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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Hilcorp Energy Company	Contact Jennifer Deal
Address 9a CR 5793	Telephone No. (505) 324-5128
Facility Name McGrath 4	Facility Type SWD

Surface Owner Private	Mineral Owner Federal	API No. 30-045-25923

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	34	30N	12W	800	North	1730	EAST	San Juan County

Latitude 36.77417 **Longitude** -108.08192 NAD83

NATURE OF RELEASE

Type of Release Produced Fluids	Volume of Release Unknown	Volume Recovered 10,000 cu.yds
Source of Release Production Tanks	Date and Hour of Occurrence Unknown	Date and Hour of Discovery
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour 12/21/2017 @9:00am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
P&A Facility Removal Activities

NMOCD
JUN 27 2018
DISTRICT III

Describe Area Affected and Cleanup Action Taken.*
The facility removal activities for the subject well resulted in several excavations. Please see the attached report with maps included. Excavation and confirmation sampling occurred. Field and laboratory results for TPH were below the regulatory standards set forth in the NMOCD Guidelines for Remediation of Leaks, Spills and Releases for all samples. The results are attached for review. No further action required.

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

Signature: Jennifer Deal	OIL CONSERVATION DIVISION
Printed Name: Jennifer Deal	Approved by Environmental Specialist:
Title: Environmental Specialist	Approval Date: 6/28/19 Expiration Date:
E-mail Address: jdeal@hilcorp.com	Conditions of Approval: Attached ☐
Date: 6/26/2018 Phone: (505) 324-5128	

* Attach Additional Sheets If Necessary

#NCS1826549360

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envirotech

May 5, 2017 Project Number 92115-2684

Ms. Crystal Walker
ConocoPhillips
3401 E. 30th Street
Farmington, New Mexico 87402 Phone (505) 215-4361

RE: CONFIRMATION SAMPLING REPORT FOR THE MCGRATH #4 SWD (HBR) WELL SITE, SAN JUAN COUNTY, NEW MEXICO

Dear Ms. Walker:

Enclosed please find the *Confirmation Sampling Report* detailing confirmation sampling activities conducted at the McGrath #4 SWD (hBr) well site located in Section 34, Township 30 North, Range 12 West, San Juan County, New Mexico.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully submitted,
ENVIROTECH, INC.

Isaac Garcia
Environmental Field Technician
igarcia@envirotech-inc.com

Enclosure: *Confirmation Sampling Report*

Cc: Client File Number 92115

CONFIRMATION SAMPLING REPORT

LOCATED AT:
MCGRATH #4 SWD (HBR) WELL SITE
SECTION 34, TOWNSHIP 30 NORTH, RANGE 12 WEST
SAN JUAN COUNTY, NEW MEXICO

PREPARED FOR:
CONOCOPHILLIPS
MS. CRYSTAL WALKER
3401 E. 30TH STREET
FARMINGTON, NEW MEXICO 87402

PROJECT NUMBER 92115-2684
DECEMBER 20, 2013 – APRIL 24, 2017

CONOCOPHILLIPS
CONFIRMATION SAMPLING REPORT
MCGRATH #4 SWD (HBR) WELL SITE
SECTION 34, TOWNSHIP 30 NORTH, RANGE 12 WEST
SAN JUAN COUNTY, NEW MEXICO

TABLE OF CONTENTS

INTRODUCTION

Envirotech, Inc. of Farmington, New Mexico, has been contracted by ConocoPhillips to perform confirmation sampling activities at the McGrath #4 SWD (hBr) well site located in Section 34, Township 30 North, Range 12 West, San Juan County, New Mexico; see enclosed Figure 1, Vicinity Map. The scope of work included field screening, sample collection, laboratory analysis, documentation, and reporting.

Due to a horizontal distance to surface water being between 200 and 1000 feet from the site, a depth to groundwater being greater than 100 feet, and the well site not being located within a well head protection area, the regulatory standard for this site was determined to be 1000 parts per million (ppm) total petroleum hydrocarbons (TPH) and 100 ppm organic vapors, pursuant to New Mexico Oil Conservation Division's (NMOCD) Guidelines for Remediation of Spills, Leaks, and Releases.

ACTIVITIES PERFORMED

December 20, 2013

On December 20, 2013, Envirotech, Inc. personnel arrived on site to perform confirmation sampling activities. Upon arrival, a brief site assessment was conducted and a Job Safety Analysis (JSA) was completed.

Seven (7) excavations were observed: Excavations A – D and Excavations F – H, see enclosed ***Figure 2, Site Map – Excavation Overview***, ***Appendix A - Figure 3, Site Map, 12/20/2013***, and ***Appendix B - Figure 4, Site Map, 1/2/2014***.

Excavation A

One (1) five (5)-point composite soil sample was collected from Excavation A; see enclosed ***Appendix A - Figure 3, Site Map*** for sample location. The sample was analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a photoionization detector (PID). The sample returned results below the regulatory standards for TPH and organic vapor; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix A, Analytical Results***.

Excavation B

Six (6) five (5)-point composite soil samples (*West Wall (B1), North Bottom (B2), North Wall (B3), East Wall (B4), South Wall (B5), and South Bottom (B6)*) were collected from Excavation B; see enclosed ***Appendix A - Figure 3, Site Map*** for sample locations. All six (6) samples were analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix A, Analytical Results***. The West Wall, North Bottom, South Wall, and South Bottom samples returned results below the

regulatory standards for TPH and organic vapor. The North Wall and East Wall samples returned results above the regulatory standards for TPH but below the regulatory standard for organic vapor. Envirotech recommended additional excavation of the North Wall and East Wall of Excavation B.

Excavation C

One (1) five (5)-point composite soil sample was collected from Excavation C; see enclosed ***Appendix A - Figure 3, Site Map*** for sample location. The sample was analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID. The sample returned results below the regulatory standards for TPH and organic vapor; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix A, Analytical Results***.

Excavation F

Five (5) five (5)-point composite soil samples (*North Wall (F1), South Wall (F2), East Wall (F3), West Wall (F4), and Bottom (F5)*) were collected From Excavation F; see enclosed ***Appendix A - Figure 3, Site Map*** for sample locations. All five (5) samples were analyzed in the field for organic vapor using a PID. The East Wall and West Wall samples returned results below the regulatory standard for organic vapor. Therefore, the East and West Wall samples were then analyzed in the field for TPH using USEPA Method 418.1. Both samples returned results below the regulatory standard for TPH. The North Wall, South Wall, and Bottom samples returned results above the regulatory standard for organic vapor. The analytical results for sampling conducted on Excavation F can be found in the enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix A, Analytical Results***. Envirotech recommended additional excavation of the North Wall, South Wall, and Bottom of Excavation F.

Excavation G

One (1) five (5)-point composite soil sample was collected from Excavation G; see enclosed ***Appendix A - Figure 3, Site Map*** for sample location. The sample was analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID. The sample returned results above the regulatory standard for TPH but below the regulatory standard for organic vapor; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix A, Analytical Results***. Envirotech recommended additional excavation of the entire Excavation G.

Excavation H

One (1) five (5)-point composite soil sample was collected from Excavation H; see enclosed ***Appendix A - Figure 3, Site Map*** for sample location. The sample was analyzed in the field for organic vapor using a PID. The sample returned results above the regulatory standard for organic vapor; see enclosed ***Table 1, Summary of Analytical Results***. Envirotech recommended additional excavation of the entire Excavation H.

Berm Piles

Two (2) soil piles from the berms around former equipment had been staged at the above referenced location: *West Berm Pile (WB) and East Berm Pile (EB)*. One (1) five (5)-point composite soil sample was collected from each of the two (2) piles; see enclosed ***Appendix A - Figure 3, Site Map*** for sample locations. Both samples were analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID. The West Berm Pile sample returned results above the regulatory standard for TPH but below the regulatory standard for organic vapor. Therefore, the soil was loaded and transported for disposal off-site. The East Berm Pile sample returned results below the regulatory standards for TPH and organic vapor. The analytical results for sampling conducted on the two (2) berm piles can be found in the enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix A, Analytical Results***. Therefore, the soil from the *East Berm Pile* was set aside to later be used as backfill material.

January 2, 2014

On January 2, 2014, Envirotech, Inc. personnel arrived at the above referenced well site to perform additional confirmation sampling activities. Upon arrival, a brief site assessment was conducted and a JSA was completed.

Excavation B

Excavation B had been further excavated along the north and east walls, since December 20, 2013. Two (2) five (5)-point composite soil samples (*North Wall (B3A) and East Wall (B4A)*) were collected; see enclosed ***Appendix B - Figure 4, Site Map*** for sample locations. Both samples were analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID. Both samples returned results below the regulatory standards for TPH and organic vapor; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix B, Analytical Results***.

Excavation D

Four (4) five (5)-point composite soil samples (*SW Corner (D1), Bottom (D2), NE ¼ Wall (D3), and East Wall (D4)*) were collected from Excavation D; see enclosed ***Appendix B - Figure 4, Site Map*** for sample locations. All four (4) samples were analyzed in the field for organic vapor using a PID. The SW Corner and Bottom samples returned results above the regulatory standards for organic vapor. The NE ¼ Wall and East Wall samples returned results below the regulatory standards for organic vapor. The NE ¼ Wall and East Wall samples were then analyzed in the field for TPH using USEPA Method 418.1. Both samples returned results below the regulatory standards for TPH. The analytical results for sampling conducted on Excavation D can be found in the enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix B, Analytical Results***. Envirotech recommended further excavation of the *SW Corner* and *Bottom* areas then re-sample for closure.

Excavation F

Excavation F had been further excavated along the north and south walls, as well as the bottom of the excavation, since December 20, 2013. Three (3) five (5)-point composite soil samples (*North Wall (F1A), South Wall (F2A), and Bottom (F5A)*) were collected; see enclosed ***Appendix B - Figure 4, Site Map*** for sample locations. All three (3) samples were analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix B, Analytical Results***. All three (3) samples returned results above the regulatory standards for TPH. The only sample of the three (3) that returned a result above the regulatory standard for organic vapor was the Bottom sample. Envirotech recommended additional excavation of the North Wall, South Wall, and Bottom of Excavation F.

Excavation G

Five (5) five (5)-point composite soil samples (*Bottom (G1), West Wall (G2), North Wall (G3), East Wall (G4), South Wall (G5)*) were collected from Excavation G; see enclosed ***Appendix B - Figure 4, Site Map*** for sample locations. All five (5) samples were analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID. All five (5) samples returned results below the regulatory standards for TPH and organic vapor; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix B, Analytical Results***.

Excavation H

Two (2) five (5)-point composite soil samples (*Wall Composite (H1) and Bottom (H2)*) were collected From Excavation H; see enclosed ***Appendix B - Figure 4, Site Map*** for sample locations. Both samples were analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID. Both samples returned results below the regulatory standards for TPH and organic vapor; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix B, Analytical Results***.

January 7, 2014

On January 7, 2014, Envirotech, Inc. personnel arrived at the above referenced well site to perform additional confirmation sampling activities. Upon arrival, a brief site assessment was conducted and a JSA was completed.

Envirotech observed that the two (2) former excavations, D and F, had now converged to form one (1) large excavation, now being referred to as Excavation D-F; see enclosed ***Appendix C - Figure 5, Site Map***. A total of nine (9) five (5)-point composite soil samples (*Samples 1-9*) were collected from Excavation D-F; see enclosed ***Appendix C - Figure 5, Site Map*** for sample

locations. All nine (9) samples were analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix C, Analytical Results***

Sample 1, collected from along the south wall of the excavation, returned a result above the regulatory standard for TPH but below the regulatory standard for organic vapor. The sample was placed into a four (4)-ounce glass jar, capped head space free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Method 8015. The sample returned a result below the regulatory standard for TPH.

Sample 2, also collected from along the south wall of the excavation, returned a result above the regulatory standard for TPH but below the regulatory standard for organic vapor. Envirotech recommended additional excavation of the southern wall of the excavation.

Sample 3, collected from the eastern-most bottom of the excavation, returned a result above the regulatory standard for TPH but below the regulatory standard for organic vapor. Envirotech recommended additional excavation of eastern-most bottom of the excavation.

Sample 4, collected from along the north wall of the excavation, returned a result below the regulatory standard for TPH and organic vapor.

Sample 5, collected from the bottom of the middle section of the excavation, returned a result above the regulatory standard for TPH and organic vapor. Envirotech recommended additional excavation of the bottom of the middle section of the excavation.

Sample 6, collected from the bottom of the northwestern section of the excavation, returned a result above the regulatory standard for TPH and organic vapor. Envirotech recommended additional excavation of the bottom of the northwestern section of the excavation.

Sample 7, collected from along the southwestern wall of the excavation, returned a result below the regulatory standard for TPH and organic vapor.

Sample 8, collected from the bottom of the southwestern section of the excavation, returned a result above the regulatory standard for TPH and organic vapor. Envirotech recommended additional excavation of the bottom of the southwestern section of the excavation.

Sample 9, collected from along the west wall of the excavation, returned a result above the regulatory standard for TPH and organic vapor. Envirotech recommended additional excavation of the west wall of the excavation.

For details on *Samples 1-9*, collected on January 7, 2014, see enclosed ***Appendix C, Figure 5, Site Map, 1/7/2014***, for an overall diagram identifying areas of Excavation D-F that were below regulatory standards and areas that were above regulatory standards.

January 10, 2014

On January 10, 2014, Envirotech, Inc. personnel arrived at the above referenced well site to perform additional confirmation sampling activities. Upon arrival, a brief site assessment was conducted and a JSA was completed.

Envirotech observed that Excavation D-F had been expanded in the directions that Envirotech had recommended. A total of eight (8) five (5)-point composite soil samples (*Samples 1-5* and *Samples 7-9*) were collected from Excavation D-F; see enclosed ***Appendix D - Figure 6, Site Map*** for sample locations. Two (2) additional grab samples (*Sample 6 and 10*) were also collected; see enclosed ***Appendix D - Figure 6, Site Map*** for sample locations. All 10 samples were analyzed in the field for organic vapor using a PID. The analytical results for the 10 samples collected on January 10, 2014, from Excavation D-F can be found in the enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix D, Analytical Results***.

Sample 1, collected from the bottom of a northwestern section of the excavation, returned a result below the regulatory standard for organic vapor. The sample was then analyzed in the field for TPH using USEPA Method 418.1. The sample returned a result below the regulatory standard for TPH.

Sample 2, collected from the bottom of the southwestern section of the excavation, returned a result above the regulatory standard for organic vapor. The sample was then analyzed in the field for TPH using USEPA Method 418.1. The sample returned a result above the regulatory standard for TPH. The sample was then placed into a four (4)-ounce glass jar, capped head space free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Method 8015 and for benzene and total BTEX using USEPA Method 8021. The sample returned a result below regulatory standards for all constituents analyzed.

Sample 3, collected from the bottom of a north section of the excavation, returned a result below the regulatory standard for organic vapor. The sample was then analyzed in the field for TPH using USEPA Method 418.1. The sample returned a result below the regulatory standard for TPH.

Sample 4, collected from the bottom of the middle section of the excavation, and *Sample 5*, collected from the wall directly south of it, both returned results above the regulatory standard for organic vapor. Envirotech recommended additional excavation of the bottom of the middle section of the excavation and the wall directly south of it.

Sample 6, collected from along the north wall of the excavation, returned a result below the regulatory standard for organic vapor. The sample was then analyzed in the field for TPH using USEPA Method 418.1. The sample returned a result below the regulatory standard for TPH.

Sample 7, collected from the bottom of the northwestern-most section of the excavation, returned

results above the regulatory standard for organic vapor. Envirotech recommended additional excavation of the bottom of the northwestern-most section of the excavation.

Samples 8 and 9, collected from along the north wall of the excavation, returned results below the regulatory standard for organic vapor. Both samples were then analyzed in the field for TPH using USEPA Method 418.1. Both samples returned results below the regulatory standard for TPH.

Sample 10, also collected from along the north wall of the excavation, returned a result above the regulatory standard for organic vapor. Envirotech recommended additional excavation of this portion of the north wall of the excavation.

January 14, 2014

On January 14, 2014, Envirotech, Inc. personnel arrived at the above referenced well site to perform additional confirmation sampling activities. Upon arrival, a brief site assessment was conducted and a JSA was completed.

Envirotech observed that Excavation D-F had been expanded in the directions that Envirotech had recommended. A total of 10 five (5)-point composite soil samples (*Samples 1-10*) were collected from Excavation D-F; see enclosed ***Appendix E - Figure 7, Site Map*** for sample locations. *Sample 1* was analyzed in the field for organic vapor using a PID. *Samples 2-10* were analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID. The analytical results for the 10 samples collected on January 14, 2014, from Excavation D-F can be found in the enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix E, Analytical Results***.

Sample 1, collected from the bottom of a small middle section of the excavation, returned results above the regulatory standard for organic vapor. The sample was then placed into a four (4)-ounce glass jar, capped head space free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Method 8015 and for benzene and total BTEX using USEPA Method 8021. The sample returned a result above the regulatory standard for TPH but below the regulatory standard for benzene and total BTEX. Envirotech recommended additional excavation of this small middle section of the excavation.

Sample 2, collected from the bottom of the middle/south section of the excavation, and *Sample 3*, taken from the bottom of a northwest section of the excavation, returned results above the regulatory standards for TPH and organic vapor. Both samples were then placed into four (4)-ounce glass jars, capped head space free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Method 8015 and for benzene and total BTEX using USEPA Method 8021. Both samples returned results below regulatory standards for all constituents analyzed.

Samples 4, 5, and 6, collected from the walls surrounding a northwest section of the excavation,

returned results below the regulatory standards for TPH and organic vapor.

Sample 7, collected from the bottom of the northwestern-most section of the excavation, returned results above the regulatory standard for TPH and organic vapor. The sample was then placed into a four (4)-ounce glass jar, capped head space free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Method 8015 and for benzene and total BTEX using USEPA Method 8021. The sample returned a result above the regulatory standard for TPH but below the regulatory standard for benzene and total BTEX. Envirotech recommended additional excavation of the bottom of the northwestern-most section of the excavation.

Samples 8 and 9, collected from the walls surrounding the northwestern-most section of the excavation, and *Sample 10*, collected along the walls of the middle/southern section of the excavation, returned results below the regulatory standards for TPH and organic vapor.

January 16, 2014

On January 16, 2014, Envirotech, Inc. personnel arrived at the above referenced well site to perform additional confirmation sampling activities. Upon arrival, a brief site assessment was conducted and a JSA was completed.

Two (2) five (5)-point composite soil samples (*Excavation D-F East Wall 12' BGS (1)* and *Excavation D-F Ramp Area (2)*) were collected from Excavation D-F; see enclosed ***Appendix F - Figure 8, Site Map*** for sample locations. Both samples were analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID. The analytical results for the two (2) samples collected on January 16, 2014, from Excavation D-F can be found in the enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix F, Analytical Results***.

Excavation D-F East Wall 12' BGS (1), collected from the east wall of the excavation, returned results below the regulatory standards for TPH and organic vapor.

Excavation D-F Ramp Area (2), taken from the bottom of the east section of the excavation, returned results above the regulatory standards for TPH and organic vapor. The sample was then placed into a four (4)-ounce glass jar, capped head space free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Method 8015 and for benzene and total BTEX using USEPA Method 8021. The sample returned results below regulatory standards for all constituents analyzed.

January 22, 2014

On January 22, 2014, Envirotech, Inc. personnel arrived at the above referenced well site to perform additional confirmation sampling activities. Upon arrival, a brief site assessment was conducted and a JSA was completed.

Upon arrival on site, three (3) new excavations, Excavations 1 – 3, located north of Excavation D-F, were observed; see enclosed ***Appendix G - Figure 9, Site Map***.

Excavation 1

From Excavation 1, a total of four (4) five (5)-point composite soil samples (*Samples 1-4*) were collected; see enclosed ***Appendix G - Figure 9, Site Map*** for sample locations. All four (4) samples were analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix G, Analytical Results***

Sample 1, collected from the north wall of the excavation, *Sample 2*, collected from the east wall of the excavation, and *Sample 3*, collected from the west wall of the excavation, returned results below the regulatory standards for TPH and organic vapor.

Sample 4, taken from the bottom of the excavation, returned results above the regulatory standards for TPH and organic vapor. Envirotech recommended additional excavation of the bottom of Excavation 1.

Excavation 2

From Excavation 2, a total of five (5) five (5)-point composite soil samples (*Samples 5-9*) were collected; see enclosed ***Appendix G - Figure 9, Site Map*** for sample locations. All five (5) samples were analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix G, Analytical Results***.

Sample 5, collected from the north wall of the excavation, *Sample 6*, collected from the east wall of the excavation, *Sample 7*, collected from the south wall of the excavation, *Sample 8*, collected from the west wall of the excavation, and *Sample 9*, collected from the bottom of the excavation, returned results below the regulatory standards for TPH and organic vapor.

Excavation 3

From Excavation 3, a total of three (3) five (5)-point composite soil samples (*Samples 10-12*) were collected; see enclosed ***Appendix G - Figure 9, Site Map*** for sample locations. All three (3) samples were analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix G, Analytical Results***.

Sample 10, collected from the north and west walls of the excavation, *Sample 11*, collected from the south and east walls of the excavation, and *Sample 12*, collected from the bottom of the excavation, returned results below the regulatory standards for TPH and organic vapor.

January 24, 2014

On January 24, 2014, Envirotech, Inc. personnel arrived at the above referenced well site to perform additional confirmation sampling activities. Upon arrival, a brief site assessment was conducted and a JSA was completed.

Upon arrival on site, three (3) new excavations, Excavations 4 – 6, were observed; see enclosed ***Appendix H - Figure 10, Site Map***. It was also observed that the bottom of Excavation 1 had been extended vertically.

Excavation 1

One (1) five (5)-point composite soil sample (*Sample 1*) was collected from the bottom of Excavation 1; see enclosed ***Appendix H - Figure 10, Site Map*** for sample location. The sample was analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID. *Sample 1* returned a result below the regulatory standards for TPH and organic vapor; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix H, Analytical Results***.

Excavation 4

A total of five (5) five (5)-point composite soil samples (*Samples 2-6*) were collected from Excavation 4; see enclosed ***Appendix H - Figure 10, Site Map*** for sample locations. All five (5) samples were analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID. The analytical results for the five (5) samples collected on January 24, 2014, from Excavation 4 can be found in the enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix H, Analytical Results***.

Sample 2, collected from the north wall of the excavation, *Sample 3*, collected from the east wall of the excavation, *Sample 4*, collected from the south wall of the excavation, and *Sample 5*, collected from the west wall of the excavation, returned results below the regulatory standards for TPH and organic vapor.

Sample 6, collected from the bottom of the excavation, returned a result above the regulatory standards for TPH and organic vapor. The sample was then placed into a four (4)-ounce glass jar, capped head space free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Method 8015 and for benzene and total BTEX using USEPA Method 8021. The sample returned a result above the regulatory standard for TPH but below the regulatory standard for benzene and total BTEX. Envirotech recommended additional excavation of the bottom of Excavation 4.

Excavation 5

One (1) five (5)-point composite soil sample (*Sample 7*) was collected from the bottom of the Excavation 5; see enclosed ***Appendix H - Figure 10, Site Map*** for sample locations. The sample

was analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID. The sample returned a result below the regulatory standards for TPH and organic vapor; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix H, Analytical Results***.

Excavation 6

One (1) five (5)-point composite soil sample (*Sample 8*) was collected from the east wall of Excavation 6; see enclosed ***Appendix H - Figure 10, Site Map*** for sample location. The sample was analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID. The sample returned a result below the regulatory standards for TPH and organic vapor; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix H, Analytical Results***.

January 28, 2014

On January 28, 2014, Envirotech, Inc. personnel arrived at the above referenced well site to perform additional confirmation sampling activities. Upon arrival, a brief site assessment was conducted and a JSA was completed.

Excavation 4

Upon arrival on site, it was also observed that the bottom of Excavation 4 had been extended vertically to a total depth of approximately 10 feet BGS. One (1) five (5)-point composite soil sample (*Sample 1*) was collected from the bottom of Excavation 4; see enclosed ***Appendix I - Figure 11, Site Map*** for sample location. The sample was analyzed in the field for TPH using USEPA Method 418.1 and organic vapor using a PID. The sample returned results below the regulatory standards for TPH and organic vapor; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix I, Analytical Results***.

February 24, 2017

On February 24, 2017, Envirotech, Inc. personnel arrived at the above referenced well site to perform additional confirmation sampling activities. Upon arrival, a brief site assessment was conducted and a JSA was completed.

Excavation D-F

The bottom of the northwestern-most section of the excavation which failed the regulatory standard for TPH on January 14, 2014, (Excavation D-F, sample 7) was resampled see enclosed ***Appendix J - Figure 12, Site Map*** for sample locations. One (1) five (5) point composite soil sample was collected. The sample was screened in the field for organic vapors using a PID and for TPH using USEPA Method 418.1. The sample returned results below the regulatory standard for both organic vapors and TPH; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix J, Analytical results.*** The sample was then placed into a four (4) ounce, laboratory provided glass jar, capped headspace free and transported on ice under chain of custody to

Envirotech's Analytical laboratory to be analyzed for TPH using USEPA Method 8015 and for benzene and total BTEX using USEPA Method 8021 and for chlorides using USEPA Method 300.0. The sample returned results below the regulatory standard for all constituents analyzed; see enclosed ***Table 1, Summary of Analytical Results*** and ***Appendix J, Analytical Results.***

SUMMARY AND CONCLUSIONS

Envirotech, Inc. performed confirmation sampling activities at the McGrath #4 SWD (hBr) well site located in Section 34, Township 30 North, Range 12 West, San Juan County, New Mexico.

Based on the analytical results, from all closure samples being below the regulatory standard, Envirotech recommends *No Further Action* in regard to this incident.

For a complete list of all samples that have met closure standards, see enclosed ***Table 2, Summary of Analytical Results, Closure Samples***.

Refer to ***Figure 2, Site Map – Excavation Overview*** for an aerial view of the McGrath #4 SWD well site which includes all of the excavations that were sampled between December 20, 2013 and February 24, 2017. The drawing is not to scale; however, enclosed in the map are approximate final dimensions for the excavations.

STATEMENT OF LIMITATIONS

Envirotech, Inc. has completed confirmation sampling activities at the McGrath #4 SWD (hBr) well site. The work and services provided by Envirotech, Inc. were in accordance with the NMOCD and USEPA regulatory standards. All observations and conclusions provided here are based on the information and current site conditions found at the site of the incident.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

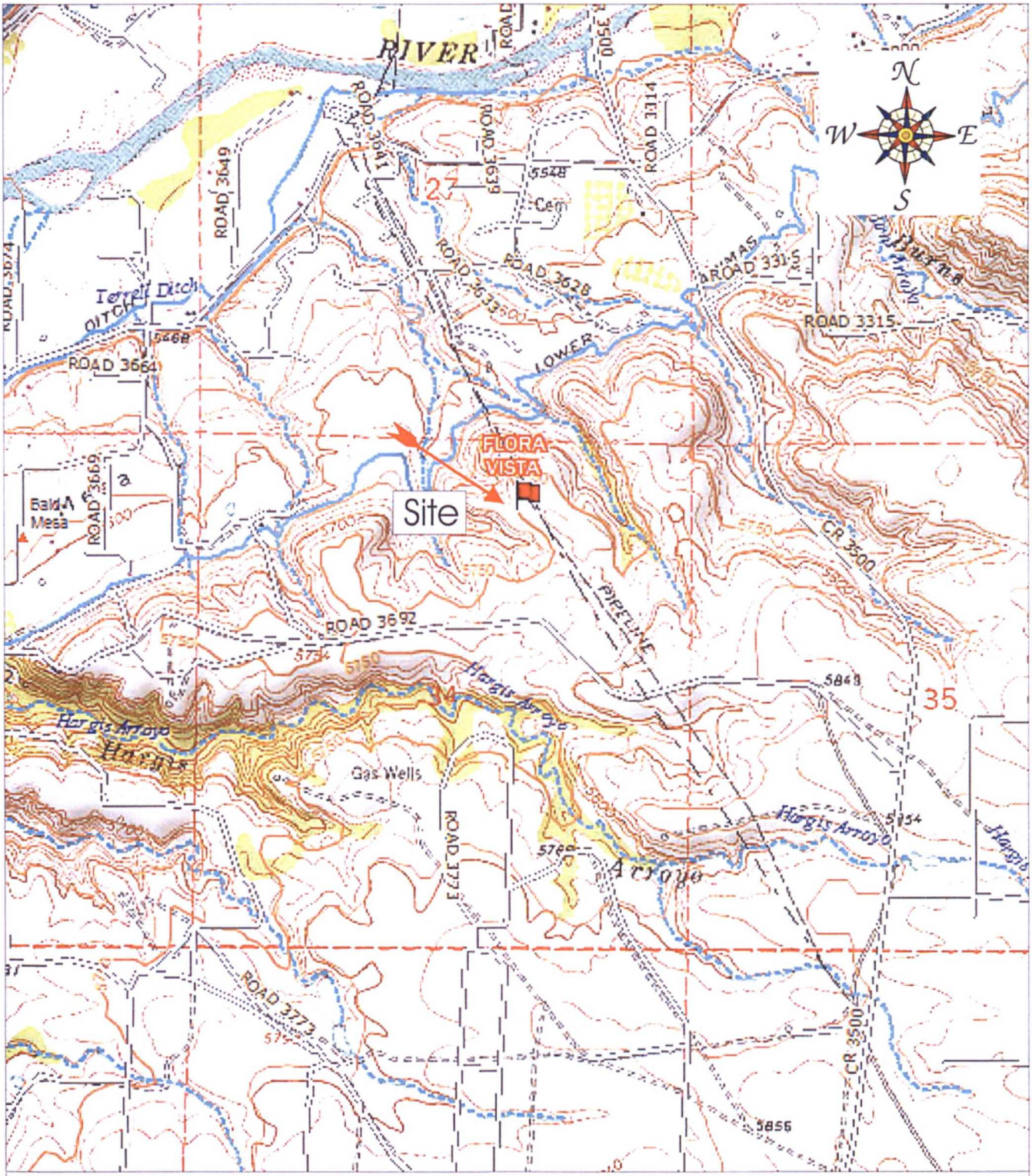
Respectfully submitted,
ENVIROTECH, INC.

Isaac Garcia
Environmental Field Technician
igarcia@envirotech-inc.com

Reviewed by:

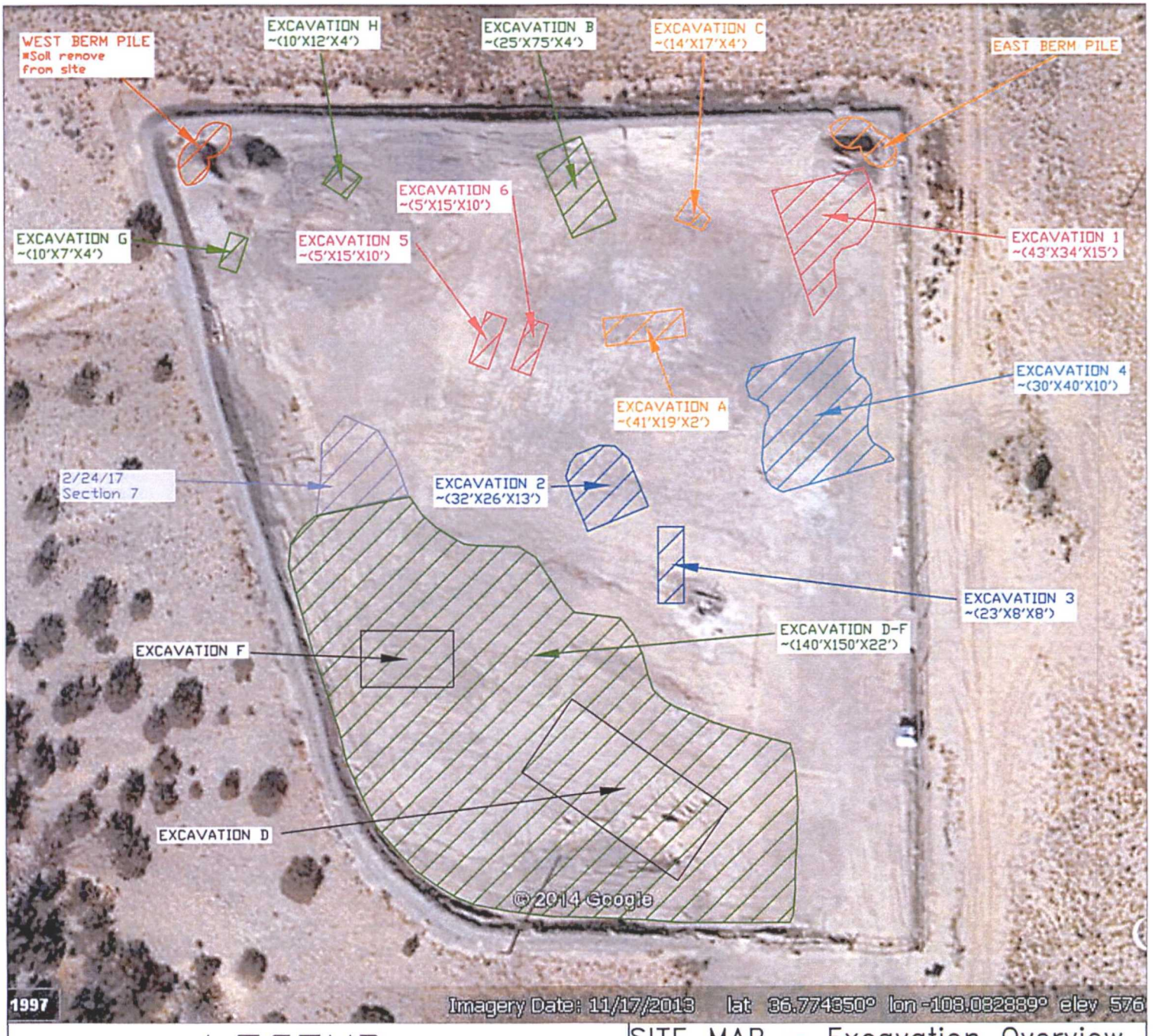
Felipe Aragon, CES
Environmental Field Coordinator
faragon@envirotech-inc.com

FIGURES



Source: 7.5 Minute, Flora Vista, New Mexico U.S.G.S. Topographic Quadrangle Map
Scale: 1:24,000 1" = 2000'

Conoco Phillips McGrath #4 SWD Section 34 Township 30N Range 12W San Juan County, New Mexico	envirotech ENVIRONMENTAL SCIENTISTS & ENGINEERS 5796 U.S. HIGHWAY 64 Farmington, New Mexico 87401 505.632.0615	Vicinity Map Figure #1	
Project Number: 92115-2684 / Date Drawn: 4/18/17		DRAWN BY: Isaac Garcia	PROJECT MANAGER: Felipe Aragon



LEGEND

Date The Entire Excavation Met Regulations

- December 20, 2013
- January 2, 2014
- January 22, 2014
- January 24, 2014
- January 28, 2014
- January 16, 2014
- February 24, 2017

SITE MAP – Excavation Overview

ConocoPhillips

McGrath #4 SWD (hBr)

SECTION 34, TWP 30 NORTH, RANGE 12 WEST

SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 2	REV
PROJECT N092115-2540		

REVISIONS

NO.	DATE	BY	DESCRIPTION
FRA	3/04/16		Update map

MAP DRWN	TLM	8/5/14	BASE DRWN	TLM	2/25/13

envirotech

5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615

TABLES

ConocoPhillips
McGrath #4 SWD
Table 1, Summary of Analytical Results
Project Number 92115-2540

Date	Sample Description	Sample Number	PID OV (ppm)	USEPA Method 418.1 TPH (ppm)	USEPA Method 8015 TPH (ppm)	USEPA Method 8021	
						Benzene (ppm)	BTEX (ppm)
NA	New Mexico Oil Conservation Division Standards	NA	100	1000	1000	10	50
12/20/2013							
12/20/2013	Excavation A	A	ND	172	NS	NS	NS
12/20/2013	Excavation B West Wall	B1	ND	252	NS	NS	NS
12/20/2013	Excavation B North Bottom	B2	ND	312	NS	NS	NS
12/20/2013	Excavation B North Wall	B3	56.0	**1720**	NS	NS	NS
12/20/2013	Excavation B East Wall	B4	47.0	**1220**	NS	NS	NS
12/20/2013	Excavation B South Wall	B5	ND	88	NS	NS	NS
12/20/2013	Excavation B South Bottom	B6	ND	84	NS	NS	NS
12/20/2013	Excavation C	C	ND	168	NS	NS	NS
12/20/2013	Excavation F North Wall	F1	**>2700**	NS	NS	NS	NS
12/20/2013	Excavation F South Wall	F2	**672**	NS	NS	NS	NS
12/20/2013	Excavation F East Wall	F3	65.0	620	NS	NS	NS
12/20/2013	Excavation F West Wall	F4	ND	192	NS	NS	NS
12/20/2013	Excavation F Bottom	F5	**1040**	NS	NS	NS	NS
12/20/2013	Excavation G	G	ND	**1720**	NS	NS	NS
12/20/2013	Excavation H	H	**476**	NS	NS	NS	NS
12/20/2013	East Berm Pile	EB	ND	416	NS	NS	NS
12/20/2013	West Berm Pile	WB	ND	**4140**	NS	NS	NS
1/2/2014							
1/2/2014	Excavation B North Wall	B3A	ND	444	NS	NS	NS
1/2/2014	Excavation B East Wall	B4A	ND	672	NS	NS	NS
1/2/2014	Excavation D SW Corner	D1	**1930**	NS	NS	NS	NS
1/2/2014	Excavation D Bottom	D2	**1410**	NS	NS	NS	NS
1/2/2014	Excavation D NE 1/4 Wall	D3	ND	ND	NS	NS	NS
1/2/2014	Excavation D East Wall	D4	ND	ND	NS	NS	NS
1/2/2014	Excavation F North Wall	F1A	80.0	**2760**	NS	NS	NS
1/2/2014	Excavation F South Wall	F2A	ND	**2320**	NS	NS	NS
1/2/2014	Excavation F Bottom	F5A	**449**	**1990**	NS	NS	NS
1/2/2014	Excavation G Bottom	G1	ND	844	NS	NS	NS
1/2/2014	Excavation G West Wall	G2	ND	180	NS	NS	NS
1/2/2014	Excavation G North Wall	G3	ND	280	NS	NS	NS
1/2/2014	Excavation G East Wall	G4	ND	300	NS	NS	NS
1/2/2014	Excavation G South Wall	G5	ND	588	NS	NS	NS

ConocoPhillips
McGrath #4 SWD
Table 1, Summary of Analytical Results
Project Number 92115-2540

Date	Sample Description	Sample Number	PID OV (ppm)	USEPA Method 418.1 TPH (ppm)	USEPA Method 8015 TPH (ppm)	USEPA Method 8021	
						Benzene (ppm)	BTEX (ppm)
NA	New Mexico Oil Conservation Division Standards	NA	100	1000	1000	10	50
1/2/2014	Excavation H Wall Comp	H1	ND	252	NS	NS	NS
1/2/2014	Excavation H Bottom	H2	ND	576	NS	NS	NS
1/7/2014							
1/7/2014	Excavation D-F	1	6.1	**1180**	162	NS	NS
1/7/2014	Excavation D-F	2	87.6	**2170**	NS	NS	NS
1/7/2014	Excavation D-F	3	95.3	**2250**	NS	NS	NS
1/7/2014	Excavation D-F	4	5.9	136	NS	NS	NS
1/7/2014	Excavation D-F	5	**549**	**2570**	NS	NS	NS
1/7/2014	Excavation D-F	6	**1840**	**4060**	NS	NS	NS
1/7/2014	Excavation D-F	7	1.7	128	NS	NS	NS
1/7/2014	Excavation D-F	8	**835**	**2100**	NS	NS	NS
1/7/2014	Excavation D-F	9	**1650**	**3170**	NS	NS	NS
1/10/2014							
1/10/2014	Excavation D-F	1	7.0	32	NS	NS	NS
1/10/2014	Excavation D-F	2	**617**	**1060**	191	ND	2.65
1/10/2014	Excavation D-F	3	10.6	32	NS	NS	NS
1/10/2014	Excavation D-F	4	**1170**	NS	NS	NS	NS
1/10/2014	Excavation D-F	5	**1040**	NS	NS	NS	NS
1/10/2014	Excavation D-F	6	17.0	432	NS	NS	NS
1/10/2014	Excavation D-F	7	**1260**	NS	NS	NS	NS
1/10/2014	Excavation D-F	8	21.4	120	NS	NS	NS
1/10/2014	Excavation D-F	9	13.4	196	NS	NS	NS
1/10/2014	Excavation D-F	10	**356**	NS	NS	NS	NS
1/14/2014							
1/14/2014	Excavation D-F	1	**952**	NS	**1356**	ND	8.81
1/14/2014	Excavation D-F	2	**141**	**1710**	665.3	ND	2.00
1/14/2014	Excavation D-F	3	**762**	**2600**	992	ND	23.9
1/14/2014	Excavation D-F	4	16.7	212	NS	NS	NS
1/14/2014	Excavation D-F	5	10.3	144	NS	NS	NS
1/14/2014	Excavation D-F	6	9.2	236	NS	NS	NS
1/14/2014	Excavation D-F	7	**1150**	**3720**	**1480**	ND	29.1
1/14/2014	Excavation D-F	8	7.4	240	NS	NS	NS
1/14/2014	Excavation D-F	9	6.7	164	NS	NS	NS
1/14/2014	Excavation D-F	10	7.1	164	NS	NS	NS

ConocoPhillips
McGrath #4 SWD
Table 1, Summary of Analytical Results
Project Number 92115-2540

Date	Sample Description	Sample Number	PID OV (ppm)	USEPA Method 418.1 TPH (ppm)	USEPA Method 8015 TPH (ppm)	USEPA Method 8021	
						Benzene (ppm)	BTEX (ppm)
NA	New Mexico Oil Conservation Division Standards	NA	100	1000	1000	10	50
1/16/2014							
1/16/2014	Excavation D-F East Wall 12' BGS	1	0.3	36	NS	NS	NS
1/16/2014	Excavation D-F Ramp Area	2	**759**	**2430**	988.6	ND	2.63
1/22/2014							
1/22/2014	Excavation 1 North Wall	1	0.8	92	NS	NS	NS
1/22/2014	Excavation 1 East Wall	2	1.9	40	NS	NS	NS
1/22/2014	Excavation 1 West Wall	3	1.7	40	NS	NS	NS
1/22/2014	Excavation 1 Bottom	4	**390**	**6220**	NS	NS	NS
1/22/2014	Excavation 2 North Wall	5	1.7	96	NS	NS	NS
1/22/2014	Excavation 2 East Wall	6	1.4	32	NS	NS	NS
1/22/2014	Excavation 2 South Wall	7	1.7	36	NS	NS	NS
1/22/2014	Excavation 2 West Wall	8	0.8	36	NS	NS	NS
1/22/2014	Excavation 2 Bottom	9	1.0	40	NS	NS	NS
1/22/2014	Excavation 3 N&W Walls	10	0.8	48	NS	NS	NS
1/22/2014	Excavation 3 S&E Walls	11	1.7	60	NS	NS	NS
1/22/2014	Excavation 3 Bottom	12	0.8	36	NS	NS	NS
1/24/2014							
1/24/2014	Excavation 1 Bottom	1	ND	120	NS	NS	NS
1/24/2014	Excavation 4 North Wall	2	ND	ND	NS	NS	NS
1/24/2014	Excavation 4 East Wall	3	0.2	20	NS	NS	NS
1/24/2014	Excavation 4 South Wall	4	11.5	680	NS	NS	NS
1/24/2014	Excavation 4 West Wall	5	0.8	56	NS	NS	NS
1/24/2014	Excavation 4 Bottom	6	**274**	**3220**	**1913.4**	ND	1.4
1/24/2014	Excavation 5 Bottom	7	1.0	84	NS	NS	NS
1/24/2014	Excavation 6 East Wall	8	2.6	32	NS	NS	NS
1/28/2014							
1/28/2014	Excavation 4 Bottom	1	2.6	24	NS	NS	NS
2/24/2017							
2/24/2017	Excavation D-F Section 7	1	1.3	700	261	ND	ND

*Values in **BOLD** above regulatory limits

*NS - Parameter not sampled *ND - Parameter not detected

ConocoPhillips
McGrath #4 SWD
Table 1, Summary of Analytical Results
Project Number 92115-2540

Date	Sample Description	Sample Number	PID OV (ppm)	USEPA Method 418.1 TPH (ppm)	USEPA Method 8015 TPH (ppm)	USEPA Method 8021	
						Benzene (ppm)	BTEX (ppm)
NA	New Mexico Oil Conservation Division Standards	NA	100	1000	1000	10	50

*Closure Sample

*Sample Has NOT Met Closure Standards

ConocoPhillips
McGrath #4 SWD
Table 2, Summary of Analytical Results, Closure Samples
Project Number 92115-2540

Date	Sample Description	Sample Number	PID OV (ppm)	USEPA Method 418.1 TPH (ppm)	USEPA Method 8015 TPH (ppm)	USEPA Method 8021	
						Benzene (ppm)	BTEX (ppm)
NA	New Mexico Oil Conservation Division Standards	NA	100	1000	1000	10	50
12/20/2013							
12/20/2013	Excavation A	A	ND	172	NS	NS	NS
12/20/2013	Excavation B West Wall	B1	ND	252	NS	NS	NS
12/20/2013	Excavation B North Bottom	B2	ND	312	NS	NS	NS
12/20/2013	Excavation B South Wall	B5	ND	88	NS	NS	NS
12/20/2013	Excavation B South Bottom	B6	ND	84	NS	NS	NS
12/20/2013	Excavation C	C	ND	168	NS	NS	NS
12/20/2013	Excavation F East Wall	F3	65.0	620	NS	NS	NS
12/20/2013	Excavation F West Wall	F4	ND	192	NS	NS	NS
12/20/2013	East Berm Pile	EB	ND	416	NS	NS	NS
1/2/2014							
1/2/2014	Excavation B North Wall	B3A	ND	444	NS	NS	NS
1/2/2014	Excavation B East Wall	B4A	ND	672	NS	NS	NS
1/2/2014	Excavation D NE 1/4 Wall	D3	ND	ND	NS	NS	NS
1/2/2014	Excavation D East Wall	D4	ND	ND	NS	NS	NS
1/2/2014	Excavation G Bottom	G1	ND	844	NS	NS	NS
1/2/2014	Excavation G West Wall	G2	ND	180	NS	NS	NS
1/2/2014	Excavation G North Wall	G3	ND	280	NS	NS	NS
1/2/2014	Excavation G East Wall	G4	ND	300	NS	NS	NS
1/2/2014	Excavation G South Wall	G5	ND	588	NS	NS	NS
1/2/2014	Excavation H Wall Comp	H1	ND	252	NS	NS	NS
1/2/2014	Excavation H Bottom	H2	ND	576	NS	NS	NS
1/7/2014							
1/7/2014	Excavation D-F	1	6.1	**1180**	162	NS	NS
1/7/2014	Excavation D-F	4	5.9	136	NS	NS	NS
1/7/2014	Excavation D-F	7	1.7	128	NS	NS	NS
1/10/2014							
1/10/2014	Excavation D-F	1	7.0	32	NS	NS	NS
1/10/2014	Excavation D-F	2	**617**	**1060**	191	ND	2.65
1/10/2014	Excavation D-F	3	10.6	32	NS	NS	NS
1/10/2014	Excavation D-F	6	17.0	432	NS	NS	NS
1/10/2014	Excavation D-F	8	21.4	120	NS	NS	NS

ConocoPhillips
McGrath #4 SWD
Table 2, Summary of Analytical Results, Closure Samples
Project Number 92115-2540

Date	Sample Description	Sample Number	PID OV (ppm)	USEPA Method 418.1 TPH (ppm)	USEPA Method 8015 TPH (ppm)	USEPA Method 8021	
						Benzene (ppm)	BTEX (ppm)
NA	New Mexico Oil Conservation Division Standards	NA	100	1000	1000	10	50
1/10/2014	Excavation D-F	9	13.4	196	NS	NS	NS
1/14/2014							
1/14/2014	Excavation D-F	2	**141**	**1710**	665.3	ND	2.00
1/14/2014	Excavation D-F	3	**762**	**2600**	992	ND	23.9
1/14/2014	Excavation D-F	4	16.7	212	NS	NS	NS
1/14/2014	Excavation D-F	5	10.3	144	NS	NS	NS
1/14/2014	Excavation D-F	6	9.2	236	NS	NS	NS
1/14/2014	Excavation D-F	8	7.4	240	NS	NS	NS
1/14/2014	Excavation D-F	9	6.7	164	NS	NS	NS
1/14/2014	Excavation D-F	10	7.1	164	NS	NS	NS
1/16/2014							
1/16/2014	Excavation D-F East Wall 12' BGS	1	0.3	36	NS	NS	NS
1/16/2014	Excavation D-F Ramp Area	2	**759**	**2430**	988.6	ND	2.63
1/22/2014							
1/22/2014	Excavation 1 North Wall	1	0.8	92	NS	NS	NS
1/22/2014	Excavation 1 East Wall	2	1.9	40	NS	NS	NS
1/22/2014	Excavation 1 West Wall	3	1.7	40	NS	NS	NS
1/22/2014	Excavation 2 North Wall	5	1.7	96	NS	NS	NS
1/22/2014	Excavation 2 East Wall	6	1.4	32	NS	NS	NS
1/22/2014	Excavation 2 South Wall	7	1.7	36	NS	NS	NS
1/22/2014	Excavation 2 West Wall	8	0.8	36	NS	NS	NS
1/22/2014	Excavation 2 Bottom	9	1.0	40	NS	NS	NS
1/22/2014	Excavation 3 N&W Walls	10	0.8	48	NS	NS	NS
1/22/2014	Excavation 3 S&E Walls	11	1.7	60	NS	NS	NS
1/22/2014	Excavation 3 Bottom	12	0.8	36	NS	NS	NS
1/24/2014							
1/24/2014	Excavation 1 Bottom	1	ND	120	NS	NS	NS
1/24/2014	Excavation 4 North Wall	2	ND	ND	NS	NS	NS
1/24/2014	Excavation 4 East Wall	3	0.2	20	NS	NS	NS
1/24/2014	Excavation 4 South Wall	4	11.5	680	NS	NS	NS
1/24/2014	Excavation 4 West Wall	5	0.8	56	NS	NS	NS
1/24/2014	Excavation 5 Bottom	7	1.0	84	NS	NS	NS
1/24/2014	Excavation 6 East Wall	8	2.6	32	NS	NS	NS

ConocoPhillips
McGrath #4 SWD
Table 2, Summary of Analytical Results, Closure Samples
Project Number 92115-2540

Date	Sample Description	Sample Number	PID OV (ppm)	USEPA Method 418.1 TPH (ppm)	USEPA Method 8015 TPH (ppm)	USEPA Method 8021	
						Benzene (ppm)	BTEX (ppm)
NA	New Mexico Oil Conservation Division Standards	NA	100	1000	1000	10	50
1/28/2014							
1/28/2014	Excavation 4 Bottom	1	2.6	24	NS	NS	NS
2/24/2017							
2/24/2017	Excavation D-F Sample 7	1	1.3	700	261	ND	ND

*Values in **BOLD** above regulatory limits
*Closure Sample

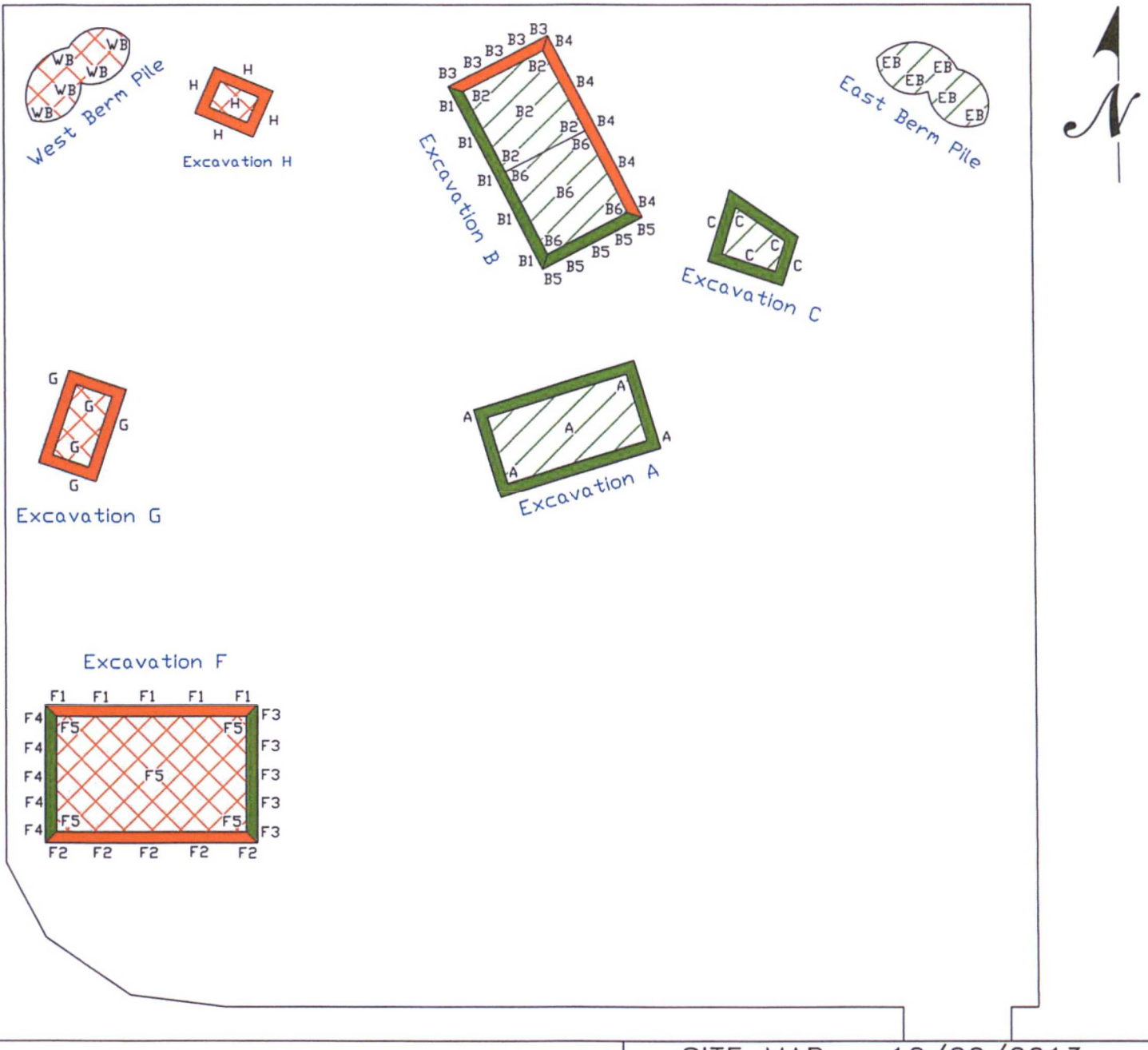
*NS - Parameter not sampled *ND - Parameter not detected

APPENDIX A:

DECEMBER 20, 2013

FIGURE 3 - SITE MAP

ANALYTICAL RESULTS



LEGEND

Areas Below Regulatory Standards

Areas Above Regulatory Standards

SITE MAP – 12/20/2013

ConocoPhillips

McGrath #4 SWD (hBr)

SECTION 34, TWP 30 NORTH, RANGE 12 WEST

SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 3	REV
PROJECT N092115-2540		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	TLM	3/27/14	BASE DRWN	TLM	2/25/13

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	A	Date Reported:	2/18/2014
Sample ID:	Excavation A	Date Sampled:	12/20/2013
Sample Matrix:	Soil	Date Analyzed:	12/20/2013
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**172**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Toni McKnight
Analyst

Toni McKnight, EIT
Printed

Review

Greg Crabtree, PE
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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	B1	Date Reported:	2/18/2014
Sample ID:	Excavation B West Wall	Date Sampled:	12/20/2013
Sample Matrix:	Soil	Date Analyzed:	12/20/2013
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**252**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Toni McKnight
Analyst

Review

Toni McKnight, EIT
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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	B2	Date Reported:	2/18/2014
Sample ID:	Excavation B North Bottom	Date Sampled:	12/20/2013
Sample Matrix:	Soil	Date Analyzed:	12/20/2013
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**312**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Toni McKnight, EIT
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Review

Greg Crabtree, PE
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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	B3	Date Reported:	2/18/2014
Sample ID:	Excavation B North Wall	Date Sampled:	12/20/2013
Sample Matrix:	Soil	Date Analyzed:	12/20/2013
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**1,720**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Toni McKnight
Analyst

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Review

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	B4	Date Reported:	2/18/2014
Sample ID:	Excavation B East Wall	Date Sampled:	12/20/2013
Sample Matrix:	Soil	Date Analyzed:	12/20/2013
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**1,220**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

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Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	B5	Date Reported:	2/18/2014
Sample ID:	Excavation B South Wall	Date Sampled:	12/20/2013
Sample Matrix:	Soil	Date Analyzed:	12/20/2013
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**88**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Toni McKnight

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	B6	Date Reported:	2/18/2014
Sample ID:	Excavation B South Bottom	Date Sampled:	12/20/2013
Sample Matrix:	Soil	Date Analyzed:	12/20/2013
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**84**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	C	Date Reported:	2/18/2014
Sample ID:	Excavation C	Date Sampled:	12/20/2013
Sample Matrix:	Soil	Date Analyzed:	12/20/2013
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**168**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	F3	Date Reported:	2/18/2014
Sample ID:	Excavation F East Wall	Date Sampled:	12/20/2013
Sample Matrix:	Soil	Date Analyzed:	12/20/2013
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**620**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	F4	Date Reported:	2/18/2014
Sample ID:	Excavation F West Wall	Date Sampled:	12/20/2013
Sample Matrix:	Soil	Date Analyzed:	12/20/2013
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**192**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	G	Date Reported:	2/18/2014
Sample ID:	Excavation G	Date Sampled:	12/20/2013
Sample Matrix:	Soil	Date Analyzed:	12/20/2013
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**1,720**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	EB	Date Reported:	2/18/2014
Sample ID:	East Berm Pile	Date Sampled:	12/20/2013
Sample Matrix:	Soil	Date Analyzed:	12/20/2013
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**416**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Toni McKnight
Analyst

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	WB	Date Reported:	2/18/2014
Sample ID:	West Berm Pile	Date Sampled:	12/20/2013
Sample Matrix:	Soil	Date Analyzed:	12/20/2013
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**4,140**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

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CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 20-Dec-13

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	
	200	204
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Toni McKnight

Analyst

2/18/2014

Date

Toni McKnight, EIT

Print Name

Review

2/18/2014

Date

Greg Crabtree, PE

Print Name

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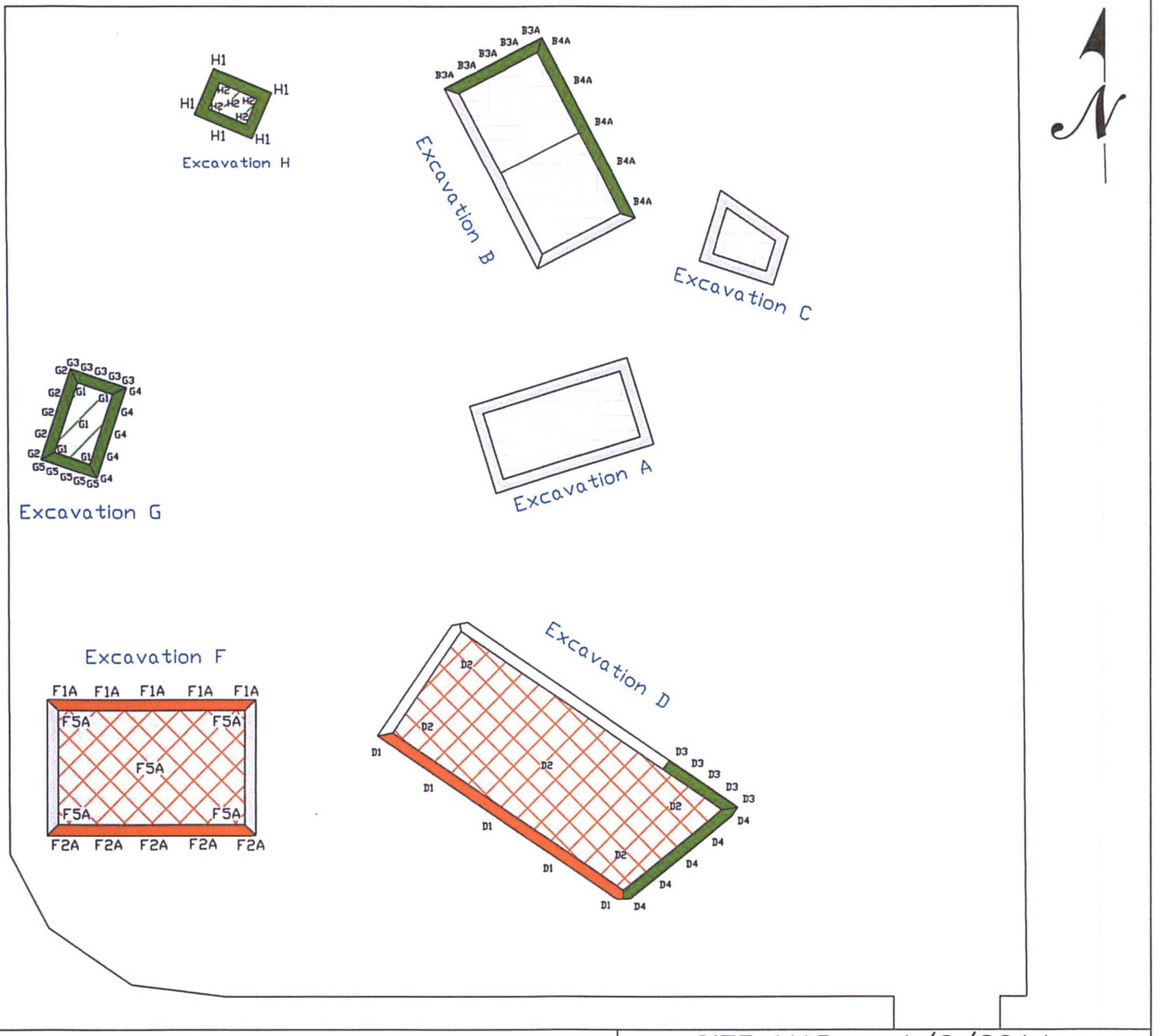
APPENDIX B:

JANUARY 2, 2014

FIGURE 4 - SITE MAP

ANALYTICAL RESULTS



LEGEND

Areas Below Regulatory Standards

Areas Above Regulatory Standards

Areas Which Previously Met Regulatory Standards

SITE MAP – 1/2/2014

ConocoPhillips

McGrath #4 SWD (hBr)

SECTION 34, TWP 30 NORTH, RANGE 12 WEST

SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 4	REV
PROJECT N092115-2540		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	TLM	3/27/14	BASE DRWN	TLM	2/25/13

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	B3A	Date Reported:	2/18/2014
Sample ID:	Excavation B North Wall	Date Sampled:	1/2/2014
Sample Matrix:	Soil	Date Analyzed:	1/2/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**444**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	B4A	Date Reported:	2/18/2014
Sample ID:	Excavation B East Wall	Date Sampled:	1/2/2014
Sample Matrix:	Soil	Date Analyzed:	1/2/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**672**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	D3	Date Reported:	2/18/2014
Sample ID:	Excavation D NE 1/4 Wall	Date Sampled:	1/2/2014
Sample Matrix:	Soil	Date Analyzed:	1/2/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**ND**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	D4	Date Reported:	2/18/2014
Sample ID:	Excavation D East Wall	Date Sampled:	1/2/2014
Sample Matrix:	Soil	Date Analyzed:	1/2/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**ND**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	F1A	Date Reported:	2/18/2014
Sample ID:	Excavation F North Wall	Date Sampled:	1/2/2014
Sample Matrix:	Soil	Date Analyzed:	1/2/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**2,760**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	F2A	Date Reported:	2/18/2014
Sample ID:	Excavation F South Wall	Date Sampled:	1/2/2014
Sample Matrix:	Soil	Date Analyzed:	1/2/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**2,320**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	F5A	Date Reported:	2/18/2014
Sample ID:	Excavation F Bottom	Date Sampled:	1/2/2014
Sample Matrix:	Soil	Date Analyzed:	1/2/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**1,990**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	G1	Date Reported:	2/18/2014
Sample ID:	Excavation G Bottom	Date Sampled:	1/2/2014
Sample Matrix:	Soil	Date Analyzed:	1/2/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**844**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	G2	Date Reported:	2/18/2014
Sample ID:	Excavation G West Wall	Date Sampled:	1/2/2014
Sample Matrix:	Soil	Date Analyzed:	1/2/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**180**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	G3	Date Reported:	2/18/2014
Sample ID:	Excavation G North Wall	Date Sampled:	1/2/2014
Sample Matrix:	Soil	Date Analyzed:	1/2/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**280**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

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Greg Crabtree, P E
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info@envirotech-inc.com

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	G4	Date Reported:	2/18/2014
Sample ID:	Excavation G East Wall	Date Sampled:	1/2/2014
Sample Matrix:	Soil	Date Analyzed:	1/2/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**300**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Toni McKnight, EIT
Printed

Review

Greg Crabtree, P E
Printed

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info@envirotech-inc.com

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	G5	Date Reported:	2/18/2014
Sample ID:	Excavation G South Wall	Date Sampled:	1/2/2014
Sample Matrix:	Soil	Date Analyzed:	1/2/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**588**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Toni McKnight
Analyst

Toni McKnight, EIT
Printed

Review

Greg Crabtree, P E
Printed

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	H1	Date Reported:	2/18/2014
Sample ID:	Excavation H Wall Comp	Date Sampled:	1/2/2014
Sample Matrix:	Soil	Date Analyzed:	1/2/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**252**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Toni McKnight
Analyst

Toni McKnight, EIT
Printed

Review

Greg Crabtree, P E
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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	H2	Date Reported:	2/18/2014
Sample ID:	Excavation H Bottom	Date Sampled:	1/2/2014
Sample Matrix:	Soil	Date Analyzed:	1/2/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**576**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Toni McKnight
Analyst

Toni McKnight, EIT
Printed

Review

Greg Crabtree, P E
Printed

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CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 2-Jan-14

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	
	200	215
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Toni McKnight

Analyst

2/18/2014

Date

Toni McKnight, EIT

Print Name

Review

2/18/2014

Date

Greg Crabtree, P E

Print Name

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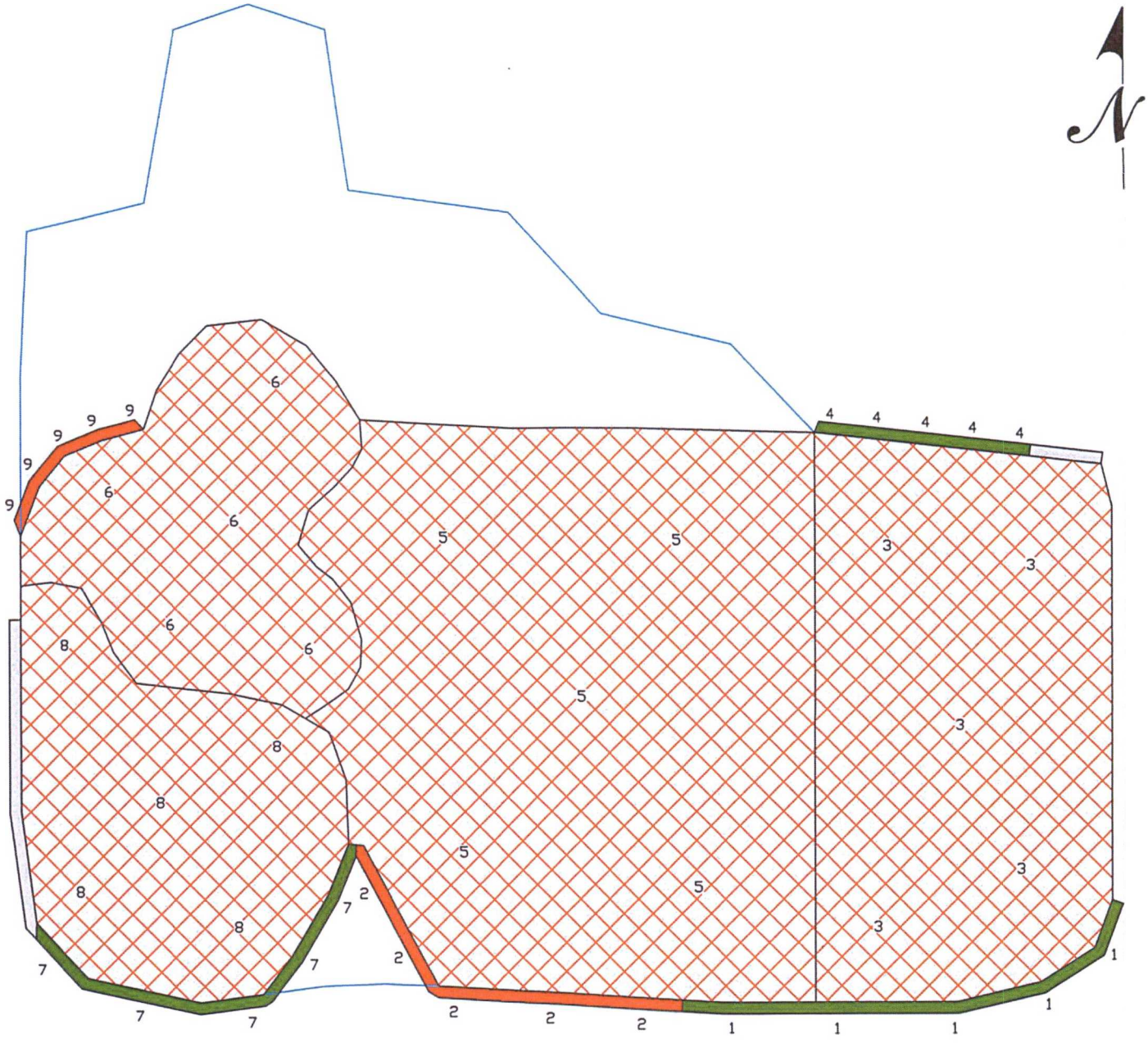
APPENDIX C:

JANUARY 7, 2014

FIGURE 5 - SITE MAP

ANALYTICAL RESULTS



LEGEND

- Areas Below Regulatory Standards
- Areas Above Regulatory Standards
- Perimeter of Final Excavation
- Areas Which Previously Met Regulatory Standards

SITE MAP – 1/7/2014

ConocoPhillips

McGrath #4 SWD (hBr)

SECTION 34, TWP 30 NORTH, RANGE 12 WEST

SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 5	REV
PROJECT NO92115-2540		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	TLM	3/21/14	BASE DRWN	TLM	2/25/13

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5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	1	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/7/2014
Sample Matrix:	Soil	Date Analyzed:	1/7/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**1,180**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	2	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/7/2014
Sample Matrix:	Soil	Date Analyzed:	1/7/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**2,170**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	3	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/7/2014
Sample Matrix:	Soil	Date Analyzed:	1/7/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**2,250**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	4	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/7/2014
Sample Matrix:	Soil	Date Analyzed:	1/7/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**136**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	5	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/7/2014
Sample Matrix:	Soil	Date Analyzed:	1/7/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**2,570**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	6	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/7/2014
Sample Matrix:	Soil	Date Analyzed:	1/7/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**4,060**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	7	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/7/2014
Sample Matrix:	Soil	Date Analyzed:	1/7/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**128**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	8	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/7/2014
Sample Matrix:	Soil	Date Analyzed:	1/7/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**2,100**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	9	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/7/2014
Sample Matrix:	Soil	Date Analyzed:	1/7/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**3,170**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 7-Jan-14

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	
	200	212
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Analyst for — Date: 2/17/2014

Tiffany McIntosh
Print Name

Review — Date: 2/17/2014

Toni McKnight, EIT
Print Name

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Analytical Laboratory

Analytical Report

Report Summary

Client: ConocoPhillips

Chain Of Custody Number: 16285

Samples Received: 1/7/2014 1:55:00PM

Job Number: 92115-2540

Work Order: P401011

Project Name/Location: McGrath #4 SWD

Entire Report Reviewed By: _____ Date: 1/8/14

Tim Cain, Laboratory Manager

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	08-Jan-14 13:52

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
1	P401011-01A	Soil	01/07/14	01/07/14	Glass Jar, 4 oz.

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	08-Jan-14 13:52

1

P401011-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1402012	01/07/14	01/08/14	EPA 8015D	
Diesel Range Organics (C10-C28)	**162**	30.0	mg/kg	1	1402011	01/07/14	01/08/14	EPA 8015D	
GRO and DRO Combined Fractions	**162**	5.00	mg/kg		[CALC]	01/07/14	01/08/14	EPA 8015D	

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	08-Jan-14 13:52

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1402011 - DRO Extraction EPA 3550C										
Blank (1402011-BLK1)				Prepared: 07-Jan-14 Analyzed: 08-Jan-14						
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg							
Duplicate (1402011-DUP1)		Source: P401011-01		Prepared: 07-Jan-14 Analyzed: 08-Jan-14						
Diesel Range Organics (C10-C28)	158	29.9	mg/kg		162			2.39	30	
Matrix Spike (1402011-MS1)		Source: P401011-01		Prepared: 07-Jan-14 Analyzed: 08-Jan-14						
Diesel Range Organics (C10-C28)	402	31.6	mg/kg	263	162	91.3	75-125			

envirotech
Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	08-Jan-14 13:52

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1402012 - Purge and Trap EPA 5030A										
Blank (1402012-BLK1)				Prepared: 07-Jan-14 Analyzed: 08-Jan-14						
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg							
Duplicate (1402012-DUP1)		Source: P401010-01		Prepared: 07-Jan-14 Analyzed: 08-Jan-14						
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg		ND				30	
Matrix Spike (1402012-MS1)		Source: P401010-01		Prepared: 07-Jan-14 Analyzed: 08-Jan-14						
Gasoline Range Organics (C6-C10)	0.41		mg/L	0.450	0.03	85.3	75-125			

envirotech
Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	08-Jan-14 13:52

Notes and Definitions

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

RUSH

CHAIN OF CUSTODY RECORD

16285

Client: ConocoPhillips	Project Name / Location: McGrath #4 SWD
Email results to: T. McIntosh	Sampler Name: T. McIntosh
Client Phone No.:	Client No.: 92115-2540

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative HNO_3	Preservative HCl	Preservative Cool	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
1	1/7/14	11:07	401011-01	1-4oz jar			X	X													X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Tiffany McIntosh	1/7/14	1355	Miriam Joe	1/7/14	13:55
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix
Soil ☑ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____

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

envirotech
Analytical Laboratory

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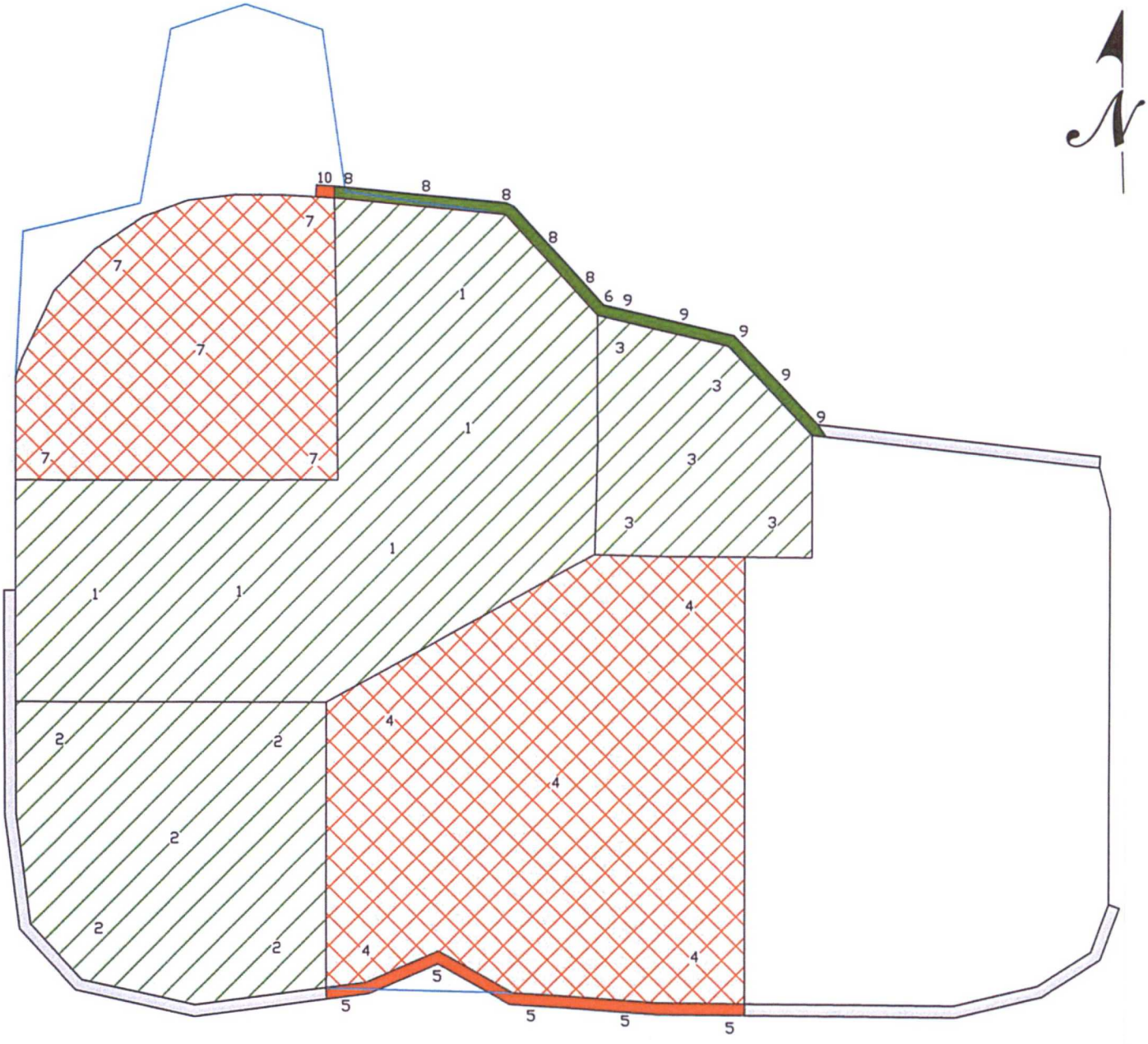
APPENDIX D:

JANUARY 10, 2014

FIGURE 6 - SITE MAP

ANALYTICAL RESULTS



LEGEND

- Areas Below Regulatory Standards
- Areas Above Regulatory Standards
- Perimeter of Final Excavation
- Areas Which Previously Met Regulatory Standards

SITE MAP – 1/10/2014

ConocoPhillips

McGrath #4 SWD (hBr)

SECTION 34, TWP 30 NORTH, RANGE 12 WEST

SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 6	REV
PROJECT NO92115-2540		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	TLM	3/20/14	BASE DRWN	TLM	2/25/13

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	1	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/10/2014
Sample Matrix:	Soil	Date Analyzed:	1/10/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**32**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	2	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/10/2014
Sample Matrix:	Soil	Date Analyzed:	1/10/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**1,060**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
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Review

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	3	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/10/2014
Sample Matrix:	Soil	Date Analyzed:	1/10/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**32**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	6	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/10/2014
Sample Matrix:	Soil	Date Analyzed:	1/10/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**432**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	8	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/10/2014
Sample Matrix:	Soil	Date Analyzed:	1/10/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**120**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

for

Analyst

Tiffany McIntosh

Printed

Review

Toni McKnight, EIT

Printed

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	9	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/10/2014
Sample Matrix:	Soil	Date Analyzed:	1/10/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**196**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 10-Jan-14

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	
	200	185
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Analyst — Date: 2/17/2014

Tiffany McIntosh
Print Name

Review — Date: 2/17/2014

Toni McKnight, EIT
Print Name

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Analytical Report

Report Summary

Client: ConocoPhillips

Chain Of Custody Number: 16490

Samples Received: 1/10/2014 2:15:00PM

Job Number: 92115-2540

Work Order: P401025

Project Name/Location: McGrath #4 SWD

Entire Report Reviewed By: _____ Date: 1/14/14

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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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	14-Jan-14 13:37

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
2	P401025-01A	Soil	01/10/14	01/10/14	Glass Jar, 4 oz.

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ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	14-Jan-14 13:37

2

P401025-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1402032	01/10/14	01/13/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1402032	01/10/14	01/13/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1402032	01/10/14	01/13/14	EPA 8021B	
p,m-Xylene	**2.52**	0.05	mg/kg	1	1402032	01/10/14	01/13/14	EPA 8021B	
o-Xylene	**0.13**	0.05	mg/kg	1	1402032	01/10/14	01/13/14	EPA 8021B	
Total Xylenes	**2.65**	0.05	mg/kg	1	1402032	01/10/14	01/13/14	EPA 8021B	
Total BTEX	**2.65**	0.05	mg/kg	1	1402032	01/10/14	01/13/14	EPA 8021B	
Surrogate: Bromochlorobenzene		*130 %*		*80-120*	*1402032*	*01/10/14*	*01/13/14*	*EPA 8021B*	*Surr1*
Surrogate: 1,3-Dichlorobenzene		*112 %*		*80-120*	*1402032*	*01/10/14*	*01/13/14*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**39.5**	4.99	mg/kg	1	1402032	01/10/14	01/13/14	EPA 8015D	
Diesel Range Organics (C10-C28)	**152**	29.9	mg/kg	1	1402031	01/10/14	01/13/14	EPA 8015D	
GRO and DRO Combined Fractions	**191**	4.99	mg/kg		[CALC]	01/10/14	01/13/14	EPA 8015D	

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	14-Jan-14 13:37

Notes and Definitions

Surr1	Surrogate recovery was above acceptable 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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ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	14-Jan-14 13:37

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1402031 - DRO Extraction EPA 3550C										
Blank (1402031-BLK1)				Prepared: 10-Jan-14 Analyzed: 13-Jan-14						
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg							
Duplicate (1402031-DUP1)	Source: P401023-01			Prepared: 10-Jan-14 Analyzed: 13-Jan-14						
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg		ND				30	
Matrix Spike (1402031-MS1)	Source: P401023-01			Prepared: 10-Jan-14 Analyzed: 13-Jan-14						
Diesel Range Organics (C10-C28)	266	31.6	mg/kg	263	ND	101	75-125			

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	14-Jan-14 13:37

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1402032 - Purge and Trap EPA 5030A										
Blank (1402032-BLK1)				Prepared: 10-Jan-14 Analyzed: 13-Jan-14						
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg							
Duplicate (1402032-DUP1)		Source: P401023-01		Prepared: 10-Jan-14 Analyzed: 13-Jan-14						
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg		ND				30	
Matrix Spike (1402032-MS1)		Source: P401023-01		Prepared: 10-Jan-14 Analyzed: 13-Jan-14						
Gasoline Range Organics (C6-C10)	0.44		mg/L	0.450	0.01	95.3	75-125			

RUSH!

CHAIN OF CUSTODY RECORD

16490

Client:	Project Name / Location:
Conoco Phillips (hBr)	McGrath #4 SWD
Email results to:	**Sampler Name:**
T. McIntosh	T. McIntosh
Client Phone No.:	**Client No.:**
	92115-2540

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
					HNO_3	HCl	cool															
2	1/10/14	1415		1-4oz jar			X	X	X												✓	✓

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Tiffany McIntosh	1/10/14	1415	Rene Brazzi	1/10/14	1415
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix

Soil ☑ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____

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

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APPENDIX E:

JANUARY 14, 2014

FIGURE 7 - SITE MAP

ANALYTICAL RESULTS

LEGEND

Areas Below Regulatory Standards

Areas Above Regulatory Standards

Areas Which Previously Met Regulatory Standards

SITE MAP – 1/14/2014
ConocoPhillips
McGrath #4 SWD (hBr)
SECTION 34, TWP 30 NORTH, RANGE 12 WEST
SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 7	REV
PROJECT NO92115-2540		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	TLM	3/20/14	BASE DRWN	TLM	2/25/13

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	2	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/14/2014
Sample Matrix:	Soil	Date Analyzed:	1/14/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**1,710**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Tiffany McIntosh
Analyst

Tiffany McIntosh
Printed

Toni McKnight
Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	3	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/14/2014
Sample Matrix:	Soil	Date Analyzed:	1/14/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**2,600**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	4	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/14/2014
Sample Matrix:	Soil	Date Analyzed:	1/14/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**212**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

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Review

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	5	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/14/2014
Sample Matrix:	Soil	Date Analyzed:	1/14/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**144**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	6	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/14/2014
Sample Matrix:	Soil	Date Analyzed:	1/14/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**236**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	7	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/14/2014
Sample Matrix:	Soil	Date Analyzed:	1/14/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**3,720**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

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Review

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	8	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/14/2014
Sample Matrix:	Soil	Date Analyzed:	1/14/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**240**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
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info@envirotech-inc.com

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	9	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/14/2014
Sample Matrix:	Soil	Date Analyzed:	1/14/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**164**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	10	Date Reported:	2/17/2014
Sample ID:	Excavation D-F	Date Sampled:	1/14/2014
Sample Matrix:	Soil	Date Analyzed:	1/14/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**164**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 14-Jan-14

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	
	200	193
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Analyst

2/17/2014
Date

Tiffany McIntosh
Print Name

Review

2/17/2014
Date

Toni McKnight, EIT
Print Name

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Analytical Report

Report Summary

Client: ConocoPhillips

Chain Of Custody Number: 16294

Samples Received: 1/14/2014 4:55:00PM

Job Number: 92115-2540

Work Order: P401031

Project Name/Location: McGrath #4 SWD

Entire Report Reviewed By: _____ Date: 1/16/14

Tim Cain, Laboratory Manager

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	16-Jan-14 11:05

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
1	P401031-01A	Soil	01/14/14	01/14/14	Glass Jar, 4 oz.
2	P401031-02A	Soil	01/14/14	01/14/14	Glass Jar, 4 oz.
3	P401031-03A	Soil	01/14/14	01/14/14	Glass Jar, 4 oz.
7	P401031-04A	Soil	01/14/14	01/14/14	Glass Jar, 4 oz.

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ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	16-Jan-14 11:05

1

P401031-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Toluene	**0.32**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Ethylbenzene	**1.80**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
p,m-Xylene	**6.28**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
o-Xylene	**0.42**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Total Xylenes	**6.69**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Total BTEX	**8.81**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Surrogate: Bromochlorobenzene		*171 %*		*80-120*	*1403011*	*01/15/14*	*01/15/14*	*EPA 8021B*	*S-02*
Surrogate: 1,3-Dichlorobenzene		*119 %*		*80-120*	*1403011*	*01/15/14*	*01/15/14*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**156**	5.00	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8015D	
Diesel Range Organics (C10-C28)	**1200**	29.9	mg/kg	1	1403012	01/15/14	01/15/14	EPA 8015D	

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	16-Jan-14 11:05

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P401031-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
p,m-Xylene	**1.55**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
o-Xylene	**0.45**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Total Xylenes	**2.00**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Total BTEX	**2.00**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Surrogate: Bromochlorobenzene		*126 %*		*80-120*	*1403011*	*01/15/14*	*01/15/14*	*EPA 8021B*	*S-02*
Surrogate: 1,3-Dichlorobenzene		*116 %*		*80-120*	*1403011*	*01/15/14*	*01/15/14*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**50.3**	5.00	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8015D	
Diesel Range Organics (C10-C28)	**615**	30.0	mg/kg	1	1403012	01/15/14	01/15/14	EPA 8015D	

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ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	16-Jan-14 11:05

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P401031-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Ethylbenzene	**0.91**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
p,m-Xylene	**20.9**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
o-Xylene	**2.11**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Total Xylenes	**23.0**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Total BTEX	**23.9**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Surrogate: Bromochlorobenzene		*145 %*		*80-120*	*1403011*	*01/15/14*	*01/15/14*	*EPA 8021B*	*S-02*
Surrogate: 1,3-Dichlorobenzene		*147 %*		*80-120*	*1403011*	*01/15/14*	*01/15/14*	*EPA 8021B*	*S-02*
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**179**	5.00	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8015D	
Diesel Range Organics (C10-C28)	**813**	29.9	mg/kg	1	1403012	01/15/14	01/15/14	EPA 8015D	

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	16-Jan-14 11:05

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P401031-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Ethylbenzene	**2.17**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
p,m-Xylene	**25.0**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
o-Xylene	**1.94**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Total Xylenes	**27.0**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Total BTEX	**29.1**	0.05	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8021B	
Surrogate: Bromochlorobenzene		*151 %*		*80-120*	*1403011*	*01/15/14*	*01/15/14*	*EPA 8021B*	*S-02*
Surrogate: 1,3-Dichlorobenzene		*154 %*		*80-120*	*1403011*	*01/15/14*	*01/15/14*	*EPA 8021B*	*S-02*
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**180**	4.99	mg/kg	1	1403011	01/15/14	01/15/14	EPA 8015D	
Diesel Range Organics (C10-C28)	**1300**	29.9	mg/kg	1	1403012	01/15/14	01/15/14	EPA 8015D	

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	16-Jan-14 11:05

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1403011 - Purge and Trap EPA 5030A										
Blank (1403011-BLK1)				Prepared & Analyzed: 15-Jan-14						
Benzene	ND	0.001	mg/kg							
Toluene	ND	0.001	"							
Ethylbenzene	ND	0.001	"							
p,m-Xylene	ND	0.001	"							
o-Xylene	ND	0.001	"							
Total Xylenes	ND	0.001	"							
Total BTEX	ND	0.001	"							
Surrogate: 1,3-Dichlorobenzene	*49.1*		*ug/L*	*50.0*		*98.2*	*80-120*			
Surrogate: Bromochlorobenzene	*50.4*		*"*	*50.0*		*101*	*80-120*			
Duplicate (1403011-DUP1)	**Source: P401031-01**			Prepared & Analyzed: 15-Jan-14						
Benzene	ND	0.05	mg/kg		ND				30	
Toluene	0.23	0.05	"		0.32			33.8	30	D1
Ethylbenzene	1.72	0.05	"		1.80			4.25	30	
p,m-Xylene	7.25	0.05	"		6.28			14.4	30	
o-Xylene	0.35	0.05	"		0.42			16.4	30	
Surrogate: 1,3-Dichlorobenzene	*65.4*		*ug/L*	*50.0*		*131*	*80-120*			*S-02*
Surrogate: Bromochlorobenzene	*95.3*		*"*	*50.0*		*191*	*80-120*			*S-02*
Matrix Spike (1403011-MS1)	**Source: P401031-01**			Prepared & Analyzed: 15-Jan-14						
Benzene	52.6		ug/L	50.0	ND	105	39-150			
Toluene	67.0		"	50.0	6.43	121	46-148			
Ethylbenzene	106		"	50.0	35.9	141	32-160			
p,m-Xylene	253		"	100	126	128	46-148			
o-Xylene	69.4		"	50.0	8.32	122	46-148			
Surrogate: 1,3-Dichlorobenzene	*56.9*		*"*	*50.0*		*114*	*80-120*			
Surrogate: Bromochlorobenzene	*93.7*		*"*	*50.0*		*187*	*80-120*			*S-02*

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	16-Jan-14 11:05

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1403011 - Purge and Trap EPA 5030A										
Blank (1403011-BLK1)				Prepared & Analyzed: 15-Jan-14						
Gasoline Range Organics (C6-C10)	ND	0.10	mg/kg							
Duplicate (1403011-DUP1)		**Source: P401031-01**		Prepared & Analyzed: 15-Jan-14						
Gasoline Range Organics (C6-C10)	174	4.99	mg/kg		156			10.7	30	
Matrix Spike (1403011-MS1)		**Source: P401031-01**		Prepared & Analyzed: 15-Jan-14						
Gasoline Range Organics (C6-C10)	3.82		mg/L	0.450	3.13	154	75-125			SPK1

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	16-Jan-14 11:05

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1403012 - DRO Extraction EPA 3550C										
Blank (1403012-BLK1)				Prepared & Analyzed: 15-Jan-14						
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg							
Duplicate (1403012-DUP1)		Source: P401031-01		Prepared & Analyzed: 15-Jan-14						
Diesel Range Organics (C10-C28)	1010	29.9	mg/kg		1200			17.1	30	
Matrix Spike (1403012-MS1)		Source: P401031-01		Prepared & Analyzed: 15-Jan-14						
Diesel Range Organics (C10-C28)	1630	31.6	mg/kg	263	1200	163	75-125			SPK1

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	16-Jan-14 11:05

Notes and Definitions

SPK1	The spike recovery for this QC sample is outside of control limits.
S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
D1	Duplicates or Matrix Spike Duplicates Relative Percent Difference exceeds 30%.
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

RUSH!!!

CHAIN OF CUSTODY RECORD

16294

Client: ConocoPhillips (hBr)	Project Name / Location: McGrath #4 SWD
Email results to: T. McIntosh	Sampler Name: T. McIntosh
Client Phone No.: 505-608-1387	Client No.: 92115-2540

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative HNO3	Preservative HCl	Preservative Cool	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
1	1/14/14	1434	P401031-01	1-4oz jar			X	X	X												✓	✓
2	"	1436	P401031-02	"			"	"	"												✓	✓
3	"	1439	P401031-03	"			"	"	"												✓	✓
7	"	1448	P401031-04	"			"	"	"												✓	✓

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Tiffany McIntosh	1/14/14	16:50	[signature]	1/14/14	16:55
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix
Soil ☑ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____

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

ASAP RUSH!!!

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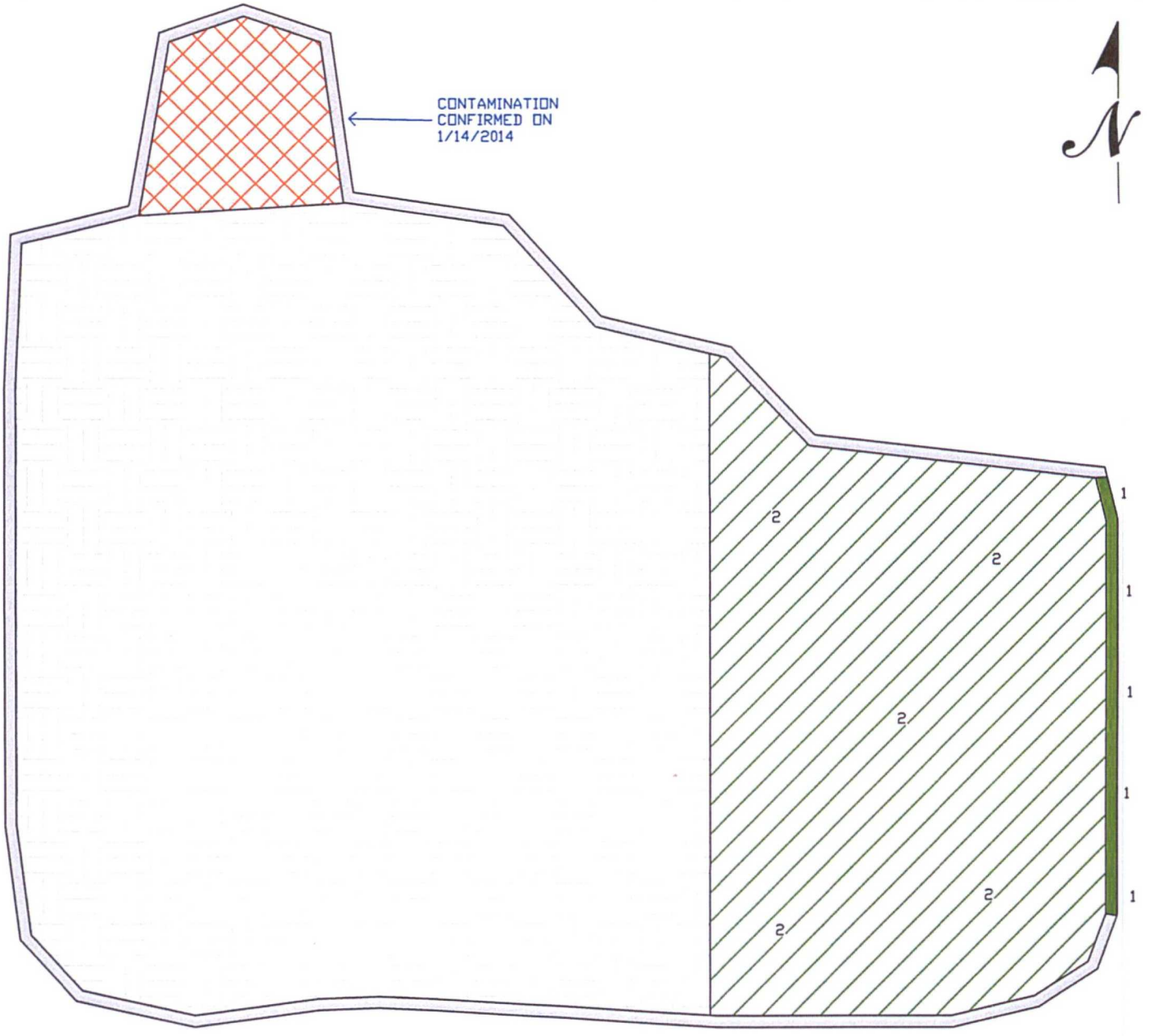
APPENDIX F:

JANUARY 16, 2014

FIGURE 8 - SITE MAP

ANALYTICAL RESULTS



LEGEND

Areas Below Regulatory Standards

Areas Above Regulatory Standards

Areas Which Previously Met Regulatory Standards

SITE MAP – 1/16/2014

ConocoPhillips

McGrath #4 SWD (hBr)

SECTION 34, TWP 30 NORTH, RANGE 12 WEST

SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 8	REV
PROJECT NO92115-2540		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	TLM	3/21/14	BASE DRWN	TLM	2/25/13

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	1	Date Reported:	2/17/2014
Sample ID:	East Wall 12' BGS	Date Sampled:	1/16/2014
Sample Matrix:	Soil	Date Analyzed:	1/16/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**36**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Isaac Garcia
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	2	Date Reported:	2/17/2014
Sample ID:	Ramp Area	Date Sampled:	1/16/2014
Sample Matrix:	Soil	Date Analyzed:	1/16/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**2,430**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Isaac Garcia
Printed

Review

Toni McKnight, EIT
Printed

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CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 16-Jan-14

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	
	200	194
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Analyst — Date: 2/17/2014

Isaac Garcia
Print Name

Review — Date: 2/17/2014

Toni McKnight, EIT
Print Name

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Analytical Laboratory

Analytical Report

Report Summary

Client: ConocoPhillips

Chain Of Custody Number: 16516

Samples Received: 1/16/2014 2:49:00PM

Job Number: 92115-2540

Work Order: P401039

Project Name/Location: McGrath #4 SWD

Entire Report Reviewed By: _____ Date: 1/20/14

Tim Cain, Laboratory Manager

Supplement to analytical report generated on: 1/17/14 2:21 pm

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ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Isaac Garcia	20-Jan-14 09:45

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Ramp Area	P401039-01A	Soil	01/16/14	01/16/14	Glass Jar, 4 oz.

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ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Isaac Garcia	20-Jan-14 09:45

Ramp Area

P401039-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1403020	01/16/14	01/16/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1403020	01/16/14	01/16/14	EPA 8021B	
Ethylbenzene	**0.14**	0.05	mg/kg	1	1403020	01/16/14	01/16/14	EPA 8021B	
p,m-Xylene	**2.40**	0.05	mg/kg	1	1403020	01/16/14	01/16/14	EPA 8021B	
o-Xylene	**0.09**	0.05	mg/kg	1	1403020	01/16/14	01/16/14	EPA 8021B	
Total Xylenes	**2.49**	0.05	mg/kg	1	1403020	01/16/14	01/16/14	EPA 8021B	
Total BTEX	**2.63**	0.05	mg/kg	1	1403020	01/16/14	01/16/14	EPA 8021B	
Surrogate: Bromochlorobenzene		*105 %*		*80-120*	*1403020*	*01/16/14*	*01/16/14*	*EPA 8021B*	
Surrogate: 1,3-Dichlorobenzene		*103 %*		*80-120*	*1403020*	*01/16/14*	*01/16/14*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**56.6**	4.99	mg/kg	1	1403020	01/16/14	01/16/14	EPA 8015D	
Diesel Range Organics (C10-C28)	**932**	29.9	mg/kg	1	1403021	01/16/14	01/17/14	EPA 8015D	

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Isaac Garcia	20-Jan-14 09:45

Volatile Organics by EPA 8021 - Quality Control

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1403020 - Purge and Trap EPA 5030A										
Blank (1403020-BLK1)				Prepared: 16-Jan-14 Analyzed: 17-Jan-14						
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	*49.6*		*ug/L*	*50.0*		*99.2*	*80-120*			
Surrogate: Bromochlorobenzene	*52.3*		*"*	*50.0*		*105*	*80-120*			
Duplicate (1403020-DUP1)		**Source: P401035-01**		Prepared: 16-Jan-14 Analyzed: 17-Jan-14						
Benzene	ND	0.05	mg/kg		ND				30	
Toluene	ND	0.05	"		ND				30	
Ethylbenzene	ND	0.05	"		ND				30	
p,m-Xylene	ND	0.05	"		ND				30	
o-Xylene	ND	0.05	"		ND				30	
Surrogate: 1,3-Dichlorobenzene	*48.3*		*ug/L*	*50.0*		*96.5*	*80-120*			
Surrogate: Bromochlorobenzene	*50.8*		*"*	*50.0*		*102*	*80-120*			
Matrix Spike (1403020-MS1)		**Source: P401035-01**		Prepared: 16-Jan-14 Analyzed: 17-Jan-14						
Benzene	48.5		ug/L	50.0	ND	97.1	39-150			
Toluene	48.9		"	50.0	ND	97.7	46-148			
Ethylbenzene	48.6		"	50.0	ND	97.1	32-160			
p,m-Xylene	97.6		"	100	ND	97.6	46-148			
o-Xylene	49.8		"	50.0	ND	99.7	46-148			
Surrogate: 1,3-Dichlorobenzene	*48.4*		*"*	*50.0*		*96.8*	*80-120*			
Surrogate: Bromochlorobenzene	*50.6*		*"*	*50.0*		*101*	*80-120*			

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ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Isaac Garcia	20-Jan-14 09:45

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1403020 - Purge and Trap EPA 5030A										
Blank (1403020-BLK1)				Prepared: 16-Jan-14 Analyzed: 17-Jan-14						
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg							
Duplicate (1403020-DUP1)		Source: P401035-01		Prepared: 16-Jan-14 Analyzed: 17-Jan-14						
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg		ND				30	
Matrix Spike (1403020-MS1)		Source: P401035-01		Prepared: 16-Jan-14 Analyzed: 17-Jan-14						
Gasoline Range Organics (C6-C10)	0.47		mg/L	0.450	ND	104	75-125			

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ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Isaac Garcia	20-Jan-14 09:45

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1403021 - DRO Extraction EPA 3550C										
Blank (1403021-BLK1)				Prepared: 16-Jan-14 Analyzed: 17-Jan-14						
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg							
Duplicate (1403021-DUP1)		Source: P401035-01		Prepared: 16-Jan-14 Analyzed: 17-Jan-14						
Diesel Range Organics (C10-C28)	145	30.0	mg/kg		158			8.78	30	
Matrix Spike (1403021-MS1)		Source: P401035-01		Prepared: 16-Jan-14 Analyzed: 17-Jan-14						
Diesel Range Organics (C10-C28)	414	31.6	mg/kg	263	158	97.1	75-125			

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ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Isaac Garcia	20-Jan-14 09:45

Notes and Definitions

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

Rush

CHAIN OF CUSTODY RECORD

16516

Client:	Project Name / Location:
Conoco Phillips	McGrath #4 SWD
Email results to:	**Sampler Name:**
Isaac	R. García
Client Phone No.:	**Client No.:**
	92115 - 2540

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
					HNO_3	HCl	Cool															
Ramp Area	11/6/14	9:20	P401039-01	1-4oz				X	X												Y	Y

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	11/6/14	14:47		11/6/14	14:47
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix

Soil ☒ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____

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

17.2°C

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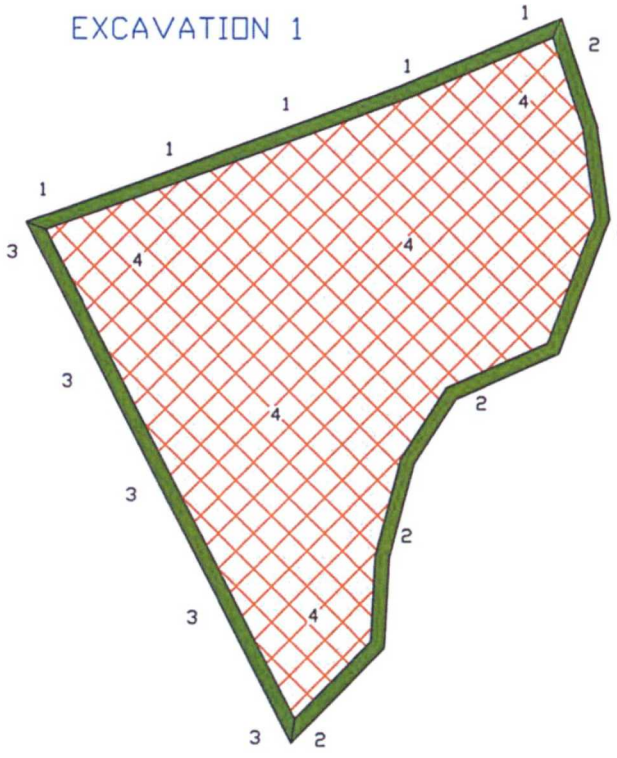
APPENDIX G:

JANUARY 22, 2014

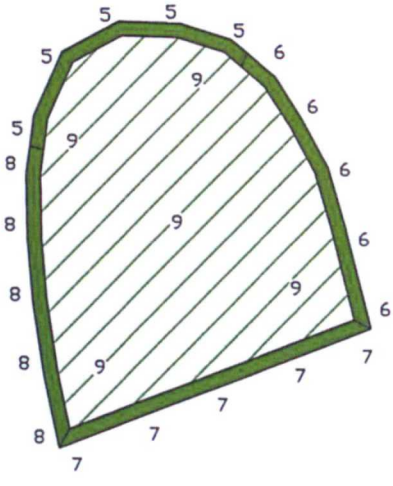
FIGURE 9 - SITE MAP

ANALYTICAL RESULTS

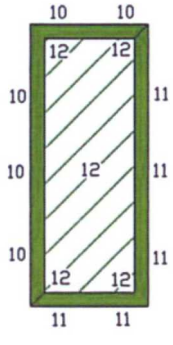
EXCAVATION 1



EXCAVATION 2



EXCAVATION 3



LEGEND

Areas Below Regulatory Standards

Areas Above Regulatory Standards

SITE MAP – 1/22/2014

ConocoPhillips

McGrath #4 SWD (hBr)

SECTION 34, TWP 30 NORTH, RANGE 12 WEST

SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 9	REV
PROJECT NO92115-2540		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	TLM	3/21/14	BASE DRWN	TLM	2/25/13

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	1	Date Reported:	2/17/2014
Sample ID:	Excavation 1 North Wall	Date Sampled:	1/22/2014
Sample Matrix:	Soil	Date Analyzed:	1/22/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**92**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

for

Analyst

Tiffany McIntosh

Printed

Review

Toni McKnight, EIT

Printed

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	2	Date Reported:	2/17/2014
Sample ID:	Excavation 1 East Wall	Date Sampled:	1/22/2014
Sample Matrix:	Soil	Date Analyzed:	1/22/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**40**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	3	Date Reported:	2/17/2014
Sample ID:	Excavation 1 West Wall	Date Sampled:	1/22/2014
Sample Matrix:	Soil	Date Analyzed:	1/22/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**40**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	4	Date Reported:	2/17/2014
Sample ID:	Excavation 1 Bottom	Date Sampled:	1/22/2014
Sample Matrix:	Soil	Date Analyzed:	1/22/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**6,220**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	5	Date Reported:	2/17/2014
Sample ID:	Excavation 2 North Wall	Date Sampled:	1/22/2014
Sample Matrix:	Soil	Date Analyzed:	1/22/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**96**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	6	Date Reported:	2/17/2014
Sample ID:	Excavation 2 East Wall	Date Sampled:	1/22/2014
Sample Matrix:	Soil	Date Analyzed:	1/22/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**32**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	7	Date Reported:	2/17/2014
Sample ID:	Excavation 2 South Wall	Date Sampled:	1/22/2014
Sample Matrix:	Soil	Date Analyzed:	1/22/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**36**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
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Review

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	8	Date Reported:	2/17/2014
Sample ID:	Excavation 2 West Wall	Date Sampled:	1/22/2014
Sample Matrix:	Soil	Date Analyzed:	1/22/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**36**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

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Printed

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	9	Date Reported:	2/17/2014
Sample ID:	Excavation 2 Bottom	Date Sampled:	1/22/2014
Sample Matrix:	Soil	Date Analyzed:	1/22/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**40**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Tiffany McIntosh
Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	10	Date Reported:	2/17/2014
Sample ID:	Excavation 3 N & W Walls	Date Sampled:	1/22/2014
Sample Matrix:	Soil	Date Analyzed:	1/22/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**48**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	11	Date Reported:	2/17/2014
Sample ID:	Excavation 3 S & E Walls	Date Sampled:	1/22/2014
Sample Matrix:	Soil	Date Analyzed:	1/22/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**60**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	12	Date Reported:	2/17/2014
Sample ID:	Excavation 3 Bottom	Date Sampled:	1/22/2014
Sample Matrix:	Soil	Date Analyzed:	1/22/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**36**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 22-Jan-14

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	
	200	200
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

for

Analyst

2/17/2014

Date

Tiffany McIntosh

Print Name

Review

2/17/2014

Date

Toni McKnight, EIT

Print Name

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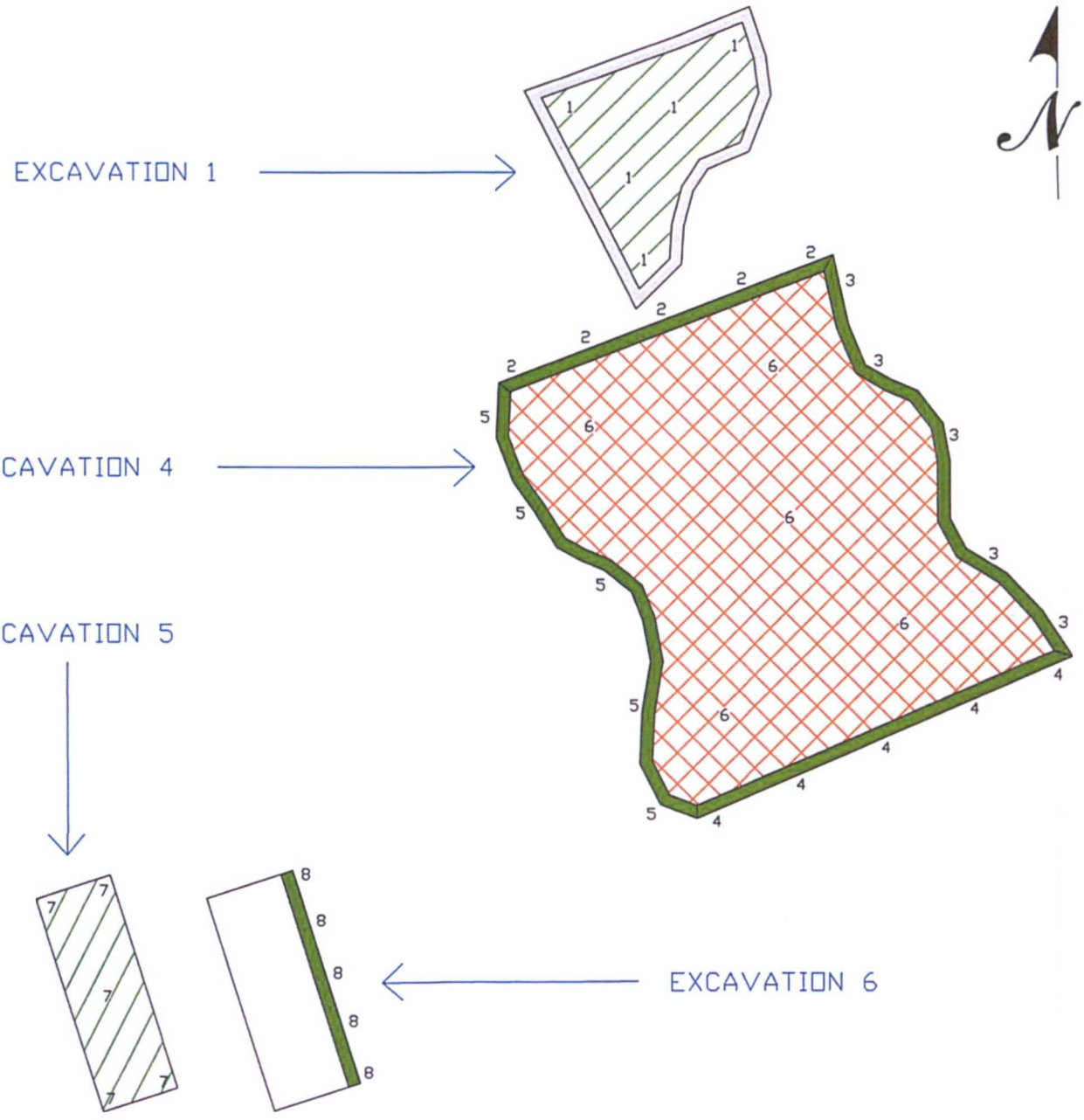
APPENDIX H:

JANUARY 24, 2014

FIGURE 10 - SITE MAP

ANALYTICAL RESULTS



LEGEND

Areas Below Regulatory Standards

Areas Above Regulatory Standards

Areas Which Previously Met Regulatory Standards

SITE MAP – 1/24/2014
ConocoPhillips
McGrath #4 SWD (hBr)
SECTION 34, TWP 30 NORTH, RANGE 12 WEST
SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 10	REV
PROJECT NO92115-2540		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	TLM	3/21/14	BASE DRWN	TLM	2/25/13

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	1	Date Reported:	2/17/2014
Sample ID:	Excavation 1 Bottom	Date Sampled:	1/24/2014
Sample Matrix:	Soil	Date Analyzed:	1/24/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**120**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	2	Date Reported:	2/17/2014
Sample ID:	Excavation 4 North Wall	Date Sampled:	1/24/2014
Sample Matrix:	Soil	Date Analyzed:	1/24/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**ND**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	3	Date Reported:	2/17/2014
Sample ID:	Excavation 4 East Wall	Date Sampled:	1/24/2014
Sample Matrix:	Soil	Date Analyzed:	1/24/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**20**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	4	Date Reported:	2/17/2014
Sample ID:	Excavation 4 South Wall	Date Sampled:	1/24/2014
Sample Matrix:	Soil	Date Analyzed:	1/24/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**680**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	5	Date Reported:	2/17/2014
Sample ID:	Excavation 4 West Wall	Date Sampled:	1/24/2014
Sample Matrix:	Soil	Date Analyzed:	1/24/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**56**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	6	Date Reported:	2/17/2014
Sample ID:	Excavation 4 Bottom	Date Sampled:	1/24/2014
Sample Matrix:	Soil	Date Analyzed:	1/24/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**3,220**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	7	Date Reported:	2/17/2014
Sample ID:	Excavation 5 Bottom	Date Sampled:	1/24/2014
Sample Matrix:	Soil	Date Analyzed:	1/24/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**84**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	8	Date Reported:	2/17/2014
Sample ID:	Excavation 6 East Wall	Date Sampled:	1/24/2014
Sample Matrix:	Soil	Date Analyzed:	1/24/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**32**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

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CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 24-Jan-14

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	
	200	190
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Analyst

2/17/2014
Date

Tiffany McIntosh
Print Name

Review

2/17/2014
Date

Toni McKnight, EIT
Print Name

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Analytical Laboratory

Analytical Report

Report Summary

Client: ConocoPhillips

Chain Of Custody Number: 16493

Samples Received: 1/24/2014 1:52:00PM

Job Number: 92115-2540

Work Order: P401076

Project Name/Location: McGrath #4 SWD

Entire Report Reviewed By: _____ Date: 1/27/14

Tim Cain, Laboratory Manager

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	27-Jan-14 07:59

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Excavation 4 Bottom	P401076-01A	Soil	01/24/14	01/24/14	Glass Jar, 4 oz.

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	27-Jan-14 07:59

Excavation 4 Bottom

P401076-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
p,m-Xylene	**1.40**	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Total Xylenes	**1.40**	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Total BTEX	**1.40**	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Surrogate: Bromochlorobenzene		*106 %*		*80-120*	*1404027*	*01/24/14*	*01/24/14*	*EPA 8021B*	
Surrogate: 1,3-Dichlorobenzene		*103 %*		*80-120*	*1404027*	*01/24/14*	*01/24/14*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**13.4**	4.99	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8015D	
Diesel Range Organics (C10-C28)	**1900**	30.0	mg/kg	1	1404026	01/24/14	01/24/14	EPA 8015D	

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	27-Jan-14 07:59

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1404027 - Purge and Trap EPA 5030A										
Blank (1404027-BLK1)				Prepared: 23-Jan-14 Analyzed: 24-Jan-14						
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	*52.6*		*ug/L*	*50.0*		*105*	*80-120*			
Surrogate: Bromochlorobenzene	*54.5*		"	*50.0*		*109*	*80-120*			
Duplicate (1404027-DUP1)		**Source: P401066-01**		Prepared: 23-Jan-14 Analyzed: 24-Jan-14						
Benzene	4.84	0.05	mg/kg		4.19			14.5	30	
Toluene	12.4	0.05	"		12.7			2.09	30	
Ethylbenzene	0.81	0.05	"		0.78			3.59	30	
p,m-Xylene	7.34	0.05	"		7.47			1.79	30	
o-Xylene	1.11	0.05	"		1.11			0.436	30	
Surrogate: 1,3-Dichlorobenzene	*202*		*ug/L*	*50.0*		*404*	*80-120*			*S-02*
Surrogate: Bromochlorobenzene	*68.3*		"	*50.0*		*137*	*80-120*			*S-02*
Matrix Spike (1404027-MS1)		**Source: P401066-01**		Prepared: 23-Jan-14 Analyzed: 24-Jan-14						
Benzene	7.68	0.05	mg/kg	2.50	4.19	140	39-150			
Toluene	16.3	0.05	"	2.50	12.7	144	46-148			
Ethylbenzene	3.49	0.05	"	2.50	0.78	108	32-160			
p,m-Xylene	13.0	0.05	"	5.00	7.47	111	46-148			
o-Xylene	3.91	0.05	"	2.50	1.11	112	46-148			
Surrogate: 1,3-Dichlorobenzene	*221*		*ug/L*	*50.0*		*443*	*80-120*			*S-02*
Surrogate: Bromochlorobenzene	*72.1*		"	*50.0*		*144*	*80-120*			*S-02*

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	27-Jan-14 07:59

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1404026 - DRO Extraction EPA 3550C										
Blank (1404026-BLK1)				Prepared: 23-Jan-14 Analyzed: 24-Jan-14						
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg							
Duplicate (1404026-DUP1)		Source: P401066-01		Prepared: 23-Jan-14 Analyzed: 24-Jan-14						
Diesel Range Organics (C10-C28)	340	29.9	mg/kg		372			9.05	30	
Matrix Spike (1404026-MS1)		Source: P401066-01		Prepared: 23-Jan-14 Analyzed: 24-Jan-14						
Diesel Range Organics (C10-C28)	605	31.6	mg/kg	263	372	88.5	75-125			

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	27-Jan-14 07:59

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1404027 - Purge and Trap EPA 5030A										
Blank (1404027-BLK1)				Prepared: 23-Jan-14 Analyzed: 24-Jan-14						
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg							
Duplicate (1404027-DUP1)		Source: P401066-01		Prepared: 23-Jan-14 Analyzed: 24-Jan-14						
Gasoline Range Organics (C6-C10)	133	4.99	mg/kg		133			0.0246	30	
Matrix Spike (1404027-MS1)		Source: P401066-01		Prepared: 23-Jan-14 Analyzed: 24-Jan-14						
Gasoline Range Organics (C6-C10)	159	5.00	mg/kg	22.5	133	118	75-125			

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2540	**Reported:**
Bartlesville OK, 74005	Project Manager:	Tiffany McIntosh	27-Jan-14 07:59

Notes and Definitions

S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
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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RUSH

CHAIN OF CUSTODY RECORD

16493

Client: COPC (hBr)	Project Name / Location: McGrath #4 SWD
Email results to: T. McIntosh	Sampler Name: T. McIntosh
Client Phone No.:	Client No.: 92115-2540

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative HNO_3	Preservative HCl	Preservative COOL	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
Excavation 4 Bottom	1/24/14	1200	P401076-01	1-4oz jar			X	X	X												X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Tiffany McIntosh	1/24/14	1352	Meiangoe	1.24.14	13.52
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix

Soil ☑ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____

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

18.6°C

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Analytical Laboratory

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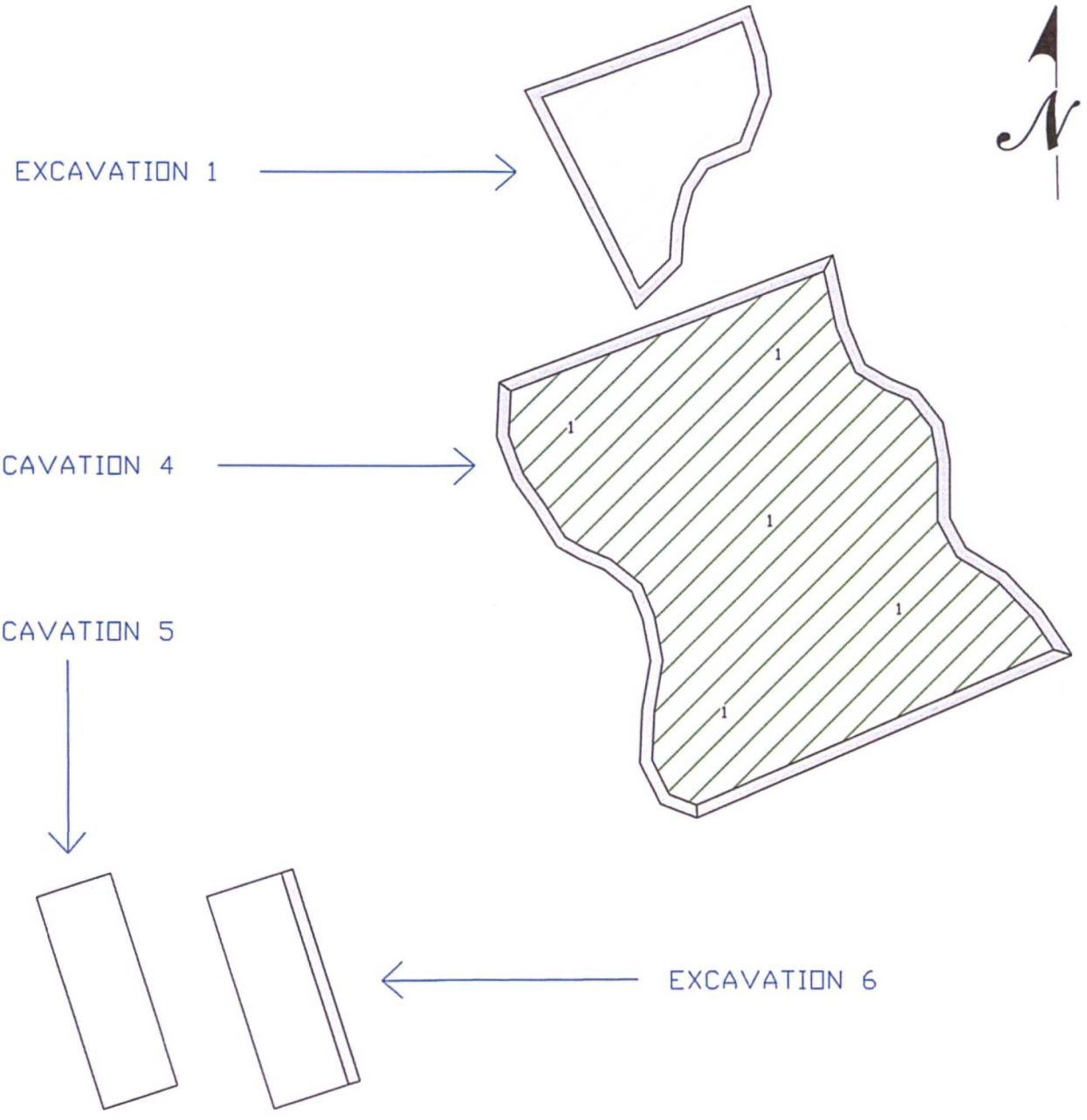
APPENDIX I:

JANUARY 28, 2014

FIGURE 11 - SITE MAP

ANALYTICAL RESULTS



LEGEND

Areas Below Regulatory Standards

Areas Above Regulatory Standards

Areas Which Previously Met Regulatory Standards

SITE MAP – 1/28/2014

ConocoPhillips

McGrath #4 SWD (hBr)

SECTION 34, TWP 30 NORTH, RANGE 12 WEST

SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 11	REV
PROJECT NO92115-2540		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	TLM	3/21/14	BASE DRWN	TLM	2/25/13

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5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615

envirotech

EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2540
Sample No.:	1	Date Reported:	2/17/2014
Sample ID:	Excavation 4 Bottom	Date Sampled:	1/28/2014
Sample Matrix:	Soil	Date Analyzed:	1/28/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**24**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **McGrath #4 SWD**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Tiffany McIntosh
Printed

Review

Toni McKnight, EIT
Printed

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
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CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 28-Jan-14

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	
	200	200
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Analyst

2/17/2014
Date

Tiffany McIntosh
Print Name

Review

2/17/2014
Date

Toni McKnight, EIT
Print Name

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info@envirotech-inc.com

APPENDIX J:

FEBRUARY 24, 2017

FIGURE 12 - SITE MAP

ANALYTICAL RESULTS

LEGEND

Excavation D-F
Section 7

X Sample Locations

SITE MAP – 2/24/2017
ConocoPhillips
McGrath #4 SWD (hBr)
SECTION 34, TWP 30 NORTH, RANGE 12 WEST
SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 12	REV
PROJECT NO92115-2540		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	IG	3/27/2017	BASE DRWN	IG	3/27/2017

envirotech
5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615

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Analytical Laboratory

Analytical Report

Report Summary

Client: ConocoPhillips

Chain Of Custody Number:

Samples Received: 2/24/2017 11:02:00AM

Job Number: 92115-2684

Work Order: P702038

Project Name/Location: McGrath #4 SWD

Report Reviewed By:

Walter Hinchman, Laboratory Director — Date: 3/6/17

Tim Cain, Quality Assurance Officer — Date: 3/6/17

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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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2684	**Reported:**
Bartlesville OK, 74005	Project Manager:	Felipe Aragon	06-Mar-17 12:39

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Section 7	P702038-01A	Soil	02/24/17	02/24/17	Glass Jar, 4 oz.
	P702038-01B	Soil	02/24/17	02/24/17	Glass Jar, 4 oz.

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2684	**Reported:**
Bartlesville OK, 74005	Project Manager:	Felipe Aragon	06-Mar-17 12:39

Section 7
P702038-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1709004	02/27/17	02/28/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1709004	02/27/17	02/28/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1709004	02/27/17	02/28/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1709004	02/27/17	02/28/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1709004	02/27/17	02/28/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1709004	02/27/17	02/28/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1709004	02/27/17	02/28/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1709004*	*02/27/17*	*02/28/17*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1709004	02/27/17	02/28/17	EPA 8015D	
Diesel Range Organics (C10-C28)	**105**	25.0	mg/kg	1	1709005	02/28/17	03/01/17	EPA 8015D	
Oil Range Organics (C28-C40+)	**156**	50.0	mg/kg	1	1709005	02/28/17	03/01/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*91.6 %*		*50-150*	*1709004*	*02/27/17*	*02/28/17*	*EPA 8015D*	
Surrogate: n-Nonane		*117 %*		*50-200*	*1709005*	*02/28/17*	*03/01/17*	*EPA 8015D*	
Cation/Anion Analysis									
Chloride	ND	20.0	mg/kg	1	1709008	02/28/17	02/28/17	EPA 300.0	

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2684	**Reported:**
Bartlesville OK, 74005	Project Manager:	Felipe Aragon	06-Mar-17 12:39

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1709004 - Purge and Trap EPA 5030A										
Blank (1709004-BLK1)				Prepared: 27-Feb-17 Analyzed: 28-Feb-17						
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	*8.10*		"	*8.00*		*101*	*50-150*			
LCS (1709004-BS1)				Prepared: 27-Feb-17 Analyzed: 28-Feb-17						
Benzene	4.99	0.10	mg/kg	5.00		99.8	70-130			
Toluene	4.97	0.10	"	5.00		99.4	70-130			
Ethylbenzene	5.00	0.10	"	5.00		100	70-130			
p,m-Xylene	10.1	0.20	"	10.0		101	70-130			
o-Xylene	4.85	0.10	"	5.00		97.0	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*8.29*		"	*8.00*		*104*	*50-150*			
Matrix Spike (1709004-MS1)		**Source: P702036-01**		Prepared: 27-Feb-17 Analyzed: 28-Feb-17						
Benzene	5.13	0.10	mg/kg	5.00	ND	103	54.3-133			
Toluene	5.12	0.10	"	5.00	ND	103	61.4-130			
Ethylbenzene	5.16	0.10	"	5.00	ND	103	61.4-133			
p,m-Xylene	10.5	0.20	"	10.0	ND	105	63.3-131			
o-Xylene	5.02	0.10	"	5.00	ND	100	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	*8.26*		"	*8.00*		*103*	*50-150*			
Matrix Spike Dup (1709004-MSD1)		**Source: P702036-01**		Prepared: 27-Feb-17 Analyzed: 28-Feb-17						
Benzene	5.13	0.10	mg/kg	5.00	ND	103	54.3-133	0.0965	20	
Toluene	5.12	0.10	"	5.00	ND	102	61.4-130	0.131	20	
Ethylbenzene	5.15	0.10	"	5.00	ND	103	61.4-133	0.190	20	
p,m-Xylene	10.5	0.20	"	10.0	ND	105	63.3-131	0.153	20	
o-Xylene	5.01	0.10	"	5.00	ND	100	63.3-131	0.288	20	
Surrogate: 4-Bromochlorobenzene-PID	*8.22*		"	*8.00*		*103*	*50-150*			

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2684	**Reported:**
Bartlesville OK, 74005	Project Manager:	Felipe Aragon	06-Mar-17 12:39

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1709004 - Purge and Trap EPA 5030A										
Blank (1709004-BLK1)				Prepared: 27-Feb-17 Analyzed: 28-Feb-17						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.68*		"	*8.00*		*96.0*	*50-150*			
LCS (1709004-BS1)				Prepared: 27-Feb-17 Analyzed: 28-Feb-17						
Gasoline Range Organics (C6-C10)	58.4	20.0	mg/kg	60.9		95.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.82*		"	*8.00*		*97.7*	*50-150*			
Matrix Spike (1709004-MS1)		**Source: P702036-01**		Prepared: 27-Feb-17 Analyzed: 28-Feb-17						
Gasoline Range Organics (C6-C10)	57.6	20.0	mg/kg	60.9	ND	94.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.56*		"	*8.00*		*94.5*	*50-150*			
Matrix Spike Dup (1709004-MSD1)		**Source: P702036-01**		Prepared: 27-Feb-17 Analyzed: 28-Feb-17						
Gasoline Range Organics (C6-C10)	57.4	20.0	mg/kg	60.9	ND	94.3	70-130	0.261	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.59*		"	*8.00*		*94.9*	*50-150*			

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2684	**Reported:**
Bartlesville OK, 74005	Project Manager:	Felipe Aragon	06-Mar-17 12:39

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1709005 - DRO Extn/SiO2 Cleanup EPA 3570/3630C										
Blank (1709005-BLK1)				Prepared: 28-Feb-17 Analyzed: 01-Mar-17						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	*53.0*		"	*50.0*		*106*	*50-200*			
LCS (1709005-BS1)				Prepared: 28-Feb-17 Analyzed: 01-Mar-17						
Diesel Range Organics (C10-C28)	506	25.0	mg/kg	500		101	38-132			
Surrogate: n-Nonane	*51.9*		"	*50.0*		*104*	*50-200*			
Matrix Spike (1709005-MS1)	**Source: P702036-01**			Prepared: 28-Feb-17 Analyzed: 01-Mar-17						
Diesel Range Organics (C10-C28)	1280	25.0	mg/kg	500	639	127	38-132			
Surrogate: n-Nonane	*65.4*		"	*50.0*		*131*	*50-200*			
Matrix Spike Dup (1709005-MSD1)	**Source: P702036-01**			Prepared: 28-Feb-17 Analyzed: 01-Mar-17						
Diesel Range Organics (C10-C28)	1280	25.0	mg/kg	500	639	128	38-132	0.369	20	
Surrogate: n-Nonane	*70.8*		"	*50.0*		*142*	*50-200*			

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2684	**Reported:**
Bartlesville OK, 74005	Project Manager:	Felipe Aragon	06-Mar-17 12:39

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1709008 - Anion Extraction EPA 300.0										
Blank (1709008-BLK1)				Prepared & Analyzed: 28-Feb-17						
Chloride	ND	20.0	mg/kg							
LCS (1709008-BS1)				Prepared & Analyzed: 28-Feb-17						
Chloride	518	20.0	mg/kg	500		104	90-110			
Matrix Spike (1709008-MS1)		Source: P702036-01		Prepared & Analyzed: 28-Feb-17						
Chloride	699	20.0	mg/kg	500	173	105	80-120			
Matrix Spike Dup (1709008-MSD1)		Source: P702036-01		Prepared & Analyzed: 28-Feb-17						
Chloride	706	20.0	mg/kg	500	173	107	80-120	0.958	20	

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Analytical Laboratory

ConocoPhillips	Project Name:	McGrath #4 SWD	
PO Box 2200	Project Number:	92115-2684	**Reported:**
Bartlesville OK, 74005	Project Manager:	Felipe Aragon	06-Mar-17 12:39

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Client: ConocoPhillips
Project: McGrath #4 SWD
Sampler: E. Garcia
Phone:
Email(s): @aol
Project Manager: Felipe Aragon

RUSH?
☐ 1d
☐ 3d

Lab Use Only
Lab WO# P702038
Job Number 92115-2684

Page 1 of 1

Sample ID	Sample Date	Sample Time	Matrix	Containers QTY - Vol/TYPE/Preservative	GRO/DRO by 8015 tarp	BTEX by 8021	TPH by 418.1	Chloride by 300.0	TCLP Metals	CO Table 910-1	TDS			Lab Number	Correct Cont/Prsrv (s) Y/N
					Analysis and Method									lab Only	
Section 7	2/24/17	9:07	S	2-4oz/1g/cool	X	X		X						1	Y

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	2/24/17	11:02	[signature]	2/24/17	11:02
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

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

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____
Container Type: g - glass, p - poly/plastic, ag - amber glass

**Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

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

Chain of Custody

Notes/Billing info:
ice in cooler-4s

envirotech Analytical Laboratory
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