

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) PCS 19332555

* 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: Enduring Resources, LLC (For multiple operators attach page with information) OGRID #: 372286
Address: 200 Energy Court, Farmington, New Mexico 87401
Facility or well name (include API# if associated with a well): W Escavada Unit 300H
OCD Permit Number: 3RF-42 (For new facilities the permit number will be assigned by the district office)
U/L or Qtr/Qtr A Section 17 Township 22N Range 7W County: Sandoval
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Recycling Facility:** X 18" URGENT Free Band Device.
Location of recycling facility (if applicable): Latitude 36.14847 Longitude -107.589762 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 36.143847 Longitude -107.589762 NAD83
☒ For multiple or additional recycling containments, attach design and location information of each containment
☒ Lined ☐ Liner type: Thickness 45 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☒ String-Reinforced
Liner Seams: ☒ Welded ☐ Factory ☐ Other _____ Volume: 40,280 bbl Dimensions: Radius 80' x Height 10'
☐ Recycling Containment Closure Completion Date: _____

NMOC

DEC 21 2018

DISTRICT III

27

Smith, Cory, EMNRD

From: Smith, Cory, EMNRD
Sent: Thursday, January 3, 2019 9:13 AM
To: James McDaniel
Cc: Fields, Vanessa, EMNRD; 'Andrea Felix'
Subject: Enduring W. Lybrook Unit 720 Assigned 3RF-41

James,

The following Recycling Facility have been approved please see below for their assigned 3RF #'s.

W. Escavada Unit 300	3RF-42	Conditions of Approval 18" Free Board Variar
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Enduring may search OCD online under Administrative/Environmental Orders "3RF – Recycling Facility – Aztec – (3RF)" to find the scanned document(Once it is scanned).

If you have any questions give me a call. Please remember Enduring will need the Admin # to report on form C-148 monthly please make sure that Enduring sends them in as soon as possible and even if there is no activity.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

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.

☐ Yes ☒ No

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

Within an unstable area.

☐ Yes ☒ No

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

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): James McDaniel Title: HSE Supervisor
 Signature:  Date: 12/21/2018
 e-mail address: jmcDaniel@eduringresources.com Telephone: 505-636-9731

11.

OCD Representative Signature:  Approval Date: 1/3/19

Title: Environmental Spec OCD Permit Number: 3RF-42

- ☒ OCD Conditions 18" Free Board Denied
☒ Additional OCD Conditions on Attachment Email

Oil Conservation Division
1000 Rio Brazos Rd.
Aztec, New Mexico 87410
Email: cory.smith@state.nm.us
Phone (505) 334-6178 Ext 115

Re: Variance Request for 19.15.34 NMAC

Enduring Resources, LLC (Enduring) is proposing to mitigate migratory birds pursuant to the attached *Migratory Bird Mitigation Plan* as required in 19.15.34.12.E. We believe this will provide equal or better protection than the requirements listed in 19.15.34.12.E NMAC.

Enduring is proposing a variance to the required three (3) feet of freeboard, as required in 19.15.34.13(A)(2). Enduring is instead requesting eighteen (18) inches of freeboard for this containment, as Enduring believes that in the instance of the above grade tank, the containment can be quickly de-watered if a rain event threatens to overtop the tank, and due to the fact that the containment will not be subject to surface water run-on as an above grade tank.

Respectfully Submitted,



James McDaniel, CHMM #15676
HSE Supervisor
Enduring Resources, LLC

Design & Construction Plan

WEU 300H Water Recycle Facility



Enduring Resources, LLC
200 Energy Court
Farmington, New Mexico 87401

Prepared by:
James McDaniel
HSE Supervisor

Introduction

This Design and Construction Plan is designed to meet the requirements of NMAC 19.15.34.13, which outlines the requirements for design and construction criteria for a produced water recycling containment. Enduring Resources, LLC (Enduring) will construct this recycling containment in accordance with the following design and construction plan.

1. **The operator shall design and construct a recycling containment to ensure the confinement of produced water, to prevent releases and to prevent overtopping due to wave action or rainfall.**

The recycling containment has been designed the containment to meet the above criteria, ensuring the confinement of produced water, the prevention of releases, and the prevention of overtopping due to wave action or rainfall.

2.

- a. **A recycling containment shall have a properly constructed foundation and interior slopes consisting of a firm, unyielding base, smooth and free of rocks, debris, sharp edges or irregularities to prevent the liner's rupture or tear.**

The recycling containment has been designed, and will be constructed, to have a properly constructed foundation with an unyielding base, free of rocks debris and sharp edges.

- b. **Geotextile is required under the liner when needed to reduce localized stress-strain or protuberances that otherwise may compromise the liner's integrity. The operator shall construct the containment in a levee with an inside grade no steeper than two horizontal feet to one vertical foot (2H:1V). The levee shall have an outside grade no steeper than three horizontal feet to one vertical foot (3H:1V). The top of the levee shall be wide enough to install an anchor trench and provide adequate room for inspection and maintenance.**

Geotextile will be placed under the liner the secondary liner in order to reduce stress-strain on the liner.

3.

- a. **Each recycling containment shall incorporate, at a minimum, a primary (upper) liner and a secondary (lower) liner with a leak detection system appropriate to the site's conditions.**

The recycling containment is designed to have a 45 mil, string reinforced LLDPE liner as the primary liner, and a 40 mil LLDPE liner as the secondary liner.

- b. **The edges of all liners shall be anchored in the bottom of a compacted earth-filled trench. The anchor trench shall be at least 18 inches deep.**

This containment is an above grade tank, and the liner will be secured to the top of the AST using steel bolts

4.

- a. **All primary (upper) liners in a recycling containment shall be geomembrane liners composed of an impervious, synthetic material that is resistant to ultraviolet light, petroleum hydrocarbons, salts and acidic and alkaline solutions. All primary liners shall be 30-mil flexible PVC, 45-mil LLDPE string reinforced or 60-mil HDPE liners.**

The primary liner will be a 45-mil, LLDPE, string reinforced liner that is composed of material that is resistant to ultraviolet light, petroleum hydrocarbons, salt solutions, acidic

solutions and alkaline solutions. Liner compatibility meets the conductivity requirement of 1×10^{-9} cm/sec.

- b. Secondary liners shall be 30-mil LLDPE string reinforced or equivalent with a hydraulic conductivity no greater than 1×10^{-9} cm/sec. Liner compatibility shall meet or exceed the EPA SW-846 method 9090A or subsequent relevant publications.**

The secondary liner will be a 40-mil, LLDPE, string reinforced liner that is composed of material that is resistant to ultraviolet light, petroleum hydrocarbons, salt solutions, acidic solutions and alkaline solutions. Liner compatibility meets the conductivity requirement of 1×10^{-9} cm/sec.

- 5. The operator of a recycling containment shall minimize liner seams and orient them up and down, not across, a slope of the levee. Factory welded seams shall be used where possible. The operator shall ensure field seams in geosynthetic material are thermally seamed. Prior to field seaming, the operator shall overlap liners four to six inches. The operator shall minimize the number of field seams and corners and irregularly shaped areas. There shall be no horizontal seams within five feet of the slope's toe. Qualified personnel shall perform field welding and testing.**

Liner material will be factory welded by the manufacturer by qualified personnel. The liner material will overlap a minimum of 4 inches. No horizontal seam will be placed within 5 feet of the slopes toe. All welding and testing will be completed by qualified personnel.

- 6. At a point of discharge into or suction from the recycling containment, the operator shall insure that the liner is protected from excessive hydrostatic force or mechanical damage. External discharge or suction lines shall not penetrate the liner.**

External discharge or suction lines will not penetrate the liner. The liner will be protected from excessive hydrostatic force or mechanical damage, and the point of discharge and suction from the containment is specifically designed to eliminate damage from suction or discharge in and out of the containment.

- 7. The operator of a recycling containment shall place a leak detection system between the upper and lower geomembrane liners that shall consist of 200-mil geonet or two feet of compacted soil with a saturated hydraulic conductivity of 1×10^{-5} cm/sec or greater to facilitate drainage. The leak detection system shall consist of a properly designed drainage and collection and removal system placed above the lower geomembrane liner in depressions and sloped to facilitate the earliest possible leak detection.**

The containment has been designed with a leak detection system made up of a conductive geocomposite material, at least 200 mm thick. The pond is comprised of a 40 mil liner base, with a 200 mm geocomposite material for leak detection, and overlaid with an additional 45 mil liner. The bottom of the containment will have a 6" PVC pipe inserted between the liners. The pipe will be checked during the weekly inspection for the presence of water using a water level meter. In the event water is detected in the leak detection sump, the water will be immediately pumped out to determine if the water will return.

- 8. The operator of a recycling containment shall design the containment to prevent run-on of surface water. The containment shall be surrounded by a berm, ditch or other diversion to prevent run-on of surface water.**

The containment is above ground, and will not be subject to water run-on.

- 9. Prior to constructing containment, the operator shall strip and stockpile the topsoil for use as the final cover or fill at the time of closure.**

The location is a previously constructed pad, and no top-soil will be required to be removed in order to construct the containment.

- 10. The operator shall post an upright sign no less than 12 inches by 24 inches with lettering not less than two inches in height in a conspicuous place on the fence surrounding the containment. The operator shall post the sign in a manner and location such that a person can easily read the legend. The sign shall provide the following information: the operator's name, the location of the site by quarter-quarter or unit letter, section, township and range, and emergency telephone numbers.**

A sign meeting these requirements will be posted.

- 11. The operator shall fence or enclose a recycling containment in a manner that deters unauthorized wildlife and human access and shall maintain the fences in good repair. The operator shall ensure that all gates associated with the fence are closed and locked when responsible personnel are not onsite. Recycling containments shall be fenced with a four foot fence that has at least four strands of barbed wire evenly spaced in the interval between one foot and four feet above ground level.**

The pad is surrounded by a fence meeting the requirements of this section.

- 12. The operator shall ensure that a recycling containment is screened, netted or otherwise protective of wildlife, including migratory birds. The operator shall on a monthly basis inspect for and, within 30 days of discovery, report the discovery of dead migratory birds or other wildlife to the appropriate wildlife agency and to the division district office in order to facilitate assessment and implementation of measures to prevent incidents from reoccurring.**

Enduring Resources will install a bird deterrent system pursuant to the attached *Migratory Bird Mitigation Plan*. The containment will be inspected weekly for dead migratory birds, and will report and found accordingly.

LakeTank™

B-40

Overview:

Contain more than 5 acre feet (1.7 million gallons) of water with just one tank. The LakeTank™ B-40 reduces traffic and carbon footprint on your jobsite, by replacing 80 traditional 500 BBL frac tanks and minimizes manifolding time.

Features:

- Specially designed panel handling system for safe, rapid deployment
- Two OSHA compliant access/egress ladders
- One stairway observation platform
- Four 4" fill lines, Three 4" circulation lines
- One 12" low suction line for high volume pumping applications
- Heavy duty connecting plates and pins for safe reliable containment
- Six temporary panel supports to ensure safety during installation
- No easy access to the liner from outside the tank
- Standard liner is 40mil LLDPE
- Standard underlayment is 100Z Geotextile Ground Pad
- Reduced transportation costs: Complete tank structure is delivered on three trucks (6 truck trips vs. 98 for conventional 500bbl frac tanks)
- Reduced labor costs during manifolding and operation
- Reduced heating costs
- Reduced site preparation costs (smaller footprint compared to 500bbl frac tanks)



Accessories:

- FreezeSentry™ Heating equipment
- Tank Sidewall Insulation
- Floating Insulated Covers
- Bird Netting
- Filtration Equipment
- Temperature and Level Indicators/Alarms/Telemetry
- Various Liner Materials & Thicknesses
- Additional Suction or Fill Lines

Specs:

Structure Diameter	160 ft.
Working Clearance	220 ft.
Capacity with 8" free board	40,280 BBL
Number of Panels	18
Number of Trucks to transport	3
Size of each Panel	12x28 ft.
Panel Weight (w/o insulation)	6,550 lb.
Liner Diameter	204 ft. Diameter
Liner Weight = 0.19 lb./sq. ft.	5,150 lb.



PUMPS • TANKS • FILTRATION • PIPE • SPILLGUARDS

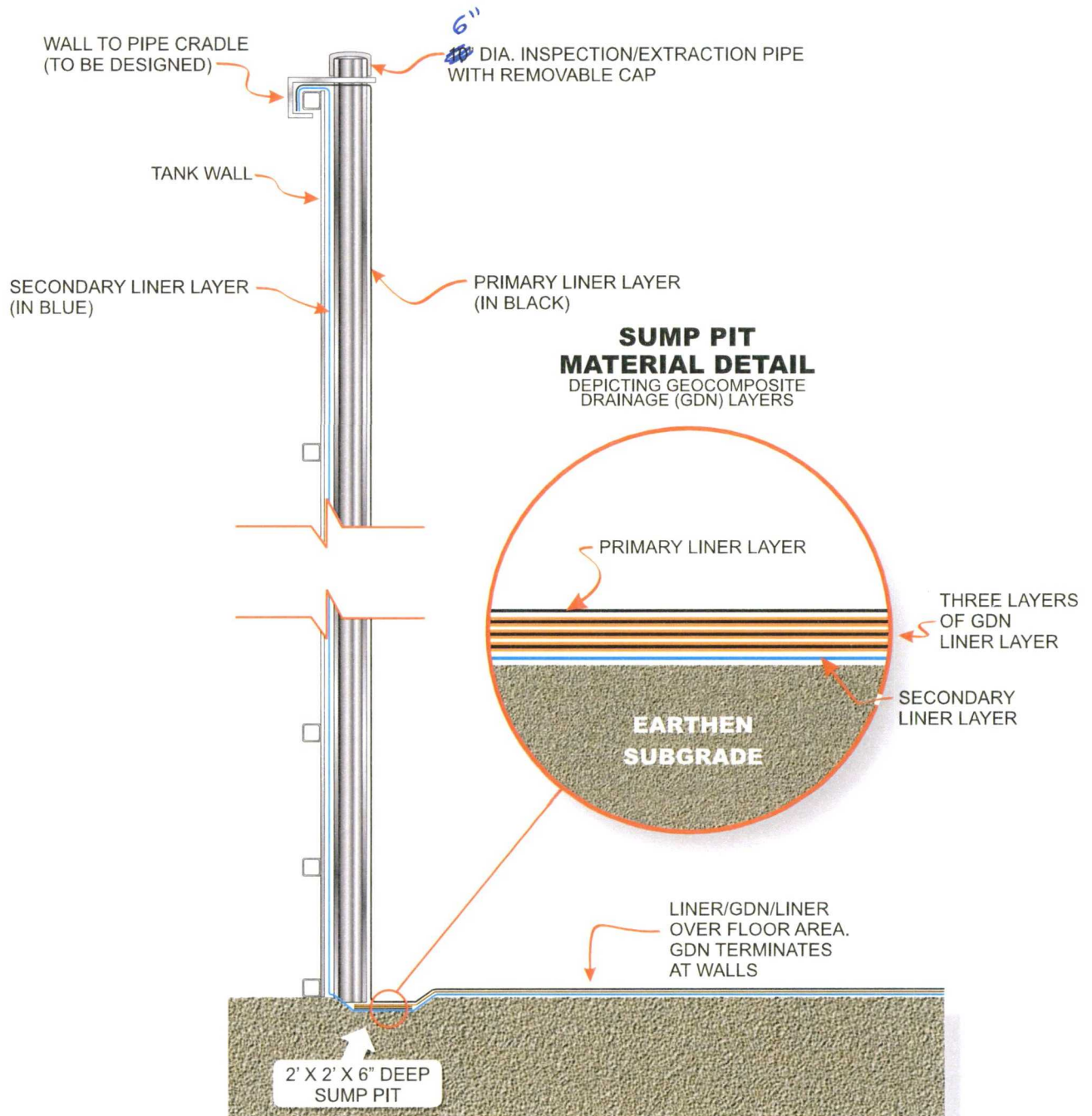
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Liquid Ingenuity™
800-742-7246
rainforrent.com



CONCEPTUAL DETAILS FOR DOUBLE LINED TANK SYSTEM WITH LEAK DETECTION/LIQUID REMOVAL PROVISIONS

(SHEET 1 OF 2 NO SCALE)



SECTION VIEW

Operations and Maintenance Plan

W Escavada Unit 300H Water Recycle Facility



Enduring Resources, LLC
200 Energy Court
Farmington, New Mexico 87401

Prepared by:
James McDaniel
HSE Supervisor

Introduction

This Operations and Maintenance (O&M) plan is designed to meet the requirements of NMAC 19.15.34.13, which outlines the requirements for O&M of a produced water recycling containment. Enduring Resources, LLC (Enduring) will operate this recycling containment in accordance with the following O&M plan.

Operations and Maintenance Plan

1. Enduring will inspect the recycling containment and associated leak detection systems weekly while the containment is holding fluids. An inspection log will be maintained by Enduring, and will be available for review upon request by the division.
2. Enduring will remove and visible oil from the surface of the recycling containment upon discovery.
3. Enduring will maintain a minimum of eighteen (18) inches of freeboard in the containment at all times.
4. The injection and withdrawal of fluids from the containment shall be accomplished through a header, diverter or other hardware that prevents damage to the liner by erosion, fluid jets or impact from installation and removal of hoses or pipes.
5. If a leak is discovered in the containments primary liner above the liquid level in the containment, Enduring will repair the primary liner within 48 hours, or request an extension on repair within the 48-hour time limit.
6. If a leak is discovered in the containments primary liner below the liquid level in the containment, Enduring will notify the division office of the leak, remove all fluids above the leak level, and repair the primary liner within 48 hours, or request an extension on repair within the 48-hour time limit.
7. The recycling containment will be operated in such a way to prevent the collection of surface water.
8. The recycling containment will not be used for the storage or discharge of hazardous waste.
9. Enduring will consider the recycling containment to have ceased operations if less than 20% of the total fluid volume is used every six (6) months following the first withdrawal of produced water for use. Enduring will report cessation of operations to the appropriate division district office. If additional time is needed for closure, Enduring will request an extension from the appropriate division district office prior to the expiration of the initial six (6) month time period.

Closure Plan

W Escavada Unit 300H Water Recycle Facility



Enduring Resources, LLC
200 Energy Court
Farmington, New Mexico 87401

Prepared by:
James McDaniel
HSE Supervisor

Introduction

This closure plan is designed to meet the requirements of NMAC 19.15.34.14, which outlines the requirements for closure of a produced water recycling containment. Enduring Resources, LLC (Enduring) will perform the following actions upon final closure of this produced water recycling containment.

Closure Plan

1. Upon cessation of operations (Defined as the use of less than 20% of the pond's total fluid capacity), Enduring will remove all fluids within 60 days of the official date of cessation.
2. Enduring will close the produced water containment within six (6) months from the official date of cessation. If Enduring will require more than 6 months to complete closure activities, an extension request will be filed prior to the six (6) month time limit for closure.
3. Closure activities will consist of the following:
 - a. Removal of all containment contents
 - b. Removal of liners and associated leak detection equipment for disposal at a division approved facility.
 - c. Removal of all equipment associated with the continued operation of the recycling containment.
 - d. A 5-point composite soil sample will be collected in the containment area under the location of the liner, and the sample will be analyzed for the constituents listed in *Table I*.
 - e. Additional grab samples of any obvious wet or stained areas will be collected and analyzed for the constituents listed in *Table I*, in addition to the 5-point composite sample.
 - f. If the closure sample(s) collected return results equal to or less than the values listed in *Table I* for sites with groundwater from 51-100' below ground surface, closure will be completed.
 - g. If the closure sample(s) collected return results above the values listed in *Table I*, Enduring will report the elevated sample values to the NMOCD, and additional delineation may be required at that time.
4. The containment will be an above ground AST on an existing pad that will be used for future oil and gas development. The location will not require backfill or reclamation at this time, as the pad will be used for the continued development of the Enduring lease in this area.
5. Within 60 days of final closure completion, Enduring will submit a closure report on form C-147, including required attachments, to document all closure activities including sampling results. The closure report will certify that all information in the report and attachments is correct and that Enduring has complied with all applicable closure requirements and conditions specified in division rules or directives.

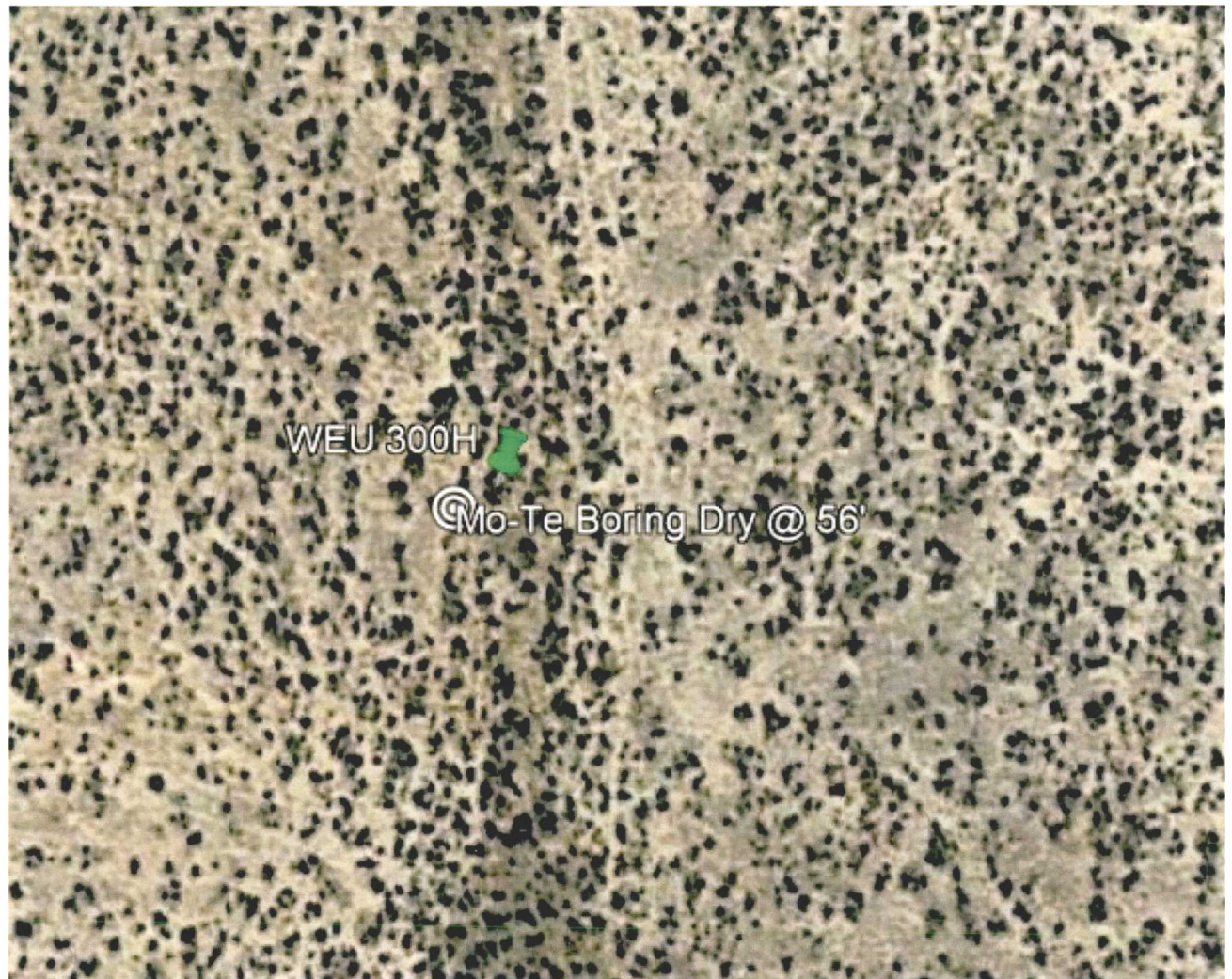
Table I Closure Criteria for Recycling Containments			
Depth below bottom of containment to groundwater less than 10,000 mg/l TDS	Constituent	Method*	Limit**
51 feet - 100 feet	Chloride	EPA 300.0	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
> 100 feet	Chloride	EPA 300.0	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

* Or other test methods approved by the division.

** Numerical limits or natural background level, whichever is greater.

[19.15.34.14 NMAC - N, 3/31/15]

- On September 18, 2018, Mo-Te Drilling drilled a boring to 60' below ground surface at the WEU 300H Pad. Vanessa Field w/ NMOCD was on-site
- On September 19, 2018, James McDaniel, Enduring Resources, and Vanessa Fields, NMOCD returned to the location to check the boring for water. The boring was tagged DRY at 56' below ground surface.
- Vanessa Fields determined that the location would meet the siting criteria for groundwater at over 50' below ground surface based on these results. Email confirmation is attached for reference.



James McDaniel

From: Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>
Sent: Wednesday, September 19, 2018 2:31 PM
To: James McDaniel; Smith, Cory, EMNRD; Powell, Brandon, EMNRD
Subject: RE: WEU 300H Recycling Containment Water Test Boring

Good afternoon James,

Per our conversation today, along with discussing with Santa Fe and today's site assessment on the WEU 300H, the groundwater is 50' or greater as there was no fluid observed in the open hole after setting for 24 hours.

Thank you,

Vanessa Fields
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 119
Cell: (505) 419-0463
vanessa.fields@state.nm.us

From: James McDaniel <JMcDaniel@enduringresources.com>
Sent: Wednesday, September 19, 2018 2:25 PM
To: Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>
Subject: WEU 300H Recycling Containment Water Test Boring

Vanessa,

Based on our conversation today, the groundwater at the WEU 300H Pad is considered to be 50' or greater below the surface, allowing this site to meet the criteria for a Recycling Containment as far as depth to groundwater is concerned. Thank you for your time in regards to this project.

James McDaniel
HSE Supervisor
Enduring Resources
CSP #30009
CHMM #15676
Office: 505-636-9731
Cell: 505-444-3004
jmcdaniel@enduringresources.com





New Mexico Office of the State Engineer
Wells with Well Log Information

No wells found.

PLSS Search:

Section(s): 17

Township: 22N

Range: 07W

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

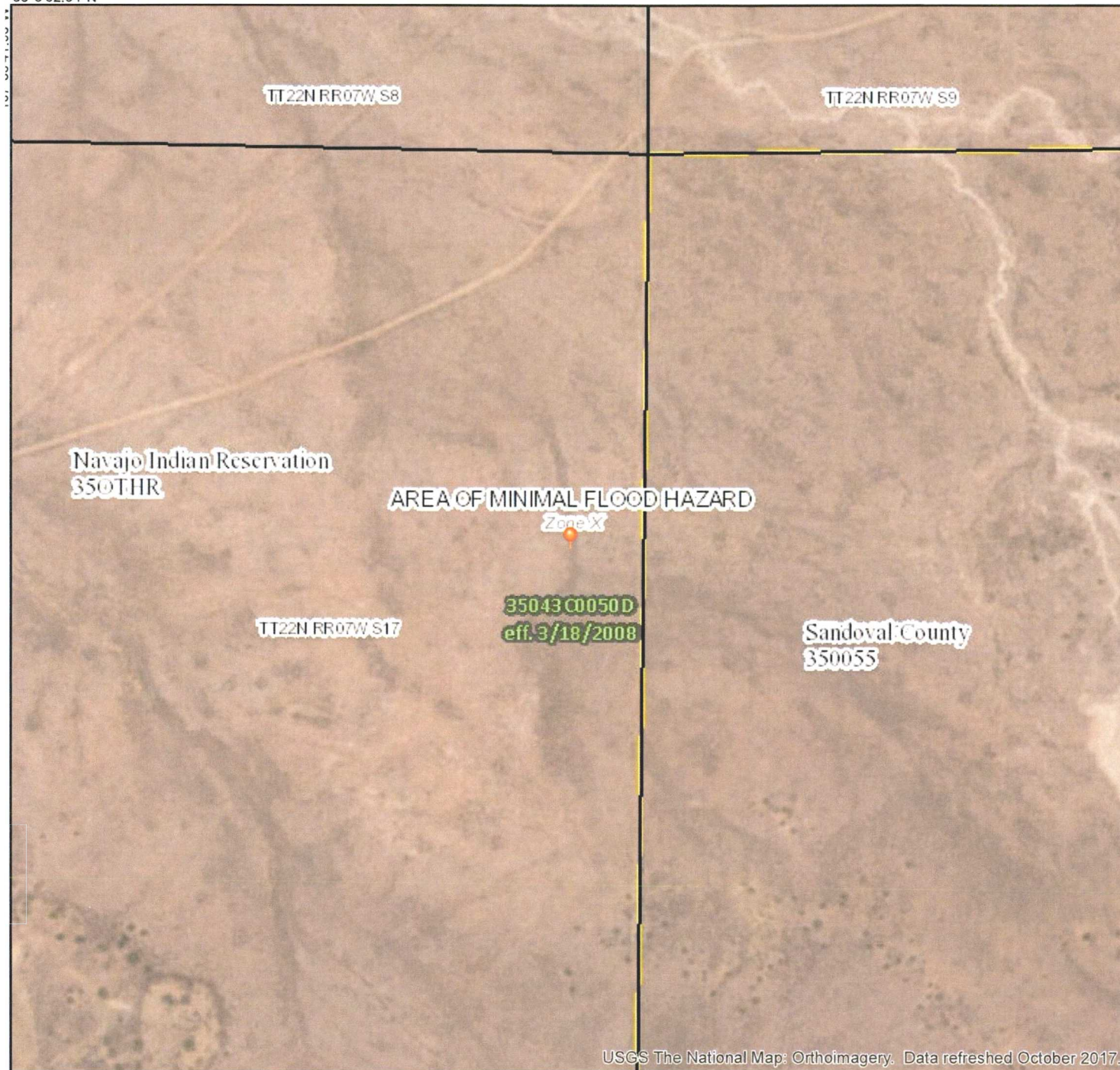
8/28/18 8:44 AM

WELLS WITH WELL LOG INFORMATION

National Flood Hazard Layer FIRMette



36°8'52.04"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone J
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes, Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone A
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/28/2018 at 8:48:07 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

USGS The National Map: Orthoimagery. Data refreshed October 2017.

0 250 500 1,000 1,500 2,000 Feet 1:6,000

36°8'22.99"N

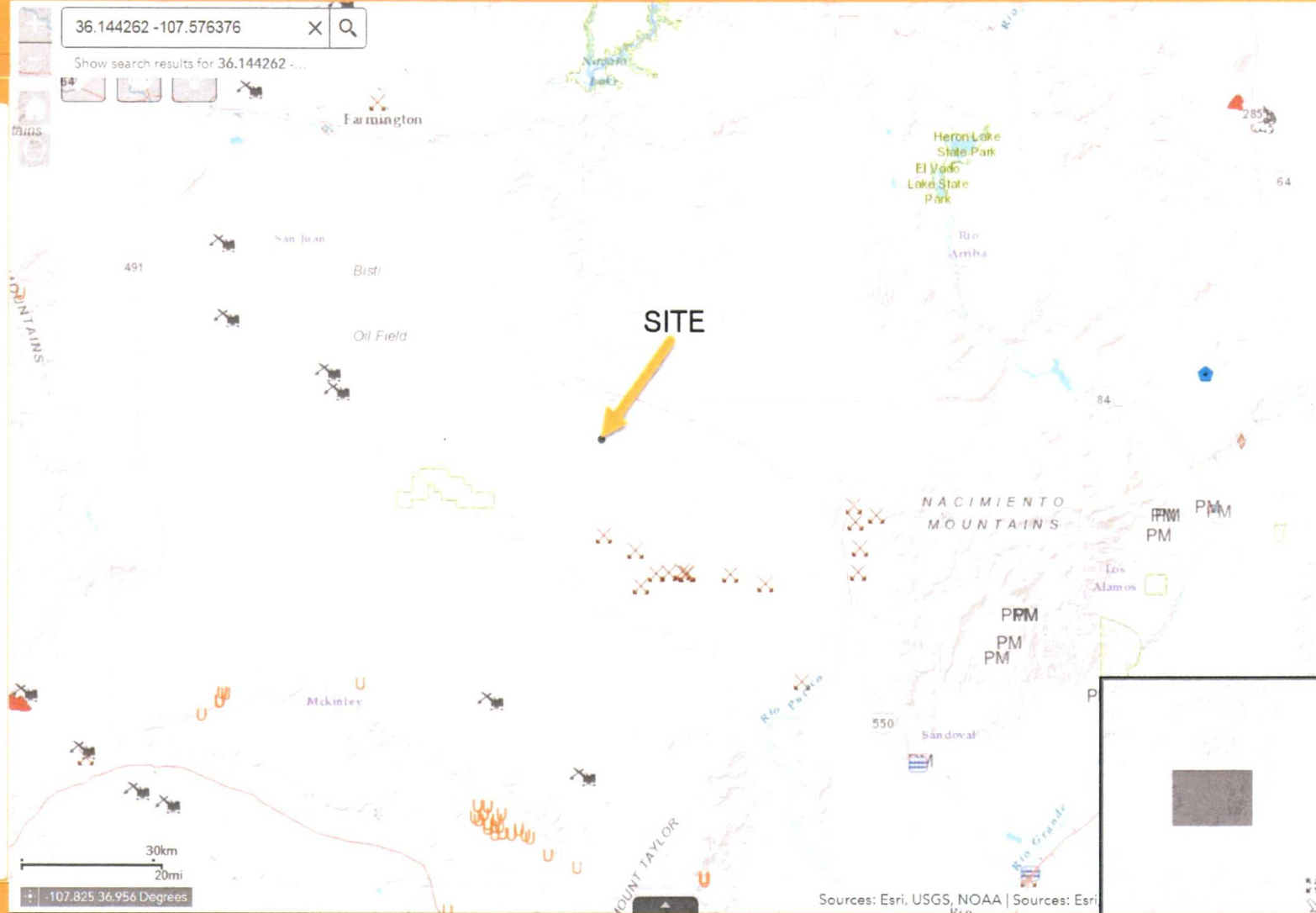
107°35'4.51"W

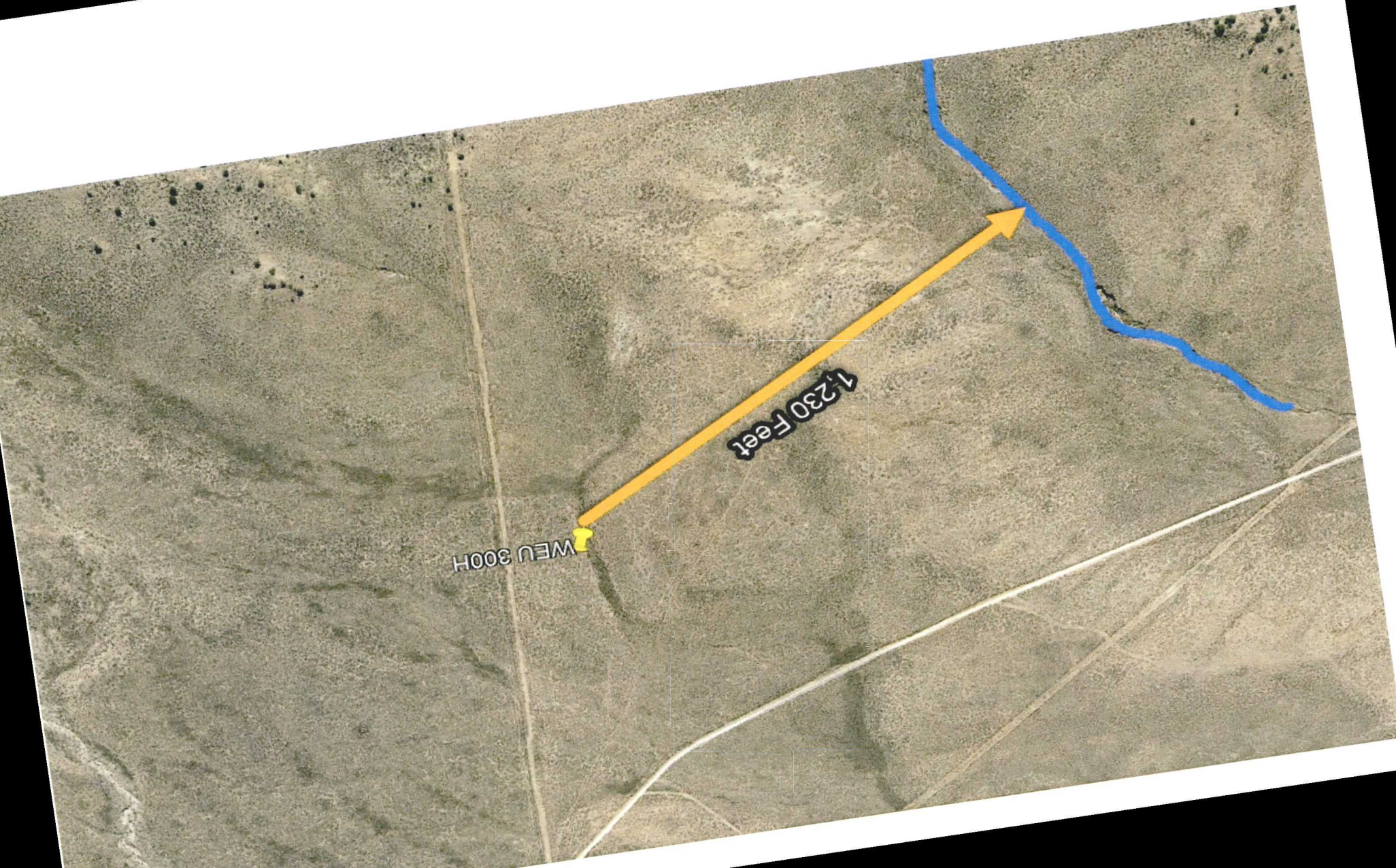


Legend

Registered Mines

- Aggregate, Stone etc.
- Coal
- Gypsum
- Humate
- Industrial Minerals (Other)
- Metals
- Perlite
- Potash
- PM Pumice
- Red Dog, Scoria
- Salt
- U Uranium
- ZE Zeolites





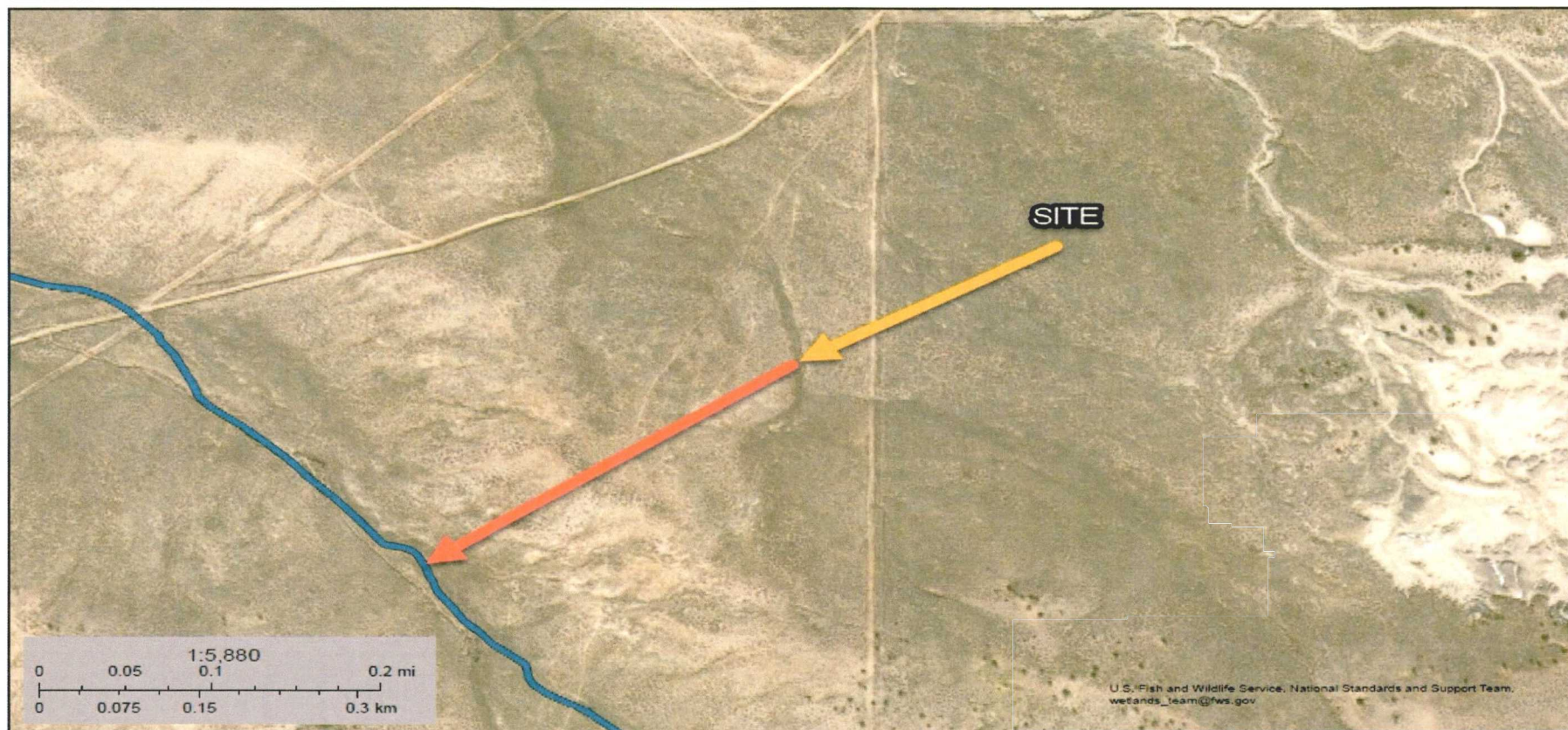
WEU 300H

1,230 Feet



U.S. Fish and Wildlife Service
National Wetlands Inventory

WEU 300H



August 28, 2018

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


Enduring Resources, LLC's Recycling Containment Migratory Bird Mitigation Plan

Enduring Resources, LLC (Enduring) is proposing this Migratory Bird Mitigation Plan (Mitigation Plan) in compliance with the New Mexico Oil Conservation Division (NMOCD) Rule 19.15.34.12.E. Enduring shall ensure that the recycling containment is protective of wildlife by implementing the following proposed Mitigation Plan. Enduring employees will inspect the containment weekly for and, within 30 days of discovery, report the discovery of dead migratory birds or other wildlife to the appropriate wildlife agency and to the division district office in order to facilitate assessment and implementation of measures to prevent incidents from reoccurring. This Mitigation Plan will utilize a combination of visual and audio deterrents to discourage wildlife, particularly birds and bats, from the recycling containment in order to mitigate potential impacts. This Mitigation Plan would be implemented while the Recycling Containment is active and in use, as to not desensitize birds to the deterrents.

The following mitigations will be implemented to reduce any wildlife impacts that may occur from the Recycling Containment:


- The following visual bird deterrents will be installed (Appendix A):
 - Bird-X Prowler Owl decoys will be installed at all four corners of the Containment.
 - Scare-Eye Balloons will be installed along the perimeter of the Containment.
- A Bird-X BroadBand PRO System will be installed at the Containment facility. It utilizes sonic (naturally-recorded bird distress calls & predator cries) to deter birds; as well as, ultrasonic high-frequency sound waves to deter bats. Bird propane cannons were avoided, so as not to disturb other wildlife species.
- The containment will be inspected on a weekly basis when water is present in the containment. All inspectors will insure the containment is receiving only filtered produced water with no hydrocarbons, as well as being trained to inspect the premises for, and respond to any wildlife incident, should it occur.
- Inspection will include:
 - An inspection of the filtration system and all visual and audio deterrents to insure they are in working order and functioning properly.
 - A thorough search of the entire containment facility, and just beyond, for the presence of any wildlife (entrapped, injured, dead, etc.).
- In the event a wildlife incident should occur, James McDaniel with Enduring will be contacted immediately and he will notify the appropriate wildlife agency and division district office. Enduring, appropriate wildlife agency, and division district office will then work collaboratively to address the incident appropriately to insure the incident does not reoccur.

Appendix A: Visual and Audio Deterrents



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[Visual Scares and Predator Decoys](#)

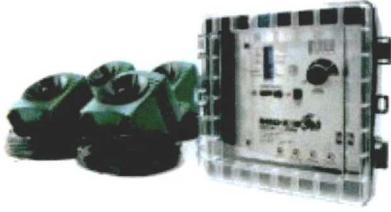
[Bird Gels, Taste Aversions, & OvoControl® P](#)

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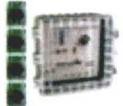
BroadBand PRO




- ✓ Combines **SONIC** and **ULTRASONIC** Bird Control Technology
- ✓ Creates **Uninviting Environment For Birds**
- ✓ Covers Up To **SIX ACRES**

IN STOCK - AVAILABLE IMMEDIATELY!

Deter Birds With Multi-Faceted Sonic and Ultrasonic Attack! The BroadBand PRO's 4-speaker system simultaneously emits sounds that are both audible and inaudible to humans that confuse, disorient, and intimidate pest birds, keeping them away.

Starting at ~~\$850.00~~ NOW \$725.00 (15% SAVINGS!)

Voltage Options: BroadBand PRO 110v (\$725)

Quantity: 1

Price: **\$725.00**

Product Total: **\$725.00**

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Backed by our 30 Day Electronics Performance Satisfaction Guarantee AND our 6-Month Manufacturer's Warranty Against Material Defects.

- Option to add 3 Visual Scares to package for added efficacy
- Emits a combination of audible noises & high-frequency sound waves that are silent-to-most-humans
 - **SONIC:** Uses naturally-recorded bird distress calls & predator cries, covers up to 6 acres
 - **ULTRASONIC:** Uses high-frequency sound waves, covers up to 3,600 sq. ft.
- 4 speakers included – 4 independent speakers with 100 ft. of wire each
- Fully programmable – control volume, sound delays, & daylight / night operation
- Weather resistant – NEMA type box is designed to withstand outdoor use
- Option to add an assortment of three (3) high-quality [visual scare products](#)



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Prowler Owl

- ✓ **Proven Visual Scare**
- ✓ **Saves Money on Cleanup & Repair**
- ✓ **Eliminates Bird & Small Pest Problems**
- ✓ **Money-Back Guarantee**

Decades-proven visual deterrent, improved with dynamic realism & movement! Scare away birds & small pests with this predator replica of the most-feared aerial predator, the Great Horned Owl, which catches & eats nearly everything it can catch.

- Lifelike, wind-catching design increases effectiveness
- Accurate plumage & hunting flight pose
- Intimidating glassy eyes 'follow' pests
- Flexible wings move & flap in the wind realistically

Without movement, an owl scare is useless – don't be fooled by imitations that are immobile! Install Prowler Owl decoy in any open outdoor area where pest birds or small critters are a problem.

Quantity 1

Price **\$ 39.25**

Product Total **\$ 39.25**

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[Quality Guarantee](#)

Guaranteed to be manufactured to specifications & free from defect at the time of purchase.

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- Predator owl replica, life-size owl
- Owl scare repels pest birds & other small animals
- Always-moving "hunting" posture keeps birds away
- 4-foot wingspan & accurate markings
- Safe, humane, non-toxic, silent
- Covers up to 6,000 sq. ft.

All Bird-X Products

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Scare-Eye Balloons

- ✓ **Simple, Highly Effective Bird Repellent**
- ✓ **Reduce Time & Energy Spent on Cleanup**
- ✓ **Reflective Mylar Eyes and Tails Included**

(3-Pack)

Keep birds away with these simple vinyl ball visual deterrents that move with the wind & intimidate pest birds within visible range

- Includes **three balloons** – one white, one yellow, one black
- **Easy to use, cost-effective solution** – hang the balloons anywhere
- Balloons move in the wind for fear of movement

Scare Eye® balloons are useful in many applications – homes, gardens, barns, trees, garages, marinas, doorways, & many more



Guaranteed to be manufactured to specifications and free from defect at the time of purchase.

Quantity 1

Price **\$ 32.55**

Product Total **\$ 32.55**

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- Predator decoy, 3D balloons
- Three balloons included: one (1) white, one (1) black, and one (1) yellow
- Includes mylar eyes, mylar tails, and strings for each balloon
- Weatherproof, vinyl, inflatable balloon
- Design exaggerates the glaring stare and gaping mouth of natural predators
- Wind causes the Scare-Eye Balloons to move in the wind, increasing efficacy
- Easy installation