

Incident ID	nAPP2302957665
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Mark Ritchie Title: HSE Manager
Signature: Mark Ritchie Date: 5/15/2023
email: mritchie@silverbackexp.com Telephone: 210-874-2406

OCD Only

Received by: Robert Hamlet Date: 10/6/2023

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Robert Hamlet Date: 10/6/2023
Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced



SITE CHARACTERIZATION, ASSESSMENT, REMEDIATION AND CLOSURE REPORT

**SHUDDE 27 CTB – FRAC TANK AREA
32.722865, -104.360139
UNIT D, SECTION 26 T18S-R26E
EDDY COUNTY, NEW MEXICO
NMOCD INCIDENT ID # nAPP2302957665**

PREPARED FOR:

**SILVERBACK OPERATING
108 S 4TH STREET
ARTESIA, NEW MEXICO 88210**

PREPARED BY:

**RANGER ENVIRONMENTAL SERVICES, LLC.
P.O. BOX 201179
AUSTIN, TEXAS 78720**

MAY 10, 2023

A blue ink signature of Mr. William Kierdorf, consisting of stylized cursive letters.

**Mr. William Kierdorf, REM
Project Manager**

A blue ink signature of Mr. Max Cook, consisting of stylized cursive letters.

**Mr. Max Cook, CAPM (TX)
Senior Project Manager**

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FORM C-141**FIGURES**

- Topographic Map
- Area Map
- DTGW Information Location Map
- National Wetland Inventory Map
- FEMA Floodplain Map
- Karst Topography Map
- Assessment Sample Location Map
- Final Excavation Area and Confirmation Sample Location Map

TABLES

- Site Assessment Field Screening Summary Table
- Confirmation Sample Soil BTEX (EPA 8260), TPH (EPA 8015) & Chloride (SM 4500) Analytical Data

ATTACHMENTS

- Attachment 1 – Depth-to-Groundwater Data
- Attachment 2 – Photographic Documentation
- Attachment 3 – Laboratory Analytical Reports
- Attachment 4 – NMOCD Correspondence



**SITE CHARACTERIZATION, ASSESSMENT, REMEDIATION AND
CLOSURE REPORT
SHUDDE 27 CTB – FRAC TANK AREA
32.722865 -104.360139
EDDY COUNTY, NEW MEXICO
NMOCD INCIDENT ID #nAPP2302957665**

1.0 SITE LOCATION AND BACKGROUND

The Shudde 27 CTB (Site) is located on private property, approximately 8.5 miles south-southeast of Artesia, within Eddy County, New Mexico. The Site is situated in Unit D, Section 26, T18S-R26E at GPS coordinates 32.722865, -104.360139.

On January 29, 2023, a release was discovered at the Site originating from a frac tank temporarily located on the facility pad. The subject tank overflowed resulting in the release of approximately 25 barrels (bbls) of produced water. Upon discovery of the release, immediate action was taken to stop the release of fluids and a vacuum truck was dispatched to the location to recover all available fluids. The released fluids were noted to be contained to the Shudde 27 CTB facility pad boundaries. Due to the volume and nature of the release, the incident was reported to the New Mexico Oil Conservation Division (NMOCD) (NMOCD Incident # nAPP2302957665).

Silverback Operating (Silverback) engaged Ranger Environmental Services, LLC (Ranger) to assist in the remediation efforts at the Site. On March 31, 2023, Ranger personnel and representatives of Silverback conducted an initial assessment of the impacted area. Subsequent to the initial assessment activities, remedial efforts were completed in April 2023 to bring the impacted areas into compliance with NMAC 19.15.29. Due to the on-going remedial efforts at the Site and regulatory deadline of April 29, 2023, Silverback requested a 30-day extension from the NMOCD on April 19, 2023 to allow remedial efforts to be completed to May 29, 2023. On April 20, 2023, NMOCD representatives approved the extension request.

The following report has been prepared to provide details of the site characterization, site assessment, and remedial actions undertaken to address the impacts from the releases.

A copy of the previously submitted Initial C-141 Form Release Notification is attached. Additionally, Site Assessment/Characterization and Closure sections of Form C-141, are attached. A Topographic Map and Area Map noting the location of the subject Site and surrounding areas, and site maps illustrating the Site features and sampling locations, are provided in the Figures section.

2.0 SITE CHARACTERIZATION

2.1 Depth-to-Groundwater

To determine the depth-to-groundwater in the vicinity of the Site, data available from the U.S. Geological Survey (USGS) and the New Mexico Office of the State Engineer (NMOSE) was reviewed. Based upon the reviewed information, one water well (RA 10940) was identified within

a half-mile of the Site. Upon review of the water well data, depth-to-groundwater in the well is documented to be approximately 75 feet below ground surface (bgs). The data is noted to be within the NMOCD acceptable distance and time-frame criteria.

Based upon the reviewed information, the depth-to-groundwater in the area of the Site appears to be approximately 75 feet bgs. Copies of the reviewed depth-to-groundwater information is attached.

2.2 Wellhead Protection Area

Based upon the USGS and NMOSE information, one water source (water well RA 10490) was identified within a half-mile of the Site.

Upon review of the National Wetland Inventory, the impacted area is not within 300 feet of a mapped feature.

The Site and impacted area are outside of the FEMA 100-year flood plain and fall in the area of minimal flood hazard.

The Site area is within an area of "Medium Karst" probability and is noted to be immediately adjacent to an area of "Low Karst" probability.

2.3 Distance to Nearest Significance Watercourse

Based upon available online resources, no significant water courses are located within a half-mile of the site.

2.4 Closure Criteria

Based upon the Site characterization details, and per NMAC 19.15.29.12, the Site was remediated to Table 1 19.15.29.12 NMAC Table 1 (groundwater 51-100 feet) criteria (Table 1 Closure Criteria). Additionally, the remediation activities were conducted to bring the area into compliance with the Restoration, Reclamation and Re-Vegetation Criteria (Restoration Criteria) detailed in NMAC 19.15.29.13. The regulatory criteria are summarized below:

REGULATORY STANDARD	CHLORIDE	TPH (GRO+DRO +MRO)	TPH (GRO+DRO)	BTEX	BENZENE
19.15.29.12 NMAC Table 1 Closure Criteria for Soils Impacted by a Release (GW 51'-100')	10,000	2,500	1,000	50	10
19.15.29.13 NMAC Restoration, Reclamation and Re-Vegetation (Soils 0'-4')	600	100*	---	50*	10*

All Values Presented in Parts Per Million (mg/Kg)

**Value derived from the State of New Mexico Energy, Minerals and Natural Resources Department document Procedures for the Implementation of the Spill Rule (19.15.29 NMAC) dated September 6, 2019.*

3.0 SITE ASSESSMENT, REMEDIATION, AND CONFIRMATION SAMPLING

3.1 Site Assessment

On March 31, 2023, Ranger personnel and representatives of Silverback completed an assessment of the impacted area to determine the extent of impacts associated with the release. The assessment process included the installation of excavation test holes and the collection of soil samples for field analysis.

During the March 31, 2023 assessment, a total of 12 test excavations (TH-1 through TH-12) were completed. The test excavations were completed to a maximum depth of approximately four feet bgs. During the test hole installation process, soils were field screened by Ranger personnel at the surface and at approximate one-foot intervals using an organic vapor monitor (OVM) and a field chloride titration kit to assist in evaluating soil conditions and/or levels of impacts.

A *Assessment Sample Location Map* depicting the impacted area and test excavation locations completed during the March 31, 2023 assessment is attached. A table summarizing the field readings collected during the assessment process is also attached.

3.2 Site Remediation and Confirmation Sampling

In order to address the impacts at the Site and bring the location into compliance with NMAC 19.15.29, soil removal operations were completed in April 2023. Based on the information collected during the site assessment activities, initial removal operations were completed to depths and boundaries anticipated to be within the closure criteria. During the excavation process, Ranger personnel collected field readings utilizing an OVM and field chloride titration kit to guide the excavation boundaries and depths.

Upon completion of the soil removal operations, the excavated area was irregular in shape and was documented to have maximum dimensions of approximately 152 feet by 122 feet. The excavation area was completed to depths varying from approximately two to a maximum of four feet bgs.

To confirm that the excavated areas had been completed to appropriate boundaries, a total of 63 cleanup confirmation soil samples were collected along the excavation sidewalls and base as five-part composite samples in accordance with NMAC 19.15.29.12 with each sample representing less than 200 square feet. Cleanup confirmation soil sampling activities were conducted on April 24, 2023. Prior to the cleanup confirmation sampling event, notice was provided to the NMOCD in accordance with NMAC 19.15.29.12(D). A copy of the notification is attached.

Upon collection, the soil samples were submitted to Cardinal Laboratories in Hobbs, New Mexico for analysis of total petroleum hydrocarbons (TPH) using EPA Method 8015; benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Method 8021; and, total chloride using SM 4500. The samples were collected and managed using standard QA/QC and chain-of-custody procedures.

A *Final Excavation and Confirmation Sample Location Map* depicting the final excavation boundaries and the cleanup confirmation sample locations is attached.

3.3 Final Confirmation Sample Results

Upon review of the cleanup confirmation laboratory sample results, all areas have been documented to be in attainment of the Restoration, Reclamation and Re-Vegetation criteria detailed in NMAC 19.15.29.13 and/or NMAC 19.15.9.12 Table 1 (DTGW 51'-100') criteria. A comprehensive sample results table summarizing the laboratory analytical results for the cleanup confirmation soil samples attached. A copy of the laboratory analytical report including chain-of-custody documentation is also attached.

3.4 Waste Disposal

All soils generated during the remedial excavation activities were transported and disposed of at the Lea Land disposal facility in Lea County, New Mexico.

4.0 SITE CLOSURE

4.1 Site Backfill & Re-seeding

Based on the cleanup confirmation soil sample results, the excavated area will be backfilled with clean fill material in accordance with NMAC 19.15.29.12 and NMAC 19.15.29.13. The surface portion of the on-pad impact/remediation area will be completed with caliche pad material.

4.2 Closure Request

Based upon the remedial activities performed as well as the analytical results for the cleanup confirmation soil samples, the Site has been properly addressed pursuant to NMAC 19.15.29 and Silverback respectfully requests closure of the incident. A final C-141 form is attached.

FORM C-141

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

State of New Mexico
Energy Minerals and Natural
Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls) 23.3 (disregard the 25)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Incident ID	
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Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: _____	Title: _____
Signature: <u>Mark Ritchie</u>	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: <u>Jocelyn Harimon</u>	Date: <u>04/25/2023</u>

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Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	_____ (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☐ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☐ Data table of soil contaminant concentration data
- ☐ Depth to water determination
- ☐ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☐ Topographic/Aerial maps
- ☐ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

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Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
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Remediation Plan

Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

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The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☐ Laboratory analyses of final sampling (Note: appropriate OCD District office must be notified 2 days prior to final sampling)
- ☐ Description of remediation activities

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Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____



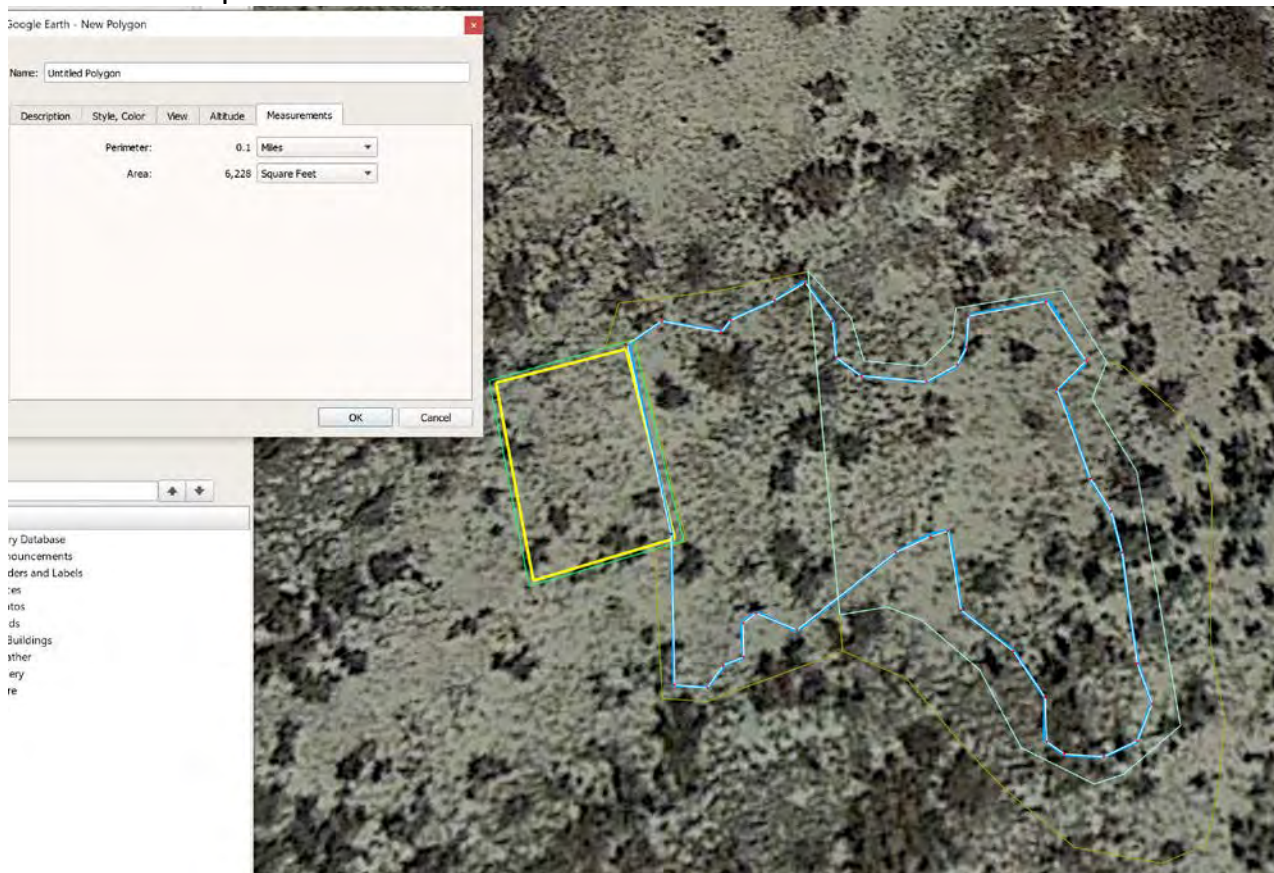
Volume Justification

This form is to be used to convey justification of spill volumes in the event of a release. Clearly indicate by calculations or description in the space provided below.

Justification:

Volume was assumed based on surface area of 6228 sqft and estimated average depth of 0.25 inches which yielded 23.3 bbls. Please note that the recorded volume notes 25bbls, however that number is always just an approximation based on the vac truck tank level.

Below is a snapshot of the surface area which is outlined in blue.



Approved by: Mark Ritchie

Date: 4/25/2023

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 210516

CONDITIONS

Operator: Silverback Operating II, LLC 19707 IH10 West, Suite 201 San Antonio, TX 78256	OGRID: 330968
	Action Number: 210516
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	4/25/2023

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Site Assessment/Characterization

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What is the shallowest depth to groundwater beneath the area affected by the release?	<u>~75'</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

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Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Mark Ritchie Title: HSE Manager

Signature: Mark Ritchie Date: 5/15/2023

email: mritchie@silverbackexp.com Telephone: 210-874-2406

OCD Only

Received by: _____ Date: _____

Incident ID	nAPP2302957665
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Mark Ritchie Title: HSE Manager
Signature: Mark Ritchie Date: 5/15/2023
email: mritchie@silverbackexp.com Telephone: 210-874-2406

OCD Only

Received by: _____ Date: _____

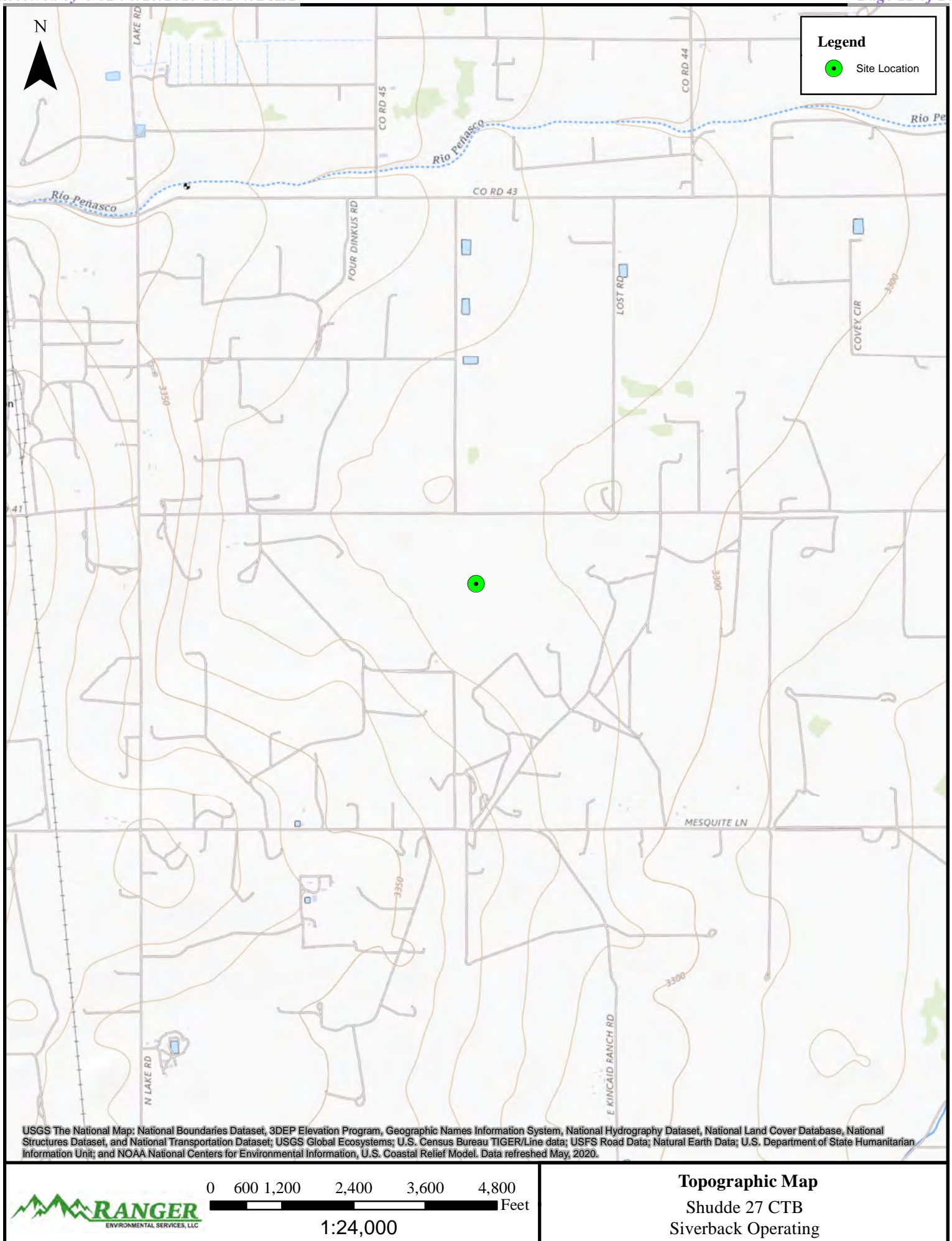
Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

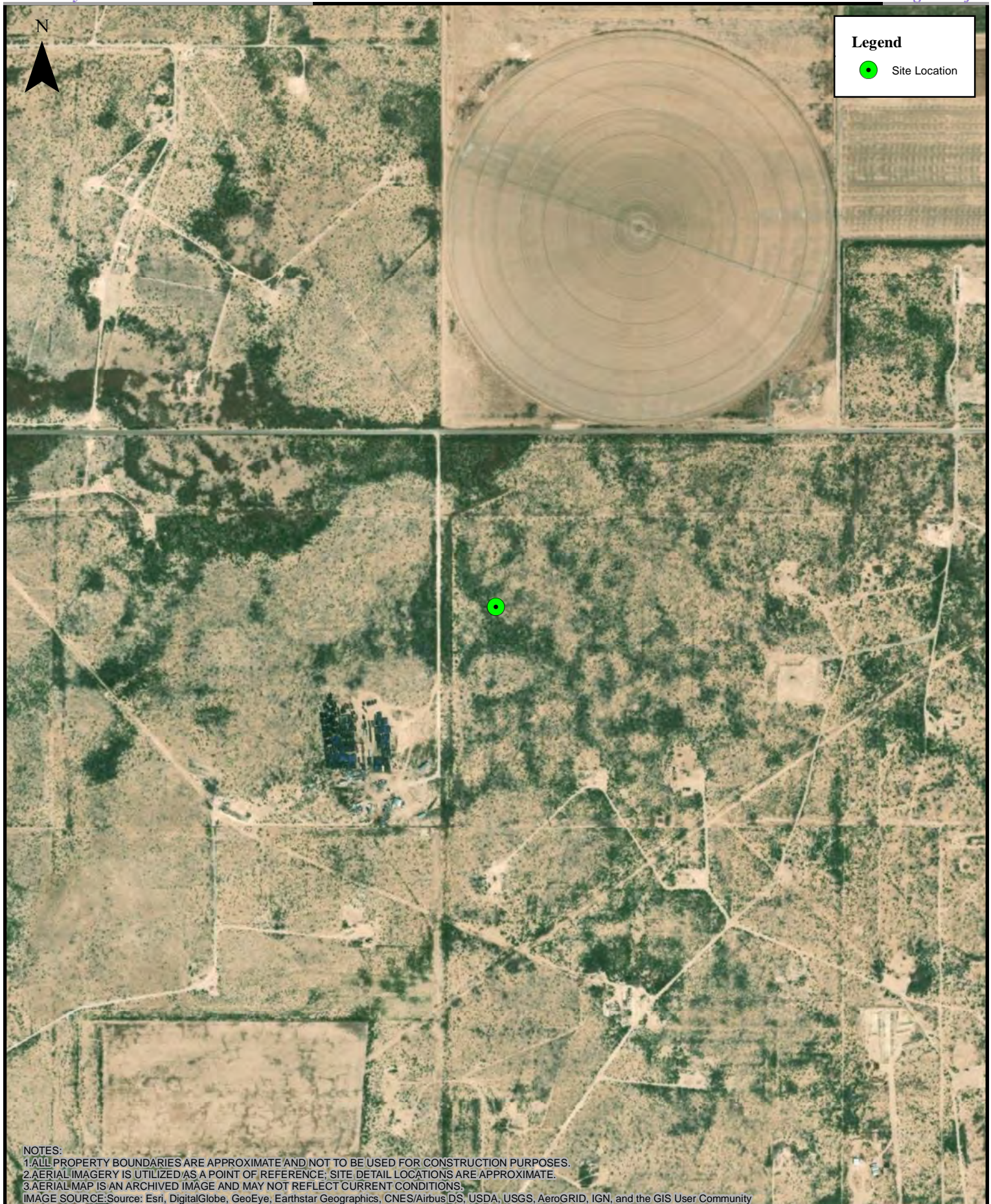
Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

FIGURES

Topographic Map
Area Map
DTGW Information Location Map
National Wetland Inventory Map
FEMA Floodplain Map
Karst Topography Map
Assessment Sample Location Map
Final Excavation Area and Confirmation Sample Location Map

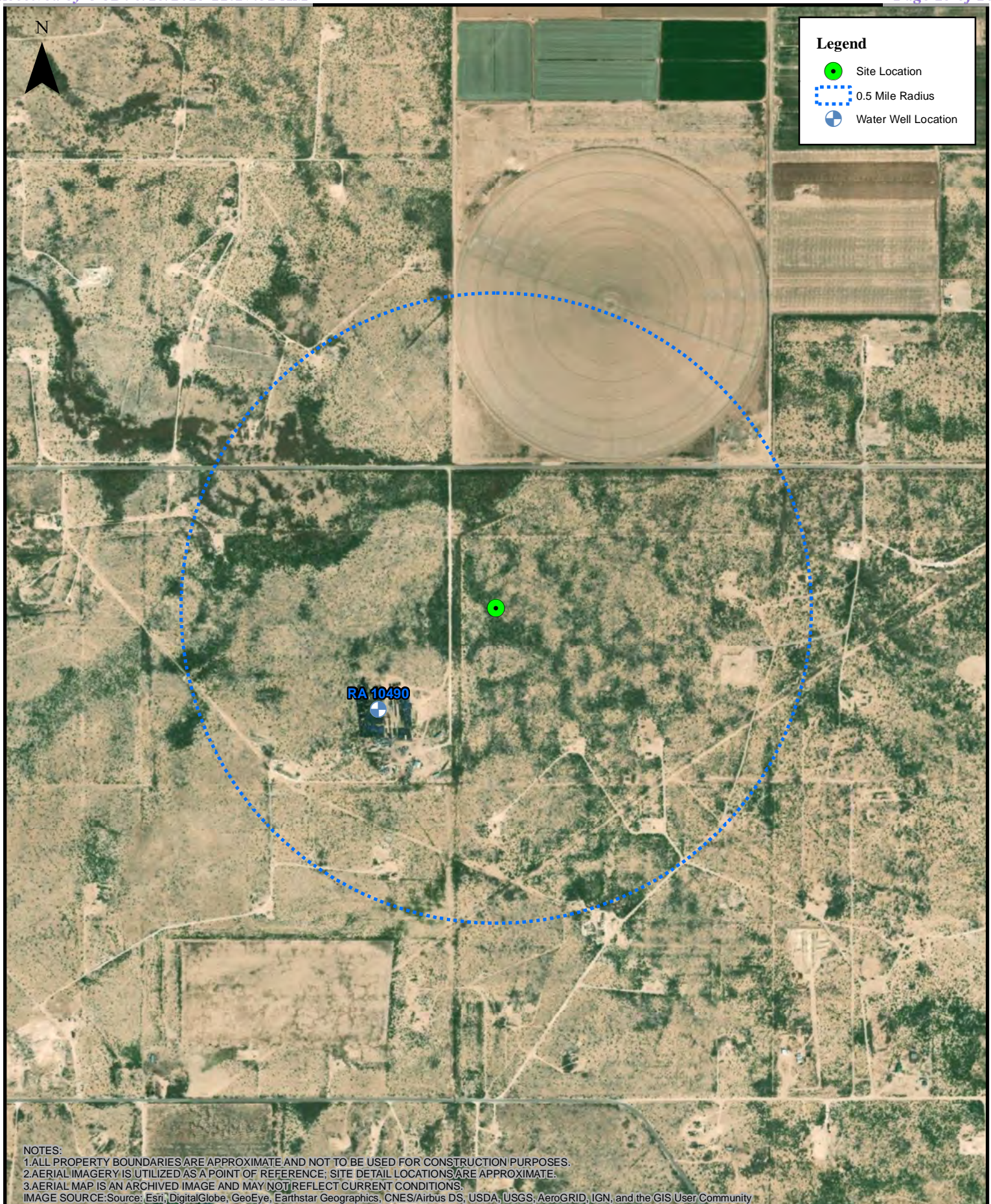




0 250 500 1,000 1,500 2,000 Feet

1:10,000

Area Map
Shudde 27 CTB
Siverback Operating

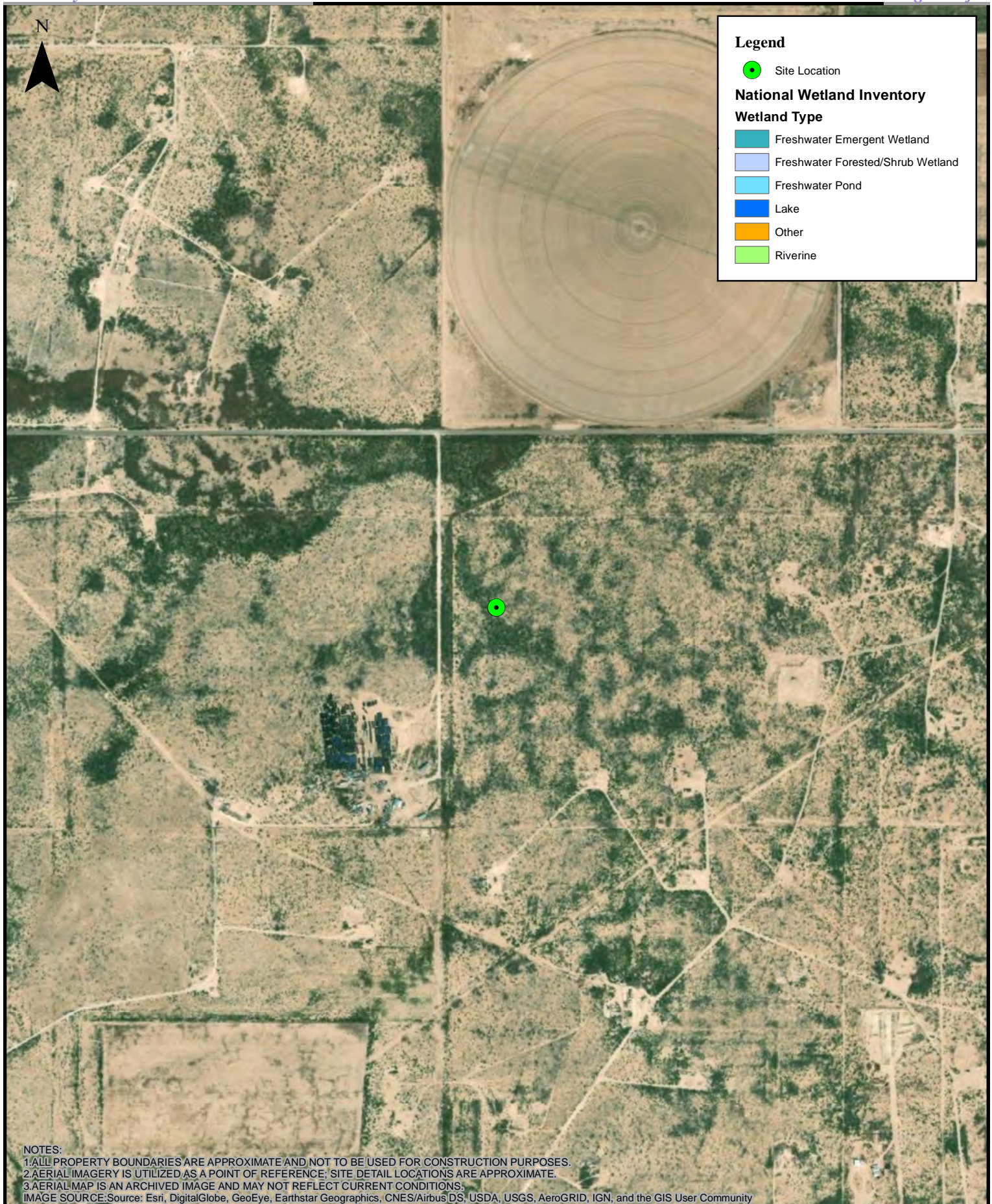


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DTGW Information Location Map

Shudde 27 CTB
Siverback Operating

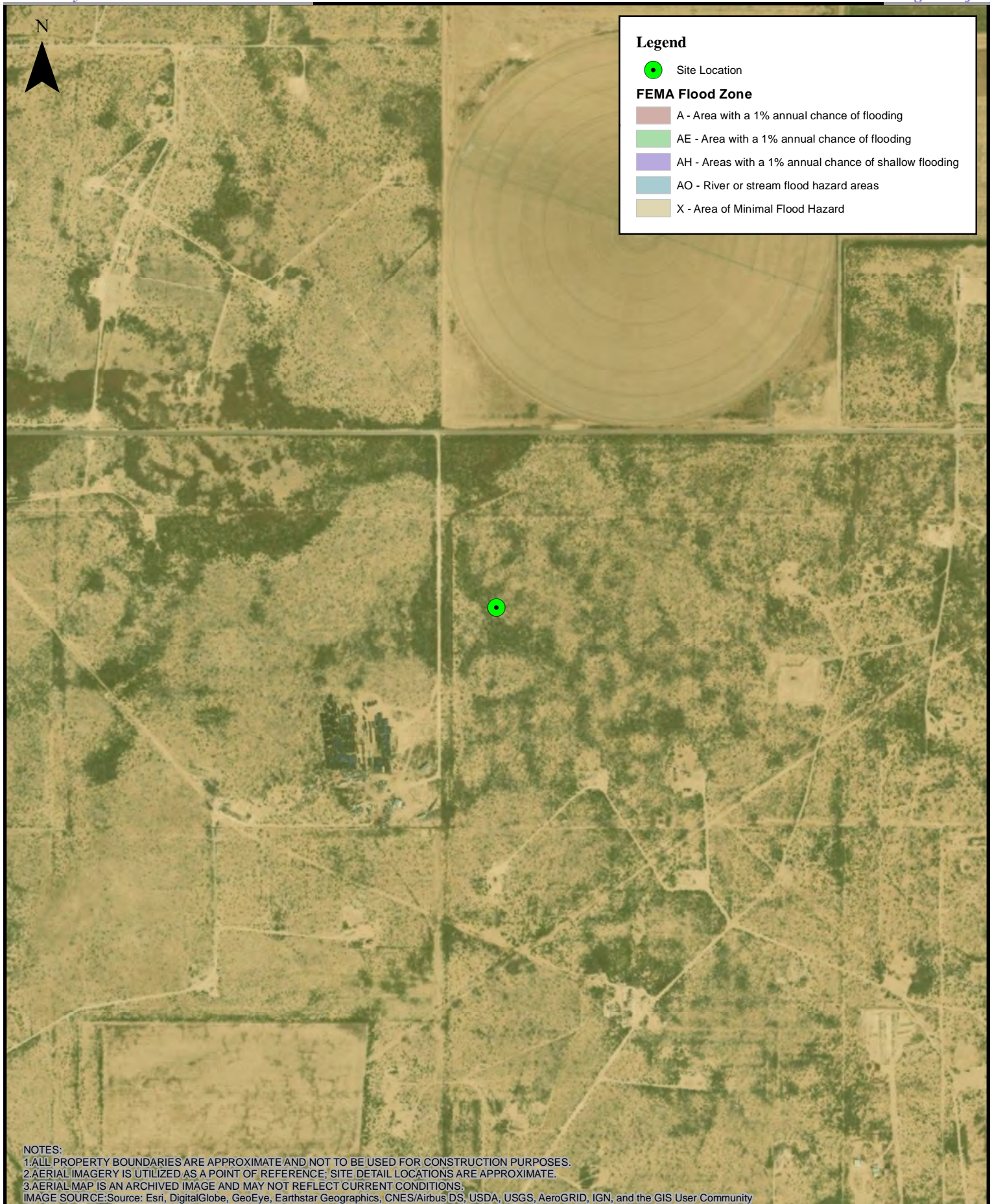


0 250 500 1,000 1,500 2,000 Feet

1:10,000

National Wetland Inventory Map

Shudde 27 CTB
Siverback Operating

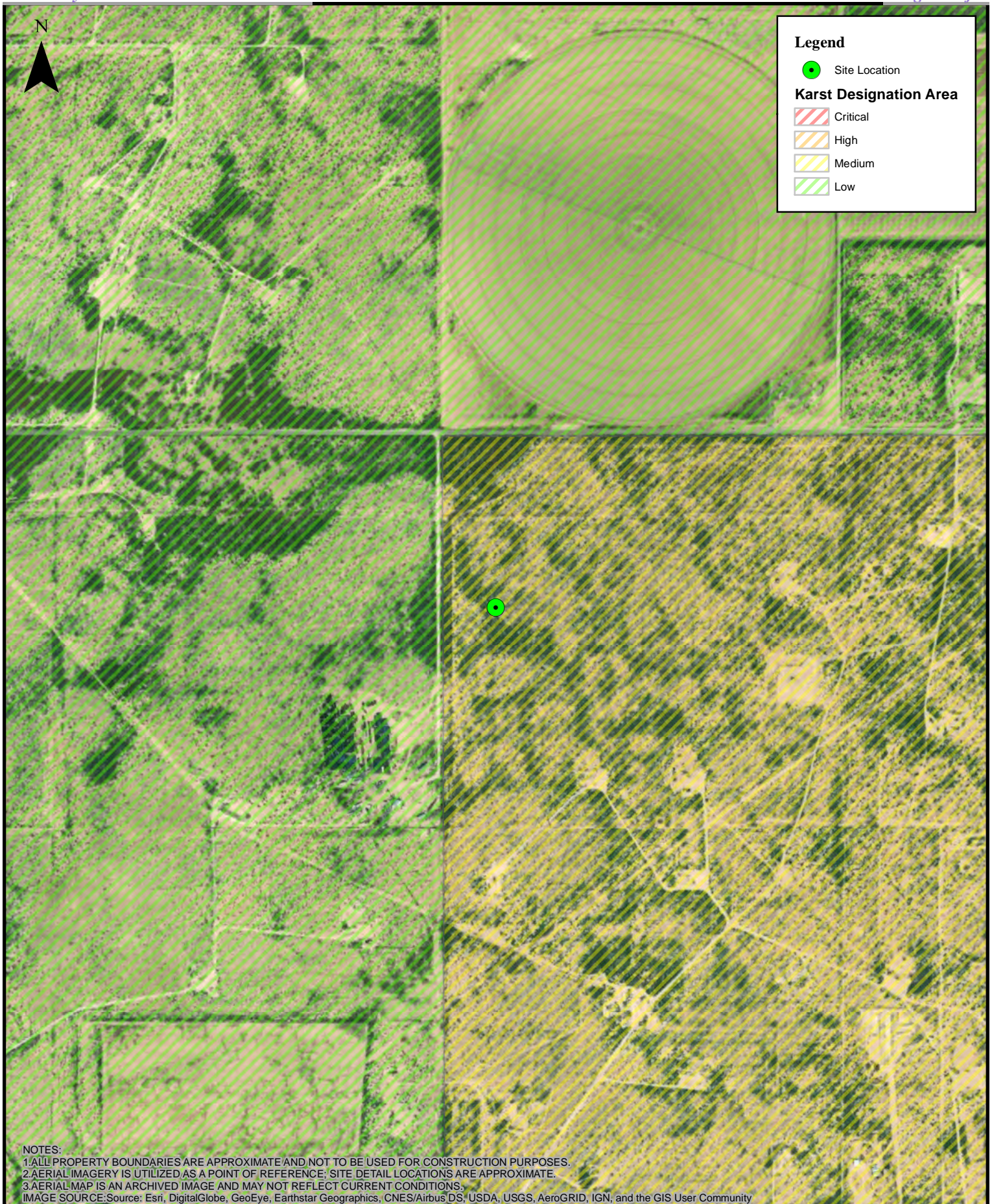


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1:10,000

FEMA Floodplain Map

Shudde 27 CTB
Siverback Operating

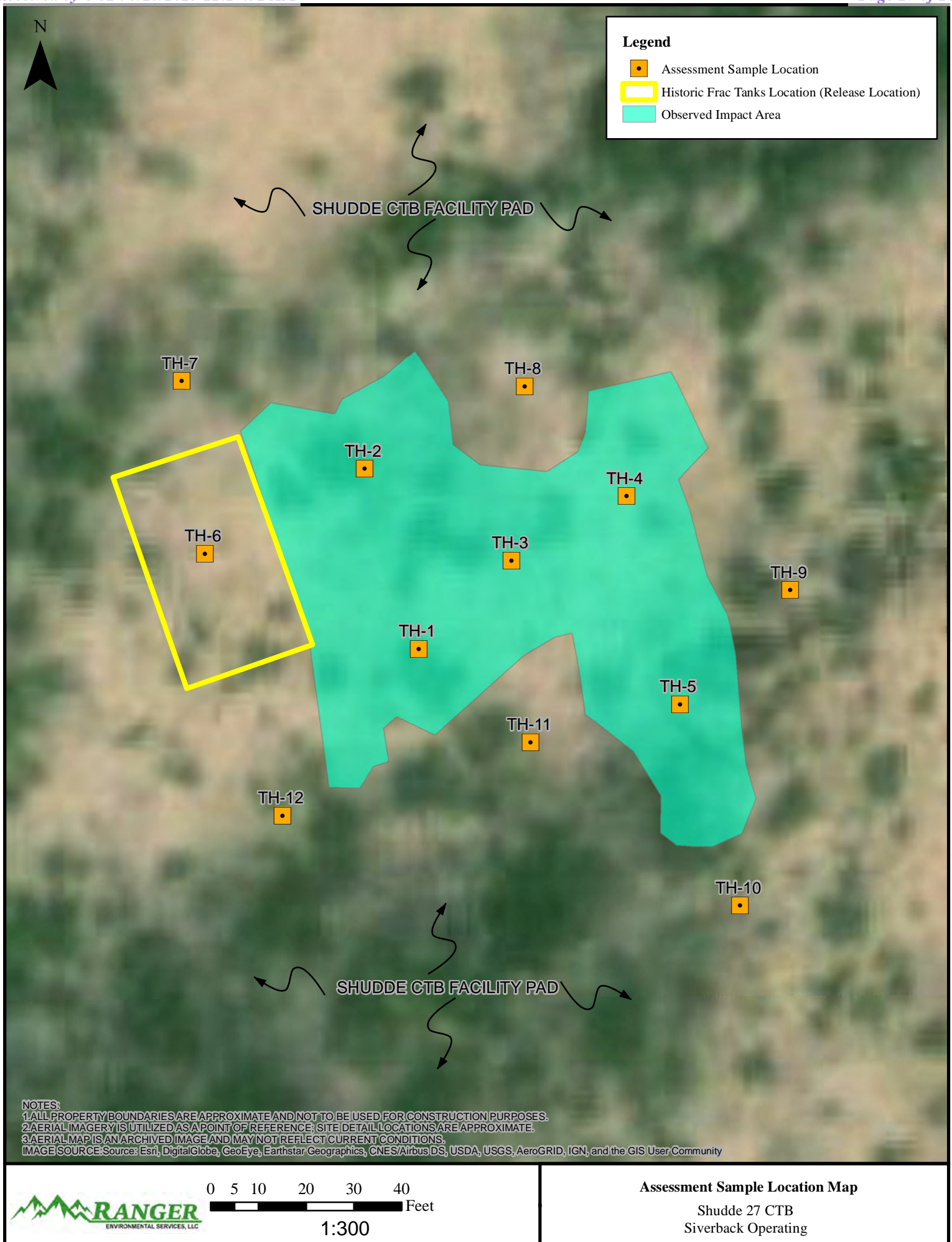


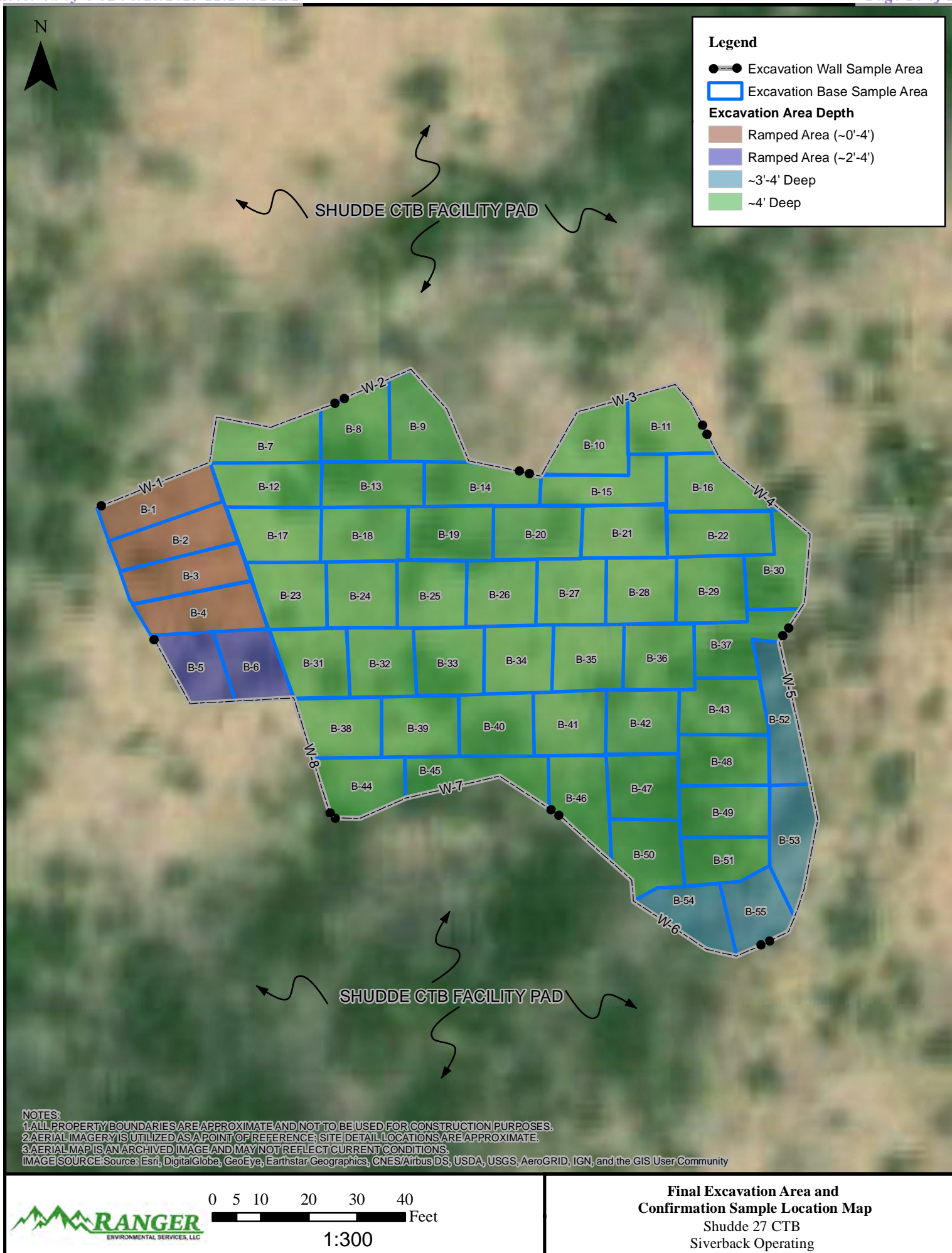
0 250 500 1,000 1,500 2,000 Feet

1:10,000

Karst Topography Map

Shudde 27 CTB
Siverback Operating





TABLES

Site Assessment Field Screening Summary Table

Confirmation Sample Soil BTEX (EPA 8260), TPH (EPA 8015) &
Chloride (SM 4500) Analytical Data

SITE ASSESSMENT FIELD SCREENING SUMMARY TABLE SILVERBACK OPERATING SHUDDE 27 CTB				
Sample Location	Date	Depth (ft-bgs)	Field Chloride Reading (mg/Kg)	OVM Reading (ppm _e)
TH-1	3/31/2023	0'	>3,000	0
		1'	1,950	0
		2'	1,500	0
		3'	300	0
		4'	300	0
TH-2	3/31/2023	0'	>3,000	0
		1'	1,650	0
		2'	300	0
		3'	150	0
		4'	150	0
TH-3	3/31/2023	0'	2,700	0
		1'	600	0
		2'	450	0
		3'	600	0
		4'	750	0
TH-4	3/31/2023	0'	>3,000	0
		1'	750	0
		2'	900	0
		3'	900	0
		4'	900	0
TH-5	3/31/2023	0'	>3,000	0
		1'	3,150	0
		2'	1,200	0
		3'	1,350	0
		4'	1,200	0
TH-6	3/31/2023	0'	>3,000	0
		1'	1,350	0
		2'	300	0
		3'	450	0
		4'	450	0
TH-7	3/31/2023	0'	750	0
		1'	300	0
		2'	300	0
		3'	300	0
		4'	450	0
TH-8	3/31/2023	0'	150	0
		1'	150	0
		2'	300	0
		3'	300	0
		4'	300	0
TH-9	3/31/2023	0'	>3,000	0
		1'	1,050	0
		2'	450	0
		3'	300	0
		4'	300	0
TH-10	3/31/2023	0'	1,800	0
		1'	600	0
		2'	900	0
		3'	450	0
		4'	300	0
TH-11	3/31/2023	0'	1,500	0
		1'	450	0
		2'	450	0
		3'	300	0
		4'	300	0
TH-12	3/31/2023	0'	300	0
		1'	300	0
		2'	150	0
		3'	300	0
		4'	150	0


CONFIRMATION SOIL SAMPLE BTEX (EPA 8021), TPH (SW 8015) & CHLORIDE (SM 4500) ANALYTICAL DATA SILVERBACK OPERATING SHUDDE 27 CTB - FRAC TANK AREA All values presented in parts per million (mg/Kg)													
SAMPLE ID	DATE	DEPTH (FT)	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C6-C10	TPH DRO C10-C28	TPH MRO C28-C36	TPH (GRO+DRO)	TPH (GRO+DRO+MRO)	CHLORIDE
Excavation Side Wall Samples													
W - 1	4/24/2023	0-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	432
W - 2	4/24/2023	0-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	320
W - 3	4/24/2023	0-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
W - 4	4/24/2023	0-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
W - 5	4/24/2023	0-3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
W - 6	4/24/2023	0-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
W - 7	4/24/2023	0-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
W - 8	4/24/2023	0-3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
Excavation Base Samples													
B - 1	4/24/2023	0-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
B - 2	4/24/2023	0-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
B - 3	4/24/2023	0-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
B - 4	4/24/2023	0-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
B - 5	4/24/2023	2'-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
B - 6	4/24/2023	2'-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
B - 7	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,390
B - 8	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	18.6	<10.0	18.6	18.6	1,250
B - 9	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	992
B - 10	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	880
B - 11	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,170
B - 12	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,070
B - 13	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,200
B - 14	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,170
B - 15	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,090
B - 16	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,360
B - 17	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,600
B - 18	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	880
B - 19	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,390
B - 20	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,410
B - 21	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,120
B - 22	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	16.6	<10.0	16.6	16.6	2,080
B - 23	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,300
B - 24	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,520
B - 25	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,310
B - 26	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,000
B - 27	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,650
B - 28	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,700
B - 29	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,740
B - 30	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,580
B - 31	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,660
B - 32	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,160
B - 33	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,320
B - 34	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,440
B - 35	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,680
B - 36	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,870
B - 37	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	592
B - 38	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	720
B - 39	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,400
B - 40	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,620
B - 41	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,920
B - 42	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,810
B - 43	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,500
B - 44	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,300
B - 45	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,380
B - 46	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	14.0	14.8	<10.0	28.8	1,060
B - 47	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,390
B - 48	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,460
B - 49	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,880
B - 50	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,600
B - 51	4/24/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	608
B - 52	4/24/2023	3'-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
B - 53	4/24/2023	3'-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
B - 54	4/24/2023	3'-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
B - 55	4/24/2023	3'-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
19.15.29.12 NMAC Table 1 Closure Criteria for Soils Impacted by a Release (GW 51'-100')			10	---	---	---	50	---	---	---	1,000	2,500	10,000
19.15.29.13 NMAC Reclamation Criteria (0'-4' Soils Only)			10 ³	---	---	---	50 ³	---	---	---	---	100 ³	600
Notes:													
1. Results exceeding the Table 1 Closure Criteria are presented in bold type and are highlighted yellow.													
2. Results exceeding the NMAC Restoration, Reclamation and re-vegetation chloride concentration requirements are presented in bold red type.													
3. Value derived from the State of New Mexico Energy, Minerals and Natural Resources Department document Procedures for the Implementation of the Spill Rule (19.15.29 NMAC) dated September 6, 2019.													

ATTACHMENT 1 – DEPTH-TO-GROUNDWATER INFORMATION



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)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y		
	RA 10490		4	2	27	18S	26E	559659	3620486*		
Driller License:	1229	Driller Company:				CARTER'S WELL DRILLING					
Driller Name:	CARTER, RICHARD M.										
Drill Start Date:	03/18/2004	Drill Finish Date:				04/20/2004		Plug Date:			
Log File Date:	06/01/2004	PCW Rcv Date:						Source:		Shallow	
Pump Type:	SUBMER	Pipe Discharge Size:						Estimated Yield:		5 GPM	
Casing Size:	4.50	Depth Well:				200 feet		Depth Water:		75 feet	
Water Bearing Stratifications:					Top	Bottom	Description				
					100	110	Other/Unknown				
					185	190	Other/Unknown				
Casing Perforations:					Top	Bottom					
					100	200					

*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.

ATTACHMENT 2 – SITE PHOTOGRAPHS



PHOTOGRAPH NO. 1 – A view collected at the Site during the assessment process on March 31, 2023. The view is towards the southwest.

(Approximate GPS Coordinates: 32.723498, -104.359977)



PHOTOGRAPH NO. 2 – A view Site during the remedial excavation activities on April 17, 2023. The view is towards the west.

(Approximate GPS Coordinates: 32.723407, -104.359898)



PHOTOGRAPH NO. 3 – A view of the excavation/remediation area upon completion of the remedial process. The view is towards the east.

(Approximate GPS Coordinates: 32.723465, -104.360405)



PHOTOGRAPH NO. 4 – An additional view of the excavation/remediation area upon completion of the remedial process. The view is towards the southeast.

(Approximate GPS Coordinates: 32.723559, -104.360358)

ATTACHMENT 3 – LABORATORY REPORTS



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

May 02, 2023

WILL KIERDORF

RANGER ENVIRONMENTAL SERVICES, INC.

PO BOX 201179

AUSTIN, TX 78729

RE: SHUDDE 27 CTB

Enclosed are the results of analyses for samples received by the laboratory on 04/26/23 8:39.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

RANGER ENVIRONMENTAL SERVICES, INC.
 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: W - 1 (H232027-01)

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/29/2023	ND	1.96	97.8	2.00	0.501		
Toluene*	<0.050	0.050	04/29/2023	ND	1.98	98.9	2.00	0.332		
Ethylbenzene*	<0.050	0.050	04/29/2023	ND	1.99	99.5	2.00	0.0664		
Total Xylenes*	<0.150	0.150	04/29/2023	ND	6.11	102	6.00	0.0477		
Total BTX	<0.300	0.300	04/29/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	432	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 93.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

RANGER ENVIRONMENTAL SERVICES, INC.
 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: W - 2 (H232027-02)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/29/2023	ND	1.96	97.8	2.00	0.501		
Toluene*	<0.050	0.050	04/29/2023	ND	1.98	98.9	2.00	0.332		
Ethylbenzene*	<0.050	0.050	04/29/2023	ND	1.99	99.5	2.00	0.0664		
Total Xylenes*	<0.150	0.150	04/29/2023	ND	6.11	102	6.00	0.0477		
Total BTEX	<0.300	0.300	04/29/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 87.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: W - 3 (H232027-03)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19	
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13	
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05	QM-07
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54	QM-07
Total BTEx	<0.300	0.300	04/27/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	04/27/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 70.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

RANGER ENVIRONMENTAL SERVICES, INC.
 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: W - 4 (H232027-04)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEX	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 88.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: W - 5 (H232027-05)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEX	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 125 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 96.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: W - 6 (H232027-06)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEX	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 129 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 87.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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RANGER ENVIRONMENTAL SERVICES, INC.
 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: W - 7 (H232027-07)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEx	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 122 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 90.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: W - 8 (H232027-08)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEx	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 124 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 87.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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RANGER ENVIRONMENTAL SERVICES, INC.
 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 1 (H232027-09)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEx	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 83.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

RANGER ENVIRONMENTAL SERVICES, INC.
 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 2 (H232027-10)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEX	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 87.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.5 % 49.1-148

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 WILL KIERDORF
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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 3 (H232027-11)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEX	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 120 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 90.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.3 % 49.1-148

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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 4 (H232027-12)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEX	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Analytical Results For:

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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 5 (H232027-13)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEX	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 89.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.2 % 49.1-148

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Analytical Results For:

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 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 6 (H232027-14)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEX	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 88.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.1 % 49.1-148

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 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 7 (H232027-15)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEX	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1390	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 98.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 8 (H232027-16)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEX	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1250	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	18.6	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 73.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.7 % 49.1-148

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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 9 (H232027-17)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEX	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	992	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 74.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.8 % 49.1-148

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Analytical Results For:

RANGER ENVIRONMENTAL SERVICES, INC.
 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 10 (H232027-18)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEX	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	880	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 96.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 11 (H232027-19)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEX	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1170	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 82.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.1 % 49.1-148

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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 12 (H232027-20)

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTX	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1070	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	213	106	200	4.22	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	210	105	200	3.54	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 82.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.7 % 49.1-148

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 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 13 (H232027-21)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEx	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1200	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/26/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/26/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/26/2023	ND					

Surrogate: 1-Chlorooctane 92.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.0 % 49.1-148

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 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 14 (H232027-22)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/27/2023	ND	1.66	83.0	2.00	5.19		
Toluene*	<0.050	0.050	04/27/2023	ND	1.94	96.8	2.00	4.13		
Ethylbenzene*	<0.050	0.050	04/27/2023	ND	2.28	114	2.00	3.05		
Total Xylenes*	<0.150	0.150	04/27/2023	ND	6.94	116	6.00	3.54		
Total BTEX	<0.300	0.300	04/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1170	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/26/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/26/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/26/2023	ND					

Surrogate: 1-Chlorooctane 67.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 66.0 % 49.1-148

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Analytical Results For:

RANGER ENVIRONMENTAL SERVICES, INC.
 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 15 (H232027-23)

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98	QM-07	
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38	QM-07	
Total BTX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 123 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1090	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/26/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/26/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/26/2023	ND					

Surrogate: 1-Chlorooctane 74.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.1 % 49.1-148

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Analytical Results For:

RANGER ENVIRONMENTAL SERVICES, INC.
 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 16 (H232027-24)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1360	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/26/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/26/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/26/2023	ND					

Surrogate: 1-Chlorooctane 99.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.7 % 49.1-148

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 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 17 (H232027-25)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1600	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 86.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.5 % 49.1-148

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Analytical Results For:

RANGER ENVIRONMENTAL SERVICES, INC.
 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 18 (H232027-26)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	880	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 77.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.5 % 49.1-148

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 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 19 (H232027-27)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 122 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1390	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 20 (H232027-28)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1410	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 73.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.0 % 49.1-148

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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 21 (H232027-29)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 122 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1120	16.0	04/27/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 89.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.1 % 49.1-148

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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 22 (H232027-30)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2080	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	16.6	10.0	04/27/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 75.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.6 % 49.1-148

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 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 23 (H232027-31)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1300	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 56.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 58.5 % 49.1-148

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Analytical Results For:

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 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 24 (H232027-32)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2520	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 25 (H232027-33)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1310	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 80.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.5 % 49.1-148

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 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 26 (H232027-34)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2000	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 78.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.3 % 49.1-148

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Analytical Results For:

RANGER ENVIRONMENTAL SERVICES, INC.
 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 27 (H232027-35)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1650	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 92.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.1 % 49.1-148

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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 28 (H232027-36)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1700	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 76.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.1 % 49.1-148

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Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 29 (H232027-37)

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1740	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 30 (H232027-38)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1580	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 82.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.8 % 49.1-148

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Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 31 (H232027-39)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1660	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Analytical Results For:

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 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 32 (H232027-40)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2160	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	190	94.8	200	3.85	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	187	93.6	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 93.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.1 % 49.1-148

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Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 33 (H232027-41)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2320	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 34 (H232027-42)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.90	95.0	2.00	2.61		
Toluene*	<0.050	0.050	04/28/2023	ND	2.15	108	2.00	3.52		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.47	124	2.00	4.98		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	7.49	125	6.00	5.38		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2440	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 91.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Analytical Results For:

RANGER ENVIRONMENTAL SERVICES, INC.
 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 35 (H232027-43)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2680	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 92.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.9 % 49.1-148

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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 36 (H232027-44)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1870	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 92.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 37 (H232027-45)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	04/28/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 97.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 38 (H232027-46)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	720	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 94.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 39 (H232027-47)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2400	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 96.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 40 (H232027-48)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTEx	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1620	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 82.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.6 % 49.1-148

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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 41 (H232027-49)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1920	16.0	04/28/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 78.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.8 % 49.1-148

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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 42 (H232027-50)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1810	16.0	04/28/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 79.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

RANGER ENVIRONMENTAL SERVICES, INC.
 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 43 (H232027-51)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1500	16.0	04/28/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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Analytical Results For:

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 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 44 (H232027-52)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1300	16.0	04/28/2023	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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Analytical Results For:

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 WILL KIERDORF
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 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 45 (H232027-53)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1380	16.0	04/28/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 69.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.8 % 49.1-148

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 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 46 (H232027-54)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1060	16.0	04/28/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	14.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	14.8	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 74.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.2 % 49.1-148

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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 47 (H232027-55)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1390	16.0	04/28/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 97.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Analytical Results For:

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 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 48 (H232027-56)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1460	16.0	04/28/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 70.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.3 % 49.1-148

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 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 49 (H232027-57)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1880	16.0	04/28/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 98.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 50 (H232027-58)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1600	16.0	04/28/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 95.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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 WILL KIERDORF
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 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 51 (H232027-59)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	608	16.0	04/28/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 92.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

RANGER ENVIRONMENTAL SERVICES, INC.
 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 52 (H232027-60)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTEX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	04/28/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/27/2023	ND	199	99.3	200	0.340	
DRO >C10-C28*	<10.0	10.0	04/27/2023	ND	209	105	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	04/27/2023	ND					

Surrogate: 1-Chlorooctane 92.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

RANGER ENVIRONMENTAL SERVICES, INC.
 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 53 (H232027-61)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	04/28/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/26/2023	ND	195	97.7	200	0.642	
DRO >C10-C28*	<10.0	10.0	04/26/2023	ND	182	91.1	200	5.77	
EXT DRO >C28-C36	<10.0	10.0	04/26/2023	ND					

Surrogate: 1-Chlorooctane 79.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.9 % 49.1-148

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Analytical Results For:

RANGER ENVIRONMENTAL SERVICES, INC.
 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 54 (H232027-62)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/28/2023	ND	1.98	98.9	2.00	0.110		
Toluene*	<0.050	0.050	04/28/2023	ND	2.01	101	2.00	0.605		
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.02	101	2.00	1.32		
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.09	101	6.00	1.87		
Total BTX	<0.300	0.300	04/28/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	04/28/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/26/2023	ND	195	97.7	200	0.642	
DRO >C10-C28*	<10.0	10.0	04/26/2023	ND	182	91.1	200	5.77	
EXT DRO >C28-C36	<10.0	10.0	04/26/2023	ND					

Surrogate: 1-Chlorooctane 80.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

RANGER ENVIRONMENTAL SERVICES, INC.
 WILL KIERDORF
 PO BOX 201179
 AUSTIN TX, 78729
 Fax To: (512) 335-0527

Received:	04/26/2023	Sampling Date:	04/24/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	SHUDDE 27 CTB	Sampling Condition:	Cool & Intact
Project Number:	6684	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK EXPL. - ROOSEVELT CO NM		

Sample ID: B - 55 (H232027-63)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2023	ND	2.17	108	2.00	10.7	
Toluene*	<0.050	0.050	04/28/2023	ND	2.24	112	2.00	11.2	
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.20	110	2.00	10.9	
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.80	113	6.00	10.6	
Total BTEX	<0.300	0.300	04/28/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/28/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/26/2023	ND	195	97.7	200	0.642	
DRO >C10-C28*	<10.0	10.0	04/26/2023	ND	182	91.1	200	5.77	
EXT DRO >C28-C36	<10.0	10.0	04/26/2023	ND					

Surrogate: 1-Chlorooctane 82.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager

ATTACHMENT 4 – NMOCD CORRESPONDENCE

From: Mark Ritchie <mritchie@silverbackexp.com>

Sent: Wednesday, April 19, 2023 4:04 PM

To: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>

Subject: [EXTERNAL] nAPP2302957665 Confirmation Sample Notice and Extension Request

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Mike, we are finishing up excavation on a straightforward cleanup at the Shudde 27 CTB (nAPP2302957665) and would like to go ahead and make notification that we intend to take confirmation samples Monday morning (4/24/23).

We are also about 10 days away from exceeding the 90 window for the cleanup and as such I would also like to request a 30 day extension. By the time we get the sample results back and are able to get a closure request drafted, we will have exceeded that window.

Respectfully,

Mark Ritchie

Field Operations Engineer
& HSE Manager

Silverback Exploration

19707 IH 10 West

Suite 201

San Antonio, TX 78257

C | 713-553-8320

O | 210-874-2406

From: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Sent: Thursday, April 20, 2023 8:10 AM
To: Mark Ritchie <mritchie@silverbackexp.com>
Subject: RE: [EXTERNAL] nAPP2302957665 Confirmation Sample Notice and Extension Request

Mark,

Your request for an extension is approved to 5/29/23. Note that only the NOR (Notice of Release) has been submitted at this time. You will need to submit the C-141 ASAP. Sample notification is confirmed.

Thanks,

Mike Bratcher • Incident Supervisor
Environmental Bureau
EMNRD - Oil Conservation Division
508 W. Texas Ave | Artesia, NM 88210
(575) 626-0857 | mike.bratcher@emnrd.nm.gov
<http://www.emnrd.nm.gov/oed>



District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 216836

CONDITIONS

Operator: Silverback Operating II, LLC 19707 IH10 West, Suite 201 San Antonio, TX 78256	OGRID: 330968
	Action Number: 216836
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2302957665 SHUDDE 27 CTB, thank you. This closure is approved.	10/6/2023