

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

| | | |
|-------------------------------------------------------------------|-------------------------------------|---------------------------|
| Name of Company Burlington Resources Oil & Gas Company | Contact Lindsay Dumas | RCVD OCT 7 '14 |
| Address 3401 East 30th St, Farmington, NM | Telephone No. (505) 599-4089 | |
| Facility Name: Mangum 8 | Facility Type: Oil | OIL CONS. DIV. |
| Surface Owner: Public | Mineral Owner NM 020982 | API No. 3004525785 |

LOCATION OF RELEASE

DIST. 3

| | | | | | | | | |
|-------------------------|----------------------|------------------------|---------------------|-------------------------------|--------------------------------|-------------------------------|------------------------------|---------------------------|
| Unit Letter K | Section 33 | Township 29N | Range 11W | Feet from the 1994' | North/South Line FSL | Feet from the 2306' | East/West Line FWL | County San Juan |
|-------------------------|----------------------|------------------------|---------------------|-------------------------------|--------------------------------|-------------------------------|------------------------------|---------------------------|

Latitude **36.68072** Longitude **-107.99743**

NATURE OF RELEASE

| | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------------------------------|
| Type of Release Historic Contamination | Volume of Release Unknown | Volume Recovered 0 |
| Source of Release Above ground storage tank | Date and Hour of Occurrence Unknown | Date and Hour of Discovery 6/17/2014 |
| Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required | If YES, To Whom? | |
| By Whom? | Date and Hour | |
| Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If YES, Volume Impacting the Watercourse. | |
| If a Watercourse was Impacted, Describe Fully.* | | |
| Describe Cause of Problem and Remedial Action Taken.* Historic contamination was discovered around an above-ground storage tank, believed to be associated with an old spill. | | |
| Describe Area Affected and Cleanup Action Taken.* Excavation was 19' x 19' x 5' Deep. 162 c/yds of soil was transported to IEI Land Farm and 184 c/yds of clean soil was transported from Aztec Machine Co. and placed in the excavation site. Analytical results were below the regulatory standards – no further action required. The soil sampling report is attached for review. | | |
| 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: <i>Lindsay Dumas</i> | OIL CONSERVATION DIVISION | |
| Printed Name: Lindsay Dumas | Approved by Environmental Specialist: <i>Carey</i> | |
| Title: Field Environmental Specialist | Approval Date: 11/21/14 | Expiration Date: |
| E-mail Address: Lindsay.Dumas@conocophillips.com | Conditions of Approval: | Attached <input type="checkbox"/> |
| Date: 10/2/2014 | Phone: (505) 599-4089 | |

* Attach Additional Sheets If Necessary

#NCS/43 255 4162

17



September 22, 2014

Project Number 92115-2582

Ms. Lindsay Dumas
ConocoPhillips
3401 East 30th Street
Farmington, New Mexico 87401

Cell: (505) 258-1643
Work: (505) 599-4089

**RE: CONFIRMATION SAMPLING DOCUMENTATION FOR THE MANGUM #8 (hBr) WELL SITE,
SAN JUAN COUNTY, NEW MEXICO**

Dear Ms. Dumas,

Enclosed please find the field notes and analytical results for confirmation sampling activities performed at the Mangum #8 (hBr) well site located in Section 33, Township 29 North, Range 11 West, San Juan County, New Mexico; see enclosed *Site Map*. Historic contamination was discovered around an above-ground storage tank (AST) at the above referenced location. Prior to Envirotech's arrival on site, the impacted area had been excavated to dimensions recommended in Envirotech's spill assessment completed on June 17, 2014.

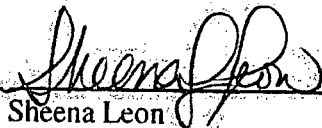
Upon Envirotech personnel's arrival on August 5, 2014, a brief site assessment was conducted. Because depth to groundwater was greater than 100 feet, nearest surface water was between 200 and 1000 feet, and the well site was not located within a well head protection area, the regulatory standards for the site were determined to be 1000 parts per million (ppm) total petroleum hydrocarbons (TPH) and 100 ppm organic vapors, pursuant to New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills, and Releases.

The north half of the area between the berms, the area where the AST had previously been located, had been excavated to a depth of approximately five (5) feet below ground surface (BGS). One (1) five (5)-point composite sample was collected from the bottom of the previously mentioned excavation; see enclosed *Site Map* and *Field Notes* for sample location. The sample was analyzed in the field for TPH using USEPA Method 418.1 and for organic vapors using a photoionization detector (PID). The sample returned results below the regulatory standard for TPH and organic vapor; see enclosed *Field Notes*, *Analytical Results*, and *Summary of Analytical Results*. Additionally, 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, benzene and total BTEX using USEPA Method 8021, and chlorides using USEPA Method 300.0. The sample returned a result

below the regulatory standard for all constituents analyzed; see enclosed *Analytical Results* and *Summary of Analytical Results*. Therefore, Envirotech, Inc. recommends no further action.

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

Respectfully submitted,
ENVIROTECH, INC.



Sheena Leon
Environmental Field Technician
sleon@envirotech-inc.com

Enclosure(s): Site Map
Field Notes
Analytical Results
Summary of Analytical Results

Cc: Client File 92115

| | | |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Client: COPC | <small>(808) 632-0618 (800) 362-1878 5786 U.S. Hwy 64, Farmington, NM 87401</small> | Project No: 92115-2582 COC No: 17284 |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|

| | | |
|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------------------------|
| FIELD REPORT: SPILL CLOSURE VERIFICATION | | PAGE NO: <u>1</u> OF <u>1</u> |
| LOCATION: NAME: <u>Mammoth</u> WELL #: <u>8</u> | DATE STARTED: <u>8/5/14</u> | |
| QUAD/UNIT: _____ SEC: <u>36</u> TWP: <u>2N</u> RNG: <u>11</u> PM: _____ CNTY: <u>3</u> ST: <u>NM</u> | DATE FINISHED: <u>8/5/14</u> | |
| QTR/FOOTAGE: _____ CONTRACTOR: _____ | ENVIRONMENTAL SPECIALIST: <u>S. Pesh</u> | |

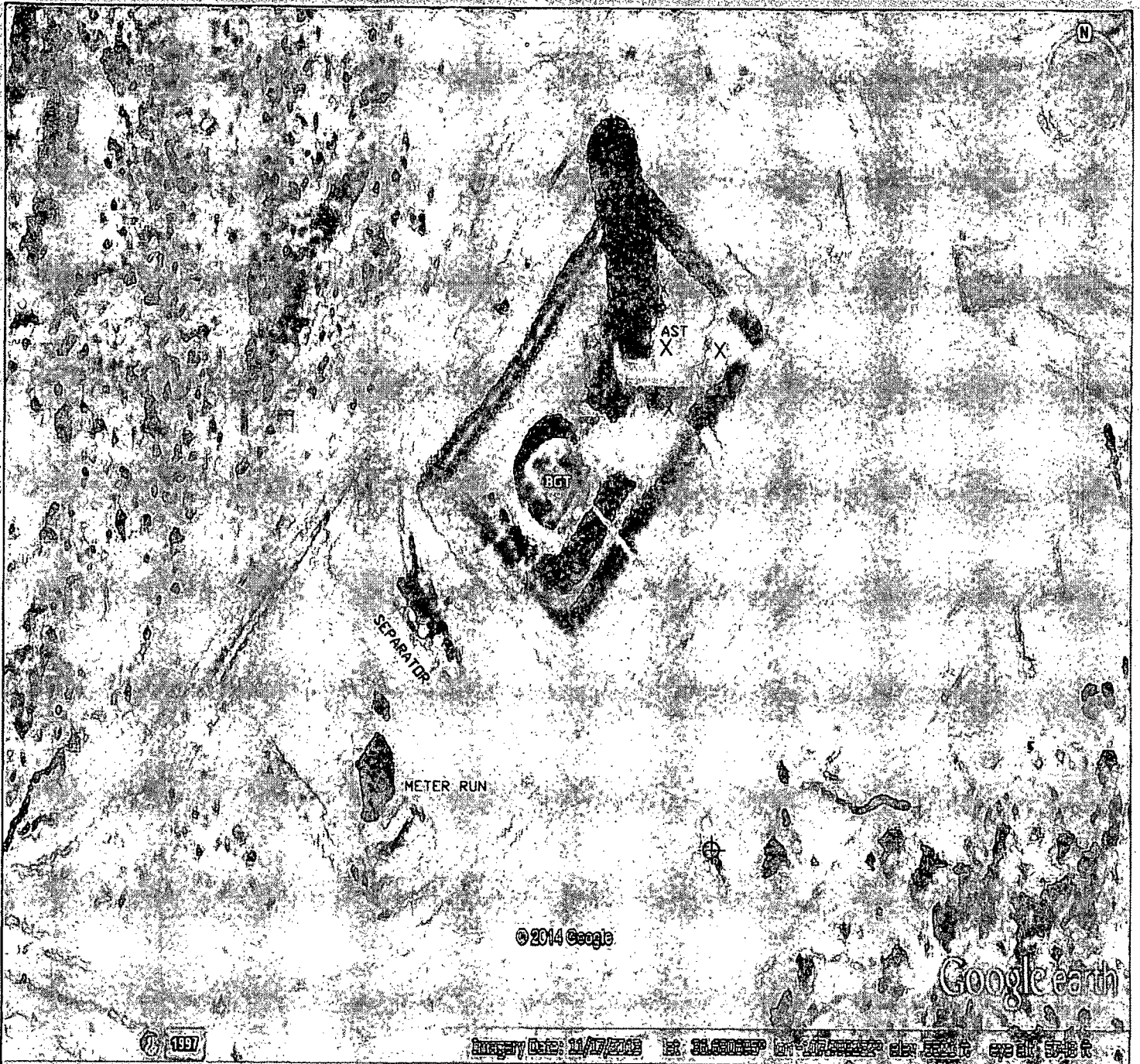
| |
|--------------------------------------------------------------------------------------|
| EXCAVATION APPROX: _____ FT. X _____ FT. X _____ FT. DEEP CUBIC YARDAGE: _____ |
| DISPOSAL FACILITY: _____ REMEDIATION METHOD: _____ |
| LAND USE: _____ LEASE: _____ LAND OWNER: _____ |
| CAUSE OF RELEASE: _____ MATERIAL RELEASED: _____ |
| SPILL LOCATED APPROXIMATELY: _____ FT. FROM _____ |
| DEPTH TO GROUNDWATER: _____ NEAREST WATER SOURCE: _____ NEAREST SURFACE WATER: _____ |
| NMOCD RANKING SCORE: _____ NMOCD TPH CLOSURE STD: <u>100</u> PPM |

SOIL AND EXCAVATION DESCRIPTION:

| SAMPLE DESCRIPTION | TIME | SAMPLE I.D. | LAB NO. | WEIGHT (g) | mL FREON | DILUTION | READING | CALC. ppm |
|--------------------|-------|-------------|---------|------------|----------|----------|---------|-----------|
| 400 ppm standard | 15:20 | — | — | — | — | — | 197 | — |
| 5-point comp. | 13:40 | 1 | — | 5g | 20mL | x4 | 102 | 408 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| SPILL PERIMETER | OVM RESULTS | SPILL PROFILE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:15%;">SAMPLE ID</th> <th style="width:85%;">FIELD HEADSPACE PID (ppm)</th> </tr> <tr><td>1</td><td>12.1</td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table> | SAMPLE ID | FIELD HEADSPACE PID (ppm) | 1 | 12.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="3" style="text-align: center;">LAB SAMPLES</th> </tr> <tr> <th style="width:15%;">SAMPLE ID</th> <th style="width:45%;">ANALYSIS</th> <th style="width:40%;">TIME</th> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table> | LAB SAMPLES | | | SAMPLE ID | ANALYSIS | TIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | SAMPLE ID | FIELD HEADSPACE PID (ppm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| LAB SAMPLES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID | ANALYSIS | TIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | |
|---------------------|-------------------|---------------|
| TRAVEL NOTES: _____ | CALLED OUT: _____ | ONSITE: _____ |
|---------------------|-------------------|---------------|



LEGEND

X SAMPLE LOCATIONS

⊕ WELL HEAD

ConocoPhillips

Mangum #8 (hBr)

SECTION 33, TWP 29 NORTH, RANGE 11 WEST
SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS

FIGURE NO. 1

REV

PROJECT NO92115-2582

REVISIONS

| NO. | DATE | BY | DESCRIPTION |
|----------|------|---------|-----------------------|
| MAP DRWN | TLM | 8/20/14 | BASE DRWN TLM 2/25/13 |



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



**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client: ConocoPhillips
Sample No.: 1
Sample ID: 5-Point Comp
Sample Matrix: Soil
Preservative: Cool
Condition: Cool and Intact

Project #: 92115-2582
Date Reported: 8/20/2014
Date Sampled: 8/5/2014
Date Analyzed: 8/5/2014
Analysis Needed: TPH-418.1

| Parameter | Concentration (mg/kg) | Det. Limit (mg/kg) |
|-----------|--------------------------|--------------------------|
|-----------|--------------------------|--------------------------|

| | | |
|-------------------------------------|------------|------------|
| Total Petroleum Hydrocarbons | 408 | 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: **Mangum #8 (hBr)**

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


Analyst

Sheena Leon
Printed


Review

Toni McKnight, EIT
Printed




CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 5-Aug-14

| Parameter | Standard Concentration mg/L | Concentration Reading mg/L |
|-----------|-----------------------------------|----------------------------------|
| TPH | 100 | 197 |
| | 200 | |
| | 500 | |
| | 1000 | |

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


Analyst

8/20/2014
Date

Sheena Leon
Print Name


Review

8/20/2014
Date

Toni McKnight, EIT
Print Name



Analytical Report

Report Summary

Client: ConocoPhillips
Chain Of Custody Number: 17284
Samples Received: 8/5/2014 3:10:00PM
Job Number: 92115-2582
Work Order: P408019
Project Name/Location: Mangum #8

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Date: 8/12/14

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.



ConocoPhillips
PO Box 2200
Bartlesville OK, 74005

Project Name: Mangum #8
Project Number: 92115-2582
Project Manager: Sheena Leon

Reported:
12-Aug-14 17:05

Analytical Report for Samples

| Client Sample ID | Lab Sample ID | Matrix | Sampled | Received | Container |
|------------------|---------------|--------|----------|----------|------------------|
| 5-Point Comp | P408019-01A | Soil | 08/05/14 | 08/05/14 | Glass Jar, 4 oz. |

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5796 US Highway 64, Farmington, NM 87401

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

Ph (505) 632-0615 Fx (505) 632-1865

Ph (970) 259-0615 Fr (800) 362-1879





ConocoPhillips
PO Box 2200
Bartlesville OK, 74005

Project Name: Mangum #8
Project Number: 92115-2582
Project Manager: Sheena Leon

Reported:
12-Aug-14 17:05

5-Point Comp
P408019-01 (Solid)

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Volatile Organics by EPA 8021 | | | | | | | | | |
| Benzene | ND | 0.05 | mg/kg | 1 | 1432020 | 08/06/14 | 08/11/14 | EPA 8021B | |
| Toluene | ND | 0.05 | mg/kg | 1 | 1432020 | 08/06/14 | 08/11/14 | EPA 8021B | |
| Ethylbenzene | ND | 0.05 | mg/kg | 1 | 1432020 | 08/06/14 | 08/11/14 | EPA 8021B | |
| p,m-Xylene | ND | 0.10 | mg/kg | 1 | 1432020 | 08/06/14 | 08/11/14 | EPA 8021B | |
| o-Xylene | ND | 0.05 | mg/kg | 1 | 1432020 | 08/06/14 | 08/11/14 | EPA 8021B | |
| Total Xylenes | ND | 0.05 | mg/kg | 1 | 1432020 | 08/06/14 | 08/11/14 | EPA 8021B | |
| Total BTEX | ND | 0.05 | mg/kg | 1 | 1432020 | 08/06/14 | 08/11/14 | EPA 8021B | |
| Surrogate: Bromochlorobenzene | | 101 % | | 50-150 | 1432020 | 08/06/14 | 08/11/14 | EPA 8021B | |
| Surrogate: 1,3-Dichlorobenzene | | 90.8 % | | 50-150 | 1432020 | 08/06/14 | 08/11/14 | EPA 8021B | |
| Nonhalogenated Organics by 8015 | | | | | | | | | |
| Gasoline Range Organics (C6-C10) | ND | 4.99 | mg/kg | 1 | 1432020 | 08/06/14 | 08/11/14 | EPA 8015D | |
| Diesel Range Organics (C10-C28) | 123 | 30.0 | mg/kg | 1 | 1433005 | 08/12/14 | 08/12/14 | EPA 8015D | |
| Surrogate: Benzo[a]pyrene | | 173 % | | 50-200 | 1433005 | 08/12/14 | 08/12/14 | EPA 8015D | |
| Cation/Anion Analysis | | | | | | | | | |
| Chloride | ND | 9.88 | mg/kg | 1 | 1432018 | 08/06/14 | 08/06/14 | EPA 300.0 | |

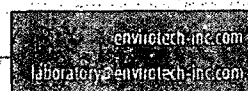
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5796 US Highway 64, Farmington, NM 87401

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

Ph (505) 632-0615 Fx (505) 632-1865

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ConocoPhillips
PO Box 2200
Bartlesville OK, 74005

Project Name: Mangum #8
Project Number: 92115-2582
Project Manager: Sheena Leon

Reported:
12-Aug-14 17:05

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 1432020 - Purge and Trap EPA 5030A

Blank (1432020-BLK1)

Prepared: 06-Aug-14 Analyzed: 07-Aug-14

| | | | | | | | | | | |
|---------------|----|------|-------|--|--|--|--|--|--|--|
| Benzene | ND | 0.05 | mg/kg | | | | | | | |
| Toluene | ND | 0.05 | " | | | | | | | |
| Ethylbenzene | ND | 0.05 | " | | | | | | | |
| p,m-Xylene | ND | 0.10 | " | | | | | | | |
| o-Xylene | ND | 0.05 | " | | | | | | | |
| Total Xylenes | ND | 0.05 | " | | | | | | | |
| Total BTEX | ND | 0.05 | " | | | | | | | |

Surrogate: 1,3-Dichlorobenzene

50.1 ug/L 50.0 100 80-120

Surrogate: Bromochlorobenzene

51.8 " 50.0 104 80-120

Duplicate (1432020-DUP1)

Source: P408021-01

Prepared: 06-Aug-14 Analyzed: 07-Aug-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 | 0.10 | " | | ND | | | | 30 | |
| o-Xylene | ND | 0.05 | " | | ND | | | | 30 | |

Surrogate: 1,3-Dichlorobenzene

48.9 ug/L 50.0 97.9 80-120

Surrogate: Bromochlorobenzene

52.8 " 50.0 106 80-120

Matrix Spike (1432020-MS1)

Source: P408021-01

Prepared: 06-Aug-14 Analyzed: 07-Aug-14

| | | | | | | | | | | |
|--------------|------|--|------|------|----|-----|--------|--|--|--|
| Benzene | 51.6 | | ug/L | 50.0 | ND | 103 | 39-150 | | | |
| Toluene | 55.3 | | " | 50.0 | ND | 111 | 46-148 | | | |
| Ethylbenzene | 51.8 | | " | 50.0 | ND | 104 | 32-160 | | | |
| p,m-Xylene | 108 | | " | 100 | ND | 108 | 46-148 | | | |
| o-Xylene | 53.0 | | " | 50.0 | ND | 106 | 46-148 | | | |

Surrogate: 1,3-Dichlorobenzene

50.3 " 50.0 101 80-120

Surrogate: Bromochlorobenzene

53.7 " 50.0 107 80-120

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envirotech-inc.com
laboratory@envirotech-inc.com



ConocoPhillips
PO Box 2200
Bartlesville OK, 74005

Project Name: Mangum #8
Project Number: 92115-2582
Project Manager: Sheena Leon

Reported:
12-Aug-14 17:05

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 1432020 - Purge and Trap EPA 5030A | | | | | | | | | | |
| Blank (1432020-BLK1) | | | | Prepared: 06-Aug-14 Analyzed: 07-Aug-14 | | | | | | |
| Gasoline Range Organics (C6-C10) | ND | 5.00 | mg/kg | | | | | | | |
| Duplicate (1432020-DUP1) | | | | Prepared: 06-Aug-14 Analyzed: 07-Aug-14 | | | | | | |
| Gasoline Range Organics (C6-C10) | ND | 4.99 | mg/kg | | ND | | | | 30 | |
| Matrix Spike (1432020-MS1) | | | | Prepared: 06-Aug-14 Analyzed: 07-Aug-14 | | | | | | |
| Gasoline Range Organics (C6-C10) | 0.53 | | mg/L | 0.450 | 0.008 | 116 | 75-125 | | | |

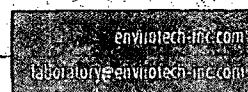
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ConocoPhillips
PO Box 2200
Bartlesville OK, 74005

Project Name: Mangum #8
Project Number: 92115-2582
Project Manager: Sheena Leon

Reported:
12-Aug-14 17:05

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 1433005 - DRO Extraction EPA 3550M | | | | | | | | | | |
| Blank (1433005-BLK1) | | | | Prepared & Analyzed: 11-Aug-14 | | | | | | |
| Diesel Range Organics (C10-C28) | ND | 25.0 | mg/kg | | | | | | | |
| Surrogate: Benzo[a]pyrene | 19.5 | | " | 20.0 | | 97.4 | 50-200 | | | |
| LCS (1433005-BS1) | | | | Prepared & Analyzed: 11-Aug-14 | | | | | | |
| Diesel Range Organics (C10-C28) | 504 | 24.9 | mg/kg | 498 | | 101 | 38-132 | | | |
| Surrogate: Benzo[a]pyrene | 21.3 | | " | 19.9 | | 107 | 50-200 | | | |
| Matrix Spike (1433005-MS1) | | | | Source: P408036-01 | | Prepared & Analyzed: 11-Aug-14 | | | | |
| Diesel Range Organics (C10-C28) | 609 | 24.9 | mg/kg | 499 | 114 | 99.2 | 38-132 | | | |
| Surrogate: Benzo[a]pyrene | 18.9 | | " | 20.0 | | 94.9 | 50-200 | | | |
| Matrix Spike Dup (1433005-MSD1) | | | | Source: P408036-01 | | Prepared & Analyzed: 11-Aug-14 | | | | |
| Diesel Range Organics (C10-C28) | 624 | 25.0 | mg/kg | 499 | 114 | 102 | 38-132 | 2.29 | 20 | |
| Surrogate: Benzo[a]pyrene | 22.4 | | " | 20.0 | | 112 | 50-200 | | | |

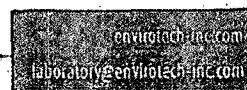
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Ph (970) 259-0615 Fr (800) 362-1879





| | | |
|---------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------|
| ConocoPhillips PO Box 2200 Bartlesville OK, 74005 | Project Name: Mangum #8 Project Number: 92115-2582 Project Manager: Sheena Leon | Reported: 12-Aug-14 17:05 |
|---------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------|

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 1432018 - Anion Extraction EPA 300.0 | | | | | | | | | | |
| Blank (1432018-BLK1) | | | | Prepared & Analyzed: 06-Aug-14 | | | | | | |
| Chloride | ND | 9.96 | mg/kg | | | | | | | |
| LCS (1432018-BS1) | | | | Prepared & Analyzed: 06-Aug-14 | | | | | | |
| Chloride | 495 | 9.92 | mg/kg | 496 | | 99.8 | 90-110 | | | |
| Matrix Spike (1432018-MS1) | | | | Source: P408012-01 Prepared & Analyzed: 06-Aug-14 | | | | | | |
| Chloride | 967 | 9.92 | mg/kg | 496 | 488 | 96.5 | 80-120 | | | |
| Matrix Spike Dup (1432018-MSD1) | | | | Source: P408012-01 Prepared & Analyzed: 06-Aug-14 | | | | | | |
| Chloride | 960 | 9.87 | mg/kg | 494 | 488 | 95.6 | 80-120 | 0.682 | 20 | |

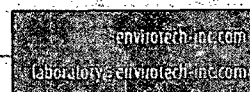
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ConocoPhillips
PO Box 2200
Bartlesville OK, 74005

Project Name: Mangum #8
Project Number: 92115-2582
Project Manager: Sheena Leon

Reported:
12-Aug-14 17:05

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

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envirotech-inc.com
laboratory@envirotech-inc.com

CHAIN OF CUSTODY RECORD

17284

| Client: ConocoPhillips | | | Project Name / Location: Mangum #8 | | | ANALYSIS / PARAMETERS | | | | | | | | | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------|-------------------------------------------|----------------------------|------------------|-----------------------|-------------------------------------------|-------------------|---------------|----------------|-----|---------------|----------------|-------------|----------|--|--|-------------|---------------|
| Email results to: S. Leon | | | Sampler Name: S. Leon | | | TPH (Method 8015) | BTX (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 |
| Client Phone No.: | | | Client No.: 92115-2582 | | | | | | | | | | | | | | | | |
| Sample No. / Identification | Sample Date | Sample Time | Lab No. | No. / Volume of Containers | Preservative | | | | | | | | | | | | | | |
| | | | | | HNO ₃ | HCl | CCl ₄ | | | | | | | | | | | | |
| 5-point Comp | 8/5/14 | 1340 | P408619-01 | 1-4cc glass jar | | | X | X | X | | | | | | X | | | ✓ | ✓ |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| Relinquished by: (Signature) Sheena Leon | | | | | Date | Time | Received by: (Signature) Alan Z... | | | | | Date | Time | | | | | | |
| | | | | | 8/5/14 | 15:10 | | | | | | 8/5/14 | 15:10 | | | | | | |
| Relinquished by: (Signature) | | | | | | | Received by: (Signature) | | | | | | | | | | | | |
| Sample Matrix | | | | | | | | | | | | | | | | | | | |
| Soil <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Sludge <input type="checkbox"/> Aqueous <input type="checkbox"/> Other <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Sample(s) dropped off after hours to secure drop off area. | | | | | | | | | | | | | | | | | | | |



Table 1, Summary of Analytical Results
 ConocoPhillips
 Mangum #8 (hBr)
 Confirmation Sampling Report
 San Juan County, New Mexico
 Project Number 92115-2582

| Sample Description | Sample Number | Date | TPH USEPA Method 418.1 (ppm) | TPH USEPA Method 8015 (ppm) | Benzene USEPA Method 8021(ppm) | Total BTEX USEPA Method 8021(ppm) | Chloride USEPA Method 300.0 (ppm) | OVM (ppm) |
|----------------------|---------------|----------|------------------------------|-----------------------------|--------------------------------|-----------------------------------|-----------------------------------|-----------|
| NMOCD/RCRA Standards | NA | NA | 1000 | 1000 | 10 | 50 | NA | 100 |
| 5-Point Comp | 1 | 8/5/2014 | 408 | 123 | ND | ND | ND | 12.1 |

NS = Not Sampled

ND = Non-Detect at Stated Method's Detection Limit

* Values in **BOLD** above regulatory standards