C-147 REGISTRATION PACKAGE

Mills Ranch Recycling Containment

SW/4, Section 6, Township 23 South, Range 31 East Eddy County, New Mexico



Enchantment Water, LLC

1250 S. Capital of Texas Highway, Ste 1-270 Austin, Texas 78746

Table of Contents

- I. NMOCD Form C-147
- II. INTRODUCTION
- III. VARIANCE REQUESTS
 - a. Netting and Wildlife Protection
 - b. Fencing

IV. SITING REQUIREMENTS

- a. Depth to Groundwater
- b. Municipal Boundaries and Freshwater Fields
- c. Subsurface Mines
- d. Stability and Karst Areas
- e. 100-Year Floodplain
- f. Distance to Surface Water
- g. Distance to Permanent Residences, Institutions, or Occupied Structures
- h. Distance to Fresh Water Wells
- i. Distance to Wetlands

V. REGISTRATION REQUEST

List of Figures

- Figure 1 Site Location Map
- Figure 2 Topographic Map
- Figure 3 Aquifer Map
- Figure 4 Geologic Map
- Figure 5 Groundwater Resources Map
- Figure 6 Municipal Boundaries and Freshwater Field Proximity Map
- Figure 7 Subsurface Mine Workings Proximity Map
- Figure 8 Karst Potential Map
- Figure 9 Flood Potential Map
- Figure 10 Surface Water Proximity Map
- Figure 11 Permanent Residences, Institutions, or Occupied Structures Proximity Map
- Figure 12 Wetland Proximity Map

Appendices

- Appendix A Avian Deterrence System
- Appendix B Design and Construction Plan
- Appendix C Operating and Maintenance Plan
- Appendix D Closure Plan
- Appendix E Engineering Design Drawings
- Appendix F Material Specifications
- Appendix G Groundwater Information

<u>District I</u> 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 X Recycling Containment* Recycling Facility **Type of Facility:**

Type of action: X Permit X 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. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, responsibility to comply with any other applicable governmental authority's rules, responsibility to comply with any other applicable governmental authority's rules, responsibility to comply with any other applicable governmental authority is rules.	water, ground water or the environment.
Operator: Enchanment Water, LLC (For multiple operators attach page with information Address: 1250 S. Capital of Texas Hwy, Ste 1-270, Austin, TX 78746 Facility or well name (include API# if associated with a well): Mills Ranch Recycling Containment	n) OGRID #:_329620
OCD Permit Number: (For new facilities the permit number will be assigned by the d	istrict office)
U/L or Qtr/Qtr SW4 Section 6 Township 23S Range 31E County: E	
Surface Owner: Federal State Private Tribal Trust or Indian Allotment	
For multiple or additional recycling containments, attach design and location information of each contain Closure Report (required within 60 days of closure completion): Recycling Facility Closure Completion Da	will be no adverse impact on ype lain nment
X 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 32° 19'43"N Longitude 103° 49'21"V For multiple or additional recycling containments, attach design and location information of each contains X Lined X Liner type: Thickness 60 & 40 mil X LLDPE HDPE PVC Other String-Reinforced	ment
Liner Seams: X Welded Factory Other Volume: 315,000 bbl Dimensions:	L 516' x W 391.5'x D 15'

☐ Recycling Containment Closure Completion Date:_

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 operated by the owners of the containment.) Bonding in accordance with 19.15.34.15(A)(1). Amount of bond \$ 247,105 (work on these facilities cannot commence amounts are approved) Attach closure cost estimate and documentation on how the closure cost was calculated.			
Fencing: Four foot height, four strands of barbed wire evenly spaced between one and four feet Alternate. Please specify See "Fencing" of the Appendix B			
Signs: X 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers X Signed in compliance with 19.15.16.8 NMAC			
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: \[\textbf{X}\] 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 applicant examples of the siting attachment source material are provided below under each criteria.	ntion. Potential		
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 X No		
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. - Written confirmation or verification from the municipality; written approval obtained from the municipality	Yes X No		
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 X No		
Within a 100-year floodplain. FEMA map			
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). - Topographic map; visual inspection (certification) of the proposed site	Yes X No		
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; aerial photo; satellite image	Yes X No		
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. - NM Office of the State Engineer - iWATERS database search; visual inspection (certification) of the proposed site	Yes X No		
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; topographic map; visual inspection (certification) of the proposed site	☐ Yes 🗶 No		

Additional OCD Conditions on Attachment

Recycling Facility and/or Containment Checklist: Instructions: Each of the following items must be attached to the apple Design Plan - based upon the appropriate requirements. Closure 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 sur	
10.	
Operator Application Certification: I hereby certify that the information and attachments submitted with thi	s application are true, accurate and complete to the best of my knowledge and belief.
Name (Print): Peter Mercure	Title: Chief Operating Officer
Signature: Ute Wue	Date:July 26, 2021
e-mail address: peter@water.energy	Telephone: (432) 242-1550
OCD Representative Signature:	Approval Date:
Title:	OCD Permit Number:
OCD Conditions	

II. INTRODUCTION

In accordance with NMAC 19.15.34, Enchantment Water, LLC has prepared this registration package on behalf of Enchantment Water, LLC ("Enchantment"), for the proposed recycling containment known as the Mills Ranch Recycling Containment.

The location of the proposed recycling containment is on an approximate 20-acre tract of deeded land located in the Southwest ¼ of Section 6, Township 23 South, Range 31 East in Eddy County, New Mexico. A Site Location Map is provided as Figure 1.

The proposed recycling containment will consist of one (1) approximate 2.5-acre recycling containment pond designed for commercial use. The proposed recycling containment pond will be a double lined containment with a leak detection system. For additional details please reference the Design and Construction Plan (Appendix B), the Operating and Maintenance Plan (Appendix C) and the Engineering Design Drawings (Appendix E).

Provided in this submittal is the necessary documentation demonstrating that the objectives of NMAC 19.15.34 have been met or exceeded. Enchantment requests for a total of two (2) variances, having been previously approved by the NMOCD. Additional details regarding the variance requests are described in Section III.

III. VARIANCE REQUESTS

III a. Netting and Wildlife Protection

NMAC 19.15.34.12(E) requires that the operator ensure that the recycling containments are screened, netted or otherwise protective of wildlife, including migratory birds. Enchantment respectfully requests NMOCD permission to utilize the Bird X Mega Blaster Pro electronic sonic/ultrasonic avian deterrence system. Enchantment maintains audible avian deterrence systems such as this have been used and proven to be an effective deterrent for avian species and will provide equal or better protection of the environment. Additional details regarding the avian deterrence system are provided in Appendices A & B.

III b. Fencing

NMAC 19.15.34.12(D) requires that the operator fence or enclose the recycling containment in a manner that deters unauthorized wildlife and human access. Furthermore, 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. Enchantment respectfully requests the NMOCD approve the use of 8 foot tall game proof fencing. Enchantment is concerned that a four foot barbed wire fence will not adequately deter all wildlife. Enchantment will add four strands of barbed wire if requested by the NMOCD. Additional details regarding fencing is provided in Appendix B.

IV. SITING REQUIREMENTS

IV a. Depth to Groundwater

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) was conducted in an effort to determine the probable groundwater depth at the proposed produced water recycling facility and recycling containments Site. Review of available information on the USGS database indicates the historic presence of a water well approximately 200 Ft. north of the proposed Site. The well was drilled to a depth of 180 Ft. bgs and completed in the Chinle formation. By 2013 the water well was dry, as per the USGS. Review of available information on the NMOSE database indicates that an exploratory well was installed approximately 2,800 Ft. east of the proposed Site in 2001. The exploratory well drilled to a depth of 174 Ft. bgs and no groundwater was encountered. The depth to groundwater at the proposed Site is greater than 100 Ft. bgs. Please reference Figure 5 – Groundwater Resources Map and Appendix G for additional details regarding depth to groundwater at the proposed Site.

IV b. Municipal Boundaries and Freshwater Fields

The proposed produced water recycling facility and recycling containments Site is not located within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. Review of available information indicates that the nearest municipality to the Site is Loving, New Mexico, approximately 15.8 Mi west of the Site. Please reference Figure 6 - Municipal Boundaries and Freshwater Field Proximity Map for additional details regarding proximity to municipalities.

IV c. Subsurface Mines

The proposed produced water recycling facility and recycling containments Site is not located within an area overlying a subsurface mine. Review of available information indicates that the nearest subsurface mine working is located approximately 1 Mi southwest of the proposed Site. Please reference Figure 7 – Subsurface Mine Workings Proximity Map for additional details regarding proximity to subsurface mines.

IV d. Stability and Karst Areas

The proposed produced water recycling facility and recycling containments Site is located on a relatively flat tract of deeded land within an area characterized as Medium Karst. Based on past experience and a working knowledge, the landowner has knowledge that the proposed Site is stable. The necessary engineering measures will be incorporated into the design. Please reference Figure 2 - Topographic Map, Figure 4 – Geologic Map, Figure 8 – Karst Potential Map and Appendix F for additional details regarding the stability of the proposed Site and planned engineering measures.

IV e. 100-Year Floodplain

The proposed produced water recycling facility and recycling containments Site is not located within a 100-year floodplain. Please reference Figure 9 – Flood Potential Map for additional details regarding flood potential.

IV f. Distance to Surface Water

The proposed produced water recycling facility and recycling containments Site is not located within 300 Ft. of a continuously flowing watercourse or other significant watercourse, or within 200 Ft. of a lakebed, sinkhole or playa lake as measured from the ordinary high-water mark. Review of available information indicates that the nearest continuously flowing watercourse, significant watercourse, lakebed, sinkhole or playa lake is a freshwater emergent wetland approximately 1,107 Ft south of the proposed Site. Please reference Figure 10 – Surface Water Proximity Map and Figure 12 – Wetland Proximity Map for additional details regarding proximity to surface waters.

IV g. Distance to Permanent Residences, Institutions, or Occupied Structures

The proposed produced water recycling facility and recycling containments Site is not located within 1,000 Ft. of a permanent residence, school, hospital, institution or church. Review of available information indicates that the nearest permanent residence, school, hospital, institution or church is a permanent residence owned by the subject landowner 2,874 Ft east-southeast of the proposed Site. Please reference Figure 11 – Residences, Institutions, or Occupied Structures Proximity Map for additional details regarding proximity to permanent residences, schools, hospitals, institutions or churches.

IV h. Distance to Fresh Water Wells

The proposed produced water recycling facility and recycling containments Site is not located within 500 Ft. of a spring or a fresh water well used for domestic or stock watering purposes. Review of available information indicates that the nearest fresh water well is located approximately 1,940 Ft south of the proposed Site; the well is used for stock watering purposes. Please reference Figure 5 – Groundwater Resources Map for additional details regarding proximity to springs or fresh water wells used for domestic or stock watering purposes.

IV i. Distance to Wetlands

The proposed produced water recycling facility and recycling containments Site is not located within 500 Ft. of a wetland. Review of available information indicates that the nearest wetland is a freshwater emergent wetland approximately 1,107 Ft south of the proposed Site. Please reference Figure 12 – Wetland Proximity Map for additional details regarding proximity to wetlands.

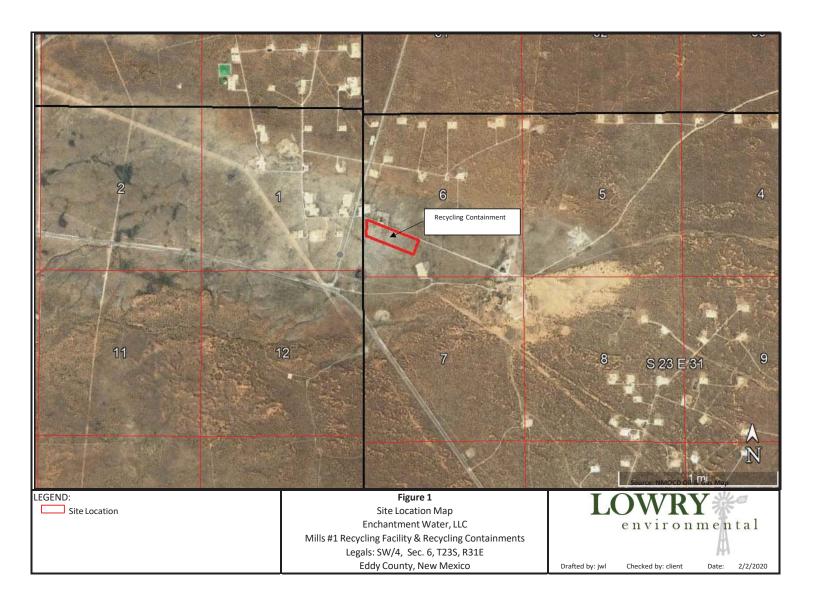
V. REGISTRATION REQUEST

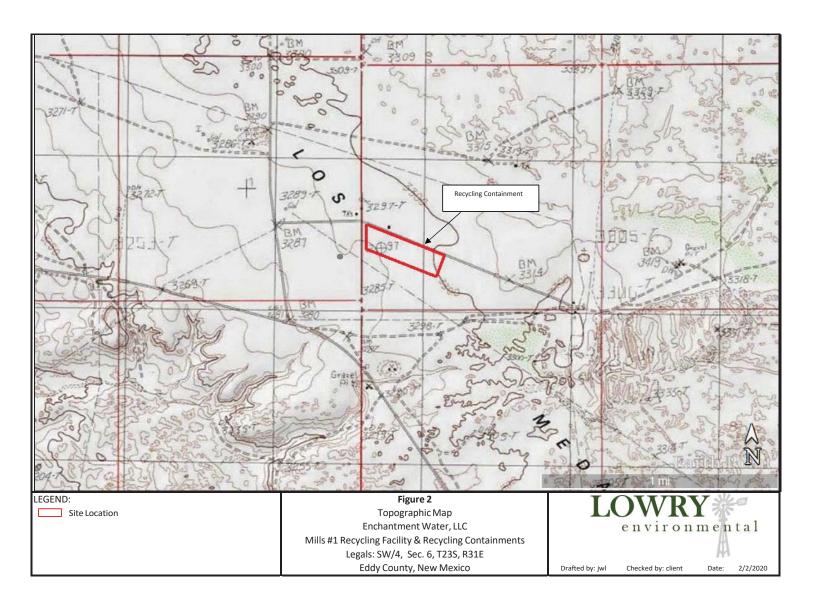
This registration package has been prepared to provide information demonstrating that the requirements of NMAC 19.15.34 have been met or exceeded. Based on the information provided in this registration package, Enchantment respectfully requests the registration of the Mills Ranch Recycling Containment.

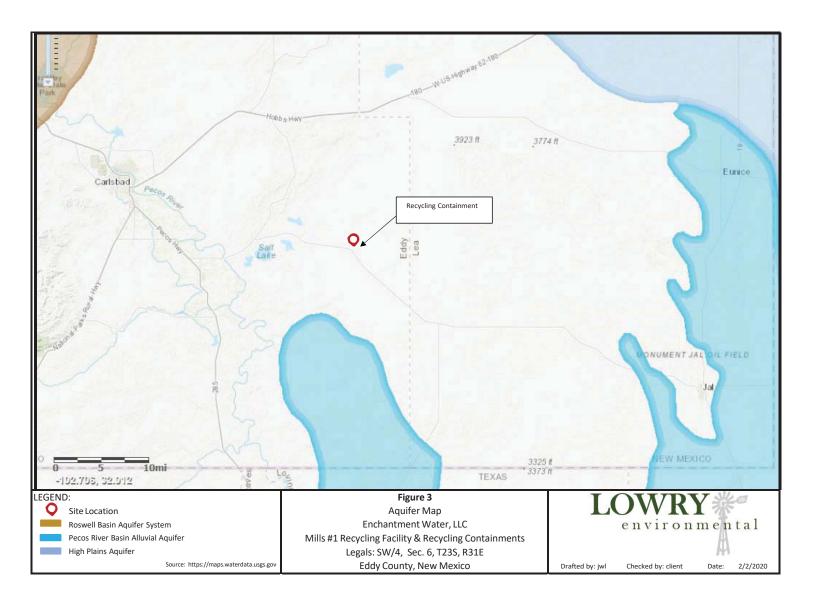
For administrative and tracking purposes the components, approximate centers and associated volumes are provided below:

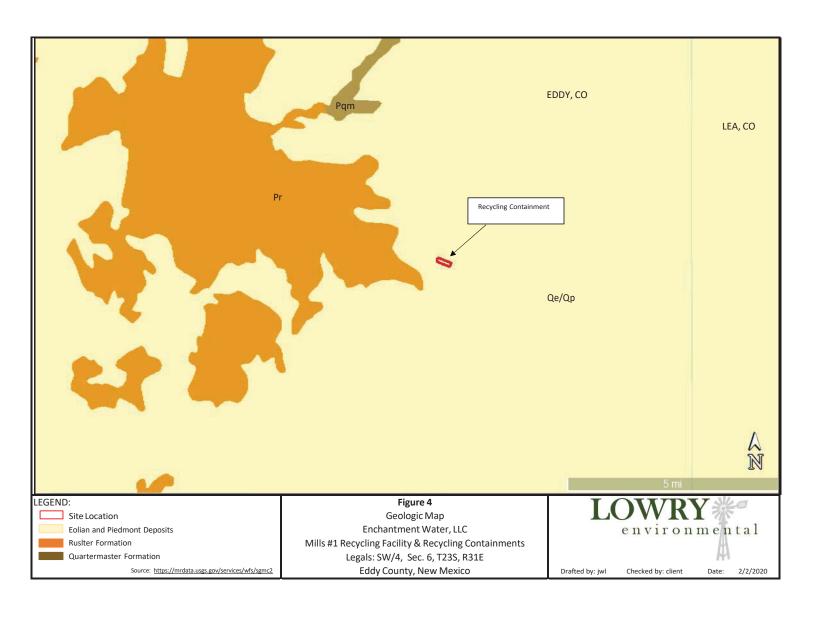
	Approximate Center	Volume	NMOCD No. (assigned by NMOCD)
Recycling Containment	32.32966, -103.82262	315,000 BBLS	

FIGURES

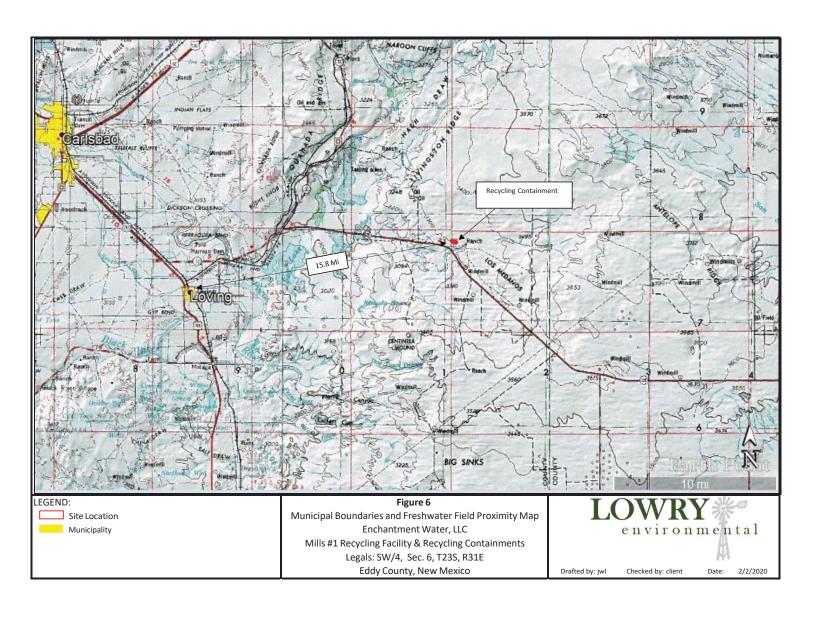


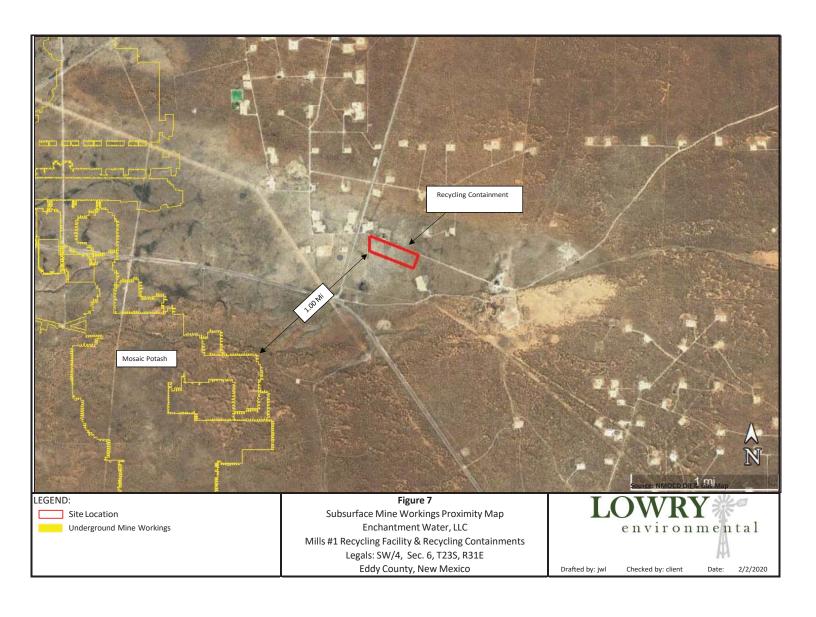


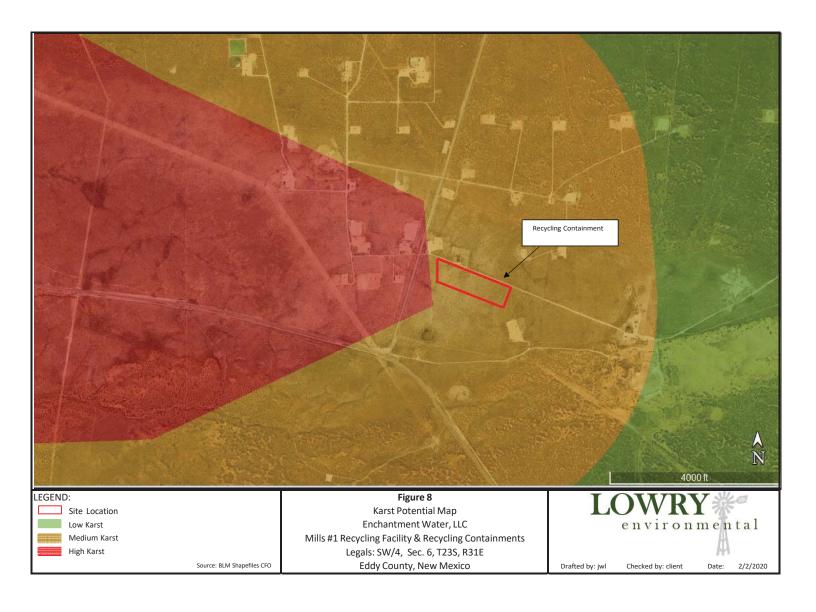




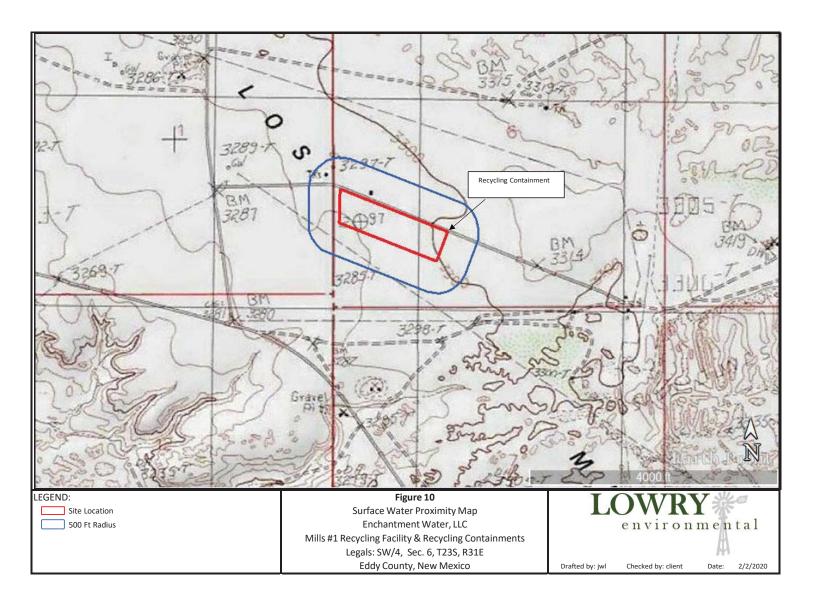














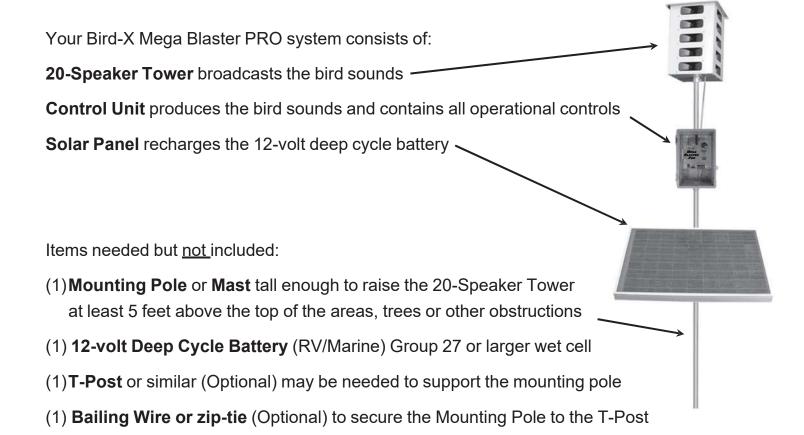


APPENDICES

Appendix A – Avian Deterrence System

Overview

The Bird-X Mega Blaster PRO utilizes the innate power of the natural survival instincts of birds to effectively repel them. Digital recordings of distressed and alarmed birds, along with the sounds made by their natural predators are broadcast through high fidelity weather-resistant speakers over the top of areas. This action triggers a primal fear and flee response. Pest birds soon relocate to where they can feed without feeling threatened.



CAUTION: THE MEGA BLASTER PRO IS CAPABLE OF PRODUCING SOUNDS UP TO 125 DECIBELS. PROPER HEARING PROTECTION MUST BE WORN ANYTIME THE UNIT IS TURNED ON.



Bird Control Management Guidelines

An active bird control management program is a key to successfully repelling pest birds. Bird feeding patterns may take several days or weeks to break. Follow all suggestions for maximum effectiveness. Read all instructions prior to installation.

For best results:

- It is extremely important to fully protect your entire area from birds. Any areas not fully protected will allow birds to begin feeding at the fringes of the sound coverage. They will soon become bolder and learn the sounds are nothing to fear. This will cause the effectiveness to diminish. Complete Bird-X product coverage forces birds to leave the area entirely.
- Install the Mega Blaster PRO unit at least two weeks before birds are attracted to your area. It is much easier to keep birds away before they have found a food source than it is to repel them once they have developed a feeding pattern.
- Most birds begin feeding from the perimeter of an area. Place Mega Blaster PRO units so the sound protection covers past the edges of the area.
- Birds will often use tall trees for roosting and observation. If birds are in bordering trees it is necessary to position the units so the sound protection covers the trees as well.
- Mount the 20-Speaker Tower at least five feet above trees, areas and structures for maximum coverage. The higher the better. Sound will disperse or reflect off structures or foliage. Mount control unit out of direct sun, if possible.
- When first installed, run Mega Blaster PRO units at FULL volume and on SHORT time off periods. This ensures maximum "bird stress" and creates a hostile environment.
- Watch for changes in bird activity and adjust the location of your Mega Blaster PRO unit if needed.
- Check the battery and unit settings often to insure continuous bird control. Be certain that the system is not turned down or has a dead battery. Field hands or harvesters may turn down the volume.
- Changing settings and switches often helps to prevent bird habituation. Periodically change the switch settings of the
 eight sounds (turning them ON or OFF). NEVER turn OFF the distress calls of the target birds you are trying to repel
 and always keep at least one predator bird sound turned ON.
- If different bird species enter the protected area and begin causing damage contact us immediately for an updated Sound Recording Card designed to repel the new invading birds.
- Remember that the Mega Blaster PRO system is a management tool, and should be used as part of your overall bird control strategy, sometimes in conjunction with other bird control techniques and devices.

Be aware that under extreme drought or other adverse conditions, birds will disregard all deterrents and risks in order to survive

Materials List

ltem	Qty		Notes
Mega Blaster PRO Control Box	1	MEGA BLASTER PRO	
Sound Recording Card	1	Congression of the Congression o	Pre-installed in control box
20-Speaker Tower	1		
Control Box Brackets	2	•••	
Control Box Mounting U-Bolts	2		
40-Watt Solar Panel	1		
Solar Panel Mounting Bracket	1	T.	
Solar Panel Mounting U-Bolts	2		
Control Box Connector Cable	1	O	1/4" x 1-1/8" x 2"
Battery Box	1		2 Wire, 10 ft. Long

Placement

Your Mega Blaster PRO will protect an area up to approximately 600 feet in all directions.

Factors to consider when selecting the best location include:

- Birds typically feed from the perimeter of the area and work their way in. Place Mega Blaster PRO units so the sound protection covers all the way to the edges of the area. For larger areas Mega Blaster PRO units should be positioned 400-500 feet inside the area and spaced every 1,200 feet.
- Mount the 20-Speaker Tower at least 5 feet above terrain, areas, trees and other obstacles.
- Placing the Mega Blaster PRO on top of a hill or small rise will give you much better coverage than at the bottom of a valley. The greater the height the further the sounds will travel.
- Wind can blow the sound waves. If the area you need to protect has consistent wind coming from the same direction, position your Mega Blaster PRO more "upwind."
- Trees surrounding areas provide birds with a safe perch that allows them to fly in, grab food and fly out. It is
 much more difficult to eliminate bird damage if the birds are able to use the surrounding trees as a staging
 area for attacks on your areas. Your Mega Blaster PRO unit should be positioned close to any trees
 bordering your areas. If birds are roosting in the trees at night the TIME OF OPERATION should be set to
 24 HOUR.
- Lakes, rivers and wetlands are a favorite resting and hiding place for birds. Your Mega Blaster PRO unit should be placed so the sound thoroughly covers any areas where birds frequent.
- Neighbors, businesses and others may not appreciate hearing the bird sounds. At the limits of the effective
 range the sounds from your Mega Blaster PRO are at a level people may find annoying. Avoid placing the
 unit where it becomes a nuisance.

Settings

Repelling birds requires regular monitoring and active management. Birds are intelligent and highly adaptable so it is important to create and maintain an environment the birds perceive as hostile and dangerous. This is achieved by playing the sounds frequently and at a high volume, otherwise the birds will not be fully repelled and will soon learn to adapt.

Below are the initial settings that should be used when your Mega Blaster PRO is first installed. Please see the "Bird Control Management Guidelines" section for more information.

Recordings

There are eight separate bird sounds contained on the Replaceable Sound Card. The label on the sound card lists each sound with a number corresponding to the eight "RECORDINGS" dip switches to the left of the Sound Card. Initially all RECORDING switches should be turned ON. If the target birds begin returning, periodically change the switch settings for the eight sounds (turning them ON or OFF). **NOTE: NEVER turn OFF** the distress calls of the target birds you are trying to repel and always keep at least one predator bird sound turned ON.

Mode Settings

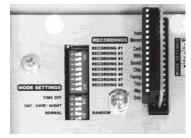
TIME OFF INTERVAL controls the time off periods between each playing of the bird recordings.

Setting	Time Off Duration	Switch #1	Switch #2
SHORT	17-50 Seconds	ON	OFF
MEDIUM	1:00-4:15 Minutes	OFF	ON
LONG	5:00-10:00 Minutes	ON	ON
XLONG	10:00-30:00 Minutes	OFF	OFF

When the Mega Blaster PRO unit is first installed the TIME OFF INTERVAL should be set to SHORT to create the greatest sense of danger and move the birds out of the area the fastest. Once the birds have left the area completely for a week or more you may try increasing the TIME OFF INTERVAL gradually, but you must monitor the birds carefully. Switch back to SHORT at the first sign birds are returning.

TIME OF OPERATION controls when the bird recordings play.

Setting	Switch #3	Switch #4
DAY ONLY	ON	OFF
24-HOUR	OFF	ON
NIGHT ONLY	ON	ON



Recommended Settings

In most cases birds are only active during the day so the DAY ONLY is recommended. If birds are roosting in bordering trees at night you will need to set the TIME OF OPERATION for 24-HOUR.

RANDOM OPERATION should always be turned ON. VOLUME should be set as high as possible.

Bird-X Mega Blaster PRO User's Manual (#655-0065-00 - May 2016)

Appendix B – Design and Construction Plan

DESIGN & CONSTRUCTION

Preface

Language of the Rules - as established by New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Commission, outlined in Title 19 Chapter 15 Part 34 "Produced Water, Drilling Fluids and Liquid Oil Field Waste" (19.15.34 NMAC) are are underlined in the following work.

This plan addresses construction of the earthen containment. Celina L. Folmar, a Professional Engineer of Harcrow Surveying, LLC has provided the design. Early evaluation of the geology at the proposed location indicates that a shallow bed (less than 5 feet based on cores drilled and trenched excavation) of caliche rock is overlies a hard sediment bed that will provide the foundation of this containment. The location for construction is on private land.

Dike Protection and Structural Integrity

As specified in Rule 34 of the New Mexico Administrative Code ("NMAC"), the design and operation provide for the containment of produced water from oilfield operations shall:

- 1. Prevent releases and to prevent overtopping due to wave action or rainfall (19.15.34.12-A.1 NMAC).
- 2. The operator of a recycling containment shall design the containment to prevent run-on of surface water (19.15.34.12-A.8 NMAC). The design prevents run-on of surface water as the containment is surrounded by an above-grade levee (a berm).

Topsoil Stockpiling

Where topsoil was present, 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 (19.15.34.12-A.8 NMAC). Topsoil has been stockpiled under the levees.

Signage

Location signage will include both required and additional signage to ensure proper adherence to company policy requirements for entry, safe operation, notice of trespassing amongst other important communication needs.

As per Rule 34, at a minimum, 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 (19.15.34.12-C NMAC).

Fencing

Enchantment 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 (19.15.34.12-D -1 NMAC). Game proof fencing of eight feet in height will be installed surrounding the recycling containment.

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 (19.15.34.12-D.2 NMAC). A four foot barbed wire fence with four strands of barbed wire does not adequately ensure deterrence of wildlife, therefore, Enchantment has decided to install game proof fencing. However, Enchantment will add four strands of barbed wire and space accordingly if requested by the NMOCD.

Netting and Protection of Wildlife

The recycling containment will employ measures that are protective of wildlife, including migratory birds through the implementation of an *Avian Protection Plan (APP)*, routine inspections and the perimeter fence. The perimeter fence will serve as a protective barrier to livestock and most terrestrial game.

The APP includes the use of a commercial hazing program for avian species often referred to as "blasters" which are auditory devices which have proven effective as avian repellent tools. The automated device will be equipped with sounds suitable for the environment and will operate without the need for direct human interaction. Also, Enchantment operations staff will utilize manual methods for deterrent such as predatory decoys in and around the facility. If avian species are found in and around the containment during routine inspections, the operator will have access to blank cartridges fired from a starter pistol or shotgun for deterrence.

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 (19.15.34.12-E NMAC).

Design and Construction Considerations

Enchantment has provided a design for the <u>recycling containment to ensure the confinement of produced water</u>, to prevent releases and to prevent overtopping due to wave action or <u>rainfall</u> (19.15.34.12-A.1 NMAC).

The containment design proposed is characterized by a <u>properly constructed foundation</u> 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 (19.15.34.12-A.2 NMAC). A Geotextile will be placed under the liner to reduce localized stress-strain or protuberances that otherwise may compromise the liner's integrity.

Enchantment has provided drawings for the proposed containment that will have the following design and construction specifications mandated by 19.15.34.12-A.2 NMAC:

- 1. Levee has <u>inside grade no steeper than two horizontal feet to one vertical foot {2H:</u> IV).
- 2. Levee <u>outside grade is no steeper than three horizontal feet to one vertical foot {3H: 1 V}</u>
- 3. Top of the levee is wide enough to install an anchor trench and provide adequate room for inspection and maintenance.
- 4. The containment floor design calls for a slope toward centerline of the containment (grading from the East and West) where the leak detection piping sump is located.

Geomembrane Specifications

The containment design includes a primary (upper) liner and a secondary (lower) liner with a leak detection system appropriate to the site's conditions (19.15.34.12-A.3 NMAC).

Liners selected for the containment shall meet the following specifications:

- 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 (19.15.34.12-A.4 NMAC).
- All primary liners shall be 30-mil flexible PVC, 45-mil LLDPE string reinforced or 60-mil HDPE liners. Secondary liners shall be 30-mil LLDPE string reinforced or equivalent with a hydraulic conductivity no greater than 1 x 10-9 cm/sec (19.15.34.12-A.4 NMAC). Enchanment has chosen to use a 40-mil LLDPE Secondary liner instead of a 30-mil LLDPE liner, which exceeds the minimum specs.
- <u>Liner compatibility shall meet or exceed the EPA SW-846 method 9090A or subsequent relevant publications (19.15.34.12-A.4 NMAC).</u>

Leak Detection Specifications

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 (19.15.34.12-A.7 NMAC).

The containment design illustrates the floor sloping from East and West to the sump located at the North-South centerline. The sump runs the entire floor length of the containment. The liners and drainage material will be installed consistent with the Manufacture's specifications.

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 (19.15.34.12-A.5 NMAC).

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 (19.15.34.12-A.6 NMAC).

Withdrawal of recycled water from the containment will be a process managed by the operator. Suction lines from the pit will be constructed in a semi-permanent configuration utilizing floats attached to the line to prevent direct contact to the geotextile liners.

Appendix C – Operating and Maintenance Plan

OPERATIONS & MAINTENANCE

Procedures

Language of the Rules - as established by New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Commission, outlined in Title 19 Chapter 15 Part 34 "Produced Water, Drilling Fluids and Liquid Oil Field Waste" (19.15.34 NMAC) - are underlined in the following.

Enchantment Water, LLC ("Enchantment"), either directly or through contracted services with subsidiaries or third parties, will operate and maintain the lined earthen containment so as to contain liquids and solids (e.g. "blow" sand and minimal precipitates from the treated produced water) while also maintaining the integrity of the protective liner system in a prudent and responsible manner. Efforts will be taken that would minimize the potential of fresh water contamination during construction and operations to protect public health and the environment.

The lined earthen containment structure is needed to facilitate recycling, reuse and reclamation of produced oil field water from surrounding locations. The containment will not be used for the disposal of produced water or other oilfield waste (19.15.34.9-G NMAC).

An operational overview of the Enchantment Recycling and Reuse process is provided in the following:

- A. Via pipeline or truck delivery, produced water generated from nearby oil and gas wells is transported and offloaded into the IWS BLM 128 Recycling treatment facility.
- B. After treatment, the produced water is transferred by pipeline and discharges into the lined earthen containment.
- C. Periodically, when needed, treated produced water is withdrawn from the containment via piping and pumps to be used for oil field well operations and other allowed oil field uses as approved by the New Mexico Oil Conservation Division. Enchantment does not track or review the intended purposes of such reuse water operations by the purchaser.
- D. Whenever the maximum volume capacity of the containment is reached, treatment and discharge to the containment ceases (see Freeboard and Overtopping Plan, below).
- E. The operator of a recycling facility shall keep accurate records and shall report monthly to the division the total volume of water received for recycling, with the amount of fresh water received listed separately, and the total volume of water leaving the facility for disposition by use on form C-148 (19.15.34.9-E NMAC).
- F. The operator of a recycling facility shall maintain accurate records that identify the sources and disposition of all recycled water that shall be made available for review by the division upon request (19.15.34.9-F)

G. A recycling containment shall be deemed to have ceased operations if less than 20% of the total fluid capacity is used every six months following the first withdrawal of produced water for use. The operator must report cessation of operations to the appropriate division district office. The appropriate division district office may grant an extension to this determination of cessation of operations not to exceed six months (19.15.34.13-C NMAC)

The operation of the lined earthen containment will comply with the mandates outlined in the following:

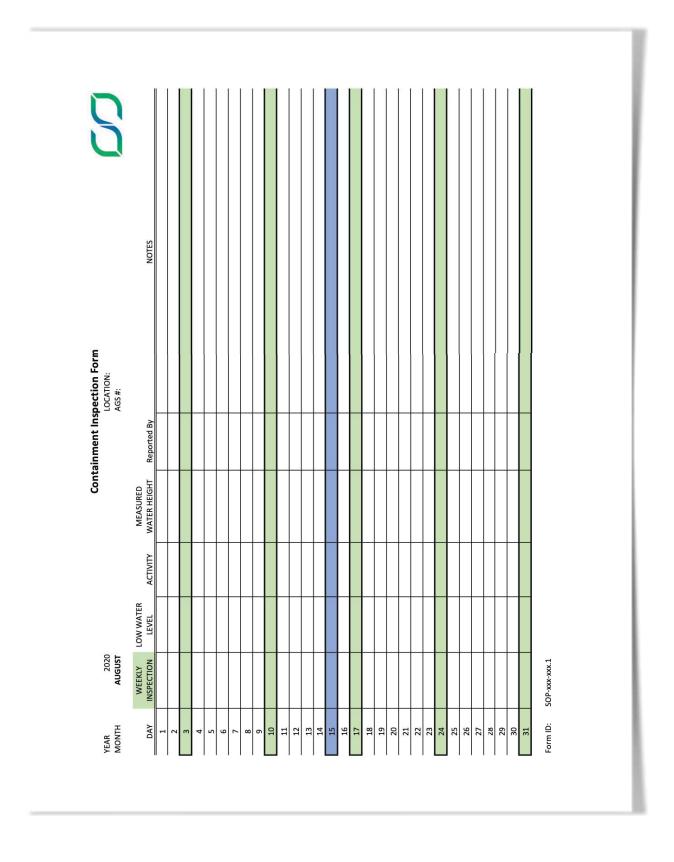
- H. The operator will not discharge into or store any hazardous waste (as defined by 40 CFR 261 (Identification and Listing of Hazardous Waste) and NMAC 19.15.2.7-H.3 NMAC) in the lined earthen containment.
- I. If the containment's primary liner is compromised above the fluid's surface, the operator shall repair the damage or initiate replacement of the primary liner within 48 hours of discovery or seek an extension of time from the division district office (19.15.34.13-B.4 NMAC)
- J. If the primary liner is compromised below the fluid's surface, the operator shall remove all fluid above the damage or leak within 48 hours of discovery, notify the division district office and repair the damage or replace the primary liner (19.15.34.13-B.5 NMAC)
- K. If any penetration of the containment liner is suspected by procedures related to the periodic sampling of fluid in the leak detection system (see: Monitoring & Inspection, and Reporting sections that follow), Enchantment will:
 - 1. Evacuate and perform continued fluid removal from the leak detection and pump return system;
 - 2. Notify the district office within 48 hours (phone or email) of the discovery;
 - 3. Identify the location and possible cause of the damage; and
 - 4. Repair any identified damage or replace the containment liner to ensure integrity is restored.
- L. The operator shall install, or maintain on site, an oil absorbent boom or other device to contain an unanticipated release (19.15.34.13-B.7 NMAC).
- M. All releases from the recycling and re-use of produced water shall be handled in accordance with 19.15.29 NMAC (19.15.34.8-A.6 NMAC).
- N. The containment shall be operated to prevent the collection of surface water run-on (19.15.34.13-B.6 NMAC)
- O. Enchantment will maintain the containment free of debris and other miscellaneous solid waste.
- P. The operator shall maintain at least three feet of freeboard at each containment (19.15.34.13-B.2 NMAC)
- Q. Enchantment will make necessary provisions so that the injection or 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 (19.15.34.13-B.3 NMAC)

R. 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 (19.15.34.12-D.1 NMAC)

Monitoring and Inspection

Enchantment will inspect the recycling containment daily and inspect the associated leak detection systems weekly while it contains fluids. Enchantment shall maintain a current log of such inspections and make the log available for review by the division upon request (19.15,34.13-A NMAC).

The Containment Inspection template that will be utilized for Daily/Weekly/Monthly inspections follows



Daily inspections will consist of:

- Reading and recording the fluid height within the containment;
- Documentation of any evidence of visible surface oil;
- Visual inspection of the containment's exposed liners; and
- Inspecting the leak detection system for any evidence primary liner failure.

As stated above, if a liner 's integrity is compromised, or if any penetration of the liner occurs above the water surface, then the operator will notify the District office within 48 hours (phone and/or email).

Monthly inspections will consist of:

- Inspecting the leak detection system for any evidence primary liner failure and, if suspected, monitor accordingly while remedial actions are planned and implemented;
- Inspect the containment for live and dead migratory birds and other wildlife.
 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 mitigation measures to limit and ultimately eliminate future incidents;
- Total volume of water received for recycling, with the amount of fresh water received, each listed separately along with the total volume of water leaving the facility for disposition by use on form C-148 and submitted to the NMOCD; and Report the parties associated with sources and disposition of all recycled water volumes.

Freeboard and Overtopping Prevention

When the capacity of the containment is reached as indicated by 3 feet of freeboard, the discharge of treated produced water ceases. Surrounding salt-water disposal wells and alternate wastewater recycling facilities will then manage the produced water generated by surrounding oil and gas wells. If rising water levels suggest that 3-feet of freeboard will be exceeded and overtopping potential is raised, Enchantment will implement one or more of the following options:

- I. Ensure that the treated water facility is, in fact, isolated from discharging treated produced water into the containment.
- II. Identify and expedite disposition of the of the treated produced water for purposes approved by the NMOCD.
- III. Transfer treated produced water from the containment to injection wells.

The reading of the freeboard level occurs daily when produced water treatment operations are ongoing and weekly when containment is isolated from the treatment facility due to maximum storage capacity being reached.

Leak Detection Monitoring, Fluid Removal and Reporting

As shown in Appendix A, the leak detection and monitoring system is constructed such that any fluid released from the primary liner due rupture or failure will flow to the collection sump. This location allows for continuous fluid level monitoring via the riser pipe.

Enchantment Staff are able to utilize a portable electronic water level meter to determine if fluid exists in the monitoring riser pipe. There are standard techniques to identify free water in the leak detection system (along with water column height) that including mechanical pumps or alternatively user deployed skated carriers that run into the riser pipe affixed to a retrieval rope. Enchantment will use several techniques dependent on the situation and objectives.

If the primary liner integrity is believed to have been breached as identified by a free fluid level in the **le**ak detection system riser pipe, Enchantment will:

- 1. Cease further transfer of water from the treatment facility to the containment.
- 2. Re-measure fluid levels in the monitoring riser pipe on a daily basis for one week to determine the rate of seepage.
- 3. Collect a water sample from the monitoring riser pipe to confirm the seepage can be conclusively determined to be analogous to the contentment fluids by utilizing electrical conductivity and chloride measurements.
- 4. Notify NMOCD of a confirmed positive detection in the system within 48 hours of sampling and characterization (serves as the "initial notification").
- 5. Utilize a pump lowered into the leak-detection riser pipe sump to continually evacuate the sump until the liner is repaired or replaced.
- 6. Allow the manufacturer and qualified contractor to inspect the portion of the containment identified to as breached once the containment is sufficiently withdrawn.
- 7. Issue to NMOCD a second report describing the inspection and/or repair within a reasonable timeframe of "initial notification".
- 8. If the source of release is clearly identified from a low water inspection, the liner will be repaired by a qualified contractor to resolve the loss of integrity. If the liner breach cannot be identified, the contractor will develop a more comprehensive plan to locate the source of leakage. The inspection plan and schedule will be submitted to NMOCD with the second report. Enchantment will implement the plan upon NMOCD approval.

Containment Closure Protocol

After operations cease at this site, Enchantment <u>will remove all fluids within 60 days and</u> close the containment within six months from the date Enchantment concludes operations from the containment for use (19.15.34.14-A NMAC), unless otherwise approved and permitted for a purpose other than recycling by the appropriate division.

Enchantment understands the that a variance will be submitted to NMOCD to allow for any alternative closure protocol.

Enchantment shall substantially restore the impacted surface area to:

- the condition that existed prior to the construction of the recycling containment (19.15.34.14-E NMAC); and
- 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 (19.15.34.14-E NMAC)

Appendix D – Closure Plan

CLOSURE PLAN

Language of the Rules - as established by New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Commission, outlined in Title 19 Chapter 15 Part 34 "Produced Water, Drilling Fluids and Liquid Oil Field Waste" (19.15.34 NMAC) - are underlined in the following work.

Excavation and Removal

Through continuous and normal operations, the containment will, inevitably, collect and contain a residual basement volume of solid materials made up principally of windblown sand and soil with additional natural mineral precipitates from the recycled water. To address handling and removal of this waste, Enchantment will:

- 1. <u>Close a recycling containment by first removing all fluids, contents and synthetic liners and transferring these materials to a division approved facility (</u>19.15.34.14-B NMAC)
- 2. Test the soils beneath the containment for contamination with a five-point composite sample which includes stained or wet soils, if any, and that sample shall be analyzed for the constituents listed in Table I of 19.15.34.14 (provided below)
- 3. After review of the laboratory results, the applicable condition will direct the subsequent action:
 - A. If any contaminant concentration is higher than the parameters listed in Table I, the division may require additional delineation upon review of the results and the operator must receive approval before proceeding with closure (19.15.34.14-C.1 NMAC).
 - B. <u>If all contaminant concentrations are less than or equal to the parameters listed in Table I, then the operator can proceed to backfill with non-waste containing, uncontaminated, earthen material (19.15.34.14-C.2 NMAC).</u>

	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.

19.15.34.14 NMAC - N, 3/31/15]

Reclamation and Re-vegetation

As specified in New Mexico Administrative Code (19.15.34.14-E NMAC), <u>once the operator has closed the recycling containment</u>, the operator shall reclaim the containment's location

to a safe and stable condition that blends with the surrounding undisturbed area. Topsoils and subsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, 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 a recycling containment. The operator shall substantially restore the impacted surface area to the condition that existed prior to the construction of the recycling containment.

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

Closure Documentation

Within 60 days of closure completion, the operator shall submit a closure report on form C-147, including required attachments, to document all closure activities including sampling results and the details on any backfilling, capping or covering, where applicable. The closure report shall certify that all information in the report and attachments is correct and that the operator has complied with all applicable closure requirements and conditions specified in division rules or directives (19.15.34.14-D NMAC).

Once the operator has closed the recycling containment, the operator shall reclaim the containment's location to a safe and stable condition that blends with the surrounding undisturbed area. Topsoils and subsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, 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 a recycling containment. The operator shall substantially restore the impacted surface area to the condition that existed prior to the construction of the recycling containment (19.15.34.14-E NMAC). 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 ratio of plus or minus fifty percent (50%) of pre-disturbance levels and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds (19.15.34.14-F NMAC).

See the Closure Cost Estimate below:



Quote Ref: 2021.06.24IWS Date: 6/24/21

Prepared by: MLF Construction LLC dba Bullfrog Services

Prepared for: Enchantment Water, LLC

Project: Mills Ranch Earthen Containment Reclamation Quote

Address: Hwy 128 and Wipp Rd, New Mexico

Quantity	Units	ltem	Cost	Subtotal
260000	Sq Ft	Removal and Disposal of existing 10oz Geotextile	\$ 0.16	\$ 41,600
260000	Sq Ft	Removal and Disposal of Secondary 40 mil HDPE Liner	\$ 0.16	\$ 41,600
260000	Sq Ft	Removal and Disposal of Primary 60 mil HDPE Liner	\$ 0.16	\$ 41,600
2200	Lin Ft	Removal and Disposal of Anchor Trench	\$ 1.45	\$ 3,190
18	Hrs	Logistics and Materials	\$ 105.00	\$ 1,890
			TOTAL	\$ 129,880
20	Days	Reclaim: Back Fill & Level	3800	\$ 76,000
10	Days	Reclaim: Redistribute Original Top Soil	3800	\$ 38,000
15	Days	Reseed: Total Disturbed Area	215	\$ 3,225
			TOTAL	\$ 117,225
		Γ	PROJECT TOTAL	\$ 247,105

- 1 The quantities are estimated and will be billed at actual time and materials utilized.
- 2 Applicable state and local taxes will be added to the invoice.
- 3 Quote is valid for 45 days.
- 4 Any standby time or unplanned delays at the fault of the owner will be billed at a separately hourly rate min.



Appendix E – Engineering Design Drawings



MILLS RANCH

MILLS RANCH RECYCLING

NOINI

COLFAX

TAOS

RIO ARRIBA

SAN JUAN

CONTAINMENT S6 & S7 T23S R31E EDDY COUNTY, NM

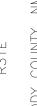
SAN MIGUEL

CATRON

RECYCLING











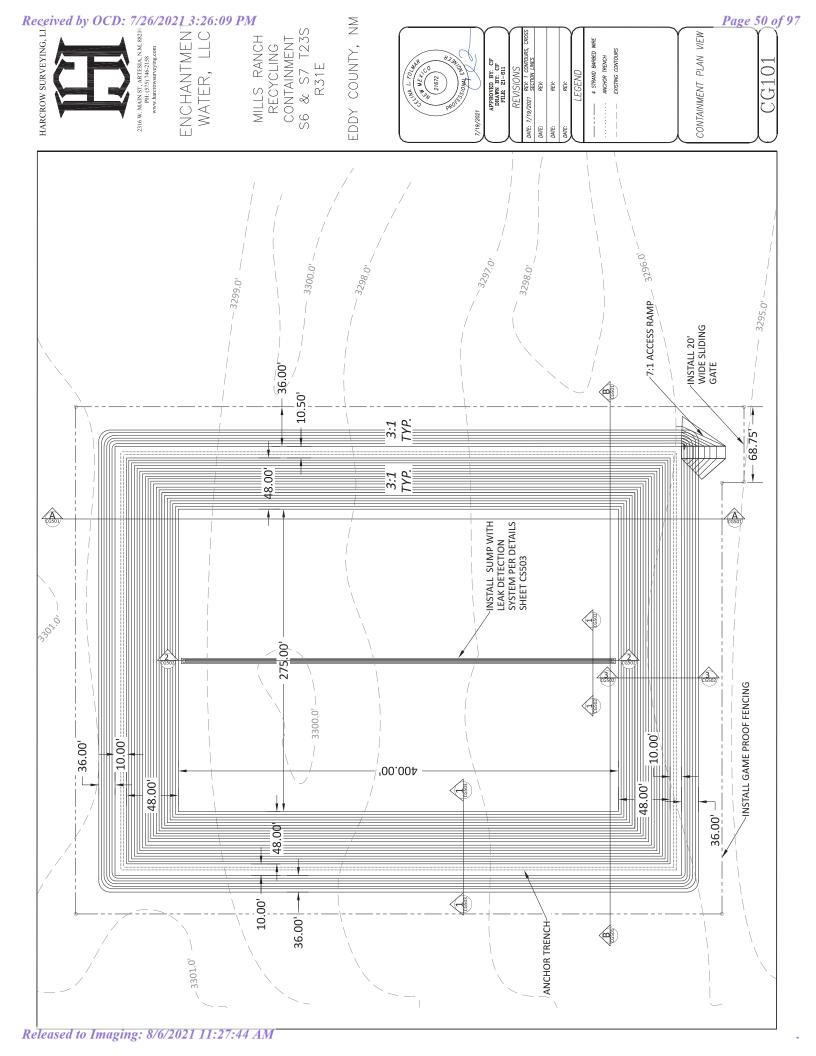
CONTAINMENT S6 & S7 T23S R31E

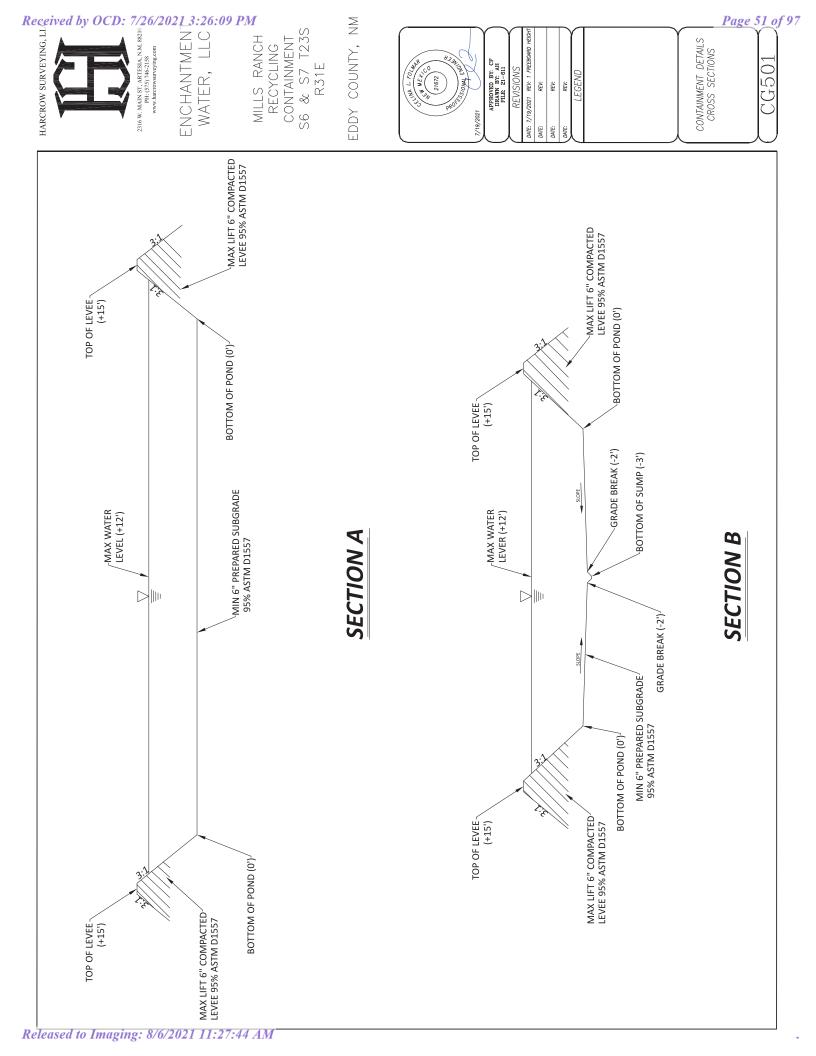
COVER SHEET

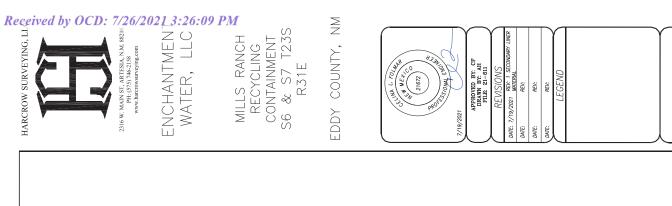
PROJECT LOCATION

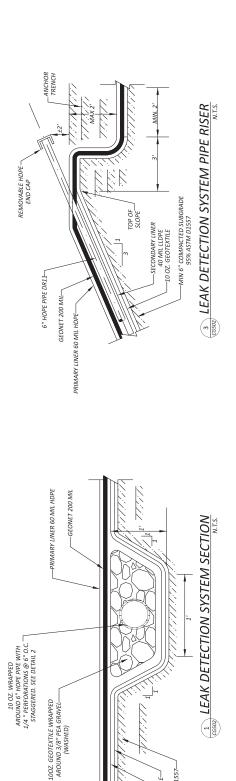
ENCHANTMENT WATER, LLC

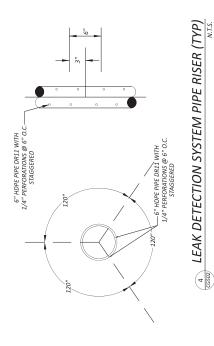
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-SECONDARY LINER 40 MIL LLDPE

6" HDPE PIPE DR11-

GEONET 200 MIL

10 OZ. WRAPPED AROUND 6" HDPE PIPE WITH 1/4 " PERFORATIONS @ 6" O.C. → STAGGERED

100Z. GEOTEXTILE WRAPPED AROUND 3/8" PEA GRAVEL (WASHED)

PRIMARY LINER 60 MIL HDPE 10 OZ. GEOTEXTILE- L 10 OZ. GEOTEXTILE
L MIN 6" COMPACTED SUBGRADE
95% ASTM D 1557
— MAX BEND RADIUS 10'

MIN. 6" COMPACTED SUBGRADE 95% ASTM D1557

10 OZ. GEOTEXTILE

ROUND CORNER AT ALL GRADE CHANGES



Page 52 of 97

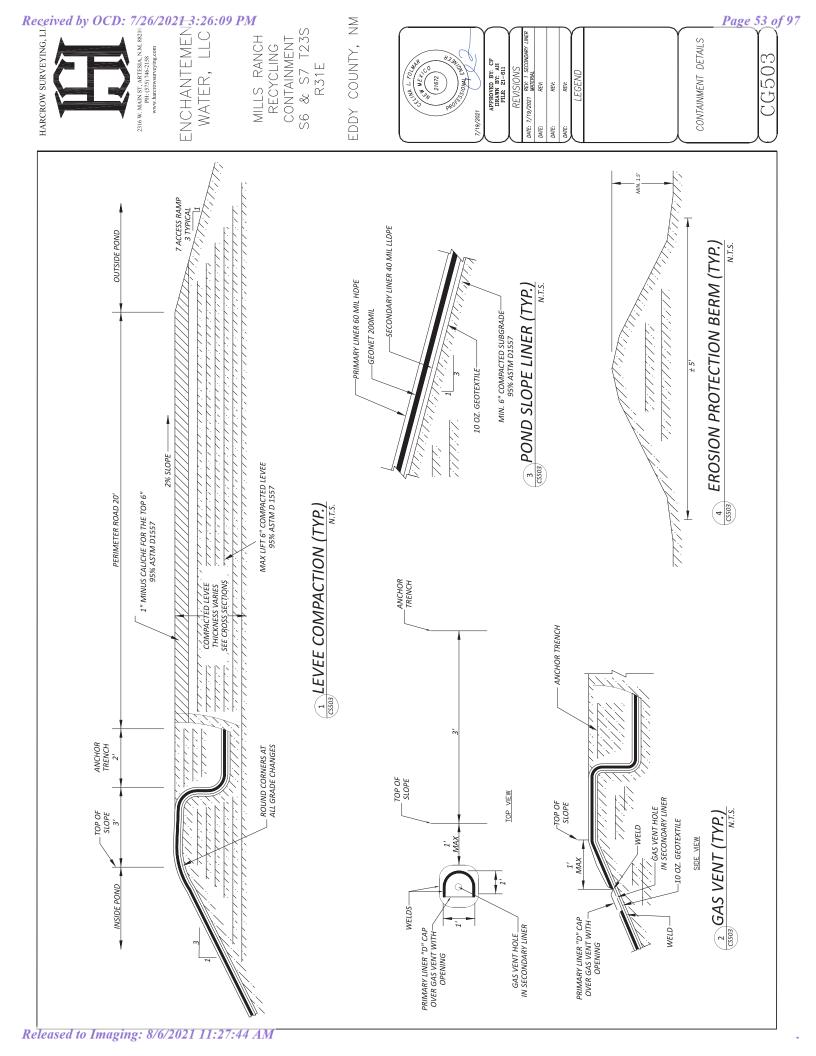
CG202

LINER DETAILS



95% ASTM D1557

10 OZ. GEOTEXTILE-SECONDARY LINER 40 MIL LLDPE



Appendix F – Material Specifications



Product Data GEOTEX® 8010G

GEOTEX® 8010G is a polypropylene, staple fiber, needle-punched nonwoven geotextile produced by Propex, and will meet the following Typical Values when tested in accordance with the methods listed below. The fibers are needled to form a stable network that retains dimensional stability relative to each other. The geotextile is resistant to ultraviolet degradation and to biological and chemical environments normally found in soils.

GEOTEX® 8010G conforms to the property values listed below¹. Propex performs internal Manufacturing Quality Control (MQC) tests that have been accredited by the Geosynthetic Accreditation Institute – Laboratory Accreditation Program (GAI-LAP).

		TYP	PICAL
PROPERTY	TEST METHOD	ENGLISH	METRIC
ORIGIN OF MATERIALS	•		
% U.S. Manufactured		100%	100%
PHYSICAL		-	-
MECHANICAL			
Grab Tensile Strength	ASTM D-4632	205 lbs	912 N
Grab Elongation	ASTM D-4632	70%	70%
CBR Puncture	ASTM D-6241	525 lbs	2335 N
Trapezoidal Tear	ASTM D-4533	80 lbs	356 N
ENDURANCE			
UV Resistance at 500 hrs	ASTM D-4355	70%	70%
HYDRAULIC			
Apparent Opening Size (AOS) ²	ASTM D-4751	80 US Std. Sieve	0.180 mm
Permittivity	ASTM D-4491	1.5 sec ⁻¹	1.5 sec ⁻¹
Water Flow Rate	ASTM D-4491	110 gpm/ft ²	4482 l/min/m ²
ROLL SIZES ³		15 ft x 300 ft	4.57 m x 91.5 m

NOTES:

- 1. The property values listed above are effective 04/03/2017 and are subject to change without notice.
- 2. Maximum average roll value.
- 3. Contact your local Territory Business Manager (TBM) for custom widths and colors. Lead times may vary depending on customer requirements and volume requested.



ENGINEERED EARTH SOLUTIONSTM

www.propexglobal.com

Propex Operating Company, LLC · 4019 Industry Drive Chattanooga, TN 37416 · ph 800 621 1273 · ph 423 855 1466

 $ARMORMAX^{\circledcirc}, PYRAMAT^{\circledcirc}, LANDLOK^{\circledcirc}, \ X3^{\circledcirc}, GEOTEX^{\circledcirc}, PETROMAT^{\circledcirc}, PETROTAC^{\circledcirc}, REFLECTEX^{\circledcirc}, and GRIDPRO^{TM} are registered trademarks of Propex Operating Company, LLC.$

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Technical data sheet

LLDPE 7000 Series, 40 mil

Black, Smooth

PROPERTY	TEST METHOD	FREQUENCY ₍₁₎	UNIT Imperial	1102238
SPECIFICATIONS				
Thickness (Nominal ±10%) (11)	ASTM D5199	Every roll	mils	40
Resin Density	ASTM D1505	Certified	g/cc	< 0.926
Melt Index - 190/2.16 (max.)	ASTM D1238	Certified	g/10 min	1.0
Sheet Density	ASTM D792	1/Batch	g/cc	≤ 0.939
Carbon Black Content	ASTM D4218	Every 2 rolls	%	2.0 - 3.0
Carbon Black Dispersion	ASTM D5596	Every 10 rolls	Category	Cat. 1 & Cat. 2
OIT - standard (avg.)	ASTM D3895	Per formulation	min	100
Tensile Properties (min. avg) (2)	ASTM D6693	Every 5 rolls		
Strength at Break			ppi	152
Elongation at Break			%	800
2% Modulus (max.)	ASTM D5323	Per formulation	ppi	2400
Tear Resistance (min. avg.)	ASTM D1004	Every 10 rolls	lbf	20
Puncture Resistance (min. avg.)	ASTM D4833	Every 10 rolls	lbf	56
Dimensional Stability	ASTM D1204	Certified	%	± 2
Multi-Axial Tensile (min.)	ASTM D5617	Per formulation	%	30
Oven Aging - % retained after 90 days	ASTM D5721	Per formulation		
STD OIT (min. avg.)	ASTM D3895		%	35
HP OIT (min. avg.)	ASTM D5885		%	60
UV Res % retained after 1600 hr	ASTM D7238	Per formulation		
HP-OIT (min. avg.)	ASTM D5885		%	35
SUPPLY SPECIFICATIONS(Roll dime	ensions may vary ±1%)			
Roll Dimension - Width	-		ft	22.5
Roll Dimension - Length	-		ft	940
Area (Surface/Roll)	-		ft²	21150
-				

NOTES

- 1. Testing frequency based on standard roll dimensions and one batch is approximately 180,000 lbs (or one railcar).
- 2. Machine Direction (MD) and Cross Machine Direction (XMD or TD) average values should be on the basis of 5 specimens each direction.
- 11. The minimum average thickness is \pm 10% of the nominal value.
- * All values are nominal test results, except when specified as minimum or maximum.
- * The information contained herein is provided for reference purposes only and is not intended as a warranty of guarantee. Final determination of suitability for use contemplated is the sole responsibility of the user. SOLMAX assumes no liability in connection with the use of this information.

Solmax is not a design professional and has not performed any design services to determine if Solmax's goods comply with any project plans or specifications, or with the application or use of Solmax's goods to any particular system, project, purpose, installation or specification.



Technical data sheet

HDPE 7000 Series, 60 mil

Black, Smooth

PROPERTY	TEST METHOD	FREQUENCY(1)	UNIT Imperial	1102198
SPECIFICATIONS				
Thickness (Nominal ±10%) (11)	ASTM D5199	Every roll	mils	60
Resin Density	ASTM D1505	Certified	g/cc	> 0.932
Melt Index - 190/2.16 (max.)	ASTM D1238	Certified	g/10 min	1.0
Sheet Density	ASTM D792	1/Batch	g/cc	≥ 0.940
Carbon Black Content	ASTM D4218	Every 2 rolls	%	2.0 - 3.0
Carbon Black Dispersion	ASTM D5596	Every 10 rolls	Category	Cat. 1 & Cat. 2
OIT - standard (avg.)	ASTM D3895	Per formulation	min	100
Tensile Properties (min. avg) (2)	ASTM D6693	Every 5 rolls		
Strength at Yield			ppi	126
Elongation at Yield			%	12
Strength at Break			ppi	228
Elongation at Break			%	700
Tear Resistance (min. avg.)	ASTM D1004	Every 10 rolls	lbf	38
Puncture Resistance (min. avg.)	ASTM D4833	Every 10 rolls	lbf	108
Dimensional Stability	ASTM D1204	Certified	%	± 2
Stress Crack Resistance (SP-NCTL)	ASTM D5397	1/Batch	hr	500
Oven Aging - % retained after 90 days	ASTM D5721	Per formulation		
HP OIT (min. avg.)	ASTM D5885		%	80
UV Res % retained after 1600 hr	ASTM D7238	Per formulation		
HP-OIT (min. avg.)	ASTM D5885		%	50
SUPPLY SPECIFICATIONS(Roll dime	ensions may vary ±1%)			
Roll Dimension - Width	-		ft	22.5
Roll Dimension - Length	-		ft	630
Area (Surface/Roll)	-		ft²	14175

NOTES

- 1. Testing frequency based on standard roll dimensions and one batch is approximately 180,000 lbs (or one railcar).
- 2. Machine Direction (MD) and Cross Machine Direction (XMD or TD) average values should be on the basis of 5 specimens each direction.
- 11. The minimum average thickness is \pm 10% of the nominal value.
- * All values are nominal test results, except when specified as minimum or maximum.
- * The information contained herein is provided for reference purposes only and is not intended as a warranty of guarantee. Final determination of suitability for use contemplated is the sole responsibility of the user. SOLMAX assumes no liability in connection with the use of this information.

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Appendix G – Depth to Groundwater Information



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

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

(R=POD has been replaced, O=orphaned, C=the file is closed)

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

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

POD

Sub-QQQ Water **POD Number** basin County 64 16 4 Sec Tws Rng Y DistanceDepthWellDepthWater Column Code X **CUB** 4 2 4 01 23S 610424 3577764* 450 C C 03520 POD1 3 1 1 07 23S 31E 610733 3576905 648 500

Average Depth to Water:

Minimum Depth:

Maximum Depth:

Record Count: 2

C 03139

UTMNAD83 Radius Search (in meters):

Easting (X): 610819.1 **Northing (Y):** 3577548.6 Radius: 810

*UTM location was derived from PLSS - see Help

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

2/2/20 9:36 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



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National Water Information System: Web Interface

USGS Water Resources

Data Category:		Geographic Area:		
Groundwater	▼	United States	▼	GO

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- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

• 321946103492001

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

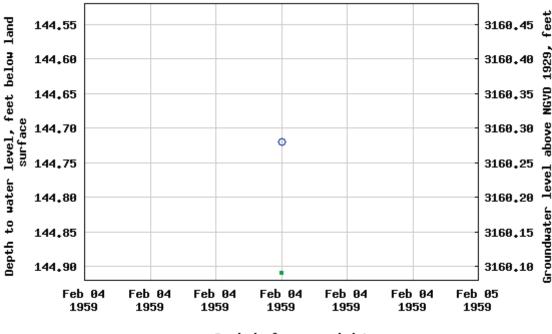
USGS 321946103492001 23S.31E.06.312333

Available data for this site	Groundwater:	Field measurements	▼	GO
Eddy County, New Mexico				
Hydrologic Unit Code 1306	50011			
Latitude 32°19'53.3", Lon	igitude 103°	949'24.8" NAD83	}	
Land-surface elevation 3,3	305.00 feet	above NGVD29		
The depth of the well is 18	30 feet belov	w land surface.		
This well is completed in t	he Chinle Fo	ormation (231CH	NL)	local aquif

Output formats

<u>Table of data</u>	
<u>Tab-separated data</u>	
Graph of data	
Reselect period	

USGS 321946103492001 235,31E,06,312333



Period of approved data

Breaks in the plot represent a gap of at least one year between field measurements. <u>Download a presentation-quality graph</u>

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U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels

URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u>

Page Last Modified: 2020-02-15 12:07:09 EST

0.62 0.43 nadww01





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National Water Information System: Web Interface

USGS Water Resources

Data Category:	Geographic Area:	
Groundwater ▼	United States	▼ GO

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- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs site_no list =

• 321946103492001

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 321946103492001 23S.31E.06.312333

Eddy County, New Mexico

Latitude 32°19'53.3", Longitude 103°49'24.8" NAD83 Land-surface elevation 3,305.00 feet above NGVD29 The depth of the well is 180 feet below land surface.

This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

Table of data										
Tab-separat	ed data									
Graph of da	<u>ta</u>									
Reselect per	<u>riod</u>									
Date	Time	? Water- level date- time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water- level accuracy	? Status	? Method of measurement	? Measuring agency	? Source (

 1959-02-04
 D
 144.72
 2
 U

 2013-01-16
 15:30 MST
 m
 D
 S
 USGS

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Water-level accuracy		Not determined
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Status	D	Site was dry (no water level was recorded).
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	R	Reported by person other than the owner, driller, or another government agency.
Source of measurement	U	Source is unknown.
Water-level approval status	Α	Approved for publication Processing and review completed.

Questions about sites/data? Feedback on this web site **Automated retrievals** <u>Help</u> **Data Tips Explanation of terms** Subscribe for system changes **News**

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U.S. Department of the Interior | U.S. Geological Survey Title: Groundwater for USA: Water Levels

URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u> Page Last Modified: 2020-02-15 12:19:29 EST

0.89 0.19 nadww02

USA.gov



Transaction Summary

EXPL Permit To Explore

Transaction Number: 216389 Transaction Desc: C 02865 File Date: 10/30/2001

Primary Status: PMT Permit

Secondary Status: LOG Well Log Received

Person Assigned: ******

Applicant: STACY MILLS

Events

Date 10/30/2001	Type APP	Description Application Received	Comment	Processed By
10/30/2001	FTN	Finalize non-published Trans.		*****
10/30/2001	LOG	Well Log Received	DRY HOLE	*****

Water Right Information

WR File Nbr Acres Diversion Consumptive Purpose of Use

C 02865 0 0 EXP EXPLORATION

**Point of Diversion

C 02865 612056 3577320*

Conditions

- 4 No water shall be appropriated and beneficially used under this permit.
- 7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.
- C Driller's well record must be filed with the State Engineer within 10 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.
- No water shall be diverted from this well except for testing purposes which shall not exceed ten (10) cumulative days, and well shall be plugged or capped on or before, unless a permit to use water from this well is acquired from the Office of the State Engineer.

Action of the State Engineer

** See Image For Any Additional Conditions of Approval **

Approval Code: A - Approved
Action Date: 10/30/2001
PCW Due Date: 10/30/2002
State Engineer: Thomas C. Turney

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

2/2/20 9:34 AM TRANSACTION SUMMARY

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



Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number**

Q64 Q16 Q4 Sec Tws Rng

X

C 02865

06 23S 31E

612056 3577320*

Driller License: 1348 **Driller Company:**

TAYLOR WATER WELL SERVICE

Driller Name: TAYLOR, CLINTON E.

Drill Start Date: 08/27/2001 **Drill Finish Date:**

09/04/2001

Plug Date:

Log File Date:

10/30/2001

PCW Rcv Date:

Source:

Pump Type:

Pipe Discharge Size:

Estimated Yield: 0 GPM Depth Water:

Casing Size: Depth Well: 174 feet

*UTM location was derived from PLSS - see Help

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

2/2/20 9:34 AM

POINT OF DIVERSION SUMMARY



Transaction Summary

SUPPL Application for Supplemental Well (Ground)

Transaction Number: 211318 Transaction Desc: C 02492 S File Date: 06/20/2001

Primary Status:APPApplicationSecondary Status:WDRWithdrawn

Person Assigned: ******

Applicant: J.C. AND FRANCES MILLS FAMILY PARTNERSHIP LTD.

Contact: STACEY MILLS

Events

Date	Type	Description	Comment	Processed By
06/20/2001	APP	Application Received	*	*****
08/01/2001	NFP	Notice for Publication		*****
02/11/2003	WDR	Withdraw Application		*****
11/15/2004	QAT	Quality Assurance Completed	QA/QC images suppl	*****

Water Right Information

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 02492	0	0		COM COMMERCIAL

**Point of Diversion

C 02492 S	611759	3576994	P
C 02492	612056	3577320*	S.

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

Remarks

It is the applicant's belief that the formation of existing well is becoming clogged with minerals, not allowing him to pump enough water to utilize all of his declared water rights.

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2/23/20 7:35 AM TRANSACTION SUMMARY



Well Tag

New Mexico Office of the State Engineer

Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

POD Number Q64 Q16 Q4 Sec Tws Rng

X

C 02492 4 4 4 06 23S 31E

612056 3577320*



Driller License: Driller Company:

Driller Name: UNKNOWN

Drill Start Date: Drill Finish Date: 12/31/2048 Plug Date:

Log File Date:PCW Rcv Date:Source:ShallowPump Type:Pipe Discharge Size:Estimated Yield:100 GPMCasing Size:6.00Depth Well:135 feetDepth Water:85 feet

Meter Number: 550 **Meter Make:** MASTER METER

Meter Serial Number:3368776Meter Multiplier:100.0000Number of Dials:6Meter Type:Diversion

Unit of Measure: Gallons Return Flow Percent:

Usage Multiplier: Reading Frequency: Quarterly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr Comment	Mtr Amount
02/15/1999	1999	122836	A	ms	0
11/17/1999	1999	138743	A	ms	4.882
01/03/2000	1999	154398	A	ms	4.804
04/05/2000	2000	189789	A	RPT	10.861
07/04/2000	2000	228535	A	mb	11.891
10/13/2000	2000	266296	A	RPT	11.588
01/22/2001	2000	295138	A	RPT	8.851
10/10/2001	2001	307651	A	RPT	3.840
10/10/2001	2001	31627	A	RPT	0
01/12/2002	2002	37948	A	tg	1.940
01/10/2003	2002	131852	A	RPT	28.818
04/10/2003	2003	162922	Α	ab	9.535
07/09/2003	2003	192583	A	RPT	9.103
07/10/2007	2007	644760	A	RPT	138.768
10/12/2007	2007	676471	A	RPT	9.732
07/07/2008	2008	718642	A	RPT	12.942
08/01/2008	2008	0	Α	RPT	0
10/10/2008	2008	25191	A	RPT	7.731
12/31/2008	2008	54476	A	RPT	8.987
07/08/2009	2009	118830	A	RPT	19.750
07/07/2010	2010	246822	A	RPT	39.279
07/27/2010	2010	253644	A	RPT	2.094
07/27/2010	2010	13826	A	RPT	0
10/12/2010	2010	38174	A	RPT	7.472
12/31/2010	2010	60370	A	RPT	6.812

76/2021 3:26 mwrs.ose.stale	.nm.us/Repor	tDispatcher?	type:	=PODGHTML	&name=PodGroundSummaryHTML.jrxml&basin=C&nb
01/05/2011	2011	60370	A	RPT	0
04/01/2011	2011	90751	A	RPT	9.324
07/01/2011	2011	123508	A	RPT	10.053
10/02/2011	2011	152261	A	RPT	8.824
01/16/2012	2011	209359	A	RPT	17.523
04/10/2012	2012	273286	A	RPT	19.618
01/10/2013	2012	354860	A	RPT	25.034
01/12/2013	2013	235897	A	RPT	0
04/01/2013	2013	287079	A	RPT	15.707
07/10/2013	2013	320335	A	RPT	10.206
09/30/2013	2013	340673	A	RPT	6.242
12/31/2014	2014	463375	A	RPT	37.656
03/31/2015	2015	482191	A	RPT	5.774
07/01/2015	2015	504065	A	RPT	6.713
10/01/2015	2015	523612	A	RPT	5.999
01/06/2016	2015	541558	A	RPT	5.507
04/01/2016	2016	556397	A	RPT	4.554
06/30/2016	2016	561120	A	RPT	1.449
10/01/2016	2016	593337	A	RPT	9.887
12/31/2016	2016	612355	A	RPT	5.836
**YTD Meto	er Amounts:	Year		Amount	
		1999		9.686	
		2000		43.191	
		2001		3.840	
		2002		30.758	
		2003		18.638	
		2007		148.500	
		2008		29.660	
		2009		19.750	
		2010		55.657	
		2011		45.724	
		2012		44.652	
		2013		32.155	
		2014		37.656	
		2015		23.993	
		2016		21.726	

^{*}UTM location was derived from PLSS - see Help

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2/23/20 7:38 AM

POINT OF DIVERSION SUMMARY



Transaction Summary

EXPL Permit To Explore

Transaction Desc: C 03139 MONITORING File Date: 12/09/2004 **Transaction Number:** 318420

Primary Status: PMT Permit Secondary Status: APR Approved

Person Assigned:

Applicant: US DEPT OF ENERGY Contact: DOUGLAS C. LYNN

Events

Date Comment Type Description Processed By 12/09/2004 APP Application Received

12/17/2004 FTN Finalize non-published Trans.

Water Right Information

WR File Nbr Acres Diversion Consumptive Purpose of Use

C 03139 0 MON MONITORING WELL

**Point of Diversion

C 03139 610424 3577764*

Remarks

THE INTENT IF THIS APPLICATION IS TO PROVIDE AUTHORIZATION TO DRILL A GROUNDWATER MONITORING WELL IN SUPPORT OF PERFORMANCE ASSESSMENT FOR THE U.S. DEPARTMENT OF ENERGY'S WASTE ISOLATION PILOT PLANT. THIS WELL WILL BE COMPLETED IN THE CULEBRA

DOLOMITE MEMBER OF THE RUSTLER FORMATION AND WILL NOT BE USED TO APPROPRIATE WATER FOR BENEFICIAL USE. INITIAL PUMP TESTS WILL BE CONDUCTED, NOT TO EXCEED 30 DAYS @ LESS THAN OR EQUAL TO 20 GAL/MIN. THEREAFTER, THE SUBJECT WELL WILL BE USED FOR WATER

LEVEL MEASUREMENTS ONLY.

Conditions

- The well shall be constructed to artesian well specifications and the State Engineer shall be notified before casing is landed or cemented
- No water shall be appropriated and beneficially used under this permit. 4
- В The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- \mathbf{C} Driller's well record must be filed with the State Engineer within 10 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.
- C1 A complete and properly executed Well Record on the form provided by the State Engineer shall be filed not later than ten (10) days after completion of the well. Test data shall be filed not later than ten (10) days after completion of the test(s).

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

** See Image For Any Additional Conditions of Approval **

Approval Code: A - Approved **Action Date:** 12/17/2004 **PCW Due Date:** 12/31/2005

State Engineer: John R. D Antonio,

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

2/2/20 9:29 AM TRANSACTION SUMMARY



Water Right Summary

get image list

WR File Number: C 04325 Subbasin: CUB Cross Reference: -

Primary Purpose: POL POLLUTION CONTROL WELL

Primary Status: PMT PERMIT

Total Acres: Subfile: - Header: -

Total Diversion: 0 Cause/Case: -

Agent: LT ENVIRONMENTAL INC

Contact: DUSTIN HELD
Owner: XTO ENERGY INC
Contact: KYLE LITTRELL

Documents on File

					Sta	atus		From/			
		Trn#	Doc	File/Act	1	2	Transaction Desc.	To	Acres	Diversion	Consumptive
	get images	658947	EXPL	2019-09-20	PMT	APR	C 04325 POD7-10	T	0	0	
The state of the s	get images	648825	EXPL	2019-05-08	PMT	APR	C-4325 POD1-6	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number C 04325 POD1	Well Tag Source NA	64 4	Q10	6 Q 4		Tws Rng 23S 30E	X 610342	Y 3578235	Other Location Desc
C 04325 POD10	NA	4	4	2	01	23S 30E	610349	3578231	SVE-PT04
<u>C 04325 POD2</u>	NA	4	4	2	01	23S 30E	610350	3578234	BH02
<u>C 04325 POD3</u>	NA	4	4	2	01	23S 30E	610363	3578231	BH03
<u>C 04325 POD4</u>	NA	4	4	2	01	23S 30E	610360	3578239	MW01
<u>C 04325 POD5</u>	NA	4	4	2	01	23S 30E	610376	3578216	MW02
<u>C 04325 POD6</u>	NA	4	4	2	01	23S 30E	610360	3578239	MW03
<u>C 04325 POD7</u>	NA	4	4	2	01	23S 30E	610346	3578227	SVE-PT01
<u>C 04325 POD8</u>	NA	4	4	2	01	23S 30E	610334	3578228	SVE-PT02
C 04325 POD9	NA	4	4	2	01	23S 30E	610339	3578232	SVE-PT03

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2/2/20 9:30 AM WATER RIGHT SUMMARY



Transaction Summary

EXPL Permit To Explore

Transaction Number: 648825 Transaction Desc: C-4325 POD1-6 File Date: 04/30/2019

Primary Status: PMT Permit
Secondary Status: APR Approved

Person Assigned: ******

Agent: LT ENVIRONMENTAL INC

Contact: DUSTIN HELD

Applicant: XTO ENERGY INC

Contact: KYLE LITTRELL

Events

	Date	Type	Description	Comment	Processed By
g <u>et</u> images		APP	Application Received	*	*****
	05/08/2019	FTN	Finalize non-published Trans.		*****
	06/13/2019	QAT	Quality Assurance Completed	DATA	*****
	07/16/2019	QAT	Quality Assurance Completed	IMAGE	*****

Water Right Information	n		
WR File Nbr	Acres	Diversion	Consumptive Purpose of Use
C 04325	0	0	MON MONITORING WELL
**Point of Diversion	1		
C 04325 POD2		610350	3578234
C 04325 POD1		610342	3578235
C 04325 POD3		610363	3578231
C 04325 POD6		610360	3578239
C 04325 POD4		610360	3578239
C 04325 POD5		610376	3578216
			_

Remarks

"SOIL BORING TO BE INSTALLED TO DELINEATE IMPACTS TO SOIL AT THE JRU#10 BATTERY LOCATION PER NMOCD INCIDENT # NAB1904653072. SOIL BORING, WELL INFORMATION AND FIGURE IS ATTACHED"

Conditions

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- 4 No water shall be appropriated and beneficially used under this permit.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.

- C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record. The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.
- The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable
- 7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.
- P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.
- Q The State Engineer retains jurisdiction over this permit.
- R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

Action of the State Engineer

IT IS THE PERMITTEE'S RESPONSIBILITY TO OBTAIN ALL AUTHORIZATIONS AND PERMISSIONS TO DRILL ON PROPERTY OF OTHER OWNERSHIP BEFORE COMMENCING ACTIVITIES UNDER THIS PERMIT.

** See Image For Any Additional Conditions of Approval **

 Approval Code:
 A - Approved

 Action Date:
 05/08/2019

 Log Due Date:
 05/08/2020

State Engineer: John R. D Antonio,

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

2/2/20 9:30 AM TRANSACTION SUMMARY



New Mexico Office of the State Engineer

Transaction Summary

EXPL Permit To Explore

Transaction Number: 658947 Transaction Desc: C 04325 POD7-10 File Date: 09/12/2019

Primary Status: PMT Permit
Secondary Status: APR Approved

Person Assigned: ******

Agent: LT ENVIRONMENTAL INC
Contact: DANIEL R MOIR, PG
Applicant: XTO ENERGY INC
Contact: KYLE LITTRELL

Events

Date	Type	Description	Comment	Processed By
get 09/12/2019 ages	APP	Application Received	*	*****
09/20/2019	FTN	Finalize non-published Trans.		*****
10/11/2019	QAT	Quality Assurance Completed	DATA	*****
10/28/2019	QAT	Quality Assurance Completed	IMAGE	*****

Water Right Information			
WR File Nbr	Acres	Diversion	Consumptive Purpose of Use
C 04325	0	0	POL POLLUTION CONTROL WELL
**Point of Diversion			
C 04325 POD7		610346	3578227
C 04325 POD8		610334	3578228
C 04325 POD10		610349	3578231
C 04325 POD9		610339	3578232

Remarks

"SOIL VAPOR EXTRACTION (SVE) PILOT WELLS TO BE INSTALLED TO TEST THE EFFECTIVENESS OF MITIGATING IMPACTS TO SOIL AT THE JRU#10-BATTERY LOCATION PER NMOCD INCIDENT #NAB1904653072 & REMEDIATION PMT #: 2RP-3179, 2RP-3464, 2RP-5243.

"IF PILOT TESTING PROVES SUCCESSFUL, THE SVE PILOT WELLS ARE ANTICIPATED TO BE LEFT IN PLACE FOR UP TO 2 YEARS. DEPTH TO GROUNDWATER IS GREATER THAN 150 FEE BELOW GROUND SURFACE BASED ON PREVIOUS DRILLING ACTIVITIES IN THE VICINTY.

"WELL LOCATIONS ARE DEPICTED ON THE ATTACHED FIGURE. BLM PERMISSION TO COMPLETE WORK AT THIS LOCATION IS ALSO INCLUDED"

Conditions

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- 4 No water shall be appropriated and beneficially used under this permit.

- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.
- C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record. The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.
- The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable
- 7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.
- P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.
- Q The State Engineer retains jurisdiction over this permit.
- R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

Action of the State Engineer

** See Image For Any Additional Conditions of Approval **

Approval Code: A - Approved **Action Date:** 09/20/2019 **Log Due Date:** 09/30/2020

State Engineer: John R. D Antonio,

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

2/2/20 9:30 AM TRANSACTION SUMMARY



New Mexico Office of the State Engineer

Water Right Summary

get image list

WR File Number: C 04200 Subbasin: CUB Cross Reference: -

Primary Purpose: EXP EXPLORATION

Primary Status: PMT PERMIT

Total Acres: Subfile: - Header: -

Total Diversion: 0 Cause/Case: -

Agent: ATKINS ENGR ASSOC INC

Contact: CHRIS CORTEZ (STACY MILLS)
Owner: JIMMY MILLS 2005 GST TRUST
Contact: FRANKIE JO MILLS, TRUSTEE
Owner: JIMMY MILLS GST TRUST
Contact: FRANKIE JO MILLS, TRUSTEE

Documents on File

				Sta	itus		From/		
	Trn#	Doc	File/Act	_	2	Transaction Desc.	To	Acres	Diversion Consumptive
get image	619310	EXPL	2018-01-30	PMT	APR	C 04200 POD1-5	T	0	0

Current Points of Diversion

(NAD83 UTM in meters)

POD Number C 04200 POD1	Well Tag Source NA		X Y 511803 3577058	Other Location Desc
C 04200 POD2	NA	2 2 07 23S 31E 6	511893 3577123 🌑)
C 04200 POD3	NA	2 2 07 23S 31E 6	512130 3577147 🌑)
C 04200 POD4	NA	4 4 06 23S 31E 6	511996 3577521 🌑)
C 04200 POD5	NA	4 4 06 23S 31E 6	512139 3577393 🌑)

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

2/2/20 9:31 AM WATER RIGHT SUMMARY



New Mexico Office of the State Engineer

Transaction Summary

72121 All Applications Under Statute 72-12-1

Transaction Number: 534227 Transaction Desc: C 03668 POD1 File Date: 08/13/2013

Primary Status:PMTPermitSecondary Status:APRApproved

Person Assigned: ******

Applicant: J T MILLS 2005 GST TRUST **Contact:** STACY MILLS TRUSTEE

Events

	Date	Type	Description	Comment	Processed By
get images	08/13/2013	APP	Application Received	*	*****
	09/19/2013	FIN	Final Action on application		*****
	09/19/2013	WAP	General Approval Letter		*****
	09/15/2014	QAT	Quality Assurance Completed	DATA	*****
	10/07/2014	QAT	Quality Assurance Completed	IMAGE	*****
	10/10/2014	ARW	WRAB Main File Rm Arch Sect	C 03668 Archived	*****

Change To:

WR File Nbr	Acres	Diversion	Consumptive Purpose of Use
C 03668		3	STK 72-12-1 LIVESTOCK WATERING

**Point of Diversion

C 02492 POD2 611767 3576996

Remarks

"THIS WELL WAS DRILLED AS A SUPPLEMENTAL WELL UNDER OSE FILE C-2492-POD2, THE WELL DIDN'T PRODUCE ENOUGH WATER TO BE USED SUPPLEMENTAL TO C-2492. IT WAS RETAINED TO BE USED AS A LIVESTOCK WATER WELL. PER ANDY MORLEY, DEFAULT C-2492POD2"

"WELL RECORD RECD 09/09/13, BMS DRILLING WD-1509 DRILLER. LETTER SENT TO BMS REPRIMANDS 19.27.4.21. INCOMPLETE WELL RECORD LATE"

Conditions

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- Total diversion from all wells under this permit number shall not exceed 3 acrefeet per annum.
- 14 This permit authorizes the diversion of water for watering livestock. The total diversion of water under this permit shall not exceed 3 acre-feet per year.
- 18 Any diversion of water made in excess of the authorized maximum diversion

amount shall be repaid with twice the amount of the over-diversion during the following calendar year. Repayment shall be made by either: (a) reducing the diversion from the well that is the source of the over-diversion; or (b) acquiring or leasing a valid, existing consumptive use water right in an amount equal to the repayment amount and submitting to the State Engineer for his approval a plan for the proposed repayment.

Q The State Engineer retains jurisdiction over this permit.

Action of the State Engineer

SEE ALL GENERAL CONDITIONS OF APPROVAL

** See Image For Any Additional Conditions of Approval **

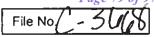
Approval Code: A - Approved **Action Date:** 09/19/2013

State Engineer: Scott A. Verhines, P.

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

2/2/20 9:32 AM TRANSACTION SUMMARY

NEW MEALCO OFFICE OF THE STATE ENGINEER





APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS IN ACCORDANCE WITH SECTIONS 72-12-1.1, 72-12-1.2, OR 72-12-1.3 NEW MEXICO STATUTES



For fees, see State Engineer website: http://www.ose.state.nm.us/

I. APPLICANT(S)				<u> </u>		
Name: Stacy Mills, Trust	ee of the JT Mills 2005 GST Trust	Name:				
Contact or Agent:	check here if Agent	Contact or Agent: check here if Agent				
Mailing Address: PO Box	1358	Mailing Address:		SI SI		
City: Loving		City:	= = = = = = = = = = = = = = = = = = =	DSV:		
State: NM	Zip Code: 88220	State:	Zip Code: 🕤	- <u>S</u>		
Phone: Phone (Work):	☐ Home ☐ Cell	Phone: Phone (Work):	☐ Home · ☐ C			
E-mail:		E-mail:		FIG		
PURPOSE OF USE				,		
_	es that are incidental to the operations rilling operations to discover or developorks, highways and roads		nmercial, or non-profit facility			
File Information: (If existing new well, leave blank, as O	well, provide OSE no. & indicate below SE must assign no.)	vif well is to be replacer	ment, repaired or deepened, or	supplemental. I		
OSE Well No.(If Existing)		New Well No. (prov	ided by OSE)			
Driller Name: Bms Drilling	ı Co.	Driller License Nur	mber: WD-1509			
Approximate Depth of Well	` '		f Well Casing (inches): 6.00			
☐ Replacement well (List all existing wells if mon	e than one): Clean out well to Deepen well from Other (Explain):	original depth	Supplemental well (List OSE No. for all wells this v	will supplement):		
	······································					

POD No.

Sub-basin:

Log Due Date:

4		-00 A TIOL	NOTE	16	41	` 4 \	 _1_4_	Attachment	

Location (Required): Coordinate I	1	ate Plane (NAD 83	s), UTM (NAD 83), <u>or</u> I	Lat/Long (WGS84)
NM State Plane (NAD83) - In feet	NM West Zone		X (in feet): Y (in feet):	
JTM (NAD83) - In meters	UTM Zone 13N UTM Zone 12N		Easting (in met Northing (in me	•
at/Long (WGS84) - To 1/10 th of econd	Latitude: 32.324255 Longitude: 103.81255	deg deg	min min	sec
and Grant (if applicable):			- · · · · - · · · · · · · · · · · · · ·	
oint of Diversion is on Land Owr	ned by (Required): J T Mills 2	005 Gst Trust		
Other Location Information (complet	e the below, if applicable):			
PLSS Quarters or Halves: SW NE NE	Section: 07	Township: 23S	Range: 31É	County: Eddy
Lot No: Block No:	Unit/Tract:	Subdivision:		
Hydrographic Survey:	1	Map:	Tı	ract:
other description relating point of div	version to common landmarks, s	treets, or other:		
Additional point of diversion desc	riptions are attached: Ye	s 🛛 No	If yes, how many	у
This well was drilled as a supplem supplemental to C-2492. It was ret			Il didn't produce end	ough water to be used
	tained to be used as a livestoo		Il didn't produce end	ough water to be used
upplemental to C-2492. It was ret	tained to be used as a livestoo ACKNOWL	EDGEMENT	Il didn't produce end	ough water to be used
we (name of applicant(s)), Stacy	ACKNOWL Mills Print Name	EDGEMENT		ough water to be used
We (name of applicant(s)), Stacy	ACKNOWL Mills Print Name	EDGEMENT		ough water to be used
We (name of applicant(s)), Stacy	ACKNOWL Mills Print Name	EDGEMENT		ough water to be used
We (name of applicant(s)), Stacy of the statements and statements are statements.	ACKNOWL Mills Print Name	EDGEMENT	ief.	ough water to be used
We (name of applicant(s)), Stacy of the statements and statements are statements.	ACKNOWL Mills Print Name	EDGEMENT (s) Applicant Sig	ief. nature	ough water to be used
We (name of applicant(s)), Stacy of the statements applicant Signature	ACKNOWL Mills Print Name (are true to the best of (my, our) !	EDGEMENT (s) Applicant Sig	ief.	
We (name of applicant(s)), Stacy of the statements applicant Signature This application	ACKNOWL Mills Print Name are true to the best of (my, our) by ACTION OF THE S	EDGEMENT (s) Applicant Sig	ief.	approval.
We (name of applicant(s)), Stacy ffirm that the foregoing statements a pplicant Signature This application Vitness my hand and seal this By: Manual	ACKNOWL Mills Print Name are true to the best of (my, our) to the best of the best of the best of the action of	EDGEMENT (s) Applicant Sig STATE ENGINEER ched general and s	nature Repecific conditions of a	approval.
We (name of applicant(s)), Stacy ffirm that the foregoing statements a pplicant Signature This application Vitness my hand and seal this Sy: Signature	ACKNOWL Mills Print Name are true to the best of (my, our) to the best of the best of the best of the action of	EDGEMENT (s) Applicant Sig	nature Repecific conditions of a	approval.
We (name of applicant(s)), Stacy of the foregoing statements and policant Signature This application of the foregoing statements and seal this search of the foregoing statements are searched as the foregoing statement and seal this search of the foregoing statements and seal this	ACKNOWL Mills Print Name are true to the best of (my, our) to the best of the best of the best of the action of	EDGEMENT (s) Applicant Sig STATE ENGINEER ched general and s	nature Repecific conditions of a	approval.
We (name of applicant(s)), Stacy of the foregoing statements and policant Signature This application of the foregoing statements and seal this signature of the foregoing statements are seal that signature of the signature of the signature of the signature of the signature of t	ACKNOWL Mills Print Name are true to the best of (my, our) to the best of the best of the best of the action of	EDGEMENT (s) Applicant Sig STATE ENGINEER Ched general and s 20 Print	nature specific conditions of a	approval.
We (name of applicant(s)), Stacy of the foregoing statements and applicant Signature This application of the foregoing statements are possible to the foregoing statements and application of the foregoing statements are possible to the foregoing statements and application of the foregoing statements are possible to the for	ACKNOWL Mills Print Name are true to the best of (my, our) to the action of the acti	EDGEMENT (s) Applicant Sig STATE ENGINEER Ched general and s 20 Print	nature specific conditions of a	approval.

Page 2 of 4

GENERAL CONDITIONS OF APPROVAL (A thru P)

- O6-A The maximum amount of water that may be appropriated under this permit is 3.000 acre-feet in any year.
- The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated. A licensed driller shall not be required for the construction of a driven well; provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter (Section 72-12-12).
- O6-C Driller's well record must be filed with the State Engineer within 20 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.
- O6-D The casing shall not exceed 7 inches outside diameter except under specific conditions in which reasons satisfactory to the State Engineer are shown.
- O6-E To request a change to the use of water authorized under this permit, the permittee shall file an application with the State Engineer.
- O6-F An application for a new 72-12-1.1 domestic well permit where the proposed point of diversion is to be located on the same legal lot of record as an operational 72-12-1.1 domestic well shall be treated as an application for a supplemental well.
- O6-G If artesian water is encountered, all rules and regulations pertaining to the drilling and casing of artesian wells shall be complied with.
- O6-H The drilling of the well and amount and uses of water permitted are subject to such limitations as may be imposed by a court, or by lawful municipal or county ordinance which are more restrictive than the conditions of this permit and applicable State Engineer regulations.
- O6-I The permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

 Trn Desc: C 03668 LIVESTOCK
 File Number: C 03668

 Log Due Date: ______
 Trn Number: 534227

Form: wr-01 page: 1

GENERAL CONDITIONS OF APPROVAL (Continued)

- The well shall be set back a minimum of 50 ft. from an existing well of other ownership unless a variance has been granted by the State Engineer. The State Engineer may grant a variance for a replacement well or to allow for maximum spacing of the well from a source of groundwater contamination. The well shall be set back from potential sources of contamination in accordance with rules and regulations of the NM Environment Department.
- O6-K Pursuant to section 72-8-1 NMSA, the permittee shall allow the State Engineer and his representatives entry upon private property for the performance of their respective duties, including access to the well for meter reading and water level measurement.
- O6-L The permit is subject to cancellation for non-compliance with the conditions of approval or if otherwise not exercised in accordance with the terms of the permit.
- O6-M The right to divert water under this permit is subject to curtailment by priority administration as implemented by the State Engineer or a court.
- O6-N In the event of any change of ownership to this permit the new owner shall file a change of ownership form with the State Engineer in accordance with Section 72-1-2.1 NMSA.
- O6-O This well permit shall automatically expire unless the well is completed and the well record is filed with the State Engineer within one year of the date of issuance of the permit. It is the responsibility of the permit holder to ensure that the well record has been properly filed with the State Engineer.
- O6-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between geologic zones.
- O6-Q The State Engineer retains jurisdiction over this permit.

SPECIFIC CONDITIONS OF APPROVAL

06-1A Depth of the well shall not exceed the thickness of the valley fill.

 Trn Desc:
 C 03668 LIVESTOCK
 File Number:
 C 03668

 Log Due Date:
 Trn Number:
 534227

Form: wr-01 page: 2

SPECIFIC CONDITIONS OF APPROVAL (Continued)

- O6-10 Total diversion from all wells under this permit number shall not exceed 3.000 acre-feet per annum.
- O6-14 This permit authorizes the diversion of water for watering livestock. The total diversion of water under this permit shall not exceed 3.000 acre-feet per year.
- Any diversion of water made in excess of the authorized maximum diversion amount shall be repaid with twice the amount of the over-diversion during the following calendar year. Repayment shall be made by either: (a) reducing the diversion from the well that is the source of the over-diversion; or (b) acquiring or leasing a valid, existing consumptive use water right in an amount equal to the repayment amount and submitting to the State Engineer for his approval a plan for the proposed repayment.
- 06-Q The State Engineer retains jurisdiction over this permit.

ALL PODS SHALL BE SECURED AND CLOSED PROPERLY FOR THE PUBLIC WELFARE AND SAFETY FOR OPEN GROUND TO PREVENT PHYSICAL HAZARDS.

ACTION OF STATE ENGINEER

This application is approved for the use indicated, subject to all general conditions and to specific conditions listed above.

Witness my hand and seal th	is 19 day of	Sep	A.D.,	2013
Scott A. Verhines, P.E.	, State Engir	neer		
By: Mendie (Yglanda Mendiola				

	Trn	Desc:	C 03668 LIVESTOCK		File Number:	C 03668
Log	Due	Date:			Trn Number:	534227
		Porm.	01	maga. 3		

Form: wr-01 page:

Locator Tool Report

General Information:

Application ID:479

Date: 08-16-2013

Time: 11:45:07

WR File Number: G-02492 POD2

Purpose: POINT OF DIVERSION

Applicant First Name: STACY MILLS Applicant Last Name: TRUSTEE

GW Basin: CARLSBAD County: EDDY

Critical Management Area Name(s): NONE Special Condition Area Name(s): NONE

Land Grant Name: NON GRANT

PLSS Description (New Mexico Principal Meridian):

NW 1/4 of SW 1/4 of NE 1/4 of NE 1/4 of Section 07, Township 23S, Range 31E.

Coordinate System Details:

Geographic Coordinates:

Latitude: Longitude: 32 Degrees 19 Minutes 27.3 Seconds N 103 Degrees 48 Minutes 45.2 Seconds W

Universal Transverse Mercator Zone: 13N

NAD 1983(92) (Meters) NAD 1983(92) (Survey Feet) NAD 1927 (Meters) NAD 1927 (Survey Feet) N: 3,576,997 E: 611,768 N: 11,735,532 E: 2,007,109 N: 3,576,795 E: 611,816 N: 11,734,869 E: 2,007,268

State Plane Coordinate System Zone: New Mexico East

 NAD 1983(92) (Meters)
 N: 146,940
 E: 214,032

 NAD 1983(92) (Survey Feet)
 N: 482,087
 E: 702,204

 NAD 1927 (Meters)
 N: 146,922
 E: 201,480

 NAD 1927 (Survey Feet)
 N: 482,027
 E: 661,021

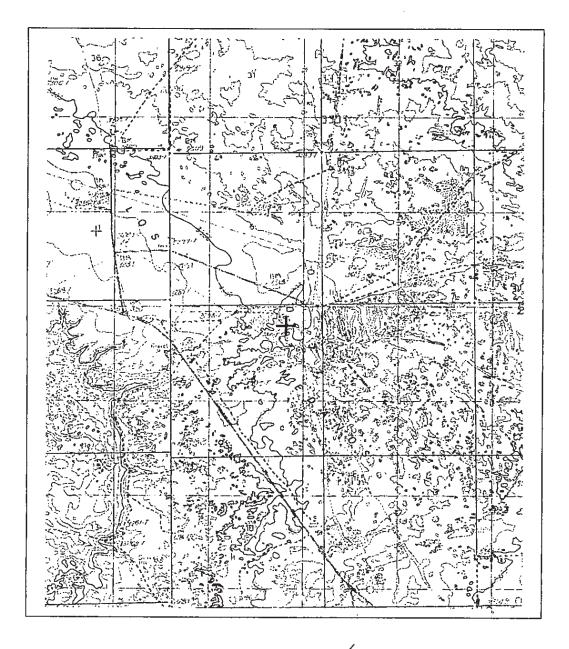
C-3448 534227

Page 1 of 2

Print Date: 08/16/2013

NEW MEXICO OFFICE OF STATE ENGINEER

Locator Tool Report





C-3494 WR File Number: C-02492-POD2 Scale: 1:39,661

Northing/Easting: UTM83(92) (Meter): N: 3,576,997 E: 611,768

Northing/Easting: SPCS83(92) (Feet): N: 482,087 E: 702,204

GW Basin: Carlsbad

Page 2 of 2

C-3448 Print Date: 08/16/2013 534227

Scott A. Verhines, P.E State Engineer



Roswell Office 1900 WEST SECOND STREET ROSWELL, NM 88201

STATE OF NEW MEXICO OFFICE OF THE STATE ENGINEER

Trn Nbr: 534227

File Nbr: C 03668 LIVESTOCK

(SEE C-2492POD2)

Sep. 19, 2013

STACY MILLS, TRUSTEE
J T MILLS 2005 GST TRUST
PO BOX 1358
LOVING, NM 88220

Greetings:

Enclosed is your copy of the above numbered permit that has been approved in accordance with NM Statute Section 72-12-1 subject to the conditions set forth on the approval page.

Please review the conditions for any required submittals. If submittals are not made by the date(s) indicated in the conditions, your rights under this permit shall expire by the date indicated on your permit.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us or will be mailed upon request.

Sincerely,

Yolanda Mendiola (575)622-6521

Enclosure

Scott A. Verbines, P.E. State Engineer

License No: WD-1509



1900 West Second Street Roswell, NM 88201 575-622-6521 Fax: 575-623-8559

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

September 18, 2013

BMS DRILLING COMPANY JOE D ROYBAL (LD) 857 HILL ROAD BERNALILLO, NM 87004

Greetings:

Information received in this office indicates that you were the driller of File No. C-2492-POD2 permitted in name of Jimmy Mills GST Trust and that the completion date of this well was May 31, 2012.

The licensing requirements of the State of New Mexico are set forth in the Rules and Regulations Governing Well Driller Licensing; Construction, Repair and Plugging of Wells, which read, in part:

19.27.4.21 REPRIMANDS, SUSPENSION OR REVOCATION OF WELL DRILLER LICENSE:

The state engineer may issue a written reprimand, a compliance order issued pursuant to Section 72-2-18 NMSA, or, after notice and hearing held pursuant to 19.25.2 NMAC and 19.25.4 NMAC, suspend or revoke a well driller license if it is found that a well driller:

- A. made a material misstatement of facts in his application for license; or
- B. failed to submit or submitted an incomplete well record or well log; or
- C. made a material misstatement of facts in a well record or well log; or
- D. drilled a well in any declared underground water basin without a state engineer permit; or
- E. violated the conditions of the state engineer permit under which the well was being drilled; or

19.27.4.29 WELL DRILLING - GENERAL REQUIREMENTS:

- K. Well record: The well driller shall keep a record of each well drilling activity as the work progresses.
- (1) Time for filing: The well driller shall file a complete well record with the state engineer and the permit holder no later than twenty (20) days after completion of the well drilling.
- (2) Form content: The well record shall be on a form prescribed by the state engineer and shall include the name and address of the permittee, the well driller's name and license number, the state engineer file number, the name of each registered drill rig supervisor that supervised well drilling activities, the location of the well (reported in latitude and longitude using a global positioning system (gps) receiver capable of five (5) meters accuracy), the date when drilling or other work began, the date when drilling or other work concluded, the depth of the well, the depth to water first encountered, the depth to water upon completion of the well (measured by a method approved by the state engineer), the estimated well yield, the method used to estimate well yield, the size and type of casing, the location of perforations, the location of the sanitary seal; and other information deemed necessary by the state engineer. The well record shall include a completed well log. The well log shall include detailed information on the depth and thickness of all strata penetrated, including whether each stratum was water bearing.



STATE OF NEW MEXICO OFFICE OF THE STATE ENGINEER

Page 2 BMS Drilling September 11, 2013

19.27.4.30 WELL DRILLING - NON-ARTESIAN WELL REQUIREMENTS: A licensed well driller shall ensure that the well drilling activities associated with the drilling of non-artesian wells are made in accordance with 19.27.4.29 NMAC and the following requirements:

A. Annular seal: All wells shall be constructed to prevent contaminants from entering the hole from the land surface by sealing the annular space around the outermost casing. When necessary, annular seals will be required to prevent inter-aquifer exchange of water, to prevent the loss of hydraulic head between geologic zones, and to prevent the flow of contaminated or low quality water. Sealing operations shall be made with cement grout or bentonite-based sealing material acceptable to the state engineer. Casings shall be centered in the bore hole so grout or sealing materials may be placed evenly around the casing.

Please be advised that any complaints and/or violations that are on file with this office will be placed in your well driller's file as a permanent and public record and will be taken into consideration at the time of renewal of license.

Sincerely,

Andy Morley District 2 Manager

Sdymaly

cc: Şanta Fe

Fino. C-3520

NEW MEXICO OFFICE OF THE STATE ENGINEER



APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS IN ACCORDANCE WITH SECTIONS 72-12-1.1, 72-12-1.2, OR 72-12-1.3 NEW MEXICO STATUTES

For fees, see State Engineer website: http://www.ose.state.nm.us/

		1012 0	ν.
7	-222	2.2	А

1. APPLICANT(S)						
Name:		Name:				
Slash 46, Ix.		13.	LM			
Contact or Agent:	check here if Agent [Contact or A	ngent: ch	eck here if Agent 🗌		
Stacey Mills		5	TEVE DALM			
Mailing Address:		Mailing Add	ress: / G	_		
Po Box 1358			620 E.GRE	ENE ST.		
City: Loving, Nm		City:	CARL SRAD			
	Zip Code:	State:	7in	Code:		
NM	88256		JM 21p	987.20		
	☐ Home ☐ Cell	Phone:		Home Cell		
1	mic 10		Phone (Work): 575-234-5942			
E-mail (optional)		E-mail (option	E-mail (optional):			
<u>∞</u> ¥ 4				<u> </u>		
2. WELL LOCATION NOTE: If more	than one (1) well, con	nplete form WR-08 (Atta	chment 1 – POD Descripti	ons)		
Location (Required): Quardinate	ocation must be New	Mexico State Plane (NAI	D 83), UTM (NAD 83), <u>or</u> L	at/Long (WGS84)		
NM State Plane (NAD83) - In feet	NM West Zone]	X (in feet):			
AT OSC OII	NM Central Zone	j	Y (in feet):			
SI Re 2	NM East Zone]				
UTM (NAD83) - In meters	UTM Zone 13N]	Easting (in met	ers):		
	UTM Zone 12N	UTM Zone 12N		Northing (in meters):		
Lat/Long (WGS84) - To 1/10 ^m of	Latitude:	N 32 deg	19 min	24.70 sec		
second	Longitude:	₩ (03 deg	49 min	24.80 sec		
Land Grant Name (if applicable):	PLM					
Point of Diversion is on Land Own	ned by (Required):	BLM				
Other Location Information (complet	e the below, if applical					
PLSS Quarters or Halves: SU	u nw nw s	ection: 7 Townshi	p: 235 Range: 31 E	County: Eddy		
Lot No: Block No:	Unit/Tract:	Subdivisio	n:			
Hydrographic Survey:		Мар:	Tr	act:		
Other description relating point of di Intersection NM 128	version to common lan	dmarks, streets, or othe then 14 mule	Forth North Sie	mile east of		
Additional point of diversion desc			If yes, how many			
•	-					
	FOR OSE INTERNAL	HSE	Application for Permit	, Form wr-01, Rev8/25/11		
	File Number: (-3		Tm Number: 487244			
	Sub-basin:	·	13520-POD1 LOGD	<u> </u>		
	GRD-DSGII. /	POD NO.7	// スラノ <i>ひ~でかり</i> フェ LOG U	ug wate. /U/ // ////		

;	3. PURPOSE OF USE									
	☐ Domestic use for one household									
	Livestock watering									
	Domestic well to accompany a hor									
Y¥ ☐ Domestic use to serve _ ` _ households										
١	☐ Drinking and sanitary uses that are incidental to the operations of a governmental, commercial, or non-profit facility									
1	Prospecting, mining or drilling operations to discover or develop natural resources									
	☐ Construction of public works, highways and roads ☐ Domestic use for one household and livestock watering									
[Domestic use for one nousehold a	ind livestock watering								
1	. WELL INFORMATION		1113 - a. 11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1							
File Information: (If existing well, provide OSE no. & indicate below if well is to be replacement, repaired or deepened, or sup new well, leave blank, as OSE must assign no.)										
ļ	OSE Well No.(If Existing)		New Well No. (provided by OSE) C-3520-PoD1							
-	Driller Name:		Driller License Number:							
-		· ω΄	Outside Diameter of Well Casing (inches): 7"							
	Replacement well	Repair or Deepen:		☐ Supplemental well						
	(List all existing wells if more than one	Clean out well to ori	ginal depth	(List OSE No. for all wells this will supplement):						
-		Deepen well from _	to ft.							
		Other (Explain):		}						
Ĺ		<u></u>								
5	S. ADDITIONAL STATEMENTS OR E	XPLANATIONS								
	XXBy Telecom 9-19- Stock Watering use	2011, APPlicant a	emended to	ROSWELL, WEEK OFFICE ROSWELL, WEEKICO RO						
	Stock Watering use	only at the to	m 1	SET						
		110 11	7E,							
L	U ∠Z									
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	I, We (name of applicant(s)), Stac	ey /4,//5 Print Name(c)	STEVE VAIN RE						
	affirm that the foregoing statements ar	•	•	ef						
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Ly no Ola-										
	Applicant Signature		Applicant Sign	nature						
ſ		ACTION OF THE STATE ENGI	NEER (FOR OSE	USE ONLY)						
	This application	is approved subject to the attac	hed general and sp	pecific conditions of approval.						
	Witness my hand and seal this	7th day of October	20 //	, for the State Engineer,						
	Vall 1) and I		£:11	Duemling						
	By: Diff Many Signature	·····	Print	Daemin						
	and Carlet of Projection	Parustar								
ľ	Title: Carlsdad Basin Supervisor Print									
Ĺ		EOD OSE INTERNAL LISE	· · · · · · · · · · · · · · · · · · ·	Application for Permit, Form wr-01, Rev8/25/11						
FOR OSE INTERNAL USE			<u> </u>							
	File Number: C · 3520 Trn Number: 487244									
		Sub-basin: C	POD No. 2 -039	520-POD1 Log Due Date: 10/26/2012						

GENERAL CONDITIONS OF APPROVAL (A thru O)

- 06-A The maximum amount of water that may be appropriated under this permit is 3.000 acre-feet in any year.
- 06-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated. A licensed driller shall not be required for the construction of a driven well; provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter (Section 72-12-12).
- 06-C Driller's well record must be filed with the State Engineer within 20 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.
- 06-D The casing shall not exceed 7 inches outside diameter except under specific conditions in which reasons satisfactory to the State Engineer are shown.
- 06-E To request a change to the use of water authorized under this permit, the permittee shall file an application with the State Engineer.
- An application for a new 72-12-1.1 domestic well permit where the 06-F proposed point of diversion is to be located on the same legal lot of record as an operational 72-12-1.1 domestic well shall be treated as an application for a supplemental well.
- 06-G If artesian water is encountered, all rules and regulations pertaining to the drilling and casing of artesian wells shall be complied with.
- 06-H The drilling of the well and amount and uses of water permitted are subject to such limitations as may be imposed by a court or by lawful municipal or county ordinance which are more restrictive than the conditions of this permit and applicable State Engineer regulations.
- 06-I The permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

Trn Desc: C 03520: STOCK File Number: C 03520

Log Due Date: 10/26/2012 Trn Number: 487244

> Form: wr-01 page: 1

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NEW MEXICO STATE ENGINEER OFFICE APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

GENERAL CONDITIONS OF APPROVAL (Continued)

- The well shall be set back a minimum of 50 ft. from an existing well of other ownership unless a variance has been granted by the State Engineer. The State Engineer may grant a variance for a replacement well or to allow for maximum spacing of the well from a source of groundwater contamination. The well shall be set back from potential sources of contamination in accordance with rules and regulations of the NM Environment Department.
- 06-K Pursuant to section 72-8-1 NMSA, the permittee shall allow the State Engineer and his representatives entry upon private property for the performance of their respective duties, including access to the well for meter reading and water level measurement.
 - 06-ISP) The permit is subject to cancellation for non-compliance with the conditions of approval or if otherwise not exercised in accordance with the terms of the permit.
 - O6-M The right to divert water under this permit is subject to curtailment by priority administration as implemented by the State Engineer or a court.
 - O6-N In the event of any change of ownership to this permit the new owner shall file a change of ownership form with the State Engineer in accordance with Section 72-1-2.1 NMSA.
- This well permit shall automatically expire unless the well is completed and the well record is filed with the State Engineer within one year of the date of issuance of the permit. It is the responsibility of the permit holder to ensure that the well form record has been properly filed with the State Engineer.

SPECIFIC CONDITIONS OF APPROVAL

- 06-1A Depth of the well shall not exceed the thickness of the valley fill.
- O6-10 Total diversion from all wells under this permit number shall not exceed 3.000 acre-feet per annum.

Trn Desc: C 03520: STOCK

Log Due Date: 10/26/2012 -

Form: wr-01

File Number: <u>C 03520</u>

Trn Number: 487244

page: 2

SPECIFIC CONDITIONS OF APPROVAL (Continued)

- O6-14 This permit authorized the diversion of water for watering livestock. The total diversion of water under this permit shall not exceed 3.000 acre-feet per year.
- Any diversion of water made in excess of the authorized maximum diversion amount shall be repaid with twice the amount of the over-diversion during the following calendar year. Repayment shall be made by either: (a) reducing the diversion from the well that is the source of the over-diversion; or (b) acquiring or leasing a valid, existing consumptive use water right in an amount equal to the repayment amount and submitting to the State Engineer for his approval a plan for the proposed repayment.
- LOG This permit will automatically expire unless the well C 03520 POD1 is completed and the well record filed on or before 10/26/2012.

ACTION OF STATE ENGINEER

This application is approved for the use indicated, subject to all general conditions and to specific conditions listed above.

Witness my hand and seal this 27 day of Oct A.D., 2011

John R. D Antonio, Jr., P.E., State Engineer

Bill Duemling Basin Supv.

Trn Desc: C 03520: STOCK

Log Due Date: 10/26/2012

Form: wr-01

page: 3

File Number: C 03520

Trn Number: 487244

Locator Tool Report

General Information:

Application ID:29

Date: 10-27-2011

Time: 08:48:23

WR File Number: C-03520-POD1

Purpose: POINT OF DIVERSION

Applicant First Name: STACY MILLS -- BLM

Applicant Last Name: NEW STOCK WELL (PRELIMINARY LOCATION)

GW Basin: CARLSBAD County: EDDY

Critical Management Area Name(s): NONE Special Condition Area Name(s): NONE

Land Grant Name: NON GRANT

PLSS Description (New Mexico Principal Meridian):

NE 1/4 of SW 1/4 of NW 1/4 of NW 1/4 of Section 07, Township 23S, Range 31E.

Coordinate System Details:

Geographic Coordinates:

Latitudo:

32 Degrees 19 Minutes 24.7 Seconds N

Longitude:

103 Degrees 49 Minutes 24.8 Seconds W

Universal Transverse Mercator Zone: 13N

 NAD 1983(92) (Meters)
 N: 3,576,906
 E: 610,733

 NAD 1983(92) (Survey Feet)
 N: 11,735,232
 E: 2,003,712

 NAD 1927 (Meters)
 N: 3,576,704
 E: 610,781

 NAD 1927 (Survey Feet)
 N: 11,734,569
 E: 2,003,871

State Plane Coordinate System Zone: New Mexico East

 NAD 1983(92) (Meters)
 N: 146,855
 E: 212,996

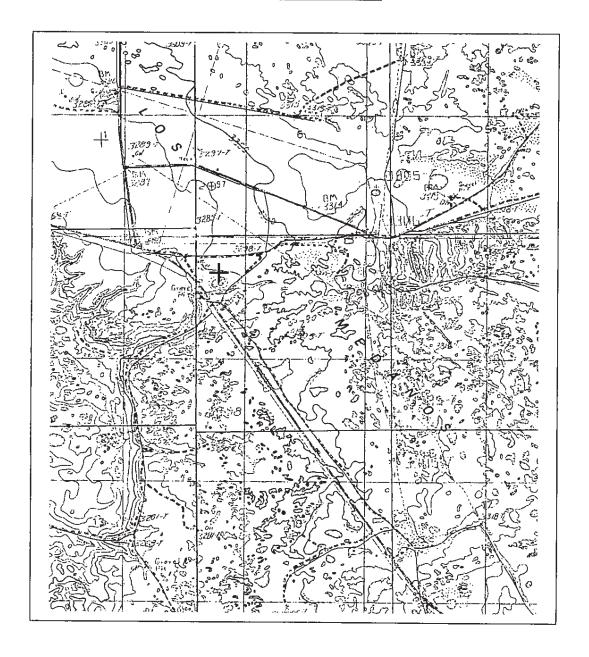
 NAD 1983(92) (Survey Feet)
 N: 481,808
 E: 698,805

 NAD 1927 (Meters)
 N: 146,837
 E: 200,444

 NAD 1927 (Survey Feet)
 N: 481,748
 E: 657,622

NEW MEXICO OFFICE OF STATE ENGINEER

Locator Tool Report





WR File Number: C-03520-POD1 Scale: 1:30,742

Northing/Easting: UTM83(92) (Meter): N: 3,576,906 E: 610,733

GW Basin: Carlsbad

Page 2 of 2 Print Date: 10/27/2011

John R. D Antonio, Jr., P.E. State Engineer



Roswell Office 1900 WEST SECOND STREET ROSWELL, NM 88201

STATE OF NEW MEXICO OFFICE OF THE STATE ENGINEER

Trn Nbr: 487244 File Nbr: C 03520

Oct. 27, 2011

STEVE DALY U.S. DEPT. OF INTERIOR BLM 620 EAST GREENE CARLSBAD, NM 88220

Greetings:

Enclosed is your copy of the above numbered permit that has been approved in accordance with NM Statute Section 72-12-1 subject to the conditions set forth on the approval page.

Please review the conditions for any required submittals. If submittals are not made by the date(s) indicated in the conditions, your rights under this permit shall expire by the date indicated on your permit.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us or will be mailed upon request.

Sincerely,

Bill Duemling (575)622-6521

Enclosure

wr_01app

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

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 38210

CONDITIONS

Operator:	OGRID:
Enchantment Water, LLC	329620
P.O Box 60	Action Number:
Jal, TX 88252	38210
	Action Type:
	[C-147] Water Recycle Long (C-147L)

CONDITIONS

Created	Condition	Condition
Ву		Date
	NMOCD has reviewed and approved the recycling containment application and related documents, submitted by [329620] Enchantment Water, LLC on July 26, 2021, for 2RF-162 - MILLS RANCH RECYCLING CONTAINMENT - FACILITY ID fVV2121556196 in Unit Letter M, Section - 06, Township - 23S, Range - 31E, Eddy County, New Mexico.	8/6/2021