District I 1625 N. French Dr., Hobbs, NM 88240 District III 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 8751 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

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	
14000 Proposed Alte	rnative Method Permit or Closure Plan	Application
Type of action: Below	grade tank registration	OIL CONS. DIV DIST. 3
45-35736 Closur	re of a pit, below-grade tank, or proposed alternative m	ethod FEB 16 2016
∐ Modif	ication to an existing permit/or registration	permitted nit below-grade tank
or proposed alternative met	hod	-permitted pit, below-grade tank,
Instructions: Please submit of	ne application (Form C-144) per individual pit, below-grade	e tank or alternative request
ease be advised that approval of this request does no vironment. Nor does approval relieve the operator	of relieve the operator of liability should operations result in polle of its responsibility to comply with any other applicable government	ution of surface water, ground water or the
·	or in responsionity to comply with any other approaces governing	initial autority o rates, regulatoris of oraliante
Operator: Bridgecreek Resources (CO),LLC	OGRID #: <u>310</u>	0262
ddress: 405 Urban Street, Suite 400, Lakewood	I, CO 80228	
acility or well name: Osprey 30-7		
API Number: 30-045-35736	OCD Permit Number:13257	
J/L or Qtr/Qtr <u>G</u> Section <u>30</u> Towns	ship <u>31</u> Range <u>14W</u> County: <u>San Juan</u>	
Center of Proposed Design: Latitude 36.8738	2941 Longitude 108.3482140	NAD: 1927 🛛 1983
urface Owner: 🛛 Federal 🗌 State 🗋 Private 🛛	Tribal Trust or Indian Allotment	
Pit: Subsection F, G or J of 19.15.17.11 NM	MAC	
emporary: Drilling Workover		
emporary: Drilling Workover	P&A 🗌 Multi-Well Fluid Management Low Ch	hloride Drilling Fluid 🛛 yes 🗌 no
emporary: ☐ Drilling ☐ Workover Permanent ☐ Emergency ☐ Cavitation ☐ Lined ☐ Unlined Liner type: Thickness _	P&A ☐ Multi-Well Fluid Management Low Ch 20 mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other	hloride Drilling Fluid 🛛 yes 🗌 no
Temporary: ☐ Drilling ☐ Workover Permanent ☐ Emergency ☐ Cavitation ☐ Lined ☐ Unlined Liner type: Thickness _ String-Reinforced	P&A ☐ Multi-Well Fluid Management Low Ch 20 mil	hloride Drilling Fluid ⊠ yes 🗌 no
Temporary: ☐ Drilling ☐ Workover Permanent ☐ Emergency ☐ Cavitation ☐ Lined ☐ Unlined Liner type: Thickness _ String-Reinforced iner Seams: ☐ Welded ☐ Factory Other	P&A Multi-Well Fluid Management Low Ch 20 mil LLDPE HDPE PVC Other Burrito Wrapped Volume:bbl Dimensions	hloride Drilling Fluid ⊠ yes □ no : L <u>90ft_x W_30ft_x D_14ft</u>
Cemporary: □ Drilling □ Workover Image: Permanent □ Emergency □ Cavitation □ Image: Lined □ Unlined Liner type: Thickness _ Image: String-Reinforced □ String-Reinforced □ Image: Seams: □ Welded □ Factory □ Other	P&A Multi-Well Fluid Management Low Ch 20 mil LLDPE HDPE PVC Other Burrito Wrapped Volume:bbl Dimensions	hloride Drilling Fluid ⊠ yes □ no : L <u>90ft_x W_30ft_x D_14ft</u>
Temporary: Drilling Workover Permanent Emergency Cavitation Lined Unlined Liner type: String-Reinforced String-Reinforced iner Seams: Welded Factory Below-grade tank: Subsection I of 19.15.17	P&A Multi-Well Fluid Management Low Ch 20 mil LLDPE HDPE PVC Other Burrito Wrapped Volume:bbl Dimensions 7.11 NMAC	hloride Drilling Fluid ⊠ yes □ no
Temporary: Drilling Workover Permanent Emergency Cavitation Lined Unlined Liner type: String-Reinforced String-Reinforced iner Seams: Welded Factory Below-grade tank: Subsection I of 19.15.17 olume: bbl Type of 1	P&A Multi-Well Fluid Management Low Ch 20 mil LLDPE HDPE PVC Other Burrito Wrapped Volume:bbl Dimensions 7.11 NMAC fluid:	hloride Drilling Fluid ⊠ yes □ no
Temporary: Drilling Workover Permanent Emergency Cavitation Lined Unlined Liner type: String-Reinforced String-Reinforced iner Seams: Welded Factory Below-grade tank: Subsection I of 19.15.17 'olume: bbl Type of 19.15.17 ank Construction material: Description	P&A Multi-Well Fluid Management Low Ch 20 mil LLDPE HDPE PVC Other Burrito Wrapped Volume:bbl Dimensions 7.11 NMAC fluid:	hloride Drilling Fluid ⊠ yes □ no
emporary: Drilling Workover Permanent Emergency Cavitation Lined Unlined Liner type: String-Reinforced iner Seams: Welded Factory Other Below-grade tank: Subsection I of 19.15.17 Yolume:bbl Type of fank Construction material: Secondary containment with leak detection	P&A Multi-Well Fluid Management Low Ch 20 mil LLDPE HDPE PVC Other Burrito Wrapped Volume:bbl Dimensions 7.11 NMAC fluid: Visible sidewalls, liner, 6-inch lift and automatic overflow	hloride Drilling Fluid ⊠ yes □ no .: L <u>90ft_x W_30ft_x D_14ft</u>
emporary: Drilling Workover Permanent Emergency Cavitation Lined Unlined Liner type: String-Reinforced iner Seams: Welded Below-grade tank: Subsection I of 19.15.17 olume:	P&A ☐ Multi-Well Fluid Management Low Ch 20mil X LLDPE ☐ HDPE ☐ PVC ☐ Other _ Burrito Wrapped Volume:bbl Dimensions 7.11 NMAC	hloride Drilling Fluid ⊠ yes □ no : L_90ft_x W_30ft_x D_14ft w shut-off
emporary: Drilling Workover Permanent Emergency Cavitation Lined Unlined Liner type: Thickness String-Reinforced iner Seams: Welded Factory Other Below-grade tank: Subsection I of 19.15.17 olume:bbl Type of fank Construction material: Secondary containment with leak detection [Visible sidewalls and liner Visible sidew iner type: Thicknessmi	P&AMulti-Well Fluid Management Low Ch 20mil X LLDPEHDPEPVCOther Burrito WrappedVolume:bblDimensions bblDimensions 7.11 NMAC fluid:	hloride Drilling Fluid ⊠ yes □ no : L_90ft_x W_30ft_x D_14ft w shut-off
Yemporary: Drilling Workover Permanent Emergency Cavitation Lined Unlined Liner type: Thickness_ String-Reinforced String-Reinforced iner Seams: Welded Factory Below-grade tank: Subsection I of 19.15.17 Yolume: bbl Type of the state	P&AMulti-Well Fluid Management Low Ch 20mil X LLDPEHDPEPVCOther Burrito WrappedVolume: bblDimensions 7.11 NMAC fluid:	hloride Drilling Fluid ⊠ yes □ no : L_90ft_x W_30ft_x D_14ft w shut-off
emporary: Drilling Workover Permanent Emergency Cavitation Lined Unlined Liner type: Thickness String-Reinforced iner Seams: Welded Factory Other Below-grade tank: Subsection I of 19.15.17 olume:bbl Type of tank Construction material: Secondary containment with leak detection [Visible sidewalls and liner Visible sidew iner type: Thicknessmi Alternative Method:	P&AMulti-Well Fluid Management Low Ch 20mil X LLDPEHDPEPVCOther Burrito WrappedVolume:bblDimensions 7.11 NMAC fluid:	hloride Drilling Fluid ⊠ yes □ no : L_90ft_x W_30ft_x D_14ft w shut-off
Temporary: Drilling Workover Permanent Emergency Cavitation Lined Unlined Liner type: String-Reinforced iner Seams: Welded Factory Other Below-grade tank: Subsection I of 19.15.17 'olume:bbl Dype of fank Construction material: Secondary containment with leak detection Visible sidewalls and liner Visible sidewalls and liner Matternative Method: ubmittal of an exception request is required.	P&AMulti-Well Fluid Management Low Cf 20milMILLDPEHDPEPVCOther Burrito WrappedVolume:bblDimensions 7.11 NMAC fluid:	hloride Drilling Fluid 🛛 yes 🗌 no
emporary: Drilling Workover Permanent Emergency Cavitation Lined Unlined Liner type: Thickness String-Reinforced iner Seams: Welded Factory Other Below-grade tank: Subsection I of 19.15.12 'olume:bbl Type of tank Secondary containment with leak detection Visible sidewalls and liner Visible sidewalls and liner Matternative Method: ubmittal of an exception request is required.	P&AMulti-Well Fluid Management Low Ch 20mil X LLDPEHDPEPVCOther Burrito WrappedVolume: bblDimensions 7.11 NMAC fluid:	hloride Drilling Fluid 🛛 yes 🗌 no
emporary: Drilling Workover Permanent Emergency Cavitation Lined Unlined Liner type: Thickness_ String-Reinforced iner Seams: Welded Factory Other Below-grade tank: Subsection I of 19.15.17 olume:bbl Type of factory Drilling Secondary containment with leak detection Visible sidewalls and liner Visible sidewalls Alternative Method: ubmittal of an exception request is required.	P&AMulti-Well Fluid Management Low Ch 20milKLLDPEHDPEPVCOther Burrito WrappedVolume:bbl_Dimensions	hloride Drilling Fluid ⊠ yes □ no : L_90ft_x W_30ft_x D_14ft
emporary: Drilling Workover Permanent Emergency Cavitation Lined Unlined Liner type: Thickness_ String-Reinforced iner Seams: Welded Factory Below-grade tank: Subsection I of 19.15.17 'olume: bbl Type of the state	P&AMulti-Well Fluid Management Low Ch 20milLLDPEHDPEPVCOther Other	hloride Drilling Fluid ⊠ yes □ no : L_90ft_x W_30ft_x D_14ft w shut-off Bureau office for consideration of approval. anks) ermanent residence, school, hospital,
Temporary: □ Drilling □ Workover ☑ Permanent □ Emergency □ Cavitation □ ☑ Lined □ Unlined Liner type: Thickness _ ☑ String-Reinforced ☑ Below-grade tank: Subsection I of 19.15.1? ☑ Below-grade tank: Subsection I of 19.15.1? ☑ Below-grade tank: Subsection I of 19.15.1? ✓ olume:	P&AMulti-Well Fluid Management Low Ch 20milKLLDPEHDPEPVCOther Burrito WrappedVolume:bbl_Dimensions MINAC fluid:	hloride Drilling Fluid ⊠ yes □ no : L_90ft_x W_30ft_x D_14ft w shut-off Bureau office for consideration of approval. anks) ermanent residence, school, hospital,

Oil Conservation Division

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)

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.

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	□ 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 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. (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 an occupied permanent residence, school, hospital, institution, or church in existence at the time of initial	Yes No
 Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	
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	- 1 A
 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 N Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the dot 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 19.15.17.10 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 Previously Approved Design (attach copy of design) API Number: or Permit Number:	NMAC cuments are 9 NMAC 15.17.9 NMAC
11. Multi Well Fluid Management Bit Checklist. Subsection B of 10 15 17.0 NMAC	
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 dot 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 	cuments are
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:	

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	e documents are
 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 H₂S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization 	
Monitoring and Inspection Plan	
Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	
13. Bronned Cleanner, 10,15,17,12 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)	
□ In-place Burial □ On-site Trench Burial	
Alternative Closure Method	
 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 	С
15. <u>Siting Criteria (regarding on-site closure methods only)</u> : 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable so	urce material are
provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. 19.15.17.10 NMAC for guidance.	Please refer to
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	
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	Yes No
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 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
- 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 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 19.15.17.13 NMAC Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - 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 cannt 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 	an. Please indicate, 11 NMAC 15.17.11 NMAC not be achieved)
17.	
Operator Application Certification: Likersby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and bel	ief
Thereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and ber	
Name (Print): Christine Campbell Title: Regulatory Lead	
Signature: (hushalamphell Date: 2/9/16	
e-mail address: ccampbell@palomarnr.com Telephone: 303-945-2642	
18. OCD Approval: Permit Application (including closure plan) (Cosure Plan (only)) OCD conditions (see attachment)	12.
long /	ali
OCD Representative Signature: Approval Date:	4/6
Title: 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 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: 1-18-16	the closure report. complete this
20. Closure Method: □ Waste Excavation and Removal ☑ On-Site Closure Method □ Alternative Closure Method □ Waste Removal (Closed-log) □ If different from approved plan, please explain.	oop systems only)
21. 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.	adicate, by a check 27 ⊠ 1983

Oil Conservation Division

22. Operator Closure Certification:

•

I hereby certify that the information and attachments submitted with this clo belief. I also certify that the closure complies with all applicable closure red	sure report is true, accurate and complete to the best of my knowledge and quirements and conditions specified in the approved closure plan.
Name (Print): Christine Campbell	Title: Regulatory Lead
Signature: Christen Campbell	Date: 219116
e-mail address:ccampbell@palomarnr.com	Telephone: <u>303-945-2630</u>

Operator Closure Certification:

22.

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 Campbel	Title: Regulatory Lead
Signature: Christin Campbe	Date: 219/16
e-mail address:ccampbell@palomarnr.com	Telephone: <u>303-945-2630</u>

Bridgecreek Resources (CO) LLC Lease Name: Osprey 30-7 API: 30-045-35736 Trench Permit No.: 13256

Bridgecreek Resources (Colorado) LLC Temporary Pit Closure Plan

In accordance with Rule 19.15.17.9 NMAC and 19.15.17.13 NMAC the following information describes the closure of the temporary pit on the Osprey 30-7 Bridgecreek location. All proper documentation regarding closure activities in being included with the C-144.

- 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 subsection (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., certified mail, return receipt requested.
 - Closure plan with initial cuttings analysis was submitted and approved by BLM on 1/11/16 (Report Attached). Certified mail is not required for Federal land per BLM/OCD MOU. (Report Attached)
- 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.
 - a. Closure occurred from January 13 to January 18, 2016. Bridgecreek will notify OCD upon reseeding of reclaimed area no later than 6 months following rig release date.
- 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

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b. Notification was done via telephone on 1/10/16 to all required parties.

- 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 n on waste saw dust material in order to achieve the stabilization 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. A six-point composite sample was taken. Constituents listed in the UMU Table/COGCC Table are below standards and below NMOCD limits. The cuttings passed the paint filter liquids test. The burial was approved by the BLM and the UMU Tribe Environmental Department. (Sample results are attached).
- 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
 - a. A five-point composite sample was taken. Constituents listed in the UMU Table/COGCC Table are below standards and also below NMOCD limits. The burial was approved by the BLM and the UMU Tribe Environmental Department. (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. Closure occurred from January 13 to January 18, 2016. A two-foot base layer of clean soil was placed at the bottom of the lined trench to protect

Bridgecreek Resources (CO) LLC Lease Name: Osprey 30-7 API: 30-045-35736 Trench Permit No.: 13256

> the base from being impaired during mixing. 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.

- 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.
 - 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 recontour 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 form upon completion.
- 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.
 - a. Seeding will begin during the next growing season. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. 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

3

Bridgecreek Resources (CO) LLC Lease Name: Osprey 30-7 API: 30-045-35736 Trench Permit No.: 13256

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.
 - a. A steel temporary marker has been ordered and 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 3.63 acres, but will be reduced after interim reclamation (following drilling and completion) to approximately 2.67 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. <u>Topsoil will be evenly respread and revegetated over the entire disturbed area not needed for all-weather</u> operations including cuts & fills. To seed the area, the proper BIA approved seed mixture, free of noxious weeds, will be used.
- D. For cut and fill slopes, initial seedbed preparation will consist of backfilling and re-contouring to achieve a configuration as close to pre-disturbance conditions as possible. 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. 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. Following final contouring, the backfilled or ripped surfaces will be covered evenly with stockpiled topsoil. Final seedbed preparation will consist or raking or harrowing the spread topsoil prior to seeding to promote a firm (but not compacted) seedbed without surface crusting. Seedbed preparation may not be necessary for topsoil storage piles

or other areas of temporary seeding. 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.

- E. 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.
- F. Bridgecreek is responsible for consultation with the BLM and UMU Environmental Department for acceptable weed control methods and shall comply with the following:
 - 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.
- G. Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.
- H. The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.
- I. 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

- J. Prior to final reclamation procedures, the well pad, road, and surrounding area will be cleared of material, trash, and equipment.
- K. All surfacing material will be removed and returned to the original source pit or recycled to repair or build roads and well pads.
- L. 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.
- M. Upon final reclamation after cessation of production operations, all compacted areas and areas devoid of vegetation on location shall be ripped (along the contour) to a minimum of 6 inches in depth before the re-spread of topsoil and subsequent reseeding according to the BIA approved seed mix. The access road will be shaped to conform to the natural terrain and left as rough as possible to deter vehicle travel. 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.

- N. After all the disturbed areas have been properly prepared, the areas will be seeded with the proper BIA seed mixture, free of noxious weeds. Inspection of the project area for noxious or invasive weeds listed by New Mexico Department of Agriculture as Class A or Class B will occur after earthwork and seeding activities. Should listed weeds be documented, the Operator will follow BLM-Tres Rios Field Office or Ute Mountain Ute Tribe, and BIA-Ute Mountain Ute Agency requirements and instructions for weed treatments, including the period of treatment, approved herbicides that may be used, required documentation to be submitted to the BLM after treatment, and any other site-specific instructions that may be applicable. The Operator will manage weeds at the proposed site with the following general practices:
 - Any "listed" weeds will be treated prior to commencement of construction to prevent incorporation into the soil.
 - Equipment will be inspected and cleaned prior to entering the construction site, and earthmoving equipment will be cleaned prior to exiting the site.
 - Potential weed introduction will be minimized by using only weed-free seed mix, straw, mulch or other materials that may be brought to the site.
 - Ongoing weed inspection and appropriate treatment will continue until percentage cover standards have been attained and final abandonment has occurred.
- O. 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.
- P. Proper erosion control methods will be used on the entire area to control erosion, runoff and siltation of the surrounding area.
- Q. All unused equipment and structures including pipelines, tanks, etc. that serviced the well will be removed for proper disposal.
- R. 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) LLC OSPREY 30-7 SWNE, Section 30-T31N-R14W 1933' FNL & 1939' FEL UMU TRIBAL LEASE # 751-14-1038 API # 30-045-35736 SAN JUAN COUNTY, NM EMERGENCY # (505) 599-5284

orm 3160-5 Nugust 2007) UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to re-enter an					FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010 5. Lease Serial No. 751141038		
See 20	abandoned wel	I. Use form 3160-3 (AP	D) for such pro	posals.		6. If Indian, Allottee of UTE MOUNTAI	or Tribe Name N UTE
1999 - P. S.	SUBMIT IN TRI	PLICATE - Other instrue	ctions on rever	se side.		7. If Unit or CA/Agre	ement, Name and/or No.
1. Type of Well	Gas Well Oth	er		See.		8. Well Name and No. OSPREY 30-7	
2. Name of Open BRIDGECR	ator REEK RESOURCE	Contact: S COLO E-Mail: ccampbell	CHRISTINE CA @palomarnr.com	AMPBELL		9. API Well No. 30-045-35736-0	00-S1
3a. Address 405 URBAN	N STREET, SUITE	400	3b. Phone No. (in Ph: 303-945-)	nclude area code 2642)	10. Field and Pool, or VERDE GALLU	Exploratory IP
4. Location of W	ell (Footage, Sec., T.	, R., M., or Survey Description	1)			11. County or Parish,	and State
Sec 30 T31 36.873895	N R14W SWNE 19 N Lat, 108.348216	33FNL 1939FEL W Lon				SAN JUAN CO	UNTY, NM
1	12. CHECK APPF	OPRIATE BOX(ES) TO	O INDICATE N	ATURE OF	NOTICE, RI	EPORT, OR OTHE	R DATA
TYPE OF S	SUBMISSION		14 . A . A	TYPE O	F ACTION		
 Notice of Subsequer Final Abar 	Intent nt Report ndonment Notice	 Acidize Alter Casing Casing Repair Change Plans Convert to Injection 	Deeper Fractur New C Plug ar Plug B	pen Production (Start/Resume) ture Treat Construction and Abandon Construction Con		 Water Shut-Off Well Integrity Other Emergency Pits or osure 	
testing has bee determined that Bridgecreek	n completed. Final Ab at the site is ready for fi R Resources (Color nch.	andonment Notices shall be fil nal inspection.) ado), LLC submits the at	ed only after all req	uirements, includ	ling reclamation	n, have been completed,	and the operator has
14. I hereby certi	fy that the foregoing is	true and correct.					
14. I hereby certi Name (Printed	fy that the foregoing is Con (Typed) CHRISTIN	true and correct. Electronic Submission # For BRIDGECREEK nmitted to AFMSS for pro E CAMPBELL	329876 verified b RESOURCES Co cessing by TRAC T	by the BLM We OLO LLC, sen EY AYZE on 0 Title REGUL	II Information t to the Dura 11/28/2016 (16 ATORY LEA	ngo BBDT0033SE) AD	
14. I hereby certi Name (Printed Signature	fy that the foregoing is Co (<i>Typed</i>) CHRISTIN (Electronic S	true and correct. Electronic Submission # For BRIDGECREEK mmitted to AFMSS for pro E CAMPBELL	329876 verified b RESOURCES Co cessing by TRAC T	by the BLM We OLO LLC, sen EY AYZE on 0 Title REGUL	II Information t to the Dura 11/28/2016 (16 ATORY LEA	n System ngo BBDT0033SE) AD	
14. I hereby certi Name (Printed Signature	fy that the foregoing is Co (<i>Typed</i>) CHRISTIN (Electronic S	true and correct. Electronic Submission # For BRIDGECREEK mmitted to AFMSS for pro E CAMPBELL ubmission) THIS SPACE FC	329876 verified b RESOURCES Co cessing by TRAC T D DR FEDERAL	by the BLM We OLO LLC, sen EY AYZE on 0 Title REGUL Pate 01/27/2 OR STATE	Il Information t to the Durar 11/28/2016 (16 ATORY LEA 016 OFFICE US	SSSTER Ngo BBDT0033SE) AD	
14. I hereby certi Name (Printed Signature	fy that the foregoing is Con (Typed) CHRISTIN (Electronic S CCEPT	true and correct. Electronic Submission # For BRIDGECREEK mmitted to AFMSS for pro E CAMPBELL ubmission) THIS SPACE FO	329876 verified b RESOURCES C cessing by TRAC T DR FEDERAL	by the BLM We OLO LLC, sen EY AYZE on 0 Title REGUL Date 01/27/2 OR STATE DAN RAB Title ACTING M	II Information t to the Durat 1/28/2016 (16 ATORY LEA 016 OFFICE US INOWITZ /INERALS S	AD SE	Date 01/29/20

** BLM REVISED **



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

January 26, 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. Osprey 30-7. Sec. 30, 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 13 through January 18, 2016. Photographs of the closure are located in Appendix A. Exhibit 1 shows the location of the cuttings trench in relation to the Osprey 30-7 wellhead.

As shown on Exhibit 1, the northwest corner of the cuttings trench is 197 feet bearing 51.6 deg. magnetic north (MN) [42 deg. true north (TN)] from the Osprey 30-7 wellhead. The cuttings trench measures 90 ft (L) x 30 ft (W) x 10 ft (D). Including the 4-foot topsoil cap, the total depth of the trench is 14 ft.

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

A confirmation sample of the mixed drill cuttings was obtained after the mixed drill cuttings were placed in the cuttings trench. The confirmation sample was obtained from a six point composite representating the buried drill cuttings matrix. The matrix of the buried cuttings was approximately 5% rock, 55% fines, and 40% stablized drill cuttings.

The confirmation sample was delivered to Envirotech Environmental Laboratory for the analysis of constituents listed in the UMU Table and chloride. Appendix B contains the Certificate of Analysis for the confirmation sample of mixed buried cuttings. Constituents listed in the UMU Table are below standards except for arsenic. Arsenic was discussed in the closure plan and is not evaluated further.

01/26/2016

The extent of the burial trench was identified with a T-post in each corner. A permenant center marker will be placed according to the SUPO to identify the center of the burial trench and the trench dimensions.

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

01/26/2016

Exhibits

20

01/26/2016

Appendix A







Figure 1: Mixing the cuttings in the lined burial trench.



Figure 2: Mixing the drill cuttings with clean soil from trench excavation. Stablization was achieved at a ratio of 1 (clean): 1 (cuttings).



Figure 3: Final mixed cutting in cuttings trench. The trench is lined with a 20-mil string reinforced LLDPE liner.



Figure 4: Mixed cutting ratio. 45% stabilized cuttings, 50% fines, 5% rock.

01/26/2016

Bridgecreek Osprey 30-7



Figure 5: Stablized cuttings "burrito wrapped" prior to placement of 4 feet soil cap.



Figure 6: T-posts mark the corners of the cuttings trench. Surface is graded level.

01/26/2016

Appendix B





Analytical Report

Report Summary

Client: Bridgecreek Resources, LLC Chain Of Custody Number: Samples Received: 1/18/2016 4:20:00PM Job Number: 15090-0001 Work Order: P601017 Project Name/Location: Osprey 30-7

Date: 1/26/16

Entire Report Reviewed By:

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.

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	Sarah McCloskey	26-Jan-16 11:15

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Confirmation Sample	P601017-01A	Soil	01/18/16	01/18/16	Glass Jar, 4 oz.
	P601017-01B	Soil	01/18/16	01/18/16	Glass Jar, 4 oz.
	P601017-01C	Soil	01/18/16	01/18/16	Glass Jar, 4 oz.
	P601017-01D	Soil	01/18/16	01/18/16	Glass Jar, 4 oz.

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Bridgecreek Resources, LLC 405 Urban St Suite 400 Lakewood CO, 80228	Projec Projec Projec	Project Name: Project Number: Project Manager:		Osprey 30-7 15090-0001 Sarah McCloskey				Reported: 26-Jan-16 11:15	
		Confirmation Sample P601017-01 (Solid)							
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021			_			Sec.			
Benzene	ND	0.10	mg/kg	1	1604007	01/19/16	01/20/16	EPA 8021B	
Toluene	0.20	0.10	mg/kg	1	1604007	01/19/16	01/20/16	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1604007	01/19/16	01/20/16	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1604007	01/19/16	01/20/16	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1604007	01/19/16	01/20/16	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1604007	01/19/16	01/20/16	EPA 8021B	
Total BTEX	0.20	0.10	mg/kg	1	1604007	01/19/16	01/20/16	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		114 %	50	-150	1604007	01/19/16	01/20/16	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1604007	01/19/16	01/20/16	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1604017	01/21/16	01/21/16	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1604017	01/21/16	01/21/16	EPA 8015D	
Surrogate: n-Nonane		114 %	50	-200	1604017	01/21/16	01/21/16	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-F1D		94.9 %	50	-150	1604007	01/19/16	01/20/16	EPA 8015D	
Total Metals by 6010									
Arsenic	5.76	1.01	mg/kg	1	1604020	01/21/16	01/22/16	EPA 6010C	
Barium	291	10.1	mg/kg	1	1604020	01/21/16	01/22/16	EPA 6010C	
Cadmium	ND	1.01	mg/kg	1	1604020	01/21/16	01/22/16	EPA 6010C	
Chromium	22.1	5.03	mg/kg	1	1604020	01/21/16	01/22/16	EPA 6010C	
Copper	5.85	2.01	mg/kg	1	1604020	01/21/16	01/22/16	EPA 6010C	
Lead	19.8	1.01	mg/kg	1	1604020	01/21/16	01/22/16	EPA 6010C	
Mercury	ND	1.01	mg/kg	1	1604020	01/21/16	01/22/16	EPA 6010C	
Nickel	10.5	1.01	mg/kg	1	1604020	01/21/16	01/22/16	EPA 6010C	
Selenium	ND	5.03	mg/kg	1	1604020	01/21/16	01/22/16	EPA 6010C	
Silver	ND	1.01	mg/kg	1	1604020	01/21/16	01/22/16	EPA 6010C	
Zinc	60.0	2.01	mg/kg	1	1604020	01/21/16	01/22/16	EPA 6010C	

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	Sarah McCloskey	26-Jan-16 11:15

and the second		Confirm P6010	nation Sa)17-01 (So	imple lid)	i				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis		1	1. 1.			1 March	Sec. 1	Sec. 1	a to a
рН @25°С	8.13		pH Units	1	1604006	01/19/16 10:31	01/19/16 11:56	9040C/4500 H	
Electrical Conductivity	5260		umhos/cm	1	1604006	01/19/16 10:31	01/19/16 11:56	9050A/2510	
Sodium Absorption Ratio	3.51		N/A	1	1604013	01/20/16	01/20/16	[CALC]	
Chloride	202	20.0	mg/kg	1	1604009	01/19/16	01/19/16	EPA 300.0	
Calcium	13.7	0.50	mg/L	1	1604004	01/19/16	01/19/16	EPA 6010C	
Magnesium	9.42	0.20	mg/L	1	1604004	01/19/16	01/19/16	EPA 6010C	
Sodium	69.0	2.00	mg/L	1	1604004	01/19/16	01/19/16	EPA 6010C	
Boron-Hot Water Soluble by EPA 6010			i Parti	Sec.				New Street	and in
Boron	ND	0.49	mg/L	1	1604015	01/20/16	01/22/16	EPA 6010C	

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405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	Sarah McCloskey	26-Jan-16 11:15

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

T TTALE		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1604007 - Purge and Trap EPA 50	30A									110 -
Blank (1604007-BLK1)				Prepared &	Analyzed:	19-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	0.365		11	0.320		114	50-150			
LCS (1604007-BS1)				Prepared &	Analyzed:	19-Jan-16				
Benzene	11.8	0.10	mg/kg	10.0		118	70-130			
Toluene	11.8	0.10	**	10.0		118	70-130			
Ethylbenzene	11.9	0.10		10.0		120	70-130			
p,m-Xylene	24.0	0.20		20.0		120	70-130			
o-Xylene	11.6	0.10		10.0		116	70-130			
Surrogate: 4-Bromochlorobenzene-PID	0.361		**	0.320		113	50-150			
Matrix Spike (1604007-MS1)	Sou	rce: P601018-	01	Prepared &	Analyzed:	19-Jan-16				
Benzene	12.0	0.10	mg/kg	10.0	ND	120	54.3-133			
Toluene	12.2	0.10		10.0	ND	122	61.4-130			
Ethylbenzene	12.3	0.10	**	10.0	ND	123	61.4-133			
p,m-Xylene	24.5	0.20		20.0	ND	123	63.3-131			
o-Xylene	11.8	0.10	**	10.0	ND	118	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	0.361			0.320		113	50-150			
Matrix Spike Dup (1604007-MSD1)	Sou	rce: P601018-	01	Prepared &	Analyzed:	19-Jan-16				
Benzene	11.1	0.10	mg/kg	10.0	ND	111	54.3-133	7.78	20	
Toluene	11.2	0.10		10.0	ND	112	61.4-130	8.86	20	
Ethylbenzene	11.3	0.10		10.0	ND	113	61.4-133	8.67	20	
p,m-Xylene	22.8	0.20	**	20.0	ND	114	63.3-131	7.24	20	
o-Xylene	11.1	0.10	-	10.0	ND	111	63.3-131	6.69	20	
Surrogate: 4-Bromochlorobenzene-PID	0.360			0.320		113	50-150			

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	1 1 1 1 1 1 1 1 1 1
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	Sarah McCloskey	26-Jan-16 11:15

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting	Units	Spike	Source Result	%REC	%REC	RPD	RPD Limit	Notes
, many re	resurt	Linin	Onno	Lotter	result	701CDC	Linno	NI D	Lanne	110100
Batch 1604007 - Purge and Trap EPA 5030A				No. C	1		1.1.1	e 4.	Sec. 3.	1-13
Blank (1604007-BLK1)				Prepared &	Analyzed:	19-Jan-16				
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1						
Surrogate: 1-Chloro-4-fluorobenzene-FID	0.306			0.320		95.7	50-150			
LCS (1604007-BS1)				Prepared &	Analyzed:	19-Jan-16				
Gasoline Range Organics (C6-C10)	123	20.0	mg/kg	113		109	70-130	- 25	1.13	100
Surrogate: 1-Chloro-4-fluorobenzene-FID	0.305	· · · · ·	"	0.320		95.2	50-150		14	
Matrix Spike (1604007-MS1)	Sou	rce: P601018-	01	Prepared &	Prepared & Analyzed: 19-Jan-16					
Gasoline Range Organics (C6-C10)	125	20.0	mg/kg	113	ND	111	70-130	100	1	26.9
Surrogate: 1-Chloro-4-fluorobenzene-FID	0.302	100		0.320		94.5	50-150		1. 2. 6	1
Matrix Spike Dup (1604007-MSD1)	Sou	irce: P601018-	01	Prepared &	Analyzed:	19-Jan-16				
Gasoline Range Organics (C6-C10)	117	20.0	mg/kg	113	ND	104	70-130	6.20	20	
Surmaate: 1-Chloro-4-fluorohenzene-FID	0 306			0 320		95.6	50-150			

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	Sarah McCloskey	26-Jan-16 11:15

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting	Unite	Spike	Source	%PEC	%REC	RPD	RPD	Notes
Analyte	Result	Luun	Omis	Lever	Result	7eREC	Linits	KFD	Linn	NOICS
Batch 1604017 - DRO Extraction EPA 3550M	11.1				1.1.1			1.1	-	12.5
Blank (1604017-BLK1)				Prepared &	Analyzed:	21-Jan-16				
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Surrogate: n-Nonane	63.3		49	50.0		127	50-200			9
LCS (1604017-BS1)				Prepared &	Analyzed:	21-Jan-16				
Diesel Range Organics (C10-C28)	618	25.0	mg/kg	500		124	38-132			
Surrogate: n-Nonane	65.4		"	50.0		131	50-200			1.4
Matrix Spike (1604017-MS1)	Sou	rce: P601018-	01	Prepared & Analyzed: 21-Jan-16						
Diesel Range Organics (C10-C28)	1340	25.0	mg/kg	500	773	113	38-132			1.1
Surrogate: n-Nonane	57.7			50.0		115	50-200			
Matrix Spike Dup (1604017-MSD1)	Sou	rce: P601018-	01	Prepared &	Analyzed:	21-Jan-16				1
Diesel Range Organics (C10-C28)	1260	25.0	mg/kg	500	773	98.0	38-132	5.68	20	
Surrogate: n-Nonane	57.9			50.0		116	50-200		-	

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	Sarah McCloskey	26-Jan-16 11:15

Total Metals by 6010 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Not
Batch 1604020 - Metal Solid Digestio	n EPA 3051A		. IS	100	1.14		1.1	-	-	
Blank (1604020-BLK1)	11 A			Prepared: 2	21-Jan-16 A	nalyzed: 2	2-Jan-16	Jillia m	0.00	
Arsenic	ND	1.00	mg/kg	- V						
Barium	ND	10.0	**							
Cadmium	ND	1.00								
Chromium	ND	5.00								
Copper	ND	2.00								
ead	ND	1.00								
Aercury	ND	1.00	"							
lickel	ND	1.00	*							
elenium	ND	5.00								
lilver	ND	1.00								
inc	ND	2.00								
CS (1604020-BS1)				Prepared: 2	1-Jan-16 A	nalyzed: 2	2-Jan-16			
rsenic	93.8	1.00	mg/kg	100		93.8	80-120		1000	
arium	101	10.0		100		101	80-120			
admium	96.3	1.00		100		96.3	80-120			
hromium	98.3	5.00		100		98.3	80-120			
opper	89.9	2.00	**	100		89.9	80-120			
ead	96.9	1.00	**	100		96.9	80-120			
fercury	100	1.00		100		100	80-120			
lickel	95.4	1.00		100		95.4	80-120			
elenium	90.8	5.00		100		90.8	80-120			
ilver	93.4	1.00		100		93.4	80-120			
line	95.4	2.00		100		95.4	80-120			
fatrix Spike (1604020-MS1)	Sou	rce: P601021-	02	Prepared: 2	1-Jan-16 A	nalyzed: 2	2-Jan-16	1.4.1	the states a	
Irsenic	99.4	0.98	mg/kg	98.0	2.80	98.5	75-125		Kenn	
arium	268	9.80	**	98.0	258	10.3	75-125			SPK
admium	97.5	0.98	**	98.0	ND	99.4	75-125			
hromium	109	4.90		98.0	9.64	101	75-125			
opper	93.3	1.96		98.0	ND	95.2	75-125			
ead	106	0.98		98.0	9.49	98.9	75-125			
fercury	105	0.98		98.0	1.01	106	75-125			
lickel	101	0.98		98.0	4.05	98.7	75-125			
elenium	92.9	4.90		98.0	ND	94.8	75-125			
ilver	58.8	0.98		98.0	ND	60.0	75-125			SPK
line	124	1.96		98.0	24.9	101	75,125			

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	Sarah McCloskey	26-Jan-16 11:15

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 1604020 - Metal Solid Digestion E	PA 3051A					5.8.0				hab
Matrix Spike Dup (1604020-MSD1)	Sou	rce: P601021-	02	Prepared: 2	21-Jan-16 A	Analyzed: 2	2-Jan-16	1.0		3
Arsenic	97.4	1.00	mg/kg	100	2.80	94.3	75-125	2.00	20	1000
Barium	249	10.0	**	100	258	NR	75-125	7.37	20	SPK1
Cadmium	96.5	1.00	*	100	ND	96.1	75-125	1.01	20	
Chromium	110	5.02	-	100	9.64	100	75-125	1.20	20	
Copper	91.6	2.01		100	ND	91.2	75-125	1.92	20	
lead	102	1.00	**	100	9.49	92.5	75-125	3.89	20	
Mercury	102	1.00	**	100	1.01	101	75-125	2.13	20	
lickel	98.6	1.00		100	4.05	94.2	75-125	2.20	20	
elenium	91.2	5.02	**	100	ND	90.8	75-125	1.91	20	
Silver	55.9	1.00		100	ND	55.7	75-125	4.97	20	SPK1
Line	116	2.01		100	24.9	90.4	75-125	6.66	20	

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	Sarah McCloskey	26-Jan-16 11:15

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

and the second sec		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1604004 - Metal Water Digestion	EPA 3015A	- All		in er	hard		Bush	100	an P	Sec.
Blank (1604004-BLK1)				Prepared: 1	8-Jan-16	Analyzed: 1	9-Jan-16			
Calcium	ND	0.50	mg/L					-		
Magnesium	ND	0.20								
Sodium	ND	2.00	н							
LCS (1604004-BS1)				Prepared: 1	8-Jan-16 A	Analyzed: 1	9-Jan-16			
Calcium	98.0	0.50	mg/L	100		98.0	80-120	1000	1	
Magnesium	92.6	0.20		100		92.6	80-120			
Sodium	99.0	2.00		100		99.0	80-120			
Matrix Spike (1604004-MS1)	Sou	rce: P601011-	07	Prepared: 1	8-Jan-16 A	Analyzed: 1	9-Jan-16			
Calcium	111	0.50	mg/L	100	9.64	101	75-125	1.1.1.1	1.24	100
Magnesium	96.0	0.20	**	100	0.66	95.3	75-125			
Sodium	261	2.00		100	169	92.2	75-125			
Matrix Spike Dup (1604004-MSD1)	Sou	rce: P601011-	07	Prepared: 1	8-Jan-16 A	Analyzed: 1	9-Jan-16			
Calcium	107	0.50	mg/L	100	9.64	97.1	75-125	3.79	20	
Magnesium	93.0	0.20		100	0.66	92.3	75-125	3.21	20	
Sodium	258	2.00	*	100	169	89.8	75-125	0.942	20	

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	Sarah McCloskey	26-Jan-16 11:15

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

and the second sec		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1604009 - Anion Extraction EPA 300.0		1.1				1			10.0	1.2
Blank (1604009-BLK1)				Prepared &	Analyzed:	19-Jan-16				
Chloride	ND	20.0	mg/kg							
LCS (1604009-BS1)				Prepared &	Analyzed:	19-Jan-16				
Chloride	485	20.0	mg/kg	500		96.9	90-110			1
Matrix Spike (1604009-MS1)	Sour	ce: P601013-	01	Prepared &	Analyzed:	19-Jan-16				
Chloride	552	20.0	mg/kg	500	60.4	98.3	80-120			
Matrix Spike Dup (1604009-MSD1)	Sour	ce: P601013-	01	Prepared &	Analyzed:	19-Jan-16				
Chloride	559	20.0	mg/kg	500	60.4	99.7	80-120	1.21	20	

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	Sarah McCloskey	26-Jan-16 11:15

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 1604015 - Boron HW Soluble Digestion				ALL				No.			
Blank (1604015-BLK1)				Prepared: 2	20-Jan-16 A	Analyzed: 2	2-Jan-16				
Boron	ND	0.50	mg/L					19	-		
LCS (1604015-BS1)				Prepared: 2	20-Jan-16 A	Analyzed: 2	2-Jan-16				
Boron	3.94		mg/L	4.00		98.6	80-120				
Matrix Spike (1604015-MS1)	Sou	rce: P601017-	01	Prepared: 2	20-Jan-16 A	Analyzed: 2	2-Jan-16				
Boron	3.24		mg/L	4.00	0.24	74.8	75-125			SPK1	
Matrix Spike Dup (1604015-MSD1)	Sou	rce: P601017-	01	Prepared: 2	20-Jan-16 A	Analyzed: 2	2-Jan-16				
Boron	3.31		mg/L	4.00	0.24	76.7	75-125	2.29	20		

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envirotech Analytical Laboratory

Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	Sarah McCloskey	26-Jan-16 11:15

Notes and Definitions

SPK1	The spike recovery is outside of quality 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

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Client: Budecveok Resources					RUSH?		Lab Use Only			An	alysis	and	Meth	od		lab	Only
Project: Osprey 30-7 Sampler: Savah McCloskey Phone: 970-769-1401					1d 3d	P	Lab WO#	015			0.0	-1				mber	Prsrv (s) V/N
Email(s): Sarahmed Project Manager: Sarah	Mecles	VILONME	ental.com		Page	e [16	of 040 - 00	RO by 8	18021	418.1	e by 30(e 910				Lab Nur	t Cont/F
Samp	le ID		Sample Date	Sample Time	Matrix	QTY -	Containers Vol/TYPE/Preservati	GRO/D	BTEX by	TPH by	Chlorid	Tabl					Correct
Confirmation	Sample	e	1/18/14	12:20	Soil	4	Hozjavs/Fo	EX			X	+				1	4
	the second	1	112.01				-							-	-		
						line and	-							-	-		
	<u></u>														-		
				1			and the second										1
	Sectional Contest			100													
	0.1						1										
							~										and
	1.1.1.							-									
Relinquished by: (Signature)	Date 11816	Time	Received	l by: (Signat	ture)	Date	Time				La	b Us	e Onl	y			
Relinquished by: (Signature)	Date	Time	Received	I by: (Signal	ture)	Date	5 /6.20 Time	T1AVG Te	mp°		12				Т3_	and the	
Sample Matrix: S - Soil, Sd - Solid, Sg - S	ludge, A - Aqueous,	, 0 - Other	<u></u>	de la			Container Ty	pe: g - gla	ss, p	- poly	/plas	tic, a	g - an	ber g	lass, v -	VOA	
**Samples requiring thermal preservations Sample(s) dropped off after hours	on must be receive	d on ice the day t If area.	hey are sampled o	Chain of	acked in ice a f Custody	Notes	np above 0 but less tha /Billing info: 5%fines, 40	n 6°C on su	y lu	mp	ys.	540	roc	k			
Analyti	cal Labora	atory	5756 US H Three Spil	ighway 64, Fanni Ngs - 65 Mercado	ington, NM 87401 Sweet, Suite 115, I	Dunanijo, CO 8131	Ph 150 01 Ph 157	i) 632-0615 fz i) 259-0615 fr	(505) 63) (800) 36)	2-1865 2-1879				-	Pag		nc com



ANALYTICAL REPORT

January 25, 2016

EnviroTech- NM

Sample Delivery Group: Samples Received: Project Number: Description: Site: Report To:

L812885 01/20/2016 15090-0001 Osprey 30-7 P601017 Tim Cain and Lynn Cook 5796 US. Highway 64 Farmington, NM 87401

Entire Report Reviewed By: Dapline & Richards

Daphne Richards Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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CONFIRMATION SAMPLE L812885-01	5	
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Total Solids by Method 2540 G-2011	6	
Wet Chemistry by Method 2580 B-2011	7	
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PROJECT: 15090-0001

L812885

SDG:

DATE/TIME: 01/25/16 16:57 Page 16 of 29

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

CONFIRMATION SAMPLE L812885-01 Solid			Collected by Sarah McCloskey	Collected date/time 01/18/16 12:20	Received date/time 01/20/16 14:00
Method	Batch	Dilution	Preparation	Analysis	Analyst
			date/time	date/time	
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG843639	1	01/20/16 23:39	01/21/16 14:52	KMP
Total Solids by Method 2540 G-2011	WG843814	1	01/21/16 11:26	01/21/16 11:35	MEL
Wet Chemistry by Method 2580 B-2011	WG844116	1	01/22/16 05:45	01/22/16 07:07	MZ
Wet Chemistry by Method 3060A/7196A	WG843893	1	01/21/16 11:47	01/22/16 07:22	MLZ
Wet Chemistry by Method 9045D	WG843683	1	01/21/16 09:10	01/21/16 09:10	AMC

ACCOUNT: EnviroTech- NM PROJECT: 15090-0001

SDG: L812885 DATE/TIME: 01/25/16 16:57 Page 17 of 29 3 of 15

CASE NARRATIVE

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.

Dapine R Richards

Daphne Richards Technical Service Representative

GI

AI

Sc

Cp

ACCOUNT: EnviroTech- NM PROJECT: 15090-0001

SDG

L812885

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CONFIRMATION SAMPLE Collected date/time: 01/18/16 12:20

SAMPLE RESULTS - 01 1812885

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Total Solids by Method 2540 G-2011

Total Solids by h	vietnou 2040 0-2	2011				i ca
	Result	Qualifier	Dilution	Analysis	Batch	Ср
Analyte	%			date / time		
Total Solids	89.2	1. A.	1	01/21/2016 11:35	WG843814	^t Tc
Wet Chemistry b	by Method 2580	B-2011				³ Ss
1. S.	Result	Qualifier	Dilution	Analysis	Batch	
Analyte	mV			date / time		4 Co
ORP	108		1	01/22/2016 07:07	WG844116	Ch

108 Wet Chemistry by Method 3060A/7196A

wet enemistry by it	ictiled boobrai	ISON					
Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis date / time	Batch	
Chromium, Hexavalent	ND	<u>J6 O1</u>	2.24	1	01/22/2016 07:22	WG843893	

Wet Chemistry by Method 9045D

	Result	Qualifier	Dilution	Analysis	Batch	
Analyte	SU			date / time		
pH	6.62		1	01/21/2016 09:10	WG843683	

Sample Narrative:

9045D L812885-01 WG843683: 6.62 at 25.3c

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

	Result (dry) Qualifier	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg	mg/kg		date / time	
Anthracene	ND	0.00673	1	01/21/2016 14:52	WG843639
Acenaphthene	ND	0.00673	1	01/21/2016 14:52	WG843639
Acenaphthylene	ND	0.00673	1	01/21/2016 14:52	WG843639
Benzo(a)anthracene	ND	0.00673	1	01/21/2016 14:52	WG843639
Benzo(a)pyrene	ND	0.00673	1	01/21/2016 14:52	WG843639
Benzo(b)fluoranthene	ND	0.00673	1	01/21/2016 14:52	WG843639
Benzo(g,h,i)perylene	ND	0.00673	1	01/21/2016 14:52	WG843639
Benzo(k)fluoranthene	ND	0.00673	1	01/21/2016 14:52	WG843639
Chrysene	ND	0.00673	1	01/21/2016 14:52	WG843639
Dibenz(a,h)anthracene	ND	0.00673	1	01/21/2016 14:52	WG843639
Fluoranthene	ND	0.00673	.1	01/21/2016 14:52	WG843639
Fluorene	0.0121	0.00673	1	01/21/2016 14:52	WG843639
Indeno(1,2,3-cd)pyrene	ND	0.00673	1	01/21/2016 14:52	WG843639
Naphthalene	0.0838	0.0224	1	01/21/2016 14:52	WG843639
Phenanthrene	0.0276	0.00673	1	01/21/2016 14:52	WG843639
Pyrene	ND	0.00673	1	01/21/2016 14:52	WG843639
1-Methylnaphthalene	0.0697	0.0224	1	01/21/2016 14:52	WG843639
2-Methylnaphthalene	0.100	0.0224	1	01/21/2016 14:52	WG843639
2-Chloronaphthalene	ND	0.0224	1	01/21/2016 14:52	WG843639
(S) Nitrobenzene-d5	70.1	22.1-146		01/21/2016 14:52	WG843639
(S) 2-Fluorobiphenyl	73.0	40.6-122		01/21/2016 14:52	WG843639
/SI n-Ternhenvl-rt14	79.9	32 2-131		01/21/2016 14-52	WG843639

PROJECT: 15090-0001

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WG843814 Total Solids by Method 2540 G-2011

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

Method Blank (MB)

(MB) 01/21/16 11:35	15 S. C. C. F. F. F.		Manufacture and and	
	MB Result MB Quali	ifier MB RDL		
Analyte	%	%		
Total Solids	0.000800			

L812910-01 Original Sample (OS) • Duplicate (DUP)

(OS) 01/21/16 11:35 · (DUP) 01/21/16	11:35							
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits		
Analyte	%	%		%		%		
Total Solids	83.3	84.4	1	1.29		5		

Laboratory Control Sample (LCS)

(LCS) 01/21/16 11:35					
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

Cp

Tc

Ss

Cn

Sr

GI

AI

Sc

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WG844116

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

Wet Chemistry by Method 2580 B-2011

L813196-01 Original Sample (OS) • Duplicate (DUP)

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mV	mV		%		%
ORP	226	225	1	0.443		20

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

(LCS) 01/22/16 07:07 · (LCSD) 01/2	22/16 07:07									
	Spike Amount	LCS Result	LCSD Result-	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mV	mV	mV	%	%	%			%	%
OPP	100	00	07	0.00	070	00.0.110			103	20

¹Cp ²Tc ³Ss ⁴Cn ⁵Sr ⁶Qc ⁷Gl ⁸Al ⁹Sc

ACCOUNT: EnviroTech- NM PROJECT: 15090-0001

SDG: L812885 DATE/TIME: 01/25/16 16:57

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Wet Chemistry by Method	3060A/7196A			QUALITY		FROL S	UMMAR	Y			ONE	LAB. NATIONWIDE.
Method Blank (MB)												
MB) 01/22/16 07:12		1		100.00	1.44	V. S. C.	10.32	5	1.1.1.1	19.00	0	
Analida	MB Result	MB Qualifier	MB RDL									
Chromium.Hexavalent	ND		2.00									
812885-01 Original S	ample (OS) •	Duplicate	(DUP)									
OS) 01/22/16 07:22 · (DUP) 01	/22/16 07:23		()	1		-		_				
	Original Result	DUP Result	Dilution	DUP RPD DUP	Qualifier DUP	RPD Limits						
Analyte	mg/kg	mg/kg		%	%							
Lnromium, nexavaient	ND	NU	1	0.000	20							
Laboratory Control Sa	imple (LCS) •	Laboratory	/ Control Sa	mple Duplica	ate (LCSD)							
LCS) 01/22/16 07:13 · (LCSD) 0	01/22/16 07:15		N	1			Sec. Wat		1.1			
lachta	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qua	lifier RPD	RPD Limits		
analyte	mg/kg	mg/kg	mg/kg	70	70	70			70	70		
hromium Hexavalent	97.4	80.8	79.8	83.0	819	80.0-120			125	20		
Chromium,Hexavalent	97.4	80.8	79.8	83.0	81.9	80.0-120			1.25	20		
Chromium,Hexavalent	97.4	80.8	79.8	83.0	81.9	80.0-120			1.25	20		
Chromium,Hexavalent _812885-01 Original S	97.4 Sample (OS) •	^{80.8} Matrix Spil	^{79.8} ke (MS) • Ma	83.0 trix Spike Di	^{81.9} uplicate (M	80.0-120 ISD)			1.25	20		1 be
Chromium,Hexavalent _812885-01 Original S OS) 01/22/16 07:22 • (MS) 01/2	97.4 ample (OS) • 22/16 07:23 • (MSD	80.8 Matrix Spil	79.8 ke (MS) • Ma	83.0 trix Spike Di	81.9 uplicate (M	80.0-120 ISD)			1.25	20		
Chromium,Hexavalent _812885-01 Original S OS) 01/22/16 07:22 • (MS) 01/2	97.4 ample (OS) • 22/16 07:23 • (MSD Spike Amount mo/ko	80.8 Matrix Spil	79.8 ke (MS) • Ma 24 MS Result	83.0 trix Spike Du MSD Result	81.9 uplicate (M MS Rec.	80.0-120 ISD) MSD Rec.	Dilution	Rec. Limits	1.25 <u>MS Qualifier</u>	20 MSD Qualifier	RPD %	RPD Limits
Chromium,Hexavalent L812885-01 Original S (OS) 01/22/16 07:22 • (MS) 01/2 Analyte Chromium,Hexavalent	97.4 ample (OS) • 22/16 07:23 • (MSE Spike Amount mg/kg 20.0	80.8 Matrix Spil 0) 01/22/16 07:: Original Result mg/kg ND	79.8 ke (MS) • Ma 24 MS Result mg/kg 9.72	83.0 trix Spike Du MSD Result mg/kg 9.92	81.9 uplicate (M MS Rec. % 48.6	80.0-120 ISD) MSD Rec. % 49.6	Dilution	Rec. Limits % 75.0-125	1.25 <u>MS Qualifier</u> J6	20 MSD Qualifier	RPD % 2.04	RPD Limits % 20

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QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

Wet Chemistry by Method 9045D

L812843-01 Original Sample (OS) • Duplicate (DUP)

(OS) 01/21/16 09:10 . (DUP) 01/2	21/16 09:10					
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pН	7.04	7.05	1	0.142		1

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

(LCS) 01/21/16 09:10 . (LCSD) 01/	21/16 09:10									
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	su	su	su	%	%	%			%	%
рН	6.31	6.37	6.36	101	101	98.5-102			0.157	1

²Cp ²Tc ³Ss ⁴Cn ⁵Sr ⁶Qc ⁷Gl ⁸Al ⁹Sc

ACCOUNT:
EnviroTech- NM

DATE/TIME: 01/25/16 16:57

WG843639 Semi Volatile Organic C	ompounds (GC/	MS) by Metho	od 8270C-SIN	ALITY CONTROL SUMMARY ONE LAB, NATIONWIDE.	
Method Blank (MB)					-
(MB) 01/21/16 13:06	A CARLES	1. S. S. S. S. S.	1000		Ср
	MB Result	MB Qualifier	MB RDL		_
Analyte	mg/kg		mg/kg		Tc
Anthracene	ND	1. S. S. S.	0.00600		
Acenaphthene	ND		0.00600		Se
Acenaphthylene	ND		0.00600		55
Benzo(a)anthracene	ND		0.00600		
Benzo(a)pyrene	ND		0.00600		Cn
Benzo(b)fluoranthene	ND		0.00600		
Benzo(g,h,i)perylene	ND		0.00600	5	Sr
Benzo(k)fluoranthene	ND		0.00600		0.
Chrysene	ND		0.00600		
Dibenz(a,h)anthracene	ND		0.00600		Qc
Fluoranthene	ND		0.00600		
Fluorene	ND		0.00600		GI
Indeno(1,2,3-cd)pyrene	ND		0.00600		01
Naphthalene	ND		0.0200		
Phenanthrene	ND		0.00600		AI
Pyrene	ND		0.00600		_
1-Methylnaphthalene	ND		0.0200	9	Sc
2-Methylnaphthalene	ND		0.0200		30
2-Chloronaphthalene	ND		0.0200		
(S) p-Terphenyl-d14	84.6		32.2-131		
(S) Nitrobenzene-d5	82.0		22.1-146		
(S) 2-Fluorobiphenyl	92.8		40.6-122		

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

(LCS) 01/21/16 12:24 . (LCSD)	01/21/16 12:45										
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits	
Analyte mg/	mg/kg	mg/kg	mg/kg	%	%	%			%	%	
Anthracene	0.0800	0.0877	0.0881	110	110	50.3-130			0.390	20	
Acenaphthene	0.0800	0.0819	0.0798	102	99.7	52.4-120			2.66	20	
Acenaphthylene	0.0800	0.0811	0.0776	101	97.0	49.6-120			4.40	20	
Benzo(a)anthracene	0.0800	0.0751	0.0722	93.9	90.2	46.7-125			4.05	20	
Benzo(a)pyrene	0.0800	0.0687	0.0734	85.9	91.7	42.3-119			6.61	20	
Benzo(b)fluoranthene	0.0800	0.0746	0.0711	93.3	88.9	43.6-124			4.77	20	
Benzo(g,h,i)perylene	0.0800	0.0835	0.0807	104	101	45.1-132			3.45	20	
Benzo(k)fluoranthene	0.0800	0.0899	0.0871	112	109	46.1-131			3.18	20	

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QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

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

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

(LCS) 01/21/16 12:24 . (LCSD) 0	1/21/16 12:45							1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits	
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	%	
Chrysene	0.0800	0.0877	0.0845	110	106	49.5-131			3.69	20	
Dibenz(a,h)anthracene	0.0800	0.0821	0.0771	103	96.3	44.8-133			6.32	20	
Fluoranthene	0.0800	0.0772	0.0738	96.5	92.2	49.3-128			4.55	20	
Fluorene	0.0800	0.0721	0.0703	90.1	87.9	50.6-121			2.51	20	
Indeno(1,2,3-cd)pyrene	0.0800	0.0849	0.0800	106	100	46.1-135			5.85	20	
Naphthalene	0.0800	0.0796	0.0756	99.5	94.5	49.6-115			5.17	20	
Phenanthrene	0.0800	0.0779	0.0745	97.4	93.2	48.8-121			4.44	20	
Pyrene	0.0800	0.0868	0.0868	108	109	44.7-130			0.0600	20	
1-Methylnaphthalene	0.0800	0.0694	0.0675	86.8	84.4	50.6-122			2.83	20	
2-Methylnaphthalene	0.0800	0.0705	0.0676	88.1	84.5	50.4-120			4.10	20	
2-Chloronaphthalene	0.0800	0.0770	0.0760	96.3	95.0	53.9-121			1.31	20	
(S) p-Terphenyl-d14				89.0	88.4	32.2-131					
(S) Nitrobenzene-d5				85.0	84.0	22.1-146					
(S) 2-Fluorobiphenyl				89.5	90.6	40.6-122					

L812993-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 01/21/16 18:45 · (MS) 01/21/16	19:06 • (MSD) 01/21/16 19:27										
	Spike Amour	nt Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Anthracene	0.0800	ND	0.0853	0.0846	107	106	1	26.5-141			0.840	21.2
Acenaphthene	0.0800	ND	0.0797	0.0767	99.6	95.9	1	31.9-130			3.83	20
Acenaphthylene	0.0800	ND	0.0796	0.0765	99.5	95.6	1	33.7-129			4.01	20
Benzo(a)anthracene	0.0800	ND	0.0670	0.0657	83.8	82.1	1	18.3-136			1.98	24.6
Benzo(a)pyrene	0.0800	ND	0.0735	0.0726	91.9	90.7	1	16.9-135			1.28	25.2
Benzo(b)fluoranthene	0.0800	ND	0.0662	0.0654	82.7	81.7	1	10.0-134			1.18	30.9
Benzo(g,h,i)perylene	0.0800	ND	0.0715	0.0703	89.4	87.9	1	14.1-140			1.69	25.5
Benzo(k)fluoranthene	0.0800	ND	0.0735	0.0788	91.9	98.6	1	18.2-138			6.99	25.6
Chrysene	0.0800	ND	0.0811	0.0769	101	96.1	1	17.1-145			5.42	24.2
Dibenz(a,h)anthracene	0.0800	ND	0.0792	0.0736	99.0	92.0	1	18.5-138			7.32	24.3
Fluoranthene	0.0800	ND	0.0700	0.0673	87.4	84.1	1	15.4-144			3.85	27.1
Fluorene	0.0800	ND	0.0691	0.0684	86.4	85.5	1	23.5-136			1.09	20
Indeno(1,2,3-cd)pyrene	0.0800	ND	0.0796	0.0752	99.5	94.0	1	14.5-142			5.72	25.8
Naphthalene	0.0800	0.000940	0.0753	0.0686	93.0	84.6	1	29.2-128			9.29	20
Phenanthrene	0.0800	ND	0.0732	0.0733	91.5	91.6	1	20.1-134			0.100	23.6
Pyrene	0.0800	ND	0.0794	0.0794	99.3	99.2	1	11.0-148			0.110	26.1

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 DATE/TIME:

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QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

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

L812993-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 01/21/16 18:45 · (MS) 01/2	1/16 19:06 · (MSE) 01/21/16 19:27										
	Spike Amou	nt Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
1-Methylnaphthalene	0.0800	ND	0.0673	0.0623	84.1	77.8	1	28.4-137			7.75	20
2-Methylnaphthalene	0.0800	ND	0.0673	0.0625	84.2	78.1	1	26.6-137			7.48	20
2-Chloronaphthalene	0.0800	ND	0.0776	0.0728	97.1	91.0	1	38.6-126			6.42	20
(S) p-Terphenyl-d14					85.3	83.6		32.2-131				
(S) Nitrobenzene-d5					86.8	82.9		22.1-146				
(S) 2-Fluorobiphenyl					92.2	92.5		40.6-122				

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GLOSSARY OF TERMS

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
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
01	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

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ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Cp

Tc

Ss

Cn

Sr

Qc

GI

Sc

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
daho	TN00003	Oklahoma	9915
Ilinois	200008	Oregon	TN200002
ndiana	C-TN-01	Pennsylvania	68-02979
owa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky 1	90010	South Dakota	n/a
Kentucky ²	16	Tennessee 14	2006
ouisiana	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-0S-15-05		

Third Party & Federal Accreditations

A2LA - ISO 17025	1461.01	AIHA	100789	
A2LA - ISO 170255	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 ⁴⁹ 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.



				the provide stand
ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	Page 28 of 29
EnviroTech- NM	15090-0001	L812885	01/25/16 16:57	14 of 15

ompany Name/Address:		1	Billing Info	ormation:			-	1	Ani	alysis / Co	ntainer	/ Preservat	tive		an e	Chain of Custody	Page_0			
Envirotech IncNM 5796 US Highway 64 Farmington, NM 87401			Account 5796 US Farming	nts Payable S Highway 6 gton, NM 874	4	1. 1. 1. V.	loz.iar	4 m. in	7	A NOTE OF							ESC			
eport to:	Sector Sector		Email To:		12.27	1.0	14	2	-							12065 Lebanon Rd Mount Juliet, TN 37				
Lynn Cook & Tim		7		City/State	s Tim Cain		Sir	·							Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859					
Description: OSPFELF	Client Project	1		Collected:	Sec.	-	0	B								L# 18	12885			
hone: ax:	1509	0-0	100	Las Project P			210	Chr								AO	66			
Sarah McCloske	1010	TIC	17 1427		0876		5		80		7		10,000			-		anti-	Acctnum:	
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Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	P	He				1	1.14			Shipped Via: Rem./Contaminant	Sample # (lat			
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and the first	1. 19 19 19 19 19 19 19 19 19 19 19 19 19	22							-			and the second								
State 1	ANN NY	-	21.000	12013	-	-	A PROPERTY		1	2.1	11	Contraction of the second	-			-	1			
Matrix: SS - Soil GW - Groundwater	WW - WasteW	Vater DW - D	rinking Wat	er OT - Other		Pues	ulri	dru	sent			ITHX	-							
Remarks: No Min. I	nv. Fe	EJE	NAK	Fma	00415S1	34	02	Lay	Lum	low	57	ther I		Hol	ld #					
Helindrished by: (signature)	ord.	1/19	116	1630	FED	E	×		2	FedE		ourier C		-	noition:	(uib t	use only) GO			
Relinquished by : (Signature)		Date:		Time:	Received by: (Signa	ture)	1 - B		T	emp:	°C	Bottles Re	4 at	0	C Seal	intact: Y	NVN			
Relinquished by : (Signature)	-	Date:		Time:	Received for lab by:	(Signat	ture)	1.20	D	ate:	2	Time:	(shares	pH	Checke	NCF:	Service Service			

Bridgecreek Osprey 30-

7

01/05/2015

Figures



Sample ID	Description	Date	TPHIEPA 8015)	Benzene	Toluene	Ethylbenzene	Xylenes (total)
			mg/sg	mg/kg	mg/kg	mg/kg	mg/kg
1	5pt composite from bin 1	11/24/2015	817	0.65	2.15	0.76	4.59
2	5pt composite from bin 1	11/24/2015	582	2.93	5.56	1.77	6.26
3	5pt composite from bin 2	11/24/2015	114.7	0.2	1.34	0.28	1.97
Spoil Pile	From Prairie Falcon 19-1	3/31/2015	<65	<0.050	<0.050	<0.050	<0.099
UMU Table (COGCC Table 910-1)	a Contractor State State State	A Constant	500	0.17	85	100	175
NMOCD (Rule 19.15.17; DTW > 100 ft)		a contractor of	1,000	10	AND ADDRESS	No. on Contractional	States and the state of the state
CDPSP-MARARAD/FPA BSIs	No. of Concession, Name	CONTRACTOR OF STREET,	The second second second	6.10	6,700	940	200

kotes: xoreds UMU Table standards

na = not analyze

Contraction (19)	Description	Contraction of the	and the second second	THE OWNER WATER OF	The rest of the local division in the local	of the second second	STATE OF TAXABLE PARTY.	THE NUMBER OF TAXABLE PARTY.	COLUMN TWO IS NOT	the second second second	No. of Concession, name	Allow Manager and it	CONTRACTOR OF	THE OWNER WHEN THE OWNER	CONTRACTOR OF
Sample ID	Description	Date	Chionine	wiercury	Arsenic	Barium	Boron	Cadmium	Chromium	chromium VI	Copper	Lead	Nickel	Selenium	Silver
			mg/kg	mg/kg	malka	mg/kg	mg/kg	mg/kg	mg/kg	me/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	5pt composite from bin 1	11/24/2015	38.8	<0.88	4.19	122	<0.50	<0.88	22.1	na	<1.76	12	11.9	<4.39	<0.88
1	5pt composite from bin 1	11/24/2015	118	<0.91	4.78	183	<0.60	<0.91	47.4	na	<1.82	21.2	19.1	<4.55	<0.91
	5pt composite from bin 2	11/24/2015	173	<0.92	5,58	214	<0.50	<0.92	19.1	na	<1.85	24	7.44	<4.61	<0.92
Spoll Pile	From Prairie Falcon 19-1	3/31/2015	23	<0.034	3,8	140	NS	<0,10	7.2	<2	6.2	3,4	7.8	<2.5	<0.25
UMU Table (COGCC Table 910-1)	1001 St. 100 State State State	Constant Const	Malephone	28	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)	Contraction of the second	Statute 24	80,000	1 Second	14 4 M M	- Aller State	and the second	alation -	and the second second	12 Carp Connot	Sector Sector	1.	120121	Contraction of the	
DPHE-HMWMD/EPA RSLs	Concernation South States of	CONSIG ()	NOR SHARING	35	1.00	22,400	Shiphardy	10 M	186,000	6	4,700	800	2,200	580	580
				-		and the second sec					and the second sec				

otes;

exceeds EPA RSL Standards na = not analyzed

Sample ID	Description	Date	Zinc	pH	Naphthalene	Acenaphthene	Fluorene	Anthraceme	Fluoranthene	Pyrene	Benzo(A)anthracene	Chrysene
		-	mg/kg		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1	5pt composite from bin 1	11/24/2015	46.5	9.66	0.155	<0.00845	0.0229	<0.00845	<0.00845	<0.00845	<0.00845	<0.00845
2	Spt composite from bin 1	11/24/2015	60.7	9.3	0.139	<0.00798	0.0094	<0.00798	<0.00798	<0.00798	<0.00798	<0.00798
3	Spt composite from bin 2	11/24/2015	54.1	9.43	0.167	<0.00825	<0.00825	<0.00825	<0.00825	<0.00825	<0.00825	<0.00825
Spoll Pile	From Prairie Falcon 19-1	3/31/2015	27	8.1	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
		-					100 million (100 million)					-
UMU Table (COGCC Table 910-1)	Contraction of the second second	Service 10	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)	and the second sec	South States	Contract Contract	Sec. 1	THE OWNER OF THE OWNER OF	Service and the service of the	Service States	State of the second	A REAL PROPERTY.	NAMES OF		Vi station
CDPHE-HMWMD/EPA RSIS	A CONTRACT OF A CONTRACT	CLER BUSIC	85,000	1.0	17	4,500	3,000	23,000	3,000	2,300	2.90	290

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

Sample ID	Description	Date	Benzo(8)fluoranthene	Benzo(K)floranthene	Bento(A)pyrene	DibenzolA, Hianthracene
			mg/kg	mg/kg	mg/kg	malas
1	Spt composite from bin 1	11/24/2015	<0.00845	<0.00845	<0.00845	<0.00845
2	Spt composite from bin 1	11/24/2015	<0.00798	<0.00798	<0.00798	<0.00798
3	Spt composite from bin 2	11/24/2015	<0.00825	<0.00825	<0.00825	<0.00825
Spoll Pile	From Prairie Falcon 19-1	3/31/2015	<0.020	<0.020	<0.020	<0.020
UMU Table (COGCC Table 910-1)	a second and a second		0.22	2.20	0.623	0.032
NMOCD (Rule 19.15.17; DTW > 106 ft)	A REAL REPORTS	Section and the section of the	 N. JOZ EMOLOGY MOTOR PRODUCTS 	NOT THE OWNER WATER OF THE OWNER	and the state of the	
CDPHE-HMWMD/EPA RSLx	The second second second	A DECEMBER OF	2.90	29.00	0.29	0.290

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

Sample ID	Description	Date	Indeno(1,2,3-cd)pyrene	Sodium Absportion Ratio	Electrical Conductivity
			mg/kg	A STATE OF STATE OF STATE OF STATE	mmhos/cm
1	Spt composite from bin 1	11/24/2015	<0.00845	1.93	0.99
2	5pt composite from bin 1	11/24/2015	<0.00798	3.11	3.05
3	Spt composite from bin 2	11/24/2015	<0.00825	3.01	2.28
Spoll Pile	From Prairie Falcon 19-1	3/31/2015	<0.020	5.4	1.32
UMU Table (COGCC Table 918-1)	-	Contra Contra	0.22	<12	ol or 2x background
HMOCD (Rule 19.15.17; DTW > 100 ft)	A MARKAN CONTRACTOR AND A		A CONTRACTOR OF A CONTRACT	Service A March 200 - COL	
COPHE-HMWMD/EPA RSL:	A REAL PROPERTY OF A REAL PROPERTY OF	C DECEMBER 1	2.60	NEED DESCRIPTION AND DRAWNING	

Notes: exceeds UMU Table standards

na = not analyzed

TPH(EPA 8015)	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Chloride	Mercury	Arsenic	Barium	Boron	Cadmium	Chromium
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
284.78	0.64	1.53	0.49	2.19	66.47	0.47	4.33	156.50	NA	0.50	18.37
211.52	0.44	1.04	0.35	1.49	51.98	0.32	4.15	151.00	NA	0.37	14.64
174.89	0.34	0.79	0.27	1.14	44.73	0.25	4.06	148.25	NA	0.30	12.78
The second second	12500.20	100 Mar 100			3.041.200	ALC: NOTE: N	and the second		21.210	1	COLORADO INT.
500	0.17	85	100	175	A STATE OF	23	0.39	15,000	125221	70	120,000
1,000	10	No. of the second	Chronic Contactor		80,000	1.2. St	and the second	in set of the	Sec. States	Sales Phone St.	
	5.10	4,700	25	250	Contraction (Sec.	35	3	22,400	2012/01/03	98	180,000
	mg/kg 284.78 211.52 174.89 500 1,000	Invitex Benzene mg/kg mg/kg 284.78 0.64 211.52 0.44 174.89 0.34 500 0.17 1,000 10 5.10 5.10	Induction Deficition Dolution mg/kg mg/kg mg/kg mg/kg 284.78 0.64 1.53 211.52 0.44 1.04 174.89 0.34 0.79 500 0.17 85 1,000 10 4,700	Induction Distance Distance Encode mg/kg mg/kg mg/kg mg/kg mg/kg 284.78 0.64 1.53 0.49 211.52 0.44 1.04 0.35 174.89 0.34 0.79 0.27 500 0.17 85 100 1,000 10	Information Difference Entry intervence Avgences (total) mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg 284.78 0.64 1.53 0.49 2.19 211.52 0.44 1.04 0.35 1.49 174.89 0.34 0.79 0.27 1.14 500 0.17 85 100 175 1,000 10	Induction Environme Environme <t< td=""><td>Image: Indicate Entreme Entreme Entreme Application Childrade With Cuty mg/kg mg/kg</td><td>Induction Dolutine Entry interaction Chloride Mitralia mg/kg m</td><td>Implify Dollame Columne <t< td=""><td>Implify mg/kg <</td><td>Image: Income Differe Differe Differe Application Characterization Milectury Arsenic Barlink Boroin Cadmium mg/kg mg/kg<!--</td--></td></t<></td></t<>	Image: Indicate Entreme Entreme Entreme Application Childrade With Cuty mg/kg mg/kg	Induction Dolutine Entry interaction Chloride Mitralia mg/kg m	Implify Dollame Columne Columne <t< td=""><td>Implify mg/kg <</td><td>Image: Income Differe Differe Differe Application Characterization Milectury Arsenic Barlink Boroin Cadmium mg/kg mg/kg<!--</td--></td></t<>	Implify mg/kg <	Image: Income Differe Differe Differe Application Characterization Milectury Arsenic Barlink Boroin Cadmium mg/kg mg/kg </td

Notes:		
exceeds	UMU Table stand	ards
Contraction of the	TDA DEL Frandend	the second second

Mixing Ratio	Chromium VI	Copper	Lead	Nickel	Selenium	Silver	Zinc	pН	Naphthalene	Acenaphthene	Fluorene	Anthracene	Fluoranthene
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
1:1	na	4.00	11.23	10.31	3.46	0.58	40.38	8.78	0.09	0.01	0.02	0.01	0.01
2:1	na	4.73	8.62	9.47	3.11	0.47	35.92	8.55	0.06	0.02	0.02	0.02	0.02
3:1	na	5.10	7.32	9.05	2.93	0.41	33.69	8.44	0.05	0.02	0.02	0.02	0.02
and the second		「日本語」				100		100					
UMU Table (COGCC Table 910-1)	23	3,100	400	1,600	390	390	23,000	6-9	23	1,000	1,000	1,000	1,000
NMOCD (Rule 19.15.17; DTW > 100 ft)		A STATE OF STATE	1.1.1.1	- Constraints	Spirit Marine	1000	200 M	An Property		A LA CONTRACTOR	Research and	tours - the source	
CDPHE-HMWMD/EPA RSLs	6.30	4,700	800	2,200	580	580	35,000	destroat.	17	4,500	3,000	23,000	3,000

Notes:							
exceeds	UMU	Table	standards	210.2			
and the second se	EDA D	CI CAN	and shall a	-			

Pyrene	Benzo(A)anthracene	Chrysene	Benzo(B)fluoranthene	Benzo(K)floranthene	Benzo(A)pyrene	Dibenzo(A,H)anthracene
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.02	0.02	0.02	0.02	0.02	0.02	0.02
0.02	0.02	0.02	0.02	0.02	0.02	0.02
1.	Provide States	A GUND		and the second second	and the state of the	
1,000	0.22	22	0.22	2.20	0.022	0.022
		State State States				
2,300	2.90	290	2.90	29	0.29	0.29
	Pyrene mg/kg 0.01 0.02 0.02 1,000 2,300	Pyrene Benzo(A)anthracene mg/kg mg/kg 0.01 0.01 0.02 0.02 0.02 0.02 1,000 0.22 2,300 2.90	Pyrene Benzo(A)anthracene Chrysene mg/kg mg/kg mg/kg 0.01 0.01 0.01 0.02 0.02 0.02 0.02 0.02 0.02 1,000 0.22 22 2,300 2.90 290	Pyrene Benzo(A)anthracene Chrysene Benzo(B)fluoranthene mg/kg mg/kg mg/kg mg/kg 0.01 0.01 0.01 0.01 0.02 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.03 0.02 0.02 0.02 0.02 0.02 0.02 0.02	Pyrene Benzo(A)anthracene Chrysene Benzo(B)fluoranthene Benzo(K)floranthene mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg 0.01 0.01 0.01 0.01 0.01 0.01 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.03 0.02 0.02 0.02 0.02 0.02 0.03 0.04 0.02 0.02 0.02 0.02 0.03 0.04 0.02 0.02 0.02 0.02 0.04 0.05 0.02 0.02 0.02 0.02	Pyrene Benzo[A]anthracene Chrysene Benzo[B]fluoranthene Benzo[K)floranthene Benzo[A)pyrene mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.03 0.04 0.02 0.02 0.02 0.02 0.02 0.04 0.05 0.02 0.02 0.02 0.02 0.02 0.05 0.02 0.29 0.29 0.29 0.29 0.29

Notes:	and the second s
exceeds	UMU Table standards
and a state	EDA DEL Etandarde

Mixing Ratio	Indeno(1,2,3-cd)pyrene	Sodium Absportion Ratio	Electrical Conductivity
clean:cuttings	mg/kg		mmhos/cm
1:1	0.01	4.04	1.71
2:1	0.02	4.49	1.58
3:1	0.02	4.72	1.52

UMU Table (COGCC Table 910-1)	0.22	<12	<4 or 2x background
NMOCD (Rule 19.15.17; DTW > 100 ft)			
CDPHE-HMWMD/EPA RSLs	2.9		

Notes:

exceeds UMU Table standards exceeds EPA RSL Standards Bridgecreek Osprey 30-

7

01/05/2015

Appendix A



Bridgecreek Osprey 30-

7

01/05/2015

Tables





Analytical Report

Report Summary

Client: Bridgecreek Resources, LLC Chain Of Custody Number: Samples Received: 11/24/2015 2:56:00PM Job Number: 15090-0001 Work Order: P511060 Project Name/Location: Osprey 30-7

Date: 12/4/15

Entire Report Reviewed By:

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.

5796 US Highway 64, Farmington, NM 87401

Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	John Thompson	04-Dec-15 14:29

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
#1	P511060-01A	Soil	11/24/15	11/24/15	Glass Jar, 4 oz.
	P511060-01B	Soil	11/24/15	11/24/15	Glass Jar, 4 oz.
#2	P511060-02A	Soil	11/24/15	11/24/15	Glass Jar, 4 oz.
	P511060-02B	Soil	11/24/15	11/24/15	Glass Jar, 4 oz.
#3	P511060-03A	Soil	11/24/15	11/24/15	Glass Jar, 4 oz.
	P511060-03B	Soil	11/24/15	11/24/15	Glass Jar, 4 oz.
#A	P511060-04A	Soil	11/24/15	11/24/15	Glass Jar, 4 oz.
	P511060-04B	Soil	11/24/15	11/24/15	Glass Jar, 4 oz.

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5796 US H	lighway 64,	Farmington,	NM 87401
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envirotech Analytical Laboratory

Bridgecreek Resources, LLC 405 Urban St Suite 400 Lakewood CO, 80228	Project Name:Osprey 30-7Project Number:15090-0001Project Manager:John Thompson					Reported: 04-Dec-15 14	1:29		
		P5110	#1 60-01 (Se	olid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021	25	Service of		Service of	and in	11. 1.	No.	HE SHARE	
Benzene	0.55	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	1.1.1
Toluene	2.15	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
Ethylbenzene	0.76	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
p,m-Xylene	3.48	0.20	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
o-Xylene	1.11	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
Total Xylenes	4.59	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
Total BTEX	8.05	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		103 %	50	-150	1549007	12/01/15	12/03/15	EPA 8021B	-20-11
Nonhalogenated Organics by 8015	200	18 24		12.00	201	115			and the
Gasoline Range Organics (C6-C10)	119	20.0	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8015D	100
Diesel Range Organics (C10-C28)	512	25.0	mg/kg	1	1549018	12/02/15	12/02/15	EPA 8015D	
Oil Range Organics (C28-C40+)	186	50.0	mg/kg	1	1549018	12/02/15	12/02/15	EPA 8015D	
Surrogate: n-Nonane	1 4 M	113 %	50	-200	1549018	12/02/15	12/02/15	EPA 8015D	1807 C
Surrogate: 1-Chloro-4-fluorobenzene-FID		101 %	50	-150	1549007	12/01/15	12/03/15	EPA 8015D	2
Total Metals by 6010	and the second	1.1.1		1.16	Jan .	12.2			
Arsenic	4.19	0.88	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	A STATE
Barium	122	8.79	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Cadmium	ND	0.88	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Chromium	22.1	4.39	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Copper	ND	1.76	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Lead	12.0	0.88	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Mercury	ND	0.88	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Nickel	11.9	0.88	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Selenium	ND	4.39	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Silver	ND	0.88	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Zinc	46.5	1.76	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	

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envirotech Analytical Laboratory

Bridgecreek Resources, LLC 405 Urban St Suite 400 Lakewood CO, 80228	Project Project Project	Name: Number: Manager:	Ospre 15090 John T	ry 30-7 0-0001 Thompson				Reported: 04-Dec-15 14	:29
1949/24 0 24			#1			1.1	8. p. 18		
	and the of	P5110	60-01 (Sol	lid)	-	-	1. 1. 1. 1. 1.	12 A.	
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis	Water and	Lurat	11	-	1 los	2.1.1	11	Signation .	deres
pH @25°C	9.66		pH Units	1	1549001	11/30/15	11/30/15	EPA 9045D	
Electrical Conductivity	990		umhos/cm	1	1549001	11/30/15	11/30/15	9050A/2510	
Sodium Absorption Ratio	1.93		N/A	1	1549034	12/04/15	12/04/15	[CALC]	
Chloride	38.8	20.0	mg/kg	1	1549016	12/02/15	12/02/15	EPA 300.0	
Calcium	23.8	0.50	mg/L	1	1549015	12/02/15	12/03/15	EPA 6010C	
Magnesium	9.55	0.20	mg/L	1	1549015	12/02/15	12/03/15	EPA 6010C	
Sodium	44.0	2.00	mg/L	1	1549015	12/02/15	12/03/15	EPA 6010C	
Boron-Hot Water Soluble by EPA 6010	ALC: NO.	526.6	_		19.10	Ser. 44	1. 1 - A	N. R.C.	1
Boron	ND	0.50	mg/L	1	1549009	12/01/15	12/03/15	EPA 6010C	

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Bridgecreek Resources, LLC 405 Urban St Suite 400 Lakewood CO, 80228	Project Name:Osprey 30-7Project Number:15090-0001Project Manager:John Thompson					Reported: 04-Dec-15 14	:29		
		P5110	#2 60-02 (Se	olid)					
		Reporting					6.	ar	
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021			116	States .	- 10 A			Marke 1	1
Benzene	2.93	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
Toluene	5.56	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
Ethylbenzene	1.77	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
p,m-Xylene	4.53	0.20	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
o-Xylene	1.74	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
Total Xylenes	6.26	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
Total BTEX	16.5	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID	1.1.1.2	102 %	50	-150	1549007	12/01/15	12/03/15	EPA 8021B	1
Nonhalogenated Organics by 8015	111	- 10-24	190			No. URIA			
Gasoline Range Organics (C6-C10)	180	20.0	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8015D	
Diesel Range Organics (C10-C28)	279	25.0	mg/kg	1	1549018	12/02/15	12/02/15	EPA 8015D	
Oil Range Organics (C28-C40+)	123	50.0	mg/kg	1	1549018	12/02/15	12/02/15	EPA 8015D	
Surrogate: n-Nonane	4	109 %	50	-200	1549018	12/02/15	12/02/15	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		102 %	50	-150	1549007	12/01/15	12/03/15	EPA 8015D	
Total Metals by 6010	100				13.2.	1.1	13 820 5	difference of the	107-201-
Arsenic	4.78	0.91	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Barium	183	9.09	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Cadmium	ND	0.91	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Chromium	47.4	4.55	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Copper	ND	1.82	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Lead	21.2	0.91	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Mercury	ND	0.91	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Nickel	19.3	0.91	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Selenium	ND	4.55	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Silver	ND	0.91	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Zinc	60.7	1.82	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	

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Bridgecreek Resources, LLC 405 Urban St Suite 400 Lakewood CO, 80228	Project Project Project	t Name: t Number: t Manager:	Ospre 15090 John	y 30-7 0-0001 Thompson				Reported: 04-Dec-15 14	:29
	al and	P5110	#2 60-02 (Sol	lid)		2		1.12	
Carried and the second second	1999	Departies			-	1.1		1.117	1
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis	Sale -	and in			25.6	She and			The second
pH @25°C	9.30	A CONTRACT OF	pH Units	1	1549001	11/30/15	11/30/15	EPA 9045D	
Electrical Conductivity	3050		umhos/cm	1	1549001	11/30/15	11/30/15	9050A/2510	1.1
Sodium Absorption Ratio	3.11		N/A	1	1549034	12/04/15	12/04/15	[CALC]	
Chloride	118	20.0	mg/kg	1	1549016	12/02/15	12/02/15	EPA 300.0	
Calcium	48.0	0.50	mg/L	1	1549015	12/02/15	12/03/15	EPA 6010C	
Magnesium	31.5	0.20	mg/L	1	1549015	12/02/15	12/03/15	EPA 6010C	
Sodium	113	2.00	mg/L	1	1549015	12/02/15	12/03/15	EPA 6010C	
Boron-Hot Water Soluble by EPA 6010	S. P.S.			12		Trist	15 41	an stars	the st
Boron	ND	0.50	mg/L	1	1549009	12/01/15	12/03/15	EPA 6010C	

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Bridgecreek Resources, LLC 405 Urban St Suite 400 Lakewood CO, 80228	Project Name:Osprey 30-7Project Number:15090-0001Project Manager:John Thompson					Reported: 04-Dec-15 14	:29		
		P5110	#3 60-03 (Se	olid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021					1.	1.274		Lion Sta	STAL .
Benzene	0.20	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	- Star
Toluene	1.34	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
Ethylbenzene	0.28	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
p,m-Xylene	1.31	0.20	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
o-Xylene	0.66	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
Total Xylenes	1.97	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
Total BTEX	3.79	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		104 %	50	-150	1549007	12/01/15	12/03/15	EPA 8021B	5 4.
Nonhalogenated Organics by 8015	147 N.	1.0						and the second	Non-R
Gasoline Range Organics (C6-C10)	24.5	20.0	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8015D	15.5
Diesel Range Organics (C10-C28)	40.2	25.0	mg/kg	1	1549018	12/02/15	12/02/15	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1549018	12/02/15	12/02/15	EPA 8015D	
Surrogate: n-Nonane		103 %	50	-200	1549018	12/02/15	12/02/15	EPA 8015D	113
Surrogate: 1-Chloro-4-fluorobenzene-FID		97.8 %	50	-150	1549007	12/01/15	12/03/15	EPA 8015D	
Total Metals by 6010	a second	3			12.4	N. C. K.	6-3-5 A	A STRUCT	
Arsenic	5.58	0.92	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Barium	214	9.23	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Cadmium	ND	0.92	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Chromium	19.1	4.61	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Copper	ND	1.85	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Lead	24.0	0.92	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Mercury	ND	0.92	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Nickel	7.44	0.92	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Selenium	ND	4.61	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Silver	ND	0.92	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Zinc	54.1	1.85	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	

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Bridgecreek Resources, LLC 405 Urban St Suite 400 Lakewood CO, 80228	Project Project Project	Name: Number: Manager:	Ospre 15090 John	ey 30-7 0-0001 Thompson				Reported: 04-Dec-15 14	:29
		DEILO	#3						
	100	P5110	160-03 (50	ua)		2 Sector	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-	
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis		2			1 600			ant in the	i and
pH @25°C	9.43		pH Units	1	1549001	11/30/15	11/30/15	EPA 9045D	
Electrical Conductivity	2280		umhos/cm	1	1549001	11/30/15	11/30/15	9050A/2510	
Sodium Absorption Ratio	3.01		N/A	1	1549034	12/04/15	12/04/15	[CALC]	
Chloride	173	20.0	mg/kg	1	1549016	12/02/15	12/02/15	EPA 300.0	
Calcium	32.5	0.50	mg/L	1	1549015	12/02/15	12/03/15	EPA 6010C	
Magnesium	22.5	0.20	mg/L	1	1549015	12/02/15	12/03/15	EPA 6010C	
Sodium	91.3	2.00	mg/L	1	1549015	12/02/15	12/03/15	EPA 6010C	
Boron-Hot Water Soluble by EPA 6010	1. 20	1.		100	19.18	il it		San ta	1000
Boron	ND	0.50	mg/L	1	1549009	12/01/15	12/03/15	EPA 6010C	S. Santa

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Bridgecreek Resources, LLC 405 Urban St Suite 400 Lakewood CO, 80228	Project Name:Osprey 30-7Project Number:15090-0001Project Manager:John Thompson					Reported: 04-Dec-15 14	:29		
		P5110	#A 60-04 (Se	olid)					44
	1.4	Reporting		THE R	185	5.05		3.4.6	in the
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021	1. 20	11.1		4-12	10	The second			The second
Benzene	0.49	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	a Part
Toluene	1.36	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
Ethylbenzene	0.52	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
p,m-Xylene	1.64	0.20	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
o-Xylene	0.59	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
Total Xylenes	2.23	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
Total BTEX	4.60	0.10	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID	1. 1. 1. 1. 1.	103 %	50	-150	1549007	12/01/15	12/03/15	EPA 8021B	1
Nonhalogenated Organics by 8015		45,00		12.54					
Gasoline Range Organics (C6-C10)	52.6	20.0	mg/kg	1	1549007	12/01/15	12/03/15	EPA 8015D	14
Diesel Range Organics (C10-C28)	251	25.0	mg/kg	1	1549018	12/02/15	12/02/15	EPA 8015D	
Oil Range Organics (C28-C40+)	103	50.0	mg/kg	1	1549018	12/02/15	12/02/15	EPA 8015D	
Surrogate: n-Nonane	15	109 %	50	-200	1549018	12/02/15	12/02/15	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID	1. C. C.	97.9 %	50	-150	1549007	12/01/15	12/03/15	EPA 8015D	1
Total Metals by 6010	12 1 1 1 3			A Dist.	12		2.0		
Arsenic	5.49	0.90	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	19 21
Barium	2340	9.01	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Cadmium	ND	0.90	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Chromium	29.5	4.50	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Copper	ND	1.80	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Lead	17.4	0.90	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Mercury	ND	0.90	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Nickel	11.9	0.90	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Selenium	ND	4.50	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Silver	ND	0.90	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	
Zinc	55.1	1.80	mg/kg	0.9	1549010	12/01/15	12/03/15	EPA 6010C	

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Bridgecreek Resources, LLC 405 Urban St Suite 400 Lakewood CO, 80228	Project Project Project	t Name: t Number: t Manager:	Ospre 15090 John	ey 30-7 0-0001 Thompson				Reported: 04-Dec-15 14	:29
			#A						
	all and and	P5110	060-04 (So	lid)	- Ada	-	-	1	
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis		in the set			Sin 4	aline."	1. 12	- 4-14	Sec.
pH @22.1°C	8.22	2.1	pH Units	1	1549001	11/30/15	11/30/15	EPA 9045D	
Electrical Conductivity	3370		umhos/cm	1	1549001	11/30/15	11/30/15	9050A/2510	
Sodium Absorption Ratio	5.75		N/A	1	1549034	12/04/15	12/04/15	[CALC]	
Chloride	248	20.0	mg/kg	1	1549016	12/02/15	12/02/15	EPA 300.0	
Calcium	22.9	0.50	mg/L	1	1549015	12/02/15	12/03/15	EPA 6010C	
Magnesium	7.16	0.20	mg/L	1	1549015	12/02/15	12/03/15	EPA 6010C	
Sodium	123	2.00	mg/L	1	1549015	12/02/15	12/03/15	EPA 6010C	
Boron-Hot Water Soluble by EPA 6010				111	- Sertie		Letter.	AL AL	La regel
Boron	ND	0.50	mg/L	1	1549009	12/01/15	12/03/15	EPA 6010C	

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	John Thompson	04-Dec-15 14:29

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Sec. S. S. Marcon C. S. S.		Reporting		Spike	Source		%REC		RPD	120
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1549007 - Purge and Trap EPA 50	30A	1 handler	5	2.04.5	R. Real	1.00	10	100	dine d	1. 12°
Blank (1549007-BLK1)		1 45 14	22	Prepared: (01-Dec-15	Analyzed:	03-Dec-15	13	1.1.1	Sec.
Benzene	ND	0.10	mg/kg	1.			a really	15, 4, 99	Taskit A	SUST IN SUST
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	0.330	14.14	"	0.320	17.37	103	50-150			
LCS (1549007-BS1)				Prepared: (01-Dec-15	Analyzed:	03-Dec-15	1. 2		
Benzene	11.3	0.10	mg/kg	10.0		113	70-130	1 mer 1		
Toluene	11.1	0.10		10.0		111	70-130			
Ethylbenzene	11.1	0.10		10.0		111	70-130			
p,m-Xylene	22.0	0.20		20.0		110	70-130			
o-Xylene	10.7	0.10		10.0		107	70-130			
Surrogate: 4-Bromochlorobenzene-PID	0.329	1 143	"	0.320	1.1	103	50-150		18.7	12.75
Matrix Spike (1549007-MS1)	Sou	rce: P511062-	01	Prepared: (01-Dec-15	Analyzed:	03-Dec-15	With St	1	150
Benzene	11.9	0.10	mg/kg	10.0	ND	119	54.3-133		- A	1. 1.
Toluene	11.7	0.10		10.0	ND	117	61.4-130			
Ethylbenzene	11.7	0.10		10.0	ND	117	61.4-133			
p,m-Xylene	23.0	0.20		20.0	ND	115	63.3-131			
o-Xylene	11.2	0.10		10.0	ND	112	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	0.329	2-31-		0.320	The second	103	50-150		12 15	te prev
Matrix Spike Dup (1549007-MSD1)	Sou	rce: P511062-	01	Prepared: (01-Dec-15	Analyzed:	03-Dec-15		18-14-11	1 (1 Hans
Benzene	11.4	0.10	mg/kg	10.0	ND	114	54.3-133	3.68	20	1039
Toluene	11.2	0.10		10.0	ND	112	61.4-130	3.78	20	
Ethylbenzene	11.2	0.10		10.0	ND	112	61.4-133	3.98	20	
p,m-Xylene	22.1	0.20	-	20.0	ND	111	63.3-131	3.94	20	
o-Xylene	10.9	0.10		10.0	ND	109	63.3-131	2.79	20	
Surragate: 4-Bromochlorohenzene-PID	0.327		**	0.320		102	50-150	1.1	1000	1. 199.

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	John Thompson	04-Dec-15 14:29

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

										-
Analyte	Result	Reporting	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
		1000				1017/S 101				
Batch 1549007 - Purge and Trap EPA 5030A	1.14				10010	hersey	Berr By	No Page	3	10 × 15 19
Blank (1549007-BLK1)		and the second		Prepared: (01-Dec-15	Analyzed:	03-Dec-15			
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1.1.1		y . 16		100		
Surrogate: 1-Chloro-4-fluorobenzene-FID	0.293	10.1	"	0.320		91.7	50-150			100
LCS (1549007-BS1)				Prepared: ()1-Dec-15	Analyzed:	03-Dec-15			
Gasoline Range Organics (C6-C10)	119	20.0	mg/kg	106	10.50	113	70-130		18.20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	0.304		н	0.320	3 8	94.9	50-150			T Star
Matrix Spike (1549007-MS1)	Sou	rce: P511062-	01	Prepared: ()1-Dec-15	Analyzed: (03-Dec-15	2.24	Real Provention	
Gasoline Range Organics (C6-C10)	132	20.0	mg/kg	106	ND	125	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	0.312		"	0.320		97.5	50-150			211
Matrix Spike Dup (1549007-MSD1)	Sou	rce: P511062-	01	Prepared: ()1-Dec-15	Analyzed:	03-Dec-15			The h
Gasoline Range Organics (C6-C10)	120	20.0	mg/kg	106	ND	113	70-130	9.78	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	0.299		"	0.320	1.1	93.4	50-150		1 12	19

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	John Thompson	04-Dec-15 14:29

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

	1. 1.	Reporting		Spike	Source	1	%REC	S. A. Cast	RPD	Contral Pro-
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Note
Batch 1549018 - DRO Extraction EPA 355	50M			10.3		7-11-4	6.00	1.1.5	and let	100
Blank (1549018-BLK1)				Prepared &	Analyzed:	02-Dec-15				
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1 . A .	1. P. A. M.				1999	
Oil Range Organics (C28-C40+)	ND	50.0								
Surrogate: n-Nonane	52.2			50.0		104	50-200		1000	
LCS (1549018-BS1)	Real Providence			Prepared: 0	02-Dec-15	Analyzed: (03-Dec-15	100	25 20	-
Diesel Range Organics (C10-C28)	512	25.0	mg/kg	500		102	38-132		20.00	
Surrogate: n-Nonane	54.6	18.14	"	50.0	12.5	109	50-200	1		6.40
Matrix Spike (1549018-MS1)	Sou	rce: P511062-	02	Prepared &	Analyzed:	02-Dec-15	1	18		
Diesel Range Organics (C10-C28)	615	25.0	mg/kg	500	114	100	38-132			
Surrogate: n-Nonane	45.9	1. Sec. 1	*	50.0	180	91.8	50-200	1.893	as the second	12/2019
Matrix Spike Dup (1549018-MSD1)	Sou	rce: P511062-	02	Prepared &	Analyzed:	02-Dec-15			e patri	
Diesel Range Organics (C10-C28)	641	25.0	mg/kg	500	114	105	38-132	4.18	20	
Surrogate: n-Nonane	47.3	1000	"	50.0	and the second	94.7	50-200	100		S. Contra

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	John Thompson	04-Dec-15 14:29

Total Metals by 6010 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Note
Batch 1549010 - Metal Solid Digestio	n EPA 3051A	12		5.9		1.00		1	1000	and in
Blank (1549010-BLK1)	a an	to margine		Prepared: 0)1-Dec-15	Analyzed:	03-Dec-15			
Arsenic	ND	1.00	mg/kg		1.00	172-17	ACT F	ALC: NOT	100	1.1.1
Barium	ND	10.0	-							
Cadmium	ND	1.00								
Thromium	ND	5.00								
Copper	ND	2.00								
ead	ND	1.00								
Mercury	ND	1.00								
lickel	ND	1.00								
selenium	ND	5.00								
ilver	ND	1.00								
line	ND	2.00								
.CS (1549010-BS1)				Prepared: 0	01-Dec-15	Analyzed:	03-Dec-15			
Arsenic	23.0	1.00	mg/kg	25.0		92.0	80-120	A	1.	
Jarium	533	10.0	*	500		107	80-120			
Cadmium	24.7	1.00		25.0		98.7	80-120			
hromium	51.4	5.00		50.0		103	80-120			
Copper	50.1	2.00		50.0		100	80-120			
ead	50.2	1.00		50.0		100	80-120			
Aercury	9.87	1.00	*	10.0		98.7	80-120			
lickel	50.9	1.00		50.0		102	80-120			
elenium	8.92	5.00		10.0		89.2	80-120			
ilver	9.59	1.00		10.0		95.9	80-120			
line	48.9	2.00		50.0		97.8	80-120			
Aatrix Spike (1549010-MS1)	Sour	ce: P511060-	01	Prepared: 0)1-Dec-15	Analyzed:	03-Dec-15			
ursenic	27.3	0.89	mg/kg	22.4	4.19	103	75-125	1.41		
Jarium	546	8.94	-	447	122	94.8	75-125			
admium	22.1	0.89		22.4	ND	98.7	75-125			
Chromium	62.5	4.47		44.7	22.1	90.2	75-125			
Copper	43.7	1.79		44.7	ND	97.8	75-125			
ead	52.5	0.89		44.7	12.0	90.6	75-125			
Aercury	9.36	0.89		8.94	ND	105	75-125			
lickel	53.7	0.89		44.7	11.9	93.5	75-125			
elenium	9.12	4.47		8.94	ND	102	75-125			
silver	8.76	0.89		8.94	ND	97.9	75-125			
line	106	1.79		44.7	46.5	133	75-125			SPE

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	John Thompson	04-Dec-15 14:29

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 1549010 - Metal Solid Digestion E	PA 3051A	2.18	. She	Sec.	Sec. 4	A. BA	Tech		in the	-
Matrix Spike Dup (1549010-MSD1)	Sour	rce: P511060-	01	Prepared: (1-Dec-15	Analyzed: ()3-Dec-15		1.00	12.55
Arsenic	29.4	0.90	mg/kg	22.4	4.19	112	75-125	7.29	20	14
Barium	530	8.96		448	122	91.1	75-125	3.02	20	
Cadmium	22.3	0.90		22.4	ND	99.5	75-125	0.986	20	
Chromium	69.4	4.48		44.8	22.1	106	75-125	10.5	20	
Copper	43.1	1.79		44.8	ND	96.2	75-125	1.43	20	
Lead	58.3	0.90		44.8	12.0	103	75-125	10.5	20	
Mercury	9.36	0.90		8.96	ND	105	75-125	0.0121	20	
Nickel	61.7	0.90		44.8	11.9	111	75-125	13.8	20	
Selenium	9.89	4.48		8.96	ND	110	75-125	8.09	20	
Silver	8.98	0.90		8.96	ND	100	75-125	2.50	20	
Zinc	99.7	1.79		44.8	46.5	119	75-125	5.92	20	

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	John Thompson	04-Dec-15 14:29

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

A CONTRACTOR OF A CONTRACTOR		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1549015 - Metal Water/TCLP (El	PA 1311) Digestio	n EPA 3015/	4	A. Same	3.63		1 de la	100	and a	
Blank (1549015-BLK1)	a sharester			Prepared: (2-Dec-15	Analyzed:	03-Dec-15	41-1-1-		1
Calcium	ND	0.50	mg/L				1.051			
Magnesium	ND	0.20	**							
Sodium	ND	2.00								
LCS (1549015-BS2)	a contractor			Prepared: (2-Dec-15	Analyzed:	04-Dec-15		-	
Calcium	42.2		mg/L	45.0		93.8	80-120			
Magnesium	43.8			45.0		97.2	80-120			
Sodium	43.4		-	45.0		96.5	80-120			
Matrix Spike (1549015-MS2)	Sou	rce: P512001-	01	Prepared: (2-Dec-15	Analyzed:	04-Dec-15	- 1		100
Calcium	49.7	R	mg/L	45.0	9.92	88.5	75-125			
Magnesium	44.5		-	45.0	1.30	96.0	75-125			
Sodium	121			45.0	76.8	98.7	75-125			
Matrix Spike Dup (1549015-MSD2)	Sou	rce: P512001-	01	Prepared: (2-Dec-15	Analyzed:	04-Dec-15			
Calcium	51.3	7.5	mg/L	45.0	9.92	91.9	75-125	3.01	20	
Magnesium	44.8		-	45.0	1.30	96.7	75-125	0.717	20	
Sodium	122			45.0	76.8	101	75-125	0.985	20	

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Bridgecreek Resources, LLC 405 Urban St Suite 400 Lakewood CO, 80228	Pro Pro Pro	ject Name: ject Number: ject Manager:	0 1: Jo	sprey 30-7 5090-0001 ohn Thompso	n				Report 04-Dec-1	ed: 5 14:29
	Cat	ion/Anion A	alysis	- Quality	Control	1.3	14			
	E	nvirotech A	Analyti	cal Labor	atory					
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1549016 - Anion Extraction EPA 300.0			Steam		4	1	1995 ett	(Light	al a se	a the
Blank (1549016-BLK1)	-	50 S	die -	Prepared &	Analyzed:	02-Dec-15				
Chloride	ND	20.0	mg/kg	124/24	1555	1.18	199			N.S. S. S.
LCS (1549016-BS1)				Prepared &	Analyzed:	02-Dec-15				
Chloride	478	20.0	mg/kg	500		95.5	90-110	10	1.1	
Matrix Spike (1549016-MS1)	Sou	rce: P511060-	01	Prepared: (02-Dec-15	Analyzed:	03-Dec-15			
Chloride	825	20.0	mg/kg	500	38.8	157	80-120		1	SPK1
Matrix Spike Dup (1549016-MSD1)	Sou	rce: P511060-	01	Prepared: (02-Dec-15	Analyzed:	03-Dec-15			
Chloride	818	20.0	mg/kg	500	38.8	156	80-120	0.784	20	SPK1

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	John Thompson	04-Dec-15 14:29

Boron-Hot Water Soluble by EPA 6010 - Quality Control

Envirotech Analytical Laboratory

	and the second sec	and the second								
Analyte	Result	Reporting Limit	Units	Spike	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
							1		11.	
Batch 1549009 - Boron HW Soluble Diges	tion	E.	_	and the second		1. 1.12	de Karle	C hands	2000	C al a
Blank (1549009-BLK1)			<u>.</u>	Prepared: (01-Dec-15	Analyzed:	03-Dec-15	1 . Y.	Sec. 1	-
Boron	ND	0.50	mg/L	1000	1. 1. 1.					
LCS (1549009-BS1)				Prepared: (01-Dec-15	Analyzed:	03-Dec-15			
Boron	4.02		mg/L	4.00		101	80-120			
Matrix Spike (1549009-MS1)	Sour	ce: P511060-	01	Prepared: 01-Dec-15 Analyzed: 03-Dec-15			03-Dec-15		2	
Boron	3.37		mg/L	4.00	0.06	82.7	75-125			
Matrix Spike Dup (1549009-MSD1)	Sour	ce: P511060-	01	Prepared: (01-Dec-15	Analyzed:	03-Dec-15			
Boron	3.65		mg/L	4.00	0.06	89.7	75-125	8.03	20	

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Bridgecreek Resources, LLC	Project Name:	Osprey 30-7	
405 Urban St Suite 400	Project Number:	15090-0001	Reported:
Lakewood CO, 80228	Project Manager:	John Thompson	04-Dec-15 14:29

Notes and Definitions

SPK1	The spike recovery is outside of quality 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
DDD	Relative Researt Difference

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client: Bridge Cri	eek	Service .	1.1	11	RUSH?	Lab Use Only Analysis and			and Me	Aethod lab Only						
roject: Osphre- ampler: John 70 Phone: Sos-320 Fimail(s): Johnew Project Manager: John	+ 30. homps. >17+2 alshe	-7 511 2 19.1et		_	1d 3d Pag	P 51 15 15	Lab WO# 10(20 ob Number 0(0-000	DRO by 8013	by 8021	y 418.1	de by 300.0	dicerent 910			Lab Number	ct Cont/Prsrv (s) Y/N
Sample	ID		Sample Date	Sample Time	Matrix	QTY - Vol/	ontainers TYPE/Preservati	e GRO/I	BTEX	TPH b	Chlori	Bru				Corre
#1,#= #3	A		11/24	13:00	5	Bra 4	102 GAU	JAN			X	X			1	N
HZ.	201		1	1	1	Zea	1	1			1	1			Z	
#3		3	(1	5	200					1			T	3	
* A		1.	\square	((Des	1				IT	1			4	1
<u>, , , , , , , , , , , , , , , , , , , </u>		1				2.57		-								
		1202					-	1								
							1		1							a survey
	1.1.1	5. C.														
	100 2010						Contraction of the second		1							
~		-		1			2.44									
Relinquished by: (Signature)	Dute 1/2.4 Date	Time /4,'45 Time	Received	d by: (Signa d by: (Signa	iture) iture)	Date 11/24/15 Date	Time 14:56 Time	**Rece T1 <u> 3.</u>	ived	on lo	La ce Y T2_	ib Use	Only	тз	21	
mple Matrix: S - Soil, Sd - Solid, Sg - Sh	idge, A - Aqueou	s, 0 - Other	<u> </u>	-	1		Container Ty	pe: g - gla	ss, p	- poly	/pla:	stic, ag -	amber g	lass, v - 1	/OA	
Samples requiring thermal preservation	n must be receiv	ed on ice the day t	hey are sampled o	or received p	acked in ice	at an avg temp ab	ove 0 but less that	in 6 °C on si	ibsequ	ent da	iys.	100	15.4			
Sample(s) dropped off after hours	to a secure drop	offarea.		Chain of	f Custody	Notes/Billin	ng info:					1	1			
Analytic	ote al Labor	atory	S795 US Three Spi	Hiphway 64, Farmi Ings - 65 Mercado	ington, NM 87401 Street, Suite 115,	, Durango, CO 81301	Ph ISC Ph 1970	5) 632-0615 Fr 8) 239-0615 Fr	(505) 63 (800) 36	2-1865	10.0	1	-	Page	20	of

.

client: Bridge Cro	eek				RUSH?	2 Lab Use Only			Analysis and Method				lab	lab Only	
roject: Osphile: ampler: John 70 hone: Sos-320 mail(s): Johnewc roject Manager: Soh	15her	19.1et	Sample Date	Sample	1d 3d Pag	P 5 1 Jc 15 0 co	Lab WO# 10(10) bb Number 0(10-000 1 Intainers	10/DR0 by 8013	EX by 8021	H by 418.1	Ioride by 300.0	Sridjeerent 910		Lab Number	orrect Cont/Prsrv (s) Y/N
HI H IT	- 1		Ilai	Time	6	QTY-Vol/	YPE/Preservati	ve to	BT	TP	J	V		(N
1, 1 , 1	<u> </u>		1/24	13,00	5	Dea 7	102 (AU	JAN				4		Z	1
#3			1	It	5	200					T			3	Ħ
≉ A	The start			1	(Des	1					1		4	1
	1. 12 (B) (21)										-				alle alle
A States		ka - I													and the second
	Sec. 8		and it				See and								
RelinguisheePby: (Signature)	Date 1/2-1	Time 14,145	Receiver	d by: (Signa	ture)	Date 11/24/15	Time 14:56	**Rece	ived	on lo	La te Y	ib Use Or	nly		
Relinguished by: (Signature)	Date	Time	Received	d by: (Signa	ture)	Date	Time	T1 3. AVG Te	۹ mp°	c <u>13</u>	T2_	3.4		T3 2	
ample Matrix: S - Soil, Sd - Solid, Sg - Slu	idge, A - Aqueou	s, O - Other			1	and the second	Container Ty	pe: g - gla	ss, p	- poly	/plas	stic, ag - a	mber glas	s, v - VO/	A
Samples requiring thermal preservation	n must be receiv to a secure drop	ed on ice the day to	hey are sampled o	Chain of	acked in ice f Custody	at an avg temp ab Notes/Billin	ove 0 but less than ng info:	in 6 °C on si	ibsequ	ent da	iys.				
envir		ch	S796 US Three Spi	Highway 64, Rami Ings + 65 Mercado	ington, RM 87401 Street, Suite 115	1 , Duranga, CC & 1301	Philse Philse	5) 632-0615 Fz 8) 259-0615 Fr	(505) 633	2-1865			- Phone	EN IDEC	



ANALYTICAL REPORT December 02, 2015

EnviroTech-NM

Sample Delivery Group: Samples Received: Project Number: Description: Site: Report To:

L803408 11/25/2015 15090-0001 Osprey 30-7 P511060 Tim Cain and Lynn Cook 5796 US. Highway 64 Farmington, NM 87401

Entire Report Reviewed By: Naphne R Richards

Daphne Richards Technical Service Representative

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ACCOUNT: EnviroTech- NM PROJECT: 15090-0001

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	SAMPLE S	UMMAI	ONE LAB. NATIONWIDE			
1 L803408-01 Solid			Collected by John Thompson	Collected date/time 11/24/15 13:00	Received date/time 11/25/15 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM Total Solids by Method 2540 G-2011	WG831890 WG832244	1 1	12/01/15 03:49 11/30/15 09:29	12/01/15 10:35 12/01/15 06:32	KMP MEL	
2 L803408-02 Solid			Collected by John Thompson	Collected date/time 11/24/15 13:00	Received date/time 11/25/15 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM Total Solids by Method 2540 G-2011	WG831890 WG832244	1	12/01/15 03:49 11/30/15 09:29	12/01/15 10:57 12/01/15 06:33	KMP MEL	
3 L803408-03 Solid			Collected by John Thompson	Collected date/time 11/24/15 13:00	Received date/time 11/25/15 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM Total Solids by Method 2540 G-2011	WG831890 WG832244	1 1	12/01/15 03:49 11/30/15 09:29	12/01/15 11:19 12/01/15 06:33	KMP MEL	
A L803408-04 Solid			Collected by John Thompson	Collected date/time 11/24/15 13:00	Received date/time 11/25/15 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG831890	1	12/01/15 03:49	12/01/15 11:40	KMP	

WG832244

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Total Solids by Method 2540 G-2011

11/30/15 09:29

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12/01/15 06:33

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CASE NARRATIVE

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.

Dapline R Richards

Daphne Richards Technical Service Representative

Cp Tc Ss



PROJECT: 15090-0001

SDG: L803408 DATE/TIME: 12/02/15 15:17

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1

SAMPLE RESULTS - 01

Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch
Analyte	%			date / time	
Total Solids	71.0	COMPANY SALE	1	12/01/2015 06:32	WG832244

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

Section we see the	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg	A TON	mg/kg		date / time	
Anthracene	ND	Contraction of	0.00845	1	12/01/2015 10:35	WG831890
Acenaphthene	ND		0.00845	1	12/01/2015 10:35	WG831890
Acenaphthylene	ND		0.00845	1	12/01/2015 10:35	WG831890
Benzo(a)anthracene	ND		0.00845	1	12/01/2015 10:35	WG831890
Benzo(a)pyrene	ND		0.00845	1	12/01/2015 10:35	WG831890
Benzo(b)fluoranthene	ND		0.00845	1	12/01/2015 10:35	WG831890
Benzo(g,h,i)perylene	ND		0.00845	1	12/01/2015 10:35	WG831890
Benzo(k)fluoranthene	ND		0.00845	1	12/01/2015 10:35	WG831890
Chrysene	ND		0.00845	1	12/01/2015 10:35	WG831890
Dibenz(a,h)anthracene	ND		0.00845	1	12/01/2015 10:35	WG831890
Fluoranthene	ND		0.00845	1	12/01/2015 10:35	WG831890
Fluorene	0.0229		0.00845	1	12/01/2015 10:35	WG831890
Indeno(1,2,3-cd)pyrene	ND		0.00845	1	12/01/2015 10:35	WG831890
Naphthalene	0.155		0.0282	1	12/01/2015 10:35	WG831890
Phenanthrene	0.0412		0.00845	1	12/01/2015 10:35	WG831890
Pyrene	ND		0.00845	1	12/01/2015 10:35	WG831890
1-Methylnaphthalene	0.198		0.0282	1	12/01/2015 10:35	WG831890
2-Methylnaphthalene	0.239		0.0282	1	12/01/2015 10:35	WG831890
2-Chloronaphthalene	ND		0.0282	1	12/01/2015 10:35	WG831890
(S) Nitrobenzene-d5	74.0		22.1-146		12/01/2015 10:35	WG831890
(S) 2-Fluorobiphenyl	60.3		40.6-122		12/01/2015 10:35	WG831890
(SI p-Terphenvl-d14	53.7		32.2-131		12/01/2015 10:35	WG831890

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SAMPLE RESULTS - 02

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Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch
Analyte	%			date / time	
Total Solids	75.2		1	12/01/2015 06:33	WG832244

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

CLEAR BOARD OF	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg	19-11-1	mg/kg		date / time	
Anthracene	ND		0.00798	1	12/01/2015 10:57	WG831890
Acenaphthene	ND		0.00798	1	12/01/2015 10:57	WG831890
Acenaphthylene	ND		0.00798	1	12/01/2015 10:57	WG831890
Benzo(a)anthracene	ND		0.00798	1	12/01/2015 10:57	WG831890
Benzo(a)pyrene	ND		0.00798	1	12/01/2015 10:57	WG831890
Benzo(b)fluoranthene	ND		0.00798	1	12/01/2015 10:57	WG831890
Benzo(g,h,i)perylene	ND		0.00798	1	12/01/2015 10:57	WG831890
Benzo(k)fluoranthene	ND		0.00798	1	12/01/2015 10:57	WG831890
Chrysene	ND		0.00798	1	12/01/2015 10:57	WG831890
Dibenz(a,h)anthracene	ND		0.00798	1	12/01/2015 10:57	WG831890
Fluoranthene	ND		0.00798	1	12/01/2015 10:57	WG831890
Fluorene	0.00940		0.00798	1	12/01/2015 10:57	WG831890
Indeno(1,2,3-cd)pyrene	ND		0.00798	1	12/01/2015 10:57	WG831890
Naphthalene	0.139		0.0266	1	12/01/2015 10:57	WG831890
Phenanthrene	0.0143		0.00798	1	12/01/2015 10:57	WG831890
Pyrene	ND		0.00798	1	12/01/2015 10:57	WG831890
1-Methylnaphthalene	0.0833		0.0266	1	12/01/2015 10:57	WG831890
2-Methylnaphthalene	0.116		0.0266	1	12/01/2015 10:57	WG831890
2-Chloronaphthalene	ND		0.0266	1	12/01/2015 10:57	WG831890
(S) Nitrobenzene-d5	82.7		22.1-146		12/01/2015 10:57	WG831890
(S) 2-Fluorobiphenyl	79.3		40.6-122		12/01/2015 10:57	WG831890
SIn-Ternhenvl-d14	70.8		32 2-131		12/01/2015 10-57	WG831890

ACCOUNT:	
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PROJECT: 15090-0001

SAMPLE RESULTS - 03

Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch	12170 (D. 192
Analyte	%			date / time		
Total Solids	72.8		1	12/01/2015 06:33	WG832244	La Carlo and

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

AND STATES	Result (dry) Qualifier	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg	mg/kg		date / time	Carton to the Carton and the
Anthracene	ND	0.00825	1	12/01/2015 11:19	WG831890
Acenaphthene	ND	0.00825	1	12/01/2015 11:19	WG831890
Acenaphthylene	ND	0.00825	1	12/01/2015 11:19	WG831890
Benzo(a)anthracene	ND	0.00825	1	12/01/2015 11:19	WG831890
Benzo(a)pyrene	ND	0.00825	1	12/01/2015 11:19	WG831890
Benzo(b)fluoranthene	ND	0.00825	1	12/01/2015 11:19	WG831890
Benzo(g,h,i)perylene	ND	0.00825	1	12/01/2015 11:19	WG831890
Benzo(k)fluoranthene	ND	0.00825	1	12/01/2015 11:19	WG831890
Chrysene	ND	0.00825	1	12/01/2015 11:19	WG831890
Dibenz(a,h)anthracene	ND	0.00825	1	12/01/2015 11:19	WG831890
Fluoranthene	ND	0.00825	1	12/01/2015 11:19	WG831890
Fluorene	ND	0.00825	1	12/01/2015 11:19	WG831890
Indeno(1,2,3-cd)pyrene	ND	0.00825	1	12/01/2015 11:19	WG831890
Naphthalene	0.167	0.0275	1	12/01/2015 11:19	WG831890
Phenanthrene	0.0180	0.00825	1	12/01/2015 11:19	WG831890
Pyrene	ND	0.00825	1	12/01/2015 11:19	WG831890
1-Methylnaphthalene	0.0975	0.0275	1	12/01/2015 11:19	WG831890
2-Methylnaphthalene	0.134	0.0275	1	12/01/2015 11:19	WG831890
2-Chloronaphthalene	ND	0.0275	1	12/01/2015 11:19	WG831890
(S) Nitrobenzene-d5	87.3	22.1-146		12/01/2015 11:19	WG831890
(S) 2-Fluorobiphenyl	81.2	40.6-122		12/01/2015 11:19	WG831890
(S) p-Terphenyl-d14	72.5	32 2-131		12/01/2015 11-19	WG831890

ACCOUNT:	
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SAMPLE RESULTS - 04

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Total Solids by Method 2540 G-2011

12 20 1	Result	Qualifier	Dilution	Analysis	Batch	
Analyte	%			date / time		
Total Solids	82.2	<u>J3</u>	1	12/01/2015 06:33	WG832244	

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

	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg	1. 1.	mg/kg		date / time	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
Anthracene	ND		0.00730	1	12/01/2015 11:40	WG831890	
Acenaphthene	ND		0.00730	1	12/01/2015 11:40	WG831890	
Acenaphthylene	ND		0.00730	1	12/01/2015 11:40	WG831890	
Benzo(a)anthracene	ND		0.00730	1	12/01/2015 11:40	WG831890	
Benzo(a)pyrene	ND		0.00730	1	12/01/2015 11:40	WG831890	
Benzo(b)fluoranthene	ND		0.00730	1	12/01/2015 11:40	WG831890	
Benzo(g,h,i)perylene	ND		0.00730	1	12/01/2015 11:40	WG831890	
Benzo(k)fluoranthene	ND		0.00730	1	12/01/2015 11:40	WG831890	
Chrysene	ND		0.00730	1	12/01/2015 11:40	WG831890	
Dibenz(a,h)anthracene	ND		0.00730	1	12/01/2015 11:40	WG831890	
Fluoranthene	ND		0.00730	1	12/01/2015 11:40	WG831890	
Fluorene	0.0211		0.00730	1	12/01/2015 11:40	WG831890	
Indeno(1,2,3-cd)pyrene	ND		0.00730	1	12/01/2015 11:40	WG831890	
Naphthalene	0.204		0.0243	1	12/01/2015 11:40	WG831890	
Phenanthrene	0.0475		0.00730	1	12/01/2015 11:40	WG831890	
Pyrene	ND		0.00730	1	12/01/2015 11:40	WG831890	
1-Methylnaphthalene	0.180		0.0243	1	12/01/2015 11:40	WG831890	
2-Methylnaphthalene	0.238		0.0243	1	12/01/2015 11:40	WG831890	
2-Chloronaphthalene	ND		0.0243	1	12/01/2015 11:40	WG831890	
(S) Nitrobenzene-d5	83.7		22.1-146		12/01/2015 11:40	WG831890	
(S) 2-Fluorobiphenyl	77.3		40.6-122		12/01/2015 11:40	WG831890	
(S) p-Terphenyl-d14	76.5		32.2-131		12/01/2015 11:40	WG831890	

DATE/TIME: 12/02/15 15:17

WG832244

QUALITY CONTROL SUMMARY

Total Solids by Method 2540 G-2011

Method Blank (MB)

(MB) 12/01/15 06:31		S	the state	 - X - X	A Straight	Selfer Street	20.00
	MB Result MB Qua	alifier MB RDL					
Analyte	%	%					
Total Solids	0.000200		and the second second				

L803408-04 Original Sample (OS) • Duplicate (DUP)

(OS) 12/01/15 06:33 · (DU	P) 12/01/15 06:33						
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits	
Analyte	%	%		%	and the second	%	
Total Solids	82.2	86.7	1	5.33	J3	5	See a second second

Laboratory Control Sample (LCS)

(LCS) 12/01/15 06:31	Sec. 1	10 810	5 D M S	1995 8 1	1.00		1. 1.2	8	200	and the second	any in the
		Spike Amount	LCS Result	LCS Rec.	Rec. Limits LC	S Qualifier					
Analyte		%	%	%	%						
Total Solids	100	50.0	50.0	100	85.0-115						

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ONE LAB. NATIONWIDE.

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DATE/TIME: 12/02/15 15:17

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

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

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Method Blank (MB)

(MB) 12/01/15 09:30	CONTRACTOR AND	and the second second second	Part of the second	CARL CONTRACTOR	and the second second	
	MB Result MB Quali	fier MB RDL				
Analyte	mg/kg	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	75.8	32.2-131				
(S) Nitrobenzene-d5	83.1	22.1-146				
(S) 2-Fluorobiphenyl	79.5	40.6-122				

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

(LCS) 12/01/15 08:47 · (LCSD)	12/01/15 09:09										
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits	
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	%	
Anthracene	0.0800	0.0754	0.0722	94.2	90.2	50.3-130		CONTRACTOR OF	4.35	20	
Acenaphthene	0.0800	0.0682	0.0655	85.3	81.9	52.4-120			4.04	20	
Acenaphthylene	0.0800	0.0675	0.0648	84.4	81.0	49.6-120			4.10	20	
Benzo(a)anthracene	0.0800	0.0640	0.0608	80.0	76.0	46.7-125			5.17	20	
Benzo(a)pyrene	0.0800	0.0690	0.0652	86.2	81.5	42.3-119			5.63	20	
Benzo(b)fluoranthene	0.0800	0.0652	0.0616	81.5	77.0	43.6-124			5.71	20	
Benzo(g,h,i)perylene	0.0800	0.0697	0.0661	87.1	82.6	45.1-132			5.27	20	
Benzo(k)fluoranthene	0.0800	0.0779	0.0748	97.4	93.5	46.1-131			4.07	20	
Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene	0.0800 0.0800 0.0800 0.0800 0.0800	0.0640 0.0690 0.0652 0.0697 0.0779	0.0608 0.0652 0.0616 0.0661 0.0748	80.0 86.2 81.5 87.1 97.4	76.0 81.5 77.0 82.6 93.5	46.7-125 42.3-119 43.6-124 45.1-132 46.1-131			5.17 5.63 5.71 5.27 4.07	20 20 20 20 20 20 20	

 ACCOUNT:
 PROJECT:
 SDG:

 EnviroTech-NM
 15090-0001
 L803408

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QUALITY CONTROL SUMMARY

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

ACCOUNT:

EnviroTech- NM

L803408-01,02,03,04

ONE LAB. NATIONWIDE.

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

(LCS) 12/01/15 08:47 · (LCSD)	12/01/15 09:09		A set an a bear	and the second	1.1.1		Section Ball	1		
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	%	%	%	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Contraction of the	%	%
Chrysene	0.0800	0.0715	0.0688	89.4	86.1	49.5-131	1.00		3.85	20
Dibenz(a,h)anthracene	0.0800	0.0685	0.0643	85.6	80.4	44.8-133			6.32	20
Fluoranthene	0.0800	0.0651	0.0633	81.4	79.1	49.3-128			2.81	20
Fluorene	0.0800	0.0663	0.0642	82.8	80.2	50.6-121			3.21	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0706	0.0669	88.3	83.7	46.1-135			5.33	20
Naphthalene	0.0800	0.0684	0.0646	85.5	80.7	49.6-115			5.70	20
Phenanthrene	0.0800	0.0701	0.0673	87.6	84.1	48.8-121			4.14	20
Pyrene	0.0800	0.0689	0.0657	86.1	82.1	44.7-130			4.84	20
1-Methylnaphthalene	0.0800	0.0685	0.0656	85.6	82.0	50.6-122			4.32	20
2-Methylnaphthalene	0.0800	0.0691	0.0652	86.4	81.5	50.4-120			5.88	20
2-Chloronaphthalene	0.0800	0.0696	0.0666	87.0	83.2	53.9-121			4.43	20
(S) p-Terphenyl-d14				52.9	71.4	32.2-131				
(S) Nitrobenzene-d5				64.3	82.2	22.1-146				
(S) 2-Fluorobiphenyl				57.1	78.4	40.6-122				

L803733-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/01/15 13:28 . (MS) 12/01/15	13:50 . (MSD	0) 12/01/15 14:12										
	Spike Amou	int Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Anthracene	0.0800	0.00346	0.0682	0.0701	81.0	83.3	1	26.5-141	1.		2.77	21.2
Acenaphthene	0.0800	0.0155	0.0845	0.0780	86.3	78.1	1	31.9-130			8.06	20
Acenaphthylene	0.0800	0.00548	0.0726	0.0692	83.8	79.6	1	33.7-129			4.80	20
Benzo(a)anthracene	0.0800	0.00245	0.0599	0.0610	71.8	73.2	1	18.3-136			1.86	24.6
Benzo(a)pyrene	0.0800	0.00102	0.0630	0.0647	77.5	79.7	1	16.9-135			2.71	25.2
Benzo(b)fluoranthene	0.0800	0.00151	0.0594	0.0610	72.4	74.4	1	10.0-134			2.68	30.9
Benzo(g,h,i)perylene	0.0800	0.000838	0.0596	0.0606	73.4	74.7	1	14.1-140			1.70	25.5
Benzo(k)fluoranthene	0.0800	ND	0.0618	0.0638	77.2	79.7	1	18.2-138			3.17	25.6
Chrysene	0.0800	0.00158	0.0645	0.0654	78.6	79.8	1	17.1-145			1.46	24.2
Dibenz(a,h)anthracene	0.0800	ND	0.0612	0.0614	76.5	76.8	1	18.5-138			0.300	24.3
Fluoranthene	0.0800	0.00552	0.0631	0.0645	72.0	73.7	1	15.4-144			2.09	27.1
Fluorene	0.0800	0.0305	0.105	0.0919	92.8	76.7	1	23.5-136			13.1	20
Indeno(1,2,3-cd)pyrene	0.0800	ND	0.0618	0.0623	77.2	77.9	1	14.5-142			0.840	25.8
Naphthalene	0.0800	0.389	0.605	0.424	271	43.8	1	29.2-128	V	13	35.3	20
Phenanthrene	0.0800	0.0310	0.100	0.0913	86.4	75.3	1	20.1-134	18,4 19		9.30	23.6
Pyrene	0.0800	0.00716	0.0703	0.0707	78.9	79.5	1	11.0-148			0.620	26.1

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 DATE/TIME:
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 .

CD

QUALITY CONTROL SUMMARY

Cp

Tc

Ss

Cn

Sr

GI

AI

Sc

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

L803408-01,02,03,04

L803733-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/01/15 13:28 · (MS) 12/0	01/15 13:50 · (MSE	0) 12/01/15 14:12	1241731			They are	teral st	A DESCRIPTION OF	23.6 L 1.8	St.	-7140	
	Spike Amou	int Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
1-Methylnaphthalene	0.0800	1.15	1.66	1.16	639	14.0	1	28.4-137	V	<u>V EL</u>	35.6	20
2-Methylnaphthalene	0.0800	1.65	2.38	1.64	910	0.000	1	26.6-137	V	J3V	36.6	20
2-Chloronaphthalene	0.0800	0.00751	0.0757	0.0715	85.2	79.9	1	38.6-126	17637.20	and the second of	5.77	20
(S) p-Terphenyl-d14					74.9	77.8		32.2-131				
(S) Nitrobenzene-d5					128	114		22.1-146				
(S) 2-Fluorobiphenyl					81.1	79.6		40.6-122				

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GLOSSARY OF TERMS

Abbreviations and Definitions

Sample Delivery Group.
Method Detection Limit.
Reported Detection Limit.
Not detected at the Reporting Limit (or MDL where applicable).
Relative Percent Difference.
Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
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.
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.
Recovery.
Sample Detection Limit.
Method Quantitation Limit.
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.							

1	Ср
2	Тс
3	Ss
4	Cn
5	Sr
6	Qc
7	GI
8	AI
9	Sc

A	CC	OU	N	T:
Env	irol	Tec	h-	NM

ACCREDITATIONS & LOCATIONS

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**.

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
lowa	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 170255	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 ^{ma} 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.



ACCOUNT:	
EnviroTech- NM	

PROJECT: 15090-0001

SDG: L803408 DATE/TIME: 12/02/15 15:17

Company Name/Address: Envirotech IncNM 5796 US Highway 64 Farmington, NM 87401				rmation: Its Payable S Highway Iton, NM 8	e 64 7401				-	nalysis /	Contain	er / Pres	ervative			Chain of Custody							
Report to: Lynn Cook & Tir	m Cain		Email To:	Lvnn Cool	k & Tim Cain		/Co									12065 Lebanon Rd Mount Juliet, TN 3 Phone: 615-758-58							
Project Description: DSDNYEY 30)-7	6.8.3		City/State Collected:			- à				A A			1		Phone: 800-767-58 Fax: 615-758-5859							
Phone: Fax:	Client Project	-0001		Lab Project #			0 1402	L'ANGA								L# 18	03408 3222						
Collected by (print): John Thompson	Site/Facility IC P51	040		P.O.#	42780		827					25		1		Acctnum:							
Collected by (signature): Immediately Packed on Ice N Y	Rush? (L Same (Next D Two D Three (ab MUST Be Day May My Day	Notified) 200% 100% 50% 25%	Email FAX?	Date Results Needed Email?NoYes FAX? V NoYes		Date Results Needed Email?NoYes FAX?NoYes		Date Results Needed Email?NoYes FAX? V_NoYes		Date Results Needed all?NoYes C?NoYes		H Sim by									Prelogin: TSR: P8:	
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntr	PA						10			Shipped Via: Rem/Contaminan	t Sample # (lab only)						
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#2						1	X					1					R						
#3	4 4 1	12.78		25.05		1	×		1								63						
#A	No. 40	T	1. 1.	L	T	1	X				1					5	04						
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Charles and States	1.517	and in	1.1		10.20											1.20							
• Matrix: SS - Soil GW - Groundwate Remarks: ENVIROFMN (C	er ww-wastew 091551 (ater DW-De QWOFE)	inking Wate	er OT-Other,		THE A				pH		_ Temp _ Other			old #								
Relinquished by : (Signature) Date: LORD 34, 34, 74, 11/24 Relinquished by : (Signature) Date:		Date: 11/24/ Date:	Time: Received by: (Signature 15:51 Time: Time: Received by: (Signature			nature)	And ar a			Samples returned via: UPS FedEx Courier Temp: °C Bottles Received: U-467				100	Condition: (lab use only) 76 @								
Relinquished by : (Signature)		Date:	T	ime: Received for lab by: (Signature)					Date:	sli	Time 5	040	1/ pl	H Check	Pa	ge 36 of 36							

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