

Technical Report for

Confluence Energy

Grizzly Sample 5-6-15

Accutest Job Number: D70561

Sampling Date: 05/06/15

Report to:

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Total number of pages in report: 91



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



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Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), LA (LA150028), TX (T104704511), WY

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Test results relate only to samples analyzed.

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Sample Summary

Confluence Energy

Job No: D70561

Grizzly Sample 5-6-15

| Sample Number | Collected | | Received | Matrix | | Client Sample ID |
|---------------|-----------|----------|----------|--------|------|-------------------------------|
| | Date | Time By | | Code | Type | |
| D70561-1 | 05/06/15 | 10:00 DS | 05/08/15 | SO | Soil | GRIZZLY SITE-MIX MATERIAL 01 |
| D70561-1A | 05/06/15 | 10:00 DS | 05/08/15 | SO | Soil | GRIZZLY SITE-MIX MATERIAL 01 |
| D70561-2 | 05/06/15 | 10:00 DS | 05/08/15 | SO | Soil | GRIZZLY SITE-MIX MATERIAL 02 |
| D70561-2A | 05/06/15 | 10:00 DS | 05/08/15 | SO | Soil | GRIZZLY SITE-MIX MATERIAL 02 |
| D70561-3 | 05/06/15 | 10:00 DS | 05/08/15 | SO | Soil | GRIZZLY SITE-CUTTINGS S. BERM |
| D70561-3A | 05/06/15 | 10:00 DS | 05/08/15 | SO | Soil | GRIZZLY SITE-CUTTINGS S. BERM |

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Confluence Energy

Job No D70561

Site: Grizzly Sample 5-6-15

Report Date 5/15/2015 2:52:37 PM

On 05/08/2015, 3 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 15.4 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D70561 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: SO

Batch ID: M:MSK2733

- The data for SW846 8260C meets quality control requirements.
- D70561-1 through -3: Analysis performed at Accutest Laboratories, Marlborough, MA.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix: SO

Batch ID: OP11723

- All samples were extracted and analyzed within the recommended method holding time.
- Sample(s) D70561-3MS, D70561-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- The matrix spike (MS) recovery(s) of Acenaphthene, Chrysene, Pyrene are outside control limits. Dilution required due to matrix interference. Internal Standard failure at lesser dilution.
- The matrix spike duplicate (MSD) recovery(s) of Acenaphthene, Chrysene, Pyrene are outside control limits. Dilution required due to matrix interference. Internal Standard failure at lesser dilution.
- The matrix spike (MS) recovery(s) of Fluorene, Naphthalene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- D70561-2: Dilution required due to matrix interference. Internal Standard failure at lesser dilution.
- OP11723-MSD: Dilution required due to matrix interference. Internal Standard failure at lesser dilution.
- OP11723-MS: Dilution required due to matrix interference. Internal Standard failure at lesser dilution.
- D70561-3: Dilution required due to matrix interference. Internal Standard failure at lesser dilution.
- D70561-1: Dilution required due to matrix interference. Internal Standard failure at lesser dilution.

Volatiles by GC By Method SW846 8015B

Matrix: SO

Batch ID: GGB1617

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D70561-1MS, D70561-1MSD were used as the QC samples indicated.
- Sample(s) D70561-3 have surrogates outside control limits. Probable cause due to matrix interference.
- D70561-3 for 1,2,4 Trichlorobenzene: Outside control limits due to possible matrix interference.

Extractables by GC By Method SW846-8015B

Matrix: SO **Batch ID:** OP11705

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D70430-2MS, D70430-2MSD were used as the QC samples indicated.
- D70561-1: Elevated reporting limits due to insufficient sample and sample matrix, dilution required during prep.
- D70561-3: Elevated reporting limits due to insufficient sample and sample matrix, dilution required during prep.
- D70561-2: Elevated reporting limits due to insufficient sample and sample matrix, dilution required during prep.

Metals By Method SW846 6010C

Matrix: AQ **Batch ID:** MP15911

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D70286-1AMS, D70286-1AMSD, D70286-1ASDL were used as the QC samples for the metals analysis.
- The serial dilution RPD(s) for Magnesium are outside control limits for sample MP15911-SD1. Probable cause due to sample homogeneity.
- MP15911-SD1 for Magnesium: Serial dilution indicates possible matrix interference.

Matrix: SO **Batch ID:** MP15891

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D70561-1SDL, D70561-1MS, D70561-1MSD, D70561-1SDL were used as the QC samples for the metals analysis.
- The matrix spike (MS) recovery(s) of Barium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- The RPD(s) for the MS and MSD recoveries of Barium are outside control limits for sample MP15891-S2. High RPD due to possible sample matrix or nonhomogeneity.
- The serial dilution RPD(s) for Cadmium, Lead, Selenium, Nickel, Zinc are outside control limits for sample MP15891-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP15891-SD1 for Nickel, Zinc: Serial dilution indicates possible matrix interference.

Metals By Method SW846 6020A

Matrix: SO **Batch ID:** MP15892

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D70561-1MS, D70561-1MSD, D70561-1SDL were used as the QC samples for the metals analysis.

Metals By Method SW846 7471B

Matrix: SO **Batch ID:** MP15886

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D70293-1BMS, D70293-1BMSD were used as the QC samples for the metals analysis.

Wet Chemistry By Method ASTM D1498-76M

Matrix: SO **Batch ID:** GN29855

- Sample(s) D70458-1DUP were used as the QC samples for the Redox Potential Vs H2 analysis.

Wet Chemistry By Method SM2540G-2011 M

Matrix: SO **Batch ID:** GN29843

- The data for SM2540G-2011 M meets quality control requirements.

Wet Chemistry By Method SW846 3060A/7196A

Matrix: SO **Batch ID:** GP15263

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D70457-1DUP, D70457-1MS, D70457-1MSD were used as the QC samples for the Chromium, Hexavalent analysis.

Wet Chemistry By Method SW846 3060A/7196A M

Matrix: SO **Batch ID:** R27922

- The data for SW846 3060A/7196A M meets quality control requirements.
- D70561-1 for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

Matrix: SO **Batch ID:** R27923

- The data for SW846 3060A/7196A M meets quality control requirements.
- D70561-2 for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

Matrix: SO **Batch ID:** R27924

- The data for SW846 3060A/7196A M meets quality control requirements.
- D70561-3 for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

Wet Chemistry By Method SW846 9045D

Matrix: SO **Batch ID:** GN29860

- The following samples were run outside of holding time for method SW846 9045D: D70561-1, D70561-2, D70561-3

Wet Chemistry By Method USDA HANDBOOK 60

Matrix: SO **Batch ID:** MP15911

- D70561-1A for Sodium Adsorption Ratio: Calculated as: $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L})+(\text{Mg meq/L})/2]}$
- D70561-2A for Sodium Adsorption Ratio: Calculated as: $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L})+(\text{Mg meq/L})/2]}$
- D70561-3A for Sodium Adsorption Ratio: Calculated as: $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L})+(\text{Mg meq/L})/2]}$

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.



SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Accutest Mountain States

Job No D70561

Site: CONECOK: Grizzly Sample 5-6-15

Report Date 5/13/2015 1:03:57 PM

3 Sample(s) were collected on 05/06/2015 and were received at Accutest on 05/08/2015 properly preserved, at 1 Deg. C and intact. These Samples received an Accutest job number of D70561. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix SO

Batch ID: MSK2733

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D70264-7MS, D70264-7MSD were used as the QC samples indicated.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(D70561).

Summary of Hits

Job Number: D70561
 Account: Confluence Energy
 Project: Grizzly Sample 5-6-15
 Collected: 05/06/15



| Lab Sample ID | Client Sample ID | Result/ Analyte | RL | MDL | Units | Method |
|---------------|------------------|--------------------|----|-----|-------|--------|
|---------------|------------------|--------------------|----|-----|-------|--------|

D70561-1 GRIZZLY SITE-MIX MATERIAL 01

| | | | | | |
|----------------------------------|------|------|----|----------|---------------------|
| Benzene ^a | 74.1 | 48 | 36 | ug/kg | SW846 8260C |
| Toluene ^a | 797 | 480 | 39 | ug/kg | SW846 8260C |
| Ethylbenzene ^a | 945 | 190 | 37 | ug/kg | SW846 8260C |
| Xylene (total) ^a | 7890 | 190 | 34 | ug/kg | SW846 8260C |
| Naphthalene ^b | 247 | 150 | 92 | ug/kg | SW846 8270C BY SIM |
| Pyrene ^b | 279 | 150 | 74 | ug/kg | SW846 8270C BY SIM |
| TPH-GRO (C6-C10) | 54.4 | 34 | 17 | mg/kg | SW846 8015B |
| TPH-DRO (C10-C28) ^c | 5740 | 57 | 42 | mg/kg | SW846-8015B |
| Arsenic | 3.9 | 0.15 | | mg/kg | SW846 6020A |
| Barium | 6260 | 15 | | mg/kg | SW846 6010C |
| Chromium | 12.2 | 1.5 | | mg/kg | SW846 6010C |
| Copper | 15.8 | 1.5 | | mg/kg | SW846 6010C |
| Nickel | 11.6 | 4.6 | | mg/kg | SW846 6010C |
| Zinc | 44.1 | 4.6 | | mg/kg | SW846 6010C |
| Specific Conductivity | 1260 | 1.0 | | umhos/cm | SM 2510B-2011 MOD |
| Chromium, Trivalent ^d | 12.2 | 2.5 | | mg/kg | SW846 3060A/7196A M |
| Redox Potential Vs H2 | 448 | | | mv | ASTM D1498-76M |
| pH | 8.51 | | | su | SW846 9045D |

D70561-1A GRIZZLY SITE-MIX MATERIAL 01

| | | | | | |
|--------------------------------------|------|-----|--|-------|------------------|
| Calcium | 87.2 | 2.0 | | mg/l | SW846 6010C |
| Magnesium | 16.2 | 1.0 | | mg/l | SW846 6010C |
| Sodium | 202 | 2.0 | | mg/l | SW846 6010C |
| Sodium Adsorption Ratio ^e | 5.21 | | | ratio | USDA HANDBOOK 60 |

D70561-2 GRIZZLY SITE-MIX MATERIAL 02

| | | | | | |
|----------------------------------|------|------|----|----------|---------------------|
| Fluorene ^b | 779 | 160 | 78 | ug/kg | SW846 8270C BY SIM |
| Naphthalene ^b | 312 | 160 | 97 | ug/kg | SW846 8270C BY SIM |
| Pyrene ^b | 250 | 160 | 78 | ug/kg | SW846 8270C BY SIM |
| TPH-GRO (C6-C10) | 71.1 | 36 | 18 | mg/kg | SW846 8015B |
| TPH-DRO (C10-C28) ^c | 6120 | 62 | 46 | mg/kg | SW846-8015B |
| Arsenic | 6.0 | 0.15 | | mg/kg | SW846 6020A |
| Barium | 4880 | 15 | | mg/kg | SW846 6010C |
| Chromium | 10.7 | 1.5 | | mg/kg | SW846 6010C |
| Copper | 16.8 | 1.5 | | mg/kg | SW846 6010C |
| Nickel | 13.4 | 4.6 | | mg/kg | SW846 6010C |
| Zinc | 61.7 | 4.6 | | mg/kg | SW846 6010C |
| Specific Conductivity | 1120 | 1.0 | | umhos/cm | SM 2510B-2011 MOD |
| Chromium, Trivalent ^d | 10.2 | 2.5 | | mg/kg | SW846 3060A/7196A M |
| Redox Potential Vs H2 | 457 | | | mv | ASTM D1498-76M |
| pH | 8.47 | | | su | SW846 9045D |

Summary of Hits

Job Number: D70561
 Account: Confluence Energy
 Project: Grizzly Sample 5-6-15
 Collected: 05/06/15



| Lab Sample ID | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

D70561-2A GRIZZLY SITE-MIX MATERIAL 02

| | | | | | | |
|--------------------------------------|------|-----|--|--|-------|------------------|
| Calcium | 75.1 | 2.0 | | | mg/l | SW846 6010C |
| Magnesium | 13.6 | 1.0 | | | mg/l | SW846 6010C |
| Sodium | 155 | 2.0 | | | mg/l | SW846 6010C |
| Sodium Adsorption Ratio ^e | 4.32 | | | | ratio | USDA HANDBOOK 60 |

D70561-3 GRIZZLY SITE-CUTTINGS S. BERM

| | | | | | | |
|----------------------------------|-------|------|-----|--|----------|---------------------|
| Toluene ^a | 741 | 560 | 44 | | ug/kg | SW846 8260C |
| Ethylbenzene ^a | 1650 | 220 | 42 | | ug/kg | SW846 8260C |
| Xylene (total) ^a | 9990 | 220 | 39 | | ug/kg | SW846 8260C |
| Fluorene ^b | 5350 | 840 | 410 | | ug/kg | SW846 8270C BY SIM |
| Naphthalene ^b | 8030 | 840 | 510 | | ug/kg | SW846 8270C BY SIM |
| TPH-GRO (C6-C10) | 530 | 45 | 22 | | mg/kg | SW846 8015B |
| TPH-DRO (C10-C28) ^c | 6780 | 64 | 48 | | mg/kg | SW846-8015B |
| Arsenic | 7.4 | 0.15 | | | mg/kg | SW846 6020A |
| Barium | 10400 | 15 | | | mg/kg | SW846 6010C |
| Chromium | 31.3 | 1.5 | | | mg/kg | SW846 6010C |
| Copper | 26.9 | 1.5 | | | mg/kg | SW846 6010C |
| Nickel | 24.3 | 4.6 | | | mg/kg | SW846 6010C |
| Zinc | 51.6 | 4.6 | | | mg/kg | SW846 6010C |
| Specific Conductivity | 1510 | 1.0 | | | umhos/cm | SM 2510B-2011 MOD |
| Chromium, Trivalent ^d | 30.9 | 2.5 | | | mg/kg | SW846 3060A/7196A M |
| Redox Potential Vs H2 | 353 | | | | mv | ASTM D1498-76M |
| pH | 9.09 | | | | su | SW846 9045D |

D70561-3A GRIZZLY SITE-CUTTINGS S. BERM

| | | | | | | |
|--------------------------------------|------|-----|--|--|-------|------------------|
| Calcium | 50.1 | 2.0 | | | mg/l | SW846 6010C |
| Magnesium | 6.06 | 1.0 | | | mg/l | SW846 6010C |
| Sodium | 311 | 2.0 | | | mg/l | SW846 6010C |
| Sodium Adsorption Ratio ^e | 11.0 | | | | ratio | USDA HANDBOOK 60 |

- (a) Analysis performed at Accutest Laboratories, Marlborough, MA.
- (b) Dilution required due to matrix interference. Internal Standard failure at lesser dilution.
- (c) Elevated reporting limits due to insufficient sample and sample matrix, dilution required during prep.
- (d) Calculated as: (Chromium) - (Chromium, Hexavalent)
- (e) Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+ (Mg meq/L)/2]

Sample Results

Report of Analysis

Report of Analysis

| | |
|--|--|
| Client Sample ID: GRIZZLY SITE-MIX MATERIAL 01 Lab Sample ID: D70561-1 Matrix: SO - Soil Method: SW846 8260C Project: Grizzly Sample 5-6-15 | Date Sampled: 05/06/15 Date Received: 05/08/15 Percent Solids: 68.0 |
|--|--|

| Run # | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|-----|-----------|------------|------------------|
| Run #1 ^a | K87709.D | 1 | 05/11/15 | AMA | n/a | n/a | M:MSK2733 |
| Run #2 | | | | | | | |

| Run # | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 10.0 g | 10.0 ml | 100 ul |
| Run #2 | | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|-----------|----------------|--------|-----|-----|-------|---|
| 71-43-2 | Benzene | 74.1 | 48 | 36 | ug/kg | |
| 108-88-3 | Toluene | 797 | 480 | 39 | ug/kg | |
| 100-41-4 | Ethylbenzene | 945 | 190 | 37 | ug/kg | |
| 1330-20-7 | Xylene (total) | 7890 | 190 | 34 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 101% | | 65-141% |
| 2037-26-5 | Toluene-D8 | 99% | | 65-129% |
| 460-00-4 | 4-Bromofluorobenzene | 115% | | 63-137% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

| | | |
|---|------------------------------|--|
| ND = Not detected | MDL = Method Detection Limit | J = Indicates an estimated value |
| RL = Reporting Limit | | B = Indicates analyte found in associated method blank |
| E = Indicates value exceeds calibration range | | N = Indicates presumptive evidence of a compound |

Report of Analysis

| | |
|---|--------------------------------|
| Client Sample ID: GRIZZLY SITE-MIX MATERIAL 01 | Date Sampled: 05/06/15 |
| Lab Sample ID: D70561-1 | Date Received: 05/08/15 |
| Matrix: SO - Soil | Percent Solids: 68.0 |
| Method: SW846 8270C BY SIM SW846 3546 | |
| Project: Grizzly Sample 5-6-15 | |

| Run # | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 ^a | 3G23733.D | 4 | 05/13/15 | JJ | 05/13/15 | OP11723 | E3G1187 |
| Run #2 | | | | | | | |

| Run # | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 5.00 g | 1.0 ml |
| Run #2 | | |

COGCC Table 910-1 PAH List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9 | Acenaphthene | ND | 150 | 74 | ug/kg | |
| 120-12-7 | Anthracene | ND | 150 | 74 | ug/kg | |
| 56-55-3 | Benzo(a)anthracene | ND | 150 | 74 | ug/kg | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 150 | 74 | ug/kg | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 150 | 74 | ug/kg | |
| 50-32-8 | Benzo(a)pyrene | ND | 150 | 74 | ug/kg | |
| 218-01-9 | Chrysene | ND | 150 | 74 | ug/kg | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 150 | 74 | ug/kg | |
| 206-44-0 | Fluoranthene | ND | 150 | 74 | ug/kg | |
| 86-73-7 | Fluorene | ND | 150 | 74 | ug/kg | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 150 | 120 | ug/kg | |
| 91-20-3 | Naphthalene | 247 | 150 | 92 | ug/kg | |
| 129-00-0 | Pyrene | 279 | 150 | 74 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5 | 97% | | 11-164% |
| 321-60-8 | 2-Fluorobiphenyl | 91% | | 14-138% |
| 1718-51-0 | Terphenyl-d14 | 117% | | 35-139% |

(a) Dilution required due to matrix interference. Internal Standard failure at lesser dilution.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

| | |
|--|--|
| Client Sample ID: GRIZZLY SITE-MIX MATERIAL 01 Lab Sample ID: D70561-1 Matrix: SO - Soil Method: SW846 8015B Project: Grizzly Sample 5-6-15 | Date Sampled: 05/06/15 Date Received: 05/08/15 Percent Solids: 68.0 |
|--|--|

| Run # | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GB30055.D | 1 | 05/08/15 | EP | n/a | n/a | GGB1617 |
| Run #2 | | | | | | | |

| Run # | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 5.0 g | 10.0 ml | 100 ul |
| Run #2 | | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|----------|------------------------|--------|--------|---------|-------|---|
| | TPH-GRO (C6-C10) | 54.4 | 34 | 17 | mg/kg | |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits | | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 111% | | 60-140% | | |

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.1
4

Report of Analysis

| | |
|---|--|
| Client Sample ID: GRIZZLY SITE-MIX MATERIAL 01 Lab Sample ID: D70561-1 Matrix: SO - Soil Method: SW846-8015B SW846 3546 Project: Grizzly Sample 5-6-15 | Date Sampled: 05/06/15 Date Received: 05/08/15 Percent Solids: 68.0 |
|---|--|

| Run # | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 ^a | FD45225.D | 1 | 05/12/15 | GN | 05/11/15 | OP11705 | GFD1939 |
| Run #2 | | | | | | | |

| Run # | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 5.2 g | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
| | TPH-DRO (C10-C28) | 5740 | 57 | 42 | mg/kg | |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits | | |
| 84-15-1 | o-Terphenyl | 98% | | 20-130% | | |

(a) Elevated reporting limits due to insufficient sample and sample matrix, dilution required during prep.

| | |
|--|--|
| ND = Not detected RL = Reporting Limit E = Indicates value exceeds calibration range | MDL = Method Detection Limit J = Indicates an estimated value B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound |
|--|--|

4.1
4

Report of Analysis

| | |
|---|--------------------------------|
| Client Sample ID: GRIZZLY SITE-MIX MATERIAL 01 | Date Sampled: 05/06/15 |
| Lab Sample ID: D70561-1 | Date Received: 05/08/15 |
| Matrix: SO - Soil | Percent Solids: 68.0 |
| Project: Grizzly Sample 5-6-15 | |

Metals Analysis

| Analyte | Result | RL | Units | DF | Prep | Analyzed By | Method | Prep Method |
|----------|--------|------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic | 3.9 | 0.15 | mg/kg | 5 | 05/12/15 | 05/15/15 JB | SW846 6020A ⁴ | SW846 3050B ⁷ |
| Barium | 6260 | 15 | mg/kg | 10 | 05/12/15 | 05/13/15 JB | SW846 6010C ³ | SW846 3050B ⁶ |
| Cadmium | < 1.5 | 1.5 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Chromium | 12.2 | 1.5 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Copper | 15.8 | 1.5 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Lead | < 7.7 | 7.7 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Mercury | < 0.12 | 0.12 | mg/kg | 1 | 05/11/15 | 05/11/15 KV | SW846 7471B ¹ | SW846 7471B ⁵ |
| Nickel | 11.6 | 4.6 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Selenium | < 7.7 | 7.7 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Silver | < 4.6 | 4.6 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Zinc | 44.1 | 4.6 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |

- (1) Instrument QC Batch: MA6104
- (2) Instrument QC Batch: MA6110
- (3) Instrument QC Batch: MA6121
- (4) Instrument QC Batch: MA6126
- (5) Prep QC Batch: MP15886
- (6) Prep QC Batch: MP15891
- (7) Prep QC Batch: MP15892

RL = Reporting Limit

4.1
4

Report of Analysis

| | |
|---|--------------------------------|
| Client Sample ID: GRIZZLY SITE-MIX MATERIAL 01 | Date Sampled: 05/06/15 |
| Lab Sample ID: D70561-1 | Date Received: 05/08/15 |
| Matrix: SO - Soil | Percent Solids: 68.0 |
| Project: Grizzly Sample 5-6-15 | |

General Chemistry

| Analyte | Result | RL | Units | DF | Analyzed | By | Method |
|----------------------------------|--------|-----|----------|----|----------------|-----|---------------------|
| %solids | | | | | | | |
| Solids, Percent | 68 | | % | 1 | 05/11/15 | SWT | SM2540G-2011 M |
| prep: DEPT.OF AG, BOOK N9 | | | | | | | |
| Specific Conductivity | 1260 | 1.0 | umhos/cm | 1 | 05/13/15 | JD | SM 2510B-2011 MOD |
| Chromium, Hexavalent | < 1.0 | 1.0 | mg/kg | 1 | 05/11/15 | AK | SW846 3060A/7196A |
| Chromium, Trivalent ^a | 12.2 | 2.5 | mg/kg | 1 | 05/12/15 14:28 | JB | SW846 3060A/7196A M |
| Redox Potential Vs H2 | 448 | | mv | 1 | 05/11/15 | JD | ASTM D1498-76M |
| pH | 8.51 | | su | 1 | 05/11/15 12:00 | TB | SW846 9045D |

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

Report of Analysis

| | |
|---|--------------------------------|
| Client Sample ID: GRIZZLY SITE-MIX MATERIAL 01 | Date Sampled: 05/06/15 |
| Lab Sample ID: D70561-1A | Date Received: 05/08/15 |
| Matrix: SO - Soil | Percent Solids: 68.0 |
| Project: Grizzly Sample 5-6-15 | |

SAR Metals Analysis

| Analyte | Result | RL | Units | DF | Prep | Analyzed By | Method | Prep Method |
|-----------|--------|-----|-------|----|----------|-------------|--------------------------|----------------------------|
| Calcium | 87.2 | 2.0 | mg/l | 1 | 05/13/15 | 05/13/15 JB | SW846 6010C ¹ | SW846 3010A/M ² |
| Magnesium | 16.2 | 1.0 | mg/l | 1 | 05/13/15 | 05/13/15 JB | SW846 6010C ¹ | SW846 3010A/M ² |
| Sodium | 202 | 2.0 | mg/l | 1 | 05/13/15 | 05/13/15 JB | SW846 6010C ¹ | SW846 3010A/M ² |

(1) Instrument QC Batch: MA6121

(2) Prep QC Batch: MP15911

RL = Reporting Limit

4.2
4

Report of Analysis

| | |
|---|--------------------------------|
| Client Sample ID: GRIZZLY SITE-MIX MATERIAL 01 | Date Sampled: 05/06/15 |
| Lab Sample ID: D70561-1A | Date Received: 05/08/15 |
| Matrix: SO - Soil | Percent Solids: 68.0 |
| Project: Grizzly Sample 5-6-15 | |

General Chemistry

| Analyte | Result | RL | Units | DF | Analyzed | By | Method |
|--------------------------------------|--------|----|-------|----|----------------|----|------------------|
| Sodium Adsorption Ratio ^a | 5.21 | | ratio | 1 | 05/13/15 18:17 | JB | USDA HANDBOOK 60 |

(a) Calculated as: $(Na \text{ meq/L}) / \sqrt{[(Ca \text{ meq/L}) + (Mg \text{ meq/L})/2]}$

RL = Reporting Limit

4.2
 4

Report of Analysis

| | |
|---|--------------------------------|
| Client Sample ID: GRIZZLY SITE-MIX MATERIAL 02 | Date Sampled: 05/06/15 |
| Lab Sample ID: D70561-2 | Date Received: 05/08/15 |
| Matrix: SO - Soil | Percent Solids: 64.6 |
| Method: SW846 8260C | |
| Project: Grizzly Sample 5-6-15 | |

| Run # | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|-----|-----------|------------|------------------|
| Run #1 ^a | K87710.D | 1 | 05/11/15 | AMA | n/a | n/a | M:MSK2733 |
| Run #2 | | | | | | | |

| Run # | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 4.77 g | 10.0 ml | 100 ul |
| Run #2 | | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|-----------|----------------|--------|-----|-----|-------|---|
| 71-43-2 | Benzene | ND | 95 | 71 | ug/kg | |
| 108-88-3 | Toluene | ND | 950 | 76 | ug/kg | |
| 100-41-4 | Ethylbenzene | ND | 380 | 72 | ug/kg | |
| 1330-20-7 | Xylene (total) | ND | 380 | 66 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 104% | | 65-141% |
| 2037-26-5 | Toluene-D8 | 97% | | 65-129% |
| 460-00-4 | 4-Bromofluorobenzene | 102% | | 63-137% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

| | |
|---|--------------------------------|
| Client Sample ID: GRIZZLY SITE-MIX MATERIAL 02 | Date Sampled: 05/06/15 |
| Lab Sample ID: D70561-2 | Date Received: 05/08/15 |
| Matrix: SO - Soil | Percent Solids: 64.6 |
| Method: SW846 8270C BY SIM SW846 3546 | |
| Project: Grizzly Sample 5-6-15 | |

| Run # | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 ^a | 3G23734.D | 4 | 05/13/15 | JJ | 05/13/15 | OP11723 | E3G1187 |
| Run #2 | | | | | | | |

| Run # | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 5.00 g | 1.0 ml |
| Run #2 | | |

COGCC Table 910-1 PAH List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9 | Acenaphthene | ND | 160 | 78 | ug/kg | |
| 120-12-7 | Anthracene | ND | 160 | 78 | ug/kg | |
| 56-55-3 | Benzo(a)anthracene | ND | 160 | 78 | ug/kg | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 160 | 78 | ug/kg | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 160 | 78 | ug/kg | |
| 50-32-8 | Benzo(a)pyrene | ND | 160 | 78 | ug/kg | |
| 218-01-9 | Chrysene | ND | 160 | 78 | ug/kg | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 160 | 78 | ug/kg | |
| 206-44-0 | Fluoranthene | ND | 160 | 78 | ug/kg | |
| 86-73-7 | Fluorene | 779 | 160 | 78 | ug/kg | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 160 | 120 | ug/kg | |
| 91-20-3 | Naphthalene | 312 | 160 | 97 | ug/kg | |
| 129-00-0 | Pyrene | 250 | 160 | 78 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5 | 89% | | 11-164% |
| 321-60-8 | 2-Fluorobiphenyl | 81% | | 14-138% |
| 1718-51-0 | Terphenyl-d14 | 104% | | 35-139% |

(a) Dilution required due to matrix interference. Internal Standard failure at lesser dilution.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

| | |
|--|--|
| Client Sample ID: GRIZZLY SITE-MIX MATERIAL 02 Lab Sample ID: D70561-2 Matrix: SO - Soil Method: SW846 8015B Project: Grizzly Sample 5-6-15 | Date Sampled: 05/06/15 Date Received: 05/08/15 Percent Solids: 64.6 |
|--|--|

| Run # | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GB30058.D | 1 | 05/08/15 | EP | n/a | n/a | GGB1617 |
| Run #2 | | | | | | | |

| Run # | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 5.0 g | 10.0 ml | 100 ul |
| Run #2 | | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|----------|------------------------|--------|--------|---------|-------|---|
| | TPH-GRO (C6-C10) | 71.1 | 36 | 18 | mg/kg | |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits | | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 112% | | 60-140% | | |

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

| | |
|---|--|
| Client Sample ID: GRIZZLY SITE-MIX MATERIAL 02 Lab Sample ID: D70561-2 Matrix: SO - Soil Method: SW846-8015B SW846 3546 Project: Grizzly Sample 5-6-15 | Date Sampled: 05/06/15 Date Received: 05/08/15 Percent Solids: 64.6 |
|---|--|

| Run # | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 ^a | FD45227.D | 1 | 05/12/15 | GN | 05/11/15 | OP11705 | GFD1939 |
| Run #2 | | | | | | | |

| Run # | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 5.0 g | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
| | TPH-DRO (C10-C28) | 6120 | 62 | 46 | mg/kg | |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits | | |
| 84-15-1 | o-Terphenyl | 93% | | 20-130% | | |

(a) Elevated reporting limits due to insufficient sample and sample matrix, dilution required during prep.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

| | |
|--|--|
| Client Sample ID: GRIZZLY SITE-MIX MATERIAL 02 Lab Sample ID: D70561-2 Matrix: SO - Soil Project: Grizzly Sample 5-6-15 | Date Sampled: 05/06/15 Date Received: 05/08/15 Percent Solids: 64.6 |
|--|--|

Metals Analysis

| Analyte | Result | RL | Units | DF | Prep | Analyzed By | Method | Prep Method |
|----------|--------|------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic | 6.0 | 0.15 | mg/kg | 5 | 05/12/15 | 05/15/15 JB | SW846 6020A ⁴ | SW846 3050B ⁷ |
| Barium | 4880 | 15 | mg/kg | 10 | 05/12/15 | 05/13/15 JB | SW846 6010C ³ | SW846 3050B ⁶ |
| Cadmium | < 1.5 | 1.5 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Chromium | 10.7 | 1.5 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Copper | 16.8 | 1.5 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Lead | < 7.7 | 7.7 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Mercury | < 0.12 | 0.12 | mg/kg | 1 | 05/11/15 | 05/11/15 KV | SW846 7471B ¹ | SW846 7471B ⁵ |
| Nickel | 13.4 | 4.6 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Selenium | < 7.7 | 7.7 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Silver | < 4.6 | 4.6 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Zinc | 61.7 | 4.6 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |

- (1) Instrument QC Batch: MA6104
- (2) Instrument QC Batch: MA6110
- (3) Instrument QC Batch: MA6121
- (4) Instrument QC Batch: MA6126
- (5) Prep QC Batch: MP15886
- (6) Prep QC Batch: MP15891
- (7) Prep QC Batch: MP15892

RL = Reporting Limit

4.3
4

Report of Analysis

| | |
|--|--|
| Client Sample ID: GRIZZLY SITE-MIX MATERIAL 02 Lab Sample ID: D70561-2 Matrix: SO - Soil Project: Grizzly Sample 5-6-15 | Date Sampled: 05/06/15 Date Received: 05/08/15 Percent Solids: 64.6 |
|--|--|

General Chemistry

| Analyte | Result | RL | Units | DF | Analyzed | By | Method |
|--------------------------------------|--------|-----|----------|----|----------------|-----|---------------------|
| %solids | | | | | | | |
| Solids, Percent | 64.6 | | % | 1 | 05/11/15 | SWT | SM2540G-2011 M |
| prep: DEPT.OF AG, BOOK N9 | | | | | | | |
| Specific Conductivity | 1120 | 1.0 | umhos/cm | 1 | 05/13/15 | JD | SM 2510B-2011 MOD |
| Chromium, Hexavalent | < 1.0 | 1.0 | mg/kg | 1 | 05/11/15 | AK | SW846 3060A/7196A |
| Chromium, Trivalent ^a | 10.2 | 2.5 | mg/kg | 1 | 05/12/15 15:03 | JB | SW846 3060A/7196A M |
| Redox Potential Vs H2 | 457 | | mv | 1 | 05/11/15 | JD | ASTM D1498-76M |
| pH | 8.47 | | su | 1 | 05/11/15 12:00 | TB | SW846 9045D |

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

4.3
4

Report of Analysis

| | |
|---|--------------------------------|
| Client Sample ID: GRIZZLY SITE-MIX MATERIAL 02 | Date Sampled: 05/06/15 |
| Lab Sample ID: D70561-2A | Date Received: 05/08/15 |
| Matrix: SO - Soil | Percent Solids: 64.6 |
| Project: Grizzly Sample 5-6-15 | |

SAR Metals Analysis

| Analyte | Result | RL | Units | DF | Prep | Analyzed By | Method | Prep Method |
|-----------|--------|-----|-------|----|----------|-------------|--------------------------|----------------------------|
| Calcium | 75.1 | 2.0 | mg/l | 1 | 05/13/15 | 05/13/15 JB | SW846 6010C ¹ | SW846 3010A/M ² |
| Magnesium | 13.6 | 1.0 | mg/l | 1 | 05/13/15 | 05/13/15 JB | SW846 6010C ¹ | SW846 3010A/M ² |
| Sodium | 155 | 2.0 | mg/l | 1 | 05/13/15 | 05/13/15 JB | SW846 6010C ¹ | SW846 3010A/M ² |

(1) Instrument QC Batch: MA6121

(2) Prep QC Batch: MP15911

RL = Reporting Limit

4.4
4

Report of Analysis

| | |
|---|--------------------------------|
| Client Sample ID: GRIZZLY SITE-MIX MATERIAL 02 | Date Sampled: 05/06/15 |
| Lab Sample ID: D70561-2A | Date Received: 05/08/15 |
| Matrix: SO - Soil | Percent Solids: 64.6 |
| Project: Grizzly Sample 5-6-15 | |

General Chemistry

| Analyte | Result | RL | Units | DF | Analyzed | By | Method |
|--------------------------------------|--------|----|-------|----|----------------|----|------------------|
| Sodium Adsorption Ratio ^a | 4.32 | | ratio | 1 | 05/13/15 18:24 | JB | USDA HANDBOOK 60 |

(a) Calculated as: $(Na \text{ meq/L}) / \sqrt{[(Ca \text{ meq/L}) + (Mg \text{ meq/L})/2]}$

RL = Reporting Limit

4.4
4

Report of Analysis

| | |
|---|--|
| Client Sample ID: GRIZZLY SITE-CUTTINGS S. BERM Lab Sample ID: D70561-3 Matrix: SO - Soil Method: SW846 8260C Project: Grizzly Sample 5-6-15 | Date Sampled: 05/06/15 Date Received: 05/08/15 Percent Solids: 61.6 |
|---|--|

| Run # | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|-----|-----------|------------|------------------|
| Run #1 ^a | K87711.D | 1 | 05/11/15 | AMA | n/a | n/a | M:MSK2733 |
| Run #2 | | | | | | | |

| Run # | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 10.2 g | 10.0 ml | 100 ul |
| Run #2 | | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|-----------|----------------|--------|-----|-----|-------|---|
| 71-43-2 | Benzene | ND | 56 | 42 | ug/kg | |
| 108-88-3 | Toluene | 741 | 560 | 44 | ug/kg | |
| 100-41-4 | Ethylbenzene | 1650 | 220 | 42 | ug/kg | |
| 1330-20-7 | Xylene (total) | 9990 | 220 | 39 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 105% | | 65-141% |
| 2037-26-5 | Toluene-D8 | 99% | | 65-129% |
| 460-00-4 | 4-Bromofluorobenzene | 126% | | 63-137% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.5
4

Report of Analysis

| | | | |
|-------------------|-------------------------------|-----------------|----------|
| Client Sample ID: | GRIZZLY SITE-CUTTINGS S. BERM | Date Sampled: | 05/06/15 |
| Lab Sample ID: | D70561-3 | Date Received: | 05/08/15 |
| Matrix: | SO - Soil | Percent Solids: | 61.6 |
| Method: | SW846 8270C BY SIM SW846 3546 | | |
| Project: | Grizzly Sample 5-6-15 | | |

| Run # | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 ^a | 3G23727.D | 20 | 05/13/15 | JJ | 05/13/15 | OP11723 | E3G1187 |
| Run #2 | | | | | | | |

| Run # | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 5.00 g | 1.0 ml |
| Run #2 | | |

COGCC Table 910-1 PAH List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9 | Acenaphthene | ND | 840 | 410 | ug/kg | |
| 120-12-7 | Anthracene | ND | 840 | 410 | ug/kg | |
| 56-55-3 | Benzo(a)anthracene | ND | 840 | 410 | ug/kg | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 840 | 410 | ug/kg | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 840 | 410 | ug/kg | |
| 50-32-8 | Benzo(a)pyrene | ND | 840 | 410 | ug/kg | |
| 218-01-9 | Chrysene | ND | 840 | 410 | ug/kg | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 840 | 410 | ug/kg | |
| 206-44-0 | Fluoranthene | ND | 840 | 410 | ug/kg | |
| 86-73-7 | Fluorene | 5350 | 840 | 410 | ug/kg | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 840 | 650 | ug/kg | |
| 91-20-3 | Naphthalene | 8030 | 840 | 510 | ug/kg | |
| 129-00-0 | Pyrene | ND | 840 | 410 | ug/kg | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5 | 146% | | 11-164% |
| 321-60-8 | 2-Fluorobiphenyl | 95% | | 14-138% |
| 1718-51-0 | Terphenyl-d14 | 116% | | 35-139% |

(a) Dilution required due to matrix interference. Internal Standard failure at lesser dilution.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.5
4

Report of Analysis

| | |
|---|--|
| Client Sample ID: GRIZZLY SITE-CUTTINGS S. BERM Lab Sample ID: D70561-3 Matrix: SO - Soil Method: SW846 8015B Project: Grizzly Sample 5-6-15 | Date Sampled: 05/06/15 Date Received: 05/08/15 Percent Solids: 61.6 |
|---|--|

| Run # | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GB30059.D | 1 | 05/08/15 | EP | n/a | n/a | GGB1617 |
| Run #2 | | | | | | | |

| Run # | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 5.0 g | 5.0 ml | 50.0 ul |
| Run #2 | | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|----------|------------------------|-------------------|--------|---------|-------|---|
| | TPH-GRO (C6-C10) | 530 | 45 | 22 | mg/kg | |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits | | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 198% ^a | | 60-140% | | |

(a) Outside control limits due to possible matrix interference.

| | |
|--|--|
| ND = Not detected RL = Reporting Limit E = Indicates value exceeds calibration range | MDL = Method Detection Limit J = Indicates an estimated value B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound |
|--|--|

4.5
4

Report of Analysis

| | |
|--|--------------------------------|
| Client Sample ID: GRIZZLY SITE-CUTTINGS S. BERM | Date Sampled: 05/06/15 |
| Lab Sample ID: D70561-3 | Date Received: 05/08/15 |
| Matrix: SO - Soil | Percent Solids: 61.6 |
| Method: SW846-8015B SW846 3546 | |
| Project: Grizzly Sample 5-6-15 | |

| Run # | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 ^a | FD45229.D | 1 | 05/12/15 | GN | 05/11/15 | OP11705 | GFD1939 |
| Run #2 | | | | | | | |

| Run # | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 5.1 g | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
| | TPH-DRO (C10-C28) | 6780 | 64 | 48 | mg/kg | |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits | | |
| 84-15-1 | o-Terphenyl | 83% | | 20-130% | | |

(a) Elevated reporting limits due to insufficient sample and sample matrix, dilution required during prep.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.5
4

Report of Analysis

| | | | |
|--------------------------|-------------------------------|------------------------|----------|
| Client Sample ID: | GRIZZLY SITE-CUTTINGS S. BERM | Date Sampled: | 05/06/15 |
| Lab Sample ID: | D70561-3 | Date Received: | 05/08/15 |
| Matrix: | SO - Soil | Percent Solids: | 61.6 |
| Project: | Grizzly Sample 5-6-15 | | |

Metals Analysis

| Analyte | Result | RL | Units | DF | Prep | Analyzed By | Method | Prep Method |
|----------|--------|------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic | 7.4 | 0.15 | mg/kg | 5 | 05/12/15 | 05/15/15 JB | SW846 6020A ⁴ | SW846 3050B ⁷ |
| Barium | 10400 | 15 | mg/kg | 10 | 05/12/15 | 05/13/15 JB | SW846 6010C ³ | SW846 3050B ⁶ |
| Cadmium | < 1.5 | 1.5 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Chromium | 31.3 | 1.5 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Copper | 26.9 | 1.5 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Lead | < 7.6 | 7.6 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Mercury | < 0.13 | 0.13 | mg/kg | 1 | 05/11/15 | 05/11/15 KV | SW846 7471B ¹ | SW846 7471B ⁵ |
| Nickel | 24.3 | 4.6 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Selenium | < 7.6 | 7.6 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Silver | < 4.6 | 4.6 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |
| Zinc | 51.6 | 4.6 | mg/kg | 1 | 05/12/15 | 05/12/15 JB | SW846 6010C ² | SW846 3050B ⁶ |

- (1) Instrument QC Batch: MA6104
- (2) Instrument QC Batch: MA6110
- (3) Instrument QC Batch: MA6121
- (4) Instrument QC Batch: MA6126
- (5) Prep QC Batch: MP15886
- (6) Prep QC Batch: MP15891
- (7) Prep QC Batch: MP15892

RL = Reporting Limit

4.5
4

Report of Analysis

| | |
|--|--------------------------------|
| Client Sample ID: GRIZZLY SITE-CUTTINGS S. BERM | Date Sampled: 05/06/15 |
| Lab Sample ID: D70561-3 | Date Received: 05/08/15 |
| Matrix: SO - Soil | Percent Solids: 61.6 |
| Project: Grizzly Sample 5-6-15 | |

General Chemistry

| Analyte | Result | RL | Units | DF | Analyzed | By | Method |
|---|--------|-----|----------|----|----------------|-----|---------------------|
| %solids | | | | | | | |
| Solids, Percent | 61.6 | | % | 1 | 05/11/15 | SWT | SM2540G-2011 M |
| prep: DEPT.OF AG, BOOK N9 | | | | | | | |
| Specific Conductivity | 1510 | 1.0 | umhos/cm | 1 | 05/13/15 | JD | SM 2510B-2011 MOD |
| Chromium, Hexavalent | < 1.0 | 1.0 | mg/kg | 1 | 05/11/15 | AK | SW846 3060A/7196A |
| Chromium, Trivalent ^a | 30.9 | 2.5 | mg/kg | 1 | 05/12/15 15:11 | JB | SW846 3060A/7196A M |
| Redox Potential Vs H2 | 353 | | mv | 1 | 05/11/15 | JD | ASTM D1498-76M |
| pH | 9.09 | | su | 1 | 05/11/15 12:00 | TB | SW846 9045D |

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

4.5
4

Report of Analysis

| | |
|--|--------------------------------|
| Client Sample ID: GRIZZLY SITE-CUTTINGS S. BERM | Date Sampled: 05/06/15 |
| Lab Sample ID: D70561-3A | Date Received: 05/08/15 |
| Matrix: SO - Soil | Percent Solids: 61.6 |
| Project: Grizzly Sample 5-6-15 | |

SAR Metals Analysis

| Analyte | Result | RL | Units | DF | Prep | Analyzed By | Method | Prep Method |
|-----------|--------|-----|-------|----|----------|-------------|--------------------------|----------------------------|
| Calcium | 50.1 | 2.0 | mg/l | 1 | 05/13/15 | 05/13/15 JB | SW846 6010C ¹ | SW846 3010A/M ² |
| Magnesium | 6.06 | 1.0 | mg/l | 1 | 05/13/15 | 05/13/15 JB | SW846 6010C ¹ | SW846 3010A/M ² |
| Sodium | 311 | 2.0 | mg/l | 1 | 05/13/15 | 05/13/15 JB | SW846 6010C ¹ | SW846 3010A/M ² |

(1) Instrument QC Batch: MA6121

(2) Prep QC Batch: MP15911

RL = Reporting Limit

4.6
4

Report of Analysis

| | |
|--|--------------------------------|
| Client Sample ID: GRIZZLY SITE-CUTTINGS S. BERM | Date Sampled: 05/06/15 |
| Lab Sample ID: D70561-3A | Date Received: 05/08/15 |
| Matrix: SO - Soil | Percent Solids: 61.6 |
| Project: Grizzly Sample 5-6-15 | |

4.6
4

General Chemistry

| Analyte | Result | RL | Units | DF | Analyzed | By | Method |
|--------------------------------------|--------|----|-------|----|----------------|----|------------------|
| Sodium Adsorption Ratio ^a | 11.0 | | ratio | 1 | 05/13/15 18:31 | JB | USDA HANDBOOK 60 |

(a) Calculated as: $(Na \text{ meq/L}) / \sqrt{[(Ca \text{ meq/L}) + (Mg \text{ meq/L})/2]}$

RL = Reporting Limit

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Job Number: D70561 **Client:** CONFLUENCE ENERGY **Project:** GRIXXLY SAMPLE 5-6-15
Date / Time Received: 5/8/2015 10:45:00 AM **Delivery Method:** _____ **Airbill #'s:** fx
Cooler Temps (Initial/Adjusted): #1: (15.4/15.4):

| <u>Cooler Security</u> | <u>Y</u> | <u>or</u> | <u>N</u> | | <u>Y</u> | <u>or</u> | <u>N</u> |
|---------------------------|-------------------------------------|-----------|--------------------------|-----------------------|-------------------------------------|-----------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | | <input type="checkbox"/> |

| <u>Cooler Temperature</u> | <u>Y</u> | <u>or</u> | <u>N</u> |
|------------------------------|-------------------------------------|-----------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | | <input type="checkbox"/> |
| 2. Cooler temp verification: | | | <u>IR Gun;</u> |
| 3. Cooler media: | | | <u>Ice (Bag)</u> |
| 4. No. Coolers: | | | <u>1</u> |

| <u>Quality Control Preservation</u> | <u>Y</u> | <u>or</u> | <u>N</u> | <u>N/A</u> |
|-------------------------------------|-------------------------------------|-----------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input type="checkbox"/> | | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

| <u>Sample Integrity - Documentation</u> | <u>Y</u> | <u>or</u> | <u>N</u> |
|---|-------------------------------------|-----------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | | <input type="checkbox"/> |

| <u>Sample Integrity - Condition</u> | <u>Y</u> | <u>or</u> | <u>N</u> |
|-------------------------------------|-------------------------------------|-----------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | | <input type="checkbox"/> |
| 3. Condition of sample: | | | <u>Intact</u> |

| <u>Sample Integrity - Instructions</u> | <u>Y</u> | <u>or</u> | <u>N</u> | <u>N/A</u> |
|---|-------------------------------------|-----------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

5.1
5

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D70561
 Account: CONECOK Confluence Energy
 Project: Grizzly Sample 5-6-15

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11723-MB | 3G23723.D | 1 | 05/13/15 | JJ | 05/13/15 | OP11723 | E3G1187 |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

D70561-1, D70561-2, D70561-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9 | Acenaphthene | ND | 4.3 | 2.1 | ug/kg | |
| 120-12-7 | Anthracene | ND | 4.3 | 2.1 | ug/kg | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.3 | 2.1 | ug/kg | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.3 | 2.1 | ug/kg | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.3 | 2.1 | ug/kg | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.3 | 2.1 | ug/kg | |
| 218-01-9 | Chrysene | ND | 4.3 | 2.1 | ug/kg | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.3 | 2.1 | ug/kg | |
| 206-44-0 | Fluoranthene | ND | 4.3 | 2.1 | ug/kg | |
| 86-73-7 | Fluorene | ND | 4.3 | 2.1 | ug/kg | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.3 | 3.3 | ug/kg | |
| 91-20-3 | Naphthalene | ND | 4.3 | 2.6 | ug/kg | |
| 129-00-0 | Pyrene | ND | 4.3 | 2.1 | ug/kg | |

| CAS No. | Surrogate Recoveries | Limits |
|-----------|----------------------|--------------|
| 4165-60-0 | Nitrobenzene-d5 | 93% 11-164% |
| 321-60-8 | 2-Fluorobiphenyl | 98% 14-138% |
| 1718-51-0 | Terphenyl-d14 | 108% 35-139% |

Blank Spike Summary

Job Number: D70561
 Account: CONECOK Confluence Energy
 Project: Grizzly Sample 5-6-15

| | | | | | | | |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
| OP11723-BS | 3G23724.D | 1 | 05/13/15 | JJ | 05/13/15 | OP11723 | E3G1187 |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

D70561-1, D70561-2, D70561-3

| CAS No. | Compound | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|----------|------------------------|----------------|--------------|----------|--------|
| 83-32-9 | Acenaphthene | 83.3 | 83.8 | 101 | 42-130 |
| 120-12-7 | Anthracene | 83.3 | 94.2 | 113 | 45-130 |
| 56-55-3 | Benzo(a)anthracene | 83.3 | 91.2 | 109 | 49-137 |
| 205-99-2 | Benzo(b)fluoranthene | 83.3 | 85.4 | 102 | 43-146 |
| 207-08-9 | Benzo(k)fluoranthene | 83.3 | 82.0 | 98 | 27-146 |
| 50-32-8 | Benzo(a)pyrene | 83.3 | 90.0 | 108 | 53-130 |
| 218-01-9 | Chrysene | 83.3 | 86.8 | 104 | 61-130 |
| 53-70-3 | Dibenzo(a,h)anthracene | 83.3 | 80.0 | 96 | 59-130 |
| 206-44-0 | Fluoranthene | 83.3 | 93.1 | 112 | 48-130 |
| 86-73-7 | Fluorene | 83.3 | 88.7 | 106 | 44-130 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 83.3 | 81.3 | 98 | 58-130 |
| 91-20-3 | Naphthalene | 83.3 | 77.3 | 93 | 56-130 |
| 129-00-0 | Pyrene | 83.3 | 88.3 | 106 | 53-130 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|-----------|----------------------|------|---------|
| 4165-60-0 | Nitrobenzene-d5 | 93% | 11-164% |
| 321-60-8 | 2-Fluorobiphenyl | 106% | 14-138% |
| 1718-51-0 | Terphenyl-d14 | 103% | 35-139% |

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D70561
 Account: CONECOK Confluence Energy
 Project: Grizzly Sample 5-6-15

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11723-MS ^a | 3G23725.D | 20 | 05/13/15 | JJ | 05/13/15 | OP11723 | E3G1187 |
| OP11723-MSD ^a | 3G23726.D | 20 | 05/13/15 | JJ | 05/13/15 | OP11723 | E3G1187 |
| D70561-3 ^a | 3G23727.D | 20 | 05/13/15 | JJ | 05/13/15 | OP11723 | E3G1187 |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

D70561-1, D70561-2, D70561-3

| CAS No. | Compound | D70561-3 ug/kg | Spike Q ug/kg | MS ug/kg | MS % | Spike ug/kg | MSD ug/kg | MSD % | RPD | Limits Rec/RPD |
|----------|------------------------|-------------------|---------------------|-------------|-------------------|----------------|--------------|--------------------|-----|-------------------|
| 83-32-9 | Acenaphthene | ND | 812 | 1700 | 209* ^b | 812 | 1560 | 192* ^b | 9 | 10-167/30 |
| 120-12-7 | Anthracene | ND | 812 | 861 | 106 | 812 | 895 | 110 | 4 | 10-200/30 |
| 56-55-3 | Benzo(a)anthracene | ND | 812 | 1070 | 132 | 812 | 1090 | 134 | 2 | 10-161/30 |
| 205-99-2 | Benzo(b)fluoranthene | ND | 812 | 959 | 118 | 812 | 959 | 118 | 0 | 10-166/30 |
| 207-08-9 | Benzo(k)fluoranthene | ND | 812 | 709 | 87 | 812 | 737 | 91 | 4 | 10-152/30 |
| 50-32-8 | Benzo(a)pyrene | ND | 812 | 998 | 123 | 812 | 1020 | 126 | 2 | 10-149/30 |
| 218-01-9 | Chrysene | ND | 812 | 2080 | 256* ^b | 812 | 1800 | 222* ^b | 14 | 10-156/30 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 812 | 808 | 100 | 812 | 850 | 105 | 5 | 11-149/30 |
| 206-44-0 | Fluoranthene | ND | 812 | 1290 | 159 | 812 | 1170 | 144 | 10 | 10-175/30 |
| 86-73-7 | Fluorene | 5350 | 812 | 5370 | 2* ^c | 812 | 4500 | -105* ^c | 18 | 10-280/30 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 812 | 914 | 113 | 812 | 952 | 117 | 4 | 10-151/30 |
| 91-20-3 | Naphthalene | 8030 | 812 | 7380 | -80* ^c | 812 | 5850 | -269* ^c | 23 | 10-230/30 |
| 129-00-0 | Pyrene | ND | 812 | 1930 | 238* ^b | 812 | 1700 | 209* ^b | 13 | 10-160/30 |

| CAS No. | Surrogate Recoveries | MS | MSD | D70561-3 | Limits |
|-----------|----------------------|------|------|----------|---------|
| 4165-60-0 | Nitrobenzene-d5 | 119% | 120% | 146% | 11-164% |
| 321-60-8 | 2-Fluorobiphenyl | 80% | 88% | 95% | 14-138% |
| 1718-51-0 | Terphenyl-d14 | 101% | 109% | 116% | 35-139% |

(a) Dilution required due to matrix interference. Internal Standard failure at lesser dilution.

(b) Outside control limits due to possible matrix interference.

(c) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D70561
Account: CONECOK Confluence Energy
Project: Grizzly Sample 5-6-15

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| GGB1617-MB | GB30053.D | 1 | 05/08/15 | EP | n/a | n/a | GGB1617 |

The QC reported here applies to the following samples:

Method: SW846 8015B

D70561-1, D70561-2, D70561-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---------|------------------|--------|----|-----|-------|---|
| | TPH-GRO (C6-C10) | ND | 10 | 5.0 | mg/kg | |

| CAS No. | Surrogate Recoveries | Limits |
|----------|------------------------|--------------|
| 120-82-1 | 1,2,4-Trichlorobenzene | 102% 60-140% |

7.1.1
7

Blank Spike Summary

Job Number: D70561
 Account: CONECOK Confluence Energy
 Project: Grizzly Sample 5-6-15

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| GGB1617-BS | GB30054.D | 1 | 05/08/15 | EP | n/a | n/a | GGB1617 |

The QC reported here applies to the following samples:

Method: SW846 8015B

D70561-1, D70561-2, D70561-3

| CAS No. | Compound | Spike mg/kg | BSP mg/kg | BSP % | Limits |
|---------|------------------|----------------|--------------|----------|--------|
| | TPH-GRO (C6-C10) | 110 | 106 | 97 | 70-130 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|----------|------------------------|------|---------|
| 120-82-1 | 1,2,4-Trichlorobenzene | 105% | 60-140% |

7.2.1
7

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D70561
 Account: CONECOK Confluence Energy
 Project: Grizzly Sample 5-6-15

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| D70561-1MS | GB30056.D | 1 | 05/08/15 | EP | n/a | n/a | GGB1617 |
| D70561-1MSD | GB30057.D | 1 | 05/08/15 | EP | n/a | n/a | GGB1617 |
| D70561-1 | GB30055.D | 1 | 05/08/15 | EP | n/a | n/a | GGB1617 |

The QC reported here applies to the following samples: Method: SW846 8015B

D70561-1, D70561-2, D70561-3

| CAS No. | Compound | D70561-1 mg/kg | Spike Q | MS mg/kg | MS % | Spike mg/kg | MSD mg/kg | MSD % | RPD | Limits Rec/RPD |
|---------|------------------|-------------------|------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| | TPH-GRO (C6-C10) | 54.4 | 373 | 406 | 94 | 373 | 418 | 97 | 3 | 70-130/30 |

| CAS No. | Surrogate Recoveries | MS | MSD | D70561-1 | Limits |
|----------|------------------------|------|------|----------|---------|
| 120-82-1 | 1,2,4-Trichlorobenzene | 115% | 121% | 111% | 60-140% |

* = Outside of Control Limits.

7.3.1
7

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D70561
Account: CONECOK Confluence Energy
Project: Grizzly Sample 5-6-15

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11705-MB | FD45171.D | 1 | 05/11/15 | GN | 05/11/15 | OP11705 | GFD1939 |

The QC reported here applies to the following samples:

Method: SW846-8015B

D70561-1, D70561-2, D70561-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---------|-------------------|--------|----|-----|-------|---|
| | TPH-DRO (C10-C28) | ND | 10 | 7.5 | mg/kg | |

| CAS No. | Surrogate Recoveries | Limits |
|---------|----------------------|-------------|
| 84-15-1 | o-Terphenyl | 96% 20-130% |

Blank Spike Summary

Job Number: D70561
Account: CONECOK Confluence Energy
Project: Grizzly Sample 5-6-15

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11705-BS | FD45173.D | 1 | 05/11/15 | GN | 05/11/15 | OP11705 | GFD1939 |

The QC reported here applies to the following samples:

Method: SW846-8015B

D70561-1, D70561-2, D70561-3

| CAS No. | Compound | Spike mg/kg | BSP mg/kg | BSP % | Limits |
|---------|-------------------|----------------|--------------|----------|--------|
| | TPH-DRO (C10-C28) | 250 | 137 | 55 | 32-130 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---------|----------------------|-----|---------|
| 84-15-1 | o-Terphenyl | 80% | 20-130% |

8.2.1

8

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D70561
 Account: CONECOK Confluence Energy
 Project: Grizzly Sample 5-6-15

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11705-MS | FD45175.D | 1 | 05/11/15 | GN | 05/11/15 | OP11705 | GFD1939 |
| OP11705-MSD | FD45177.D | 1 | 05/11/15 | GN | 05/11/15 | OP11705 | GFD1939 |
| D70430-2 | FD45179.D | 1 | 05/11/15 | GN | 05/11/15 | OP11705 | GFD1939 |

The QC reported here applies to the following samples:

Method: SW846-8015B

D70561-1, D70561-2, D70561-3

| CAS No. | Compound | D70430-2 mg/kg | Spike Q mg/kg | MS mg/kg | MS % | Spike mg/kg | MSD mg/kg | MSD % | RPD | Limits Rec/RPD |
|---------|-------------------|-------------------|------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| | TPH-DRO (C10-C28) | ND | 306 | 172 | 56 | 303 | 186 | 61 | 8 | 20-152/54 |

| CAS No. | Surrogate Recoveries | MS | MSD | D70430-2 | Limits |
|---------|----------------------|-----|-----|----------|---------|
| 84-15-1 | o-Terphenyl | 83% | 92% | 100% | 20-130% |

8.3.1
8

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- **Method Blank Summaries**
- **Matrix Spike and Duplicate Summaries**
- **Blank Spike and Lab Control Sample Summaries**
- **Serial Dilution Summaries**

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

QC Batch ID: MP15886
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/11/15

| Metal | RL | IDL | MDL | MB | |
|---------|-------|--------|-------|----------|--------|
| | | | | raw | final |
| Mercury | 0.083 | .00088 | .0067 | -0.00098 | <0.083 |

Associated samples MP15886: D70561-1, D70561-2, D70561-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

QC Batch ID: MP15886
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/11/15

| Metal | D70293-1B Original MS | Spikelot HGWSR1 | % Rec | QC Limits |
|-------|--------------------------|--------------------|-------|--------------|
|-------|--------------------------|--------------------|-------|--------------|

Mercury 0.041 0.44 0.376 106.0 75-125

Associated samples MP15886: D70561-1, D70561-2, D70561-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70561
 Account: CONECOK - Confluence Energy
 Project: Grizzly Sample 5-6-15

QC Batch ID: MP15886
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 05/11/15

| Metal | D70293-1B Original MSD | Spikelot HGWSR1 | % Rec | MSD RPD | QC Limit | |
|---------|---------------------------|--------------------|-------|------------|-------------|----|
| Mercury | 0.041 | 0.42 | 0.365 | 103.9 | 4.7 | 20 |

Associated samples MP15886: D70561-1, D70561-2, D70561-3

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

QC Batch ID: MP15886
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/11/15

| Metal | BSP Result | Spikelot HGWSR1 | % Rec | QC Limits |
|---------|---------------|--------------------|-------|--------------|
| Mercury | 0.35 | 0.333 | 105.0 | 80-120 |

Associated samples MP15886: D70561-1, D70561-2, D70561-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

QC Batch ID: MP15891
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/12/15

| Metal | RL | IDL | MDL | MB raw | final |
|------------|------|------|-----|-----------|-------|
| Aluminum | 10 | 1.1 | 1.7 | | |
| Antimony | 3.0 | .21 | .82 | | |
| Arsenic | 2.5 | .38 | 2.1 | | |
| Barium | 1.0 | .02 | .03 | 0.18 | <1.0 |
| Beryllium | 1.0 | .09 | .16 | | |
| Boron | 5.0 | .08 | .29 | | |
| Cadmium | 1.0 | .02 | .1 | 0.0 | <1.0 |
| Calcium | 40 | .24 | 9.6 | | |
| Chromium | 1.0 | .03 | .07 | 0.030 | <1.0 |
| Cobalt | 0.50 | .05 | .12 | | |
| Copper | 1.0 | .08 | .48 | 0.13 | <1.0 |
| Iron | 7.0 | .15 | .69 | | |
| Lead | 5.0 | .21 | .6 | -0.18 | <5.0 |
| Lithium | 0.50 | .04 | .07 | | |
| Magnesium | 20 | .68 | 3.9 | | |
| Manganese | 0.50 | .05 | .07 | | |
| Molybdenum | 1.0 | .04 | .36 | | |
| Nickel | 3.0 | .05 | .24 | 0.31 | <3.0 |
| Phosphorus | 10 | 1.5 | 4.3 | | |
| Potassium | 200 | 9.9 | 6 | | |
| Selenium | 5.0 | .71 | 1 | -0.29 | <5.0 |
| Silicon | 5.0 | .47 | .91 | | |
| Silver | 3.0 | .03 | .05 | 0.0 | <3.0 |
| Sodium | 40 | .73 | 1.5 | | |
| Strontium | 5.0 | .001 | .03 | | |
| Thallium | 1.0 | .18 | .86 | | |
| Tin | 5.0 | 1.2 | 1.2 | | |
| Titanium | 1.0 | .01 | .27 | | |
| Uranium | 5.0 | .29 | .44 | | |
| Vanadium | 1.0 | .04 | .07 | | |
| Zinc | 3.0 | .04 | .35 | 0.23 | <3.0 |

Associated samples MP15891: D70561-1, D70561-2, D70561-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

9.2.1
9

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

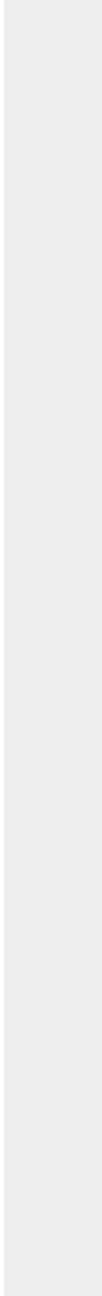
QC Batch ID: MP15891
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/12/15

| Metal | RL | IDL | MDL | MB raw | final |
|-------|----|-----|-----|-----------|-------|
|-------|----|-----|-----|-----------|-------|

(anr) Analyte not requested



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70561
 Account: CONECOK - Confluence Energy
 Project: Grizzly Sample 5-6-15

QC Batch ID: MP15891
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/12/15

| Metal | D70561-1 Original MS | | SpikeLot ICPAL2 | % Rec | QC Limits |
|------------|-------------------------|------|--------------------|-----------|--------------|
| Aluminum | | | | | |
| Antimony | | | | | |
| Arsenic | anr | | | | |
| Barium | 6260 | 5910 | 316 | -110.7(a) | 75-125 |
| Beryllium | | | | | |
| Boron | | | | | |
| Cadmium | 0.20 | 71.9 | 79.1 | 90.7 | 75-125 |
| Calcium | anr | | | | |
| Chromium | 12.2 | 85.5 | 79.1 | 92.7 | 75-125 |
| Cobalt | | | | | |
| Copper | 15.8 | 89.4 | 79.1 | 93.1 | 75-125 |
| Iron | | | | | |
| Lead | 4.6 | 145 | 158 | 88.8 | 75-125 |
| Lithium | | | | | |
| Magnesium | anr | | | | |
| Manganese | | | | | |
| Molybdenum | anr | | | | |
| Nickel | 11.6 | 76.7 | 79.1 | 82.3 | 75-125 |
| Phosphorus | anr | | | | |
| Potassium | anr | | | | |
| Selenium | 3.5 | 164 | 158 | 101.5 | 75-125 |
| Silicon | | | | | |
| Silver | 0.0 | 28.5 | 31.6 | 90.1 | 75-125 |
| Sodium | anr | | | | |
| Strontium | | | | | |
| Thallium | | | | | |
| Tin | | | | | |
| Titanium | | | | | |
| Uranium | | | | | |
| Vanadium | | | | | |
| Zinc | 44.1 | 109 | 79.1 | 82.1 | 75-125 |

Associated samples MP15891: D70561-1, D70561-2, D70561-3

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

9.2.2
 9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

QC Batch ID: MP15891
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/12/15

| Metal | D70561-1 Original MS | SpikeLot ICPAL2 | % Rec | QC Limits |
|-------|-------------------------|--------------------|-------|--------------|
|-------|-------------------------|--------------------|-------|--------------|

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70561
 Account: CONECOK - Confluence Energy
 Project: Grizzly Sample 5-6-15

QC Batch ID: MP15891
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/12/15

| Metal | D70561-1 Original | MSD | SpikeLot ICPAL2 | % Rec | MSD RPD | QC Limit |
|------------|----------------------|------|--------------------|----------|------------|-------------|
| Aluminum | | | | | | |
| Antimony | | | | | | |
| Arsenic | anr | | | | | |
| Barium | 6260 | 7330 | 303 | 352.9(a) | 21.5 (b) | 20 |
| Beryllium | | | | | | |
| Boron | | | | | | |
| Cadmium | 0.20 | 69.3 | 75.8 | 91.2 | 3.7 | 20 |
| Calcium | anr | | | | | |
| Chromium | 12.2 | 84.3 | 75.8 | 95.1 | 1.4 | 20 |
| Cobalt | | | | | | |
| Copper | 15.8 | 89.2 | 75.8 | 96.8 | 0.2 | 20 |
| Iron | | | | | | |
| Lead | 4.6 | 140 | 152 | 89.3 | 3.5 | 20 |
| Lithium | | | | | | |
| Magnesium | anr | | | | | |
| Manganese | | | | | | |
| Molybdenum | anr | | | | | |
| Nickel | 11.6 | 76.5 | 75.8 | 85.6 | 0.3 | 20 |
| Phosphorus | anr | | | | | |
| Potassium | anr | | | | | |
| Selenium | 3.5 | 160 | 152 | 103.2 | 2.5 | 20 |
| Silicon | | | | | | |
| Silver | 0.0 | 27.2 | 30.3 | 89.7 | 4.7 | 20 |
| Sodium | anr | | | | | |
| Strontium | | | | | | |
| Thallium | | | | | | |
| Tin | | | | | | |
| Titanium | | | | | | |
| Uranium | | | | | | |
| Vanadium | | | | | | |
| Zinc | 44.1 | 109 | 75.8 | 85.6 | 0.0 | 20 |

Associated samples MP15891: D70561-1, D70561-2, D70561-3

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

9.2.2
 9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70561
 Account: CONECOK - Confluence Energy
 Project: Grizzly Sample 5-6-15

QC Batch ID: MP15891
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/12/15

| Metal | D70561-1 Original MSD | SpikeLot ICPALL2 | % Rec | MSD RPD | QC Limit |
|-------|--------------------------|---------------------|-------|------------|-------------|
|-------|--------------------------|---------------------|-------|------------|-------------|

- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
- (a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- (b) High RPD due to possible sample matrix or nonhomogeneity.

9.2.2
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D70561
 Account: CONECOK - Confluence Energy
 Project: Grizzly Sample 5-6-15

QC Batch ID: MP15891
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/12/15

| Metal | BSP Result | Spikelot ICPALL2 | % Rec | QC Limits |
|------------|------------|------------------|-------|-----------|
| Aluminum | | | | |
| Antimony | | | | |
| Arsenic | anr | | | |
| Barium | 199 | 200 | 99.5 | 80-120 |
| Beryllium | | | | |
| Boron | | | | |
| Cadmium | 45.6 | 50 | 91.2 | 80-120 |
| Calcium | anr | | | |
| Chromium | 50.0 | 50 | 100.0 | 80-120 |
| Cobalt | | | | |
| Copper | 47.4 | 50 | 94.8 | 80-120 |
| Iron | | | | |
| Lead | 91.5 | 100 | 91.5 | 80-120 |
| Lithium | | | | |
| Magnesium | anr | | | |
| Manganese | | | | |
| Molybdenum | anr | | | |
| Nickel | 45.0 | 50 | 90.0 | 80-120 |
| Phosphorus | anr | | | |
| Potassium | anr | | | |
| Selenium | 98.7 | 100 | 98.7 | 80-120 |
| Silicon | | | | |
| Silver | 18.9 | 20 | 94.5 | 80-120 |
| Sodium | anr | | | |
| Strontium | | | | |
| Thallium | | | | |
| Tin | | | | |
| Titanium | | | | |
| Uranium | | | | |
| Vanadium | | | | |
| Zinc | 44.2 | 50 | 88.4 | 80-120 |

Associated samples MP15891: D70561-1, D70561-2, D70561-3

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

9.2.3
 9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

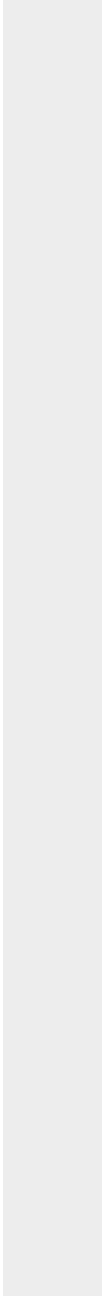
QC Batch ID: MP15891
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/12/15

| Metal | BSP Result | Spikelot ICPALL2 | % Rec | QC Limits |
|-------|---------------|---------------------|-------|--------------|
|-------|---------------|---------------------|-------|--------------|

(anr) Analyte not requested



SERIAL DILUTION RESULTS SUMMARY

Login Number: D70561
 Account: CONECOK - Confluence Energy
 Project: Grizzly Sample 5-6-15

QC Batch ID: MP15891
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/12/15

| Metal | D70561-1 Original SDL 1:5 | | %DIF | QC Limits |
|------------|------------------------------|-------|----------|--------------|
| Aluminum | | | | |
| Antimony | | | | |
| Arsenic | anr | | | |
| Barium | 40900 | 40800 | 0.0 | 0-10 |
| Beryllium | | | | |
| Boron | | | | |
| Cadmium | 1.30 | 0.00 | 100.0(a) | 0-10 |
| Calcium | anr | | | |
| Chromium | 79.4 | 82.5 | 3.9 | 0-10 |
| Cobalt | | | | |
| Copper | 103 | 100 | 3.2 | 0-10 |
| Iron | | | | |
| Lead | 30.1 | 37.0 | 22.9 (a) | 0-10 |
| Lithium | | | | |
| Magnesium | anr | | | |
| Manganese | | | | |
| Molybdenum | anr | | | |
| Nickel | 76.0 | 85.5 | 12.5*(b) | 0-10 |
| Phosphorus | anr | | | |
| Potassium | anr | | | |
| Selenium | 22.6 | 0.00 | 100.0(a) | 0-10 |
| Silicon | | | | |
| Silver | 0.00 | 0.00 | NC | 0-10 |
| Sodium | anr | | | |
| Strontium | | | | |
| Thallium | | | | |
| Tin | | | | |
| Titanium | | | | |
| Uranium | | | | |
| Vanadium | | | | |
| Zinc | 288 | 331 | 14.9*(b) | 0-10 |

Associated samples MP15891: D70561-1, D70561-2, D70561-3

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

9.2.4
 9

SERIAL DILUTION RESULTS SUMMARY

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

QC Batch ID: MP15891
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/12/15

| | D70561-1 | | QC |
|-------|------------------|------|--------|
| Metal | Original SDL 1:5 | %DIF | Limits |

- (anr) Analyte not requested
- (a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- (b) Serial dilution indicates possible matrix interference.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

QC Batch ID: MP15892
Matrix Type: SOLID

Methods: SW846 6020A
Units: mg/kg

Prep Date: 05/12/15

| Metal | RL | IDL | MDL | MB | |
|---------|------|-------|------|--------|-------|
| | | | | raw | final |
| Arsenic | 0.10 | .0085 | .024 | 0.0057 | <0.10 |

Associated samples MP15892: D70561-1, D70561-2, D70561-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70561
 Account: CONECOK - Confluence Energy
 Project: Grizzly Sample 5-6-15

QC Batch ID: MP15892
 Matrix Type: SOLID

Methods: SW846 6020A
 Units: mg/kg

Prep Date: 05/12/15

| Metal | D70561-1 Original MS | Spikelot ICPALL2 | % Rec | QC Limits |
|-------|-------------------------|---------------------|-------|--------------|
|-------|-------------------------|---------------------|-------|--------------|

| | | | | | |
|---------|-----|-----|-----|-------|--------|
| Arsenic | 3.9 | 168 | 158 | 103.8 | 75-125 |
|---------|-----|-----|-----|-------|--------|

Associated samples MP15892: D70561-1, D70561-2, D70561-3

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70561
 Account: CONECOK - Confluence Energy
 Project: Grizzly Sample 5-6-15

QC Batch ID: MP15892
 Matrix Type: SOLID

Methods: SW846 6020A
 Units: mg/kg

Prep Date: 05/12/15

| Metal | D70561-1 Original | MSD | SpikeLot ICPALL2 | % Rec | MSD RPD | QC Limit |
|---------|----------------------|-----|---------------------|-------|------------|-------------|
| Arsenic | 3.9 | 161 | 152 | 103.6 | 4.3 | 20 |

Associated samples MP15892: D70561-1, D70561-2, D70561-3

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

QC Batch ID: MP15892
Matrix Type: SOLID

Methods: SW846 6020A
Units: mg/kg

Prep Date: 05/12/15

| Metal | BSP Result | Spikelot ICPALL2 | QC % Rec | QC Limits |
|---------|---------------|---------------------|-------------|--------------|
| Arsenic | 98.8 | 100 | 98.8 | 80-120 |

Associated samples MP15892: D70561-1, D70561-2, D70561-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

QC Batch ID: MP15892
Matrix Type: SOLID

Methods: SW846 6020A
Units: ug/l

Prep Date: 05/12/15

| Metal | D70561-1 Original | SDL 5:25 | %DIF | QC Limits |
|-------|----------------------|----------|------|--------------|
|-------|----------------------|----------|------|--------------|

Arsenic 25.2 23.4 7.1 0-10

Associated samples MP15892: D70561-1, D70561-2, D70561-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

QC Batch ID: MP15911
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 05/13/15

| Metal | RL | IDL | MDL | MB raw | final |
|------------|------|-----|-----|-----------|-------|
| Aluminum | 500 | 55 | 65 | | |
| Antimony | 150 | 11 | 44 | | |
| Arsenic | 130 | 19 | 60 | | |
| Barium | 50 | 1 | 2 | | |
| Beryllium | 50 | 4.5 | 8 | | |
| Boron | 250 | 4 | 18 | | |
| Cadmium | 50 | 1 | 4 | | |
| Calcium | 2000 | 12 | 50 | -100 | <2000 |
| Chromium | 50 | 1.5 | 3.5 | | |
| Cobalt | 25 | 2.5 | 6 | | |
| Copper | 50 | 4 | 19 | | |
| Iron | 350 | 7.5 | 35 | | |
| Lead | 250 | 11 | 25 | | |
| Lithium | 25 | 2 | 3.5 | | |
| Magnesium | 1000 | 34 | 200 | 216 | <1000 |
| Manganese | 25 | 2.5 | 4.5 | | |
| Molybdenum | 50 | 2 | 18 | | |
| Nickel | 150 | 2.5 | 14 | | |
| Phosphorus | 500 | 75 | 170 | | |
| Potassium | 5000 | 500 | 360 | | |
| Selenium | 250 | 36 | 50 | | |
| Silicon | 250 | 24 | 42 | | |
| Silver | 150 | 1.5 | 3 | | |
| Sodium | 2000 | 37 | 70 | -130 | <2000 |
| Strontium | 25 | .05 | 1.5 | | |
| Thallium | 50 | 9 | 40 | | |
| Tin | 250 | 60 | 60 | | |
| Titanium | 50 | .5 | 14 | | |
| Uranium | 250 | 15 | 22 | | |
| Vanadium | 50 | 2 | 3 | | |
| Zinc | 150 | 2 | 18 | | |

Associated samples MP15911: D70561-1A, D70561-2A, D70561-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

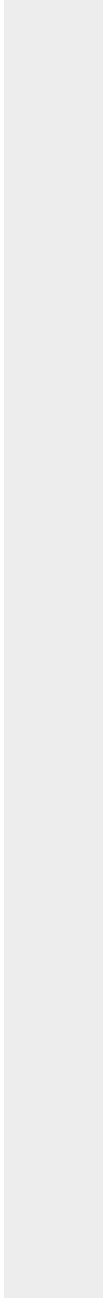
QC Batch ID: MP15911
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 05/13/15

| Metal | RL | IDL | MDL | MB raw | final |
|-------|----|-----|-----|-----------|-------|
|-------|----|-----|-----|-----------|-------|

(anr) Analyte not requested



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70561
 Account: CONECOK - Confluence Energy
 Project: Grizzly Sample 5-6-15

QC Batch ID: MP15911
 Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
 Units: ug/l

Prep Date: 05/13/15

| Metal | D70286-1A Original MS | | Spikelot ICPALL2 | % Rec | QC Limits |
|------------|--------------------------|--------|---------------------|-------|--------------|
| Aluminum | | | | | |
| Antimony | | | | | |
| Arsenic | | | | | |
| Barium | | | | | |
| Beryllium | | | | | |
| Boron | | | | | |
| Cadmium | | | | | |
| Calcium | 36200 | 167000 | 125000 | 104.6 | 75-125 |
| Chromium | | | | | |
| Cobalt | | | | | |
| Copper | | | | | |
| Iron | | | | | |
| Lead | | | | | |
| Lithium | | | | | |
| Magnesium | 4720 | 129000 | 125000 | 99.4 | 75-125 |
| Manganese | | | | | |
| Molybdenum | | | | | |
| Nickel | | | | | |
| Phosphorus | | | | | |
| Potassium | | | | | |
| Selenium | | | | | |
| Silicon | | | | | |
| Silver | | | | | |
| Sodium | 8860 | 132000 | 125000 | 98.5 | 75-125 |
| Strontium | | | | | |
| Thallium | | | | | |
| Tin | | | | | |
| Titanium | | | | | |
| Uranium | | | | | |
| Vanadium | | | | | |
| Zinc | | | | | |

Associated samples MP15911: D70561-1A, D70561-2A, D70561-3A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

9.4.2
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

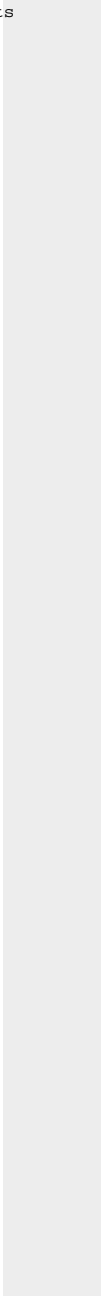
QC Batch ID: MP15911
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 05/13/15

| Metal | D70286-1A Original MS | SpikeLot ICPAL2 | % Rec | QC Limits |
|-------|--------------------------|--------------------|-------|--------------|
|-------|--------------------------|--------------------|-------|--------------|

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70561
 Account: CONECOK - Confluence Energy
 Project: Grizzly Sample 5-6-15

QC Batch ID: MP15911
 Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
 Units: ug/l

Prep Date: 05/13/15

| Metal | D70286-1A Original MSD | Spikelot ICPAL2 | % Rec | MSD RPD | QC Limit | |
|------------|---------------------------|--------------------|--------|------------|-------------|----|
| Aluminum | | | | | | |
| Antimony | | | | | | |
| Arsenic | | | | | | |
| Barium | | | | | | |
| Beryllium | | | | | | |
| Boron | | | | | | |
| Cadmium | | | | | | |
| Calcium | 36200 | 166000 | 125000 | 103.8 | 0.6 | 20 |
| Chromium | | | | | | |
| Cobalt | | | | | | |
| Copper | | | | | | |
| Iron | | | | | | |
| Lead | | | | | | |
| Lithium | | | | | | |
| Magnesium | 4720 | 129000 | 125000 | 99.4 | 0.0 | 20 |
| Manganese | | | | | | |
| Molybdenum | | | | | | |
| Nickel | | | | | | |
| Phosphorus | | | | | | |
| Potassium | | | | | | |
| Selenium | | | | | | |
| Silicon | | | | | | |
| Silver | | | | | | |
| Sodium | 8860 | 132000 | 125000 | 98.5 | 0.0 | 20 |
| Strontium | | | | | | |
| Thallium | | | | | | |
| Tin | | | | | | |
| Titanium | | | | | | |
| Uranium | | | | | | |
| Vanadium | | | | | | |
| Zinc | | | | | | |

Associated samples MP15911: D70561-1A, D70561-2A, D70561-3A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

9.4.2
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

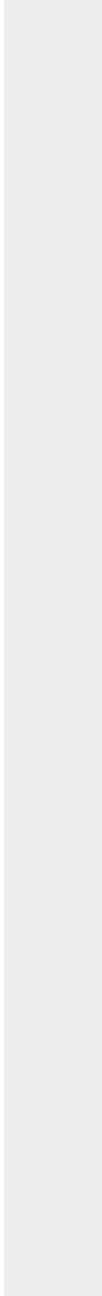
QC Batch ID: MP15911
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 05/13/15

| Metal | D70286-1A Original MSD | SpikeLot ICPALL2 | % Rec | MSD RPD | QC Limit |
|-------|---------------------------|---------------------|-------|------------|-------------|
|-------|---------------------------|---------------------|-------|------------|-------------|

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested



9.4.2
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D70561
 Account: CONECOK - Confluence Energy
 Project: Grizzly Sample 5-6-15

QC Batch ID: MP15911
 Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
 Units: ug/l

Prep Date: 05/13/15

| Metal | BSP Result | Spikelot ICPALL2 | % Rec | QC Limits |
|------------|------------|------------------|-------|-----------|
| Aluminum | | | | |
| Antimony | | | | |
| Arsenic | | | | |
| Barium | | | | |
| Beryllium | | | | |
| Boron | | | | |
| Cadmium | | | | |
| Calcium | 131000 | 125000 | 104.8 | 80-120 |
| Chromium | | | | |
| Cobalt | | | | |
| Copper | | | | |
| Iron | | | | |
| Lead | | | | |
| Lithium | | | | |
| Magnesium | 123000 | 125000 | 98.4 | 80-120 |
| Manganese | | | | |
| Molybdenum | | | | |
| Nickel | | | | |
| Phosphorus | | | | |
| Potassium | | | | |
| Selenium | | | | |
| Silicon | | | | |
| Silver | | | | |
| Sodium | 121000 | 125000 | 96.8 | 80-120 |
| Strontium | | | | |
| Thallium | | | | |
| Tin | | | | |
| Titanium | | | | |
| Uranium | | | | |
| Vanadium | | | | |
| Zinc | | | | |

Associated samples MP15911: D70561-1A, D70561-2A, D70561-3A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

9.4.3
 9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

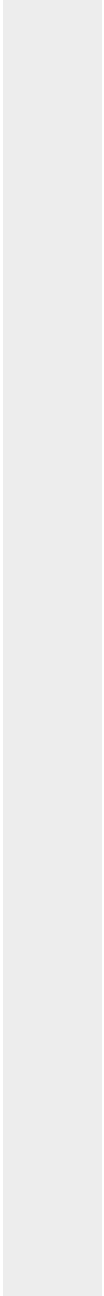
QC Batch ID: MP15911
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 05/13/15

| Metal | BSP Result | Spikelot ICPALL2 | % Rec | QC Limits |
|-------|---------------|---------------------|-------|--------------|
|-------|---------------|---------------------|-------|--------------|

(anr) Analyte not requested



SERIAL DILUTION RESULTS SUMMARY

Login Number: D70561
 Account: CONECOK - Confluence Energy
 Project: Grizzly Sample 5-6-15

QC Batch ID: MP15911
 Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
 Units: ug/l

Prep Date: 05/13/15

| Metal | D70286-1A Original SDL 1:5 | | %DIF | QC Limits |
|------------|-------------------------------|------|----------|--------------|
| Aluminum | | | | |
| Antimony | | | | |
| Arsenic | | | | |
| Barium | | | | |
| Beryllium | | | | |
| Boron | | | | |
| Cadmium | | | | |
| Calcium | 7240 | 7110 | 1.8 | 0-10 |
| Chromium | | | | |
| Cobalt | | | | |
| Copper | | | | |
| Iron | | | | |
| Lead | | | | |
| Lithium | | | | |
| Magnesium | 944 | 1150 | 21.8*(a) | 0-10 |
| Manganese | | | | |
| Molybdenum | | | | |
| Nickel | | | | |
| Phosphorus | | | | |
| Potassium | | | | |
| Selenium | | | | |
| Silicon | | | | |
| Silver | | | | |
| Sodium | 1770 | 1650 | 6.8 | 0-10 |
| Strontium | | | | |
| Thallium | | | | |
| Tin | | | | |
| Titanium | | | | |
| Uranium | | | | |
| Vanadium | | | | |
| Zinc | | | | |

Associated samples MP15911: D70561-1A, D70561-2A, D70561-3A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

9.4.4
 9

SERIAL DILUTION RESULTS SUMMARY

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

QC Batch ID: MP15911
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 05/13/15

| | | |
|-------|-----------------------|--------|
| Metal | D70286-1A | QC |
| | Original SDL 1:5 %DIF | Limits |

(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.

9.4.4
9

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

| Analyte | Batch ID | RL | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|-----------------------|-----------------|-----|-----------|----------|--------------|------------|------------|-------------|
| Chromium, Hexavalent | GP15263/GN29856 | 1.0 | 0.0 | mg/kg | 59.8 | 55.9 | 93.4 | 80-120% |
| Specific Conductivity | GP15275/GN29897 | | | umhos/cm | 9988 | 10000 | 100.2 | 90-110% |
| pH | GN29860 | | | su | 8.00 | 7.98 | 99.8 | 99.1-100.9% |

Associated Samples:

Batch GN29860: D70561-1, D70561-2, D70561-3

Batch GP15263: D70561-1, D70561-2, D70561-3

Batch GP15275: D70561-1, D70561-2, D70561-3

(*) Outside of QC limits

10.1
10

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

| Analyte | Batch ID | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|-----------------------|-----------------|-----------|-------|-----------------|------------|------|-----------|
| Chromium, Hexavalent | GP15263/GN29856 | D70457-1 | mg/kg | 0.35 | 0.30 | 14.9 | 0-20% |
| Redox Potential Vs H2 | GN29855 | D70458-1 | mv | 458 | 450 | 1.8 | 0-20% |

Associated Samples:

Batch GN29855: D70561-1, D70561-2, D70561-3

Batch GP15263: D70561-1, D70561-2, D70561-3

(*) Outside of QC limits

10.2
10

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

| Analyte | Batch ID | QC Sample | Units | Original Result | Spike Amount | MS Result | %Rec | QC Limits |
|----------------------|-----------------|-----------|-------|-----------------|--------------|-----------|-------|-----------|
| Chromium, Hexavalent | GP15263/GN29856 | D70457-1 | mg/kg | 0.35 | 40.0 | 40.0 | 100.0 | 75-125% |

Associated Samples:

Batch GP15263: D70561-1, D70561-2, D70561-3

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D70561
Account: CONECOK - Confluence Energy
Project: Grizzly Sample 5-6-15

| Analyte | Batch ID | QC Sample | Units | Original Result | Spike Amount | MSD Result | RPD | QC Limit |
|----------------------|-----------------|-----------|-------|-----------------|--------------|------------|-----|----------|
| Chromium, Hexavalent | GP15263/GN29856 | D70457-1 | mg/kg | 0.35 | 40.0 | 40.2 | 1.0 | 20% |

Associated Samples:

Batch GP15263: D70561-1, D70561-2, D70561-3

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

Misc. Forms

Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Chain of Custody





CHAIN OF CUSTODY

4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX: 303-425-6854

Accutest Job #: **D70561**
Accutest Quote #: **0**
AMS P.O. #:
Project No.:

| Client Information | | | Subcontract Laboratory Information | | | | | | Analytical Information | | | | |
|---|------------------------------------|---------------------|--|--------------------|--|-------------------------------------|-------|------|---|-----|--|--|--|
| Name Accutest Mountain States (AMS) | | | Name Accutest - New England | | | | | | V8260BTX | | | | |
| Address 4036 Youngfield St. | | | Address 495 Technology Center West, BLDG C | | | | | | | | | | |
| City Wheat Ridge, | State CO | Zip 80033 | City Marlborough | State MA | Zip 01752 | | | | | | | | |
| Send Report to: Scott Heideman | | | Contact: Sample Management | | | | | | | | | | |
| Any questions contact: Renea Rooks | | | Phone: (508) 481-6200 | | | | | | | | | | |
| Phone/Fax #: (303) 425-6021; (303)425-6854 | | | | | | | | | | | | | |
| Collection | | | Preservation | | | | | | Comments | | | | |
| Field ID / Point of Collection | Date | Time | Matrix | # of bottles | NaOH | HNO3 | H2SO4 | None | | | | | |
| D70561 -1 | 5/6/15 | 10:00 AM | Soil | 1 | | | | | x | | | | |
| -2 | 5/6/15 | 10:00 AM | Soil | 1 | | | | | x | | | | |
| -3 | 5/6/15 | 10:00 AM | Soil | 1 | | | | | x | | | | |
| - | | | | | | | | | | | | | |
| - | | | | | | | | | | | | | |
| | | | | | | | | | | V3B | | | |
| Turnaround Information | | | Data Deliverable Information | | | | | | Comments / Remarks | | | | |
| <input checked="" type="checkbox"/> 3 - 5 Business Day Rush <input type="checkbox"/> Other <u>4</u> (Days) | | | Approved By: _____ <input type="checkbox"/> Commercial "A" <input type="checkbox"/> PDF <input type="checkbox"/> Commercial "B" <input type="checkbox"/> Compact Disk Deliverable <input type="checkbox"/> Commercial "BN" <input type="checkbox"/> Electronic Delivery: _____ <input type="checkbox"/> Reduced Tier 1 <input type="checkbox"/> State Forms <input type="checkbox"/> Full Tier 1 <input type="checkbox"/> Other (Specify) _____ | | | | | | Please use Colorado regulations and RLs. | | | | |
| 10 Day Turnaround Hardcopy, RUSH is FAX Data unless previously approved. | | | | | | | | | | | | | |
| Sample Custody must be documented below each time samples change possession, including courier delivery. | | | | | | For Subcontract Laboratory Use Only | | | | | | | |
| Relinquished by: | Date & Time: | Received By: | Date & Time: | Seal #: | Headspace: | | | | | | | | |
| 1 | <i>[Signature]</i> 5/11/15 | 1 | 1 | | Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | | | | | | | | |
| 2 | <i>[Signature]</i> 5/9/15 10:00 | 2 | 2 | | Preserved where applicable: <input type="checkbox"/> | | | | | | | | |
| 3 | | 3 | 3 | | Temperature °C <u>1.0*</u> On Ice <input checked="" type="checkbox"/> | | | | | | | | |

D70561: Chain of Custody

Page 1 of 2

Accutest Labs of New England, Inc.

11.1
11

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D70561 **Client:** AMS **Project:** SUB
Date / Time Received: 5/9/2015 10:00:00 AM **Delivery Method:** _____ **Airbill #'s:** _____
Cooler Temps (Initial/Adjusted): #1: (1/1):

Cooler Security Y or N Y or N
 1. Custody Seals Present: 3. COC Present:
 2. Custody Seals Intact: 4. Smpl Dates/Time OK:

Cooler Temperature Y or N
 1. Temp criteria achieved:
 2. Thermometer ID: G1;
 3. Cooler media: Ice (Bag)
 4. No. Coolers: 1

Quality Control Preservation Y or N N/A
 1. Trip Blank present / cooler:
 2. Trip Blank listed on COC:
 3. Samples preserved properly:
 4. VOCs headspace free:

Sample Integrity - Documentation Y or N
 1. Sample labels present on bottles:
 2. Container labeling complete:
 3. Sample container label / COC agree:

Sample Integrity - Condition Y or N
 1. Sample recvd within HT:
 2. All containers accounted for:
 3. Condition of sample: Intact

Sample Integrity - Instructions Y or N N/A
 1. Analysis requested is clear:
 2. Bottles received for unspecified tests:
 3. Sufficient volume recvd for analysis:
 4. Compositing instructions clear:
 5. Filtering instructions clear:

Comments

11.1
11

GC/MS Volatiles

QC Data Summaries

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D70561
Account: ALMS Accutest Mountain States
Project: CONECOK: Grizzly Sample 5-6-15

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| MSK2733-MB | K87697.D | 1 | 05/11/15 | JM | n/a | n/a | MSK2733 |

The QC reported here applies to the following samples:

Method: SW846 8260C

D70561-1, D70561-2, D70561-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|-----------|----------------|--------|-----|-----|-------|---|
| 71-43-2 | Benzene | ND | 25 | 19 | ug/kg | |
| 100-41-4 | Ethylbenzene | ND | 100 | 19 | ug/kg | |
| 108-88-3 | Toluene | ND | 250 | 20 | ug/kg | |
| 1330-20-7 | Xylene (total) | ND | 100 | 17 | ug/kg | |

| CAS No. | Surrogate Recoveries | Limits | |
|-----------|----------------------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 94% | 65-141% |
| 2037-26-5 | Toluene-D8 | 101% | 65-129% |
| 460-00-4 | 4-Bromofluorobenzene | 89% | 63-137% |

12.1.1
12

Blank Spike Summary

Job Number: D70561
Account: ALMS Accutest Mountain States
Project: CONECOK: Grizzly Sample 5-6-15

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| MSK2733-BS | K87694.D | 1 | 05/11/15 | JM | n/a | n/a | MSK2733 |

The QC reported here applies to the following samples:

Method: SW846 8260C

D70561-1, D70561-2, D70561-3

| CAS No. | Compound | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|-----------|----------------|----------------|--------------|----------|--------|
| 71-43-2 | Benzene | 2500 | 2280 | 91 | 67-124 |
| 100-41-4 | Ethylbenzene | 2500 | 2510 | 100 | 75-120 |
| 108-88-3 | Toluene | 2500 | 2490 | 100 | 76-122 |
| 1330-20-7 | Xylene (total) | 7500 | 7770 | 104 | 78-121 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|-----------|----------------------|------|---------|
| 1868-53-7 | Dibromofluoromethane | 92% | 65-141% |
| 2037-26-5 | Toluene-D8 | 107% | 65-129% |
| 460-00-4 | 4-Bromofluorobenzene | 93% | 63-137% |

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D70561
 Account: ALMS Accutest Mountain States
 Project: CONECOK: Grizzly Sample 5-6-15

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|----------|----|----------|----|-----------|------------|------------------|
| D70264-7MS | K87718.D | 1 | 05/11/15 | JM | n/a | n/a | MSK2733 |
| D70264-7MSD | K87719.D | 1 | 05/11/15 | JM | n/a | n/a | MSK2733 |
| D70264-7 | K87705.D | 1 | 05/11/15 | JM | n/a | n/a | MSK2733 |

The QC reported here applies to the following samples:

Method: SW846 8260C

D70561-1, D70561-2, D70561-3

| CAS No. | Compound | D70264-7 ug/kg | Spike Q ug/kg | MS ug/kg | MS % | Spike ug/kg | MSD ug/kg | MSD % | RPD | Limits Rec/RPD |
|-----------|----------------|-------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 71-43-2 | Benzene | ND | 3410 | 3060 | 90 | 3410 | 2930 | 86 | 4 | 34-139/30 |
| 100-41-4 | Ethylbenzene | ND | 3410 | 3350 | 98 | 3410 | 3210 | 94 | 4 | 24-146/30 |
| 108-88-3 | Toluene | ND | 3410 | 3220 | 94 | 3410 | 3150 | 92 | 2 | 30-147/30 |
| 1330-20-7 | Xylene (total) | ND | 10200 | 10200 | 100 | 10200 | 9700 | 95 | 5 | 25-147/30 |

| CAS No. | Surrogate Recoveries | MS | MSD | D70264-7 | Limits |
|-----------|----------------------|------|------|----------|---------|
| 1868-53-7 | Dibromofluoromethane | 97% | 98% | 99% | 65-141% |
| 2037-26-5 | Toluene-D8 | 105% | 106% | 101% | 65-129% |
| 460-00-4 | 4-Bromofluorobenzene | 93% | 90% | 92% | 63-137% |

* = Outside of Control Limits.