



October 10, 2022

Peterson Energy Operating, Inc.

Ryan Dornbos

PO Box 2169

Loveland CO 80539

Project Name - Church

Project Number - [none]

Attached are your analytical results for Church received by Origins Laboratory, Inc. September 20, 2022. This project is associated with Origins project number Y209437-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Peterson Energy Operating, Inc.

PO Box 2169

Loveland CO 80539

Ryan Dornbos

Project Number: [none]

Project: Church

CROSS REFERENCE REPORT

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-------------|---------------|--------|--------------------------|------------------|
| Breach | Y209437-01 | Soil | September 20, 2022 16:00 | 09/20/2022 17:53 |
| SE OFE PIT | Y209437-02 | Soil | September 20, 2022 16:00 | 09/20/2022 17:53 |
| W of 413-25 | Y209437-03 | Soil | September 20, 2022 16:00 | 09/20/2022 17:53 |
| NW of PAD | Y209437-04 | Soil | September 20, 2022 16:00 | 09/20/2022 17:53 |
| Background | Y209437-05 | Soil | September 20, 2022 16:00 | 09/20/2022 17:53 |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

ORIGINS
LABORATORY, INC

www.originslaboratory.com

Y209437

page 1 of 1

Client: PETERSON ENERGY
Address: PO BOX 2169
LOVELAND, CO 80539
Telephone Number: 970 669 7411
Email Address: RYAN@PEOPERATING.COM
Project Manager: RYAN DORNOS
Project Name: CHURCH
Project Number: Y209437
Samples Collected By: RYAN DORNOS

| Sample ID Description | Date Sampled | Time Sampled | # of Containers | Preservative | | | | Matrix | | | Analysis | Sample Instructions |
|-----------------------|--------------|--------------|-----------------|--------------|-----|------------------|-------|-------------|------|-------------|----------|---------------------|
| | | | | Unpreserved | HCl | HNO ₃ | Other | Groundwater | Soil | Air/Surface | | |
| BREACH | 9/20/12 | 1600 | 2 | X | | | | | | | | 1 |
| SE OCE PT | | | 2 | X | | | | | | | | 2 |
| NW OCE PT | | | 2 | X | | | | | | | | 3 |
| NW OCE PT | | | 2 | X | | | | | | | | 4 |
| BACKGROUND | | | 2 | X | | | | | | | | 5 |
| | | | | | | | | | | | | 6 |
| | | | | | | | | | | | | 7 |
| | | | | | | | | | | | | 8 |
| | | | | | | | | | | | | 9 |
| | | | | | | | | | | | | 10 |

| Relinquished By: | Date: | Time: | Received By: | Date: | Time: | Turnaround Time: |
|------------------|---------|-------|--------------|---------|-------|--|
| Ryan Dornbos | 9/20/12 | 1753 | JD | 9/20/12 | 1753 | Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> |
| | | | | | | 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> |

Temp Received: 26.0 Date Results Needed

Origins Laboratory, Inc.

J. Bynon

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

Origins Laboratory

Sample Receipt Checklist

F-012207-01-R1
Effective Date: 01/09/12

Origins Work Order: Y209437

Client: Peterson Energy

Client Project ID: Church

Checklist Completed by: DE / TSH

Shipped Via: HD

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 09/21/2022

Airbill #: NA

Matrix(s) Received: (Check all that apply): X Soil/Solid

Water

Other:

Cooler Number/Temperature: 1, 26.0 °C

(Describe)

Thermometer ID: T004

| Requirement Description | Yes | No | N/A | Comments (if any) |
|---|----------|----------|----------|-------------------|
| If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ? | <u>X</u> | <u>✓</u> | | |
| Is there ice present (document if blue ice is used) | <u>X</u> | | | <u>Same day</u> |
| Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact) | | <u>✓</u> | | |
| Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact) | | <u>X</u> | | |
| Were all samples received intact ⁽¹⁾ ? | <u>✓</u> | | | |
| Was adequate sample volume provided ⁽¹⁾ ? | <u>✓</u> | | | |
| Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ? | | <u>✓</u> | | |
| Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ? | <u>✓</u> | | | |
| Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ? | <u>✓</u> | | | |
| Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ? | <u>✓</u> | | | |
| Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ? | <u>✓</u> | | | |
| For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative. | | | <u>✓</u> | |
| Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity) / (pH < 2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH > 10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH) | | | <u>✓</u> | |
| Additional Comments (if any): | | | | |

⁽¹⁾If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by JB (Project Manager)

9-22-22
Date/Time Reviewed

Origins Laboratory, Inc.

J. Bynon

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

Breach
9/20/2022 4:00:00PM

| Analyte | Result | Min Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
Y209437-01 (Soil)

Boron (DTPA Sorbitol)

| | | | | | | | | |
|-------|------|--------|------|---|---------|------------|------------|--|
| Boron | 1.08 | 0.0983 | mg/L | 1 | B2I2120 | 09/21/2022 | 09/23/2022 | |
|-------|------|--------|------|---|---------|------------|------------|--|

DRO/ORO by EPA 8015D

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | ND | 50.0 | mg/kg | 1 | B2I2116 | 09/21/2022 | 09/24/2022 | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | " | " | " | " | U |

| | | | | | | | |
|------------------------|--------|--------|--|--|---|---|---|
| Surrogate: o-Terphenyl | 83.5 % | 50-150 | | | " | " | " |
|------------------------|--------|--------|--|--|---|---|---|

GBTEX+TMBs by 8260D

| | | | | | | | | |
|-----------------------------|----|---------|-------|---|---------|------------|------------|---|
| Benzene | ND | 0.00200 | mg/kg | 1 | B2I2615 | 09/26/2022 | 09/30/2022 | U |
| Ethylbenzene | ND | 0.00200 | " | " | " | " | " | U |
| Toluene | ND | 0.00200 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.00200 | " | " | " | " | " | U |
| Gasoline Range Hydrocarbons | ND | 0.200 | " | " | " | " | " | U |

| | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|
| Surrogate: 1,2-Dichloroethane-d4 | 85.9 % | 70-130 | | | " | " | " |
| Surrogate: Toluene-d8 | 93.1 % | 70-130 | | | " | " | " |
| Surrogate: 4-Bromofluorobenzene | 93.7 % | 70-130 | | | " | " | " |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

Breach

9/20/2022 4:00:00PM

| Analyte | Result | Min Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc. Y209437-01 (Soil)

Metals by Saturated Paste by EPA 6010

| | | | | | | | |
|-----------|------|-------|-------|----|--------|------------|------------|
| Calcium | ND | 0.499 | meq/L | 10 | [CALC] | 09/22/2022 | 09/23/2022 |
| Magnesium | ND | 0.823 | " | " | " | " | " |
| Sodium | 16.6 | 0.435 | " | " | " | " | " |

PAH by 8270D SIM

| | | | | | | | | |
|------------------------|---------|---------|---------|-------|---|---------|------------|------------|
| 1-Methylnaphthalene | ND | 0.00182 | 0.00335 | mg/Kg | 5 | L639817 | 09/27/2022 | 09/28/2022 |
| 2-Methylnaphthalene | ND | 0.00323 | 0.00335 | " | " | " | " | " |
| Acenaphthene | ND | 0.00152 | 0.00335 | " | " | " | " | " |
| Anthracene | ND | 0.00167 | 0.00335 | " | " | " | " | " |
| Benzo(a)anthracene | ND | 0.00247 | 0.00335 | " | " | " | " | " |
| Benzo(a)pyrene | 0.00239 | 0.00234 | 0.00335 | " | " | " | " | J |
| Benzo(b)fluoranthene | ND | 0.00293 | 0.00335 | " | " | " | " | " |
| Benzo(k)fluoranthene | ND | 0.00219 | 0.00335 | " | " | " | " | " |
| Chrysene | 0.00357 | 0.00312 | 0.00335 | " | " | " | " | " |
| Dibenz(a,h)anthracene | ND | 0.00307 | 0.00335 | " | " | " | " | " |
| Fluoranthene | ND | 0.00197 | 0.00335 | " | " | " | " | " |
| Fluorene | ND | 0.00143 | 0.00335 | " | " | " | " | " |
| Indeno(1,2,3-cd)pyrene | 0.00328 | 0.00314 | 0.00335 | " | " | " | " | J |
| Naphthalene | ND | 0.00242 | 0.00335 | " | " | " | " | " |
| Pyrene | ND | 0.00322 | 0.00335 | " | " | " | " | " |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.

PO Box 2169

Loveland CO 80539

Ryan Dornbos

Project Number: [none]

Project: Church

Breach

9/20/2022 4:00:00PM

| Analyte | Result | Min Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|

Waypoint Analytical, LLC.

Y209437-01 (Soil)

PAH by 8270D SIM

| | | | | | | | | | |
|-----------------------------|--------|--|--------|--|--|-------------|------------|------------|--|
| Surrogate: 2-Fluorobiphenyl | 59.8 % | | 33-115 | | | L6398 17 | 09/27/2022 | 09/28/2022 | |
| Surrogate: 4-Terphenyl-d14 | 61.3 % | | 33-122 | | | " | " | " | |
| Surrogate: Nitrobenzene-d5 | 50.8 % | | 29-110 | | | " | " | " | |

pH in Soil by 9045D

| | | | | | | | | | |
|----|------|--|--|----------|---|---------|------------|------------|--|
| pH | 8.21 | | | pH Units | 1 | B2I2206 | 09/22/2022 | 09/23/2022 | |
|----|------|--|--|----------|---|---------|------------|------------|--|

SAR by 20B Saturated Paste

| | | | | | | | | | |
|-----|------|--|--|-----|---|---------|------------|------------|--|
| SAR | 26.3 | | | SAR | 1 | B2I2203 | 09/22/2022 | 09/23/2022 | |
|-----|------|--|--|-----|---|---------|------------|------------|--|

Specific Conductance Mod. 9050A

| | | | | | | | | | |
|---------------------------|------|--|---------|----------|---|---------|------------|------------|--|
| Specific Conductance (EC) | 1.12 | | 0.00500 | mmhos/cm | 1 | B2I2206 | 09/22/2022 | 09/23/2022 | |
|---------------------------|------|--|---------|----------|---|---------|------------|------------|--|

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

SE OFE PIT

9/20/2022 4:00:00PM

| Analyte | Result | Min Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc. Y209437-02 (Soil)

Boron (DTPA Sorbitol)

| | | | | | | | | |
|-------|-------|-------|------|---|---------|------------|------------|--|
| Boron | 0.146 | 0.100 | mg/L | 1 | B2I2120 | 09/21/2022 | 09/23/2022 | |
|-------|-------|-------|------|---|---------|------------|------------|--|

DRO/ORO by EPA 8015D

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | ND | 50.0 | mg/kg | 1 | B2I2116 | 09/21/2022 | 09/24/2022 | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | " | " | " | " | U |

| | | | | | | | |
|------------------------|--------|--------|--|--|---|---|---|
| Surrogate: o-Terphenyl | 82.3 % | 50-150 | | | " | " | " |
|------------------------|--------|--------|--|--|---|---|---|

GBTEX+TMBs by 8260D

| | | | | | | | | |
|-----------------------------|----|---------|-------|---|---------|------------|------------|---|
| Benzene | ND | 0.00200 | mg/kg | 1 | B2I2615 | 09/26/2022 | 09/30/2022 | U |
| Ethylbenzene | ND | 0.00200 | " | " | " | " | " | U |
| Toluene | ND | 0.00200 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.00200 | " | " | " | " | " | U |
| Gasoline Range Hydrocarbons | ND | 0.200 | " | " | " | " | " | U |

| | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|
| Surrogate: 1,2-Dichloroethane-d4 | 83.9 % | 70-130 | | | " | " | " |
| Surrogate: Toluene-d8 | 97.9 % | 70-130 | | | " | " | " |
| Surrogate: 4-Bromofluorobenzene | 88.3 % | 70-130 | | | " | " | " |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

SE OFE PIT

9/20/2022 4:00:00PM

| Analyte | Result | Min Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc. Y209437-02 (Soil)

Metals by Saturated Paste by EPA 6010

| | | | | | | | |
|-----------|------|-------|-------|----|--------|------------|------------|
| Calcium | 1.31 | 0.499 | meq/L | 10 | [CALC] | 09/22/2022 | 09/23/2022 |
| Magnesium | ND | 0.823 | " | " | " | " | " |
| Sodium | 3.79 | 0.435 | " | " | " | " | " |

PAH by 8270D SIM

| | | | | | | | | |
|------------------------|----|----------|---------|-------|---|---------|------------|------------|
| 1-Methylnaphthalene | ND | 0.000364 | 0.00067 | mg/Kg | 1 | L639817 | 09/27/2022 | 09/28/2022 |
| 2-Methylnaphthalene | ND | 0.000645 | 0.00067 | " | " | " | " | " |
| Acenaphthene | ND | 0.000304 | 0.00067 | " | " | " | " | " |
| Anthracene | ND | 0.000334 | 0.00067 | " | " | " | " | " |
| Benzo(a)anthracene | ND | 0.000493 | 0.00067 | " | " | " | " | " |
| Benzo(a)pyrene | ND | 0.000468 | 0.00067 | " | " | " | " | " |
| Benzo(b)fluoranthene | ND | 0.000585 | 0.00067 | " | " | " | " | " |
| Benzo(k)fluoranthene | ND | 0.000437 | 0.00067 | " | " | " | " | " |
| Chrysene | ND | 0.000624 | 0.00067 | " | " | " | " | " |
| Dibenz(a,h)anthracene | ND | 0.000614 | 0.00067 | " | " | " | " | " |
| Fluoranthene | ND | 0.000394 | 0.00067 | " | " | " | " | " |
| Fluorene | ND | 0.000286 | 0.00067 | " | " | " | " | " |
| Indeno(1,2,3-cd)pyrene | ND | 0.000627 | 0.00067 | " | " | " | " | " |
| Naphthalene | ND | 0.000484 | 0.00067 | " | " | " | " | " |
| Pyrene | ND | 0.000643 | 0.00067 | " | " | " | " | " |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.

PO Box 2169

Loveland CO 80539

Ryan Dornbos

Project Number: [none]

Project: Church

SE OFE PIT

9/20/2022 4:00:00PM

| Analyte | Result | Min Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|

Waypoint Analytical, LLC.

Y209437-02 (Soil)

PAH by 8270D SIM

| | | | | | |
|-----------------------------|--------|--------|-------------|------------|------------|
| Surrogate: 2-Fluorobiphenyl | 53.9 % | 33-115 | L6398 17 | 09/27/2022 | 09/28/2022 |
| Surrogate: 4-Terphenyl-d14 | 60 % | 33-122 | " | " | " |
| Surrogate: Nitrobenzene-d5 | 52.4 % | 29-110 | " | " | " |

pH in Soil by 9045D

| | | | | | | |
|----|------|----------|---|---------|------------|------------|
| pH | 8.18 | pH Units | 1 | B2I2206 | 09/22/2022 | 09/23/2022 |
|----|------|----------|---|---------|------------|------------|

SAR by 20B Saturated Paste

| | | | | | | |
|-----|------|-----|---|---------|------------|------------|
| SAR | 4.22 | SAR | 1 | B2I2203 | 09/22/2022 | 09/23/2022 |
|-----|------|-----|---|---------|------------|------------|

Specific Conductance Mod. 9050A

| | | | | | | |
|---------------------------|-------|------------------|---|---------|------------|------------|
| Specific Conductance (EC) | 0.492 | 0.00500 mmhos/cm | 1 | B2I2206 | 09/22/2022 | 09/23/2022 |
|---------------------------|-------|------------------|---|---------|------------|------------|

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

W of 413-25

9/20/2022 4:00:00PM

| Analyte | Result | Min Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc. Y209437-03 (Soil)

Boron (DTPA Sorbitol)

| | | | | | | | | |
|-------|-------|--------|------|---|---------|------------|------------|--|
| Boron | 0.261 | 0.0989 | mg/L | 1 | B2I2120 | 09/21/2022 | 09/23/2022 | |
|-------|-------|--------|------|---|---------|------------|------------|--|

DRO/ORO by EPA 8015D

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | ND | 50.0 | mg/kg | 1 | B2I2116 | 09/21/2022 | 09/24/2022 | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | " | " | " | " | U |

| | | | | | | | |
|------------------------|--------|--------|--|--|---|---|---|
| Surrogate: o-Terphenyl | 89.8 % | 50-150 | | | " | " | " |
|------------------------|--------|--------|--|--|---|---|---|

GBTEX+TMBs by 8260D

| | | | | | | | | |
|-----------------------------|----|---------|-------|---|---------|------------|------------|---|
| Benzene | ND | 0.00200 | mg/kg | 1 | B2I2615 | 09/26/2022 | 09/30/2022 | U |
| Ethylbenzene | ND | 0.00200 | " | " | " | " | " | U |
| Toluene | ND | 0.00200 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.00200 | " | " | " | " | " | U |
| Gasoline Range Hydrocarbons | ND | 0.200 | " | " | " | " | " | U |

| | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|
| Surrogate: 1,2-Dichloroethane-d4 | 80.2 % | 70-130 | | | " | " | " |
| Surrogate: Toluene-d8 | 97.2 % | 70-130 | | | " | " | " |
| Surrogate: 4-Bromofluorobenzene | 87.8 % | 70-130 | | | " | " | " |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.

PO Box 2169

Loveland CO 80539

Ryan Dornbos

Project Number: [none]

Project: Church

W of 413-25

9/20/2022 4:00:00PM

| Analyte | Result | Min Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.

Y209437-03 (Soil)

Metals by Saturated Paste by EPA 6010

| | | | | | | | |
|-----------|-------|-------|-------|----|--------|------------|------------|
| Calcium | 0.984 | 0.499 | meq/L | 10 | [CALC] | 09/22/2022 | 09/23/2022 |
| Magnesium | ND | 0.823 | " | " | " | " | " |
| Sodium | 5.71 | 0.435 | " | " | " | " | " |

PAH by 8270D SIM

| | | | | | | | | |
|------------------------|----|---------|---------|-------|---|---------|------------|------------|
| 1-Methylnaphthalene | ND | 0.00182 | 0.00335 | mg/Kg | 5 | L639817 | 09/27/2022 | 09/28/2022 |
| 2-Methylnaphthalene | ND | 0.00323 | 0.00335 | " | " | " | " | " |
| Acenaphthene | ND | 0.00152 | 0.00335 | " | " | " | " | " |
| Anthracene | ND | 0.00167 | 0.00335 | " | " | " | " | " |
| Benzo(a)anthracene | ND | 0.00247 | 0.00335 | " | " | " | " | " |
| Benzo(a)pyrene | ND | 0.00234 | 0.00335 | " | " | " | " | " |
| Benzo(b)fluoranthene | ND | 0.00293 | 0.00335 | " | " | " | " | " |
| Benzo(k)fluoranthene | ND | 0.00219 | 0.00335 | " | " | " | " | " |
| Chrysene | ND | 0.00312 | 0.00335 | " | " | " | " | " |
| Dibenz(a,h)anthracene | ND | 0.00307 | 0.00335 | " | " | " | " | " |
| Fluoranthene | ND | 0.00197 | 0.00335 | " | " | " | " | " |
| Fluorene | ND | 0.00143 | 0.00335 | " | " | " | " | " |
| Indeno(1,2,3-cd)pyrene | ND | 0.00314 | 0.00335 | " | " | " | " | " |
| Naphthalene | ND | 0.00242 | 0.00335 | " | " | " | " | " |
| Pyrene | ND | 0.00322 | 0.00335 | " | " | " | " | " |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.

PO Box 2169

Loveland CO 80539

Ryan Dornbos

Project Number: [none]

Project: Church

W of 413-25

9/20/2022 4:00:00PM

| Analyte | Result | Min Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|

Waypoint Analytical, LLC.

Y209437-03 (Soil)

PAH by 8270D SIM

| | | | | | |
|-----------------------------|--------|--------|-------------|------------|------------|
| Surrogate: 2-Fluorobiphenyl | 66.3 % | 33-115 | L6398 17 | 09/27/2022 | 09/28/2022 |
| Surrogate: 4-Terphenyl-d14 | 70.8 % | 33-122 | " | " | " |
| Surrogate: Nitrobenzene-d5 | 56.9 % | 29-110 | " | " | " |

pH in Soil by 9045D

| | | | | | | |
|----|------|----------|---|---------|------------|------------|
| pH | 7.86 | pH Units | 1 | B2I2206 | 09/22/2022 | 09/23/2022 |
|----|------|----------|---|---------|------------|------------|

SAR by 20B Saturated Paste

| | | | | | | |
|-----|------|-----|---|---------|------------|------------|
| SAR | 5.13 | SAR | 1 | B2I2203 | 09/22/2022 | 09/23/2022 |
|-----|------|-----|---|---------|------------|------------|

Specific Conductance Mod. 9050A

| | | | | | | |
|---------------------------|-------|------------------|---|---------|------------|------------|
| Specific Conductance (EC) | 0.592 | 0.00500 mmhos/cm | 1 | B2I2206 | 09/22/2022 | 09/23/2022 |
|---------------------------|-------|------------------|---|---------|------------|------------|

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

NW of PAD
9/20/2022 4:00:00PM

| Analyte | Result | Min Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
Y209437-04 (Soil)

Boron (DTPA Sorbitol)

| | | | | | | | | |
|-------|-------|--------|------|---|---------|------------|------------|--|
| Boron | 0.211 | 0.0994 | mg/L | 1 | B2I2120 | 09/21/2022 | 09/23/2022 | |
|-------|-------|--------|------|---|---------|------------|------------|--|

DRO/ORO by EPA 8015D

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | ND | 50.0 | mg/kg | 1 | B2I2116 | 09/21/2022 | 09/24/2022 | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | " | " | " | " | U |

| | | | | | | | |
|------------------------|--------|--------|--|--|---|---|---|
| Surrogate: o-Terphenyl | 87.4 % | 50-150 | | | " | " | " |
|------------------------|--------|--------|--|--|---|---|---|

GBTEX+TMBs by 8260D

| | | | | | | | | |
|-----------------------------|----|---------|-------|---|---------|------------|------------|---|
| Benzene | ND | 0.00200 | mg/kg | 1 | B2I2617 | 09/26/2022 | 10/01/2022 | U |
| Ethylbenzene | ND | 0.00200 | " | " | " | " | " | U |
| Toluene | ND | 0.00200 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.00200 | " | " | " | " | " | U |
| Gasoline Range Hydrocarbons | ND | 0.200 | " | " | " | " | " | U |

| | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|
| Surrogate: 1,2-Dichloroethane-d4 | 79.7 % | 70-130 | | | " | " | " |
| Surrogate: Toluene-d8 | 112 % | 70-130 | | | " | " | " |
| Surrogate: 4-Bromofluorobenzene | 106 % | 70-130 | | | " | " | " |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.

PO Box 2169

Loveland CO 80539

Ryan Dornbos

Project Number: [none]

Project: Church

NW of PAD

9/20/2022 4:00:00PM

| Analyte | Result | Min Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.

Y209437-04 (Soil)

Metals by Saturated Paste by EPA 6010

| | | | | | | | |
|-----------|-------|-------|-------|----|--------|------------|------------|
| Calcium | 0.998 | 0.499 | meq/L | 10 | [CALC] | 09/22/2022 | 09/23/2022 |
| Magnesium | ND | 0.823 | " | " | " | " | " |
| Sodium | 5.37 | 0.435 | " | " | " | " | " |

PAH by 8270D SIM

| | | | | | | | | |
|------------------------|----|----------|---------|-------|---|---------|------------|------------|
| 1-Methylnaphthalene | ND | 0.000364 | 0.00067 | mg/Kg | 1 | L639817 | 09/27/2022 | 09/28/2022 |
| 2-Methylnaphthalene | ND | 0.000645 | 0.00067 | " | " | " | " | " |
| Acenaphthene | ND | 0.000304 | 0.00067 | " | " | " | " | " |
| Anthracene | ND | 0.000334 | 0.00067 | " | " | " | " | " |
| Benzo(a)anthracene | ND | 0.000493 | 0.00067 | " | " | " | " | " |
| Benzo(a)pyrene | ND | 0.000468 | 0.00067 | " | " | " | " | " |
| Benzo(b)fluoranthene | ND | 0.000585 | 0.00067 | " | " | " | " | " |
| Benzo(k)fluoranthene | ND | 0.000437 | 0.00067 | " | " | " | " | " |
| Chrysene | ND | 0.000624 | 0.00067 | " | " | " | " | " |
| Dibenz(a,h)anthracene | ND | 0.000614 | 0.00067 | " | " | " | " | " |
| Fluoranthene | ND | 0.000394 | 0.00067 | " | " | " | " | " |
| Fluorene | ND | 0.000286 | 0.00067 | " | " | " | " | " |
| Indeno(1,2,3-cd)pyrene | ND | 0.000627 | 0.00067 | " | " | " | " | " |
| Naphthalene | ND | 0.000484 | 0.00067 | " | " | " | " | " |
| Pyrene | ND | 0.000643 | 0.00067 | " | " | " | " | " |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.

PO Box 2169

Loveland CO 80539

Ryan Dornbos

Project Number: [none]

Project: Church

NW of PAD

9/20/2022 4:00:00PM

| Analyte | Result | Min Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|

Waypoint Analytical, LLC.

Y209437-04 (Soil)

PAH by 8270D SIM

| | | | | | | | | | |
|-----------------------------|--------|--|--------|--|--|-------------|------------|------------|--|
| Surrogate: 2-Fluorobiphenyl | 60.6 % | | 33-115 | | | L6398 17 | 09/27/2022 | 09/28/2022 | |
| Surrogate: 4-Terphenyl-d14 | 72.6 % | | 33-122 | | | " | " | " | |
| Surrogate: Nitrobenzene-d5 | 60.3 % | | 29-110 | | | " | " | " | |

pH in Soil by 9045D

| | | | | | | | | | |
|----|------|--|--|----------|---|---------|------------|------------|--|
| pH | 7.78 | | | pH Units | 1 | B2I2206 | 09/22/2022 | 09/23/2022 | |
|----|------|--|--|----------|---|---------|------------|------------|--|

SAR by 20B Saturated Paste

| | | | | | | | | | |
|-----|------|--|--|-----|---|---------|------------|------------|--|
| SAR | 6.94 | | | SAR | 1 | B2I2203 | 09/22/2022 | 09/23/2022 | |
|-----|------|--|--|-----|---|---------|------------|------------|--|

Specific Conductance Mod. 9050A

| | | | | | | | | | |
|---------------------------|-------|--|---------|----------|---|---------|------------|------------|--|
| Specific Conductance (EC) | 0.538 | | 0.00500 | mmhos/cm | 1 | B2I2206 | 09/22/2022 | 09/23/2022 | |
|---------------------------|-------|--|---------|----------|---|---------|------------|------------|--|

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

Background**9/20/2022 4:00:00PM**

| Analyte | Result | Min Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
Y209437-05 (Soil)**Boron (DTPA Sorbitol)**

| | | | | | | | |
|-------|----|--------|------|---|---------|------------|------------|
| Boron | ND | 0.0996 | mg/L | 1 | B2I2120 | 09/21/2022 | 09/23/2022 |
|-------|----|--------|------|---|---------|------------|------------|

Metals by Saturated Paste by EPA 6010

| | | | | | | | |
|-----------|-------|-------|-------|----|--------|------------|------------|
| Calcium | 0.831 | 0.499 | meq/L | 10 | [CALC] | 09/22/2022 | 09/23/2022 |
| Magnesium | ND | 0.823 | " | " | " | " | " |
| Sodium | ND | 0.435 | " | " | " | " | " |

pH in Soil by 9045D

| | | | | | | | |
|----|------|--|----------|---|---------|------------|------------|
| pH | 6.97 | | pH Units | 1 | B2I2206 | 09/22/2022 | 09/23/2022 |
|----|------|--|----------|---|---------|------------|------------|

SAR by 20B Saturated Paste

| | | | | | | | |
|-----|--------|--|-----|---|---------|------------|------------|
| SAR | 0.0692 | | SAR | 1 | B2I2203 | 09/22/2022 | 09/23/2022 |
|-----|--------|--|-----|---|---------|------------|------------|

Specific Conductance Mod. 9050A

| | | | | | | | |
|---------------------------|-------|---------|----------|---|---------|------------|------------|
| Specific Conductance (EC) | 0.184 | 0.00500 | mmhos/cm | 1 | B2I2206 | 09/22/2022 | 09/23/2022 |
|---------------------------|-------|---------|----------|---|---------|------------|------------|

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.

PO Box 2169

Loveland CO 80539

Ryan Dornbos

Project Number: [none]

Project: Church

Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------|--------|-----------------|-------|-------------|---|------|-------------|-----|-----------|-------|
| Batch B2I2116 - EPA 3580 | | | | | | | | | | |
| Blank (B2I2116-BLK1) | | | | | Prepared: 09/21/2022 Analyzed: 09/23/2022 | | | | | |
| Diesel (C10-C28) | ND | 25.0 | mg/kg | | | | | | | U |
| Residual Range Organics (C28-C40) | ND | 100 | " | | | | | | | U |
| Surrogate: o-Terphenyl | 23 | | " | 24.9 | | 92.6 | 50-150 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.

PO Box 2169

Loveland CO 80539

Ryan Dornbos

Project Number: [none]

Project: Church

Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B2I2116 - EPA 3580

LCS (B2I2116-BS1)

Prepared: 09/21/2022 Analyzed: 09/23/2022

| | | | | | | | | | | |
|-----------------------------------|-----|------|-------|------|--|------|--------|--|--|--|
| Diesel (C10-C28) | 872 | 50.0 | mg/kg | 1000 | | 87.2 | 70-130 | | | |
| Residual Range Organics (C28-C40) | 844 | 200 | " | 1000 | | 84.4 | 70-130 | | | |
| Surrogate: o-Terphenyl | 46 | | " | 49.8 | | 92.3 | 50-150 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.

PO Box 2169

Loveland CO 80539

Ryan Dornbos

Project Number: [none]

Project: Church

Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B2I2116 - EPA 3580

| Matrix Spike (B2I2116-MS1) | | Source: Y209433-01 | | | Prepared: 09/21/2022 Analyzed: 09/23/2022 | | | | | |
|-----------------------------------|-----|--------------------|-------|------|---|------|--------|--|--|--|
| Diesel (C10-C28) | 862 | 50.0 | mg/kg | 1000 | ND | 86.2 | 70-130 | | | |
| Residual Range Organics (C28-C40) | 801 | 200 | " | 1000 | ND | 80.1 | 70-130 | | | |
| Surrogate: o-Terphenyl | 41 | | " | 49.8 | | 82.3 | 50-150 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------|--------|--------------------|-------|-------------|---|------|-------------|------|-----------|-------|
| Batch B2I2116 - EPA 3580 | | | | | | | | | | |
| Matrix Spike Dup (B2I2116-MSD1) | | Source: Y209433-01 | | | Prepared: 09/21/2022 Analyzed: 09/23/2022 | | | | | |
| Diesel (C10-C28) | 872 | 50.0 | mg/kg | 1000 | ND | 87.2 | 70-130 | 1.16 | 35 | |
| Residual Range Organics (C28-C40) | 840 | 200 | " | 1000 | ND | 84.0 | 70-130 | 4.75 | 35 | |
| Surrogate: o-Terphenyl | 43 | | " | 49.8 | | 86.9 | 50-150 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.

PO Box 2169

Loveland CO 80539

Ryan Dornbos

Project Number: [none]

Project: Church

Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|-------------|---|------|-------------|-----|-----------|-------|
| Batch B2I2615 - EPA 5030 (soil) | | | | | | | | | | |
| Blank (B2I2615-BLK1) | | | | | Prepared: 09/26/2022 Analyzed: 09/29/2022 | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.00200 | mg/kg | | | | | | | U |
| 1,3,5-Trimethylbenzene | ND | 0.00200 | " | | | | | | | U |
| Benzene | ND | 0.00200 | " | | | | | | | U |
| Ethylbenzene | ND | 0.00200 | " | | | | | | | U |
| Naphthalene | ND | 0.00380 | " | | | | | | | U |
| Toluene | ND | 0.00200 | " | | | | | | | U |
| Xylenes, total | ND | 0.00200 | " | | | | | | | U |
| Gasoline Range Hydrocarbons | ND | 0.200 | " | | | | | | | U |
| Surrogate: 1,2-Dichloroethane-d4 | 0.10 | | " | 0.125 | | 80.9 | 70-130 | | | |
| Surrogate: Toluene-d8 | 0.12 | | " | 0.125 | | 95.9 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.11 | | " | 0.125 | | 92.0 | 70-130 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.

PO Box 2169

Loveland CO 80539

Ryan Dornbos

Project Number: [none]

Project: Church

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B2I2615 - EPA 5030 (soil)

LCS (B2I2615-BS1)

Prepared: 09/26/2022 Analyzed: 09/29/2022

| | | | | | | | | | | |
|----------------------------------|--------|---------|-------|-------|--|------|--------|--|--|--|
| 1,2,4-Trimethylbenzene | 0.0952 | 0.00200 | mg/kg | 0.100 | | 95.2 | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 0.0961 | 0.00200 | " | 0.100 | | 96.1 | 70-130 | | | |
| Benzene | 0.0958 | 0.00200 | " | 0.100 | | 95.8 | 70-130 | | | |
| Ethylbenzene | 0.0978 | 0.00200 | " | 0.100 | | 97.8 | 70-130 | | | |
| Naphthalene | 0.0833 | 0.00380 | " | 0.100 | | 83.3 | 70-130 | | | |
| Toluene | 0.0926 | 0.00200 | " | 0.100 | | 92.6 | 70-130 | | | |
| o-Xylene | 0.0969 | 0.00200 | " | 0.100 | | 96.9 | 70-130 | | | |
| m,p-Xylene | 0.197 | 0.00400 | " | 0.200 | | 98.4 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.099 | | " | 0.125 | | 79.4 | 70-130 | | | |
| Surrogate: Toluene-d8 | 0.12 | | " | 0.125 | | 92.7 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.13 | | " | 0.125 | | 103 | 70-130 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.

PO Box 2169

Loveland CO 80539

Ryan Dornbos

Project Number: [none]

Project: Church

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|---------------------------|-------|-------------|---|------|-------------|-----|-----------|-------|
| Batch B2I2615 - EPA 5030 (soil) | | | | | | | | | | |
| Matrix Spike (B2I2615-MS1) | | Source: Y209410-01 | | | Prepared: 09/26/2022 Analyzed: 09/29/2022 | | | | | |
| 1,2,4-Trimethylbenzene | 0.0701 | 0.00200 | mg/kg | 0.100 | ND | 70.1 | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 0.0720 | 0.00200 | " | 0.100 | ND | 72.0 | 70-130 | | | |
| Benzene | 0.0754 | 0.00200 | " | 0.100 | ND | 75.4 | 70-130 | | | |
| Ethylbenzene | 0.0736 | 0.00200 | " | 0.100 | ND | 73.6 | 70-130 | | | |
| Naphthalene | 0.0615 | 0.00380 | " | 0.100 | ND | 61.5 | 70-130 | | | QM-07 |
| Toluene | 0.0711 | 0.00200 | " | 0.100 | ND | 71.1 | 70-130 | | | |
| o-Xylene | 0.0738 | 0.00200 | " | 0.100 | ND | 73.8 | 70-130 | | | |
| m,p-Xylene | 0.149 | 0.00400 | " | 0.200 | ND | 74.5 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.10 | | " | 0.125 | | 83.0 | 70-130 | | | |
| Surrogate: Toluene-d8 | 0.11 | | " | 0.125 | | 91.2 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.13 | | " | 0.125 | | 104 | 70-130 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.

PO Box 2169

Loveland CO 80539

Ryan Dornbos

Project Number: [none]

Project: Church

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|---------------------------|-------|-------------|---|------|-------------|--------|-----------|-------|
| Batch B2I2615 - EPA 5030 (soil) | | | | | | | | | | |
| Matrix Spike Dup (B2I2615-MSD1) | | Source: Y209410-01 | | | Prepared: 09/26/2022 Analyzed: 09/29/2022 | | | | | |
| 1,2,4-Trimethylbenzene | 0.0674 | 0.00200 | mg/kg | 0.100 | ND | 67.4 | 70-130 | 3.81 | 20 | QM-07 |
| 1,3,5-Trimethylbenzene | 0.0686 | 0.00200 | " | 0.100 | ND | 68.6 | 70-130 | 4.78 | 20 | QM-07 |
| Benzene | 0.0762 | 0.00200 | " | 0.100 | ND | 76.2 | 70-130 | 1.03 | 20 | |
| Ethylbenzene | 0.0711 | 0.00200 | " | 0.100 | ND | 71.1 | 70-130 | 3.43 | 20 | |
| Naphthalene | 0.0599 | 0.00380 | " | 0.100 | ND | 59.9 | 70-130 | 2.63 | 20 | QM-07 |
| Toluene | 0.0711 | 0.00200 | " | 0.100 | ND | 71.1 | 70-130 | 0.0281 | 20 | |
| o-Xylene | 0.0700 | 0.00200 | " | 0.100 | ND | 70.0 | 70-130 | 5.29 | 20 | |
| m,p-Xylene | 0.143 | 0.00400 | " | 0.200 | ND | 71.6 | 70-130 | 3.98 | 20 | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.11 | | " | 0.125 | | 85.2 | 70-130 | | | |
| Surrogate: Toluene-d8 | 0.11 | | " | 0.125 | | 90.8 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.13 | | " | 0.125 | | 101 | 70-130 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|-------------|---|------|-------------|-----|-----------|-------|
| Batch B2I2617 - EPA 5030 (soil) | | | | | | | | | | |
| Blank (B2I2617-BLK1) | | | | | Prepared: 09/26/2022 Analyzed: 10/01/2022 | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.00200 | mg/kg | | | | | | | U |
| 1,3,5-Trimethylbenzene | ND | 0.00200 | " | | | | | | | U |
| Benzene | ND | 0.00200 | " | | | | | | | U |
| Ethylbenzene | ND | 0.00200 | " | | | | | | | U |
| Naphthalene | ND | 0.00380 | " | | | | | | | U |
| Toluene | ND | 0.00200 | " | | | | | | | U |
| Xylenes, total | ND | 0.00200 | " | | | | | | | U |
| Gasoline Range Hydrocarbons | ND | 0.200 | " | | | | | | | U |
| Surrogate: 1,2-Dichloroethane-d4 | 0.099 | | " | 0.125 | 78.9 | | 70-130 | | | |
| Surrogate: Toluene-d8 | 0.14 | | " | 0.125 | 112 | | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.13 | | " | 0.125 | 104 | | 70-130 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|-------------|---|------|-------------|-----|-----------|-------|
| Batch B2I2617 - EPA 5030 (soil) | | | | | | | | | | |
| LCS (B2I2617-BS1) | | | | | Prepared: 09/26/2022 Analyzed: 10/01/2022 | | | | | |
| 1,2,4-Trimethylbenzene | 0.107 | 0.00200 | mg/kg | 0.100 | | 107 | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 0.109 | 0.00200 | " | 0.100 | | 109 | 70-130 | | | |
| Benzene | 0.0832 | 0.00200 | " | 0.100 | | 83.2 | 70-130 | | | |
| Ethylbenzene | 0.110 | 0.00200 | " | 0.100 | | 110 | 70-130 | | | |
| Naphthalene | 0.103 | 0.00380 | " | 0.100 | | 103 | 70-130 | | | |
| Toluene | 0.0979 | 0.00200 | " | 0.100 | | 97.9 | 70-130 | | | |
| o-Xylene | 0.109 | 0.00200 | " | 0.100 | | 109 | 70-130 | | | |
| m,p-Xylene | 0.216 | 0.00400 | " | 0.200 | | 108 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.098 | | " | 0.125 | | 78.1 | 70-130 | | | |
| Surrogate: Toluene-d8 | 0.14 | | " | 0.125 | | 112 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.13 | | " | 0.125 | | 104 | 70-130 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.

PO Box 2169

Loveland CO 80539

Ryan Dornbos

Project Number: [none]

Project: Church

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B2I2617 - EPA 5030 (soil)

| Matrix Spike (B2I2617-MS1) | | Source: Y209437-04 | | | Prepared: 09/26/2022 Analyzed: 10/01/2022 | | | | | |
|----------------------------------|--------|--------------------|-------|-------|---|------|--------|--|--|--|
| 1,2,4-Trimethylbenzene | 0.101 | 0.00200 | mg/kg | 0.100 | ND | 101 | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 0.103 | 0.00200 | " | 0.100 | ND | 103 | 70-130 | | | |
| Benzene | 0.0788 | 0.00200 | " | 0.100 | ND | 78.8 | 70-130 | | | |
| Ethylbenzene | 0.107 | 0.00200 | " | 0.100 | ND | 107 | 70-130 | | | |
| Naphthalene | 0.0832 | 0.00380 | " | 0.100 | ND | 83.2 | 70-130 | | | |
| Toluene | 0.0945 | 0.00200 | " | 0.100 | ND | 94.5 | 70-130 | | | |
| o-Xylene | 0.106 | 0.00200 | " | 0.100 | ND | 106 | 70-130 | | | |
| m,p-Xylene | 0.208 | 0.00400 | " | 0.200 | ND | 104 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.095 | | " | 0.125 | | 76.1 | 70-130 | | | |
| Surrogate: Toluene-d8 | 0.14 | | " | 0.125 | | 114 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.13 | | " | 0.125 | | 105 | 70-130 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|---------------------------|-------|-------------|---|------|-------------|-------|-----------|-------|
| Batch B2I2617 - EPA 5030 (soil) | | | | | | | | | | |
| Matrix Spike Dup (B2I2617-MSD1) | | Source: Y209437-04 | | | Prepared: 09/26/2022 Analyzed: 10/01/2022 | | | | | |
| 1,2,4-Trimethylbenzene | 0.0990 | 0.00200 | mg/kg | 0.100 | ND | 99.0 | 70-130 | 1.64 | 20 | |
| 1,3,5-Trimethylbenzene | 0.101 | 0.00200 | " | 0.100 | ND | 101 | 70-130 | 2.16 | 20 | |
| Benzene | 0.0773 | 0.00200 | " | 0.100 | ND | 77.3 | 70-130 | 1.90 | 20 | |
| Ethylbenzene | 0.106 | 0.00200 | " | 0.100 | ND | 106 | 70-130 | 0.880 | 20 | |
| Naphthalene | 0.0837 | 0.00380 | " | 0.100 | ND | 83.7 | 70-130 | 0.623 | 20 | |
| Toluene | 0.0925 | 0.00200 | " | 0.100 | ND | 92.5 | 70-130 | 2.16 | 20 | |
| o-Xylene | 0.105 | 0.00200 | " | 0.100 | ND | 105 | 70-130 | 0.531 | 20 | |
| m,p-Xylene | 0.207 | 0.00400 | " | 0.200 | ND | 103 | 70-130 | 0.492 | 20 | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.096 | | " | 0.125 | | 77.0 | 70-130 | | | |
| Surrogate: Toluene-d8 | 0.14 | | " | 0.125 | | 113 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.13 | | " | 0.125 | | 105 | 70-130 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Classical Chemistry Parameters - Quality Control

Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B2I2120 - Default Prep Metals

Blank (B2I2120-BLK1)

Prepared: 09/21/2022 Analyzed: 09/23/2022

Boron ND 0.100 mg/L

Duplicate (B2I2120-DUP1)

Source: Y209437-01

Prepared: 09/21/2022 Analyzed: 09/23/2022

Boron 1.43 0.0995 mg/L 1.08 28.2 50

Batch B2I2203 - Default Prep Metals

Blank (B2I2203-BLK1)

Prepared: 09/22/2022 Analyzed: 09/23/2022

SAR 0.00 SAR

Calcium PPM ND 10.0 mg/L

Magnesium PPM ND 10.0 "

Sodium PPM ND 10.0 "

Duplicate (B2I2203-DUP1)

Source: Y209275-02

Prepared: 09/22/2022 Analyzed: 09/23/2022

Calcium PPM 57.5 10.0 mg/L 45.6 23.0 50

SAR 0.00 SAR 0.281 200 200

Magnesium PPM 14.1 10.0 mg/L 11.1 23.8 50

Sodium PPM 11.3 10.0 " 8.15 32.4 50

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

Saturated Paste - Quality Control Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|----------|-------------|--|------|-------------|------|-----------|--------|
| Batch B2I2206 - NO PREP | | | | | | | | | | |
| Blank (B2I2206-BLK1) | | | | | Prepared: 09/22/2022 Analyzed: 09/23/2022 | | | | | |
| Specific Conductance (EC) | ND | 0.00500 | mmhos/cm | | | | | | | |
| pH | 0.00 | | pH Units | | | | | | | |
| Duplicate (B2I2206-DUP1) | | | | | Source: Y209275-02 Prepared: 09/22/2022 Analyzed: 09/23/2022 | | | | | |
| Specific Conductance (EC) | 0.507 | 0.00500 | mmhos/cm | | 0.381 | | | 28.3 | 25 | QR-DUP |
| pH | 7.92 | | pH Units | | 8.00 | | | 1.01 | 25 | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

PAH by 8270D SIM - Quality Control
Waypoint Analytical, LLC.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch L639817 - 3550B

| MSD (L 87954-MSD-L639817) | | Source: 87954 | | | Prepared: 09/27/2022 Analyzed: 09/28/2022 | | | | | |
|-----------------------------|--------|---------------|-------|-------|---|------|--------|------|----|--|
| Indeno(1,2,3-cd)pyrene | 0.144 | 0.00067 | mg/Kg | 0.166 | <0.000627 | 86.7 | 30-130 | 4.7 | 30 | |
| Benzo(b)fluoranthene | 0.0979 | 0.00067 | " | 0.166 | <0.000585 | 58.9 | 30-130 | 4.1 | 30 | |
| 1-Methylnaphthalene | 0.114 | 0.00067 | " | 0.166 | <0.000364 | 68.6 | 30-130 | 12 | 30 | |
| 2-Methylnaphthalene | 0.111 | 0.00067 | " | 0.166 | <0.000645 | 66.8 | 30-130 | 12.1 | 30 | |
| Acenaphthene | 0.116 | 0.00067 | " | 0.166 | <0.000304 | 69.8 | 30-130 | 9 | 30 | |
| Anthracene | 0.132 | 0.00067 | " | 0.166 | <0.000334 | 79.5 | 30-130 | 9.5 | 30 | |
| Benzo(a)pyrene | 0.152 | 0.00067 | " | 0.166 | <0.000468 | 91.5 | 30-130 | 8.2 | 30 | |
| Pyrene | 0.123 | 0.00067 | " | 0.166 | <0.000643 | 74 | 30-130 | 6.7 | 30 | |
| Benzo(k)fluoranthene | 0.115 | 0.00067 | " | 0.166 | <0.000437 | 69.2 | 30-130 | 3.5 | 30 | |
| Chrysene | 0.131 | 0.00067 | " | 0.166 | <0.000624 | 78.9 | 30-130 | 6.2 | 30 | |
| Dibenz(a,h)anthracene | 0.157 | 0.00067 | " | 0.166 | <0.000614 | 94.5 | 30-130 | 2.5 | 30 | |
| Fluoranthene | 0.126 | 0.00067 | " | 0.166 | <0.000394 | 75.9 | 30-130 | 5.7 | 30 | |
| Fluorene | 0.124 | 0.00067 | " | 0.166 | <0.000286 | 74.6 | 30-130 | 8.4 | 30 | |
| Naphthalene | 0.107 | 0.00067 | " | 0.166 | <0.000484 | 64.4 | 30-130 | 14.1 | 30 | |
| Benzo(a)anthracene | 0.134 | 0.00067 | " | 0.166 | <0.000493 | 80.7 | 30-130 | 10.1 | 30 | |
| Surrogate: 2-Fluorobiphenyl | 62.9 | | " | 0.332 | 192 | 62.9 | 33-115 | | | |
| Surrogate: 4-Terphenyl-d14 | 67.7 | | " | 0.332 | 202 | 67.7 | 33-122 | | | |
| Surrogate: Nitrobenzene-d5 | 58.1 | | " | 0.332 | 180 | 58.1 | 29-110 | | | |

| MS (L 87954-MS-L639817) | | Source: 87954 | | | Prepared: 09/27/2022 Analyzed: 09/28/2022 | | | | | |
|-------------------------|--------|---------------|-------|-------|---|------|--------|--|--|--|
| Anthracene | 0.12 | 0.00067 | mg/Kg | 0.166 | <0.000334 | 72.2 | 30-130 | | | |
| Benzo(k)fluoranthene | 0.111 | 0.00067 | " | 0.166 | <0.000437 | 66.8 | 30-130 | | | |
| 1-Methylnaphthalene | 0.101 | 0.00067 | " | 0.166 | <0.000364 | 60.8 | 30-130 | | | |
| 2-Methylnaphthalene | 0.0983 | 0.00067 | " | 0.166 | <0.000645 | 59.2 | 30-130 | | | |
| Acenaphthene | 0.106 | 0.00067 | " | 0.166 | <0.000304 | 63.8 | 30-130 | | | |
| Benzo(a)pyrene | 0.14 | 0.00067 | " | 0.166 | <0.000468 | 84.3 | 30-130 | | | |
| Benzo(b)fluoranthene | 0.102 | 0.00067 | " | 0.166 | <0.000585 | 61.4 | 30-130 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

PAH by 8270D SIM - Quality Control
Waypoint Analytical, LLC.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch L639817 - 3550B

| MS (L 87954-MS-L639817) | | Source: 87954 | | | Prepared: 09/27/2022 Analyzed: 09/28/2022 | | | | | |
|-----------------------------|--------|---------------|-------|-------|---|------|--------|--|--|--|
| Pyrene | 0.115 | 0.00067 | mg/Kg | 0.166 | <0.000643 | 69.2 | 30-130 | | | |
| Chrysene | 0.123 | 0.00067 | " | 0.166 | <0.000624 | 74 | 30-130 | | | |
| Dibenz(a,h)anthracene | 0.161 | 0.00067 | " | 0.166 | <0.000614 | 96.9 | 30-130 | | | |
| Fluoranthene | 0.119 | 0.00067 | " | 0.166 | <0.000394 | 71.6 | 30-130 | | | |
| Fluorene | 0.114 | 0.00067 | " | 0.166 | <0.000286 | 68.6 | 30-130 | | | |
| Indeno(1,2,3-cd)pyrene | 0.151 | 0.00067 | " | 0.166 | <0.000627 | 90.9 | 30-130 | | | |
| Naphthalene | 0.0929 | 0.00067 | " | 0.166 | <0.000484 | 55.9 | 30-130 | | | |
| Benzo(a)anthracene | 0.121 | 0.00067 | " | 0.166 | <0.000493 | 72.8 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | 56.7 | | " | 0.331 | 192 | 56.7 | 33-115 | | | |
| Surrogate: 4-Terphenyl-d14 | 64.9 | | " | 0.331 | 202 | 64.9 | 33-122 | | | |
| Surrogate: Nitrobenzene-d5 | 52.5 | | " | 0.331 | 180 | 52.5 | 29-110 | | | |

| LCS (LCS-L639817) | | Prepared: 09/27/2022 Analyzed: 09/28/2022 | | | | | | | | |
|------------------------|-------|---|-------|-------|--|------|--------|--|--|--|
| Acenaphthene | 0.111 | 0.00067 | mg/Kg | 0.167 | | 66.4 | 30-130 | | | |
| Fluorene | 0.117 | 0.00067 | " | 0.167 | | 70 | 30-130 | | | |
| Benzo(a)anthracene | 0.125 | 0.00067 | " | 0.167 | | 74.8 | 30-130 | | | |
| Dibenz(a,h)anthracene | 0.135 | 0.00067 | " | 0.167 | | 80.8 | 30-130 | | | |
| Chrysene | 0.128 | 0.00067 | " | 0.167 | | 76.6 | 30-130 | | | |
| Benzo(k)fluoranthene | 0.117 | 0.00067 | " | 0.167 | | 70 | 30-130 | | | |
| Benzo(b)fluoranthene | 0.115 | 0.00067 | " | 0.167 | | 68.8 | 30-130 | | | |
| Benzo(a)pyrene | 0.144 | 0.00067 | " | 0.167 | | 86.2 | 30-130 | | | |
| Anthracene | 0.125 | 0.00067 | " | 0.167 | | 74.8 | 30-130 | | | |
| Fluoranthene | 0.131 | 0.00067 | " | 0.167 | | 78.4 | 30-130 | | | |
| Indeno(1,2,3-cd)pyrene | 0.123 | 0.00067 | " | 0.167 | | 73.6 | 30-130 | | | |
| Naphthalene | 0.108 | 0.00067 | " | 0.167 | | 64.6 | 30-130 | | | |
| Pyrene | 0.128 | 0.00067 | " | 0.167 | | 76.6 | 30-130 | | | |
| 2-Methylnaphthalene | 0.108 | 0.00067 | " | 0.167 | | 64.6 | 30-130 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

PAH by 8270D SIM - Quality Control
Waypoint Analytical, LLC.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch L639817 - 3550B

LCS (LCS-L639817)

Prepared: 09/27/2022 Analyzed: 09/28/2022

| | | | | | | | | | | |
|-----------------------------|------|---------|-------|-------|------|------|--------|--|--|--|
| 1-Methylnaphthalene | 0.11 | 0.00067 | mg/Kg | 0.167 | | 65.8 | 30-130 | | | |
| Surrogate: Nitrobenzene-d5 | 66 | | " | 0.333 | 66 | | 29-110 | | | |
| Surrogate: 2-Fluorobiphenyl | 67.5 | | " | 0.333 | 67.5 | | 33-115 | | | |
| Surrogate: 4-Terphenyl-d14 | 79.2 | | " | 0.333 | 79.2 | | 33-122 | | | |

LRB (LRB-L639817)

Prepared: 09/27/2022 Analyzed: 09/28/2022

| | | | | | | | | | | |
|-----------------------------|------|---------|-------|-------|------|--|--------|--|--|--|
| Chrysene | ND | 0.00067 | mg/Kg | | | | - | | | |
| Naphthalene | ND | 0.00067 | " | | | | - | | | |
| Pyrene | ND | 0.00067 | " | | | | - | | | |
| Indeno(1,2,3-cd)pyrene | ND | 0.00067 | " | | | | - | | | |
| Fluorene | ND | 0.00067 | " | | | | - | | | |
| Dibenz(a,h)anthracene | ND | 0.00067 | " | | | | - | | | |
| Acenaphthene | ND | 0.00067 | " | | | | - | | | |
| Benzo(k)fluoranthene | ND | 0.00067 | " | | | | - | | | |
| Benzo(b)fluoranthene | ND | 0.00067 | " | | | | - | | | |
| Benzo(a)pyrene | ND | 0.00067 | " | | | | - | | | |
| Benzo(a)anthracene | ND | 0.00067 | " | | | | - | | | |
| Anthracene | ND | 0.00067 | " | | | | - | | | |
| 1-Methylnaphthalene | ND | 0.00067 | " | | | | - | | | |
| 2-Methylnaphthalene | ND | 0.00067 | " | | | | - | | | |
| Fluoranthene | ND | 0.00067 | " | | | | - | | | |
| Surrogate: Nitrobenzene-d5 | 52.2 | | " | 0.333 | 52.2 | | 29-110 | | | |
| Surrogate: 2-Fluorobiphenyl | 53.7 | | " | 0.333 | 53.7 | | 33-115 | | | |
| Surrogate: 4-Terphenyl-d14 | 68.4 | | " | 0.333 | 68.4 | | 33-122 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Peterson Energy Operating, Inc.
PO Box 2169
Loveland CO 80539

Ryan Dornbos
Project Number: [none]
Project: Church

Notes and Definitions

U Sample is Non-Detect.

QR-DUP RPD exceeds QC acceptance criteria, this indicates source sample is not homogenous.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

J Estimated Value. Analyte below reported quantitation limit.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.