

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 23, 2024

Karen Olson

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: PDC - Hoffman B33-19 Tank Battery

Work Order #2408212

Enclosed are the results of analyses for samples received by Summit Scientific on 08/20/24 17:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacob Wood". The signature is written in a cursive, flowing style.

Jacob Wood For Paul Shrewsbury

President



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

ANALYTICAL REPORT FOR SAMPLES



| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|----------------|---------------|--------|----------------|----------------|
| N-PWV01-N@2.5' | 2408212-01 | Soil | 08/20/24 15:15 | 08/20/24 17:40 |
| N-PWV01-B@6' | 2408212-02 | Soil | 08/20/24 15:10 | 08/20/24 17:40 |

Summit Scientific

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| | | | | | |
|---|--|--|--|---|--|
| Client: PDC / Tasman | | Send Data To: | | Send Invoice To: | |
| Address: 6855 W 119th Ave | | Project Manager: Karen Olson | | Company: PDC Energy | |
| City/State/Zip: Broomfield / CO / 80020 | | E-Mail: karen.olson@chevron.com | | Project Name/Location: Hoffman B33-19 Tank Battery | |
| Phone: 303-487-1228 | | Project Name: Hoffman B33-19 Tank Battery | | AFE#: PX-900268 | |
| Sampler Name: Ryan Yavinsky / Loren Bohannon | | Project Number: | | PO/Billing Codes: | |
| | | | | Contact: Karen Olson Delbert Pace | |

| | | | | | Preservative | | | Matrix | | | Analysis Requested | | | | Special Instructions | |
|----|--------------------|--------------|--------------|-----------------|--------------|------|------|--------|-------|------|--------------------|-------|---------------|-------------------|----------------------|----------------|
| ID | Sample Description | Date Sampled | Time Sampled | # of containers | HCl | HNO3 | None | Other | Water | Soil | Air-Canister # | Other | BTEXN - 8260B | 1,2,4 & 1,3,5-TMB | TDS, Cl, SO4 | Full 915 suite |
| 1 | N-PWV01-NEL5' | 8/20/24 | 1515 | 3 | | | 3 | 3 | | X | | | | | | X |
| 2 | N-PWV01-B06' | 1 | 1510 | 1 | | | 1 | | | 1 | | | | | | 1 |
| 3 | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | |

| | | | | | | |
|---|--------------------------|--|-------------------------|-------------------|-------------|--|
| Relinquished by:  | Date/Time: 8/20/24 1730 | Received by: Tasman Lockbox | Date/Time: 8/20/24 1730 | TAT Business Days | Field DO | Notes: ★VOLs and TPH on same day, PAHs, metals PH, EC, SAR and Boron on standard. |
| | | | | Same Day | Field EC | |
| Relinquished by: Tasman Lockbox | Date/Time: 8/20/24 1740 | Received by:  | Date/Time: 8/20/24 1740 | 1 Day | Field ORP | |
| | | | | 2 Days | Field pH | |
| | | | | 3 Days | Field Temp. | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | Standard | Field Turb. | |
| Temperature Upon Receipt: 11.1 | Corrected Temperature: 8 | IR gun #: J | HNO3 lot #: | | | |

S₂

Sample Receipt Checklist

S2 Work Order# 2408212Client: Doc/Adman Client Project ID: Hoffman B33-19 Tank BaffledShipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐

| | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|

Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 11.1 Thermometer # 1

| | Yes | No | N/A | Comments (if any) |
|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------|
| If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <u>m20E</u> |
| If custody seals are present, are they intact? ⁽¹⁾ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Are samples due within 48 hours present? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <u>Same day</u> |
| Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Is a chain-of-custody (COC) form present and filled out completely? ⁽¹⁾ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Were all samples received intact? ⁽¹⁾ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Was adequate sample volume provided? ⁽¹⁾ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Does the COC agree with the number and type of sample bottles received? ⁽¹⁾ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Do the sample IDs on the bottle labels match the COC? ⁽¹⁾ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| For volatiles in water – is there headspace present? If yes, contact client and note in narrative. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| If dissolved metals are requested, were samples field filtered? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Additional Comments (if any): | | | | |
| | | | | |
| | | | | |

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.AS
Custodian Printed Name8/20/24
Date/Time



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

N-PWV01-N@2.5'
2408212-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/20/24 15:15**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Benzene | ND | 0.0020 | | mg/kg | 1 | BHH0559 | 08/20/24 | 08/21/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | | " | " | " | " | " | " | |

Date Sampled: **08/20/24 15:15**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0455 | 114 % | | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0406 | 101 % | | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0410 | 103 % | | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/20/24 15:15**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| C10-C28 (DRO) | ND | 50 | | mg/kg | 1 | BHH0558 | 08/20/24 | 08/21/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | | " | " | " | " | " | " | |

Date Sampled: **08/20/24 15:15**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: o-Terphenyl | 9.90 | 79.2 % | | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

N-PWV01-N@2.5'
2408212-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/20/24 15:15**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | | | | | | | |
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHH0562 | 08/21/24 | 08/22/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Chrysene | ND | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **08/20/24 15:15**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0214 | 64.1 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0213 | 64.0 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/20/24 15:15**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Boron | ND | 2.00 | mg/L | 1 | BHH0626 | 08/22/24 | 08/23/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **08/20/24 15:15**

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

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Project Number: [none]
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Reported:
08/23/24 11:46

N-PWV01-N@2.5'
2408212-01 (Soil)

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Total Metals by EPA 6020B

| | | | | | | | | |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic | 2.86 | 0.200 | mg/kg dry | 1 | BHH0590 | 08/21/24 | 08/22/24 | EPA 6020B |
| Barium | 85.6 | 0.400 | " | " | " | " | " | " |
| Cadmium | 0.288 | 0.200 | " | " | " | " | " | " |
| Copper | 7.76 | 0.400 | " | " | " | " | " | " |
| Lead | 11.1 | 0.200 | " | " | " | " | " | " |
| Nickel | 6.17 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0318 | 0.0200 | " | " | " | " | " | " |
| Zinc | 28.0 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/20/24 15:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHH0571 | 08/21/24 | 08/21/24 | EPA 7196A | |

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **08/20/24 15:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 39.2 | 0.0500 | mg/L dry | 1 | BHH0544 | 08/20/24 | 08/23/24 | EPA 6020B | |
| Magnesium | 9.15 | 0.0500 | " | " | " | " | 08/23/24 | " | |
| Sodium | 83.3 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **08/20/24 15:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 3.11 | 0.00100 | units | 1 | BHH0706 | 08/23/24 | 08/23/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/20/24 15:15**

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

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6855 W. 119th Ave.
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Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

N-PWV01-N@2.5'
2408212-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

| | | | | | | | |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 87.0 | % | 1 | BHH0612 | 08/21/24 | 08/22/24 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/20/24 15:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.972 | 0.0100 | mmhos/cm | 1 | BHH0545 | 08/20/24 | 08/21/24 | EPA 120.1 | I-03 |

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/20/24 15:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|-------------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.57 | | pH Units | 1 | BHH0546 | 08/20/24 | 08/21/24 | EPA 9045D | I-03 |

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Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

N-PWV01-B@6'
2408212-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/20/24 15:10**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BHH0559 | 08/20/24 | 08/21/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | 0.051 | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | 0.086 | 0.0050 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | 17 | 0.50 | " | " | " | " | " | " | |

Date Sampled: **08/20/24 15:10**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0450 | 112 % | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0433 | 108 % | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0629 | 157 % | 50-150 | | " | " | " | " | S-02 |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/20/24 15:10**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|------------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| C10-C28 (DRO) | 970 | 50 | mg/kg | 1 | BHH0558 | 08/20/24 | 08/21/24 | EPA 8015M | |
| C28-C36 (ORO) | 130 | 50 | " | " | " | " | " | " | |

Date Sampled: **08/20/24 15:10**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | |
| Surrogate: o-Terphenyl | 6.38 | 51.0 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

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Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

N-PWV01-B@6'
2408212-02 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **08/20/24 15:10**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------|----------------|-----------|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | | | | | | | |
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHH0562 | 08/21/24 | 08/22/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Chrysene | 0.00722 | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluorene | 0.0436 | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Pyrene | 0.00707 | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | 0.0725 | 0.00500 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | 0.120 | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **08/20/24 15:10**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0261 | 78.4 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0194 | 58.3 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/20/24 15:10**

| Analyte | Result | Reporting | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | |
| Boron | ND | 2.00 | mg/L | 1 | BHH0626 | 08/22/24 | 08/23/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **08/20/24 15:10**

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

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

N-PWV01-B@6'
2408212-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| | | | | | | | | |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic | 1.73 | 0.200 | mg/kg dry | 1 | BHH0590 | 08/21/24 | 08/22/24 | EPA 6020B |
| Barium | 65.3 | 0.400 | " | " | " | " | " | " |
| Cadmium | ND | 0.200 | " | " | " | " | " | " |
| Copper | 3.34 | 0.400 | " | " | " | " | " | " |
| Lead | 4.96 | 0.200 | " | " | " | " | " | " |
| Nickel | 3.79 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0228 | 0.0200 | " | " | " | " | " | " |
| Zinc | 15.6 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/20/24 15:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHH0571 | 08/21/24 | 08/21/24 | EPA 7196A | |

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **08/20/24 15:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 17.0 | 0.0500 | mg/L dry | 1 | BHH0544 | 08/20/24 | 08/23/24 | EPA 6020B | |
| Magnesium | 6.76 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 70.9 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **08/20/24 15:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 3.68 | 0.00100 | units | 1 | BHH0706 | 08/23/24 | 08/23/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

N-PWV01-B@6'
2408212-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/20/24 15:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 87.5 | | % | 1 | BHH0612 | 08/21/24 | 08/22/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/20/24 15:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.845 | 0.0100 | mmhos/cm | 1 | BHH0545 | 08/20/24 | 08/21/24 | EPA 120.1 | I-03 |

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/20/24 15:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.70 | | pH Units | 1 | BHH0546 | 08/20/24 | 08/21/24 | EPA 9045D | I-03 |

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHH0559 - EPA 5030 Soil MS

Blank (BHH0559-BLK1)

Prepared: 08/20/24 Analyzed: 08/21/24

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | ND | 0.0020 | mg/kg | | | | | | | |
| Toluene | ND | 0.0050 | " | | | | | | | |
| Ethylbenzene | ND | 0.0050 | " | | | | | | | |
| Xylenes (total) | ND | 0.010 | " | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | | | | | | | |
| Naphthalene | ND | 0.0038 | " | | | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0413 | | " | 0.0400 | | 103 | 50-150 | | | |
| Surrogate: Toluene-d8 | 0.0392 | | " | 0.0400 | | 97.9 | 50-150 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0389 | | " | 0.0400 | | 97.2 | 50-150 | | | |

LCS (BHH0559-BS1)

Prepared: 08/20/24 Analyzed: 08/21/24

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | 0.0943 | 0.0020 | mg/kg | 0.100 | | 94.3 | 70-130 | | | |
| Toluene | 0.0935 | 0.0050 | " | 0.100 | | 93.5 | 70-130 | | | |
| Ethylbenzene | 0.0938 | 0.0050 | " | 0.100 | | 93.8 | 70-130 | | | |
| m,p-Xylene | 0.182 | 0.010 | " | 0.200 | | 90.8 | 70-130 | | | |
| o-Xylene | 0.0907 | 0.0050 | " | 0.100 | | 90.7 | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 0.0865 | 0.0050 | " | 0.100 | | 86.5 | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 0.0866 | 0.0050 | " | 0.100 | | 86.6 | 70-130 | | | |
| Naphthalene | 0.0822 | 0.0038 | " | 0.100 | | 82.2 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0444 | | " | 0.0400 | | 111 | 50-150 | | | |
| Surrogate: Toluene-d8 | 0.0405 | | " | 0.0400 | | 101 | 50-150 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0394 | | " | 0.0400 | | 98.6 | 50-150 | | | |

Matrix Spike (BHH0559-MS1)

Source: 2408204-01

Prepared: 08/20/24 Analyzed: 08/21/24

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|----|------|--------|--|--|--|
| Benzene | 0.0873 | 0.0020 | mg/kg | 0.100 | ND | 87.3 | 70-130 | | | |
| Toluene | 0.0862 | 0.0050 | " | 0.100 | ND | 86.2 | 70-130 | | | |
| Ethylbenzene | 0.0910 | 0.0050 | " | 0.100 | ND | 91.0 | 70-130 | | | |
| m,p-Xylene | 0.174 | 0.010 | " | 0.200 | ND | 86.9 | 70-130 | | | |
| o-Xylene | 0.0853 | 0.0050 | " | 0.100 | ND | 85.3 | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 0.0817 | 0.0050 | " | 0.100 | ND | 81.7 | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 0.0835 | 0.0050 | " | 0.100 | ND | 83.5 | 70-130 | | | |
| Naphthalene | 0.0782 | 0.0038 | " | 0.100 | ND | 78.2 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0439 | | " | 0.0400 | | 110 | 50-150 | | | |
| Surrogate: Toluene-d8 | 0.0396 | | " | 0.0400 | | 98.9 | 50-150 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0396 | | " | 0.0400 | | 99.0 | 50-150 | | | |

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch BHH0559 - EPA 5030 Soil MS

| Matrix Spike Dup (BHH0559-MSD1) | | Source: 2408204-01 | | | Prepared: 08/20/24 Analyzed: 08/21/24 | | | | | |
|----------------------------------|--------|--------------------|-------|--------|---------------------------------------|------|--------|------|----|--|
| Benzene | 0.0816 | 0.0020 | mg/kg | 0.100 | ND | 81.6 | 70-130 | 6.75 | 30 | |
| Toluene | 0.0807 | 0.0050 | " | 0.100 | ND | 80.7 | 70-130 | 6.58 | 30 | |
| Ethylbenzene | 0.0857 | 0.0050 | " | 0.100 | ND | 85.7 | 70-130 | 6.01 | 30 | |
| m,p-Xylene | 0.169 | 0.010 | " | 0.200 | ND | 84.3 | 70-130 | 3.10 | 30 | |
| o-Xylene | 0.0802 | 0.0050 | " | 0.100 | ND | 80.2 | 70-130 | 6.09 | 30 | |
| 1,2,4-Trimethylbenzene | 0.0776 | 0.0050 | " | 0.100 | ND | 77.6 | 70-130 | 5.16 | 30 | |
| 1,3,5-Trimethylbenzene | 0.0798 | 0.0050 | " | 0.100 | ND | 79.8 | 70-130 | 4.52 | 30 | |
| Naphthalene | 0.0758 | 0.0038 | " | 0.100 | ND | 75.8 | 70-130 | 3.12 | 30 | |
| Surrogate: 1,2-Dichloroethane-d4 | | 0.0420 | " | 0.0400 | | 105 | 50-150 | | | |
| Surrogate: Toluene-d8 | | 0.0399 | " | 0.0400 | | 99.7 | 50-150 | | | |
| Surrogate: 4-Bromofluorobenzene | | 0.0384 | " | 0.0400 | | 95.9 | 50-150 | | | |

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHH0558 - EPA 3550A

Blank (BHH0558-BLK1)

Prepared: 08/20/24 Analyzed: 08/21/24

| | | | | | | | | | | |
|------------------------|------|----|-------|------|--|-----|--------|--|--|--|
| C10-C28 (DRO) | ND | 50 | mg/kg | | | | | | | |
| C28-C36 (ORO) | ND | 50 | " | | | | | | | |
| Surrogate: o-Terphenyl | 15.3 | | " | 12.5 | | 123 | 30-150 | | | |

LCS (BHH0558-BS1)

Prepared: 08/20/24 Analyzed: 08/21/24

| | | | | | | | | | | |
|------------------------|------|----|-------|------|--|------|--------|--|--|--|
| C10-C28 (DRO) | 422 | 50 | mg/kg | 500 | | 84.3 | 70-130 | | | |
| Surrogate: o-Terphenyl | 14.7 | | " | 12.5 | | 117 | 30-150 | | | |

Matrix Spike (BHH0558-MS1)

Source: 2408204-01

Prepared: 08/20/24 Analyzed: 08/21/24

| | | | | | | | | | | |
|------------------------|------|----|-------|------|------|------|--------|--|--|--|
| C10-C28 (DRO) | 405 | 50 | mg/kg | 500 | 26.3 | 75.8 | 70-130 | | | |
| Surrogate: o-Terphenyl | 11.8 | | " | 12.5 | | 94.1 | 30-150 | | | |

Matrix Spike Dup (BHH0558-MSD1)

Source: 2408204-01

Prepared: 08/20/24 Analyzed: 08/21/24

| | | | | | | | | | | |
|------------------------|------|----|-------|------|------|------|--------|------|----|--|
| C10-C28 (DRO) | 401 | 50 | mg/kg | 500 | 26.3 | 75.0 | 70-130 | 1.03 | 20 | |
| Surrogate: o-Terphenyl | 12.5 | | " | 12.5 | | 100 | 30-150 | | | |

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHH0562 - EPA 5030 Soil MS

Blank (BHH0562-BLK1)

Prepared & Analyzed: 08/21/24

| | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Acenaphthene | ND | 0.00500 | mg/kg | | | | | | | |
| Anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) pyrene | ND | 0.00500 | " | | | | | | | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Chrysene | ND | 0.00500 | " | | | | | | | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | | | | | | | |
| Fluoranthene | ND | 0.00500 | " | | | | | | | |
| Fluorene | ND | 0.00500 | " | | | | | | | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | | | | | | | |
| Pyrene | ND | 0.00500 | " | | | | | | | |
| 1-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| 2-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0200 | | " | 0.0333 | | 60.0 | 40-150 | | | |
| Surrogate: Fluoranthene-d10 | 0.0216 | | " | 0.0333 | | 64.8 | 40-150 | | | |

LCS (BHH0562-BS1)

Prepared & Analyzed: 08/21/24

| | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Acenaphthene | 0.0219 | 0.00500 | mg/kg | 0.0333 | | 65.7 | 31-137 | | | |
| Anthracene | 0.0209 | 0.00500 | " | 0.0333 | | 62.7 | 30-120 | | | |
| Benzo (a) anthracene | 0.0228 | 0.00500 | " | 0.0333 | | 68.4 | 30-120 | | | |
| Benzo (a) pyrene | 0.0193 | 0.00500 | " | 0.0333 | | 57.8 | 30-120 | | | |
| Benzo (b) fluoranthene | 0.0205 | 0.00500 | " | 0.0333 | | 61.5 | 30-120 | | | |
| Benzo (k) fluoranthene | 0.0201 | 0.00500 | " | 0.0333 | | 60.2 | 30-120 | | | |
| Chrysene | 0.0216 | 0.00500 | " | 0.0333 | | 64.7 | 30-120 | | | |
| Dibenz (a,h) anthracene | 0.0179 | 0.00500 | " | 0.0333 | | 53.8 | 30-120 | | | |
| Fluoranthene | 0.0220 | 0.00500 | " | 0.0333 | | 66.1 | 30-120 | | | |
| Fluorene | 0.0215 | 0.00500 | " | 0.0333 | | 64.6 | 30-120 | | | |
| Indeno (1,2,3-cd) pyrene | 0.0139 | 0.00500 | " | 0.0333 | | 41.7 | 30-120 | | | |
| Pyrene | 0.0243 | 0.00500 | " | 0.0333 | | 72.8 | 35-142 | | | |
| 1-Methylnaphthalene | 0.0199 | 0.00500 | " | 0.0333 | | 59.8 | 35-142 | | | |
| 2-Methylnaphthalene | 0.0198 | 0.00500 | " | 0.0333 | | 59.5 | 35-142 | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0203 | | " | 0.0333 | | 61.0 | 40-150 | | | |
| Surrogate: Fluoranthene-d10 | 0.0227 | | " | 0.0333 | | 68.1 | 40-150 | | | |

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHH0562 - EPA 5030 Soil MS

Matrix Spike (BHH0562-MS1)

Source: 2408123-08

Prepared & Analyzed: 08/21/24

| | | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|----|------|--------|--|--|--|--|
| Acenaphthene | 0.0239 | 0.00500 | mg/kg | 0.0333 | ND | 71.7 | 31-137 | | | | |
| Anthracene | 0.0245 | 0.00500 | " | 0.0333 | ND | 73.4 | 30-120 | | | | |
| Benzo (a) anthracene | 0.0270 | 0.00500 | " | 0.0333 | ND | 81.0 | 30-120 | | | | |
| Benzo (a) pyrene | 0.0241 | 0.00500 | " | 0.0333 | ND | 72.3 | 30-120 | | | | |
| Benzo (b) fluoranthene | 0.0250 | 0.00500 | " | 0.0333 | ND | 74.9 | 30-120 | | | | |
| Benzo (k) fluoranthene | 0.0234 | 0.00500 | " | 0.0333 | ND | 70.2 | 30-120 | | | | |
| Chrysene | 0.0254 | 0.00500 | " | 0.0333 | ND | 76.2 | 30-120 | | | | |
| Dibenz (a,h) anthracene | 0.0206 | 0.00500 | " | 0.0333 | ND | 61.7 | 30-120 | | | | |
| Fluoranthene | 0.0257 | 0.00500 | " | 0.0333 | ND | 77.0 | 30-120 | | | | |
| Fluorene | 0.0264 | 0.00500 | " | 0.0333 | ND | 79.1 | 30-120 | | | | |
| Indeno (1,2,3-cd) pyrene | 0.0172 | 0.00500 | " | 0.0333 | ND | 51.6 | 30-120 | | | | |
| Pyrene | 0.0278 | 0.00500 | " | 0.0333 | ND | 83.4 | 35-142 | | | | |
| 1-Methylnaphthalene | 0.0225 | 0.00500 | " | 0.0333 | ND | 67.6 | 15-130 | | | | |
| 2-Methylnaphthalene | 0.0229 | 0.00500 | " | 0.0333 | ND | 68.6 | 15-130 | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0235 | | " | 0.0333 | | 70.6 | 40-150 | | | | |
| Surrogate: Fluoranthene-d10 | 0.0256 | | " | 0.0333 | | 76.7 | 40-150 | | | | |

Matrix Spike Dup (BHH0562-MSD1)

Source: 2408123-08

Prepared & Analyzed: 08/21/24

| | | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|----|------|--------|------|----|--|--|
| Acenaphthene | 0.0205 | 0.00500 | mg/kg | 0.0333 | ND | 61.4 | 31-137 | 15.5 | 30 | | |
| Anthracene | 0.0216 | 0.00500 | " | 0.0333 | ND | 64.9 | 30-120 | 12.3 | 30 | | |
| Benzo (a) anthracene | 0.0243 | 0.00500 | " | 0.0333 | ND | 73.0 | 30-120 | 10.4 | 30 | | |
| Benzo (a) pyrene | 0.0218 | 0.00500 | " | 0.0333 | ND | 65.4 | 30-120 | 9.94 | 30 | | |
| Benzo (b) fluoranthene | 0.0228 | 0.00500 | " | 0.0333 | ND | 68.5 | 30-120 | 8.92 | 30 | | |
| Benzo (k) fluoranthene | 0.0207 | 0.00500 | " | 0.0333 | ND | 62.1 | 30-120 | 12.2 | 30 | | |
| Chrysene | 0.0230 | 0.00500 | " | 0.0333 | ND | 69.1 | 30-120 | 9.88 | 30 | | |
| Dibenz (a,h) anthracene | 0.0184 | 0.00500 | " | 0.0333 | ND | 55.3 | 30-120 | 11.1 | 30 | | |
| Fluoranthene | 0.0237 | 0.00500 | " | 0.0333 | ND | 71.0 | 30-120 | 8.06 | 30 | | |
| Fluorene | 0.0208 | 0.00500 | " | 0.0333 | ND | 62.4 | 30-120 | 23.6 | 30 | | |
| Indeno (1,2,3-cd) pyrene | 0.0155 | 0.00500 | " | 0.0333 | ND | 46.5 | 30-120 | 10.3 | 30 | | |
| Pyrene | 0.0257 | 0.00500 | " | 0.0333 | ND | 77.0 | 35-142 | 8.05 | 30 | | |
| 1-Methylnaphthalene | 0.0209 | 0.00500 | " | 0.0333 | ND | 62.7 | 15-130 | 7.51 | 50 | | |
| 2-Methylnaphthalene | 0.0206 | 0.00500 | " | 0.0333 | ND | 61.7 | 15-130 | 10.5 | 50 | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0215 | | " | 0.0333 | | 64.4 | 40-150 | | | | |
| Surrogate: Fluoranthene-d10 | 0.0234 | | " | 0.0333 | | 70.3 | 40-150 | | | | |

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control
Summit Scientific

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

Batch BHH0626 - EPA 3050B

Blank (BHH0626-BLK1)

Prepared: 08/22/24 Analyzed: 08/23/24

Boron ND 2.00 mg/L

LCS (BHH0626-BS1)

Prepared: 08/22/24 Analyzed: 08/23/24

Boron 4.77 2.00 mg/L 5.00 95.5 80-120

Duplicate (BHH0626-DUP1)

Source: 2408212-01

Prepared: 08/22/24 Analyzed: 08/23/24

Boron 0.220 2.00 mg/L 0.218 1.15 20

Matrix Spike (BHH0626-MS1)

Source: 2408212-01

Prepared: 08/22/24 Analyzed: 08/23/24

Boron 6.76 2.00 mg/L 5.03 0.218 130 75-125 QM-07

Matrix Spike Dup (BHH0626-MSD1)

Source: 2408212-01

Prepared: 08/22/24 Analyzed: 08/23/24

Boron 6.42 2.00 mg/L 5.03 0.218 123 75-125 5.08 25

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHH0590 - EPA 3050B

Blank (BHH0590-BLK1)

Prepared: 08/21/24 Analyzed: 08/22/24

| | | | |
|----------|----|--------|-----------|
| Arsenic | ND | 0.200 | mg/kg wet |
| Barium | ND | 0.400 | " |
| Cadmium | ND | 0.200 | " |
| Copper | ND | 0.400 | " |
| Lead | ND | 0.200 | " |
| Nickel | ND | 0.400 | " |
| Silver | ND | 0.0200 | " |
| Zinc | ND | 0.400 | " |
| Selenium | ND | 0.260 | " |

LCS (BHH0590-BS1)

Prepared: 08/21/24 Analyzed: 08/22/24

| | | | | | | |
|----------|------|--------|-----------|------|------|--------|
| Arsenic | 35.8 | 0.181 | mg/kg wet | 36.2 | 98.7 | 80-120 |
| Barium | 34.4 | 0.362 | " | 36.2 | 95.1 | 80-120 |
| Cadmium | 1.73 | 0.181 | " | 1.81 | 95.4 | 80-120 |
| Copper | 36.0 | 0.362 | " | 36.2 | 99.4 | 80-120 |
| Lead | 17.0 | 0.181 | " | 18.1 | 94.1 | 80-120 |
| Nickel | 35.7 | 0.362 | " | 36.2 | 98.6 | 80-120 |
| Silver | 1.75 | 0.0181 | " | 1.81 | 96.4 | 80-120 |
| Zinc | 35.8 | 0.362 | " | 36.2 | 98.7 | 80-120 |
| Selenium | 3.46 | 0.236 | " | 3.62 | 95.4 | 80-120 |

Duplicate (BHH0590-DUP1)

Source: 2408212-01

Prepared: 08/21/24 Analyzed: 08/22/24

| | | | | | | | |
|----------|--------|--------|-----------|--------|-------|----|-------|
| Arsenic | 2.19 | 0.200 | mg/kg dry | 2.86 | 26.6 | 20 | QR-02 |
| Barium | 85.8 | 0.400 | " | 85.6 | 0.206 | 20 | |
| Cadmium | 0.318 | 0.200 | " | 0.288 | 9.92 | 20 | |
| Copper | 7.59 | 0.400 | " | 7.76 | 2.21 | 20 | |
| Lead | 11.2 | 0.200 | " | 11.1 | 0.835 | 20 | |
| Nickel | 6.61 | 0.400 | " | 6.17 | 6.89 | 20 | |
| Silver | 0.0402 | 0.0200 | " | 0.0318 | 23.5 | 20 | QR-01 |
| Zinc | 25.3 | 0.400 | " | 28.0 | 10.3 | 20 | |
| Selenium | ND | 0.260 | " | ND | | 20 | |

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHH0590 - EPA 3050B

| Matrix Spike (BHH0590-MS1) | | Source: 2408212-01 | | | Prepared: 08/21/24 Analyzed: 08/22/24 | | | | | |
|----------------------------|------|--------------------|-----------|------|---------------------------------------|------|--------|--|--|-------|
| Arsenic | 21.9 | 0.200 | mg/kg dry | 43.9 | 2.86 | 43.3 | 75-125 | | | QM-05 |
| Barium | 102 | 0.400 | " | 43.9 | 85.6 | 38.4 | 75-125 | | | QM-07 |
| Cadmium | 2.34 | 0.200 | " | 2.19 | 0.288 | 93.6 | 75-125 | | | |
| Copper | 27.9 | 0.400 | " | 43.9 | 7.76 | 45.9 | 75-125 | | | QM-05 |
| Lead | 30.9 | 0.200 | " | 21.9 | 11.1 | 90.3 | 75-125 | | | |
| Nickel | 26.3 | 0.400 | " | 43.9 | 6.17 | 46.0 | 75-125 | | | QM-05 |
| Silver | 2.09 | 0.0200 | " | 2.19 | 0.0318 | 93.8 | 75-125 | | | |
| Zinc | 41.8 | 0.400 | " | 43.9 | 28.0 | 31.4 | 75-125 | | | QM-05 |
| Selenium | 3.39 | 0.260 | " | 4.39 | ND | 77.2 | 75-125 | | | |

| Matrix Spike Dup (BHH0590-MSD1) | | Source: 2408212-01 | | | Prepared: 08/21/24 Analyzed: 08/22/24 | | | | | |
|---------------------------------|------|--------------------|-----------|------|---------------------------------------|------|--------|------|----|-------|
| Arsenic | 24.0 | 0.200 | mg/kg dry | 43.9 | 2.86 | 48.3 | 75-125 | 9.54 | 25 | QM-05 |
| Barium | 127 | 0.400 | " | 43.9 | 85.6 | 93.9 | 75-125 | 21.2 | 25 | |
| Cadmium | 2.42 | 0.200 | " | 2.19 | 0.288 | 97.1 | 75-125 | 3.28 | 25 | |
| Copper | 29.0 | 0.400 | " | 43.9 | 7.76 | 48.5 | 75-125 | 3.93 | 25 | QM-05 |
| Lead | 30.4 | 0.200 | " | 21.9 | 11.1 | 87.8 | 75-125 | 1.76 | 25 | |
| Nickel | 27.8 | 0.400 | " | 43.9 | 6.17 | 49.3 | 75-125 | 5.35 | 25 | QM-05 |
| Silver | 2.18 | 0.0200 | " | 2.19 | 0.0318 | 97.9 | 75-125 | 4.21 | 25 | |
| Zinc | 43.9 | 0.400 | " | 43.9 | 28.0 | 36.2 | 75-125 | 4.94 | 25 | QM-05 |
| Selenium | 3.52 | 0.260 | " | 4.39 | ND | 80.2 | 75-125 | 3.84 | 25 | |

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHH0571 - 3060A Mod

Blank (BHH0571-BLK1)

Prepared & Analyzed: 08/21/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHH0571-BS1)

Prepared & Analyzed: 08/21/24

Chromium, Hexavalent 25.8 0.30 mg/kg wet 25.0 103 80-120

Duplicate (BHH0571-DUP1)

Source: 2408123-08

Prepared & Analyzed: 08/21/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHH0571-MS1)

Source: 2408123-08

Prepared & Analyzed: 08/21/24

Chromium, Hexavalent 25.6 0.30 mg/kg dry 26.1 ND 98.0 75-125

Matrix Spike Dup (BHH0571-MSD1)

Source: 2408123-08

Prepared & Analyzed: 08/21/24

Chromium, Hexavalent 25.7 0.30 mg/kg dry 26.1 ND 98.4 75-125 0.407 20

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control
Summit Scientific

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

Batch BHH0544 - General Preparation

Blank (BHH0544-BLK1)

Prepared: 08/20/24 Analyzed: 08/22/24

| | | | |
|-----------|----|--------|----------|
| Calcium | ND | 0.0500 | mg/L wet |
| Magnesium | ND | 0.0500 | " |
| Sodium | ND | 0.0500 | " |

LCS (BHH0544-BS1)

Prepared: 08/20/24 Analyzed: 08/22/24

| | | | | | | |
|-----------|------|--------|----------|------|------|--------|
| Calcium | 4.87 | 0.0500 | mg/L wet | 5.00 | 97.4 | 70-130 |
| Magnesium | 4.85 | 0.0500 | " | 5.00 | 97.0 | 70-130 |
| Sodium | 4.63 | 0.0500 | " | 5.00 | 92.6 | 70-130 |

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control
Summit Scientific

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

Batch BHH0612 - General Preparation

| Duplicate (BHH0612-DUP1) | | Source: 2408211-01 | | Prepared: 08/21/24 Analyzed: 08/22/24 | |
|--------------------------|------|--------------------|---|---------------------------------------|----------|
| % Solids | 86.8 | | % | 87.4 | 0.740 20 |

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control
Summit Scientific

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

Batch BHH0545 - General Preparation

Blank (BHH0545-BLK1)

Prepared: 08/20/24 Analyzed: 08/21/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHH0545-BS1)

Prepared: 08/20/24 Analyzed: 08/21/24

Specific Conductance (EC) 0.153 0.0100 mmhos/cm 0.150 102 95-105

Duplicate (BHH0545-DUP1)

Source: 2408161-01

Prepared: 08/20/24 Analyzed: 08/21/24

Specific Conductance (EC) 1.64 0.0100 mmhos/cm 1.67 1.51 20

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control
Summit Scientific

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

Batch BHH0546 - General Preparation

LCS (BHH0546-BS1)

Prepared: 08/20/24 Analyzed: 08/21/24

| | | | | | |
|----|------|----------|------|-----|--------|
| pH | 9.22 | pH Units | 9.18 | 100 | 95-105 |
|----|------|----------|------|-----|--------|

Duplicate (BHH0546-DUP1)

Source: 2408161-01

Prepared: 08/20/24 Analyzed: 08/21/24

| | | | | | |
|----|------|----------|------|-------|----|
| pH | 8.13 | pH Units | 8.14 | 0.123 | 20 |
|----|------|----------|------|-------|----|

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Hoffman B33-19 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
08/23/24 11:46

Notes and Definitions

| | |
|-------|---|
| S-02 | The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract. |
| QR-02 | The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data. |
| QR-01 | Analyses are not controlled on RPD values from sample concentrations below the reporting limit. QC batch accepted based on LCS and/or LCSD QC results. |
| QM-07 | The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery. |
| QM-05 | The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid. |
| I-03 | Sample was received and prepared outside of holding time. |
| 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 |