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.

Santa 1 c, 14141 67505 to the appropriate 1416005 bisance office.
Pit, Below-Grade Tank, or
13626 Proposed Alternative Method Permit or Closure Plan Application
Type of action: Below grade tank registration OIL CONS. DIV DIST. 3
≥ 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  NOV 1 9 2015
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 19-2917
API Number: 30 - 045 - 35737 OCD Permit Number:
U/L or Qtr/Qtr P SENW Section 19 Township 31 N Range 14 W County: San Juan
Center of Proposed Design: Latitude N 36.8796222 Longitude W 108.3427356 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 Volume: bbl Dimensions: L 43' x W 10' x D 10'
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: Thicknessmil
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,

Four foot height, four strands of barbed wire evenly spaced between one and four feet

Alternate. Please specify Burial Trench will be dug, lined, filled with stabilized cuttings and buried in a single day, no fencing required.

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	
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 accer material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.	eptable source
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
<ul> <li>Within an unstable area. (Does not apply to below grade tanks)</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	☐ Yes ⊠ No
Within a 100-year floodplain. (Does not apply to below grade tanks) - FEMA map	☐ Yes ⊠ No
Below Grade Tanks	100
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.	1c3 1t0
- 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
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 N  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the docattached.  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 Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Design Plan - based upon the appropriate requirements of 19.15.17.12 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. and 19.15.17.13 NMAC	NMAC
Previously Approved Design (attach copy of design) API Number: or Permit Number:	
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 doc 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 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:	
	THE RESIDENCE

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
### Authors of Paragraph (1) of Subsection B of 19.15.17.9 NMAC    Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.10 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 H₂S, 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 F 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	luid Management Pit
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be 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	
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 sou provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. 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	THE WAY

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
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plans 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.  Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.  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 cann 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	11 NMAC 15.17.11 NMAC
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 believed.	lef.
Name (Print): Christine Campbell  Signature: Date: 1/17 (5	<u> </u>
e-mail address: <u>ccampbell@bridgecreekresources.com</u> Telephone: <u>303-945-2642</u>	
18.  OCD Approval: Permit Application (including closure plan)  OCD Conditions (see attachment)	.1.,
OCD Representative Signature: Approval Date: Approval Date:	1/16
Title: Environmental Spec OCD Permit Number:	
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 is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed.	
Closure Completion Date:	
20.  Closure Method:  Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-logoup If different from approved plan, please explain.	oop systems only)
Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please in 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 Longitude NAD: 1927	

22.	
Operator Closure Certification:	
	nts 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):	Title:
Signature:	Date:
5.5.1.1.1.1	
e-mail address:	Telephone:

### 19.15.17.15 Exceptions and Variances.

Bridgecreek Resources (Colorado), LLC requests a variance for the items listed below. The requested variance, per 19.15.17.15.A, provides equal or better protection of freshwater, public health and the environment.

### 1. Pit Sampling Methodology

Request to utilize the extended range EPA 8015 method pit sampling results instead of the 418.1 sampling method.

#### 2. Pit Marker

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.

Bridgecreek will notify Surface Owners by email in lieu of certified mail.

### Hydro geological report for Prairie Falcon 19-2917

### Regional Hydro geological context:

The Prairie Falcon 19-2917 is located on Ute Mountain Ute lands in San Juan County, New Mexico. The proposed project is located in an area known as the Verde Oil Field on broad, open undulate plains with southeasterly aspects at about 1 to 4 degrees. Elevation in the project area is 5,602 feet, with no relief or drop-offs. The topography of the action area is characterized by gently sloping pediments to the south and Ute Dome, a steep dome, to the north.

The proposed project is located on the Four Corners platform of the Colorado Plateau. Surface geology in the area is the Lewis Shale and the from the Upper Cretaceous period (Condon 1991). Broken fragments and exposed outcrops occur within the project area.

Based on the Natural Resources Conservation Services Web Soil Survey (NRCS 2014), the soil-mapping unit in the project area is Monierco fine sandy loam, 3 to 12 percent slopes. Soils in the proposed project are fine sandy loam to loam. No biological soil crusts were observed within the project area.

No wetlands or perennial water resources in the form of rivers, lakes, ponds, or streams occur within the project area. Additionally, no well-defined ephemeral or intermittent drainages occur within the project area. Surface runoff from the proposed project area would flow via sheet drainages west into an unnamed tributary of Ute Canyon Wash, located approximately 0.25 miles west of the pad area. The well location sits on a relatively flat portion of terrain. The immediate area is drained going from north to south. Soils are mostly fine sandy loam to loam. The project area is classified as Great Basin desert shrub (Dick-Peddie 1993). The biotic plant community is locally dominated by low standing grass species, such as galleta and alkali sacation. In general, sparse to moderate cover of woody species are present in this biotic community, including shadscale saltbush, broom sankeweed, and winterfat. Vegetation cover in the project area was visually estimated to range from 10 to 30 percent.

### Depth to ground water

A records search of the NM Office of the State Engineer – iWATERS database indicates that the closest known water well is 3.2 miles away in section 3, T30N, R14W (SJ 00944). The well is reported to be 61 feet deep and 5 feet depth to ground water A field inspection and aerial photos do not indicate any well or remains of a water well in this location. The next closest well is located 5.2 miles away in section 18, T31N, R13W (SJ 03867). This well is reported to be 200 feet deep with no depth to ground water reported.

Geologic maps of the area indicate that the surface formation at the proposed well site is the Lewis Shale from the Upper Cretaceous period (Condon 1991). Broken fragments and exposed outcrops occur within the project area. The Lewis Shale formation occurs

Prairie Falcon 19-2917 1 | Page

in New Mexico and Colorado and its outcrop forms the land surface over much of the northwest portion of the basin. It overlies the Mesaverde Formation.

The Lewis was deposited in various fluvial-type environments. In general, the unit consists of an interbedded sequence of sandstone, siltstone and variegated shale. Thickness of the Lewis Shale Formation near the project area is generally 165 m thick. Ground water is associated with alluvial and fluvial sandstone aquifers and the Lewis Shale has very low permeability and porosity thus, the occurrence of ground water is mainly controlled by the distribution of sandstone in the formation. The distribution of such sandstone is the result of original depositional extent plus any post-depositional modification, namely erosion and structural deformation. Transmissivity data for the Lewis Shale formation is minimal.

The Lewis Shale is a very suitable unit for recharge from precipitation because soils that form on the unity are sandy and highly permeable and therefore readily absorb precipitation. However, low annual precipitation, relatively high transpiration and evaporation rates, and deep dissection of the Lewis Shale Formation by the San Juan River and its tributaries all tend to reduce the effective recharge of the unit.

Stone et al, 1983, Hydrogeology and Water Resources of the San Juan Basin, New Mexico Socorro, New Mexico Bureau of Mines and Mineral Resources Hydrologic Report 6, 70p

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### Prairie Falcon 19-2917 Site specific information:

**Surface hydrology**: The site is located on the lower portions of Purgatory Canyon drainage and is drained by a number of small intermittent drainages

First Water-bearing formation: Cliffhouse, Cretaceous

Formation thickness: 525 - 1250 feet

Underlying formation: Cliffhouse, Cretaceous

Depth to groundwater: Unknown, will verify when drilling surface hole

### FEMA Map - 100 year floodplain

The attached FEMA Map indicates that the proposed location is outside of the mapped 100 year floodplain.

### **Siting Criteria Compliance Demonstrations**

The Prairie Falcon 19-2917 is not located in an unstable area. The location is not over a mine and is not on the side of a hill. The location of the excavated pit material will not be located within 300' of any continuously flowing watercourse or 200' from any other intermittent watercourse.

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## Bridgecreek Resources (Colorado), LLC Prairie Falcon 19-2917 Temporary Burial Trench Application Siting Criteria

- 1. A records search of the NM Office of the State Engineer iWATERS database indicates that the closest known water well is 3.2 miles away in section 3, T30N, R14W (SJ 00944). The well is reported to be 61 feet deep and 5 feet depth to ground water A field inspection and aerial photos do not indicate any well or remains of a water well in this location. The next closest well is located 5.2 miles away in section 18, T31N, R13W (SJ 03867). This well is reported to be 200 feet deep with no depth to ground water reported. See attached printout.
- 2. Based on well drilling records for water sources the minimum depth to groundwater was 5 feet deep and a maximum depth of 46 feet deep. Based on this information and the ground elevation of the proposed location being approximately 161 feet lower in elevation than the s near Prairie Falcon 19-2917, the assumption is that depth to ground water will be greater than 100 feet deep.
- For permit purposes Bridgecreek will assume the ground water is in the range of 25'50' and because of this will drill the surface hole to 300' with water based mud to insure
  hole stability and not allow any fluids to influx into the wellbore. The entire 300' will be
  cased with 9-5/8" 36#/ft. J-55 STC and cemented to this depth with positive cement
  returns to surface. Findings will be submitted to the BLM and the NMOCD.
- As shown on the attached topographic map and aerial photos, there are no continuously flowing watercourses within 300' of the well, or any significant watercourses, lakebeds, sinkholes, or playa lakes within 200' of the well.
- 3. There are no permanent residences, schools, hospitals, institutions, churches within 300' of the well.
- 4. There are no domestic water wells or springs within 500' of the well. See iWaters Database printout.
- 5. The well is not located within any municipal boundaries.
- 6. The well is not within 500' of any wetlands. See attached topographic map and aerial photos.
- There are no subsurface mines in Section 34; T31N, R15W. See attached map from the NM EMNRD Mining and Mineral Division.
- 8. The Prairie Falcon 19-2917 is not located in an "unstable" area. The location is not over a mine and is not on the side of a hill. The location of the excavated pit material will not be located within 300' of a continuously flowing watercourse or 200' from any other watercourse.

Prairie Falcon 19-2917 4 | Page

- 9. The well is not located in a 100-year floodplain as visible on the topographic map and the FEMA Flood Insurance Rate Map.
- 10. In the event that the composite pit sample that is mixed 3:1 with native soils does not meet the requirements for onsite burial, the pit contents will be removed and disposed of at the Industrial Ecosystem, Inc. Land Farm (NMOCD Permit #NM 01-0010B).

### Bridgecreek Resources (Colorado) LLC Temporary Pit Design and Construction Plan

OIL CONS. DIV DIST. 3 JAN 0 4 2016

### **General Plan**

In accordance with Rule 19.15.17 the following information describes the design and construction for temporary pits on Bridgecreek locations; this is the Bridgecreek standard procedure for all temporary pits.

- 1. Prior to constructing the burial trench, topsoil will be stockpiled in accordance with 19.15.17.11 NMAC in the construction zone for later use in reclamation.
- Bridgecreek will post a well sign, not less than 12" by 24", on the well site prior to construction
  of the temporary pit. The sign will list the operator on record as the operator, the location of
  the well by unit letter, section, township range, and emergency telephone numbers (complying
  with 19.15.16.8 NMAC)
- 3. Drilling operations will utilize a closed loop water based mud system. Drill cuttings (rock fragments generated during drilling) will be produced during drilling of the borehole.
- 4. Drill cuttings will be disposed on-site in a burial trench. The entire area designated to include one or more burial trench will not exceed the dimension of 10 feet wide x 10 feet deep x 215 feet maximum length. The dimension of the burial trench for the Prairie Falcon 19-2917 stabilized drill cuttings is L43'xW10'xD10'.
- 5. The operator will obtain an approved Form C-144 for each burial trench per NMOCD's Pit Rule NMAC 19.15.17 prior to on-site disposal of drill cuttings.
- The drill cuttings will be temporarily stored in above-ground steel containment until drilling completion.
- 7. Cuttings will be dried and mixed with a bonding agent or clean fill for stabilization. The drill cuttings will not be mixed greater than a 3:1 ratio.
- 8. At least 72 hours prior to cuttings sampling NMOCD and BLM will be notified. Cuttings will be tested by taking at a minimum 5-point sample 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.
- After drilling operations and during equipment demobilization, the operator will transfer the drill cuttings into the burial trench.
- 11. The first well will be drilled and completed and a burial trench utilized. The remaining wells on this pad will be drilled at a later date and a subsequent burial trench(s) will be placed end-toend within the same contiguous burial trench.
- 12. 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.
- 13. The cuttings burial trench will be compacted to ground level to prevent the collection of surface runoff and erosion and located on the pad as shown on the well pad layout. The burial trench



will be lined with a minimum of 20 mil string reinforced LLDPE liner or equivalent liner and capped with a minimum of 4 feet of clean fill dirt. The trench foundation and sidewalls will consist of a firm, unyielding base, smooth, and free of rocks, debris, sharp edges or irregularities to prevent the liner's rupture or tear. Enough liner will be placed to reduce stress-strain or buldging that may occur. Geotextile may be used under the liner where needed to reduce localized stress-strain that may otherwise compromise the liner's integrity. Liner will be secured on all edges prior to filling. No trash will be placed in the cuttings trench.

### Maintenance and Operating Plan

In accordance with Rule 19.15.17.12 the following information describes the operation and maintenance of burial trenches on Bridgecreek locations.

#### **General Plan**

- Bridgecreek intends to use the burial trench for stabilized drill cuttings disposal only after drilling operations are complete and cuttings are stabilized and tested
- 2. The burial trench will be dug, lined and buried in one equipment mobilization
- Bridgecreek will utilize a closed loop drilling system and no drilling mud will be put into the trench
- 4. Bridgecreek will not discharge or store any hazardous waste in any temporary burial trench.
- If any penetration of the liner occurs below the stabilized cuttings fill line, then Bridgecreek shall notify the Aztec Division office by phone or email within 48 hours of the discovery and repair the damage or replace the liner
- 6. Bridgecreek will maintain the temporary burial trench free of trash or debris
- 7. Bridgecreek shall remove all free liquids from a cavitation immediately after completing cavitations. Bridgecreek may request additional time to remove liquids from Aztec Division office if it is not feasible to remove liquids within 48 hours

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#### Closure Plan

In accordance with Rule 19.15.17.9 NMAC and 19.15.17.13 NMAC the following information describes the closure requirements of burial trenches on Bridgecreek's locations. This is Bridgecreek's standard procedure for all burial trenches.

All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of the pit closure. Closure report will be filed with the Tres Rios BLM office via Form 3160-5 Sundry and the OCD via form C-144 and will incorporate the following:

- Detail on Capping and Covering, where applicable
- · Plot Plan (Pit diagram)
- · Sampling Results

### **General Plan**

- The preferred method of closure for all temporary pits will be on-site burial, pursuant to Subsection B of 19.15.17.9 and assuming that all criteria listed in sub-section (D) of 19.15.17.13 are met
- Prior to closure, the surface owner shall be notified at least 72 hrs but not more than
  one week prior to Bridgecreek's proposed closure plan using a means that provides
  proof of notice i.e., email, certified mail, return receipt requested
- 3. Within 6 months of the Rig-off status occurring Bridgecreek will ensure that temporary pits are closed. Re-contouring and reseeding will occur during interim reclamation.
- 4. Notice of Closure will be given to the Aztec Division office 72 hours but not more than one week of closure via email, or verbally, The notification of closure will include the following:
  - i. Operator's name
  - ii. Location by Unit Letter, Section, Township, and Range. Well name and API Number
- 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.
- 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.
- 7. A five point composite sample will be taken of the pit using sampling tools and all samples tested per Subsection D of 19.15.17.13 (5). The concentration of any contaminant in the stabilized waste is cannot be higher than the parameters listed in Table II of 19.15.17.13 NMAC. In the event that the criteria are not met, all contents will be handled per Subsection C of 19.15.17.13
- 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.
- 9. Upon completion of interim reclamation re-contouring of location will match fit, shape, line, form and texture of the surrounding area. Re- shaping 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.
- 10. Notification will be sent to OCD when the reclaimed area is seeded
- 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
- 12. 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 a four foot tall riser with the operator's information at the time of 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

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#### 19.15.17.15 Exceptions and Variances.

Bridgecreek Resources (Colorado), LLC requests a variance for the items listed below. The requested variance, per 19.15.17.15.A, provides equal or better protection of freshwater, public health and the environment.

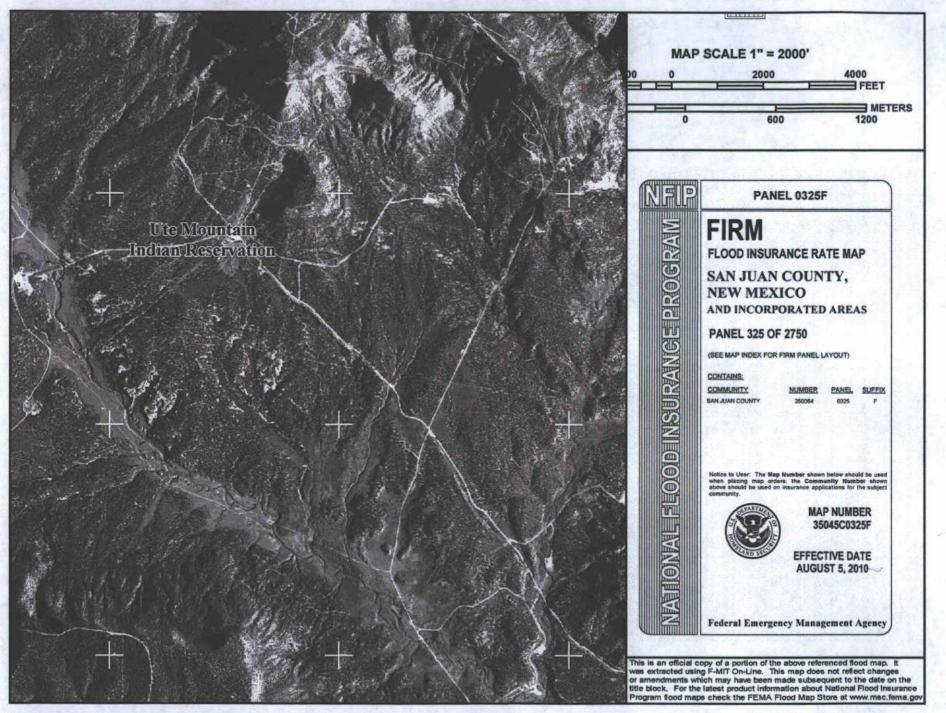
### 1. Pit Sampling Methodology

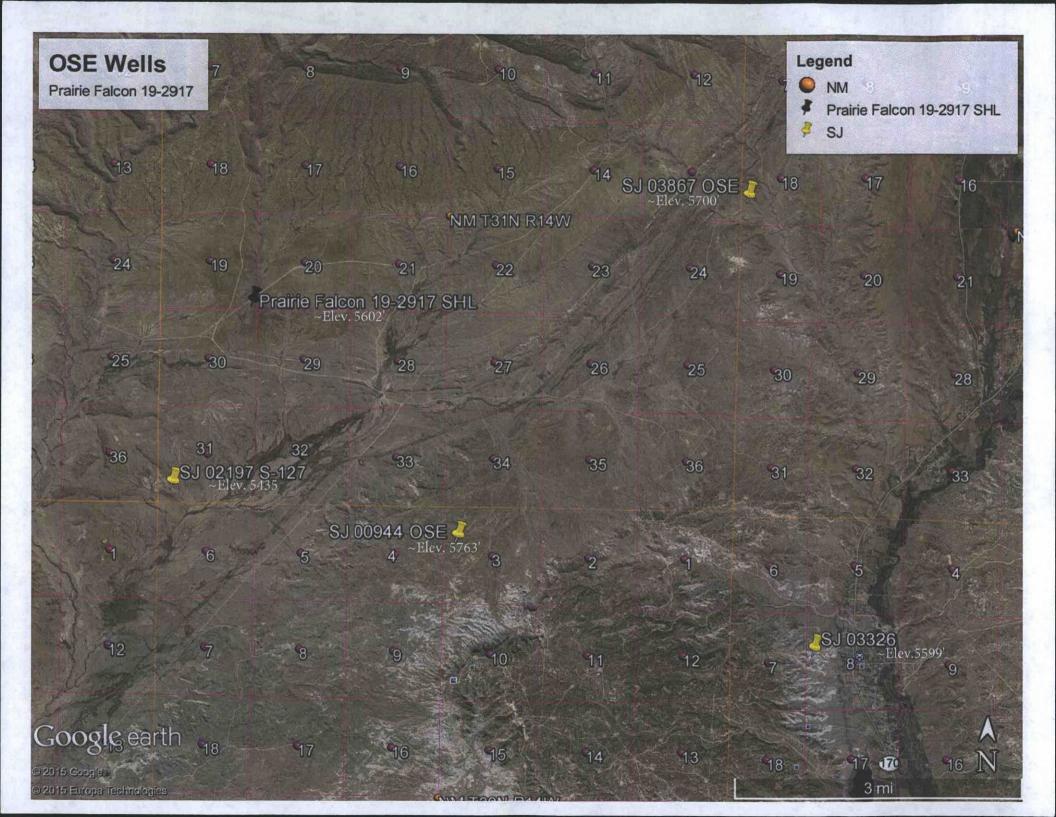
Request to utilize the extended range EPA 8015 method pit sampling results instead of the 418.1 sampling method.

#### 2. Pit Marker

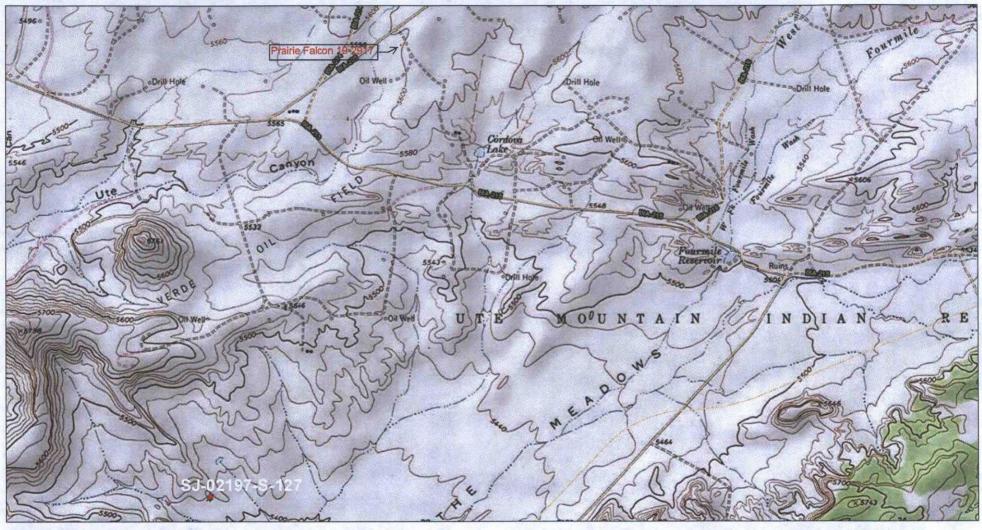
Bridgecreek will also be installing a temporary Flat Pit Marker upon closure. The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial upon the abandonment of all the wells on the pad. The marker 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.

Bridgecreek will notify Surface Owners by email in lieu of certified mail.





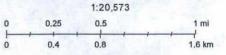
### **OSE Well Locations**



November 17, 2015

SE\_WELLS\_May\_2015

Prairie Falcon 19-2917 Sec. 19, T31N-R14W San Juan County, NM



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

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.) (R=POD has been replaced, O=orphaned, C=the file is

closed)

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

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

(In feet)

	POD Sub-		Q								-	Control of the last of the las	Water
POD Number	Code basin Coun	ty 64						X	Y	Distance	-		Column
SJ 00944	SJ		3	1	03	30N	14W	205449	4082758*	6556	61	5	56
SJ 03867	SJ	1	4	3	18	31N	13E	210438	4088324	9274	200		
SJ 00815 EXPLOR-2	SJ	4	3	3	22	30N	15W	195711	4077373*	11718	240		
SJ 03326	SJ	3	3	1	08	30N	13W	211376	4080748*	12359	55	30	25
SJ 03284	SJ	1	3	1	33	31N	13W	213076	4084127*	12429	160		
SJ 01101	SJ			1	08	30N	13W	211678	4081050*	12444	41	26	15
SJ 00132	SJ	4	4	3	05	30N	13W	212013	4081544*	12476	100	46	54

Average Depth to Water:

26 feet

Minimum Depth:

5 feet

Maximum Depth:

46 feet

**Record Count: 7** 

UTMNAD83 Radius Search (in meters):

Easting (X): 201182

Northing (Y): 4087736

**Radius: 12500** 



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

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

C=the file is (quarters are 1=NW 2=NE 3=SW 4=SE) closed) (quarters are smallest to largest) (NA

(NAD83 UTM in meters)

(In feet)

100 12	POD		-		-								
POD Number	Sub- Code basin County	1000	Q 16	Year.		Tws	Rng	x	Y	Distance	1000		Water Column
SJ 00944	SJ		1	-	100		14W	205449	4082758*	6556	61	5	56
SJ 03867	SJ	1	4	3	18	31N	13E	210438	4088324	9274	200		

Average Depth to Water: 5 feet

Minimum Depth: 5 feet

Maximum Depth: 5 feet

**Record Count: 2** 

UTMNAD83 Radius Search (in meters):

Easting (X): 201182 Northing (Y): 4087736 Radius: 10500



### **Point of Diversion Summary**

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

**POD Number** 

Q64 Q16 Q4 Sec Tws Rng

Х

Estimated Yield: 20 GPM

SJ 00944

1 03 30N 14W

205449 4082758\*

Driller License: 717

**Driller Name:** 

WJ HOOD

Drill Start Date: 05/25/1979

**Drill Finish Date:** 

06/06/1979

Plug Date:

Log File Date:

06/11/1979

PCW Rcv Date:

Source:

**Pump Type:** Casing Size:

Pipe Discharge Size:

Depth Well:

61 feet

Depth Water:

5 feet

Shallow

Water Bearing Stratifications:

6.00

Top Bottom Description

Sandstone/Gravel/Conglomerate

Casing Perforations:

Top Bottom

55

61



### **Point of Diversion Summary**

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

**POD Number** 

SJ 03867

Q64 Q16 Q4 Sec Tws Rng

X

1 4 3 18 31N 13E

210438 4088324

Shallow

**Driller License:** 

**Driller Name:** 

**Drill Start Date:** 

**Drill Finish Date:** 

Plug Date:

Log File Date:

01/26/2009

**PCW Rcv Date:** 

Pipe Discharge Size:

Source:

**Estimated Yield:** 

**Pump Type:** Casing Size:

Depth Well:

200 feet

Depth Water:



### **Point of Diversion Summary**

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

**POD Number** 

Q64 Q16 Q4 Sec Tws Rng

X

SJ 03326

08 30N 13W

211376 4080748\*

Driller License: 809

**Driller Name:** 

Drill Start Date: 01/10/2004

**Drill Finish Date:** 

02/08/2004

Plug Date:

Log File Date:

02/11/2004

**PCW Rcv Date:** 

Source:

Shallow

**Pump Type:** 

Pipe Discharge Size:

Estimated Yield: 3 GPM

Casing Size:

5.00

Depth Well:

55 feet

Depth Water:

30 feet

Water Bearing Stratifications:

Top Bottom Description

35

Sandstone/Gravel/Conglomerate

Casing Perforations:

Top Bottom

35

50



### **Point of Diversion Summary**

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

**POD Number** 

SJ 03284

Q64 Q16 Q4 Sec Tws Rng

X

33 31N 13W

213076 4084127\*

Driller License: 1479

**Driller Name:** 

**Drill Start Date:** 

**Drill Finish Date:** 

Plug Date:

Log File Date:

PCW Rcv Date:

Source:

**Pump Type:** 

Pipe Discharge Size:

**Estimated Yield:** 

Casing Size:

4.00

Depth Well:

160 feet

Depth Water:



### **Point of Diversion Summary**

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

**POD Number** 

Q64 Q16 Q4 Sec Tws Rng

X

Estimated Yield: 15 GPM

SJ 01101

6.00

08 30N 13W

211678 4081050\*

Driller License: 717

**Driller Name:** WJ HOOD

Drill Start Date: 01/02/1980

**Drill Finish Date:** 

01/04/1980

Plug Date:

Shallow

Log File Date: 01/09/1980 **PCW Rcv Date:** 

Source:

**Pump Type:** Casing Size: Pipe Discharge Size: Depth Well:

41 feet

Depth Water:

26 feet

Water Bearing Stratifications:

Top Bottom Description

32

Sandstone/Gravel/Conglomerate

Casing Perforations:

Top Bottom

36

41

\*UTM location was derived from PLSS - see Help



### **Point of Diversion Summary**

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

**POD Number** 

Q64 Q16 Q4 Sec Tws Rng

X

SJ 00132

05 30N 13W

212013 4081544\*

**Driller License:** 

**Driller Name:** 

JOHN GILBERT

**Drill Start Date:** 

**Drill Finish Date:** 

12/15/1974

Plug Date:

Source:

Shallow

Log File Date:

SUMBER

**PCW Rcv Date:** 

Pipe Discharge Size: 2 IN

**Estimated Yield:** 

**Pump Type:** Casing Size:

Depth Well:

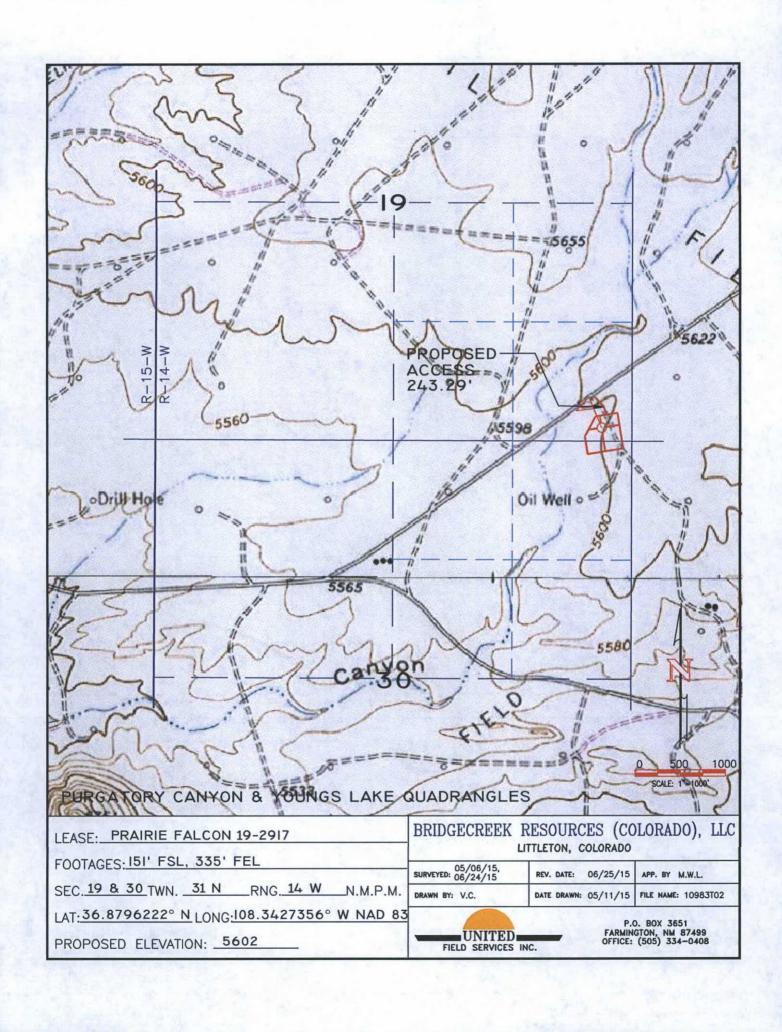
100 feet

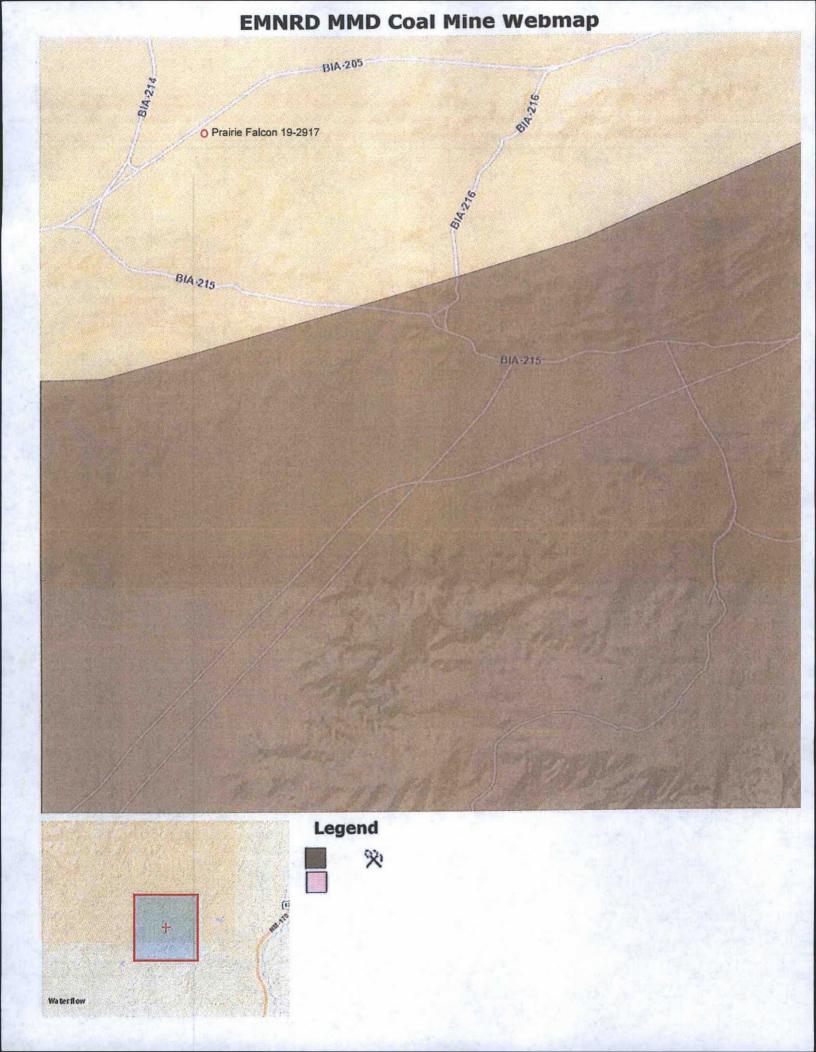
Depth Water: 46 feet

\*UTM location was derived from PLSS - see Help

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

POD SUMMARY - SJ 00132 11/17/15 3:29 PM Page 1 of 1





DISTRICT J
1625 N. French Dr., Hobbs, N.M. 86240
Phone: (575) 393-6161 Fax: (576) 393-0720
DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brezos Rd., Aztec, N.M. 67410
Phone: (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, N.M. 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

LOT 4

State of New Mexico Energy, Minerals & Natural Resources Department

> OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, N.M. 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

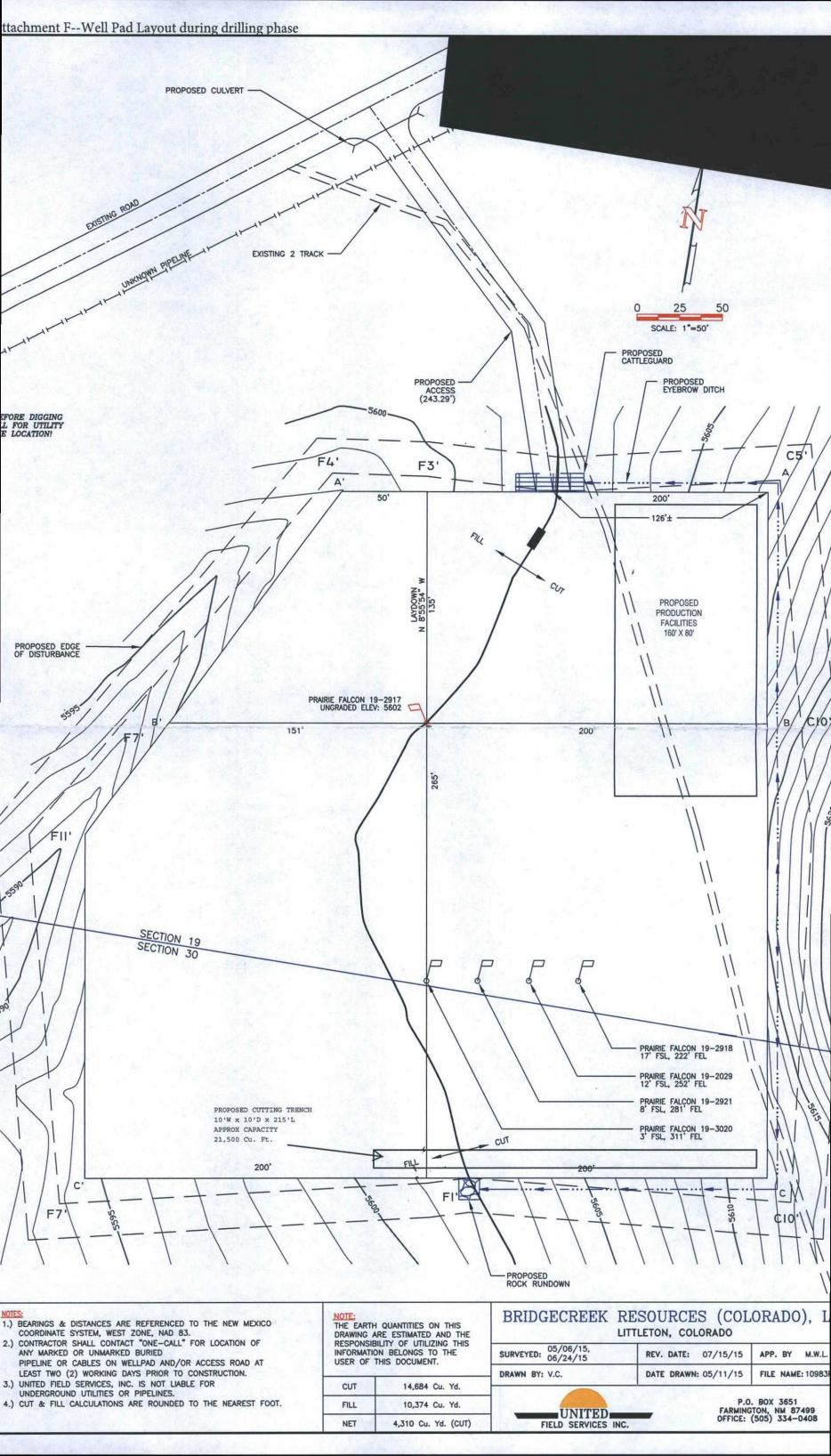
ADESSIONAL S

17078

☐ AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT Pool Code 1 API Number Well Number Property Code Property Name PRAIRIE FALCON 19 2917 OGRID No. \*Operator Name Elevation 5602 BRIDGECREEK RESOURCES (COLORADO), LLC 10 Surface Location Feet from the | North/South line | Feet from the East/West line UL or lot no. Section Township Lot Idn County EAST SAN JUAN 14 W SOUTH 335 19 31 N 151 11 Bottom Hole Location If Different From Surface UL or lot no. Lot Idn Feet from the North/South line East/West line 14 W NORTH WEST SAN JUAN 29 31 N 5 6 D Joint or Infill 14 Consolidation Code NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION N 89°41'16" W 2640.44' N 89°40'58" W 2626.80' 17 OPERATOR CERTIFICATION 263937 263937 37. (39.56) I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working inforest or unlessed mineral interest in the land including the proposed bettom hele location or has a right to drill this 2639.49" LOT 2 (39.70) SECTION 19 **SECTION 20** LOT 3 (39.74) BOTTOM HOLE 2639.27" LAT: 36.8791930° N LONG: 108.3415706° W 1.65.00 107 4 (39.78) NAD 83 LAT: 36.8791931° N LONG: 108.3409346° W Z STO CEOSO 335 N 89°42'53" W = 2639.31' Com N 89°39'01" W 2632.90' **NAD 27** 18 SURVEYOR CERTIFICATION SURFACE N 89°41'44" W LOT 1 LAT: 36.8796222° N LONG: 108.3427356° W I hereby certify that the well location shown on this plat was plotted from field noise of actual surveys made by m or under my supervision, and that the same is true and correct to the best of my belief. 2639.99 (39.82) 2639.27 **NAD 83** LAT: 36.8796223° N LONG: 108.3420995° W LOT 2 (39.87) SHALL W. LINDE **NAD 27** 06/24/15 Date of Survey SECTION 30 SECTION 29 LOT 3 LEGEND: (39.93)O = SURFACE LOCATION . = BOTTOM HOLE LOCATION

= FOUND 1985 B.L.M. BRASS CAP



4 Removed At Aqueul.

### Bridgecreek Resources (Colorado) LLC Temporary Pit Design and Construction Plan

### **General Plan**

In accordance with Rule 19.15.17 the following information describes the design and construction for temporary pits on Bridgecreek locations; this is the Bridgecreek standard procedure for all temporary pits.

- 1. Prior to constructing the burial trench, topsoil will be stockpiled in accordance with 19.15.17.11 NMAC in the construction zone for later use in reclamation.
- Bridgecreek will post a well sign, not less than 12" by 24", on the well site prior to construction
  of the temporary pit. The sign will list the operator on record as the operator, the location of
  the well by unit letter, section, township range, and emergency telephone numbers (complying
  with 19.15.16.8 NMAC)
- 3. Drilling operations will utilize a closed loop water based mud system. Drill cuttings (rock fragments generated during drilling) will be produced during drilling of the borehole.
- 4. Drill cuttings will be disposed on-site in a burial trench. The entire area designated to include one or more burial trench will not exceed the dimension of 10 feet wide x 10 feet deep x 215 feet maximum length. The dimension of the burial trench for the Prairie Falcon 19-2917 stabilized drill cuttings is L43'xW10'xD10'.
- The operator will obtain an approved Form C-144 for each burial trench per NMOCD's Pit Rule NMAC 19.15.17 prior to on-site disposal of drill cuttings.
- The drill cuttings will be temporarily stored in above-ground steel containment until drilling completion.
- Cuttings will be dried and mixed with a bonding agent or clean fill for stabilization. The drill cuttings will not be mixed greater than a 3:1 ratio.
- 8. At least 72 hours prior to cuttings sampling NMOCD and BLM will be notified. Cuttings will be tested by taking at a minimum 5-point sample 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.
- 10. After drilling operations and during equipment demobilization, the operator will transfer the drill cuttings into the burial trench.
- 11. The first well will be drilled and completed and a burial trench utilized. The remaining wells on this pad will be drilled at a later date and a subsequent burial trench(s) will be placed end-toend within the same contiguous burial trench.
- 12. 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.
- 13. The cuttings burial trench will be compacted to ground level to prevent the collection of surface runoff and erosion and located on the pad as shown on the well pad layout. The burial trench

will be lined with a minimum of 20 mil string reinforced LLDPE liner or equivalent liner and capped with a minimum of 4 feet of clean fill dirt. The trench foundation and sidewalls will consist of a firm, unyielding base, smooth, and free of rocks, debris, sharp edges or irregularities to prevent the liner's rupture or tear. Enough liner will be placed to reduce stress-strain or buldging that may occur. Geotextile may be used under the liner where needed to reduce localized stress-strain that may otherwise compromise the liner's integrity. Liner will be secured on all edges prior to filling. No trash will be placed in the cuttings trench.

### Maintenance and Operating Plan

In accordance with Rule 19 15 17.12 the following information describes the operation and maintenance of burial trenches on Bridgecreek locations.

#### **General Plan**

- 1. Bridgecreek intends to use the burial trench for stabilized drill cuttings disposal only after drilling operations are complete and cuttings are stabilized and tested
- 2. The burial trench will be dug, lined and buried in one equipment mobilization
- 3. Bridgecreek will utilize a closed loop drilling system and no drilling mud will be put into the trench
- 4. Bridgecreek will not discharge or store any hazardous waste in any temporary burial trench.
- If any penetration of the liner occurs below the stabilized cuttings fill line, then Bridgecreek shall notify the Aztec Division office by phone or email within 48 hours of the discovery and repair the damage or replace the liner
- 6. Bridgecreek will maintain the temporary burial trench free of trash or debris
- Bridgecreek shall remove all free liquids from a cavitation immediately after completing cavitations. Bridgecreek may request additional time to remove liquids from Aztec Division office if it is not feasible to remove liquids within 48 hours

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#### Closure Plan

In accordance with Rule 19.15.17.9 NMAC and 19.15.17.13 NMAC the following information describes the closure requirements of burial trenches on Bridgecreek's locations. This is Bridgecreek's standard procedure for all burial trenches.

All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of the pit closure. Closure report will be filed with the Tres Rios BLM office via Form 3160-5 Sundry and incorporate the following:

- · Detail on Capping and Covering, where applicable
- · Plot Plan (Pit diagram)
- Sampling Results

#### General Plan

- The preferred method of closure for all temporary pits will be on-site burial, pursuant to Subsection B of 19.15.17.9 and assuming that all criteria listed in sub-section (D) of 19.15.17.13 are met
- Prior to closure, the surface owner shall be notified at least 72 hrs but not more than
  one week prior to Bridgecreek's proposed closure plan using a means that provides
  proof of notice i.e., email, certified mail, return receipt requested
- 3. Within 6 months of the Rig-off status occurring Bridgecreek will ensure that temporary pits are closed. Re-contouring and reseeding will occur during interim reclamation.
- 4. Notice of Closure will be given to the Aztec Division office 72 hours but not more than one week of closure via email, or verbally, The notification of closure will include the following:
  - i. Operator's name
  - ii. Location by Unit Letter, Section, Township, and Range. Well name and API Number
- 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.
- 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.
- 7. A five point composite sample will be taken of the pit using sampling tools and all samples tested per Subsection D of 19.15.17.13 (5). The concentration of any contaminant in the stabilized waste is cannot be higher than the parameters listed in Table II of 19.15.17.13 NMAC. In the event that the criteria are not met, all contents will be handled per Subsection C of 19.15.17.13
- 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.
- 9. Upon completion of interim reclamation re-contouring of location will match fit, shape, line, form and texture of the surrounding area. Re- shaping 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.
- 10. Notification will be sent to OCD when the reclaimed area is seeded
- 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
- 12. 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 a four foot tall riser with the operator's information at the time of 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

Form 3160-5 (August 2007)

### UNITED STATES DEPARTMENT OF THE INTERIOR

ELECTRONIC PORT

NOV 2 3 2015

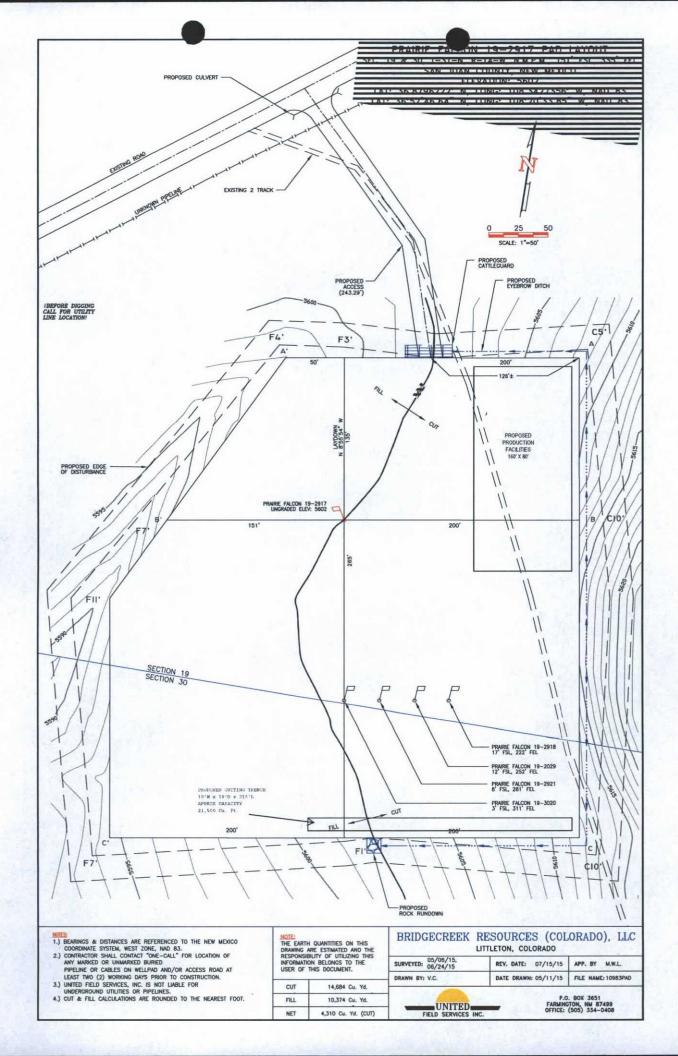
FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010

SUNDRY	5. Lease Serial No. 751141038								
Do not use the abandoned we	IANAGEMENT	If Indian, Allottee or Tribe Name     UTE MOUNTAIN UTE							
SUBMIT IN TRI	PLICATE - Other instruc	tions on reverse side.		7. If Unit or CA/Agre	ement, Name and/or No.				
Type of Well	ner			8. Well Name and No. PRAIRIE FALCON 19-2917					
2. Name of Operator BRIDGECREEK RESOURCE	Contact:	CHRISTINE CAMPBELL  @bridgecreekresources.com		9. API Well No. 30-045-35737					
3a. Address 405 URBAN STREET, SUITE LAKEWOOD, CO 80228	400	3b. Phone No. (include area code Ph: 303-945-2642	e)	10. Field and Pool, or Exploratory VERDE GALLUP					
<ol> <li>Location of Well (Footage, Sec., T Sec 19 T31N R14W SESE 15</li> </ol>				11. County or Parish, SAN JUAN CO					
12. CHECK APPI	ROPRIATE BOX(ES) TO	INDICATE NATURE OF	NOTICE, RE	EPORT, OR OTHE	R DATA				
TYPE OF SUBMISSION	TYPE OF ACTION								
Notice of Intent  ■ S. I	☐ Acidize ☐ Alter Casing	☐ Deepen ☐ Fracture Treat	□ Producti	on (Start/Resume)	☐ Water Shut-Off ☐ Well Integrity				
☐ Subsequent Report	☐ Casing Repair	■ New Construction	☐ Recomp		<b>⊠</b> Other				
☐ Final Abandonment Notice	☐ Change Plans ☐ Convert to Injection	☐ Plug and Abandon☐ Plug Back☐	☐ Tempor	arily Abandon visposal					
Describe Proposed or Completed Op If the proposal is to deepen directions Attach the Bond under which the wor following completion of the involved testing has been completed. Final At determined that the site is ready for for The production facility area, be revised and are shown on the	ally or recomplete horizontally, rk will be performed or provide operations. If the operation resondonment Notices shall be file final inspection.)	give subsurface locations and meas the Bond No. on file with BLM/BI sults in a multiple completion or rec ed only after all requirements, inclu	ured and true ve A. Required sub completion in a n ding reclamation	rtical depths of all pertir sequent reports shall be sew interval, a Form 316	nent markers and zones. filed within 30 days i0-4 shall be filed once				
			OIL	CONS. DIV DI	ST. 3				
				DEC 1 0 2015					
14. I hereby certify that the foregoing is	true and correct								

STINE CAMPBELL	Title			
		REGULATORY LEAD	Park	
onic Submission)	Date	11/23/2015		
THIS SPACE FOR FEDERAL	L OR	STATE OFFICE USE	1	1
NU	Title	Msc	Date 4	15
tached. Approval of this notice does not warrant or or equitable title to those rights in the subject lease conduct operations thereon.	Office	TRES RIOS FIELD OFFICE		
֡	ached. Approval of this notice does not warrant or or equitable title to those rights in the subject lease conduct operations thereon.	THIS SPACE FOR FEDERAL OR  Title  ached. Approval of this notice does not warrant or or equitable title to those rights in the subject lease conduct operations thereon.  Office	THIS SPACE FOR FEDERAL OR STATE OFFICE USE  Title  Title  Title  Title  TRES RIOS FIELD OFFICE  TRES RIOS FIELD OFFICE	THIS SPACE FOR FEDERAL OR STATE OFFICE USE  Title  Title  Date  Title  T

States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.





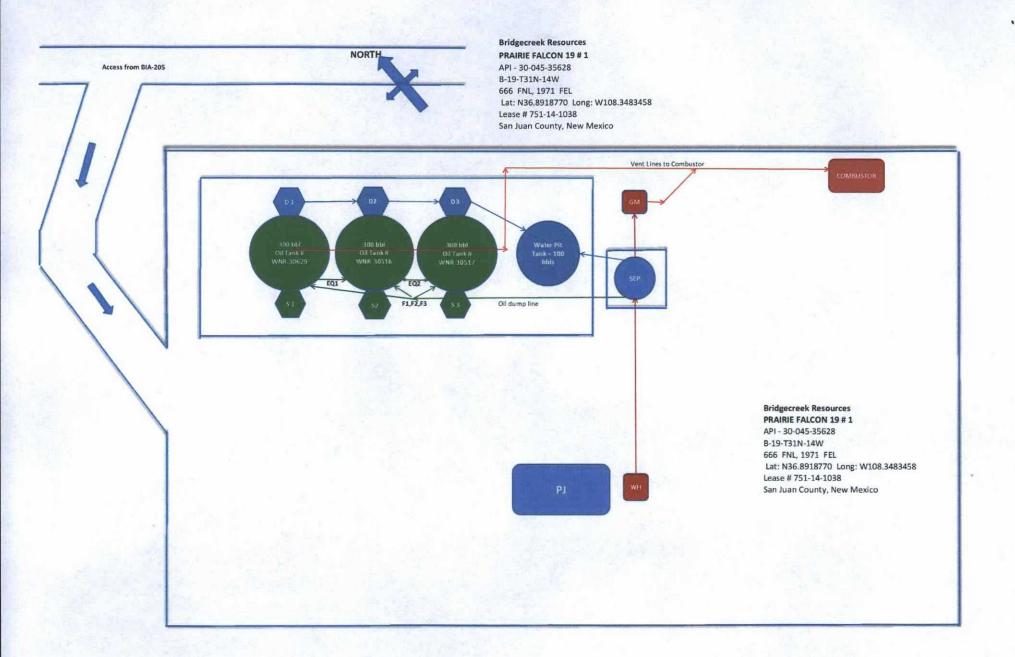
\*Form 3160-5 (August 2007)

### RECEIVED ELECTRONIC REPORT **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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

	5.	Lease S	eri
١		75114	10

	BUREAU OF LAND MANA			2015	5. Lease Serial No.					
SUNDRY Do not use th	751141038	Talka Nama								
abandoned we	nis form for proposals to ell. Use form 3160-3 (AP	D) for such pr	oposals. MA	NAGEMENT	6. If Indian, Allottee of UTE MOUNTAL					
SUBMIT IN TR	IPLICATE - Other instruc	ctions on reve	rse side.		If Unit or CA/Agreement, Name and/or No.     Well Name and No.     PRAIRIE FALCON 19-1					
1. Type of Well										
Ø Oil Well  ☐ Gas Well ☐ Ot     Name of Operator		CHRISTINE C	AMDDELL		9. API Well No.					
BRIDGECREEK RESOURCE	ES COLO E-Mail: ccampbell	@bridgecreekres	sources.com		30-045-35628-0					
3a. Address 405 URBAN STREET, SUITE LAKEWOOD, CO 80228	E 400	3b. Phone No. ( Ph: 303-945	(include area code 5-2642	e)	10. Field and Pool, or VERDE GALLU	Exploratory P				
4. Location of Well (Footage, Sec.,	T., R., M., or Survey Description	i)			11. County or Parish,	and State				
Sec 19 T31N R14W NWNE 6 36.891898 N Lat, 108.348346		SAN JUAN CO	JNTY, NM							
12. CHECK APP	PROPRIATE BOX(ES) TO	O INDICATE 1	NATURE OF	NOTICE, R	EPORT, OR OTHE	R DATA				
TYPE OF SUBMISSION			TYPE C	F ACTION						
□ Notice of lettert	□ Acidize		en	☐ Product	tion (Start/Resume)	☐ Water Shut-Off				
□ Notice of Intent	☐ Alter Casing	☐ Fractu	ure Treat	☐ Reclam	ation	■ Well Integrity				
Subsequent Report	☐ Casing Repair	□ New	ew Construction		plete	<b>⊠</b> Other				
☐ Final Abandonment Notice	☐ Change Plans	☐ Plug a	and Abandon	☐ Tempor	rarily Abandon	Site Facility Diagra m/Security Plan				
	☐ Plug l	Back	☐ Water I	Disposal	in security 1 ian					
determined that the site is ready for Bridgecreeek Resources (Co Falcon 19-1.	3.05.22.011	vised Site Facil			TED FOR REC	CORD				
	OIL CONS. D	IV DIST. 3								
		7400 0			EC 0 4 2015					
	DEC 1	0 2015		Dur	1					
				By:	os Field Office					
					of Land Manager	nent				
14. Thereby certify that the foregoing is	is true and correct		1 Jan 18 1 1 1	7, 20 E						
	Electronic Submission # For BRIDGECREEK mitted to AFMSS for proces	324113 verified RESOURCES ( ssing by BARBA	by the BLM We COLO LLC, ser ARA TELECKY	ell Information to the Dura on 11/19/2015	n System ngo 5 (16BDT0022SE)					
	NE CAMPBELL			LATORY LE						
Signature (Electronic	Submission) THIS SPACE FO		Date 11/19/2		ee .					
	I III 3 SPACE FO	JK FEDERAL	LORSTATE	OFFICE U	SE GIERRA					
Approved By			TOTAL .			Date				
			Title			Date				
Conditions of approval, if any, are attached certify that the applicant holds legal or ec which would entitle the applicant to cond	quitable title to those rights in the		Office			Date				



#### Attachment to the Site Facility Diagram - Prairie Falcon 19 # 1

#### General sealing of valves:

General sealing of valves:

#### Production phase:

All drain valves D1, D2, D3 sealed closed. All sales valves S1,S2, S3 sealed closed. Equalizing ValveS EQ1 & EQ2 open Fill Valve F1, F2 OR F3 open

#### Sales phase:

The tank from which the sales are being made will be isolated by sealing closed the drain valve, fill valve and equalization valve during the sale.

#### Drain phase:

The tank from which the drain is being made will be isolated by sealing closed the sales valve, fill valve and equalizing valve during the water drain.