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-144
Revised June 6, 2013

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application

14001

OIL CONS. DIV DIST. 3

FEB 16 2016

45-35737

Type of action:
- ☐ Below grade tank registration
- ☐ Permit of a pit or proposed alternative method
- ☐ Closure of a pit, below-grade tank, or proposed alternative method
- ☐ Modification to an existing permit/or registration
- ☒ Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request

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

1.
Operator: Bridgecreek Resources (Colorado), L.L.C. OGRID #: 310262
Address: 405 Urban Street, Suite 400, Lakewood, CO 80228
Facility or well name: Prairie Falcon 19-29 17
API Number: 30-045-35737 OCD Permit Number: 13626
U/L or Qtr/Qtr P SENW Section 19 Township 31 N Range 14 W County: San Juan
Center of Proposed Design: Latitude N 36.879622 Longitude W108.3427360 NAD: ☐1927 ☒ 1983
Surface Owner: ☒ Federal ☐ State ☐ Private ☒ Tribal Trust or Indian Allotment

2.
☐ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC
Temporary: ☒ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no
☒ Lined ☐ Unlined Liner type: Thickness 20 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other
☒ String-Reinforced
Liner Seams: ☐ Welded ☐ Factory ☒ Other Burrito Wrapped Volume: bbl Dimensions: L 61ft x W 36ft x D 16ft

3.
☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: bbl Type of fluid:
Tank Construction material:
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other
Liner type: Thickness mil ☐ HDPE ☐ PVC ☐ Other

4.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5.
Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*
☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*
☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
☐ Alternate. Please specify

102

6.

Netting: Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☐ Other_____

☐ Monthly inspections (If netting or screening is not physically feasible)

7.

Signs: Subsection C of 19.15.17.11 NMAC

☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☒ Signed in compliance with 19.15.16.8 NMAC

8.

Variances and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. **Siting criteria does not apply to drying pads or above-grade tanks.**

General siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. - ☐ NM Office of the State Engineer - iWATERS database search; ☐ USGS; ☐ Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit . NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. **(Does not apply to below grade tanks)** - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within the area overlying a subsurface mine. **(Does not apply to below grade tanks)** - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. **(Does not apply to below grade tanks)** - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No
Within a 100-year floodplain. **(Does not apply to below grade tanks)** - FEMA map	☐ Yes ☐ No
Below Grade Tanks	
Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No

Within 100 feet of a wetland.
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site ☐ Yes ☐ No

Temporary Pit Non-low chloride drilling fluid

Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).
- Topographic map; Visual inspection (certification) of the proposed site ☐ Yes ☐ No

Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image ☐ Yes ☐ No

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, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;
- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site ☐ Yes ☐ No

Within 300 feet of a wetland.
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site ☐ Yes ☐ No

Permanent Pit or Multi-Well Fluid Management Pit

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).
- Topographic map; Visual inspection (certification) of the proposed site ☐ Yes ☐ No

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image ☐ Yes ☐ No

Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.
- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site ☐ Yes ☐ No

Within 500 feet of a wetland.
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site ☐ Yes ☐ No

10.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

11.
Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ A List of wells with approved application for permit to drill associated with the pit.
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

13.
Proposed Closure: 19.15.17.13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☒ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Multi-well Fluid Management Pit ☐ Alternative

Proposed Closure Method:
- ☐ Waste Excavation and Removal
- ☐ Waste Removal (Closed-loop systems only)
- ☒ On-site Closure Method (Only for temporary pits and closed-loop systems)
  - ☐ In-place Burial ☒ On-site Trench Burial
- ☐ Alternative Closure Method

14.
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15.
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC
Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 25 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	

adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☐ No

16.
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC
- ☒ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC
- ☒ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☒ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- ☒ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☒ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17.
Operator Application Certification:

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

Name (Print): Christine Campbell Title: Regulatory Lead

Signature: Christine Campbell Date: 2/11/16

e-mail address: ccampbell@palomarnr.com Telephone: 303-945-2630

18.
OCD Approval: ☐ Permit Application (including closure plan) ☒ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: [signature] **Approval Date:** 3/28/16

Title: Environmental Spec. **OCD Permit Number:**

19.
Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☒ **Closure Completion Date: 1/11/16**

20.
Closure Method:

☐ Waste Excavation and Removal ☒ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)

☐ If different from approved plan, please explain.

21.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Proof of Closure Notice (surface owner and division)
- ☐ Proof of Deed Notice (required for on-site closure for private land only)
- ☒ Plot Plan (for on-site closures and temporary pits)
- ☒ Confirmation Sampling Analytical Results (if applicable)
- ☐ Waste Material Sampling Analytical Results (required for on-site closure)
- ☐ Disposal Facility Name and Permit Number
- ☒ Soil Backfilling and Cover Installation
- ☒ Re-vegetation Application Rates and Seeding Technique
- ☒ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude 36.8786911 Longitude 108.3408421 NAD: ☐ 1927 ☒ 1983

22.

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Christine Campbell Title: Regulatory Lead

Signature: Christine Campbell Date: 2/11/16

e-mail address: ccampbell@palomarnr.com Telephone: 303-945-2642

Bridgecreek Resources (Colorado) LLC
Temporary Pit Closure Report

General Plan

In accordance with Rule 19.15.17.13 the following information describes the closure of the temporary pit on Bridgecreek locations. All proper documentation regarding closure activities in being included with the C-144.

- Details on capping and covering (see report)
- Plot Plan (Pit Diagram) (Included as attachment)
- Sampling Results (Included as attachment)

1. Drilling operations utilized a closed loop water based mud system. Drill cuttings (rock fragments generated during drilling) were produced during drilling of the borehole.

2. Notice of closure will be given to the Aztec Division office between 72 hours and one week of closure via email or verbally. The notification of closure will include the following:
    i. Operators name
    ii. Location by Unit letter, Section, Township, and Range. Well name and Number.
    b. **Verbal notification provided to all required parties on 12/15/15.**

3. Within 6 months of the Rig Off status occurring Bridgecreek will ensure that temporary pits are closed, re-contoured, and reseeded.
    a. **Closure occurred from January 4 to January 11, 2016. Bridgecreek will notify OCD upon reseeding of reclaimed area no later than 6 months following rig release date via a form 3160-5 Sundry Form.**

4. The surface owner shall be notified of Bridgecreek's closing of the temporary pit as per the approved closure plan using certified mail, return receipt requested.
    a. **Verbal notification was provided to the surface owner on 12/16/15. Certified mail is not required for Federal land per BLM/OCD MOU.**

5. All contents, including synthetic pit liners, will be buried in place. By folding outer edges of the pit liner to overlap waste material, and then installing a geomembrane liner cover that is 20 mil string reinforced LLDPE, synthetic material, impervious, resistant to ultra violet light, petroleum hydrocarbons, salts, acid and alkaline.
    a. **The burial trench was lined with a 20 mil string reinforced LLDPE liner,**

stabilized cuttings were placed in liner and burrito wrapped to entirely cover the stabilized cuttings. The entire trench was capped with 4 feet of clean fill dirt and compacted to ground level.

6. Cuttings will be contained in four-sided impermeable bins on location. Cuttings will be mixed with non- waste saw dust material in order to achieve the solidification process. The solidification process will be accomplished using a combination of natural drying and mechanically mixing. Cuttings will be mixed with non-waste, saw dust material to a consistency that is deemed a safe and stable. Cuttings will be mixed while in the four-sided bins. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents. The stabilized mixture must pass the paint filter liquids test (EPA SW-846, Method 9095 or other test methods approved by the division.
    a. **The cuttings were stabilized in the steel bins on location at a 3:1 clean soil to pit contents ratio prior to passing the paint filter test method.**

7. A minimum 5-point sample will be taken of the stabilized cuttings for the analysis of constituents under the regulations listed in the NMAC 19.15.17.13 Closure and Site Reclamation requirements, Ute Mountain Ute (UMU) Tribe's "Standards for Spill Clean-up and Chlorides Reclamation" table, and EPA SW-846 methods. These results will be submitted to the Aztec NMOCD via a C-144 and BLM via a 3160-5 Sundry Form to the Tres Rios BLM Field Office.
    a. **A six point composite sample was taken. The approved closure plan calculated a benzene concentration, when mixed at a 3:1 (clean: cuttings) ratio is below the UMU/COGCC Table standard and below the NMOCD limits. (Sample results are attached).**

8. Upon completion of stabilization and testing in bins, the trench will be dug, lined and stabilized cuttings deposited and burrito-wrapped. The burrito-wrapped stabilized cuttings will be covered with a minimum of four feet of clean fill dirt.
    a. **The trench was excavated and burial completed from January 4 through January 11, 2016.**

9. Upon completion of interim reclamation re-contouring of location will match fit, shape, line, form and texture of the surrounding area. Reshaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
    a. **The trench area was re-contoured to match fit, shape, line, form and texture of surrounding area. Re-shaping included drainage control, to prevent ponding, and erosion. Natural drainages were unimpeded and silt traps or berms were**

placed in areas where needed to prevent erosion on a large scale. Final re-contour has a uniform appearance with smooth surface, fitting natural landscape.

10. Notification will be sent to OCD when the reclaimed area is seeded.
    a. **Notification will be provided to OCD via form 3160-5 Sundry.**

11. Following 19.15.17.13 (H) (5) (a-e), Bridgecreek shall seed the distributed areas the first growing season after the operator completes interim reclamation. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. Suggested BIA stipulated seed mixed will be used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover thorough two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs. The boundaries of the trench will be designated by surface and depth markers to avoid the possibility of mixing one with another. The markers will clearly define the edge and the depth of the trench to allow for subsequent excavation without disturbing previously buried cuttings.
    a. **Seeding will be done in the first growing season after the operator closed the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other division approved methods. BIA seed mix will be used on the UMU Reservation. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs.**

12. Bridgecreek will also be installing a temporary Flat Pit Marker upon closure. The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial upon the abandonment of all the wells on the pad. The marker will be flush with the ground to allow access of the active well pad and for safety concerns. The marker will include a threaded collar to be used for future abandonment. The top of the marker will contain a welded steel 12" square plate that will include operator name, lease number, section, township, range and indicates site is the onsite burial of the temporary pit. The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the operator's information at the time all wells on the pad are abandoned. The operator's information will include the following: Operator Name, Lease Name, Well Name and number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location.

a. A steel temporary marker will be placed in the center of the onsite burial trench as soon as the weather permits in accordance with 19.15.16.8 NMAC.

DISPOSAL FACILITY NAME AND PERMIT NUMBER

Aqua Moss Disposal
3782 Provo
Bloomfield, NM 87413

Sunco Disposal Well #001, API 30-045-28653

BIA Seed MIX 2015

UMU Indian Reservation

Species	Variety	% of Mix	#PLS/ac
Galleta	Viva	25	1.0
Alkali sacaton	Salado	25	0.4
Western wheatgrass	Arriba	15	2.4
Blue grama	Hatchita	15	0.5
Indian ricegrass	Nezpar	10	1.2
Sand dropseed	VNS	10	0.05

10. Plans for Surface Reclamation

- The objective of interim reclamation is to restore vegetative cover and a portion of the landform sufficient to maintain healthy, biologically active topsoil; control erosion; and minimize habitat and forage loss, visual impact, and weed infestation, during the life of the well or facilities.
- The long-term objective of final reclamation is to return the land to a condition similar to what existed prior to disturbance. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources and wildlife habitats. To ensure that the long term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological functioning and vegetative productivity.
- Bridgecreek will notify the BLM, the UMU Energy and the UMU Environmental Department at least 3 days before beginning any of the approved surface reclamation operations.
- Within six months after the last well on the pad has been completed or plugged, Bridgecreek will contact the BLM by filing a Form 3160-5 with a reclamation plan for approval to reduce the size of the drill pad and reclaim the ground approximately as shown on Attachment H.
- The well pad and access road would cover an area of approximately 3.44 acres, but will be reduced after interim reclamation (following drilling and completion) to approximately 2.61 acre (+/- 0.3 acres) as shown on Attachment H.

■ Interim Reclamation

A. Within 30 days of well completion, the well location and surrounding areas will be cleared of, and maintained free of, all materials, trash, and equipment not required for production. In areas planned for interim reclamation, all the surfacing material used to build the well pad will be removed and returned to the original source or recycled to repair or build roads and well pads.

B. The areas planned for interim reclamation will then be recontoured to blend with the surrounding topography as much as possible. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the blend with surrounding topography during interim reclamation.

C. Topsoil will be evenly respread and revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BIA approved seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

D. BIA approved seed mix will be broadcast or drilled at an appropriate time prior to the winter season. Bridgecreek will notify the BLM with a Sundry Form 3160-5 upon completion of interim reclamation.

E. Bridgecreek is responsible for consultation with the BLM and UMU Environmental Department for acceptable weed control methods and shall comply with the following:

1) A BLM Sundry Form 3160-5 will be submitted for permission to use any pesticide other than "Roundup" by Scotts Company prior to use.

2) All commercial pesticide applicators must hold a valid New Mexico Commercial Applicators license, and the license must be valid for the applicable pesticide application category.

F. Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.

G. The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

H. Interim reclamation will be considered successful when the desired vegetative species are established and evidence of vegetation reproduction, either by spreading of rhizomatous species or seed production, is established. Interim reclamation will additionally be deemed a success when erosion is controlled, weeds are considered a minimum threat, and a uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels.

■ **FINAL RECLAMATION**

I. Prior to final reclamation procedures, the well pad, road, and surrounding area will be cleared of material, trash, and equipment.

J. All surfacing material will be removed and returned to the original source pit or recycled to repair or build roads and well pads.

K. All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends with the surrounding topography. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation. Areas to be reclaimed will be recontoured to blend with the surrounding landscape, emphasizing restoration of existing drainage patterns and landform to pre-construction condition, to the extent practicable.

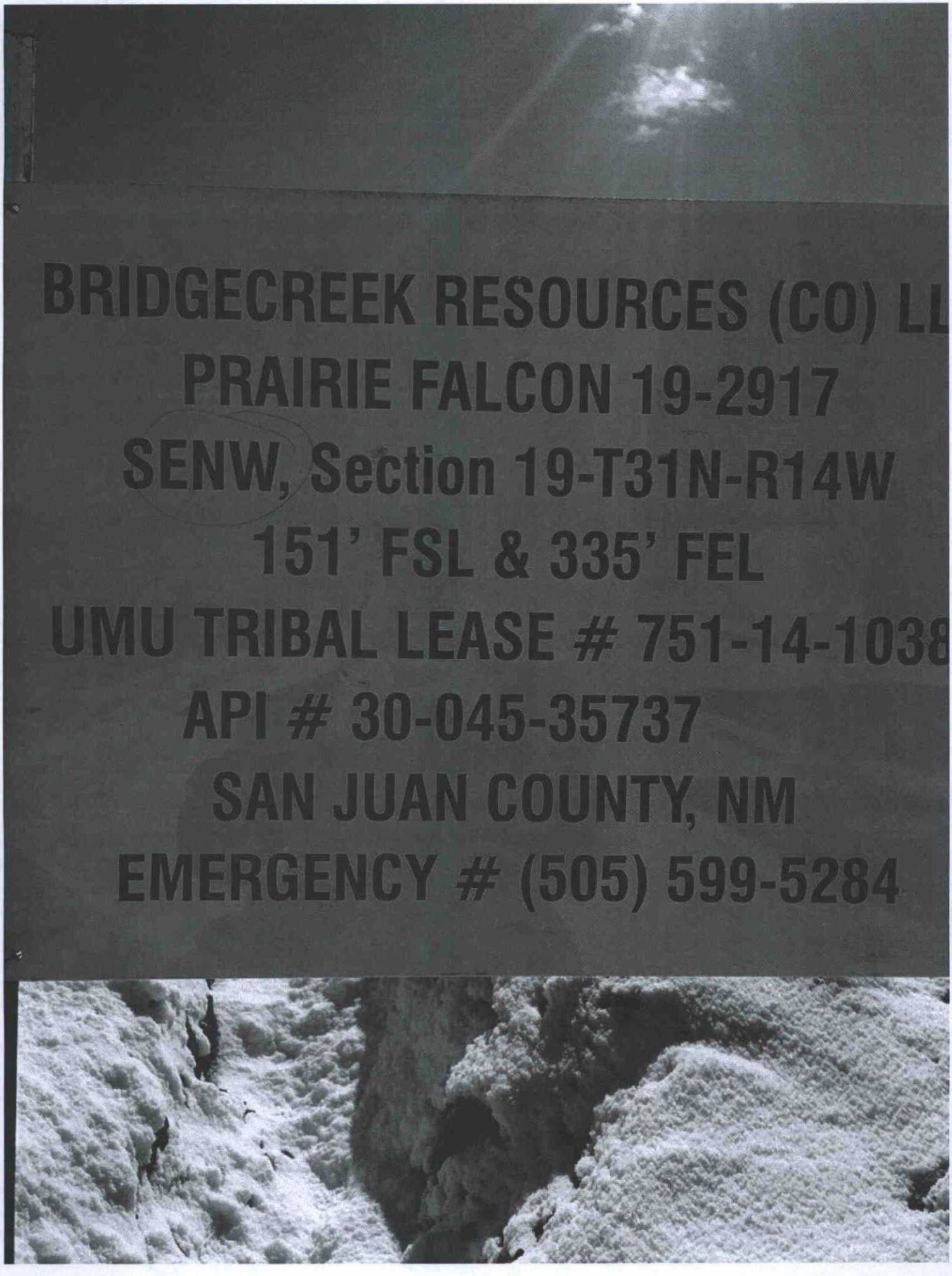
L. Upon final reclamation after cessation of production operations seedbed preparation of compacted areas will be ripped to a minimum depth of 12 inches, with a maximum furrow spacing of 2 feet. Where practicable, ripping will be conducted in two passes at perpendicular directions. Disking will be conducted if large clumps or clods remain after ripping. Any tilling or disking that occurs along the contour of the slope and seed drills will also be run along the contour to provide terracing and prevent rapid run-off and erosion. If broadcast seeding is used, a dozer or other tracked equipment will track perpendicular to the slope prior to broadcast seeding. Access will be ripped (along the contour when possible) to a minimum depth of 6 inches, water barred, and reseeded with a BIA approved seed mix.

M. After all the disturbed areas have been properly prepared, the areas will be seeded with the proper BIA seed mixture, free of noxious weeds.

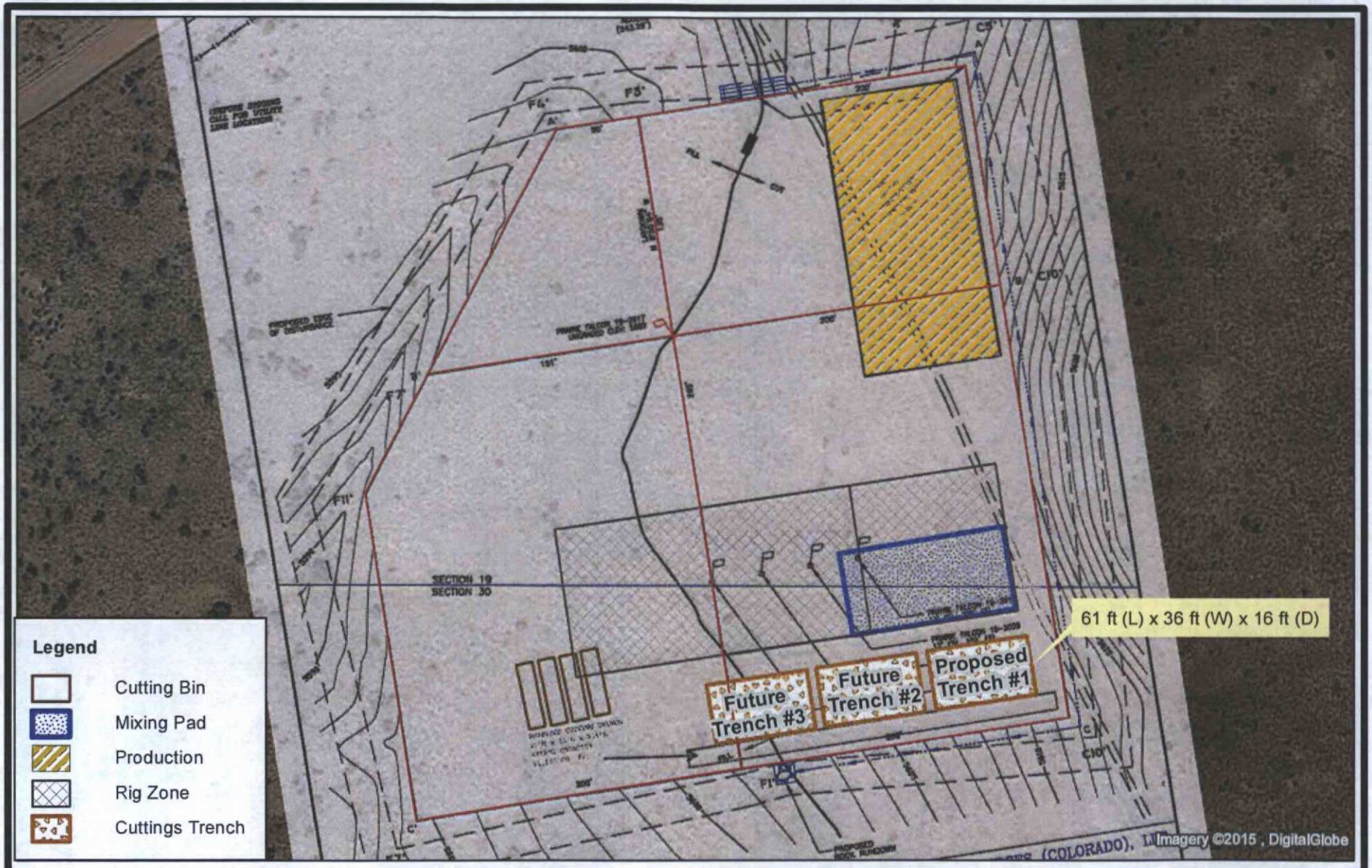
N. Proper erosion control methods will be used on the entire area to control erosion, runoff and siltation of the surrounding area. This may include erosion control blankets, straw bales, or straw wattles as appropriate to limit erosion and sediment transport from any stockpiled soils

O. All unused equipment and structures including pipelines, tanks, etc. that serviced the well will be removed for proper disposal.

P. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.


BRIDGECREEK RESOURCES (CO) LL
PRAIRIE FALCON 19-2917
SENW, Section 19-T31N-R14W
151' FSL & 335' FEL
UMU TRIBAL LEASE # 751-14-1038
API # 30-045-35737
SAN JUAN COUNTY, NM
EMERGENCY # (505) 599-5284

Figures



Adkins Consulting Inc. 180 East 12th Street Durango, CO 81303 505-793-1140	Trench Burial - Drill Cuttings	Figure 1
	Bridgecreek Resources Prairie Falcon 19-2917	December 2015

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
751141038

6. If Indian, Allottee or Tribe Name
UTE MOUNTAIN UTE

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
PRAIRIE FALCON 19-2917

2. Name of Operator
BRIDGECREEK RESOURCES COLO LLC
Contact: CHRISTINE CAMPBELL
E-Mail: ccampbell@bridgecreekresources.com

9. API Well No.
30-045-35737-00-X1

3a. Address
405 URBAN STREET, SUITE 400
LAKEWOOD, CO 80228

3b. Phone No. (include area code)
Ph: 303-945-2642

10. Field and Pool, or Exploratory
VERDE GALLUP

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 19 T31N R14W SENW 151FSL 335FEL
36.879622 N Lat, 108.342736 W Lon

11. County or Parish, and State
SAN JUAN COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Emergency Pits or Closure
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Bridgecreek Resources (CO), LLC provides this notification that the drill cutting trench has been closed and the summary report is attached.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #328624 verified by the BLM Well Information System
For BRIDGECREEK RESOURCES COLO LLC, sent to the Durango
Committed to AFMSS for processing by TRACEY AYZE on 01/14/2016 (16BDT0031SE)

Name *(Printed/Typed)* CHRISTINE CAMPBELL — Title REGULATORY LEAD

Signature (Electronic Submission) — Date 01/14/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ACCEPTED — DAN RABINOWITZ
Title ACTING MINERALS STAFF CHIEF — Date 01/22/2016

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Durango

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Adkins Consulting, Inc.
180 E. 12th Street, Suite #5 Durango, CO 81303
(505)793-1140

January 14, 2016

Mr. Ryan Joyner
Bureau of Land Management
Tres Rios Field Office
Land and Minerals
15 Burnett Court
Durango, CO 81301

RE: Cutting Trench Closure Report. Bridgecreek Resources. Prairie Falcon 19-29 17.
Sec. 19, T31N.R14W. Lease #751-14-1038.

Mr. Joyner:

On the behalf of Bridgecreek Resources (Bridgecreek), Adkins Consulting Inc. (ACI) is pleased to submit this closure plan report. Closure occurred from January 4 through January 11, 2016. Photographs of the closure are located in Appendix A. Exhibit 1 shows the location of the cuttings trench in relation to the Prairie Falcon 19-19 17 wellhead.

The northeast corner of the cuttings trench is 280 feet bearing 142 deg. magnetic north (MN) [130 deg. true north (TN)] from the Prairie Falcon 19-29 17 wellhead. The cuttings trench measures 61 ft (L) x 35 ft (W) x 12 ft (D). Including the 4-foot topsoil cap, the total depth of the trench is 16 ft.

The drill cuttings were mixed in the steel bins and within the cuttings trench until a ratio of 3 (clean): 1 (cuttings) was achieved. Stabilization occurred at a ratio of 1.5 (clean):1 (cuttings).

A confirmation sample of the mixed drill cuttings was obtained after final mixing within the cuttings trench. The confirmation sample was obtained from a six point composite representing the buried drill cuttings matrix. The matrix of the buried cuttings was approximately 45% fines, 45% stabilized mixed cuttings, and 10% rock.

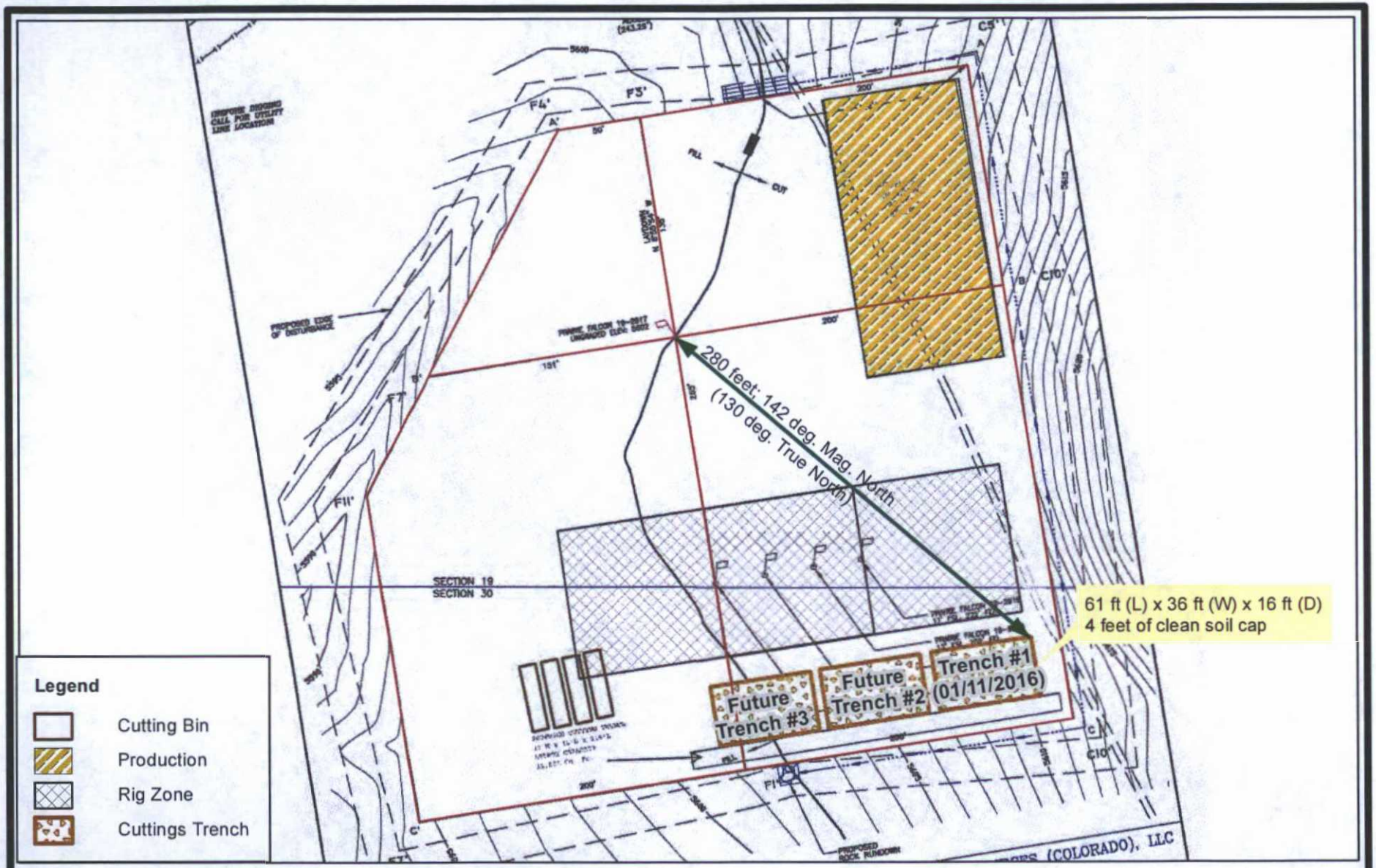
The confirmation sample was delivered to Envirotech Environmental Laboratory for the analysis of constituents listed in the UMU Table and chloride. Analytical results are pending. Bridgecreek will submit analytical results via Sundry when the results become available.

If you have any questions or comments please contact me at 970-570-9535.

Andrew Parker
Adkins Consulting, Inc
Durango, CO
970-570-9535
andrew@adkinsenvironmental.com

Cc: Christine Campbell, Bridgecreek Resources

Exhibits



Adkins Consulting Inc.
180 East 12th Street
Durango, CO 81303
505-793-1140

Trench Burial for Drill Cuttings
Completed January 11, 2016

Figure 1

Bridgecreek Resources
Prairie Falcon 19-2917

January 2016

Appendix A

Figure 1: Excavating the cuttings trench.

Figure 2: Lining the cuttings trench.

Figure 3: Mixing clean soil with drill cuttings.

Figure 4: Placing clean soil on top of lined mixed and stabilized drill cuttings. Caution tape marks the top of the liner cap.

Figure 5: Final cuttings trench grade with T-posts marking cutting trench corners and center.

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
751141038

6. If Indian, Allottee or Tribe Name
UTE MOUNTAIN UTE

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
PRAIRIE FALCON 19-2917

2. Name of Operator
BRIDGECREEK RESOURCES COLO LLC
Contact: CHRISTINE CAMPBELL
E-Mail: ccampbell@palomarnr.com

9. API Well No.
30-045-35737-00-X1

3a. Address
405 URBAN STREET, SUITE 400
LAKEWOOD, CO 80228

3b. Phone No. (include area code)
Ph: 303-945-2642

10. Field and Pool, or Exploratory
VERDE GALLUP

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 19 T31N R14W SENW 151FSL 335FEL
36.879622 N Lat, 108.342736 W Lon

11. County or Parish, and State
SAN JUAN COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Emergency Pits or Closure
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Bridgecreek Resources (CO), LLC submits the attached 3:1 stabilized cuttings confirmation sample results for the Prairie Falcon 19-29#17 trench.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #329735 verified by the BLM Well Information System
For BRIDGECREEK RESOURCES COLO LLC, sent to the Durango
Committed to AFMSS for processing by TRACEY AYZE on 01/26/2016 (16BDT0030SE)

Name *(Printed/Typed)* CHRISTINE CAMPBELL — Title REGULATORY LEAD

Signature (Electronic Submission) — Date 01/26/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ACCEPTED — Title DAN RABINOWITZ ACTING MINERALS STAFF CHIEF — Date 01/27/2016

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Durango

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Adkins Consulting, Inc.
180 E. 12th Street, Suite #5 Durango, CO 81303
(505)793-1140

January 25, 2016

Mr. Ryan Joyner
Bureau of Land Management
Tres Rios Field Office
Land and Minerals
15 Burnett Court
Durango, CO 81301

RE: Analytical Result Addendum to Cutting Trench Closure Report. Bridgecreek Resources. Prairie Falcon 19-2917. Sec. 19, T31N.R14W. Lease #751-14-1038.

Mr. Joyner:

On the behalf of Bridgecreek Resources (Bridgecreek), Adkins Consulting Inc. (ACI) is pleased to submit this addendum to the above referenced closure plan report.

Attached is the Certificate of Analysis for the confirmation sample of mixed buried cuttings. Constituents listed are below the UMU Table standards except for Benzene and arsenic. Arsenic was discussed in the closure plan and is not evaluated further.

Sample ID	Date	TPH(EPA 8015)	Benzene	Arsenic
		mg/kg	mg/kg	mg/kg
Confirmation Sample	1/7/2016	<229.4	0.18	6.85
UMU Table (COGCC Table 910-1)		**500**	**0.17**	**0.39**
NMOCD (Rule 19.15.17; DTW > 100 ft)		**1,000**	**10**	
CDPHE-HMWMD/EPA RSLs			**5.10**	**3.00**
Notes:				
exceeds UMU Table standards				
exceeds EPA RSL Standards				

Benzene exceeds standards by 0.01 mg/kg, as shown in the above table. The approved closure plan calculated a benzene concentration, when mixed at a 3:1 (clean: cuttings) ratio, of 0.16 mg/kg; 0.01 mg/kg below the UMU Table standard. The benzene concentration is below both the NMOCD and EPA RSLs standards. In addition, the benzene is sequestered in place and encapsulated within a 20-mil LLDPE string-reinforced liner and covered with 4-feet of clean fill dirt.

The *de minimis* concentration (0.01 mg/kg) of benzene sequestered in-place is highly unlikely to impair human health and the environment. Therefore, we conclude no further action is required.

If you have any questions or comments please contact me at 970-570-9535.

Andrew Parker
Adkins Consulting, Inc
Durango, CO
970-570-9535
andrew@adkinsenvironmental.com

Cc: Christine Campbell, Bridgecreek Resources

envirotech
Analytical Laboratory

Analytical Report

Report Summary

Client: Bridgecreek Resources, LLC

Chain Of Custody Number:

Samples Received: 1/7/2016 5:00:00PM

Job Number: 15090-0001

Work Order: P601005

Project Name/Location: Prairie Falcon 19- 29-17

Entire Report Reviewed By: _____ Date: 1/15/16

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.

envirotech
Analytical Laboratory

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	15-Jan-16 16:08

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Confirmation Sample	P601005-01A	Soil	01/07/16	01/07/16	Glass Jar, 4 oz.
	P601005-01B	Soil	01/07/16	01/07/16	Glass Jar, 4 oz.
	P601005-01C	Soil	01/07/16	01/07/16	Glass Jar, 4 oz.
	P601005-01D	Soil	01/07/16	01/07/16	Glass Jar, 4 oz.

envirotech
Analytical Laboratory

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	15-Jan-16 16:08

Confirmation Sample

P601005-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	**0.18**	0.10	mg/kg	1	1602012	01/08/16	01/11/16	EPA 8021B	
Toluene	**0.59**	0.10	mg/kg	1	1602012	01/08/16	01/11/16	EPA 8021B	
Ethylbenzene	**0.28**	0.10	mg/kg	1	1602012	01/08/16	01/11/16	EPA 8021B	
p,m-Xylene	**0.66**	0.20	mg/kg	1	1602012	01/08/16	01/11/16	EPA 8021B	
o-Xylene	**0.43**	0.10	mg/kg	1	1602012	01/08/16	01/11/16	EPA 8021B	
Total Xylenes	**1.08**	0.10	mg/kg	1	1602012	01/08/16	01/11/16	EPA 8021B	
Total BTEX	**2.14**	0.10	mg/kg	1	1602012	01/08/16	01/11/16	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*99.8 %*		*50-150*	*1602012*	*01/08/16*	*01/11/16*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**24.4**	20.0	mg/kg	1	1602012	01/08/16	01/11/16	EPA 8015D	
Diesel Range Organics (C10-C28)	**155**	25.0	mg/kg	1	1602017	01/08/16	01/08/16	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1602017	01/08/16	01/08/16	EPA 8015D	
Surrogate: n-Nonane		*119 %*		*50-200*	*1602017*	*01/08/16*	*01/08/16*	*EPA 8015D*	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*104 %*		*50-150*	*1602012*	*01/08/16*	*01/11/16*	*EPA 8015D*	
Total Metals by 6010									
Arsenic	**6.85**	1.00	mg/kg	1	1602016	01/08/16	01/14/16	EPA 6010C	
Barium	**305**	10.0	mg/kg	1	1602016	01/08/16	01/14/16	EPA 6010C	
Cadmium	ND	1.00	mg/kg	1	1602016	01/08/16	01/14/16	EPA 6010C	
Chromium	**28.6**	5.00	mg/kg	1	1602016	01/08/16	01/14/16	EPA 6010C	
Copper	**5.30**	2.00	mg/kg	1	1602016	01/08/16	01/14/16	EPA 6010C	
Lead	**20.5**	1.00	mg/kg	1	1602016	01/08/16	01/14/16	EPA 6010C	
Mercury	ND	1.00	mg/kg	1	1602016	01/08/16	01/14/16	EPA 6010C	
Nickel	**13.8**	1.00	mg/kg	1	1602016	01/08/16	01/14/16	EPA 6010C	
Selenium	ND	5.00	mg/kg	1	1602016	01/08/16	01/14/16	EPA 6010C	
Silver	ND	1.00	mg/kg	1	1602016	01/08/16	01/14/16	EPA 6010C	
Zinc	**62.4**	2.00	mg/kg	1	1602016	01/08/16	01/14/16	EPA 6010C	

envirotech
Analytical Laboratory

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	15-Jan-16 16:08

Confirmation Sample

P601005-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis									
pH @0°C	**8.05**		pH Units	1	1602015	01/08/16 10:36	01/08/16 13:24	9040C/4500 H	
Electrical Conductivity	**2830**		umhos/cm	1	1602015	01/08/16 10:36	01/08/16 13:24	9050A/2510	
Sodium Absorption Ratio	**3.39**		N/A	1	1603019	01/15/16	01/15/16	[CALC]	
Chloride	**112**	20.0	mg/kg	1	1603002	01/12/16	01/12/16	EPA 300.0	
Calcium	**13.0**	0.50	mg/L	1	1603006	01/12/16	01/14/16	EPA 6010C	
Magnesium	**6.79**	0.20	mg/L	1	1603006	01/12/16	01/14/16	EPA 6010C	
Sodium	**60.6**	2.00	mg/L	1	1603006	01/12/16	01/15/16	EPA 6010C	
Boron-Hot Water Soluble by EPA 6010									
Boron	ND	0.50	mg/L	1	1602013	01/08/16	01/15/16	EPA 6010C	

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	15-Jan-16 16:08

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1602012 - Purge and Trap EPA 5030A										
Blank (1602012-BLK1)				Prepared: 08-Jan-16 Analyzed: 11-Jan-16						
Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	*0.319*		"	*0.320*		*99.6*	*50-150*			
LCS (1602012-BS1)				Prepared: 08-Jan-16 Analyzed: 11-Jan-16						
Benzene	10.8	0.10	mg/kg	10.0		108	70-130			
Toluene	10.8	0.10	"	10.0		108	70-130			
Ethylbenzene	10.9	0.10	"	10.0		109	70-130			
p,m-Xylene	21.7	0.20	"	20.0		109	70-130			
o-Xylene	10.6	0.10	"	10.0		106	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*0.320*		"	*0.320*		*99.9*	*50-150*			
Matrix Spike (1602012-MS1)		**Source: P601005-01**		Prepared: 08-Jan-16 Analyzed: 11-Jan-16						
Benzene	10.9	0.10	mg/kg	10.0	0.18	108	54.3-133			
Toluene	11.2	0.10	"	10.0	0.59	106	61.4-130			
Ethylbenzene	11.0	0.10	"	10.0	0.28	107	61.4-133			
p,m-Xylene	22.1	0.20	"	20.0	0.66	107	63.3-131			
o-Xylene	10.8	0.10	"	10.0	0.43	103	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	*0.320*		"	*0.320*		*100*	*50-150*			
Matrix Spike Dup (1602012-MSD1)		**Source: P601005-01**		Prepared: 08-Jan-16 Analyzed: 11-Jan-16						
Benzene	11.4	0.10	mg/kg	10.0	0.18	112	54.3-133	4.29	20	
Toluene	11.7	0.10	"	10.0	0.59	111	61.4-130	4.40	20	
Ethylbenzene	11.5	0.10	"	10.0	0.28	112	61.4-133	4.36	20	
p,m-Xylene	23.1	0.20	"	20.0	0.66	112	63.3-131	4.33	20	
o-Xylene	11.3	0.10	"	10.0	0.43	108	63.3-131	4.58	20	
Surrogate: 4-Bromochlorobenzene-PID	*0.323*		"	*0.320*		*101*	*50-150*			

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	15-Jan-16 16:08

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1602012 - Purge and Trap EPA 5030A										
Blank (1602012-BLK1)				Prepared: 08-Jan-16 Analyzed: 11-Jan-16						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.314*		"	*0.320*		*98.2*	*50-150*			
LCS (1602012-BS1)				Prepared: 08-Jan-16 Analyzed: 11-Jan-16						
Gasoline Range Organics (C6-C10)	132	20.0	mg/kg	106		125	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.323*		"	*0.320*		*101*	*50-150*			
Matrix Spike (1602012-MS1)	**Source: P601005-01**			Prepared: 08-Jan-16 Analyzed: 11-Jan-16						
Gasoline Range Organics (C6-C10)	153	20.0	mg/kg	106	24.4	121	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.328*		"	*0.320*		*102*	*50-150*			
Matrix Spike Dup (1602012-MSD1)	**Source: P601005-01**			Prepared: 08-Jan-16 Analyzed: 11-Jan-16						
Gasoline Range Organics (C6-C10)	151	20.0	mg/kg	106	24.4	119	70-130	1.25	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.314*		"	*0.320*		*98.1*	*50-150*			

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	15-Jan-16 16:08

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1602017 - DRO Extraction EPA 3550M										
Blank (1602017-BLK1)				Prepared & Analyzed: 08-Jan-16						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Surrogate: n-Nonane	*59.3*		"	*50.0*		*119*	*50-200*			
LCS (1602017-BS1)				Prepared & Analyzed: 08-Jan-16						
Diesel Range Organics (C10-C28)	526	25.0	mg/kg	500		105	38-132			
Surrogate: n-Nonane	*55.9*		"	*50.0*		*112*	*50-200*			
Matrix Spike (1602017-MS1)	**Source: P601001-01**			Prepared & Analyzed: 08-Jan-16						
Diesel Range Organics (C10-C28)	533	25.0	mg/kg	500	ND	107	38-132			
Surrogate: n-Nonane	*53.0*		"	*50.0*		*106*	*50-200*			
Matrix Spike Dup (1602017-MSD1)	**Source: P601001-01**			Prepared & Analyzed: 08-Jan-16						
Diesel Range Organics (C10-C28)	544	25.0	mg/kg	500	ND	109	38-132	2.01	20	
Surrogate: n-Nonane	*54.4*		"	*50.0*		*109*	*50-200*			

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	15-Jan-16 16:08

Total Metals by 6010 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1602016 - Metal Solid Digestion EPA 3051A										
Blank (1602016-BLK1)				Prepared: 08-Jan-16 Analyzed: 14-Jan-16						
Arsenic	ND	1.00	mg/kg							
Barium	ND	10.0	"							
Cadmium	ND	1.00	"							
Chromium	ND	5.00	"							
Copper	ND	2.00	"							
Lead	ND	1.00	"							
Mercury	ND	1.00	"							
Nickel	ND	1.00	"							
Selenium	ND	5.00	"							
Silver	ND	1.00	"							
Zinc	ND	2.00	"							
LCS (1602016-BS1)				Prepared: 08-Jan-16 Analyzed: 14-Jan-16						
Arsenic	76.7	1.00	mg/kg	90.0		85.2	80-120			
Barium	85.2	10.0	"	90.0		94.7	80-120			
Cadmium	79.9	1.00	"	90.0		88.8	80-120			
Chromium	81.0	5.00	"	90.0		90.0	80-120			
Copper	76.2	2.00	"	90.0		84.6	80-120			
Lead	80.4	1.00	"	90.0		89.4	80-120			
Mercury	82.5	1.00	"	90.0		91.7	80-120			
Nickel	79.1	1.00	"	90.0		87.9	80-120			
Selenium	73.9	5.00	"	90.0		82.1	80-120			
Silver	77.5	1.00	"	90.0		86.1	80-120			
Zinc	78.9	2.00	"	90.0		87.6	80-120			
Matrix Spike (1602016-MS1)	**Source: P601005-01**			Prepared: 08-Jan-16 Analyzed: 14-Jan-16						
Arsenic	81.5	0.97	mg/kg	87.4	6.85	85.4	75-125			
Barium	590	9.71	"	87.4	305	325	75-125			SPK1
Cadmium	75.8	0.97	"	87.4	ND	86.7	75-125			
Chromium	107	4.85	"	87.4	28.6	90.2	75-125			
Copper	76.7	1.94	"	87.4	5.30	81.7	75-125			
Lead	95.0	0.97	"	87.4	20.5	85.2	75-125			
Mercury	78.4	0.97	"	87.4	ND	89.7	75-125			
Nickel	87.3	0.97	"	87.4	13.8	84.1	75-125			
Selenium	72.7	4.85	"	87.4	ND	83.2	75-125			
Silver	16.6	0.97	"	87.4	ND	19.0	75-125			SPK1
Zinc	140	1.94	"	87.4	62.4	88.5	75-125			

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Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	15-Jan-16 16:08

Total Metals by 6010 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1602016 - Metal Solid Digestion EPA 3051A										
Matrix Spike Dup (1602016-MSD1)	**Source: P601005-01**			Prepared: 08-Jan-16 Analyzed: 14-Jan-16						
Arsenic	82.2	0.98	mg/kg	88.4	6.85	85.2	75-125	0.826	20	
Barium	401	9.82	"	88.4	305	109	75-125	38.0	20	D1
Cadmium	77.3	0.98	"	88.4	ND	87.5	75-125	2.01	20	
Chromium	104	4.91	"	88.4	28.6	85.4	75-125	3.08	20	
Copper	79.0	1.96	"	88.4	5.30	83.4	75-125	2.99	20	
Lead	95.6	0.98	"	88.4	20.5	84.9	75-125	0.639	20	
Mercury	79.8	0.98	"	88.4	ND	90.3	75-125	1.80	20	
Nickel	88.2	0.98	"	88.4	13.8	84.1	75-125	0.972	20	
Selenium	74.8	4.91	"	88.4	ND	84.6	75-125	2.88	20	
Silver	30.2	0.98	"	88.4	ND	34.2	75-125	58.2	20	D1, SPK1
Zinc	137	1.96	"	88.4	62.4	84.6	75-125	1.86	20	

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Analytical Laboratory

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	15-Jan-16 16:08

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1603002 - Anion Extraction EPA 300.0										
Blank (1603002-BLK1)				Prepared & Analyzed: 12-Jan-16						
Chloride	ND	20.0	mg/kg							
LCS (1603002-BS1)				Prepared & Analyzed: 12-Jan-16						
Chloride	477	20.0	mg/kg	500		95.3	90-110			
Matrix Spike (1603002-MS1)	**Source: P601005-01**			Prepared & Analyzed: 12-Jan-16						
Chloride	609	20.0	mg/kg	500	112	99.4	80-120			
Matrix Spike Dup (1603002-MSD1)	**Source: P601005-01**			Prepared & Analyzed: 12-Jan-16						
Chloride	594	20.0	mg/kg	500	112	96.4	80-120	2.49	20	

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Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	15-Jan-16 16:08

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1603006 - Metal Water Digestion EPA 3015A										
Blank (1603006-BLK1)				Prepared: 12-Jan-16 Analyzed: 14-Jan-16						
Calcium	ND	0.50	mg/L							
Magnesium	ND	0.20	"							
Sodium	ND	2.00	"							
LCS (1603006-BS1)				Prepared: 12-Jan-16 Analyzed: 14-Jan-16						
Calcium	92.7	0.50	mg/L	100		92.7	80-120			
Magnesium	87.6	0.20	"	100		87.6	80-120			
Sodium	99.1	2.00	"	100		99.1	80-120			
Matrix Spike (1603006-MS1)	**Source: P601005-01**			Prepared: 12-Jan-16 Analyzed: 14-Jan-16						
Calcium	103	0.50	mg/L	100	13.0	90.3	75-125			
Magnesium	92.8	0.20	"	100	6.79	86.0	75-125			
Sodium	160	2.00	"	100	60.6	99.9	75-125			
Matrix Spike Dup (1603006-MSD1)	**Source: P601005-01**			Prepared: 12-Jan-16 Analyzed: 14-Jan-16						
Calcium	105	0.50	mg/L	100	13.0	92.0	75-125	1.63	20	
Magnesium	94.1	0.20	"	100	6.79	87.3	75-125	1.34	20	
Sodium	162	2.00	"	100	60.6	101	75-125	0.896	20	

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Analytical Laboratory

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	15-Jan-16 16:08

Boron-Hot Water Soluble by EPA 6010 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1602013 - Boron HW Soluble Digestion										
Blank (1602013-BLK1)				Prepared: 08-Jan-16 Analyzed: 15-Jan-16						
Boron	ND	0.50	mg/L							
LCS (1602013-BS1)				Prepared: 08-Jan-16 Analyzed: 15-Jan-16						
Boron	4.09		mg/L	4.00		102	80-120			
Matrix Spike (1602013-MS1)	**Source: P601005-01**			Prepared: 08-Jan-16 Analyzed: 15-Jan-16						
Boron	3.36		mg/L	4.00	0.17	79.8	75-125			
Matrix Spike Dup (1602013-MSD1)	**Source: P601005-01**			Prepared: 08-Jan-16 Analyzed: 15-Jan-16						
Boron	3.55		mg/L	4.00	0.17	84.4	75-125	5.24	20	

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Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	15-Jan-16 16:08

Notes and Definitions

SPK1	The spike recovery is outside of quality control limits.
D1	Duplicates or Matrix Spike Duplicates Relative Percent Difference is outside of control limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Client: Bridgecreek Resources
Project: Prairie Falcon 19-2917
Sampler: Andrew Parker
Phone: 970-570-9535
Email(s): andrew@adkinsenvironmental.com
Project Manager: Andrew Parker

RUSH? ☐ 1d ☐ 3d

Lab Use Only
Lab WO# P601005
Job Number 15090-0001

Page 1 of 1

Sample ID	Sample Date	Sample Time	Matrix	Containers QTY - Vol/TYPE/Preservative	GRO/DRO by 8015	BTEX by 8021	TPH by 418.1	Chloride by 300.0	Table 910-1					Lab Number	Correct Cont/Prsrv (s) Y/N
				Analysis and Method										lab Only	
Confirmation Sample	1/7/2016	14:10	Soil	4 4-oz Jar / ICE	X			X	X					1	Y

(HP)

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Andrew Parker	4:45 pm	1/7/2016	Walter Bonham	1/7/16	17:00
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
**Received on Ice (Y) / N
T1 4.0 T2 ____ T3 ____
AVG Temp °C 4.0

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ____
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA
**Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

☐ Sample(s) dropped off after hours to a secure drop off area.

Chain of Custody

Notes/Billing info: Include Cr-VI ✓
45% fines 45% Clay Clumps 10% Rock

envirotech Analytical Laboratory
5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fx (800) 362-1879
envirotech-inc.com

ANALYTICAL REPORT

January 14, 2016

EnviroTech- NM

Sample Delivery Group:	L811059
Samples Received:	01/09/2016
Project Number:	15090-0001
Description:	Prarie Falcon 19-29-17
Site:	P601005
Report To:	Tim Cain and Lynn Cook 5796 US. Highway 64 Farmington, NM 87401

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Technical Service Representative

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.esclabsciences.com

TABLE OF CONTENTS

CONFIRMATION L811059-01 Solid

Collected by: Andrew Parker
Collected date/time: 01/07/16 14:10
Received date/time: 01/09/16 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG841243	1	01/09/16 18:17	01/11/16 09:52	KMP
Total Solids by Method 2540 G-2011	WG841481	1	01/11/16 15:05	01/11/16 15:15	MEL
Wet Chemistry by Method 2580 B-2011	WG841510	1	01/12/16 08:34	01/12/16 08:35	JER
Wet Chemistry by Method 3060A/7196A	WG841297	1	01/11/16 10:01	01/12/16 09:48	AMC
Wet Chemistry by Method 9045D	WG841295	1	01/12/16 17:04	01/12/16 17:04	MAJ

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne R Richards

Daphne Richards
Technical Service Representative

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.0		1	01/11/2016 15:15	WG841481

Wet Chemistry by Method 2580 B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	mV			date / time	
ORP	72		1	01/12/2016 08:35	WG841510

Wet Chemistry by Method 3060A/7196A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chromium,Hexavalent	ND		2.41	1	01/12/2016 09:48	WG841297

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.80		1	01/12/2016 17:04	WG841295

Sample Narrative:

9045D L811059-01 WG841295: 7.80 at 22.9c

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.00723	1	01/11/2016 09:52	WG841243
Acenaphthene	ND		0.00723	1	01/11/2016 09:52	WG841243
Acenaphthylene	ND		0.00723	1	01/11/2016 09:52	WG841243
Benzo(a)anthracene	ND		0.00723	1	01/11/2016 09:52	WG841243
Benzo(a)pyrene	ND		0.00723	1	01/11/2016 09:52	WG841243
Benzo(b)fluoranthene	ND		0.00723	1	01/11/2016 09:52	WG841243
Benzo(g,h,i)perylene	ND		0.00723	1	01/11/2016 09:52	WG841243
Benzo(k)fluoranthene	ND		0.00723	1	01/11/2016 09:52	WG841243
Chrysene	ND		0.00723	1	01/11/2016 09:52	WG841243
Dibenz(a,h)anthracene	ND		0.00723	1	01/11/2016 09:52	WG841243
Fluoranthene	ND		0.00723	1	01/11/2016 09:52	WG841243
Fluorene	ND		0.00723	1	01/11/2016 09:52	WG841243
Indeno(1,2,3-cd)pyrene	ND		0.00723	1	01/11/2016 09:52	WG841243
Naphthalene	0.0899		0.0241	1	01/11/2016 09:52	WG841243
Phenanthrene	0.00745		0.00723	1	01/11/2016 09:52	WG841243
Pyrene	ND		0.00723	1	01/11/2016 09:52	WG841243
1-Methylnaphthalene	0.0324		0.0241	1	01/11/2016 09:52	WG841243
2-Methylnaphthalene	0.0387		0.0241	1	01/11/2016 09:52	WG841243
2-Chloronaphthalene	ND		0.0241	1	01/11/2016 09:52	WG841243
(S) Nitrobenzene-d5	*89.8*		*22.1-146*		*01/11/2016 09:52*	WG841243
(S) 2-Fluorobiphenyl	*87.5*		*40.6-122*		*01/11/2016 09:52*	WG841243
(S) p-Terphenyl-d14	*76.9*		*32.2-131*		*01/11/2016 09:52*	WG841243

Method Blank (MB)

(MB) 01/11/16 15:15

Analyte	MB Result %	MB Qualifier	MB RDL %
Total Solids	0.000700		

L810997-28 Original Sample (OS) • Duplicate (DUP)

(OS) 01/11/16 15:15 • (DUP) 01/11/16 15:15

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	87.5	87.8	1	0.360		5

Laboratory Control Sample (LCS)

(LCS) 01/11/16 15:15

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

L810751-01 Original Sample (OS) • Duplicate (DUP)

(OS) 01/12/16 08:35 • (DUP) 01/12/16 08:35

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mV	mV		%		%
ORP	106	108	1	1.87		20

L811075-01 Original Sample (OS) • Duplicate (DUP)

(OS) 01/12/16 08:35 • (DUP) 01/12/16 08:35

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mV	mV		%		%
ORP	305	303	1	0.658		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 01/12/16 08:35 • (LCSD) 01/12/16 08:35

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mV	mV	mV	%	%	%			%	%
ORP	100	100	100	100	100	90.0-110			0.000	20

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) 01/12/16 09:38

Analyte	MB Result mg/kg	MB Qualifier	MB RDL mg/kg
Chromium,Hexavalent	ND		2.00

L811055-01 Original Sample (OS) • Duplicate (DUP)

(OS) 01/12/16 09:43 • (DUP) 01/12/16 09:43

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chromium,Hexavalent	ND	ND	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 01/12/16 09:40 • (LCSD) 01/12/16 09:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chromium,Hexavalent	97.4	90.4	90.2	92.8	92.6	80.0-120			0.221	20

L811055-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 01/12/16 09:43 • (MS) 01/12/16 09:46 • (MSD) 01/12/16 09:46

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium,Hexavalent	20.0	ND	20.3	20.4	102	102	1	75.0-125			0.491	20

L811055-01 Original Sample (OS) • Duplicate (DUP)

(OS) 01/12/16 17:04 • (DUP) 01/12/16 17:04

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.35	8.35	1	0.000		1

L811067-03 Original Sample (OS) • Duplicate (DUP)

(OS) 01/12/16 17:04 • (DUP) 01/12/16 17:04

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.07	8.09	1	0.248		1

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 01/12/16 17:04 • (LCSD) 01/12/16 17:04

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	su	su	su	%	%	%			%	%
pH	6.72	6.70	6.70	99.7	99.7	98.5-102			0.000	1

Method Blank (MB)

(MB) 01/11/16 03:23

Analyte	MB Result mg/kg	MB Qualifier	MB RDL mg/kg
Anthracene	ND		0.00600
Acenaphthene	ND		0.00600
Acenaphthylene	ND		0.00600
Benzo(a)anthracene	ND		0.00600
Benzo(a)pyrene	ND		0.00600
Benzo(b)fluoranthene	ND		0.00600
Benzo(g,h,i)perylene	ND		0.00600
Benzo(k)fluoranthene	ND		0.00600
Chrysene	ND		0.00600
Dibenz(a,h)anthracene	ND		0.00600
Fluoranthene	ND		0.00600
Fluorene	ND		0.00600
Indeno(1,2,3-cd)pyrene	ND		0.00600
Naphthalene	ND		0.0200
Phenanthrene	ND		0.00600
Pyrene	ND		0.00600
1-Methylnaphthalene	ND		0.0200
2-Methylnaphthalene	ND		0.0200
2-Chloronaphthalene	ND		0.0200
(S) p-Terphenyl-d14	*55.9*		*32.2-131*
(S) Nitrobenzene-d5	*64.8*		*22.1-146*
(S) 2-Fluorobiphenyl	*65.9*		*40.6-122*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 01/11/16 02:40 • (LCSD) 01/11/16 03:02

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	0.0772	0.0738	96.6	92.3	50.3-130			4.53	20
Acenaphthene	0.0800	0.0745	0.0698	93.2	87.2	52.4-120			6.61	20
Acenaphthylene	0.0800	0.0745	0.0700	93.1	87.5	49.6-120			6.22	20
Benzo(a)anthracene	0.0800	0.0740	0.0689	92.6	86.2	46.7-125			7.15	20
Benzo(a)pyrene	0.0800	0.0675	0.0593	84.4	74.2	42.3-119			12.9	20
Benzo(b)fluoranthene	0.0800	0.0715	0.0684	89.4	85.5	43.6-124			4.53	20
Benzo(g,h,i)perylene	0.0800	0.0795	0.0734	99.4	91.8	45.1-132			7.95	20
Benzo(k)fluoranthene	0.0800	0.0824	0.0769	103	96.1	46.1-131			6.96	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 01/11/16 02:40 • (LCSD) 01/11/16 03:02

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chrysene	0.0800	0.0778	0.0729	97.3	91.1	49.5-131			6.55	20
Dibenz(a,h)anthracene	0.0800	0.0822	0.0764	103	95.5	44.8-133			7.34	20
Fluoranthene	0.0800	0.0779	0.0729	97.4	91.1	49.3-128			6.69	20
Fluorene	0.0800	0.0729	0.0683	91.2	85.3	50.6-121			6.64	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0808	0.0751	101	93.9	46.1-135			7.24	20
Naphthalene	0.0800	0.0739	0.0692	92.4	86.5	49.6-115			6.59	20
Phenanthrene	0.0800	0.0738	0.0668	92.2	83.4	48.8-121			9.96	20
Pyrene	0.0800	0.0749	0.0687	93.6	85.8	44.7-130			8.64	20
1-Methylnaphthalene	0.0800	0.0737	0.0693	92.2	86.6	50.6-122			6.26	20
2-Methylnaphthalene	0.0800	0.0736	0.0692	92.1	86.5	50.4-120			6.28	20
2-Chloronaphthalene	0.0800	0.0748	0.0693	93.4	86.6	53.9-121			7.57	20
(S) p-Terphenyl-d14				*78.4*	*81.0*	*32.2-131*				
(S) Nitrobenzene-d5				*84.7*	*90.3*	*22.1-146*				
(S) 2-Fluorobiphenyl				*85.4*	*90.4*	*40.6-122*				

L810999-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 01/11/16 07:21 • (MS) 01/11/16 07:42 • (MSD) 01/11/16 08:04

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	0.00659	0.0829	0.0731	95.4	83.1	1	26.5-141			12.6	21.2
Acenaphthene	0.0800	0.0373	0.128	0.105	113	84.5	1	31.9-130			19.8	20
Acenaphthylene	0.0800	0.0123	0.0921	0.0823	99.8	87.6	1	33.7-129			11.2	20
Benzo(a)anthracene	0.0800	0.00403	0.0781	0.0737	92.6	87.1	1	18.3-136			5.82	24.6
Benzo(a)pyrene	0.0800	0.00197	0.0734	0.0700	89.3	85.0	1	16.9-135			4.72	25.2
Benzo(b)fluoranthene	0.0800	0.00173	0.0748	0.0692	91.3	84.4	1	10.0-134			7.68	30.9
Benzo(g,h,i)perylene	0.0800	0.00226	0.0798	0.0760	96.9	92.2	1	14.1-140			4.78	25.5
Benzo(k)fluoranthene	0.0800	0.000659	0.0699	0.0724	86.6	89.7	1	18.2-138			3.49	25.6
Chrysene	0.0800	0.00326	0.0738	0.0709	88.2	84.6	1	17.1-145			3.99	24.2
Dibenz(a,h)anthracene	0.0800	ND	0.0773	0.0746	96.6	93.2	1	18.5-138			3.59	24.3
Fluoranthene	0.0800	0.00864	0.0861	0.0788	96.8	87.7	1	15.4-144			8.87	27.1
Fluorene	0.0800	0.0301	0.121	0.106	114	94.8	1	23.5-136			13.5	20
Indeno(1,2,3-cd)pyrene	0.0800	0.000677	0.0774	0.0751	95.9	93.1	1	14.5-142			2.97	25.8
Naphthalene	0.0800	6.87	10.5	6.61	4570	0.000	1	29.2-128	V	J3 V	45.8	20
Phenanthrene	0.0800	0.0414	0.138	0.112	120	88.1	1	20.1-134			20.7	23.6
Pyrene	0.0800	0.0132	0.0925	0.0843	99.1	88.8	1	11.0-148			9.30	26.1

L810999-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 01/11/16 07:21 • (MS) 01/11/16 07:42 • (MSD) 01/11/16 08:04

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1-Methylnaphthalene	0.0800	2.68	3.86	2.65	1470	0.000	1	28.4-137	V	J3 V	37.0	20
2-Methylnaphthalene	0.0800	5.83	8.71	5.70	3600	0.000	1	26.6-137	V	J3 V	41.8	20
2-Chloronaphthalene	0.0800	ND	0.0806	0.0751	101	93.9	1	38.6-126			7.06	20
(S) p-Terphenyl-d14					*84.7*	*81.0*		*32.2-131*				
(S) Nitrobenzene-d5					*60.2*	*63.7*		*22.1-146*				
(S) 2-Fluorobiphenyl					*94.3*	*90.0*		*40.6-122*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
J3	The associated batch QC was outside the established quality control range for precision.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

Company Name/Address:	Billing Information:
Envirotech Inc. 5796 US Highway 64 Farmington, NM 87401	Accounts Payable 5796 US Highway 64 Farmington, NM 87401
Report to: Lynn Cook & Tim Cain	Email To: Lynn Cook & Tim Cain
Project Description: Prairie Falcon 19-29-17	City/State Collected:
Phone: / Fax:	Client Project # 15090-0001 / Lab Project #
Collected by (print): Andrew Parker	Site/Facility ID # PQ01005 / P.O. # 142780
Collected by (signature):	*Rush?* (Lab MUST Be Notified): ___ Same Day 200%; ___ Next Day 100%; ___ Two Day 50%; ___ Three Day 25% / Date Results Needed 01-14-16
Immediately Packed on Ice N ___ Y ✓	Email? ___ No ✓ Yes / FAX? ✓ No ___ Yes

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

ESC LABORATORY SCIENCES — YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L811059

C226

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	PAH by 8270 Sim/ 4oz jar/ Cool	Hexavalent Chromium/ 4oz jar/ Cool	w/ink min. Inv Fee	Per Quote ENVIROFMN100915S1	Rem./Contaminant	Sample # (lab only)
Confirmation Sample		SS		01-07-16	14:10	2	X	X				-01

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other ___

Remarks: no Min Inv fee, ENVROFMN100915S1, Quote: Pull representative matrix from Jar which is approx. 45% fine, 45% Clay Clumps, 10% Rock

pH ___ Temp ___ Flow ___ Other ___

Hold #

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
[signature]	01-08-16	9:13	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ___

Temp: 2.6 °C Bottles Received: 2=4oz

Date: 1/9/16 Time: 0930

Condition: OB10 (OK) (lab use only)

COC Seal Intact: ___ Y ___ N ✓ NA

pH Checked: NCF:

Tables

Table 1: Summary of Analytical Results

Sample ID	Date	DRO (8015D)	MRO (8015D)	GRO (8015D)	TPH(EPA 8015)	Benzene	Toluene	Ethylbenzene	Xylenes (total)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Bin Composite	12/4/2015	367	122	56	545	0.59	1.47	0.54	2.3
Background	12/4/2015	<25	<50	<20	95	<0.02	<0.02	0.03	<0.02
UMU Table (COGCC Table 910-1)					500	0.17	85	100	175
NMOCD (Rule 19.15.17): DTW > 100 ft)					1,000	10			
CDPHE-HMWMD/EPA RSLs						5.10	4,700	25	250

Notes:

exceeds UMU Table standards

exceeds EPA RSL Standards

na = not analyzed

Table 1: Summary of Analytical Results

Sample ID	Date	Chloride	Mercury	Arsenic	Barium	Boron	Cadmium	Chromium	Chromium VI	Copper	Lead	Nickel	Selenium	Silver
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Bin Composite	12/4/2015	134	<0.96	5.38	1,830	<0.50	<0.96	25.5	<2.66	3.68	16.2	12.3	<4.8	<0.96
Background	12/4/2015	849	<0.99	4.67	152	<0.50	<0.99	13.1	<2.36	<1.97	15.8	9.07	<4.93	<0.99
UMU Table (COGCC Table 910-1)			23	0.39	15,000	4 (exempt)	70	120,000	23	3,100	400	1,600	390	390
NMOCD (Rule 19.15.17: DTW > 100 ft)														
CDPHE-HMWMD/EPA RSLs			35	3.00	22,400		98	180,000	6	4,700	800	2,200	580	580

Notes:

exceeds UMU Table standards

exceeds EPA RSL Standards

na = not analyzed

Table 1: Summary of Analytical Results

Sample ID	Date	Zinc	pH	Naphthalene	Acenaphthene	Fluorene	Anthracene	Fluoranthene	Pyrene	Benzo[A]anthracene	Chrysene
		mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Bin Composite	12/4/2015	54.5	8.98	0.394	0.0123	0.0379	<0.00799	<0.00799	0.0094	<0.00799	<0.00799
Background	12/4/2015	39.9	8.73	<0.0236	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708	<0.00708
UMU Table (COGCC Table 910-1)		23,000	6-9	23	1,000	1,000	1,000	1,000	1,000	0.22	22
NMOCD (Rule 19.15.17; DTW > 100 ft)											
CDPHE-HMWMD/EPA RSLs		35,000		17	4,500	3,000	23,000	3,000	2,300	2.90	290

Notes:
exceeds UMU Table standards
exceeds EPA RSL Standards
na = not analyzed

Table 1: Summary of Analytical Results

Sample ID	Date	Benzo(B)fluoranthene	Benzo(K)floranthene	Benzo(A)pyrene	Dibenzo(A,H)anthracene
		mg/kg	mg/kg	mg/kg	mg/kg
Bin Composite	12/4/2015	<0.00799	<0.00799	<0.00799	<0.00799
Background	12/4/2015	<0.00708	<0.00708	<0.00708	<0.00708
UMU Table (COGCC Table 910-1)		0.22	2.20	0.022	0.022
NMOCD (Rule 19.15.17; DTW > 100 ft)					
CDPHE-HMWMD/EPA RSLs		2.90	29.00	0.29	0.290

Notes:

exceeds UMU Table standards

exceeds EPA RSL Standards

na = not analyzed

Table 1: Summary of Analytical Results

Sample ID	Date	Indeno(1,2,3-cd)pyrene	Sodium Absportion Ratio	Electrical Conductivity
		mg/kg	--	mmhos/cm
Bin Composite	12/4/2015	<0.00799	2.24	1.63
Background	12/4/2015	<0.00708	0.186	0.112
UMU Table (CDGCC Table 910-1)		0.22	<12	<4 or 2x background
NMOCD (Rule 19.15.17; DTW >100 ft)				
CDPHE-HMWMD/EPA RSLs		2.90		

Notes:
exceeds UMU Table standards
exceeds EPA RSL Standards
na = not analyzed

Table 2: Mixing Ratio

Mixing Ratio	DRO (8015D)	MRO (8015D)	GRO (8015D)	TPH(EPA 8015)	Benzene	Toluene	Ethylbenzene	Xylenes (total)
clean:cuttings	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1:1	196	86	38	320	0.31	0.75	0.29	1.16
2:1	139	74	32	245	0.21	0.50	0.20	0.78
3:1	111	68	29	208	0.16	0.38	0.16	0.59

UMU Table (COGCC Table 910-1)				**500**	**0.17**	**85**	**100**	**175**
NMOCD (Rule 19.15.17; DTW > 100 ft)				**1,000**	**10**			
CDPHE-HMWMD/EPA RSLs					**5.10**	**4,700**	**25**	**250**

Notes:
exceeds UMU Table standards
exceeds EPA RSL Standards

Table 2: Mixing Ratio

Mixing Ratio	Arsenic	Barium	Boron	Cadmium	Chromium	Chromium VI	Copper	Lead	Nickel	Selenium	Silver	Zinc	pH	Naphthalene
clean:cuttings	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	--	mg/kg
1:1	5.03	991.00	0.50	0.98	19.30	2.51	2.83	15.90	10.69	4.87	0.98	47.20	8.86	0.21
2:1	4.91	711.33	0.50	0.98	17.23	2.46	2.54	15.80	10.15	4.89	0.98	44.77	8.81	0.15
3:1	4.85	571.50	0.50	0.98	16.20	2.44	2.40	15.75	9.88	4.90	0.98	43.55	8.79	0.12

UMU Table (COGCC Table 910-1)	**0.39**	**15,000**		**70**	**120,000**	**23**	**3,100**	**400**	**1,600**	**390**	**390**	**23,000**	**6-9**	**23**
NMOCD (Rule 19.15.17; DTW > 100 ft)														
CDPHE-HMWMD/EPA RSLs	**3**	**22,400**		**98**	**180,000**	**6.30**	**4,700**	**800**	**2,200**	**580**	**580**	**35,000**		**17**

Notes:

exceeds UMU Table standards

exceeds EPA RSL Standards

Table 2: Mixing Ratio

Mixing Ratio	Acenaphthene	Fluorene	Anthracene	Fluoranthene	Pyrene	Benzo(A)anthracene	Chrysene	Benzo(B)fluoranthene
clean:cuttings	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1:1	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01
2:1	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01
3:1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
UMU Table (COGCC Table 910-1)	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**0.22**	**22**	**0.22**
NMOCD (Rule 19.15.17; DTW > 100 ft)								
CDPHE-HMWMD/EPA RSLs	**4,500**	**3,000**	**23,000**	**3,000**	**2,300**	**2.90**	**290**	**2.90**

Notes:

exceeds UMU Table standards

exceeds EPA RSL Standards

Table 2: Mixing Ratio

Mixing Ratio	Benzo(K)floranthene	Benzo(A)pyrene	Dibenzo(A,H)anthracene	Indeno(1,2,3-cd)pyrene	Sodium Absportion Ratio
clean:cuttings	mg/kg	mg/kg	mg/kg	mg/kg	--
1:1	0.01	0.01	0.01	0.01	1.21
2:1	0.01	0.01	0.01	0.01	0.87
3:1	0.01	0.01	0.01	0.01	0.70

UMU Table (COGCC Table 910-1)	**2.20**	**0.022**	**0.022**	**0.22**	**<12**
NMOCD (Rule 19.15.17; DTW > 100 ft)					
CDPHE-HMWMD/EPA RSLs	**29**	**0.29**	**0.29**	**2.9**	

Notes:

exceeds UMU Table standards

exceeds EPA RSL Standards

Appendix A

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Analytical Report

Report Summary

Client: Bridgecreek Resources, LLC
Chain Of Custody Number:
Samples Received: 12/4/2015 5:44:00PM
Job Number: 15090-0001
Work Order: P512016
Project Name/Location: Prairie Falcon 19- 29-17

Entire Report Reviewed By: _____ Date: 12/22/15

Tim Cain, Laboratory Manager

Supplement to analytical report generated on: 12/15/15 5:22 pm

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Analytical Laboratory

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	22-Dec-15 10:34

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Bin Composite	P512016-01A	Soil	12/04/15	12/04/15	Glass Jar, 4 oz.
	P512016-01B	Soil	12/04/15	12/04/15	Glass Jar, 4 oz.
	P512016-01C	Soil	12/04/15	12/04/15	Glass Jar, 4 oz.
Background	P512016-02A	Soil	12/04/15	12/04/15	Glass Jar, 4 oz.
	P512016-02B	Soil	12/04/15	12/04/15	Glass Jar, 4 oz.
	P512016-02C	Soil	12/04/15	12/04/15	Glass Jar, 4 oz.

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Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	22-Dec-15 10:34

Bin Composite

P512016-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	**0.59**	0.10	mg/kg	1	1550020	12/09/15	12/10/15	EPA 8021B	
Toluene	**1.47**	0.10	mg/kg	1	1550020	12/09/15	12/10/15	EPA 8021B	
Ethylbenzene	**0.54**	0.10	mg/kg	1	1550020	12/09/15	12/10/15	EPA 8021B	
p,m-Xylene	**1.33**	0.20	mg/kg	1	1550020	12/09/15	12/10/15	EPA 8021B	
o-Xylene	**0.97**	0.10	mg/kg	1	1550020	12/09/15	12/10/15	EPA 8021B	
Total Xylenes	**2.30**	0.10	mg/kg	1	1550020	12/09/15	12/10/15	EPA 8021B	
Total BTEX	**4.90**	0.10	mg/kg	1	1550020	12/09/15	12/10/15	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*117 %*		*50-150*	*1550020*	*12/09/15*	*12/10/15*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**56.0**	20.0	mg/kg	1	1550020	12/09/15	12/10/15	EPA 8015D	
Diesel Range Organics (C10-C28)	**367**	25.0	mg/kg	1	1550019	12/09/15	12/10/15	EPA 8015D	
Oil Range Organics (C28-C40+)	**122**	50.0	mg/kg	1	1550019	12/09/15	12/10/15	EPA 8015D	
Surrogate: n-Nonane		*113 %*		*50-200*	*1550019*	*12/09/15*	*12/10/15*	*EPA 8015D*	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.3 %*		*50-150*	*1550020*	*12/09/15*	*12/10/15*	*EPA 8015D*	
Total Metals by 6010									
Arsenic	**5.38**	0.96	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Barium	**1830**	9.60	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Cadmium	ND	0.96	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Chromium	**25.5**	4.80	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Copper	**3.68**	1.92	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Lead	**16.2**	0.96	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Mercury	ND	0.96	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Nickel	**12.3**	0.96	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Selenium	ND	4.80	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Silver	ND	0.96	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Zinc	**54.5**	1.92	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	

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Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	22-Dec-15 10:34

Bin Composite

P512016-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis									
pH @25°C	**8.98**		pH Units	1	1550009	12/08/15 12:24	12/08/15 14:33	9040C/4500 H	
Electrical Conductivity	**1630**		umhos/cm	1	1550009	12/08/15 12:24	12/08/15 14:33	9050A/2510	
Sodium Absorption Ratio	**2.24**		N/A	1	1551017	12/15/15	12/15/15	[CALC]	
Chloride	**134**	20.0	mg/kg	1	1550022	12/10/15	12/10/15	EPA 300.0	
Calcium	**52.0**	0.50	mg/L	1	1551009	12/14/15	12/15/15	EPA 6010C	
Magnesium	**39.9**	0.20	mg/L	1	1551009	12/14/15	12/15/15	EPA 6010C	
Sodium	**88.1**	2.00	mg/L	1	1551009	12/14/15	12/15/15	EPA 6010C	
Boron-Hot Water Soluble by EPA 6010									
Boron	ND	0.50	mg/L	1	1551005	12/14/15	12/15/15	EPA 6010C	

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Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	22-Dec-15 10:34

Background

P512016-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.02	mg/kg	1	1550020	12/09/15	12/10/15	EPA 8021B	A-01
Toluene	ND	0.02	mg/kg	1	1550020	12/09/15	12/10/15	EPA 8021B	A-01
Ethylbenzene	**0.03**	0.02	mg/kg	1	1550020	12/09/15	12/10/15	EPA 8021B	A-01
p,m-Xylene	ND	0.04	mg/kg	1	1550020	12/09/15	12/10/15	EPA 8021B	A-01
o-Xylene	ND	0.02	mg/kg	1	1550020	12/09/15	12/10/15	EPA 8021B	A-01
Total Xylenes	ND	0.02	mg/kg	1	1550020	12/09/15	12/10/15	EPA 8021B	A-01
Total BTEX	ND	0.02	mg/kg	1	1550020	12/09/15	12/10/15	EPA 8021B	A-01
Surrogate: 4-Bromochlorobenzene-PID		*115 %*	*50-150*		*1550020*	*12/09/15*	*12/10/15*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1550020	12/09/15	12/10/15	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1550019	12/09/15	12/10/15	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1550019	12/09/15	12/10/15	EPA 8015D	
Surrogate: n-Nonane		*107 %*	*50-200*		*1550019*	*12/09/15*	*12/10/15*	*EPA 8015D*	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*86.5 %*	*50-150*		*1550020*	*12/09/15*	*12/10/15*	*EPA 8015D*	
Total Metals by 6010									
Arsenic	**4.67**	0.99	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Barium	**152**	9.86	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Cadmium	ND	0.99	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Chromium	**13.1**	4.93	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Copper	ND	1.97	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Lead	**15.6**	0.99	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Mercury	ND	0.99	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Nickel	**9.07**	0.99	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Selenium	ND	4.93	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Silver	ND	0.99	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	
Zinc	**39.9**	1.97	mg/kg	1	1551002	12/14/15	12/14/15	EPA 6010C	

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Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	22-Dec-15 10:34

Background

P512016-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis									
pH @21.6°C	**8.73**		pH Units	1	1550009	12/08/15 12:24	12/08/15 14:33	9040C/4500 H	
Electrical Conductivity	**112**		umhos/cm	1	1550009	12/08/15 12:24	12/08/15 14:33	9050A/2510	
Sodium Absorption Ratio	**0.186**		N/A	1	1551017	12/15/15	12/15/15	[CALC]	
Chloride	**849**	20.0	mg/kg	1	1550022	12/10/15	12/10/15	EPA 300.0	
Calcium	**22.1**	0.50	mg/L	1	1551009	12/14/15	12/15/15	EPA 6010C	
Magnesium	**20.1**	0.20	mg/L	1	1551009	12/14/15	12/15/15	EPA 6010C	
Sodium	**5.02**	2.00	mg/L	1	1551009	12/14/15	12/15/15	EPA 6010C	
Boron-Hot Water Soluble by EPA 6010									
Boron	ND	0.50	mg/L	1	1551005	12/14/15	12/15/15	EPA 6010C	

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	22-Dec-15 10:34

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1550020 - Purge and Trap EPA 5030A										
Blank (1550020-BLK1)				Prepared: 09-Dec-15 Analyzed: 10-Dec-15						
Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	*0.364*		"	*0.400*		*91.1*	*50-150*			
LCS (1550020-BS1)				Prepared: 09-Dec-15 Analyzed: 10-Dec-15						
Benzene	11.8	0.10	mg/kg	10.0		118	70-130			
Toluene	11.6	0.10	"	10.0		116	70-130			
Ethylbenzene	11.6	0.10	"	10.0		116	70-130			
p,m-Xylene	23.5	0.20	"	20.0		117	70-130			
o-Xylene	11.2	0.10	"	10.0		112	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*0.367*		"	*0.400*		*91.6*	*50-150*			
Matrix Spike (1550020-MS1)		**Source: P512014-21**		Prepared: 09-Dec-15 Analyzed: 10-Dec-15						
Benzene	10.9	0.10	mg/kg	10.0	ND	109	54.3-133			
Toluene	10.7	0.10	"	10.0	ND	107	61.4-130			
Ethylbenzene	10.7	0.10	"	10.0	ND	107	61.4-133			
p,m-Xylene	21.6	0.20	"	20.0	ND	108	63.3-131			
o-Xylene	10.5	0.10	"	10.0	ND	105	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	*0.365*		"	*0.400*		*91.3*	*50-150*			
Matrix Spike Dup (1550020-MSD1)		**Source: P512014-21**		Prepared: 09-Dec-15 Analyzed: 10-Dec-15						
Benzene	11.4	0.10	mg/kg	10.0	ND	114	54.3-133	4.80	20	
Toluene	11.2	0.10	"	10.0	ND	112	61.4-130	4.97	20	
Ethylbenzene	11.2	0.10	"	10.0	ND	112	61.4-133	5.01	20	
p,m-Xylene	22.7	0.20	"	20.0	ND	113	63.3-131	4.85	20	
o-Xylene	10.9	0.10	"	10.0	ND	109	63.3-131	4.21	20	
Surrogate: 4-Bromochlorobenzene-PID	*0.366*		"	*0.400*		*91.4*	*50-150*			

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	22-Dec-15 10:34

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1550019 - DRO Extraction EPA 3550M										
Blank (1550019-BLK1)				Prepared & Analyzed: 09-Dec-15						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Surrogate: n-Nonane	*52.4*		"	*50.0*		*105*	*50-200*			
LCS (1550019-BS1)				Prepared & Analyzed: 09-Dec-15						
Diesel Range Organics (C10-C28)	502	25.0	mg/kg	500		100	38-132			
Surrogate: n-Nonane	*52.4*		"	*50.0*		*105*	*50-200*			
Matrix Spike (1550019-MS1)	**Source: P512013-01**			Prepared & Analyzed: 09-Dec-15						
Diesel Range Organics (C10-C28)	506	25.0	mg/kg	500	ND	101	38-132			
Surrogate: n-Nonane	*49.5*		"	*50.0*		*99.0*	*50-200*			
Matrix Spike Dup (1550019-MSD1)	**Source: P512013-01**			Prepared & Analyzed: 09-Dec-15						
Diesel Range Organics (C10-C28)	507	25.0	mg/kg	500	ND	101	38-132	0.207	20	
Surrogate: n-Nonane	*47.8*		"	*50.0*		*95.6*	*50-200*			

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Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	22-Dec-15 10:34

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1550020 - Purge and Trap EPA 5030A										
Blank (1550020-BLK1)				Prepared: 09-Dec-15 Analyzed: 10-Dec-15						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.270*		"	*0.400*		*67.5*	*50-150*			
LCS (1550020-BS1)				Prepared: 09-Dec-15 Analyzed: 10-Dec-15						
Gasoline Range Organics (C6-C10)	109	20.0	mg/kg	113		96.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.278*		"	*0.400*		*69.5*	*50-150*			
Matrix Spike (1550020-MS1)		**Source: P512014-21**		Prepared: 09-Dec-15 Analyzed: 10-Dec-15						
Gasoline Range Organics (C6-C10)	101	20.0	mg/kg	113	ND	89.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.276*		"	*0.400*		*69.0*	*50-150*			
Matrix Spike Dup (1550020-MSD1)		**Source: P512014-21**		Prepared: 09-Dec-15 Analyzed: 10-Dec-15						
Gasoline Range Organics (C6-C10)	105	20.0	mg/kg	113	ND	93.3	70-130	4.57	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.277*		"	*0.400*		*69.3*	*50-150*			

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	22-Dec-15 10:34

Total Metals by 6010 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1551002 - Metal Solid Digestion EPA 3051A										
Blank (1551002-BLK1)				Prepared & Analyzed: 14-Dec-15						
Arsenic	ND	1.00	mg/kg							
Barium	ND	10.0	"							
Cadmium	ND	1.00	"							
Chromium	ND	5.00	"							
Copper	ND	2.00	"							
Lead	ND	1.00	"							
Mercury	ND	1.00	"							
Nickel	ND	1.00	"							
Selenium	ND	5.00	"							
Silver	ND	1.00	"							
Zinc	ND	2.00	"							
LCS (1551002-BS1)				Prepared & Analyzed: 14-Dec-15						
Arsenic	93.1	1.00	mg/kg	100		93.1	80-120			
Barium	103	10.0	"	100		103	80-120			
Cadmium	96.0	1.00	"	100		96.0	80-120			
Chromium	103	5.00	"	100		103	80-120			
Copper	87.8	2.00	"	100		87.8	80-120			
Lead	97.9	1.00	"	100		97.9	80-120			
Mercury	92.8	1.00	"	100		92.8	80-120			
Nickel	95.6	1.00	"	100		95.6	80-120			
Selenium	89.1	5.00	"	100		89.1	80-120			
Silver	97.5	1.00	"	100		97.5	80-120			
Zinc	94.7	2.00	"	100		94.7	80-120			
Matrix Spike (1551002-MS1)	**Source: P512013-06**			Prepared & Analyzed: 14-Dec-15						
Arsenic	93.4	0.98	mg/kg	97.8	1.88	93.6	75-125			
Barium	156	9.78	"	97.8	59.5	99.1	75-125			
Cadmium	94.4	0.98	"	97.8	ND	96.5	75-125			
Chromium	105	4.89	"	97.8	4.91	102	75-125			
Copper	84.8	1.96	"	97.8	ND	86.7	75-125			
Lead	101	0.98	"	97.8	5.56	97.6	75-125			
Mercury	92.8	0.98	"	97.8	ND	94.9	75-125			
Nickel	95.9	0.98	"	97.8	2.20	95.7	75-125			
Selenium	87.9	4.89	"	97.8	ND	89.8	75-125			
Silver	46.2	0.98	"	97.8	ND	47.2	75-125			SPK1
Zinc	103	1.96	"	97.8	9.97	95.0	75-125			

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Analytical Laboratory

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	22-Dec-15 10:34

Total Metals by 6010 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1551002 - Metal Solid Digestion EPA 3051A										
Matrix Spike Dup (1551002-MSD1)	**Source: P512013-06**			Prepared & Analyzed: 14-Dec-15						
Arsenic	91.2	0.95	mg/kg	95.1	1.88	94.0	75-125	2.40	20	
Barium	164	9.51	"	95.1	59.5	110	75-125	4.69	20	
Cadmium	92.2	0.95	"	95.1	ND	97.0	75-125	2.38	20	
Chromium	103	4.75	"	95.1	4.91	104	75-125	1.50	20	
Copper	82.5	1.90	"	95.1	ND	86.8	75-125	2.81	20	
Lead	99.8	0.95	"	95.1	5.56	99.2	75-125	1.26	20	
Mercury	89.7	0.95	"	95.1	ND	94.4	75-125	3.41	20	
Nickel	93.4	0.95	"	95.1	2.20	95.9	75-125	2.63	20	
Selenium	86.2	4.75	"	95.1	ND	90.7	75-125	1.95	20	
Silver	28.6	0.95	"	95.1	ND	30.1	75-125	47.0	20	SPK1
Zinc	101	1.90	"	95.1	9.97	95.4	75-125	2.23	20	

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	22-Dec-15 10:34

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1550022 - Anion Extraction EPA 300.0										
Blank (1550022-BLK1)				Prepared & Analyzed: 10-Dec-15						
Chloride	ND	20.0	mg/kg							
LCS (1550022-BS1)				Prepared & Analyzed: 10-Dec-15						
Chloride	472	20.0	mg/kg	500		94.4	90-110			
Matrix Spike (1550022-MS1)	**Source: P512013-01**			Prepared & Analyzed: 10-Dec-15						
Chloride	505	20.0	mg/kg	500	ND	101	80-120			
Matrix Spike Dup (1550022-MSD1)	**Source: P512013-01**			Prepared & Analyzed: 10-Dec-15						
Chloride	507	20.0	mg/kg	500	ND	101	80-120	0.563	20	

envirotech
Analytical Laboratory

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	22-Dec-15 10:34

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1551009 - Metal Water Digestion EPA 3015A										
Blank (1551009-BLK1)				Prepared & Analyzed: 14-Dec-15						
Calcium	ND	0.50	mg/L							
Magnesium	ND	0.20	"							
Sodium	ND	2.00	"							
LCS (1551009-BS1)				Prepared & Analyzed: 14-Dec-15						
Calcium	109	0.50	mg/L	111		98.5	80-120			
Magnesium	114	0.20	"	111		103	80-120			
Sodium	122	2.00	"	111		110	80-120			
Matrix Spike (1551009-MS1)	**Source: P512013-01**			Prepared & Analyzed: 14-Dec-15						
Calcium	121	0.50	mg/L	111	11.2	99.1	75-125			
Magnesium	116	0.20	"	111	2.60	102	75-125			
Sodium	122	2.00	"	111	2.31	108	75-125			
Matrix Spike Dup (1551009-MSD1)	**Source: P512013-01**			Prepared & Analyzed: 14-Dec-15						
Calcium	118	0.50	mg/L	111	11.2	95.8	75-125	3.16	20	
Magnesium	118	0.20	"	111	2.60	104	75-125	1.14	20	
Sodium	124	2.00	"	111	2.31	109	75-125	1.36	20	

envirotech
Analytical Laboratory

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	22-Dec-15 10:34

Boron-Hot Water Soluble by EPA 6010 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1551005 - Boron HW Soluble Digestion										
Blank (1551005-BLK1)				Prepared: 14-Dec-15 Analyzed: 15-Dec-15						
Boron	ND	0.50	mg/L							
LCS (1551005-BS1)				Prepared: 14-Dec-15 Analyzed: 15-Dec-15						
Boron	4.15		mg/L	4.00		104	80-120			
Matrix Spike (1551005-MS1)	**Source: P512016-02**			Prepared: 14-Dec-15 Analyzed: 15-Dec-15						
Boron	3.19		mg/L	4.00	0.06	78.1	75-125			
Matrix Spike Dup (1551005-MSD1)	**Source: P512016-02**			Prepared: 14-Dec-15 Analyzed: 15-Dec-15						
Boron	2.98		mg/L	4.00	0.06	73.1	75-125	6.55	20	SPK1

Bridgecreek Resources, LLC	Project Name:	Prairie Falcon 19- 29-17	
405 Urban St Suite 400	Project Number:	15090-0001	**Reported:**
Lakewood CO, 80228	Project Manager:	Andrew Parker	22-Dec-15 10:34

Notes and Definitions

SPK1	The spike recovery is outside of quality control limits.
A-01	Re-reported. Client requested lower detection limit.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Client: Bridgecreek Resources
Project: Prairie Falcon 29-17 per Andrew Parker 12/07/15 jg
Sampler: A. Parker
Phone: 970-570-9535
Email(s): andrew@atkinsenvironmental.com
Project Manager:

RUSH? ☐ 1d ☐ 3d

Lab Use Only
Lab WO# P512016
Job Number 15090-0002

Page 1 of 1

Sample ID	Sample Date	Sample Time	Matrix	Containers QTY - Vol/TYPE/Preservative	GRO/DRO by 8015	BTEX by 8021	TPH by ~~418.1~~ 8015	Chloride by 300.0	Table A-1	Cr-TA				Lab Number	Correct Cont/Prsrv (s) Y/N
~~3~~ 4 pt Bar Composite	12/4	4:15	SOLID	3-~~4~~ 4oz/glass/cool	+		X	+	X	X				1	Y
~~3~~ 4 pt Background	12/4	4:30	↓	1	+		X	X	X	X				2	Y

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	12/4/15	17:35		12/4/15	17:44
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
**Received on Ice Y / N
T1____ T2____ T3____
AVG Temp °C 4.0

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ____
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA
**Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.
☐ Sample(s) dropped off after hours to a secure drop off area.

Chain of Custody

Notes/Billing info:

envirotech Analytical Laboratory
5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fx (970) 362-1879
envirotech-inc.com

ANALYTICAL REPORT

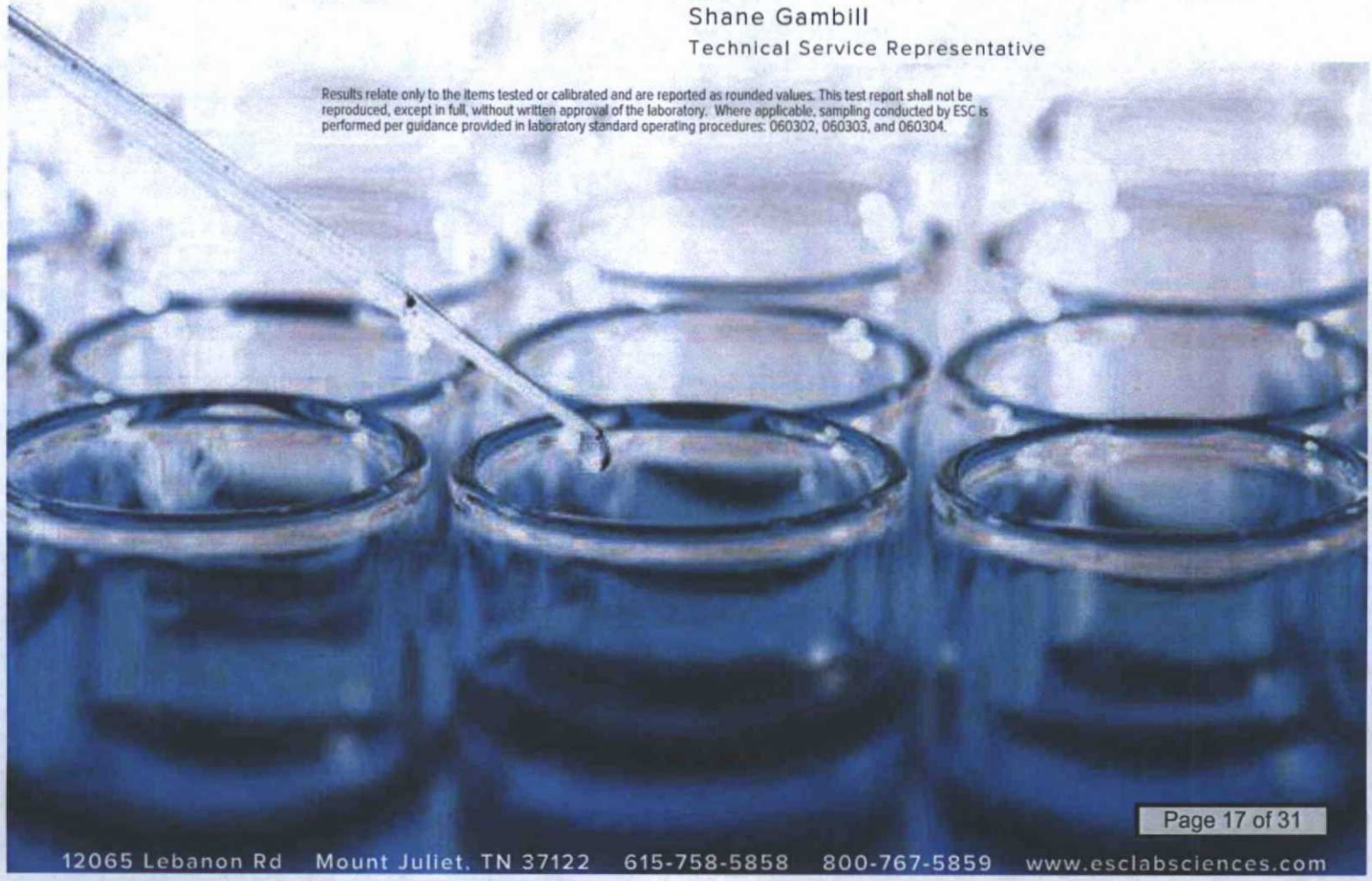
December 15, 2015

EnviroTech- NM

Sample Delivery Group:	L805353
Samples Received:	12/08/2015
Project Number:	15090-0002
Description:	Prairie Falcon 19-29-17
Site:	P512016
Report To:	Tim Cain and Lynn Cook 5796 US. Highway 64 Farmington, NM 87401

Entire Report Reviewed By:

Shane Gambill
Technical Service Representative



BIN COMPOSITE L805353-01 Solid

Collected by: A. Parker | Collected date/time: 12/04/15 16:15 | Received date/time: 12/08/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG834440	1	12/09/15 19:07	12/10/15 11:12	KMP
Total Solids by Method 2540 G-2011	WG834540	1	12/14/15 13:03	12/14/15 13:12	MEL
Wet Chemistry by Method 2580 B-2011	WG834194	1	12/08/15 21:26	12/08/15 21:27	MZ
Wet Chemistry by Method 3060A/7196A	WG834156	1	12/09/15 09:52	12/10/15 13:58	AMC
Wet Chemistry by Method 9045D	WG834208	1	12/09/15 09:20	12/09/15 09:20	MAJ

BACKGROUND L805353-02 Solid

Collected by: A. Parker | Collected date/time: 12/04/15 16:30 | Received date/time: 12/08/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG834440	1	12/09/15 19:07	12/10/15 11:34	KMP
Total Solids by Method 2540 G-2011	WG834540	1	12/14/15 13:03	12/14/15 13:12	MEL
Wet Chemistry by Method 2580 B-2011	WG834194	1	12/08/15 21:26	12/08/15 21:27	MZ
Wet Chemistry by Method 3060A/7196A	WG834156	1	12/09/15 09:52	12/10/15 14:00	AMC
Wet Chemistry by Method 9045D	WG834208	1	12/09/15 09:20	12/09/15 09:20	MAJ

1 Cp 2 Tc 3 Ss 4 Cn 5 Sr 6 Qc 7 Gl 8 Al 9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Shane Gambill
Technical Service Representative

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.1		1	12/14/2015 13:12	WG834540

Wet Chemistry by Method 2580 B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	mV			date / time	
ORP	90		1	12/08/2015 21:27	WG834194

Wet Chemistry by Method 3060A/7196A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chromium,Hexavalent	ND		2.66	1	12/10/2015 13:58	WG834156

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	9.64		1	12/09/2015 09:20	WG834208

Sample Narrative:

9045D L805353-01 WG834208: 9.64 at 23.7c

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.00799	1	12/10/2015 11:12	WG834440
Acenaphthene	0.0123		0.00799	1	12/10/2015 11:12	WG834440
Acenaphthylene	ND		0.00799	1	12/10/2015 11:12	WG834440
Benzo(a)anthracene	ND		0.00799	1	12/10/2015 11:12	WG834440
Benzo(a)pyrene	ND		0.00799	1	12/10/2015 11:12	WG834440
Benzo(b)fluoranthene	ND		0.00799	1	12/10/2015 11:12	WG834440
Benzo(g,h,i)perylene	ND		0.00799	1	12/10/2015 11:12	WG834440
Benzo(k)fluoranthene	ND		0.00799	1	12/10/2015 11:12	WG834440
Chrysene	ND		0.00799	1	12/10/2015 11:12	WG834440
Dibenz(a,h)anthracene	ND		0.00799	1	12/10/2015 11:12	WG834440
Fluoranthene	ND		0.00799	1	12/10/2015 11:12	WG834440
Fluorene	0.0379		0.00799	1	12/10/2015 11:12	WG834440
Indeno(1,2,3-cd)pyrene	ND		0.00799	1	12/10/2015 11:12	WG834440
Naphthalene	0.394		0.0266	1	12/10/2015 11:12	WG834440
Phenanthrene	0.0733		0.00799	1	12/10/2015 11:12	WG834440
Pyrene	0.00940		0.00799	1	12/10/2015 11:12	WG834440
1-Methylnaphthalene	0.320		0.0266	1	12/10/2015 11:12	WG834440
2-Methylnaphthalene	0.409		0.0266	1	12/10/2015 11:12	WG834440
2-Chloronaphthalene	ND		0.0266	1	12/10/2015 11:12	WG834440
(S) Nitrobenzene-d5	*69.5*		*22.1-146*		*12/10/2015 11:12*	WG834440
(S) 2-Fluorobiphenyl	*41.7*		*40.6-122*		*12/10/2015 11:12*	WG834440
(S) p-Terphenyl-d14	*44.3*		*32.2-131*		*12/10/2015 11:12*	WG834440

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	%				
Total Solids	84.7		1	12/14/2015 13:12	WG834540

Wet Chemistry by Method 2580 B-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	mV				
ORP	124		1	12/08/2015 21:27	WG834194

Wet Chemistry by Method 3060A/7196A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg			
Chromium,Hexavalent	ND		2.36	1	12/10/2015 14:00	WG834156

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	su				
pH	9.11		1	12/09/2015 09:20	WG834208

Sample Narrative:

9045D L805353-02 WG834208: 9.11 at 23.9c

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg			
Anthracene	ND		0.00708	1	12/10/2015 11:34	WG834440
Acenaphthene	ND		0.00708	1	12/10/2015 11:34	WG834440
Acenaphthylene	ND		0.00708	1	12/10/2015 11:34	WG834440
Benzo(a)anthracene	ND		0.00708	1	12/10/2015 11:34	WG834440
Benzo(a)pyrene	ND		0.00708	1	12/10/2015 11:34	WG834440
Benzo(b)fluoranthene	ND		0.00708	1	12/10/2015 11:34	WG834440
Benzo(g,h,i)perylene	ND		0.00708	1	12/10/2015 11:34	WG834440
Benzo(k)fluoranthene	ND		0.00708	1	12/10/2015 11:34	WG834440
Chrysene	ND		0.00708	1	12/10/2015 11:34	WG834440
Dibenz(a,h)anthracene	ND		0.00708	1	12/10/2015 11:34	WG834440
Fluoranthene	ND		0.00708	1	12/10/2015 11:34	WG834440
Fluorene	ND		0.00708	1	12/10/2015 11:34	WG834440
Indeno(1,2,3-cd)pyrene	ND		0.00708	1	12/10/2015 11:34	WG834440
Naphthalene	ND		0.0236	1	12/10/2015 11:34	WG834440
Phenanthrene	ND		0.00708	1	12/10/2015 11:34	WG834440
Pyrene	ND		0.00708	1	12/10/2015 11:34	WG834440
1-Methylnaphthalene	ND		0.0236	1	12/10/2015 11:34	WG834440
2-Methylnaphthalene	ND		0.0236	1	12/10/2015 11:34	WG834440
2-Chloronaphthalene	ND		0.0236	1	12/10/2015 11:34	WG834440
(S) Nitrobenzene-d5	*67.4*		*22.1-146*		*12/10/2015 11:34*	WG834440
(S) 2-Fluorobiphenyl	*71.9*		*40.6-122*		*12/10/2015 11:34*	WG834440
(S) p-Terphenyl-d14	*67.9*		*32.2-131*		*12/10/2015 11:34*	WG834440

Method Blank (MB)

(MB) 12/14/15 13:12

Analyte	MB Result	MB Qualifier	MB RDL
	%		%
Total Solids	0.000400		

L805396-01 Original Sample (OS) • Duplicate (DUP)

(OS) 12/14/15 13:12 • (DUP) 12/14/15 13:12

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	78.9	77.2	1	2.28		5

Laboratory Control Sample (LCS)

(LCS) 12/14/15 13:12

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	99.9	85.0-115	

L804772-01 Original Sample (OS) • Duplicate (DUP)

(OS) 12/08/15 21:27 • (DUP) 12/08/15 21:27

Analyte	Original Result mV	DUP Result mV	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
ORP	-19.0	-18	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/08/15 21:27 • (LCSD) 12/08/15 21:27

Analyte	Spike Amount mV	LCS Result mV	LCSD Result mV	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
ORP	100	97	98	97.0	98.0	90.0-110			1.03	20

Method Blank (MB)

(MB) 12/10/15 13:35

Analyte	MB Result mg/kg	MB Qualifier	MB RDL mg/kg
Chromium,Hexavalent	ND		2.00

L805169-01 Original Sample (OS) • Duplicate (DUP)

(OS) 12/10/15 13:43 • (DUP) 12/10/15 13:53

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chromium,Hexavalent	ND	ND	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/10/15 13:40 • (LCSD) 12/10/15 13:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chromium,Hexavalent	97.4	78.2	79.6	80.3	81.7	80.0-120			1.77	20

L805169-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/10/15 13:43 • (MS) 12/10/15 13:53 • (MSD) 12/10/15 13:54

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium,Hexavalent	20.0	ND	15.8	16.5	79.0	82.5	1	75.0-125			4.33	20

L804859-20 Original Sample (OS) • Duplicate (DUP)

(OS) 12/09/15 09:20 • (DUP) 12/09/15 09:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	4.14	4.17	1	0.722		1

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/09/15 09:20 • (LCSD) 12/09/15 09:20

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	su	su	su	%	%	%			%	%
pH	6.72	6.72	6.69	100	99.6	98.5-102			0.447	1

Method Blank (MB)

(MB) 12/10/15 08:42

Analyte	MB Result mg/kg	MB Qualifier	MB RDL mg/kg
Anthracene	ND		0.00600
Acenaphthene	ND		0.00600
Acenaphthylene	ND		0.00600
Benzo(a)anthracene	ND		0.00600
Benzo(a)pyrene	ND		0.00600
Benzo(b)fluoranthene	ND		0.00600
Benzo(g,h,i)perylene	ND		0.00600
Benzo(k)fluoranthene	ND		0.00600
Chrysene	ND		0.00600
Dibenz(a,h)anthracene	ND		0.00600
Fluoranthene	ND		0.00600
Fluorene	ND		0.00600
Indeno(1,2,3-cd)pyrene	ND		0.00600
Naphthalene	ND		0.0200
Phenanthrene	ND		0.00600
Pyrene	ND		0.00600
1-Methylnaphthalene	ND		0.0200
2-Methylnaphthalene	ND		0.0200
2-Chloronaphthalene	ND		0.0200
(S) p-Terphenyl-d14	*83.0*		*32.2-131*
(S) Nitrobenzene-d5	*75.4*		*22.1-146*
(S) 2-Fluorobiphenyl	*88.2*		*40.6-122*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/10/15 07:59 • (LCSD) 12/10/15 08:20

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	0.0723	0.0752	90.4	94.0	50.3-130			3.89	20
Acenaphthene	0.0800	0.0681	0.0711	85.1	88.8	52.4-120			4.26	20
Acenaphthylene	0.0800	0.0696	0.0727	87.0	90.8	49.6-120			4.32	20
Benzo(a)anthracene	0.0800	0.0711	0.0738	88.9	92.3	46.7-125			3.72	20
Benzo(a)pyrene	0.0800	0.0596	0.0609	74.5	76.1	42.3-119			2.13	20
Benzo(b)fluoranthene	0.0800	0.0668	0.0632	83.4	79.0	43.6-124			5.41	20
Benzo(g,h,i)perylene	0.0800	0.0673	0.0696	84.1	87.0	45.1-132			3.34	20
Benzo(k)fluoranthene	0.0800	0.0671	0.0760	83.9	95.0	46.1-131			12.4	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/10/15 07:59 • (LCSD) 12/10/15 08:20

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chrysene	0.0800	0.0736	0.0774	92.0	96.8	49.5-131			5.05	20
Dibenz(a,h)anthracene	0.0800	0.0668	0.0687	83.5	85.9	44.8-133			2.83	20
Fluoranthene	0.0800	0.0731	0.0763	91.4	95.4	49.3-128			4.26	20
Fluorene	0.0800	0.0703	0.0729	87.9	91.1	50.6-121			3.59	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0703	0.0728	87.8	91.0	46.1-135			3.49	20
Naphthalene	0.0800	0.0638	0.0655	79.7	81.8	49.6-115			2.63	20
Phenanthrene	0.0800	0.0658	0.0678	82.3	84.7	48.8-121			2.90	20
Pyrene	0.0800	0.0749	0.0773	93.6	96.6	44.7-130			3.10	20
1-Methylnaphthalene	0.0800	0.0720	0.0744	90.0	93.0	50.6-122			3.25	20
2-Methylnaphthalene	0.0800	0.0734	0.0757	91.8	94.6	50.4-120			3.09	20
2-Chloronaphthalene	0.0800	0.0735	0.0763	91.9	95.4	53.9-121			3.74	20
(S) p-Terphenyl-d14				*87.3*	*88.6*	*32.2-131*				
(S) Nitrobenzene-d5				*79.4*	*78.0*	*22.1-146*				
(S) 2-Fluorobiphenyl				*92.4*	*94.7*	*40.6-122*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [na] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

Company Name/Address:	Billing Information:
Envirotech Inc. -NM 5796 US Highway 64 Farmington, NM 87401	Accounts Payable 5796 US Highway 64 Farmington, NM 87401
Report to: Lynn Cook & Tim Cain	Email To: Lynn Cook & Tim Cain
Project Description: Prairie Falcon 19-29-17	City/State Collected:
Phone: Fax:	Client Project # 15090-0002
Lab Project #	
Collected by (print): A. Parker	Site/Facility ID # P512014
P.O. # 142780	
Collected by (signature): Immediately Packed on Ice N ___ Y ✓	Rush? (Lab MUST Be Notified) ___ Same Day ....200% ___ Next Day ....100% ___ Two Day ....50% ___ Three Day 25%
Date Results Needed 12-14-15	Email? ___No ✓Yes FAX? ✓No ___Yes

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Hexavalent Chromium / 4oz jar / Cool	PAH Sim by 8270 / 4oz jar / Cool	* Free Quote ENVIROFHN100915S1								Rem./Contaminant	Sample # (lab only)
Bin Composite		SS		12/4/15	16:15	1	✓	✓										-01
Background		SS		12/4/15	16:30	1	✓	✓										02

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

(630937379600)

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
[signature]	12-07-15	14:15	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ ____

Temp: 3.1 °C Bottles Received: 2=40z

Date: 12/8/15 Time: 09:20

Chain of Custody Page 1 of 1

ESC LABORATORIES

YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# LB05353

B091

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via:

Hold #

Condition: (lab use only) JW1 OK

COC Seal Intact: ___Y ___N ___NA

pH Checked: NCF:

Prairie Falcon 14-29