

New Mexico State Land Office
Commercial Resources Division
310 Old Santa Fe Trail, Santa Fe, NM 87501
P.O. Box 1148, Santa Fe, NM 87504-1148

BOND NO. 022220631

(For use of Surety Company)

BOND NO. _____

(For use of NMSLO)

EFFECTIVE DATE: 04/17/2018

LEASE NO. BL-2573

KNOW ALL PERSONS BY THESE PRESENTS:

Lessee Name: EOG Resources, Inc.

Lessee's Address: P.O. Box 4362, Houston, TX 77210-4362

State in which Lessee is Organized: New Mexico

Surety Name: Liberty Mutual Insurance Company

Surety Business Address: 175 Berkeley Street, Boston, MA 02116

State in which Surety is Organized: Massachusetts

WHEREAS, Lessee, authorized to do business in the State of New Mexico, and Surety, authorized by the Superintendent of Insurance to do business in the State of New Mexico, pursuant to the Commissioner of Public Land's authority to manage state trust land and leases in Sections 19-2-1 and 19-2-2 NMSA 1978, are jointly and severally firmly bound to the State of New Mexico's State Land Office ("NMSLO"), or its successor, for payment in the amount of **one million dollars (\$1,000,000)**.

WHEREAS, Lessee holds a Recycling Containment and Recycling Facility Business Lease with NMSLO, and has installed or will install a recycling containment and recycling facility on the state trust land described in and covered by said NMSLO Lease No. BL-2573 ("the Lease), located in Section 16, Township 25 South, Range 33 East, N.M.P.M., Lea County, New Mexico ("the Lease Land").

WHEREAS, the construction and operation of Lessee's recycling containment and recycling facility will cause surface and subsurface impacts to the Lease Land.

WHEREAS, Lessee and Surety expressly agree, under this Bond obligation, to cause and ensure compliance with all performance requirements of the Lease, as well as the proper removal of improvements, remediation, reclamation and restoration of the Lease Land, including but not limited to the requirements of Lease Paragraphs 13 and 14, any and all performance requirements, costs, fees,

rent, fines in the Lease, 19.2.9 NMAC, 19.15.34 NMAC (including but not limited to 19.15.34.14 "Closure and Site Reclamation Requirements For Recycling Containments"), and any other applicable rules or laws ("Obligations"). Lessee and Surety further expressly agree that the Obligations of this Bond also include any costs, fees (including reasonable attorney's fees) incurred by NMSLO in enforcing any Obligations covered by this Bond, including the collection and forfeiture of this Bond. Additionally, Lessee and Surety expressly agree that the Obligations of this Bond also include any damages to the surface of the Lease Land, livestock, water, crops, tangible improvements or surface improvements suffered by reason of Lessee's operations on the Lease Land by NMSLO or under any state lease, permit, right-of-way or easement heretofore or hereafter executed by the Commissioner of Public Lands.

WHEREAS, Lessee and Surety agree to complete or make good and sufficient recompense, satisfaction or payment to NMSLO, for all Obligations under this Bond.

THEN AND IN THAT EVENT, this Bond and obligation shall be null and void; otherwise, and in default of complete compliance with any and all of said Obligations, this Bond shall remain in full force and effect.

PROVIDED, HOWEVER, that thirty (30) days after receipt by NMSLO's Commercial Resources Division of written notice of cancellation from the Surety, the obligation of the Surety shall terminate as to any Obligations placed and arising on or from the Lease or Lease Land after the said 30-day period, but shall continue in effect, notwithstanding said notice, as to Obligations placed or arising on or from the Lease or Lease Land before the 31st day after receipt of said notice; under such circumstances, the determination of what Obligations were placed and arising on or from the Lease or Lease Land as of the 31st day after receipt of said notice shall be made exclusively by NMSLO. The liability of Surety on this Bond shall not expire upon the termination of the Lease, but shall remain in full force and effect until released in writing by the Commissioner of Public Lands. The term of this bond shall be a minimum of five (5) years, unless released in writing earlier by the Commissioner of Public Lands.

Signed and sealed this 17th day of April, 2018.

EOG Resources, Inc.

Liberty Mutual Insurance Company

Robert L. West
 PRINCIPAL Signature
Robert L. West
 Vice President and Treasurer
 Printed Name and Title

Tannis Mattson
 SURETY Signature
Tannis Mattson, Attorney-in-Fact
 Printed Name and Title

P.O. Box 4362

Street Address

Houston, TX 77210-4362

City, State and Zip Code

175 Berkeley Street

Street Address

Boston, MA 02116

City, State and Zip Code

Note: If Principal is a corporation, affix corporate seal here.

Note: If corporate surety, affix corporate seal here.

[Acknowledgement on the following page.]

ACKNOWLEDGMENT FORM FOR NATURAL PERSONS:

STATE OF _____)
) ss.
 COUNTY OF _____)

On this _____ day of _____, 20____, before me personally appeared
 _____ to me known to be the person(s) described in and who
 executed the same as (his, her, their) free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this
 certificate first above written.

 My Commission Expires
 (Notary seal)

 Notary Public name

 Notary signature

ACKNOWLEDGMENT FORM FOR CORPORATION:

STATE OF Texas)
) ss.
 COUNTY OF Harris)

On this 17th day of April, 2018, before me personally appeared
Robert L. West, to me personally known, who, being by me duly
 sworn, did say that s/he is Vice President & Treasurer of
EOG Resources, Inc. and that this instrument was signed and
 sealed on behalf of said corporation by authority of its board of directors, and acknowledged said
 instrument to be the free act and deed of said corporation.

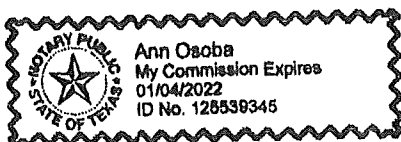
IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this
 certificate first above written.

Jan 4, 2022
 My Commission Expires

Ann Osoba
 Notary Public name

Ann Osoba
 Notary signature

(Notary seal)



ACKNOWLEDGMENT FORM FOR CORPORATE SURETY:STATE OF Texas)

) ss.

COUNTY OF Harris)On this 17th day of April, 20 18, before me personally appearedTannis Mattson to me personally known, who, being by me dulysworn, did say that s/he is the Attorney-in-Fact ofLiberty Mutual Insurance Company and that this instrument was signed and sealed

on behalf of said corporation by authority of its board of directors, and acknowledged said

instrument to be the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this certificate first above written.

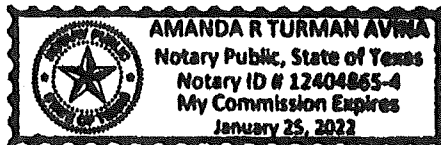
01/25/2022Amanda R Turman Avina

My Commission Expires

Notary Public name

Amanda R. Turman Avina
Notary signature

(Notary seal)



(Note: Corporate surety attach power of attorney.)

APPROVED this _____ day of _____, 20____.

COMMISSIONER OF PUBLIC LANDS

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated. Not valid for mortgage, note, loan, letter of credit, bank deposit, currency rate, interest rate or residual value guarantees. To confirm the validity of this Power of Attorney call 610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Tannis Mattson

of the city of Houston, state of Texas its true and lawful attorney-in-fact, with full power and authority hereby conferred to sign, execute and acknowledge the following surety bond:

Principal Name: EOG Resources, Inc.

Obligee Name: State of New Mexico

Surety Bond Number: 022220631

Bond Amount: \$1,000,000.00

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 27th day of February, 2017.



The Ohio Casualty Insurance Company
Liberty Mutual Insurance Company
West American Insurance Company

By: David M. Carey
David M. Carey, Assistant Secretary

STATE OF PENNSYLVANIA
COUNTY OF MONTGOMERY

ss

On this 27th day of February, 2017, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of, Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA

Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS – Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts – SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 17th day of April, 2018.



By: Renee C. Llewellyn
Renee C. Llewellyn, Assistant Secretary

 STREETCAR REUSE WATER PIT NE/NW SEC. 16 - T25S-R33E LEA COUNTY, NM EMERGENCY CONTACTS: 432-556-2792 432-269-5667 575-392-3647	
CAUTION	DANGER
PPE REQUIRED	H₂S MAY BE PRESENT
DANGER	NOTICE
NO SMOKING	AUTHORIZED PERSONNEL ONLY



Operating and Maintenance Plan

STREETCAR REUSE WATER CONTAINMENT PIT

1. Overview

The attached plan details the operational requirements regarding the Streetcar Reuse Water Containment Pit. In addition, the required reporting and inspections as well as the appropriate actions/notifications are listed.

2. Purpose

The attached plan implements the operational requirement as outlined by NMOCD under 19.15.34 NMAC. Application of this plan will ensure the reuse water containment pit is operated in a manner that minimizes any risk to health, safety, and environment.

3. Operational Requirements

Below are the operational requirements that must be adhered to at all times. Deviation from these requirements is prohibited.

- Inlet flow
 - Recycling facility effluent stream water must meet all water quality norms before water is introduced into the containment pit. These norms are to include no detected oil in the stream.
 - Inlet water may only be introduced into the containment pit via the diffuser manifold as to not cause any stress or damage to the liner system.
 - A minimum of 3ft of freeboard will be maintained in the reuse water containment pit at all times.
- Effluent Flow
 - Effluent water may only exit the reuse water containment via the permanent discharge header system; no external hoses or pipes may be placed into the pit at any time
 - Effluent water may only be transferred to EOG Resources' completion operations; no transfer to 3rd parties is allowed
 - Effluent water may only be transferred through an EOG leak detection transfer system; all protocols and procedures regarding the automated leak detection system must be followed
- Volume Reporting
 - All influent and effluent volumes are to be logged daily. These volumes are to be tracked via inbound and outbound mag meters and tracked via paper and SCADA systems



- Site Inspection
 - The pit and surrounding area are to be inspected daily while water is contained within the pit. These inspections are to include all inlet/outlet piping, berms, exposed liner, surrounding grounds and fencing
- Leak Detection Testing
 - Leak detection testing shall be conducted daily. Testing shall include starting the leak detection sump pump to determine if any fluid has collected in the collection sump. The sump pump shall be run for a minimum of 5 minutes to allow for inlet flow. If any flow is detected the proper notification to the Hobbs NMOCD will occur and drainage will commence

4. Daily Reporting & Inspections

- List of Daily Reporting and Inspections to be completed:
 - Influent and Effluent Volume Reporting
 - Site and Containment Pit Inspection
 - Leak Detection

5. Notifications

In the event of a leak detection denoting a compromised liner below the water level, notice shall be provided to be the Hobbs division office of the NMCOD within 48 hours of detection.

District 1

1625 N. French Drive
Hobbs, New Mexico 88240

OFFICE: (575) 393-6161 FAX: (575) 393-0720
EMERGENCY NUMBER - MOBILE: (575) 370-3186

Business Hours:
7:00 AM-12:00 PM and 1:00 - 4:00 PM
Monday through Friday

6. Associated Forms

- List of Associated forms for Operating and Maintenance Plan
 - NA



Water Containment Closure Plan

STREETCAR REUSE WATER CONTAINMENT PIT

1. Overview

The attached plan details the requirements regarding the closure of the Streetcar Reuse Water Containment Pit. In addition, the required sampling and reporting obligations are detailed.

2. Purpose

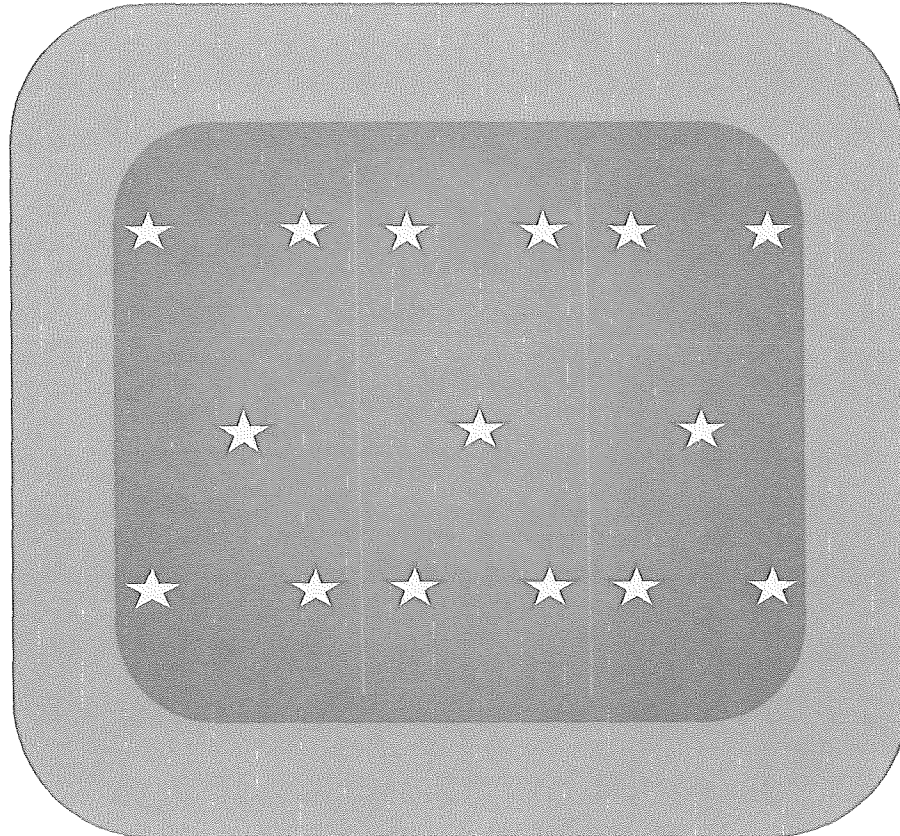
The attached plan implements the closure requirement as outlined by NMOCD under 19.15.34.14 NMAC. Application of this plan will ensure the reuse water containment pit is closed and reclamation is completed in a manner that minimizes any risk to health, safety, and environment.

3. Closure Requirements

- Containment Pit Drainage
 - All reuse water remaining in the containment pit shall be removed from the impoundment within 60 days operations cessation. The removed fluids will then be transferred a division approved disposal facility. Records of all removal, transfer and disposal activities shall be retained for inclusion in the final closure report submittal.
- Liner Material Removal and Disposal
 - Removal of the liner shall be conducted in manner that minimizes any risk of soil disturbance to the surface within and surrounding the containment. The removed liner material will then be transferred to and disposed of at a division approved disposal facility. Records of all removal, transfer and disposal activities shall be retained for inclusion in the final closure report submittal.
- Soil Sampling
 - Soil sampling shall be conducted at the locations depicted in the below schematic, Sampling Point Diagram, by a qualified third party contractor and analyzed at NELAC certified laboratory.
 - If any contaminant concentration is higher than the parameters listed in Table 1 in 19.15.34.14 NMAC, notice shall be provided the Hobbs NMOCD office before proceeding with closure.
 - If all sample concentrations are less than or equal to the parameters listed in Table 1 in 19.15.34.14 NMAC, then closure can proceed, backfilling with non-waste containing, uncontaminated, earthen material



- Sampling Diagram



- Site Reclamation and Re-vegetation

- Following closure, reclamation of the containment's location can commence and ensure that it is returned to a safe and stable location that blends with the surrounding undisturbed area. Topsoil's and subsoils shall be replaced to original positions and contoured to achieve erosion free long term stability and preservation of surface water flow patterns.
- The disturbed area shall then be reseeded in the first favorable growing season following closure of the containment. The surface area shall be restored to the condition that existed prior to the construction of the containment
- Reclamation of all disturbed areas no longer in use shall be considered complete when all ground surface disturbing activities at the site have been completed and a uniform vegetative cover has been established that reflects a life form ration of +/- 50% of pre-disturbance levels and a total percent plant cover of at least 70% of pre-disturbance levels, excluding noxious weeds.



4. Closure and Reclamation Report Submittal / Notice

- Closure Report
 - Within 60 days of closure completion, EOG shall submit a closure report on form C-147 to the NMOCD Hobbs office, including required attachments, to document all closure activities including sampling results and the details of any backfilling, capping or covering.
 - The closure report shall certify that all information in the report and attachments is correct and that EOG has complied with all applicable closure requirements and conditions specified in the division rules or directives
- Reclamation Notice
 - EOG shall notify the NMOCD Hobbs office when all reclamation and re-vegetation are complete

5. Notifications

In the event of any deviance from this closure plan or exceeding of a sampling constituent, notice shall be provided to the NMOC Hobbs office.

District 1

1625 N. French Drive
Hobbs, New Mexico 88240

OFFICE: (575) 393-6161 FAX: (575) 393-0720
EMERGENCY NUMBER - MOBILE: (575) 370-3186

Business Hours:
7:00 AM-12:00 PM and 1:00 - 4:00 PM
Monday through Friday

6. Associated Forms

- List of Associated forms for containment pit closure
 - NA

SOIL BORING / MONITORING WELL LOG

PROJECT: <u>Jal, NM - Pit Sites</u>	DRILLING COMPANY: <u>Talon/LPE</u>
PROJECT NUMBER: <u>700438.209.01</u>	DRILLER: <u>Ronnie Rodriguez</u>
CLIENT: <u>EOG Resources</u>	DRILLING METHOD: <u>Hollow Stem Auger/Continuous Core</u>
BORING / WELL NUMBER: <u>Streetcar - SB3</u>	BORE HOLE DIAMETER: <u>6"</u>
TOTAL DEPTH: <u>75</u>	SCREEN: Diam. <u> </u> Length <u> </u> Slot Size <u> </u>
SURFACE ELEVATION: <u> </u>	CASING: Diam. <u> </u> Length <u> </u> Type <u> </u>
GEOLOGIST: <u>Jason Hafliger</u>	DATE DRILLED: <u>12/1/2017</u>
LATITUDE: <u> </u>	LONGITUDE: <u> </u>

PAGE 1 of 3

DEPTH (FT.)	Soil Symbol	WELL CONSTRUCTION	Pt. Sample ID:	SAMPLES SAMPLE INTERVAL	DESCRIPTION INTERVAL	DESCRIPTION OF STRATUM	DEPTH (FT.)
0							0
			SB3-1'	0'-5'		Sand - Top Soil High Moisture Reddish Brown	
5			SB3-6'	5'-10'		Sand - Top Soil High Moisture Reddish Brown	5
			SB3-10'	10'-15'		Sand to Caliche Low Moisture Tan/Pink	10
15			SB3-16'	15'-20'		Caliche Low Moisture Tan/Pink	15
			SB3-21'	20'-25'		Caliche Low Moisture Tan/Pink	20
25			SB3-26'	25'-30'		Caliche - Hard Pan No Moisture Tan	25
30						Caliche - Hard Pan	30

REMARKS:

THIS BORING LOG SHOULD NOT BE USED SEPERATE FROM THE ORIGINAL REPORT



SOIL BORING / MONITORING WELL LOG

PROJECT: Jal, NM - Pit Sites	DRILLING COMPANY: Talon/LPE
PROJECT NUMBER: 700438.209.01	DRILLER: Ronnie Rodriguez
CLIENT: EOG Resources	DRILLING METHOD: Hollow Stem Auger/Continuous Core
BORING / WELL NUMBER: Streetcar - SB3	BORE HOLE DIAMETER: 6"
TOTAL DEPTH: 75	SCREEN: Diam. _____ Length _____ Slot Size _____
SURFACE ELEVATION: _____	CASING: Diam. _____ Length _____ Type _____
GEOLOGIST: Jason Hafliger	DATE DRILLED: 12/1/2017
LATITUDE: _____	LONGITUDE: _____

PAGE 2 of 3

DEPTH (FT.)	Soil Symbol	WELL CONSTRUCTION	Pt. Sample ID:	SAMPLES	SAMPLE INTERVAL	DESCRIPTION INTERVAL	DESCRIPTION OF STRATUM	DEPTH (FT.)
35			SB3-31'		30'-35'		No Moisture Tan	35
40			SB3-36'		35'-40'		Sandstone - Fine to Med No Moisture Tan/Pink	40
45			SB3-41'		40'-45'		Sandstone - Fine Grained No Moisture Tan/Pink	45
50			SB3-46'		45'-50'		Sandstone - Fine Grained No Moisture Tan/Pink	50
55			SB3-51'		50'-55'		Sandstone - Fine Grained No Moisture Tan/Pink	55
60			SB3-56'		55'-60'		Sand - Fine Grain No Moisture Light Reddish Pink	60
							Sand - Fine Grain No Moisture	


REMARKS:


TALON
 LPE

THIS BORING LOG SHOULD NOT BE USED SEPERATE FROM THE ORIGINAL REPORT

SOIL BORING / MONITORING WELL LOG

PROJECT: <u>Jal, NM - Pit Sites</u>				DRILLING COMPANY: <u>Talon/LPE</u>			
PROJECT NUMBER: <u>700438.209.01</u>				DRILLER: <u>Ronnie Rodriguez</u>			
CLIENT: <u>EOG Resources</u>				DRILLING METHOD: <u>Hollow Stem Auger/Continuous Core</u>			
BORING / WELL NUMBER: <u>Streetcar - SB3</u>				BORE HOLE DIAMETER: <u>6"</u>			
TOTAL DEPTH: <u>75</u>				SCREEN: Diam. <u> </u> Length <u> </u> Slot Size <u> </u>			
SURFACE ELEVATION: <u> </u>				CASING: Diam. <u> </u> Length <u> </u> Type <u> </u>			
GEOLOGIST: <u>Jason Haftiger</u>				DATE DRILLED: <u>12/1/2017</u>			
LATITUDE: <u> </u>				LONGITUDE: <u> </u> PAGE 3 of 3			

DEPTH (FT.)	Soil Symbol	WELL CONSTRUCTION	Pt. Sample ID:	SAMPLES	SAMPLE INTERVAL	DESCRIPTION INTERVAL	DESCRIPTION OF STRATUM	DEPTH (FT.)
65			SB3-61'		60'-65'		Light Reddish Pink	65
70			SB3-66'		65'-70'		Sand - Fine Grain No Moisture Light Reddish Pink	70
75					70'-75'		Sand showing Caliche No Moisture Light Reddish Pink	75
80						75'	Bottom of Hole	80
85								85
90								90

REMARKS:	
THIS BORING LOG SHOULD NOT BE USED SEPERATE FROM THE ORIGINAL REPORT	



5 December 2017

Mr. Dustin Kinder
EOG Resources, Inc.
5509 Champions Drive
Midland, TX 79706

**Re: Comprehensive Resource Review – Streetcar Water Reuse Site
Lea County, New Mexico**

Dear Mr. Kinder:

Goshawk Environmental Consulting, Inc. (Goshawk) conducted a comprehensive desktop resource review and limited field investigations for the Streetcar Water Reuse Site in Lea County, New Mexico. This resource review included Waters of the US (WATERS), Threatened or Endangered (T/E) Species, and Cultural Resources. The purpose of these investigations was to evaluate whether the proposed water reuse site contained any protected resources, the approximate size and location of identified protected resources, and associated development constraints, if applicable. Goshawk also conducted a cultural resources archival review and survey for the site. All figures are in Appendix A.

INTRODUCTION

The Streetcar Water Reuse Site will include a double-lined water pit with leak detection, a tanker off load and storage area, a reuse water treatment facility, and freshwater blending system. The site is approximately 1,225 feet long (east to west) and 910 feet wide (north to south) and encompasses approximately 25.59 acres. The site is generally located in a very rural portion of Lea County, where land use is primarily cattle ranching and oil/gas exploration and production.

WATERS REVIEW

REGULATORY BACKGROUND AND METHODOLOGY

Investigations to identify potential WATERS within the proposed Streetcar Water Reuse Site included a resource review, followed by a field investigation. The resource review included inspection of available United States Geological Survey (USGS) 7.5-minute topographic quadrangle for Bell Lake, New Mexico; recent digital aerial orthoimagery; and the Natural Resource Conservation Service (NRCS) Soil Survey Geographic Database (SSURGO). Field investigations were performed in accordance with US Army Corps of Engineers (USACE) guidelines, utilizing the *Corps of Engineers Wetlands Delineation Manual – Technical Report Y-87-1* (January 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) – ERDC/EL TR-08-28* (September 2008).

The jurisdictional status of identified features was determined based on 33 CFR 328.3(a), along with the US Army Corps of Engineers (USACE)–Environmental Protection Agency (EPA) joint guidance on Clean Water Act (CWA) jurisdiction, following the US Supreme Court's decision in *Rapanos v. United States* and *Carabell v. United States*. Current guidance states that the USACE and EPA will assert jurisdiction over (1) traditionally navigable waters (TNWs) and all wetlands adjacent to TNWs; (2) relatively permanent waters (RPWs), which include non-navigable tributaries of TNWs that typically flow year-round or have continuous flow at least seasonally, and all wetlands that are directly abutting RPWs; and





(3) other water bodies such as non-RPWs; wetlands adjacent to non-RPWs; and wetlands adjacent to but not directly abutting an RPW that are analyzed and determined to have a significant nexus with a TNW. A significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or an insubstantial effect on the chemical, physical, and/or biological integrity of a TNW.

LITERATURE REVIEW

Topographic Map

The topographic quadrangle (Figure 1) indicates the Streetcar Water Reuse Site is within grasslands (white background). The terrain is slightly sloping, with elevations ranging from slightly above 3,400 feet above mean sea level (AMSL) to slightly below 3,420 feet AMSL. Drainage occurs by overland sheet flow toward the east-southeast. The nearest potential WATERS is an unnamed tributary located approximately 4,900 feet to the northeast and upgradient from the site. The Streetcar Water Reuse Site is within the Lower Pecos River Watershed. The nearest direct line point to the Pecos River is approximately 25 miles southwest. There are no improvements noted on the site; however, there are several unimproved roads mapped in the general vicinity of the site. There is no indication of any potential WATERS within the boundary of the site.

Aerial Orthoimagery

The aerial orthoimagery (Figure 2) indicates the Streetcar Water Reuse Site is within relatively open shrublands. The mapped unimproved roads are depicted on the aerial orthoimagery as caliche-topped roads. Other oil/gas development is located south and southeast of the site. There are no potential WATERS indicated on or near the site.

Soils

The NRCS SSURGO spatial data (Figure 3) indicate the soil map unit underlying the Streetcar Water Reuse Site is Pyote and Maljamar fine sands (PU). The primary soil components of this map unit are Pyote fine sand and Maljamar fine sand. None of the primary components of these soils are listed as hydric soils.

FIELD INVESTIGATION

A field investigation was conducted on 19 September 2017 in order to determine the presence of potential WATERS within the Streetcar Water Reuse Site. The site was traversed on-foot. The site conditions are generally consistent with those depicted on the topographic map and aerial orthoimagery described above. Topographically, the site is relatively flat. Vegetation within the site consists primarily of sand dropseed (*Sporobolus cryptandrus*) and honey mesquite (*Prosopis glandulosa*), but dove weed (*Croton setigerus*), broom snakeweed (*Gutierrezia sarothrae*), plains yucca (*Yucca glauca*), and other desert forbs and grasses are also present.

Surface water run-off from the site is likely very rare. Drainage occurs primarily by overland sheet flow toward the east-southeast. No evidence of any Ordinary High Water Mark (OHWM) or standing water was found within the site. Additionally, no flowing watercourse, lake bed, sinkhole, or playa exhibiting an OHWM are found on the site or within 300 feet of the site. A search in the general vicinity of the site did not reveal any seeps, springs, wetlands, or water wells within 500 feet of the site.





REGULATORY DEVELOPMENT CONSTRAINTS

It is Goshawk's opinion construction of the Streetcar Water Reuse Site will not impact any WATERS. It is important to note that only the USACE has the authority to make a formal determination defining its jurisdictional limits under the CWA. Approved jurisdictional determinations are made by the USACE in accordance with internal policies and procedures in place at that time, and on a case-by-case basis using information at its disposal (such as other permits in the local area and case law) that may not be readily available to the public. Therefore, Goshawk's opinion should not be considered authoritative, and cannot wholly eliminate uncertainty regarding the USACE's jurisdictional limits.

THREATENED OR ENDANGERED SPECIES

REGULATORY BACKGROUND AND METHODOLOGY

The Endangered Species Act prohibits any action that causes a "take" of any listed T/E species. "Take" is defined as harm or harassment, including hunting, wounding, killing, trapping, and the capture or collection of individuals of listed species. The law also protects against the degradation or loss of vital habitat for listed species. The United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service are the regulatory authorities for federally listed T/E species.

State-listed T/E species are protected under New Mexico Wildlife Conservation Act (17-2-41). The New Mexico Department of Game and Fish (NMDGF) has the authority to establish a list of fish and wildlife species that are endangered or threatened. Unlike the federal Act, the state's regulation makes no provision for the protection of wildlife species from indirect take (e.g., destruction of habitat or unfavorable management practices); rather, it protects from the unlawful killing, trade, or transportation of state-listed species. Therefore, the state-listed species are only a potential development constraint if listed species are determined to be currently occupying the tract.

Literature and agency file searches were conducted to identify the potential occurrence of any federally and state-listed T/E species near the Streetcar Water Reuse Site. An internet search of the USFWS *Information, Planning, and Conservation System* (IPaC) was conducted for Lea County to identify federally listed T/E species "that should be considered as part of an effects analysis" for the site. Additionally, a report from the NMDGF Biota Information System of New Mexico (BISON-M) was obtained and reviewed for the Lea County.

RESOURCE REVIEW

The T/E species listed in the IPaC Trust Resource Report for Lea County is the northern aplomado falcon (*Falco femoralis*). Critical habitat for this species is not designated within the Streetcar Water Reuse Site or immediate vicinity.

The state-listed T/E species on NMDGF BISON-M County List for Lea County dated 1 December 2017 include: bald eagle (*Haliaeetus leucocephalus*), aplomado falcon, peregrine falcon (*Falco peregrinus*), arctic peregrine falcon (*Falco peregrinus tundrius*), least tern, broad-billed hummingbird (*Cynanthus latirostris*), Bell's vireo (*Vireo bellii*), Baird's sparrow (*Ammodramus bairdii*), and dunes sagebrush lizard (*Sceloporus arenicolus*).





DEVELOPMENT CONSTRAINTS

The northern aplomado falcon is listed for many southern New Mexico counties (including Lea County) and west Texas counties within its historic range. Historically, the falcon utilized open desert grasslands and/or savannas, where scattered shrubs and trees provide roosting and nesting locations. Although the proposed site is within shrublands, the land uses of this area (heavy cattle grazing and oil/gas production) likely precludes the northern aplomado falcon from utilizing the site.

State regulations prohibit the taking, possession, transportation, or sale of any state-listed T/E species. Because Lea County has the potential to support state-listed T/E species, care should be taken to avoid direct impacts (including harassment, harm, killing, and/or collection) to any species that may inhabit the site. The state-listed birds would have the ability to leave the site during active construction to avoid impacts. However, the dunes sagebrush lizard is ground-dwelling and relatively slow-moving, which makes it more likely to be impacted by construction activities than are other state-listed species. The dunes sagebrush lizard is more commonly found in the northern and eastern portions of Lea County. The site lacks suitable habitat for the dunes sagebrush lizard.

The lack of habitat for the northern aplomado falcon, coupled with the current land use, makes it highly unlikely that this species is utilizing the site. Furthermore, only the dunes sagebrush lizard would be susceptible to direct impacts during construction of the site. Care should be taken to avoid harassment, harm, killing, and/or collecting of the dunes sagebrush lizard. No further investigations relative to T/E species are recommended.

CULTURAL RESOURCES DESKTOP REVIEW

REGULATORY BACKGROUND AND METHODOLOGY

Section 106 of the National Historic Preservation Act (NHPA) of 1966 requires Federal agencies to consider the effects of their actions on historic properties and provide the State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on their projects. Historic properties are defined as archaeological sites, standing structures, or other historic resources listed on or eligible for listing on the National Register of Historic Places (NRHP). The New Mexico Prehistoric and Historic Sites Preservation Act and the New Mexico Cultural Properties Act provide protection of archaeological sites (prehistoric and historic) listed in the State Register of Cultural Properties or on the NRHP.

The regulatory process seeks to determine if a project will have an "effect" upon historic properties. The term "effect" is defined as an "alteration to the characteristics of historic property qualifying it for inclusion in, or eligibility for the National Register (of Historic Places)." An effect is "adverse" when it will endanger those qualities that make the property eligible for inclusion on the NRHP.

Goshawk performed a Class I archival review to evaluate the potential for historic properties present near the Streetcar Water Reuse Site. The Archaeological Records Management Section's New Mexico Cultural Resources Information System (NMCRIIS) online database, geospatial data obtained from the BLM CFO, and the Natural Resources Conservation Service Web Soil Survey were utilized for the review. Following the archival review, a Class III Archaeological Survey was conducted for the site and 100-foot buffer around the site.





ARCHIVAL REVIEW

Nearby Archaeological Sites

According to NMCRIS, there are no previously recorded archaeological sites within the Streetcar Reuse Site. The nearest recorded archaeological site, LA# 48114, lies 3,200 feet (975 meters) to the north-northwest of the reuse site. Site LA# 48114 is an undifferentiated prehistoric site recorded to contain only lithic debitage. The site as originally recorded by Pecos Archaeological Consultants in 1984 under NMCRIS activity 7389, and was revisited once by Lone Mountain Archaeological Services in 2014 under NMCRIS activity 129811. The revisit failed to locate the site. The BLM determined the site to be not eligible for NRHP listing in 2014.

National Register Properties

No NRHP-listed properties have been recorded near the proposed site. According to the NMCRIS database, the nearest NRHP-listed property is the Pope's Wells Site (LA# 69016). This site consists of the remains of a camp and well site that was part of efforts to establish a water well in the area in the 1850's. The site lies 15.78 miles west-southwest of the proposed reuse site.

Soils Analysis

Soils mapped within the proposed site consist of Pyote and Maljamar fine sands. Both the Pyote/Maljamar series are deep, wind-blown sands or loams found on undulating plains and low hills east of the Pecos River. They are well-drained to excessively drained with negligible runoff. Considering the soils present, there is a moderate probability for the presence of cultural resources within the proposed Streetcar Reuse Site.

ARCHAEOLOGICAL SURVEY

Goshawk performed a cultural resources survey on 19 September 2017 for the Streetcar Water Reuse Site and 100-foot archaeological survey buffer, encompassing a total of 36.11 acres (Figure 4). Transects were walked at 50-foot intervals over the entire survey area. The site is situated upon loose sands with coppice dunes to the western portion of the project area. Terrain slopes slightly higher to the northwest, and surface visibility was excellent, averaging 60-90%. The intensive survey yielded no cultural material.

DEVELOPMENT CONSTRAINTS

The cultural resources archival review determined there is a moderate probability for the presence of significant prehistoric resources within the site. This determination was based on the types of previously documented prehistoric sites present in the vicinity, the soils present, and the topographic relief. However, no cultural material or archaeological sites were identified during the cultural resources survey. No impacts to cultural resources would be expected by the Streetcar Water Reuse Site.

SUMMARY

Based on the results of the Resource Review, it is Goshawk's opinion that the construction of the Streetcar Water Reuse Site is unlikely to impact any sensitive natural resources, including WATERS and T/E species. Based on the negative results from the cultural resources survey, it is Goshawk's opinion that the site does not contain significant prehistoric resources. In the unlikely event that cultural resources (including human remains) are discovered, all construction or maintenance activities should be





immediately halted and a qualified archaeologist should be notified. If you have any questions or desire additional information, please contract our office.

Sincerely,

Natasia Mitchell
Environmental Specialist

Steven Evans
Project Archaeologist

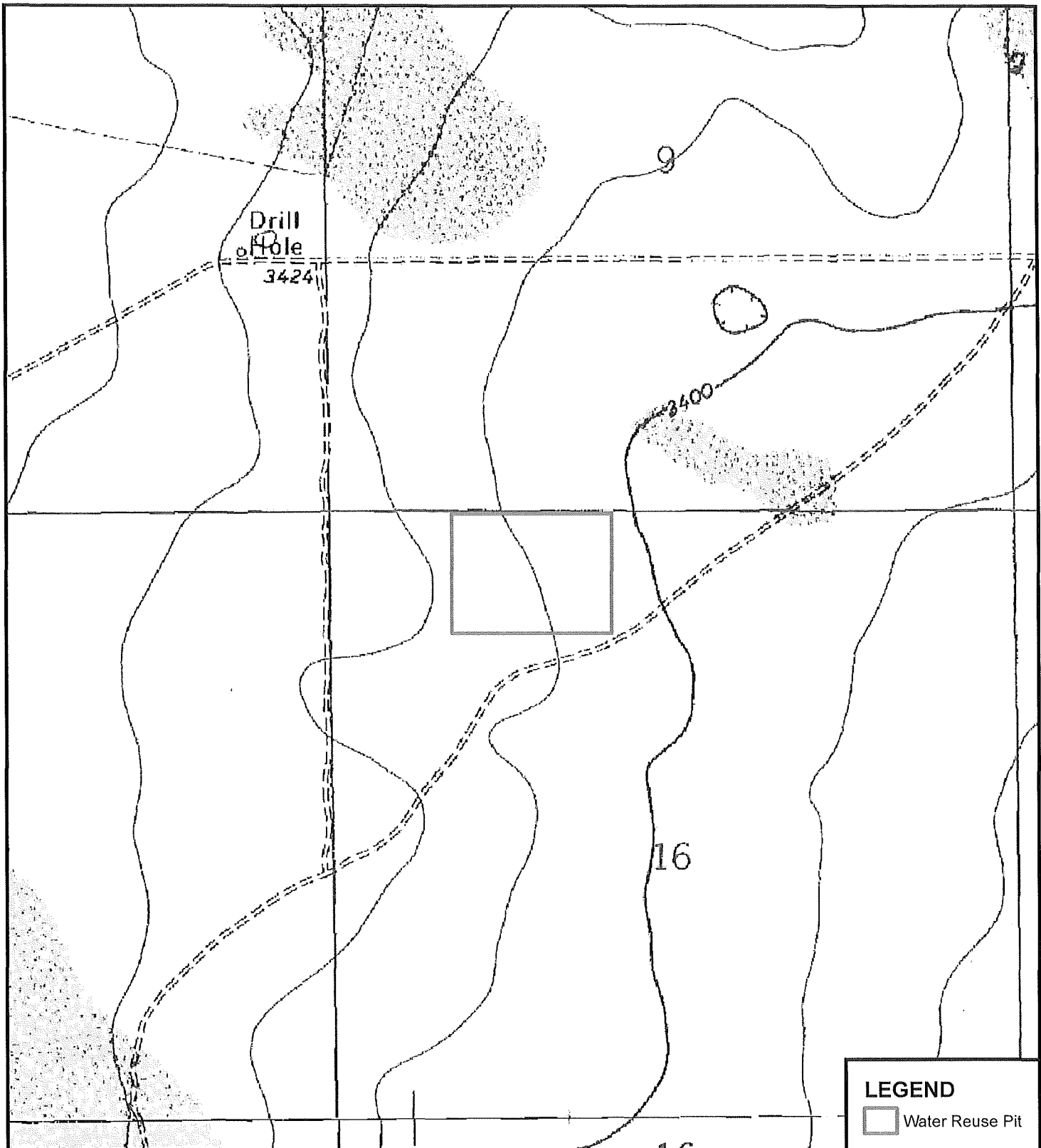
Cc: Michael Yemm, EOG Resources, Inc.
Galan Kelley, EOG Resources, Inc.
Wesley Moss, EOG Resources, Inc.





APPENDIX A FIGURES





LEGEND

 Water Reuse Pit

Map Source: USGS, Bell Lake, New Mexico
Quadrangle.

0 500 1,000 Feet

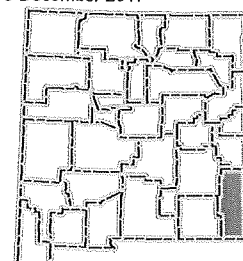


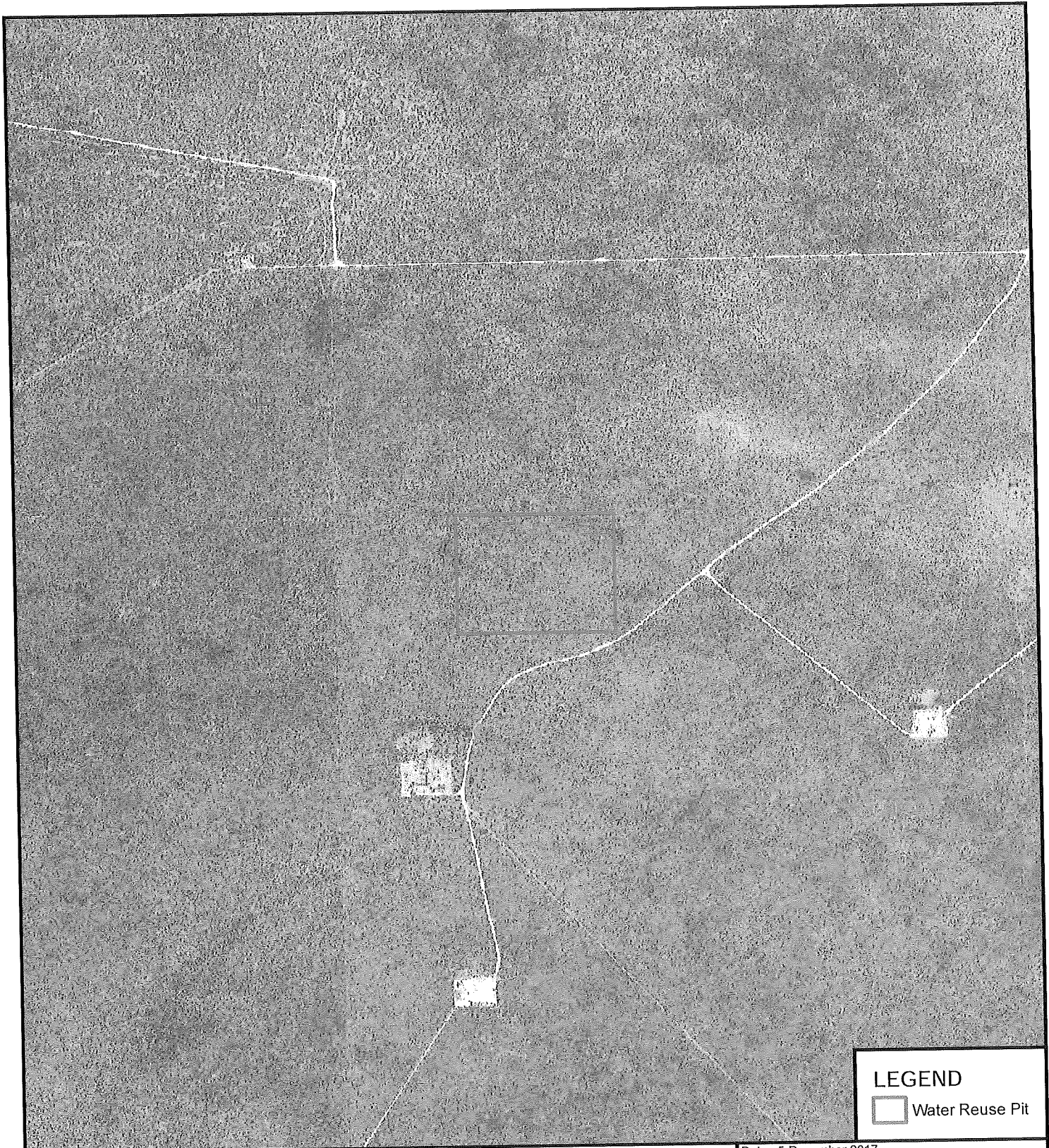
Figure 1
USGS Topographic Map
Lea County, New Mexico

Streetcar Water Reuse Pit

Township 25S; Range 33E; Section 16

Date: 5 December 2017





Map Source: EOG's Spatial on Demand.
Global Imagery: DigitalGlobe Most Recent.

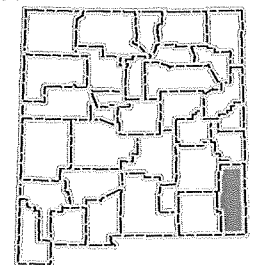
0 500 1,000 Feet

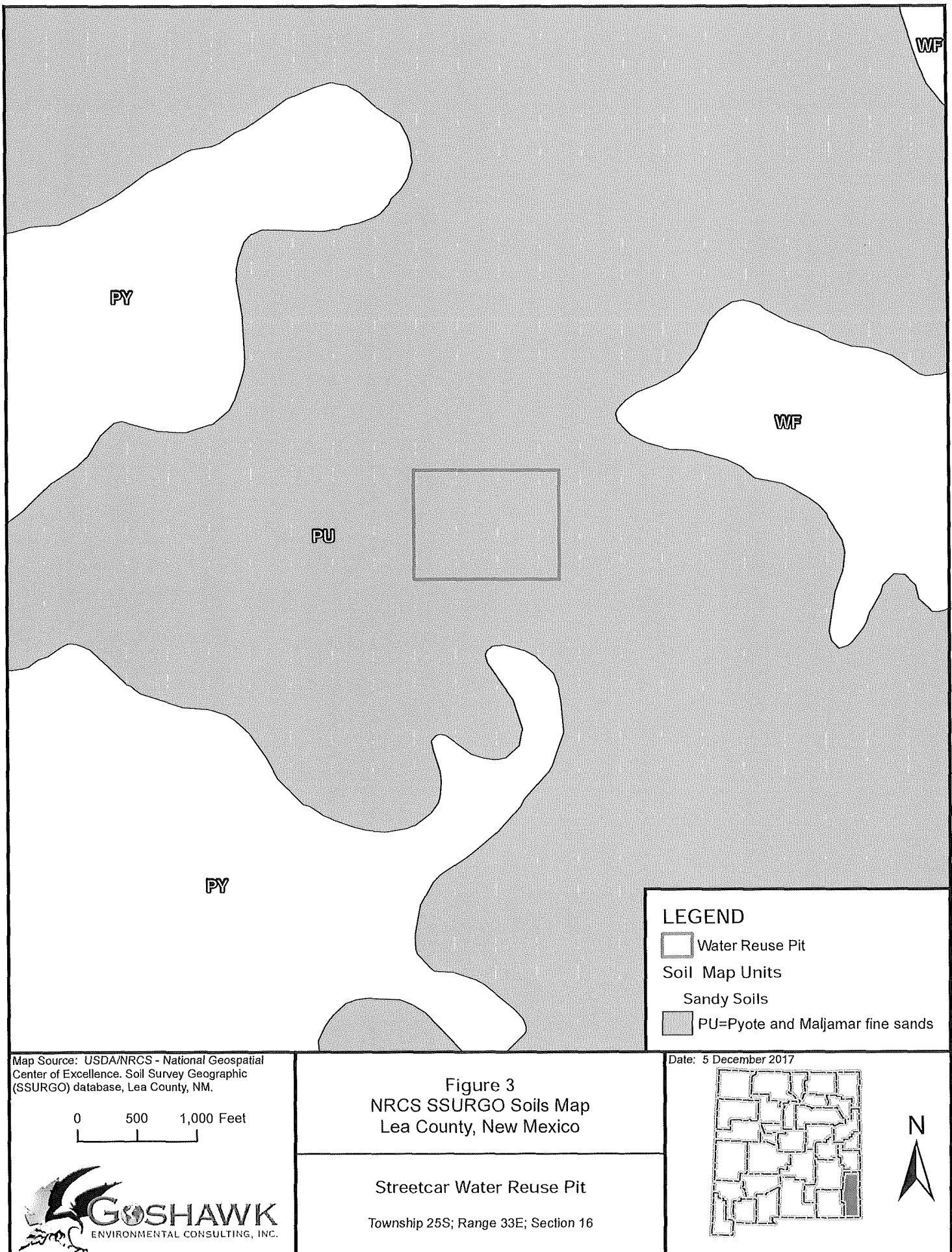


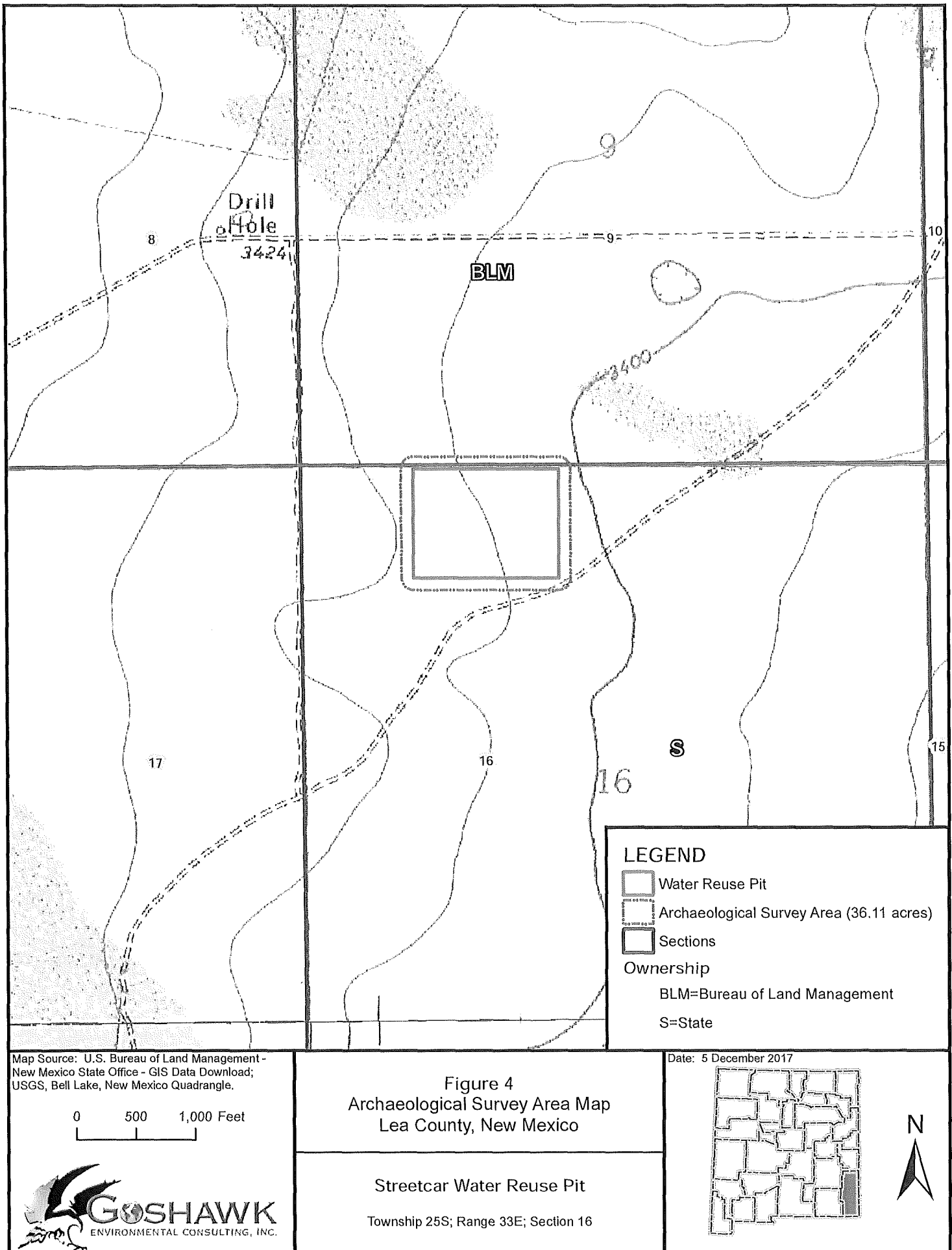
Figure 2
Aerial Orthoimagery
Lea County, New Mexico

Streetcar Water Reuse Pit
Township 25S; Range 33E; Section 16

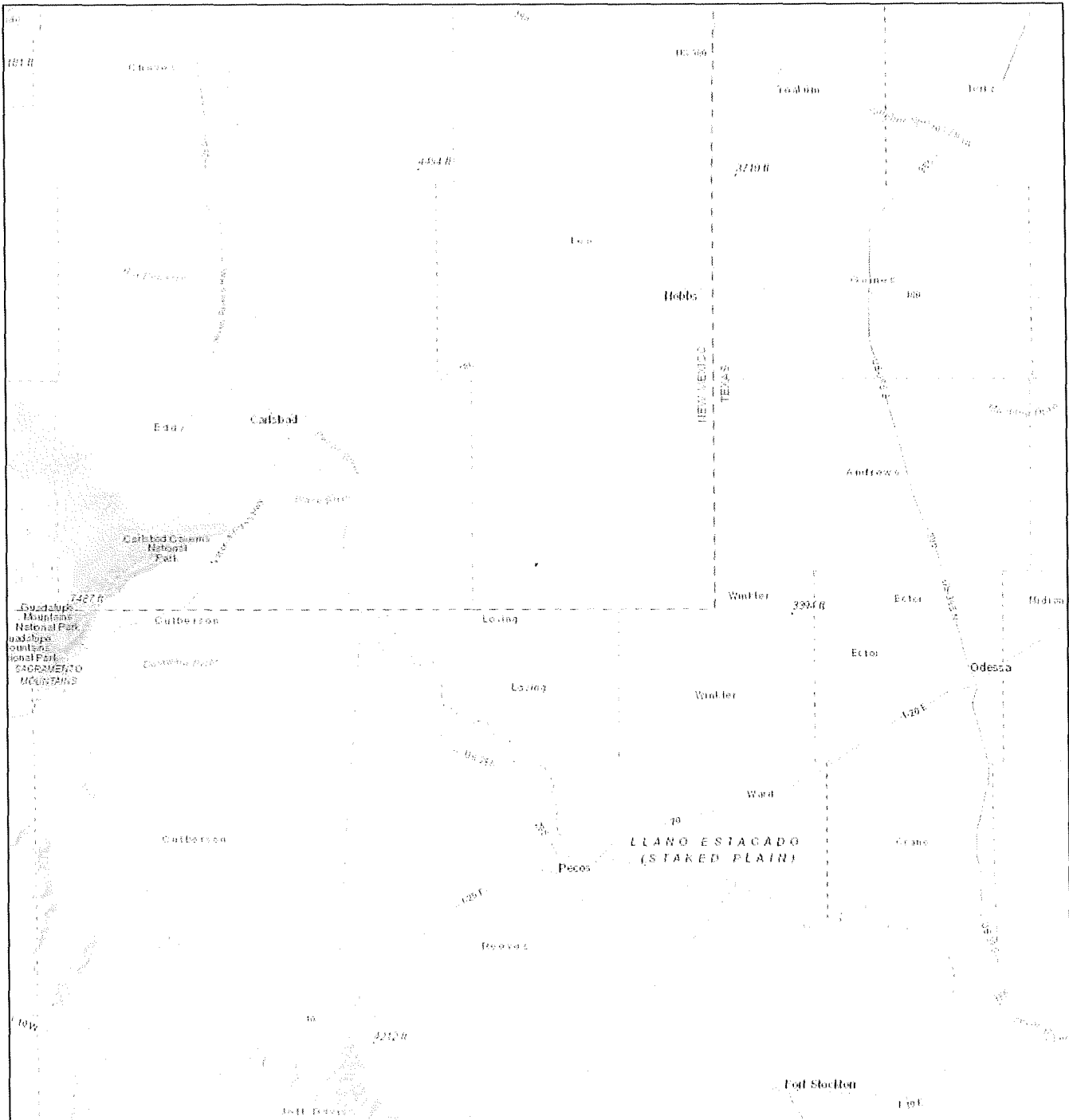
Date: 5 December 2017







Active Mines in New Mexico



12 / 11 / 2017 6 : 20 : 43 PM

1:1,155,581


0 10 20 40 mi
0 10 20 40 km

Sources: Esri, HERE, DeLorme, Intermap, Increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

The map shows the Red Hills area in Oklahoma. Key features include:

- Red Hills**: Located in the upper right corner.
- Slickhorn**: Located in the upper right corner, below Red Hills.
- Salado Draw**: Located in the upper right corner, below Slickhorn.
- Bobcat Draw**: Located in the upper right corner, below Salado Draw.
- Antelope Draw**: Located in the upper left corner.
- Woodsley**: Located in the upper left corner, below Antelope Draw.
- Sagoua Oil Field**: Located in the center of the map.
- Eddy Lea**: Located in the lower left corner.
- Slickhorn**: Located in the lower left corner, below Eddy Lea.
- Numbered Points**: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.
- Scale Bar**: Located in the lower right corner, indicating distances in miles.

7:144,448



0 1.25 2.5 5 mi
0 1.25 2.5 5 km

Sources: Esri, DeLorme, USGS, NPS
Sources: Esri, USGS, NOAA

BLM and RGIS, of course | RGIS, CadNDSI, TRD, J R Jenks | Sources: Esri, USGS, NOAA | Sources: Esri, DeLorme, USGS, NPS | NM EMNRD ITO GIS



Souder, Miller & Associates ♦ 201 S. Halagueno ♦ Carlsbad, NM 88220
(575) 689-8801

December 12, 2017

#5E26751

Mr. Dustin Cole Kinder
EOG Resources, Inc.
421 West 3rd Street, Suite 150
Fort Worth, TX 46102

**Subject: C-147 Recycling Containment Permit Siting Criteria Attachment, Proposed
Streetcar Recycling Facility, Lea County, New Mexico**

Dear Mr. Kinder:

Souder, Miller & Associates (SMA) is pleased to submit the enclosed C-147 Siting Criteria Explanation and supporting documentations for the proposed Streetcar Recycling Containment Pond to be constructed in southwestern Lea County, New Mexico. The proposed recycling containment will be composed of a lined pond with an approximate capacity of 27.5 million gallons, and be located in Township 25S, Range 33E, NW/4 of Section 16, located to the east of County Road J-1.

Below are details on the siting criteria in Section 8 of the C-147 permit. Supporting documentation are included in the Appendices indicated in each siting criteria explanation. Information obtained from the supporting documentation was confirmed during a site visit by Austin Weyant with SMA on December 8, 2017.

8.1 Groundwater is less than 50 feet below the bottom of the recycling containment

The regional geology near the proposed Streetcar Recycling Containment pond consists of a thin layer of quaternary alluvium and windblown sand (typically less than 200 feet) overlying Triassic-aged redbed units, including the Chinle Formation and the Santa Rosa Sandstone. In southwestern Lea County, the most commonly utilized regional aquifer occurs within the Triassic redbeds, with the most productive zone consisting of the Santa Rosa Sandstone. Near the proposed facility, the top of the redbed formations are anticipated to be found at depths ranging from 100-150 feet. The estimated groundwater elevation near the site is 150 feet below ground surface (elevation of 3,200 feet above mean sea level), with a flow direction to the south (Nicholson & Clebsch, 1961). Production from the aquifer in this area is typically less than 100 gallons per minute (NMOSE, 2017).

Groundwater, as indicated by lithology logs from recent drilling activities at the site (location indicated on Figure 1), was not encountered at depths above 75 feet below ground surface (bgs), suggesting the maximum groundwater elevation in the area is 3,335 feet above mean sea level (amsl). The proposed facility is located at an elevation of approximately 3,410 feet above mean sea level, and the base of the containment pond will be installed to a maximum depth of 20 feet bgs, or an elevation of approximately 3,390 ft amsl. As such, groundwater is present at an elevation over 50 feet from below the bottom of the Recycling Containment. Supporting information from nearby New Mexico Office of the State Engineer (NMOSE) registered wells, United States Geological Society (USGS) monitoring wells,

December 12, 2017

Page 2

and recent lithology logs are included as Appendix A. The exact borehole coordinates from the recent drilling activities are: LAT N32.1364952; LONG W103.5807442.

8.2 Facility is located within municipal boundary or within a defined fresh water well field

The facility is located over 20 miles from the nearest municipality (City of Jal) in an area consisting predominantly of oil and gas development, and is not within any defined freshwater field as no municipal water wells are present near the facility location. A vicinity map of the facility on a USGS topographic map is included as Figure 1. A map indicating the location of wells registered with the NMOSE is included as Appendix A.

8.3 Facility is located within an area overlying a subsurface mine

Information from the USGS Topographic map covering the location of the facility as well as a map from the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD) indicates that no subsurface mines or quarries are present within the facility boundaries. There are no quarries or subsurface mines within a one (1) mile radius of the facility boundaries. A vicinity map of the facility on a USGS topographic map is included as Figure 1. A map indicating the location of active mines from the EMNRD website is included as Appendix B.

8.4 Facility is located within an unstable area

The facility is located in generally flat topography with no nearby mapped faults. The USGS Seismic hazard map places the region as a low-risk area for potential earthquakes or other seismic hazards. As such, SMA believes the facility is not located in an unstable area. A vicinity map of the facility on a USGS topographic map is included as Figure 1, and a geologic map of the area with known faults is included as Figure 3. A seismic hazards map is included as Appendix C.

8.5 Facility is located within a 100-year floodplain

The facility is located within FEMA Zone D in an area that is not covered by printed flood maps. Information from the FEMA Floodplain online database indicates that no known 100-year floodplains are present within 10 miles of the facility. A screenshot of the proposed facility area from the online FEMA Floodplain database is included as Appendix D.

8.6 Facility is located within a 300 feet of a continuously flowing watercourse or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake

The nearest continually flowing watercourse, as indicated on the USGS topographic map, is over 2 miles from the proposed facility boundary; the nearest ephemeral water course is located approximately 1.0 mile to the northeast of the proposed facility. No lakebeds, sinkholes, or playa lakes are within 200 feet of the facility. A vicinity map of the facility on a USGS topographic map is included as Figure 1, and an aerial photo of the project area is included as Figure 2. The absence of watercourses, lakebeds, sinkholes, and playa lakes in the vicinity of the proposed facility was confirmed by a site visit conducted by Mr. Austin Weyant of SMA on December 8, 2017.

8.7 Facility is located within 1,000 feet of an existing residence, school, hospital, institution, or church at time of initial inspection

December 12, 2017
Page 3

The facility is located over 1 mile from the nearest private residence. The closest facilities to the proposed facility are existing oil field tank batteries and well pads surrounding the facility. A vicinity map of the facility on a USGS topographic map is included as Figure 1, and an aerial photo of the project area is included as Figure 2. The absence of residences, schools, hospitals, churches, or institutions in the vicinity of the proposed facility was confirmed by a site visit conducted by Mr. Austin Weyant of SMA on December 8, 2017.

8.8 Facility is located within 500 feet of a spring or fresh water well in existence at time of initial inspection

The nearest freshwater well registered with the NMOSE or USGS is located approximately 10,300 feet to the southwest of the proposed facility. No springs are indicated on USGS topographic maps within 1,000 feet of the proposed facility. A vicinity map of the facility on a USGS topographic map is included as Figure 1, and an aerial photo of the project area indicating the location of registered wells is included as Figure 2. Supporting information from nearby NMOSE wells and the USGS monitoring wells is included as Appendix A. The absence of springs or drinking water wells in the vicinity of the proposed facility was confirmed by a site visit conducted by Mr. Austin Weyant of SMA on December 8, 2017.

8.9 Facility is located within 500 feet of a wetland

The nearest wetland as mapped by the United States Fish and Wildlife Service is present approximately 2 miles to the northeast of the proposed facility. A map prepared by the US FWS online wetland database is included as Appendix E. The absence of potential wetlands in the vicinity of the proposed facility was confirmed by a site visit conducted by Mr. Austin Weyant of SMA on December 8, 2017.

If you have any questions, please do not hesitate to call me at 505-299-0942 or to e-mail me at matthew.earthman@soudermiller.com.

Sincerely,
SOUDER, MILLER AND ASSOCIATES



Matthew A. Earthman, P.G.
Project Geoscientist

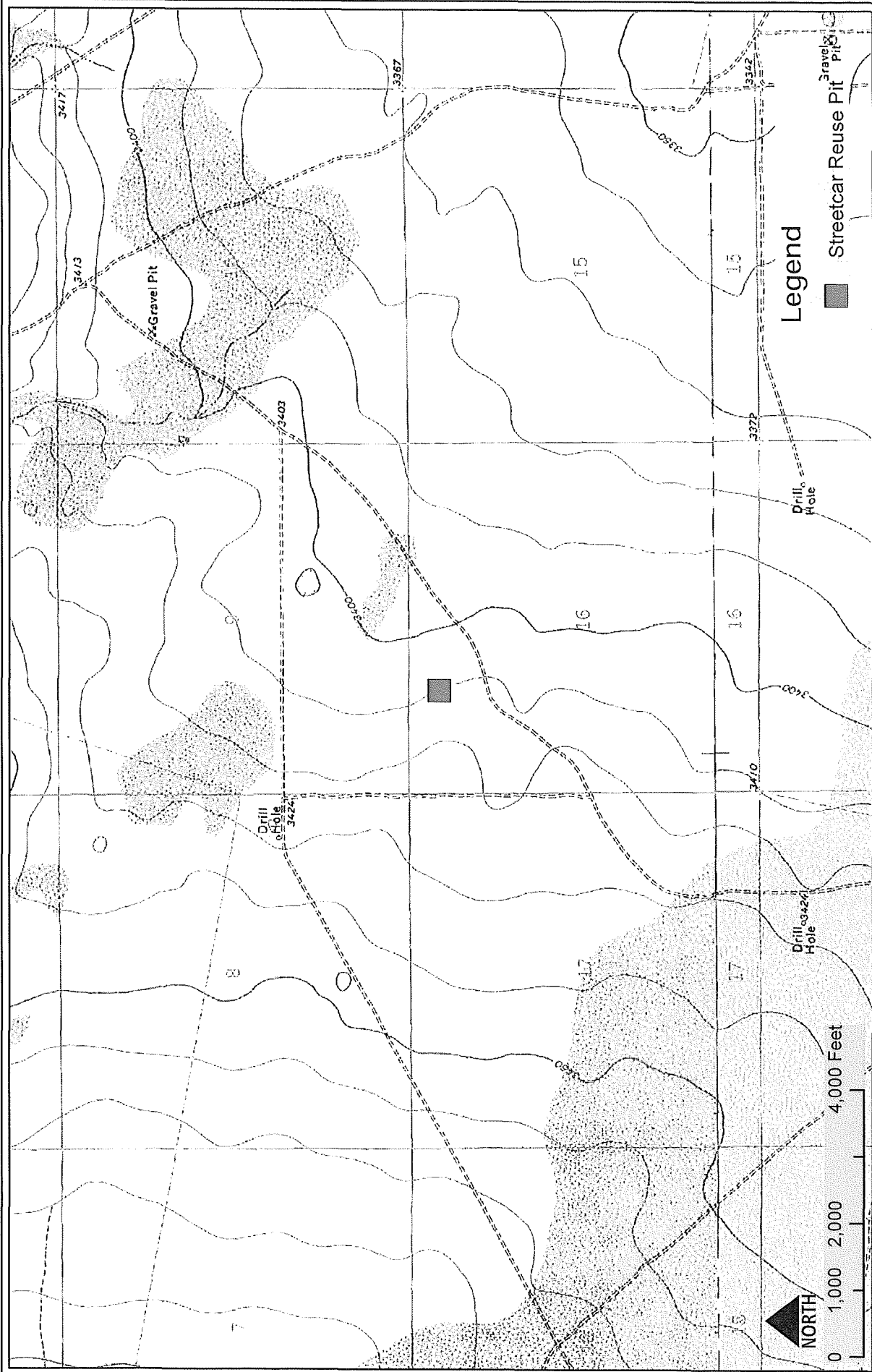
Enclosures:

- Figure 1: Vicinity Map on USGS Topographic Quad
- Figure 2: Site Aerial Photo
- Figure 3: Geologic Map of Proposed Facility Area
- Appendix A: Groundwater & Well Information (NMOSE & USGS)
- Appendix B: Active Mine/Quarry Map (NM EMNRD)
- Appendix C: USGS Seismic Hazard Map
- Appendix D: FEMA Floodplain Information
- Appendix E: Wetlands & Critical Habitat Map (US FWS)



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Figures





Legend

- Streetcar Reuse Pit
- OSE_WELLS_May_2015

Figure 2

SITE MAP - AERIAL PHOTOGRAPH
EOG STREETCAR RECYCLING FACILITY
S16 R33E T25S, LEA COUNTY, NM.



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(575) 689-7040
www.soudermiller.com
Serving the Southwest & Rocky Mountains

Drawn _____
Checked _____
Approved _____
Curtis Pattillo

Revisions
By: _____ Date: _____ Descr: _____
By: _____ Date: _____ Descr: _____
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Date Saved: 12/6/2017

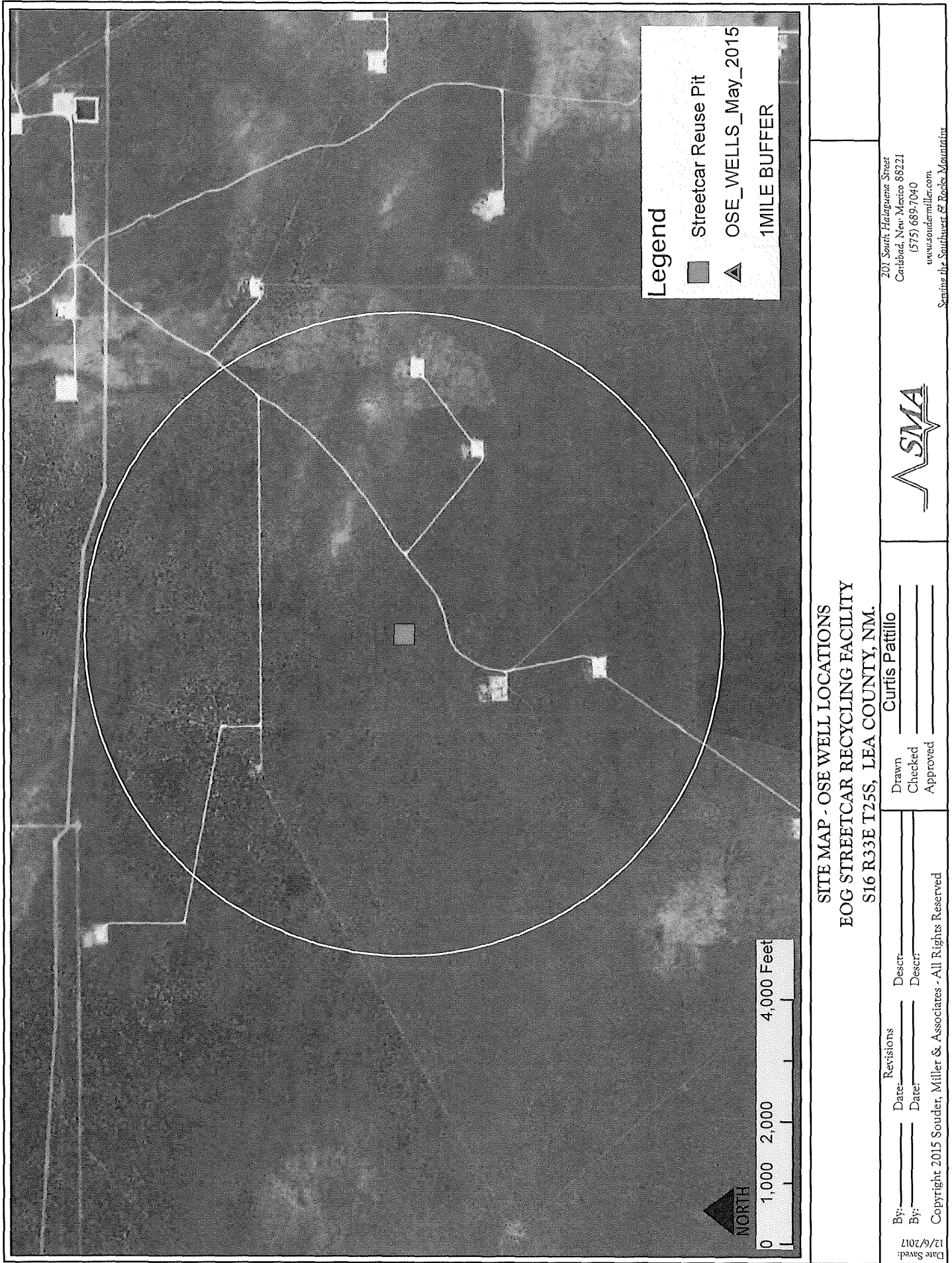




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Appendix A


Groundwater & Well Information (NMOSE & USGS)



SOIL BORING / MONITORING WELL LOG

PROJECT: <u>Jal, NM - Pit Sites</u>				DRILLING COMPANY: <u>Talon/LPE</u>			
PROJECT NUMBER: <u>700438.209.01</u>				DRILLER: <u>Ronnie Rodriguez</u>			
CLIENT: <u>EOG Resources</u>				DRILLING METHOD: <u>Hollow Stem Auger/Continuous Core</u>			
BORING / WELL NUMBER: <u>Streetcar - SB3</u>				BORE HOLE DIAMETER: <u>6"</u>			
TOTAL DEPTH: <u>75</u>				SCREEN: Diam. <u> </u> Length <u> </u> Slot Size <u> </u>			
SURFACE ELEVATION: <u> </u>				CASING: Diam. <u> </u> Length <u> </u> Type <u> </u>			
GEOLOGIST: <u>Jason Hafliker</u>				DATE DRILLED: <u>12/1/2017</u>			
LATITUDE: <u> </u>				LONGITUDE: <u> </u> PAGE 1 of 3			

DEPTH (FT.)	Soil Symbol	WELL CONSTRUCTION	Pt. Sample ID:	SAMPLES SAMPLE INTERVAL	DESCRIPTION INTERVAL	DESCRIPTION OF STRATUM	DEPTH (FT.)
0							0
			SB3-1'	0'-5'		Sand - Top Soil High Moisture Reddish Brown	
5			SB3-6'	5'-10'		Sand - Top Soil High Moisture Reddish Brown	5
10			SB3-10'	10'-15'		Sand to Caliche Low Moisture Tan/Pink	10
15			SB3-16'	15'-20'		Caliche Low Moisture Tan/Pink	15
20			SB3-21'	20'-25'		Caliche Low Moisture Tan/Pink	20
25			SB3-26'	25'-30'		Caliche - Hard Pan No Moisture Tan	25
30						Caliche - Hard Pan	30

REMARKS:	
THIS BORING LOG SHOULD NOT BE USED SEPERATE FROM THE ORIGINAL REPORT	

SOIL BORING / MONITORING WELL LOG

PROJECT: <u>Jal, NM - Pit Sites</u>	DRILLING COMPANY: <u>Talon/LPE</u>
PROJECT NUMBER: <u>700438.209.01</u>	DRILLER: <u>Ronnie Rodriguez</u>
CLIENT: <u>EOG Resources</u>	DRILLING METHOD: <u>Hollow Stem Auger/Continuous Core</u>
BORING / WELL NUMBER: <u>Streetcar - SB3</u>	BORE HOLE DIAMETER: <u>6"</u>
TOTAL DEPTH: <u>75</u>	SCREEN: Diam. <u> </u> Length <u> </u> Slot Size <u> </u>
SURFACE ELEVATION: <u> </u>	CASING: Diam. <u> </u> Length <u> </u> Type <u> </u>
GEOLOGIST: <u>Jason Hafliger</u>	DATE DRILLED: <u>12/1/2017</u>
LATITUDE: <u> </u>	LONGITUDE: <u> </u>

PAGE 2 of 3

DEPTH (FT.)	Soil Symbol	WELL CONSTRUCTION	Pt. Sample ID:	SAMPLES SAMPLE INTERVAL	DESCRIPTION INTERVAL	DESCRIPTION OF STRATUM	DEPTH (FT.)
35			SB3-31'	30'- 35'		No Moisture Tan	35
			SB3-36'	35'- 40'		Sandstone - Fine to Med No Moisture Tan/Pink	
40			SB3-41'	40'- 45'		Sandstone - Fine Grained No Moisture Tan/Pink	40
45			SB3-46'	45'- 50'		Sandstone - Fine Grained No Moisture Tan/Pink	45
50			SB3-51'	50'- 55'		Sandstone - Fine Grained No Moisture Tan/Pink	50
55			SB3-56'	55'- 60'		Sand - Fine Grain No Moisture Light Reddish Pink	55
60						Sand - Fine Grain No Moisture	60
REMARKS:							
THIS BORING LOG SHOULD NOT BE USED SEPERATE FROM THE ORIGINAL REPORT							

SOIL BORING / MONITORING WELL LOG

PROJECT: <u>Jal, NM - Pit Sites</u>	DRILLING COMPANY: <u>Talon/LPE</u>
PROJECT NUMBER: <u>700438.209.01</u>	DRILLER: <u>Ronnie Rodriguez</u>
CLIENT: <u>EOG Resources</u>	DRILLING METHOD: <u>Hollow Stem Auger/Continuous Core</u>
BORING / WELL NUMBER: <u>Streetcar - SB3</u>	BORE HOLE DIAMETER: <u>6"</u>
TOTAL DEPTH: <u>75</u>	SCREEN: Diam. <u> </u> Length <u> </u> Slot Size <u> </u>
SURFACE ELEVATION: <u> </u>	CASING: Diam. <u> </u> Length <u> </u> Type <u> </u>
GEOLOGIST: <u>Jason Hafliker</u>	DATE DRILLED: <u>12/1/2017</u>
LATITUDE: <u> </u>	LONGITUDE: <u> </u>

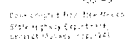
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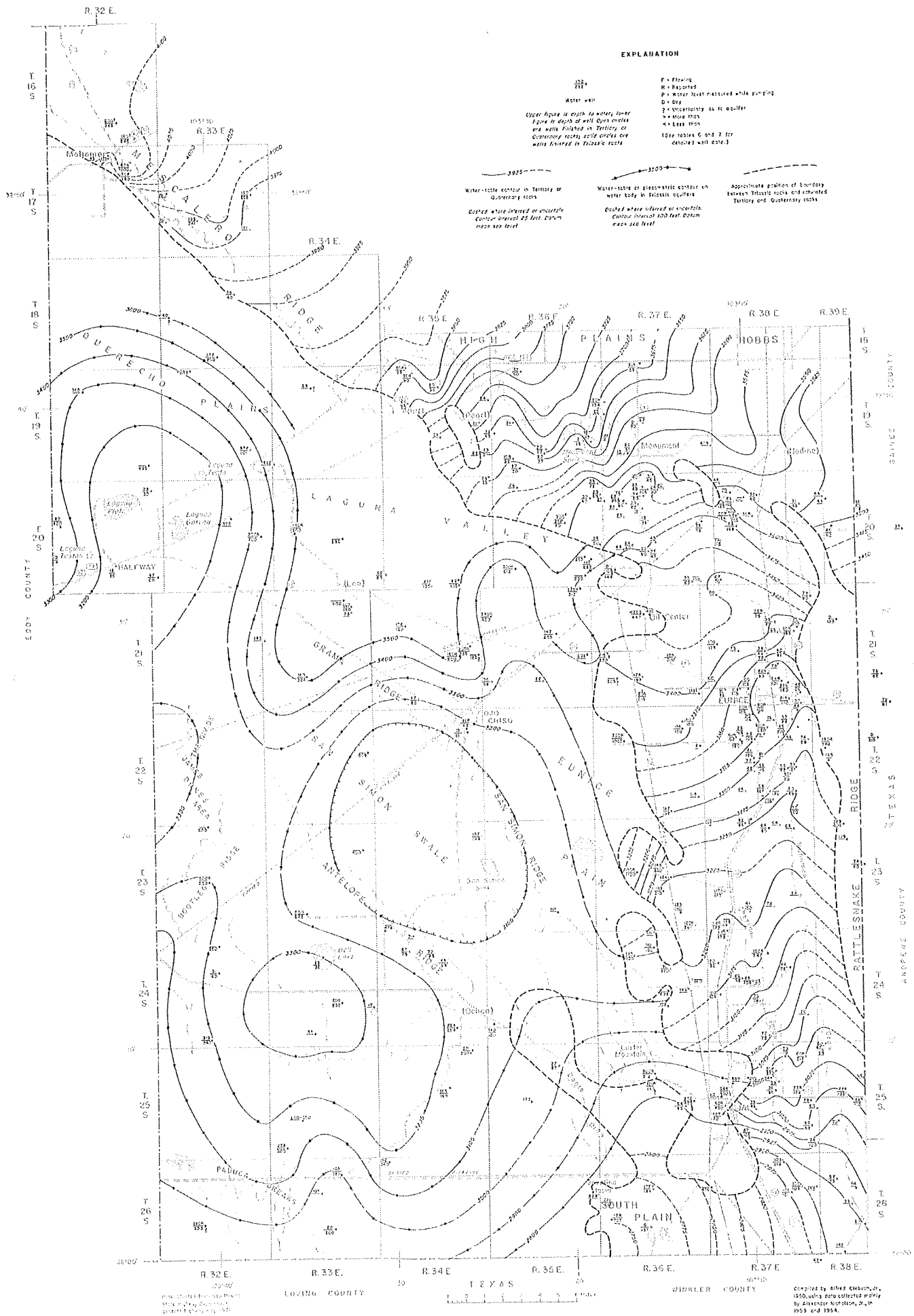
DEPTH (FT.)	Soil Symbol	WELL CONSTRUCTION	Pt. Sample ID: .	SAMPLES	SAMPLE INTERVAL	DESCRIPTION INTERVAL	DESCRIPTION OF STRATUM	DEPTH (FT.)
65			SB3-61'		60'-65'		Light Reddish Pink	65
70			SB3-66'		65'-70'		Sand - Fine Grain No Moisture Light Reddish Pink	70
75					70'-75'		Sand showing Caliche No Moisture Light Reddish Pink	75
80			SB3-75'				Bottom of Hole	80
85								85
90								90

REMARKS:

THIS BORING LOG SHOULD NOT BE USED SEPERATE FROM THE ORIGINAL REPORT







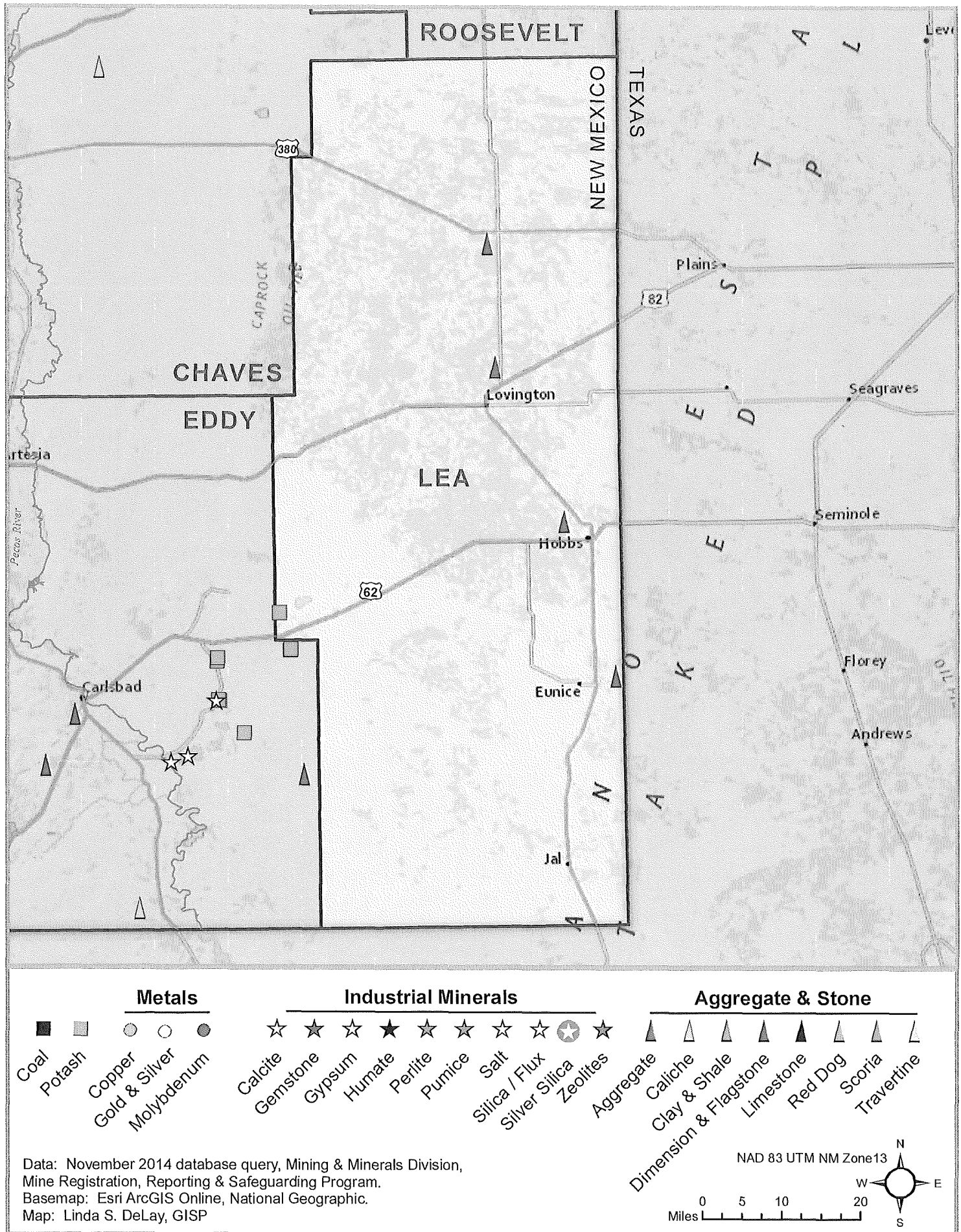


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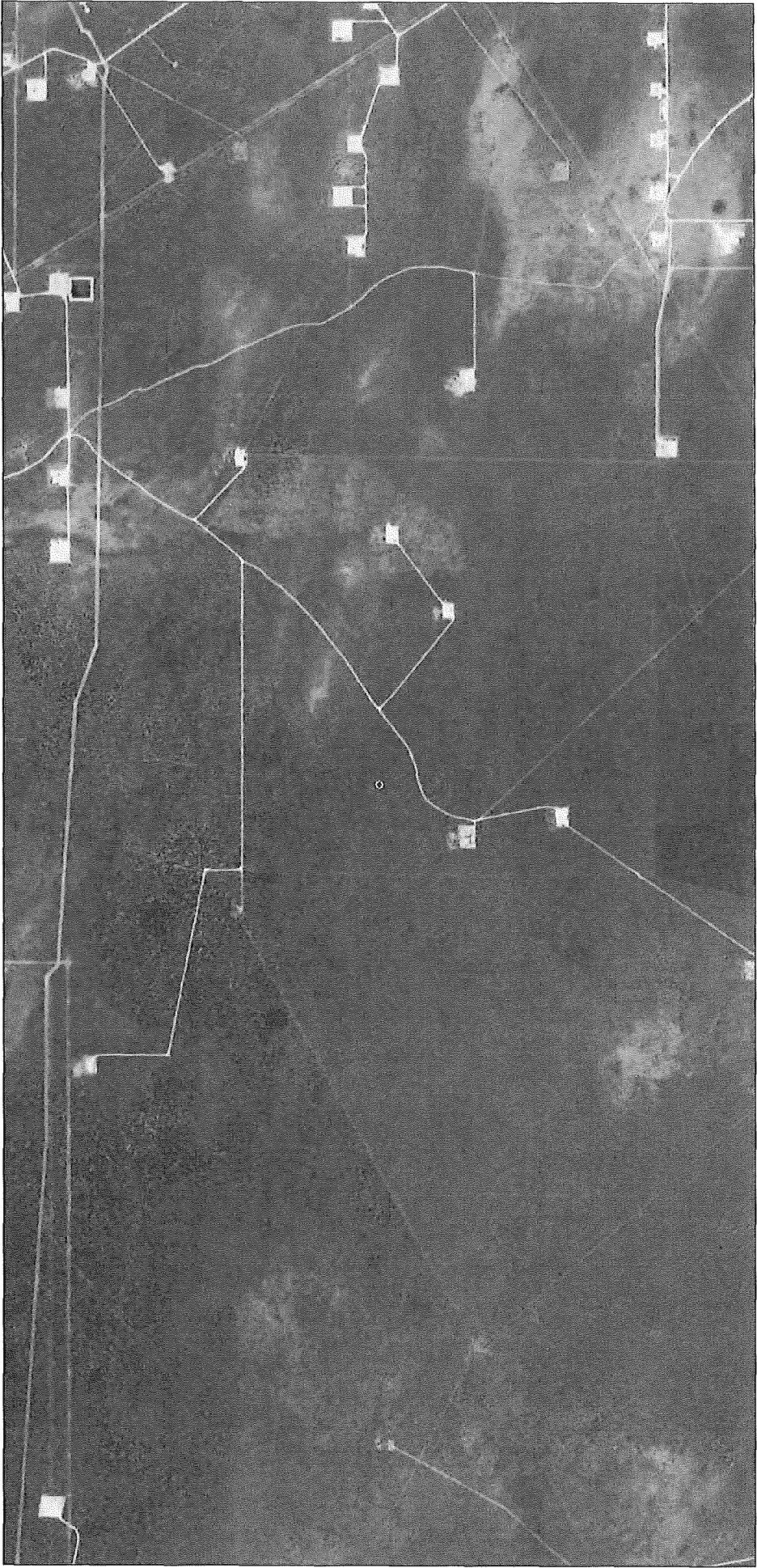
Appendix B

Active Mine/Quarry Map (NM EMNRD)

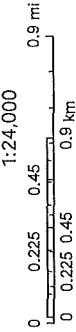
Active Mines in Lea County, New Mexico, November 2014



Active Mines in New Mexico



12 / 11 / 2017 10 : 47 : 48 AM



Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

BLM and RGIS, of course | RGIS, CadISDI, TRD, J.R. Jenks | Esri, HERE, Garmin | Earthstar Geographics | NM EMNRD ITO GIS



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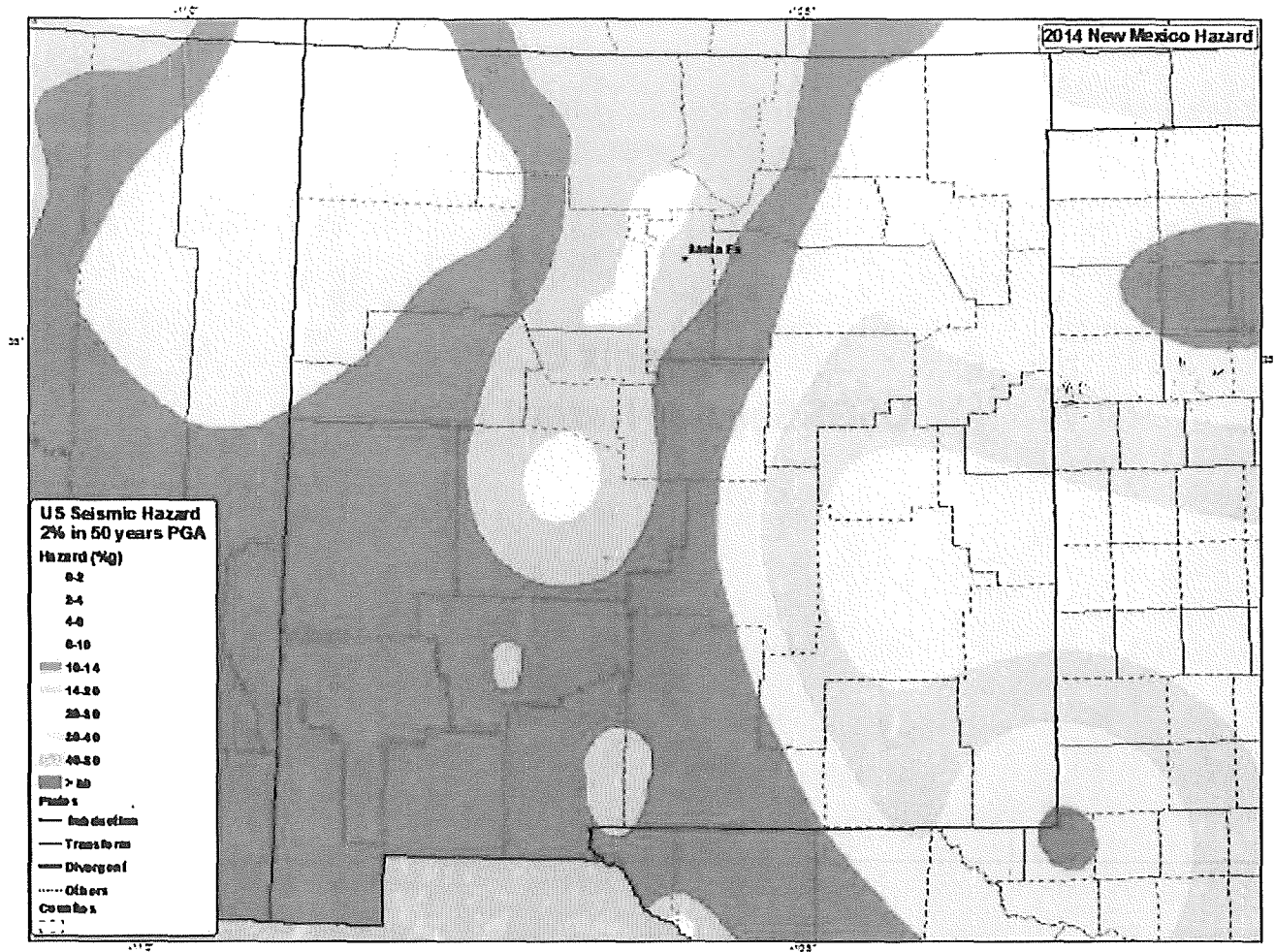
Appendix C

USGS Seismic Hazard Map

U.S. Geological Survey - Earthquake Hazards Program

Information by Region-New Mexico

2014 Seismic Hazard Map



[USGS National Seismic Hazard Maps](#)

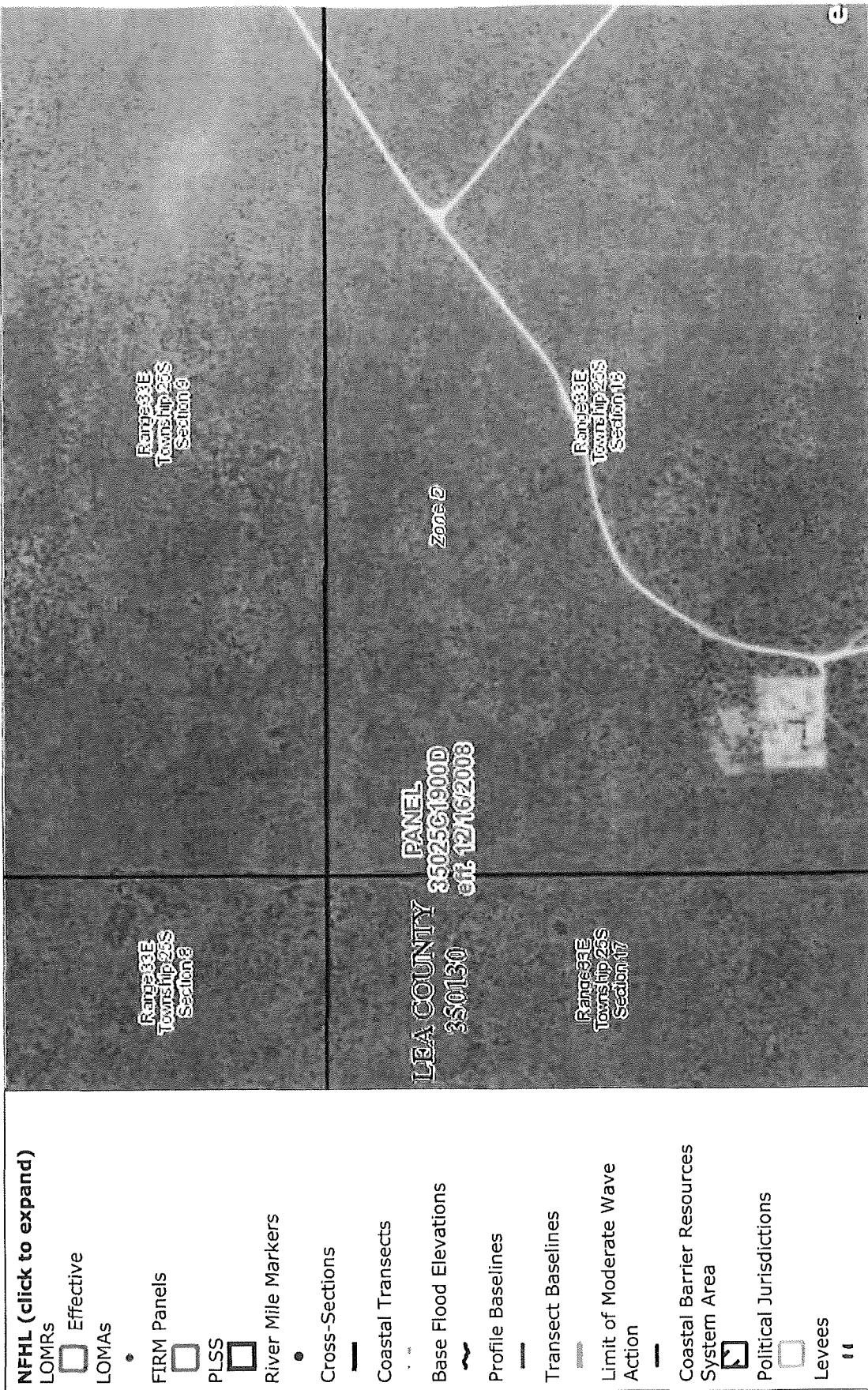


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Appendix D

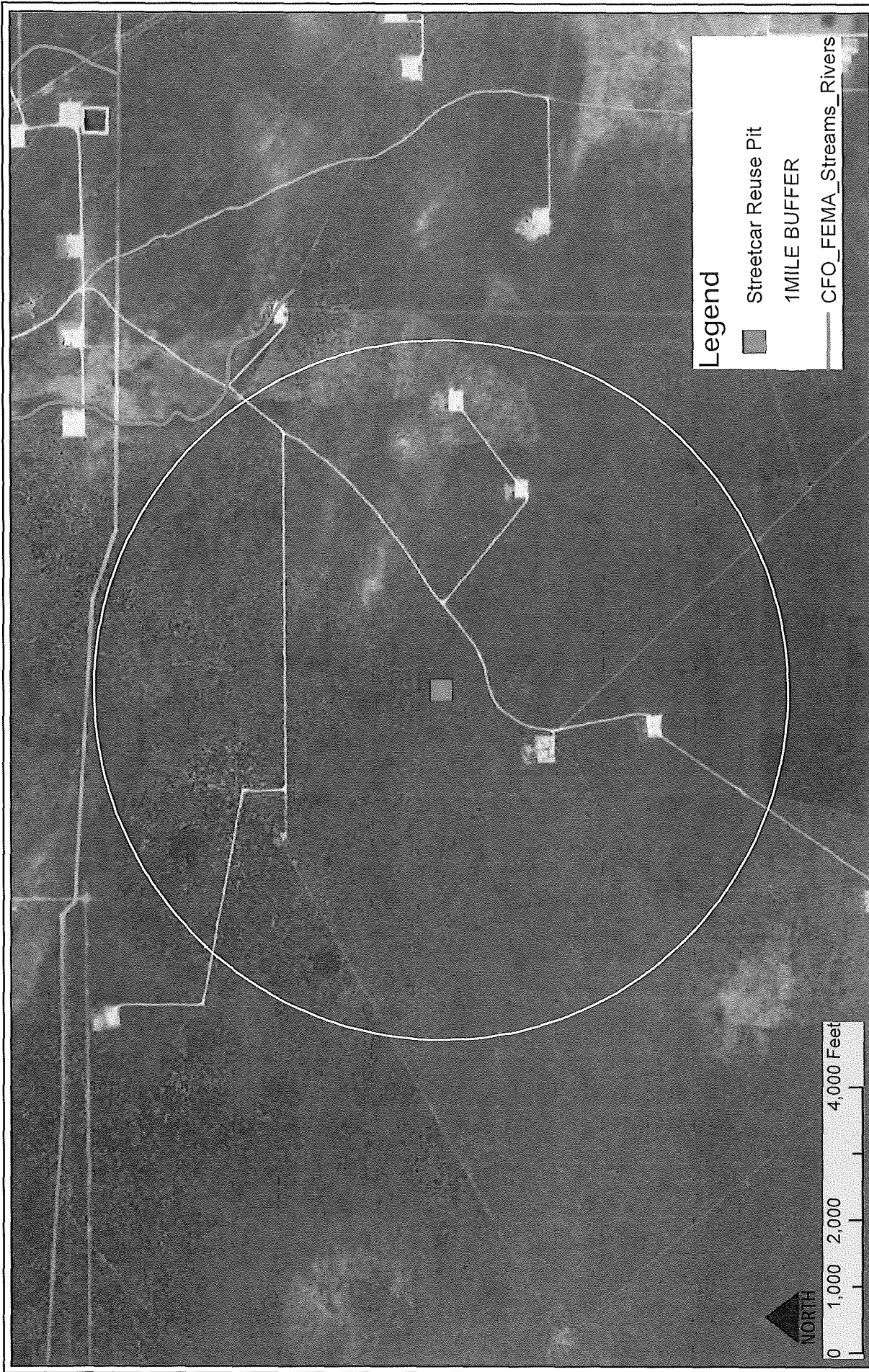
FEMA Floodplain Information

FEMA's National Flood Hazard Layer (Official)



Data from Flood Insurance Rate Maps (FIRMs) where available digitally. New NFHL FIRMette Print app available:

<http://tinyurl.com/j4xwp5e>



Site Map

EOG Streetcar Recycling Facility
S16 R33E T25S, Lea County, NM.



201 South Hualaguena Street
Carlsbad, New Mexico 88221
(575) 689-7040
www.southernmiller.com
Saving the Southwest & Rocky Mountains

Drawn _____
Checked _____
Approved _____
Curtis Pattillo

Revisions
By: _____ Date: _____ Descr: _____
By: _____ Date: _____ Descr: _____
Copyright 2015 Souder, Miller & Associates - All Rights Reserved
Date Saved: 12/7/2017



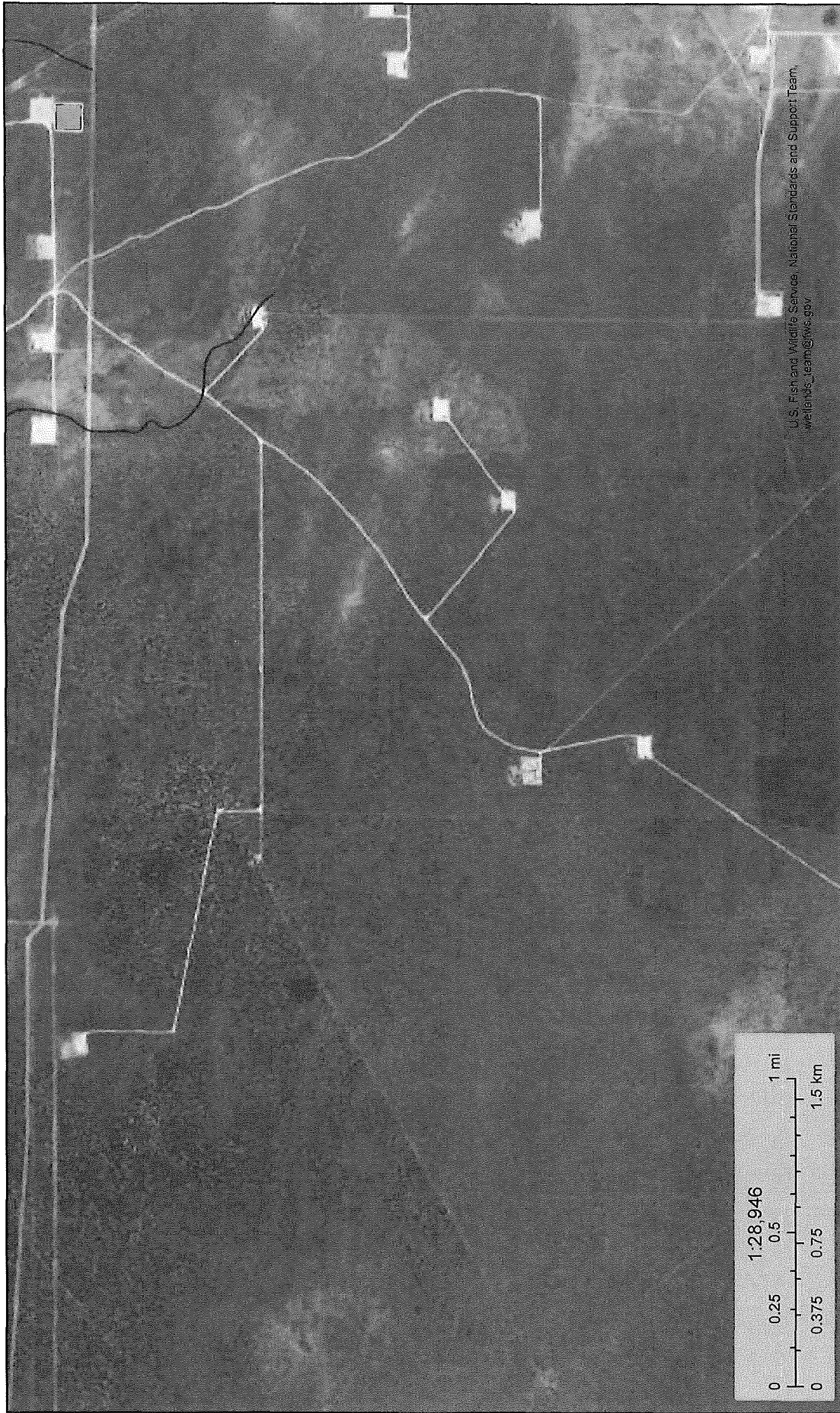
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Appendix E

Wetlands & Critical Habitat Map (US FWS)



Wetlands/Riparian



December 11, 2017

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

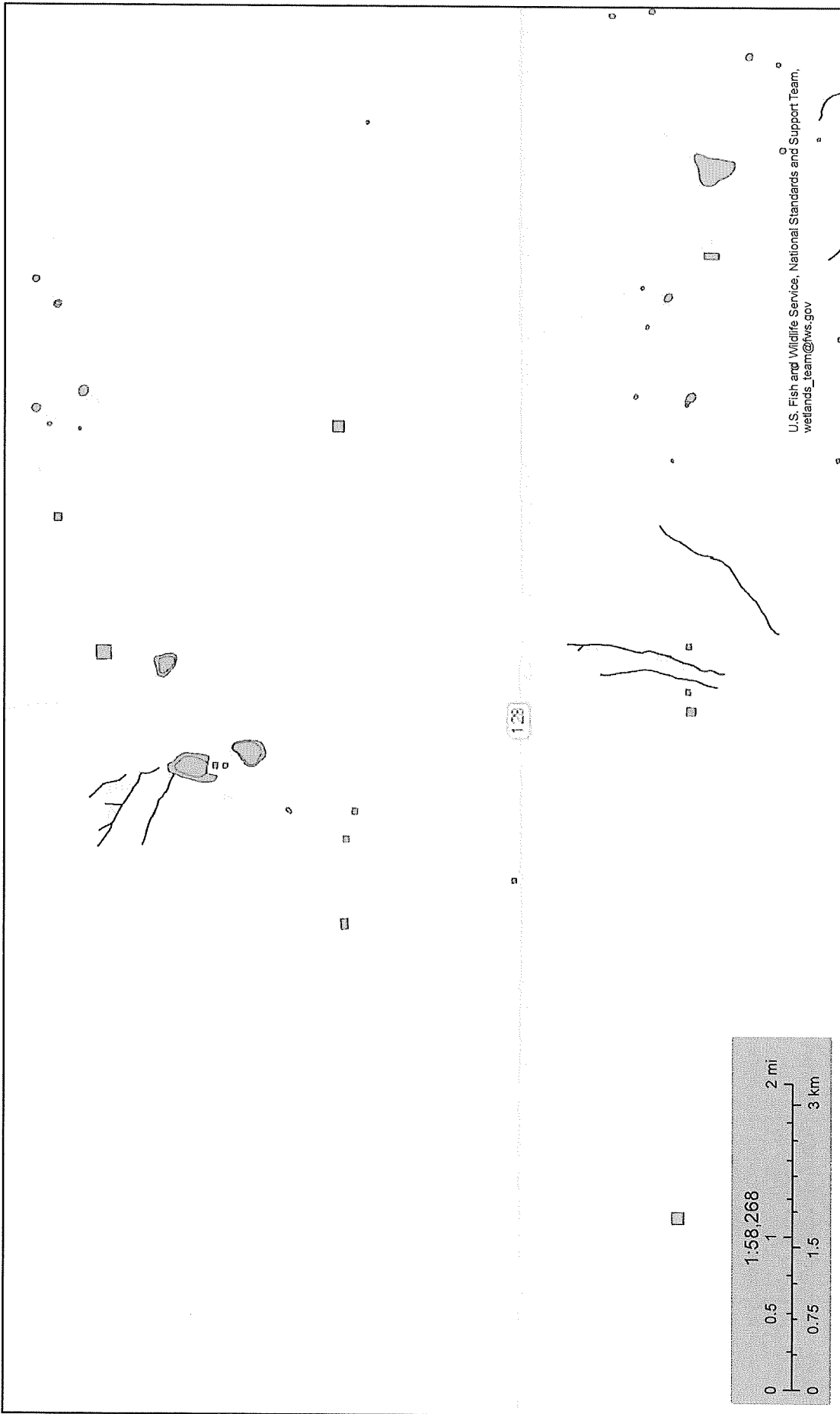
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper



Wetlands/Riparian Areas within 1,000 feet



This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

- December 4, 2017
- Wetlands**
- Estuarine and Marine Deepwater
 - Estuarine and Marine Wetland
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Freshwater Pond
 - Lake
 - Other
 - Riverine

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Venegas, Victoria, EMNRD

From: Venegas, Victoria, EMNRD
Sent: Wednesday, December 28, 2022 9:07 AM
To: Patricia Donald
Subject: 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370]
Attachments: C-147 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT.pdf

**1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370].
Conditions of Approval**

Good morning Ms. Donald,

NMOCD has reviewed the recycling containment permit application and related documents, submitted by [7377] EOG RESOURCES INC on December 12, 2022, for 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370] in Unit Letter C, Section 16, Township 25S, Range 33E, Lea County, New Mexico.

[7377] EOG RESOURCES INC requested variances from 19.15.34 NMAC for 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370].

The following variances have been approved:

- The variance from 19.15.34.13.E NMAC for the installation of an audible bird deterrence system, a Bird-X Mega-Blaster, is approved.
- The variance from 19.15.34.12.D NMAC to enclose the perimeter with a 6-foot galvanized chain link fence with 3 strands 45-degree barbed wire arm toppers, is approved.

The form C-147 and related documents for the 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370] is approved with the following conditions of approval:

- The purpose of this permit is for oil and gas activities regulated under the NMAC 19.15.34.3 STATUTORY AUTHORITY: 19.15.34 NMAC is adopted pursuant to the Oil and Gas Act, Paragraph (15) of Section 70-2-12(B) NMSA 1978, which authorizes the division to regulate the disposition of water produced or used in connection with the drilling for or producing of oil and gas or both and Paragraph (21) of Section 70-2-12(B) NMSA 1978 which authorizes the regulation of the disposition of nondomestic wastes from the exploration, development, production or storage of crude oil or natural gas.
- [7377] EOG RESOURCES INC shall construct, operate, maintain, close, and reclaim the 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370] in compliance with 19.15.34 NMAC.
- 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370] is approved for five years of operation from the date of permit application. 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370] permit expires on December 12, 2027.
- If [7377] EOG RESOURCES INC wishes to extend operations past five years, an annual permit extension request must be submitted using an OCD form C-147 through [OCD Permitting](#) by November 12, 2027.
- Water reuse and recycling from 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370] is limited to wells owned or operated by [7377] EOG RESOURCES INC.
- 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370] consists of one earthen impoundment of 1,317,914 BBL.

- [7377] EOG RESOURCES INC shall notify NMOCD when construction of 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370] commences.
- [7377] EOG RESOURCES INC shall notify NMOCD when recycling operations commence and cease at 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370].
- A minimum of 3-feet freeboard must be maintained in 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370] recycling containment, at all times during operations.
- If less than 20% of the total fluid capacity is utilized every six months, beginning from the first withdrawal, operation of the facility is considered ceased and notification of cessation of operations should be sent electronically to [OCD Online](#). An extension to extend the cessation of operation, not to exceed six months, may be submitted using a C-147 form through [OCD Online](#).
- [7377] EOG RESOURCES INC shall submit monthly reports of recycling and reuse of produced water, drilling fluids, and liquid oil field waste on NMOCD form C-148 through [OCD Online](#) even if there is zero activity.
- **Please note that NMOCD has updated Form C-148. The new Form C-148 can be found at:**
<https://www.emnrd.nm.gov/oed/wp-content/uploads/sites/6/Revised-C-148-Form-January-2022.pdf>.
- [7377] EOG RESOURCES INC shall comply with 19.15.29 NMAC Releases in the event of any release of produced water or other oil field wastes at 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370].
- The re-vegetation and reclamation obligations imposed by federal, state trust land or tribal agencies on lands managed by those agencies shall supersede these provisions and govern the obligations of any operator subject to those provisions, provided that the other requirements provide equal or better protection of fresh water, human health and the environment.
- [7377] EOG RESOURCES INC shall notify the division via [OCD Online](#) when reclamation and re-vegetation are complete.

Please reference number 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370] in all future communications.

Regards,

Victoria Venegas • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
(575) 909-0269 | Victoria.Venegas@emnrd.nm.gov
<https://www.emnrd.nm.gov/oed/>



District I

1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos 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) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 166108

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 166108
	Action Type: [C-147] Water Recycle Long (C-147L)

CONDITIONS

Created By	Condition	Condition Date
vvenegas	<ul style="list-style-type: none"> • [7377] EOG RESOURCES INC shall construct, operate, maintain, close, and reclaim the 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370] in compliance with 19.15.34 NMAC • 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370] is approved for five years of operation from the date of permit application. 1RF-500 - STREETCAR REUSE WATER RECYCLING FACILITY AND CONTAINMENT PIT FACILITY ID [fVV2236153370] permit expires on December 12, 2027. • If [7377] EOG RESOURCES INC wishes to extend operations past five years, an annual permit extension request must be submitted using an OCD form C-147 through OCD Permitting by November 12, 2027. 	12/28/2022