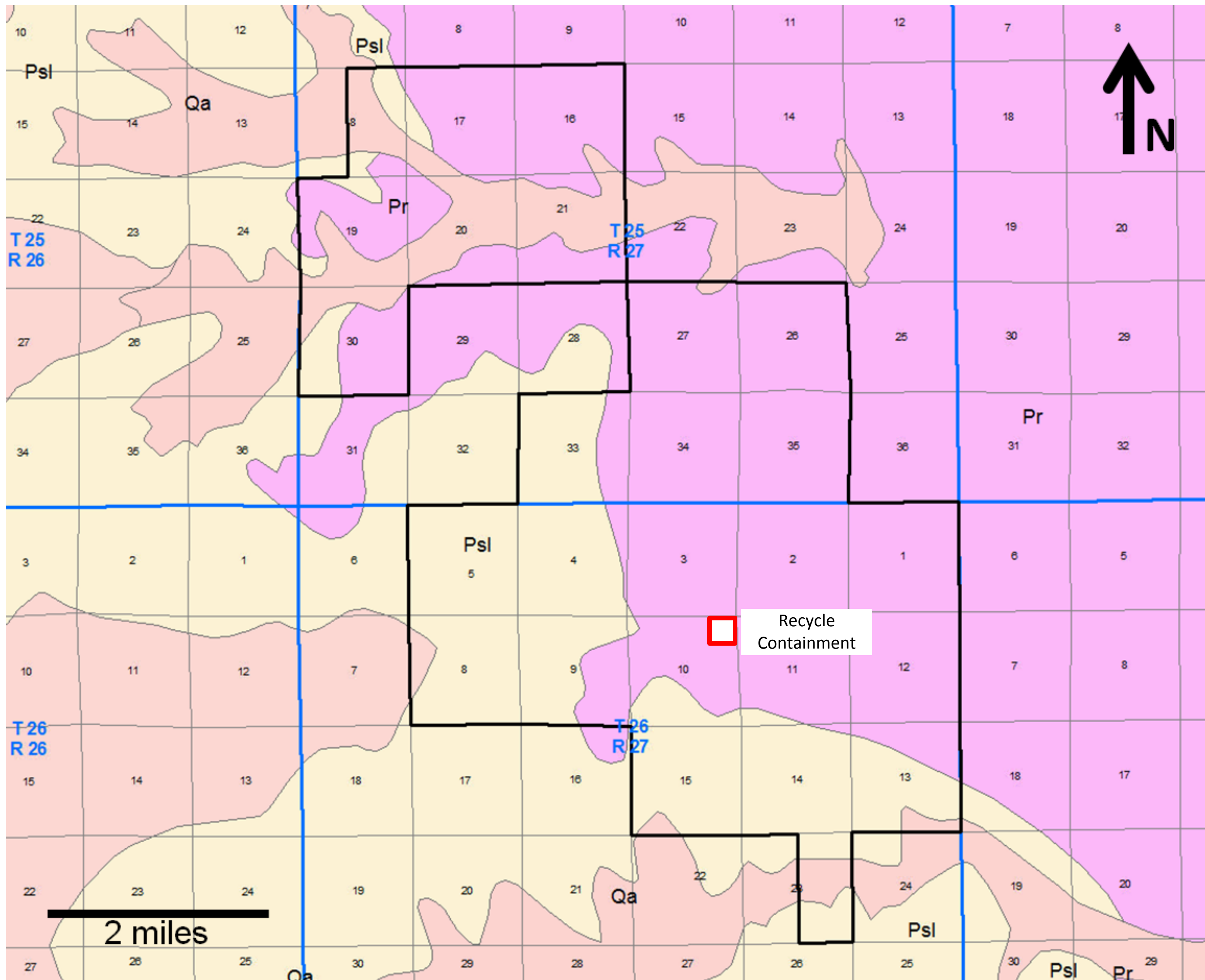


Appendix 4 – Section 10 Recycling Containment Figures

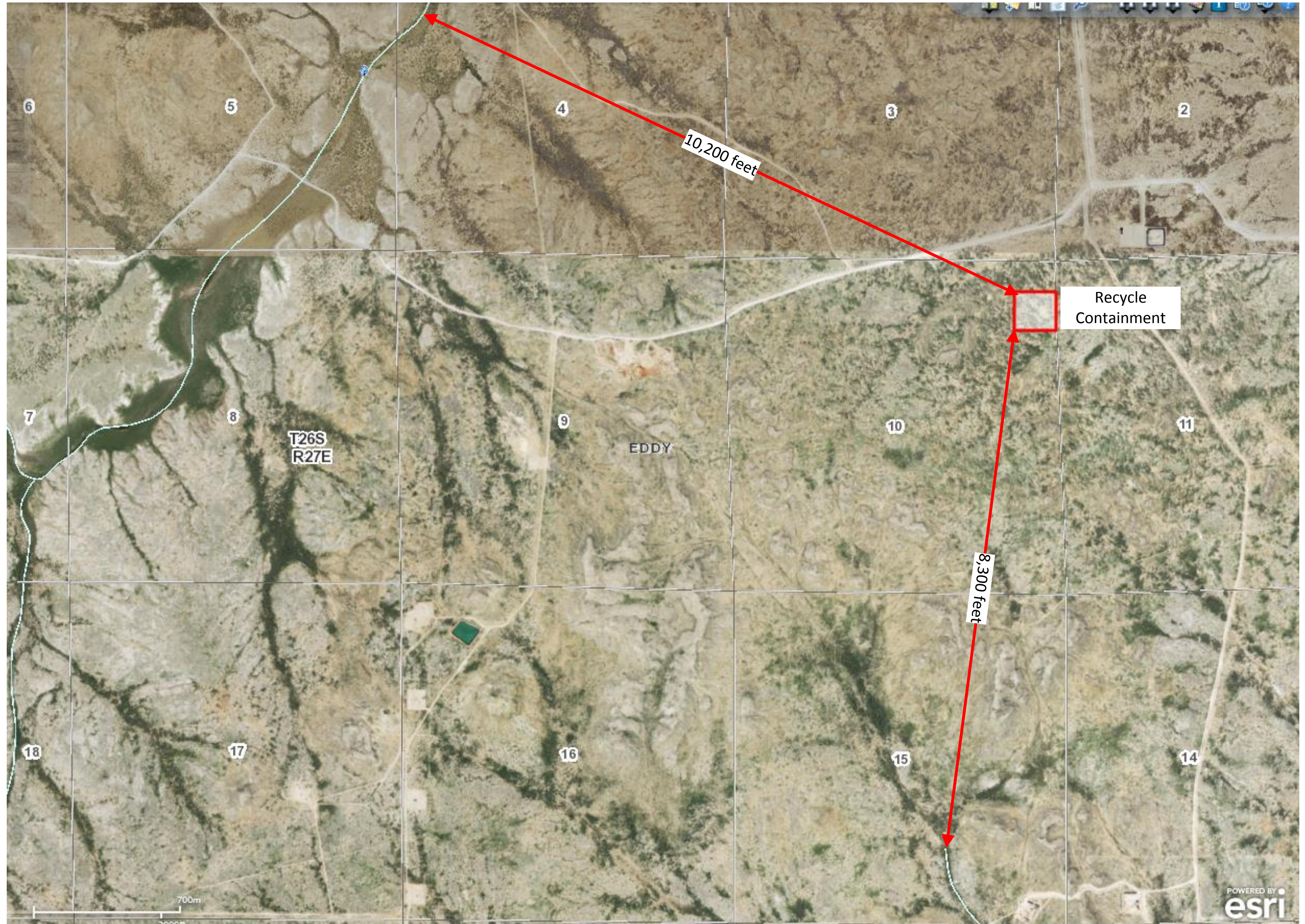
Chevron U.S.A. Inc. Hayhurst New Mexico T26S R27E Section 10 Recycle Containment

Appendix 4 / Figure 1: Geologic Map

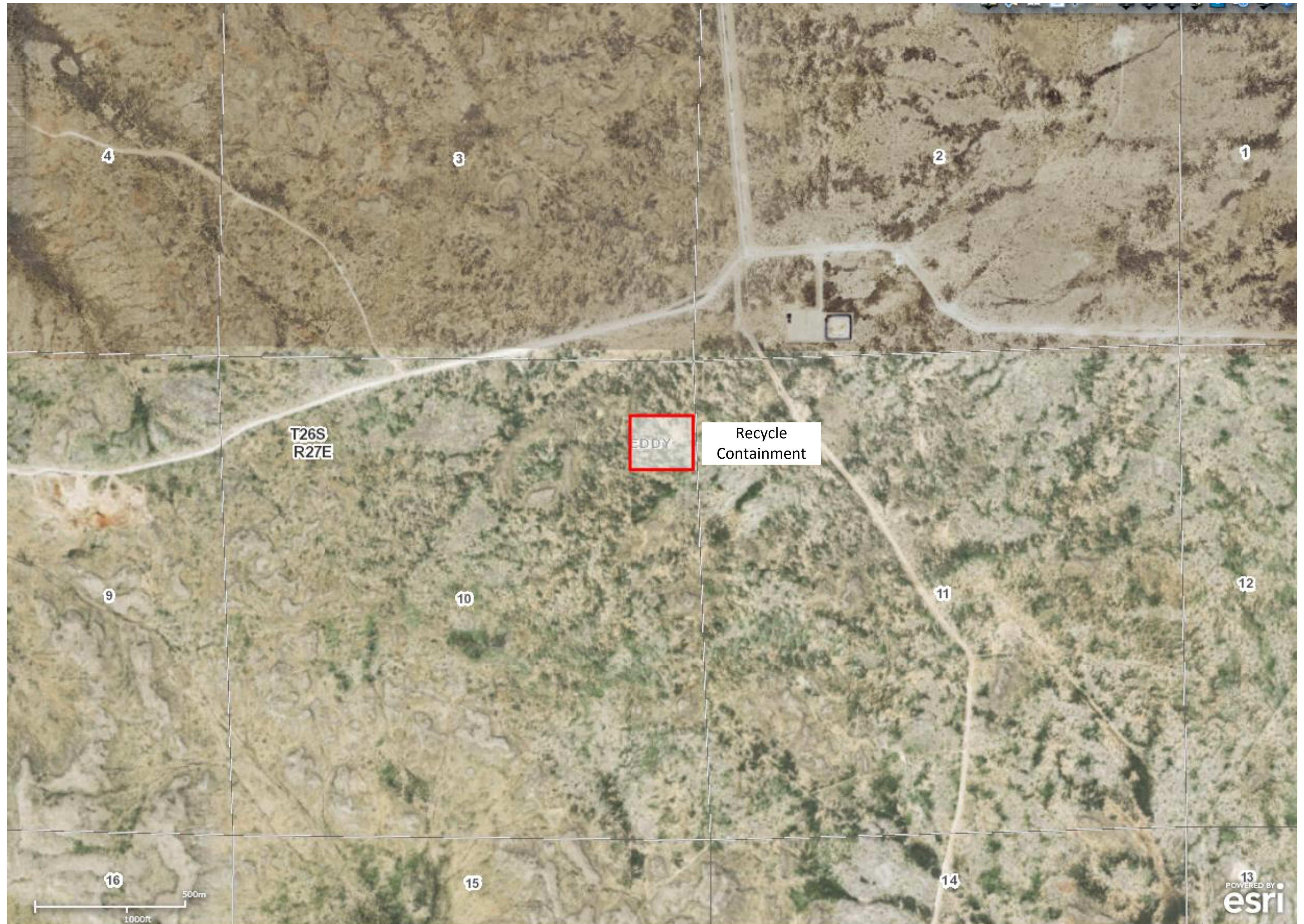


Chevron U.S.A. Inc. Hayhurst New Mexico T26S R27E Section 10 Recycle Containment

Appendix 4 / Figure 2: Surface Water Features and Watercourses

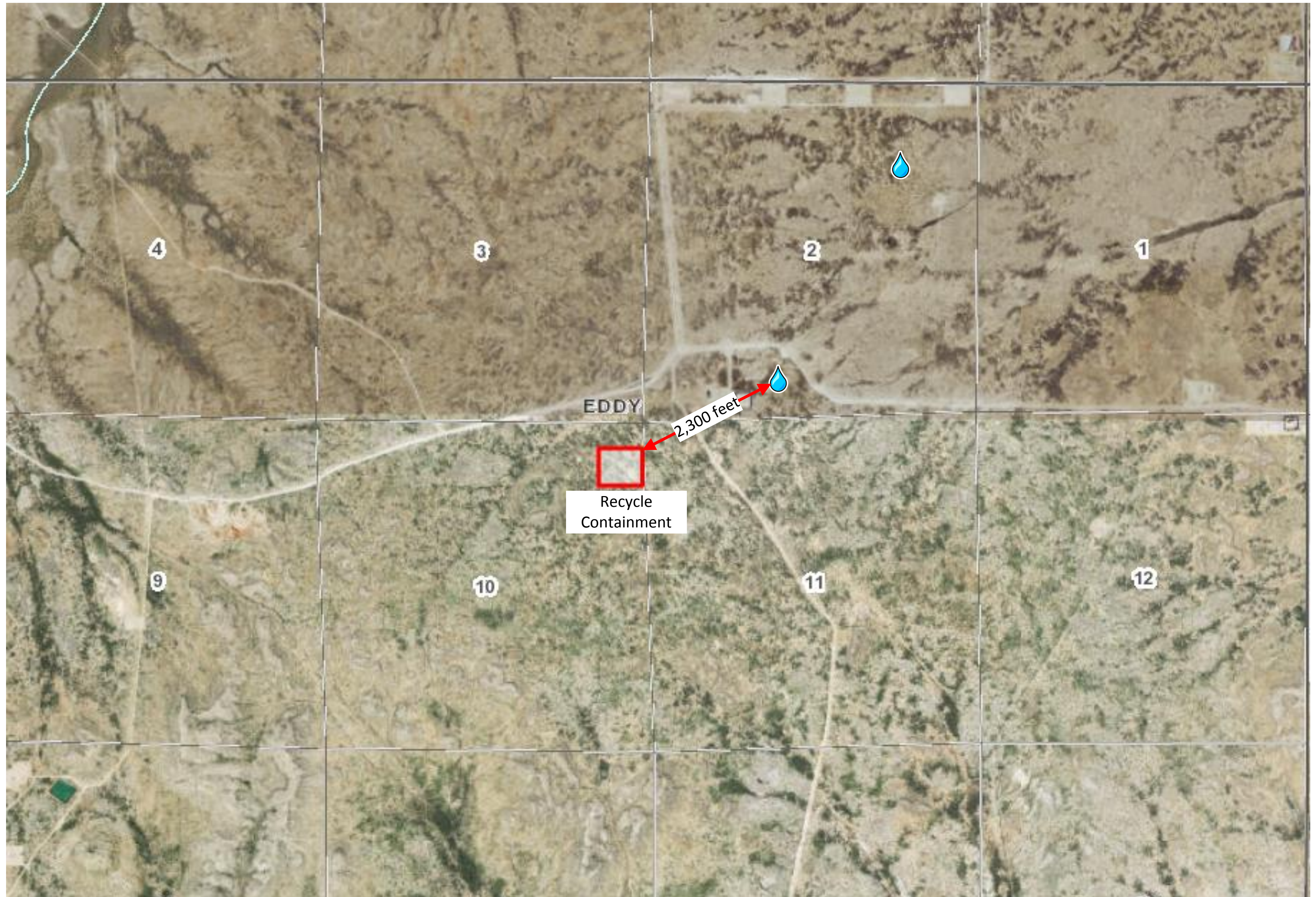


Appendix 4 / Figure 3: Permanent Residences and Institutions, Wetlands



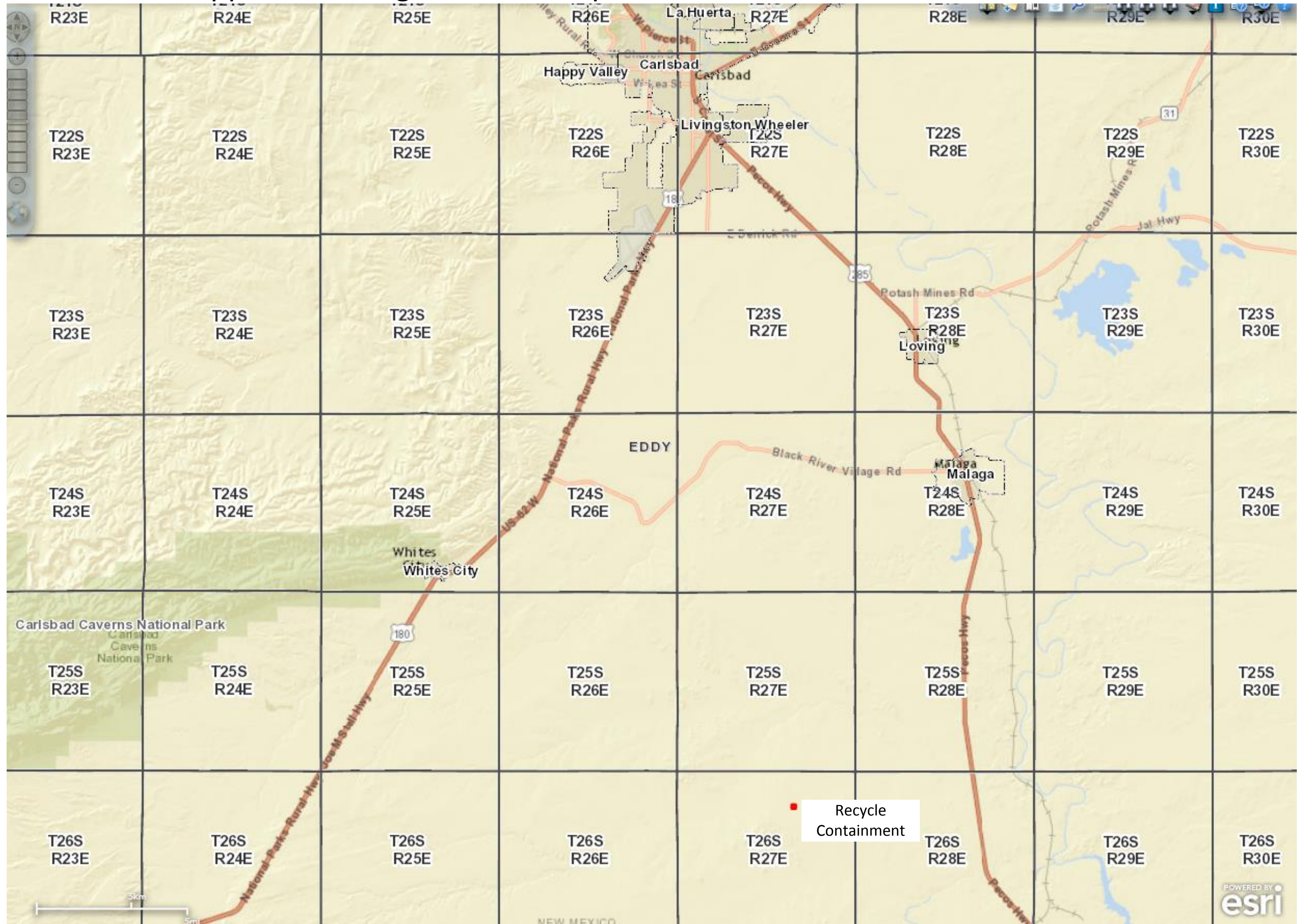
Chevron U.S.A. Inc. Hayhurst New Mexico T26S R27E Section 10 Recycle Containment

Appendix 4 / Figure 4: Domestic and Stock Water Supplies

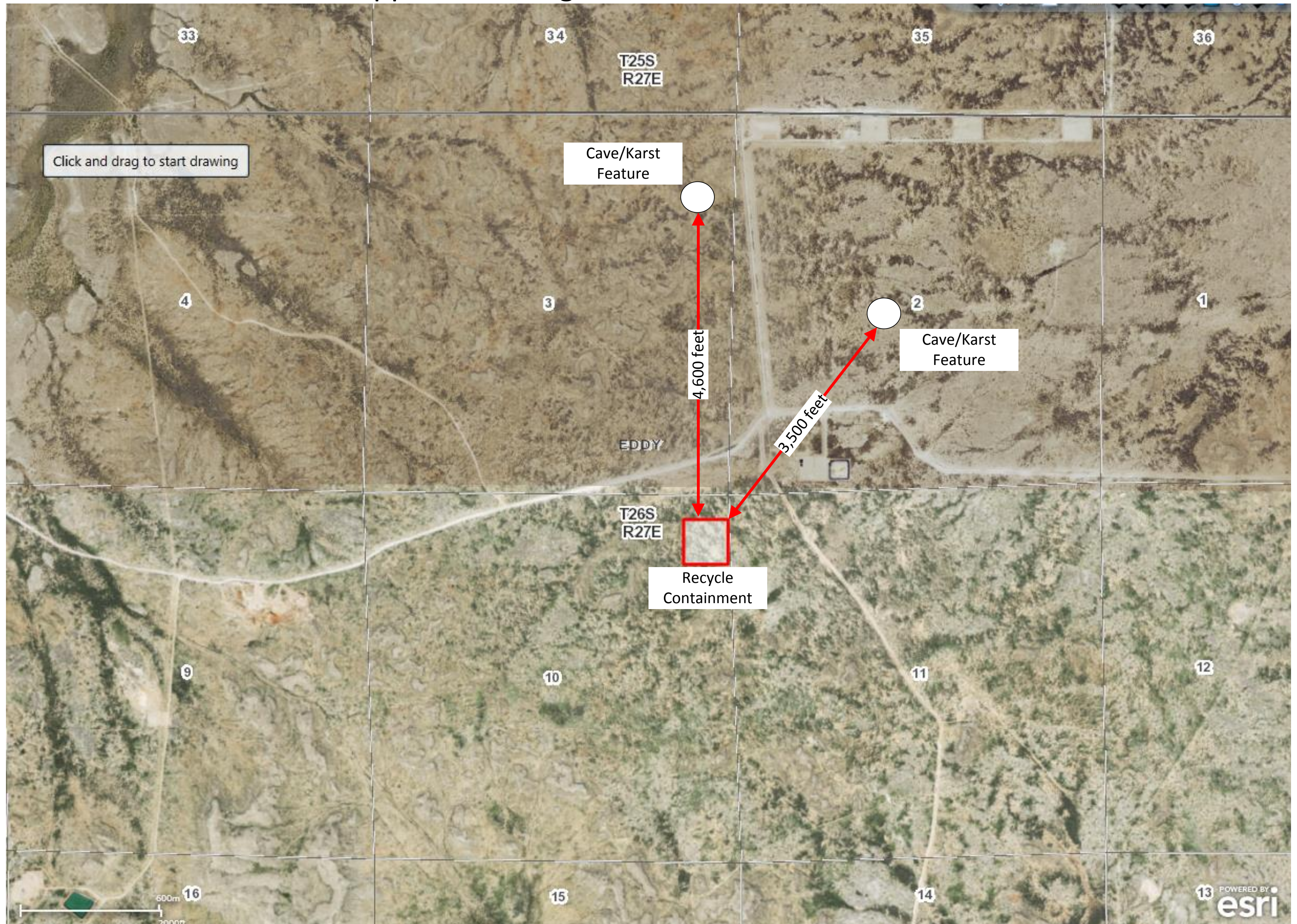


Chevron U.S.A. Inc. Hayhurst New Mexico T26S R27E Section 10 Recycle Containment

Appendix 4 / Figure 5: Municipal Boundaries and Fresh Water Fields

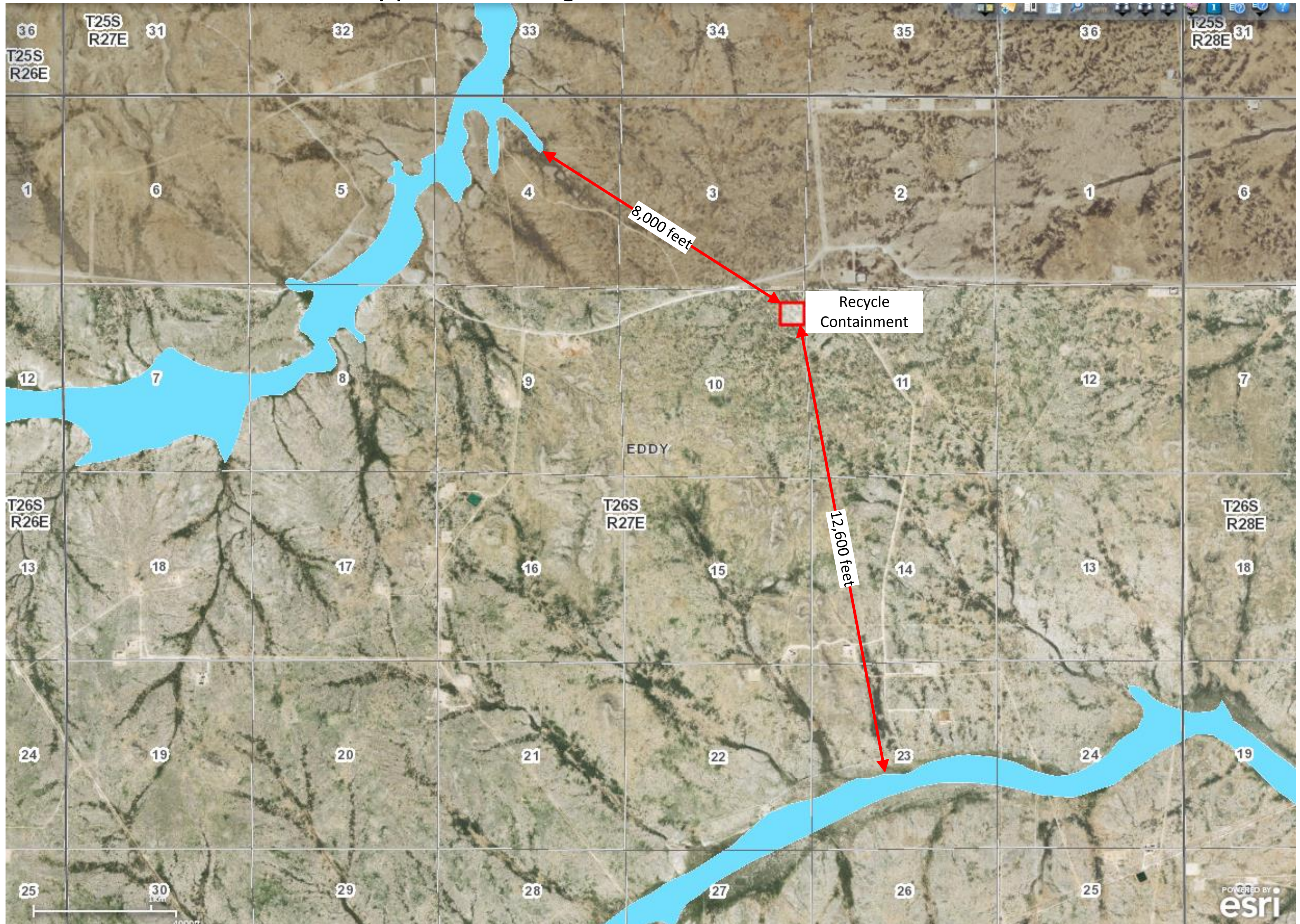


Appendix 4 / Figure 6: Cave/Karst Features



Chevron U.S.A. Inc. Hayhurst New Mexico T26S R27E Section 10 Recycle Containment

Appendix 4 / Figure 7: 100-Year Flood Plain



**Appendix 5 – Section 10 Recycling Containment
Groundwater Boring Report and Log**



November 2, 2016

Mr. Christian Alvarado
Western Slope Oil Services
10201 W Hwy 158
Midland, TX. 79707

Re: Limited Subsurface Geotechnical Investigation
Section 10 East Pond
Hayhurst, New Mexico

Dear Mr. Alvarado:

We thank you for the opportunity to present the enclosed geotechnical exploration letter-report for the above referenced project. This report includes geotechnical field data. This report also describes the procedures utilized for our field investigation.

The project consists of the design and construction of a frac pond, in Section 10 East Pond, in Hayhurst , New Mexico.

Field Exploration

In our field exploration phase, we drilled one (1) exploratory boring to a depth of 75 feet, below ground surface. We drilled the soil boring in general accordance with ASTM D-6151 procedures using a truck-mounted CME-75 drill rig. The soil boring was located using GPS devices and information provided by Western Slope Oil Services (Client). The boring plan is included in the Appendix of this report as Sheet A-1.

We also prepared a log of the soil boring to delineate the soil strata studied at the site. The boring log is included in the Appendix as Sheet A-1

Groundwater

Groundwater was **not** encountered in our soil boring at the time of our field exploration.

Limitations

We have performed our professional services, and have obtained the data presented in this report in accordance with generally accepted geotechnical

engineering principles and practices. The information in this report is based on the data obtained from one representative test boring and on our knowledge of the project conditions at the time of our geotechnical engineering investigation.

The data in this report reflects subsurface soil conditions only at the specific sampling location, time of sampling, and to the depths indicated in our report. We recommend the client to notify LOI ENGINEERS of any changes to the project conditions considered in this report, so that changes to our report can be made if necessary.

It was a pleasure to work with you on this phase of your project, and we look forward to assist you further during construction activities. If you have any questions regarding the information we present herein, please call us.

Respectfully submitted,

LOI ENGINEERS



Bernardino Olague, P.E.
Principal



11/2/16

Copies: Above (1, via e-mail)

LOG OF TEST BORING No. 1

Project name: Frac Pond at Hayhurst, New Mexico

File No.: LOI16-141

Boring location: Section 10 East Pond

Surface elevation: N/A

Date drilled: October 27, 2016



Elevation and Depth (Ft.)	Samples	Soil symbols	Soil Description	USCS symbol	Moisture content, %	Minus #200 sieve, %	Liquid limit	Plastic limit	Plasticity index	SPT N-Value	
										Blows per foot (N)	CURVE
0			SAND, fine grained, silty, brown, lightly moist	SM							10 30 50
5			- with traces of clayey material	SC							
10			SAND, fine grained, clayey, brown, lightly moist, with fine gravel	SM							
15			- with traces of calcareous material	SM							
20				SM							
25			- light brown	SM							
30			- brown	SM							

Groundwater Table Data

Depth	Date	Time
N/A	N/A	N/A

Sample Type

- ☐ Auger cutting
- ☐ 2" O.D. split spoon
- ☐ 3" O.D. split tube
- ☐ Thin-walled Shelby tube

Rig type: CME-75

Boring type: SSA

Logger: LM

Sheet No. A-1

LOG OF TEST BORING No. 1

Project name: Frac Pond at Hayhurst, New Mexico

File No.: LOI16-141

Boring location: Section 10 East Pond

Surface elevation: N/A

Date drilled: October 27, 2016



Elevation and Depth (Ft.)	Samples	Soil symbols	Soil Description	USCS symbol	Moisture content, %	Minus #200 sieve, %	Liquid limit	Plastic limit	Plasticity index	SPT N-Value	
										Blows per foot (N)	CURVE
35											10 30 50
40											
45			- light brown								
50			- moist								
55				SM							
60											

Groundwater Table Data

Depth	Date	Time
N/A	N/A	N/A

Sample Type

- ☐ Auger cutting
- ☒ 2" O.D. split spoon
- ☒ 3" O.D. split tube
- ☐ Thin-walled Shelby tube

Rig type: CME-75

Boring type: SSA

Logger: LM

Sheet No. A-2

LOG OF TEST BORING No. 1

Project name: Frac Pond at Hayhurst, New Mexico

File No.: LOI16-141

Boring location: Section 10 East Pond

Surface elevation: N/A

Date drilled: October 27, 2016



Elevation and Depth (Ft.)	Samples	Soil symbols	Soil Description	USCS symbol	Moisture content, %	Minus #200 sieve, %	Liquid limit	Plastic limit	Plasticity index	SPT N-Value	
										Blows per foot (N)	CURVE
65			- grey								10 30 50
70											
75											
			Termination depth at 76.5 feet								
80											
85											
90											

Groundwater Table Data

Depth	Date	Time
N/A	N/A	N/A

Sample Type

- ☐ Auger cutting
- ☒ 2" O.D. split spoon
- ☒ 3" O.D. split tube
- ☒ Thin-walled Shelby tube

Rig type: CME-75

Boring type: SSA

Logger: LM

Sheet No. A-3