



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

June 15, 2015

Emilee Skyles

Animas Environmental

604 Pinon Street

Farmington, NM 87401

TEL: (505) 564-2281

FAX

RE: CoP Sunnyside Pipeline D5L-1

OrderNo.: 1505585

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/12/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505585

Date Reported: 6/15/2015

CLIENT: Animas Environmental

Client Sample ID: S-1

Project: CoP Sunnyside Pipeline D5L-1

Collection Date: 5/11/2015 10:15:00 AM

Lab ID: 1505585-001

Matrix: SOIL

Received Date: 5/12/2015 7:00:00 AM

| CAS# | Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|--|--------------------------------|--------|--------|---------|------|-------|----|-----------------------|
| EPA METHOD 8015D: DIESEL RANGE ORGANICS | | | | | | | | Analyst: KJH |
| TPH-DRO | Diesel Range Organics (DRO) | ND | 5.5 | 9.9 | | mg/Kg | 1 | 5/14/2015 3:38:09 PM |
| TPH-MRO | Motor Oil Range Organics (MRO) | ND | 49 | 49 | | mg/Kg | 1 | 5/14/2015 3:38:09 PM |
| 117-84-0 | Surr: DNOP | 97.2 | 0 | 7.9-140 | | %REC | 1 | 5/14/2015 3:38:09 PM |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | | Analyst: NSB |
| TPH-GRO | Gasoline Range Organics (GRO) | ND | 1.5 | 5.0 | | mg/Kg | 1 | 5/15/2015 10:58:52 AM |
| 460-00-4 | Surr: BFB | 82.8 | 0 | 80-120 | | %REC | 1 | 5/15/2015 10:58:52 AM |
| EPA METHOD 8021B: VOLATILES | | | | | | | | Analyst: NSB |
| 71-43-2 | Benzene | ND | 0.0052 | 0.050 | | mg/Kg | 1 | 5/15/2015 10:58:52 AM |
| 108-88-3 | Toluene | 0.0092 | 0.0050 | 0.050 | J | mg/Kg | 1 | 5/15/2015 10:58:52 AM |
| 100-41-4 | Ethylbenzene | ND | 0.0051 | 0.050 | | mg/Kg | 1 | 5/15/2015 10:58:52 AM |
| 1330-20-7 | Xylenes, Total | 0.016 | 0.016 | 0.099 | J | mg/Kg | 1 | 5/15/2015 10:58:52 AM |
| 460-00-4 | Surr: 4-Bromofluorobenzene | 87.8 | 0 | 80-120 | | %REC | 1 | 5/15/2015 10:58:52 AM |
| EPA METHOD 7471: MERCURY | | | | | | | | Analyst: MED |
| 7439-97-6 | Mercury | 0.014 | 0.0029 | 0.033 | J | mg/Kg | 1 | 5/29/2015 12:48:18 PM |
| EPA METHOD 6010B: SOIL METALS | | | | | | | | Analyst: ELS |
| 7440-38-2 | Arsenic | 1.5 | 0.30 | 2.6 | J | mg/Kg | 1 | 5/20/2015 12:38:34 PM |
| 7440-39-3 | Barium | 360 | 0.061 | 0.20 | | mg/Kg | 2 | 5/20/2015 12:39:57 PM |
| 7440-43-9 | Cadmium | ND | 0.028 | 0.10 | | mg/Kg | 1 | 5/20/2015 12:38:34 PM |
| 7440-47-3 | Chromium | 2.9 | 0.061 | 0.31 | | mg/Kg | 1 | 5/20/2015 12:38:34 PM |
| 7440-50-8 | Copper | 16 | 0.17 | 0.31 | | mg/Kg | 1 | 5/20/2015 12:38:34 PM |
| 7439-92-1 | Lead | 6.9 | 0.11 | 0.26 | | mg/Kg | 1 | 5/20/2015 1:33:19 PM |
| 7440-02-0 | Nickel | 5.0 | 0.13 | 0.51 | | mg/Kg | 1 | 5/20/2015 12:38:34 PM |
| 7782-49-2 | Selenium | ND | 1.6 | 2.6 | | mg/Kg | 1 | 5/20/2015 12:38:34 PM |
| 7440-22-4 | Silver | ND | 0.030 | 0.26 | | mg/Kg | 1 | 5/20/2015 12:38:34 PM |
| 7440-66-6 | Zinc | 32 | 0.66 | 2.6 | | mg/Kg | 1 | 5/20/2015 12:38:34 PM |
| SAR SOLUBLE CATIONS | | | | | | | | Analyst: ELS |
| 1101 | Sodium Adsorption Ratio | 0.15 | 0 | 0 | | | 1 | 5/26/2015 9:33:00 AM |
| EPA METHOD 8270C: PAHS | | | | | | | | Analyst: JDC |
| 91-20-3 | Naphthalene | ND | 0.020 | 0.020 | | mg/Kg | 1 | 5/21/2015 12:19:39 PM |
| 83-32-9 | Acenaphthene | ND | 0.020 | 0.020 | | mg/Kg | 1 | 5/21/2015 12:19:39 PM |
| 86-73-7 | Fluorene | ND | 0.020 | 0.020 | | mg/Kg | 1 | 5/21/2015 12:19:39 PM |
| 120-12-7 | Anthracene | ND | 0.020 | 0.020 | | mg/Kg | 1 | 5/21/2015 12:19:39 PM |
| 206-44-0 | Fluoranthene | ND | 0.020 | 0.020 | | mg/Kg | 1 | 5/21/2015 12:19:39 PM |
| 129-00-0 | Pyrene | ND | 0.020 | 0.020 | | mg/Kg | 1 | 5/21/2015 12:19:39 PM |
| 56-55-3 | Benz(a)anthracene | ND | 0.020 | 0.020 | | mg/Kg | 1 | 5/21/2015 12:19:39 PM |
| 218-01-9 | Chrysene | ND | 0.020 | 0.020 | | mg/Kg | 1 | 5/21/2015 12:19:39 PM |

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 O RSD is greater than RSDlimit
 R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH Not In Range
 RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505585**Date Reported: **6/15/2015****CLIENT:** Animas Environmental**Client Sample ID:** S-1**Project:** CoP Sunnyside Pipeline D5L-1**Collection Date:** 5/11/2015 10:15:00 AM**Lab ID:** 1505585-001**Matrix:** SOIL**Received Date:** 5/12/2015 7:00:00 AM

| CAS# | Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|--------------------------------|------------------------|--------|-------|----------|------|----------|----|-----------------------|
| EPA METHOD 8270C: PAHS | | | | | | | | Analyst: JDC |
| 205-99-2 | Benzo(b)fluoranthene | ND | 0.020 | 0.020 | | mg/Kg | 1 | 5/21/2015 12:19:39 PM |
| 207-08-9 | Benzo(k)fluoranthene | ND | 0.020 | 0.020 | | mg/Kg | 1 | 5/21/2015 12:19:39 PM |
| 50-32-8 | Benzo(a)pyrene | ND | 0.020 | 0.020 | | mg/Kg | 1 | 5/21/2015 12:19:39 PM |
| 53-70-3 | Dibenz(a,h)anthracene | ND | 0.020 | 0.020 | | mg/Kg | 1 | 5/21/2015 12:19:39 PM |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 0.020 | 0.020 | | mg/Kg | 1 | 5/21/2015 12:19:39 PM |
| 192-97-2 | Surr: Benzo(e)pyrene | 63.7 | | 0.25-200 | | %REC | 1 | 5/21/2015 12:19:39 PM |
| 544-76-3 | Surr: N-hexadecane | 88.7 | | 0.6-117 | | %REC | 1 | 5/21/2015 12:19:39 PM |
| SM4500-H+B: PH | | | | | | | | Analyst: JRR |
| pH | pH | 9.62 | 0.100 | 1.68 | | pH Units | 1 | 5/22/2015 12:45:00 PM |
| RESISTIVITY AND EC SOIL | | | | | | | | Analyst: JRR |
| eC | Conductivity | 4720 | 1.00 | 1.00 | | µmhos/c | 1 | 5/22/2015 10:11:00 AM |

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

1505585-001B S-1

Collected date/time: 05/11/15 10:15

SAMPLE RESULTS - 01

L765167

ONE LAB. NATIONWIDE.



Wet Chemistry by Method 2580 B-2011

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|---------|--------|-----------|----------|-------------------------|-----------------|
| ORP | -52 | | 1 | 05/19/2015 14:45 | <u>WG789737</u> |

Wet Chemistry by Method 3060A/7196A

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch |
|----------------------|--------|-----------|-------|----------|-------------------------|-----------------|
| Chromium, Hexavalent | mg/kg | | mg/kg | | | |
| Chromium, Hexavalent | ND | | 2.00 | 1 | 05/16/2015 13:32 | <u>WG789309</u> |

Wet Chemistry by Method 9045D

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|---------|--------|-----------|----------|-------------------------|-----------------|
| pH | 9.30 | | 1 | 05/15/2015 10:15 | <u>WG789052</u> |

Sample Narrative:

9045D L765167-01 WG789052: 9.3 at 20.4c

² I c³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



L765012-01 Original Sample (OS) • Duplicate (DUP)

(OS) 05/19/15 14:45 • (DUP) 05/19/15 14:45

| | Original Result | DUP Result | Dilution | DUP RPD | <u>DUP Qualifier</u> | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|----------------------|----------------|
| Analyte | mV | mV | | % | | % |
| ORP | 19 | 18 | 1 | 5.4 | | 20 |

L765462-10 Original Sample (OS) • Duplicate (DUP)

(OS) 05/19/15 14:45 • (DUP) 05/19/15 14:45

| | Original Result | DUP Result | Dilution | DUP RPD | <u>DUP Qualifier</u> | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|----------------------|----------------|
| Analyte | mV | mV | | % | | % |
| ORP | 70 | 71 | 1 | 1.4 | | 20 |

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 05/19/15 14:45 • (LCSD) 05/19/15 14:45

| | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | <u>LCS Qualifier</u> | <u>LCSD Qualifier</u> | RPD | RPD Limits |
|---------|--------------|------------|-------------|----------|-----------|-------------|----------------------|-----------------------|-------|------------|
| Analyte | mV | mV | mV | % | % | % | | | % | % |
| ORP | 100 | 104 | 105 | 104 | 105 | 90.0-110 | | | 0.957 | 20 |

2
Tc3
Ss4
Cn5
Sr6
Qc7
Gl8
Al9
Sc



Method Blank (MB)

(MB) 05/16/15 13:30

| | MB Result | MB Qualifier | MB RDL |
|---------------------|-----------|--------------|--------|
| Analyte | mg/kg | | mg/kg |
| Chromium,Hexavalent | ND | | 2.00 |

L765169-05 Original Sample (OS) • Duplicate (DUP)

(OS) 05/16/15 13:34 • (DUP) 05/16/15 13:34

| | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------------------|-----------------|------------|----------|---------|---------------|----------------|
| Analyte | mg/kg | mg/kg | | % | | % |
| Chromium,Hexavalent | ND | ND | 1 | 0.00 | | 20 |

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 05/16/15 13:30 • (LCSD) 05/16/15 13:31

| | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---------------------|--------------|------------|-------------|----------|-----------|-------------|---------------|----------------|-------|------------|
| Analyte | mg/kg | mg/kg | mg/kg | % | % | % | | | % | % |
| Chromium,Hexavalent | 59.8 | 71.8 | 71.8 | 120 | 120 | 80.0-120 | | | 0.000 | 20 |

L765169-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 05/16/15 13:34 • (MS) 05/16/15 13:34 • (MSD) 05/16/15 13:35

| | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---------------------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|------|------------|
| Analyte | mg/kg | mg/kg | mg/kg | mg/kg | % | % | | % | | | % | % |
| Chromium,Hexavalent | 20.0 | ND | 22.4 | 23.2 | 112 | 116 | 1 | 75.0-125 | | | 3.51 | 20 |

2
Tc3
Ss4
Cn5
Sr6
Qc7
Gl8
Al9
Sc



L764621-01 Original Sample (OS) • Duplicate (DUP)

(OS) 05/15/15 10:15 • (DUP) 05/15/15 10:15

| | Original Result | DUP Result | Dilution | DUP RPD | <u>DUP Qualifier</u> | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|----------------------|----------------|
| Analyte | su | su | | % | | % |
| pH | 5.7 | 5.7 | 1 | 0.70 | | 1 |

L765205-01 Original Sample (OS) • Duplicate (DUP)

(OS) 05/15/15 10:15 • (DUP) 05/15/15 10:15

| | Original Result | DUP Result | Dilution | DUP RPD | <u>DUP Qualifier</u> | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|----------------------|----------------|
| Analyte | su | su | | % | | % |
| pH | 7.9 | 7.9 | 1 | 0.13 | | 1 |

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 05/15/15 10:15 • (LCSD) 05/15/15 10:15

| | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | <u>LCS Qualifier</u> | <u>LCSD Qualifier</u> | RPD | RPD Limits |
|---------|--------------|------------|-------------|----------|-----------|-------------|----------------------|-----------------------|-------|------------|
| Analyte | su | su | su | % | % | % | | | % | % |
| pH | 7.84 | 7.74 | 7.76 | 98.7 | 99.0 | 98.3-102 | | | 0.258 | 20 |

2
To3
Ss4
Cn5
Sr6
Qc7
Gl8
Al9
Sc

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505585

15-Jun-15

Client: Animas Environmental

Project: CoP Sunnyside Pipeline D5L-1

| | | | | | | | | | | |
|--------------------------------|-----------|--------------------------|-----------|-------------|---|----------|--------------|------|----------|------|
| Sample ID | MB-19200 | SampType: MBLK | | | TestCode: EPA Method 8015D: Diesel Range Organics | | | | | |
| Client ID: | PBS | Batch ID: 19200 | | | RunNo: 26179 | | | | | |
| Prep Date: | 5/13/2015 | Analysis Date: 5/14/2015 | | | SeqNo: 776929 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | ND | 10 | | | | | | | | |
| Motor Oil Range Organics (MRO) | ND | 50 | | | | | | | | |
| Surr: DNOP | 10 | | 10.00 | | 105 | 57.9 | 140 | | | |

| | | | | | | | | | | |
|-----------------------------|-----------|-----|--------------------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID | LCS-19200 | | SampType: LCS | | TestCode: EPA Method 8015D: Diesel Range Organics | | | | | |
| Client ID: | LCSS | | Batch ID: 19200 | | RunNo: 26179 | | | | | |
| Prep Date: | 5/13/2015 | | Analysis Date: 5/14/2015 | | SeqNo: 776930 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 52 | 10 | 50.00 | 0 | 103 | 67.8 | 130 | | | |
| Surr: DNOP | 5.5 | | 5.000 | | 110 | 57.9 | 140 | | | |

| | | | | | | | | | | |
|-----------------------------|----------------|-----|--------------------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID | 1505519-001AMS | | SampType: MS | | TestCode: EPA Method 8015D: Diesel Range Organics | | | | | |
| Client ID: | BatchQC | | Batch ID: 19200 | | RunNo: 26179 | | | | | |
| Prep Date: | 5/13/2015 | | Analysis Date: 5/14/2015 | | SeqNo: 776984 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 64 | 10 | 50.15 | 0 | 128 | 42.3 | 146 | | | |
| Surr: DNOP | 7.3 | | 5.015 | | 146 | 57.9 | 140 | | | S |

| | | | | | | | | | | | |
|-----------------------------|-----------------|-----|----------------|-------------|------|-----------|---|------|--------------|------|--|
| Sample ID | 1505519-001AMSD | | SampType: | MSD | | TestCode: | EPA Method 8015D: Diesel Range Organics | | | | |
| Client ID: | BatchQC | | Batch ID: | 19200 | | RunNo: | 26179 | | | | |
| Prep Date: | 5/13/2015 | | Analysis Date: | 5/14/2015 | | SeqNo: | 777135 | | Units: mg/Kg | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Diesel Range Organics (DRO) | 66 | 10 | 50.30 | 0 | 131 | 42.3 | 146 | 2.42 | 28.9 | | |
| Surr: DNOP | 7.3 | | 5.030 | | 145 | 57.9 | 140 | 0 | 0 | S | |

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505585

15-Jun-15

Client: Animas Environmental

Project: CoP Sunnyside Pipeline D5L-1

| | | | | | | | | | | |
|-------------------------------|-----------|-----|--------------------------|-------------|--|----------|--------------|------|----------|------|
| Sample ID | MB-19206 | | SampType: MBLK | | TestCode: EPA Method 8015D: Gasoline Range | | | | | |
| Client ID: | PBS | | Batch ID: 19206 | | RunNo: 26208 | | | | | |
| Prep Date: | 5/13/2015 | | Analysis Date: 5/14/2015 | | SeqNo: 777613 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND | 5.0 | | | | | | | | |
| Surr: BFB | 920 | | 1000 | | 92.2 | 80 | 120 | | | |

| | | | | | | | | | | |
|-------------------------------|-----------|-----|--------------------------|-------------|--|----------|--------------|------|----------|------|
| Sample ID | LCS-19206 | | SampType: LCS | | TestCode: EPA Method 8015D: Gasoline Range | | | | | |
| Client ID: | LCSS | | Batch ID: 19206 | | RunNo: 26208 | | | | | |
| Prep Date: | 5/13/2015 | | Analysis Date: 5/14/2015 | | SeqNo: 777614 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 23 | 5.0 | 25.00 | 0 | 91.6 | 64 | 130 | | | |
| Surr: BFB | 980 | | 1000 | | 98.4 | 80 | 120 | | | |

| | | | | | | | | | | |
|-------------------------------|----------------|-----|--------------------------|-------------|--|----------|--------------|------|----------|------|
| Sample ID | 1505582-001AMS | | SampType: MS | | TestCode: EPA Method 8015D: Gasoline Range | | | | | |
| Client ID: | BatchQC | | Batch ID: 19206 | | RunNo: 26208 | | | | | |
| Prep Date: | 5/13/2015 | | Analysis Date: 5/14/2015 | | SeqNo: 777630 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 22 | 5.0 | 24.98 | 0 | 89.2 | 47.9 | 144 | | | |
| Surr: BFB | 960 | | 999.0 | | 95.9 | 80 | 120 | | | |

| | | | | | | | | | | | |
|-------------------------------|-----------------|-----|----------------|-------------|------|-----------|----------------------------------|------|--------------|------|--|
| Sample ID | 1505582-001AMSD | | SampType: | MSD | | TestCode: | EPA Method 8015D: Gasoline Range | | | | |
| Client ID: | BatchQC | | Batch ID: | 19206 | | RunNo: | 26208 | | | | |
| Prep Date: | 5/13/2015 | | Analysis Date: | 5/14/2015 | | SeqNo: | 777635 | | Units: mg/Kg | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Gasoline Range Organics (GRO) | 23 | 5.0 | 24.93 | 0 | 91.0 | 47.9 | 144 | 1.89 | 29.9 | | |
| Surr: BFB | 970 | | 997.0 | | 97.5 | 80 | 120 | 0 | 0 | | |

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505585

15-Jun-15

Client: Animas Environmental

Project: CoP Sunnyside Pipeline D5L-1

| | | | | | | | | | | |
|----------------------------|-----------|-------|--------------------------|-------------|---------------------------------------|----------|--------------|------|----------|------|
| Sample ID | MB-19206 | | SampType: MBLK | | TestCode: EPA Method 8021B: Volatiles | | | | | |
| Client ID: | PBS | | Batch ID: 19206 | | RunNo: 26208 | | | | | |
| Prep Date: | 5/13/2015 | | Analysis Date: 5/14/2015 | | SeqNo: 777676 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 0.050 | | | | | | | | |
| Toluene | ND | 0.050 | | | | | | | | |
| Ethylbenzene | 0.0080 | 0.050 | | | | | | | | J |
| Xylenes, Total | 0.020 | 0.10 | | | | | | | | J |
| Surr: 4-Bromofluorobenzene | 1.1 | | 1.000 | | 106 | 80 | 120 | | | |

| | | | | | | | | | | |
|----------------------------|-----------|-------|--------------------------|-------------|---------------------------------------|----------|--------------|------|----------|------|
| Sample ID | LCS-19206 | | SampType: LCS | | TestCode: EPA Method 8021B: Volatiles | | | | | |
| Client ID: | LCSS | | Batch ID: 19206 | | RunNo: 26208 | | | | | |
| Prep Date: | 5/13/2015 | | Analysis Date: 5/14/2015 | | SeqNo: 777677 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 1.0 | 0.050 | 1.000 | 0 | 100 | 76.6 | 128 | | | |
| Toluene | 1.0 | 0.050 | 1.000 | 0 | 103 | 75 | 124 | | | |
| Ethylbenzene | 1.0 | 0.050 | 1.000 | 0 | 103 | 79.5 | 126 | | | |
| Xylenes, Total | 3.0 | 0.10 | 3.000 | 0 | 101 | 78.8 | 124 | | | |
| Surr: 4-Bromofluorobenzene | 1.1 | | 1.000 | | 110 | 80 | 120 | | | |

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505585

15-Jun-15

Client: Animas Environmental

Project: CoP Sunnyside Pipeline D5L-1

| | | | | | | | | | | |
|------------------------|-----------|-------|--------------------------|-------------|----------------------------------|----------|--------------|------|----------|------|
| Sample ID | mb-19300 | | SampType: MBLK | | TestCode: EPA Method 8270C: PAHs | | | | | |
| Client ID: | PBS | | Batch ID: 19300 | | RunNo: 26326 | | | | | |
| Prep Date: | 5/19/2015 | | Analysis Date: 5/20/2015 | | SeqNo: 782381 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Naphthalene | ND | 0.020 | | | | | | | | |
| Acenaphthene | ND | 0.020 | | | | | | | | |
| Fluorene | ND | 0.020 | | | | | | | | |
| Anthracene | ND | 0.020 | | | | | | | | |
| Fluoranthene | ND | 0.020 | | | | | | | | |
| Pyrene | ND | 0.020 | | | | | | | | |
| Benz(a)anthracene | ND | 0.020 | | | | | | | | |
| Chrysene | ND | 0.020 | | | | | | | | |
| Benzo(b)fluoranthene | ND | 0.020 | | | | | | | | |
| Benzo(k)fluoranthene | ND | 0.020 | | | | | | | | |
| Benzo(a)pyrene | ND | 0.020 | | | | | | | | |
| Dibenz(a,h)anthracene | ND | 0.020 | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | ND | 0.020 | | | | | | | | |
| Surr: N-hexadecane | 1.5 | | 1.460 | | 103 | 46.4 | 117 | | | |
| Surr: Benzo(e)pyrene | 0.25 | | 0.3300 | | 74.9 | 32.5 | 200 | | | |

| | | | | | | | | | | |
|------------------------|-----------|-------|--------------------------|-------------|----------------------------------|----------|--------------|------|----------|------|
| Sample ID | lcs-19300 | | SampType: LCS | | TestCode: EPA Method 8270C: PAHs | | | | | |
| Client ID: | LCSS | | Batch ID: 19300 | | RunNo: 26326 | | | | | |
| Prep Date: | 5/19/2015 | | Analysis Date: 5/20/2015 | | SeqNo: 782382 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Naphthalene | 0.31 | 0.020 | 0.3300 | 0 | 92.9 | 40.7 | 111 | | | |
| Acenaphthene | 0.30 | 0.020 | 0.3300 | 0 | 92.2 | 41.4 | 120 | | | |
| Fluorene | 0.32 | 0.020 | 0.3300 | 0 | 95.9 | 47 | 116 | | | |
| Anthracene | 0.33 | 0.020 | 0.3300 | 0 | 100 | 49.3 | 114 | | | |
| Fluoranthene | 0.32 | 0.020 | 0.3300 | 0 | 96.3 | 54.3 | 113 | | | |
| Pyrene | 0.25 | 0.020 | 0.3300 | 0 | 75.7 | 43.7 | 118 | | | |
| Benz(a)anthracene | 0.24 | 0.020 | 0.3300 | 0 | 71.4 | 43.7 | 118 | | | |
| Chrysene | 0.23 | 0.020 | 0.3300 | 0 | 69.0 | 43.8 | 108 | | | |
| Benzo(b)fluoranthene | 0.22 | 0.020 | 0.3300 | 0 | 66.7 | 46.5 | 120 | | | |
| Benzo(k)fluoranthene | 0.24 | 0.020 | 0.3300 | 0 | 72.4 | 50 | 111 | | | |
| Benzo(a)pyrene | 0.22 | 0.020 | 0.3300 | 0 | 67.3 | 47.8 | 109 | | | |
| Dibenz(a,h)anthracene | 0.22 | 0.020 | 0.3300 | 0 | 67.7 | 57.8 | 117 | | | |
| Indeno(1,2,3-cd)pyrene | 0.23 | 0.020 | 0.3300 | 0 | 68.9 | 46.4 | 121 | | | |
| Surr: N-hexadecane | 1.6 | | 1.460 | | 110 | 46.4 | 117 | | | |
| Surr: Benzo(e)pyrene | 0.27 | | 0.3300 | | 82.3 | 32.5 | 200 | | | |

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505585

15-Jun-15

Client: Animas Environmental

Project: CoP Sunnyside Pipeline D5L-1

| | | | | | | | | | | |
|------------------------|----------------|--------------------------|-----------|----------------------------------|------|----------|--------------|------|----------|------|
| Sample ID | 1505363-001Ams | SampType: MS | | TestCode: EPA Method 8270C: PAHs | | | | | | |
| Client ID: | BatchQC | Batch ID: 19300 | | RunNo: 26326 | | | | | | |
| Prep Date: | 5/19/2015 | Analysis Date: 5/20/2015 | | SeqNo: 782384 | | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Naphthalene | 0.38 | 0.020 | 0.3291 | 0.06194 | 97.1 | 33.9 | 104 | | | |
| Acenaphthene | 0.29 | 0.020 | 0.3291 | 0 | 86.9 | 33.3 | 113 | | | |
| Fluorene | 0.30 | 0.020 | 0.3291 | 0.006327 | 90.0 | 40.7 | 111 | | | |
| Anthracene | 0.31 | 0.020 | 0.3291 | 0 | 95.1 | 39.1 | 116 | | | |
| Fluoranthene | 0.31 | 0.020 | 0.3291 | 0 | 94.6 | 43 | 124 | | | |
| Pyrene | 0.22 | 0.020 | 0.3291 | 0 | 66.7 | 41.9 | 143 | | | |
| Benz(a)anthracene | 0.22 | 0.020 | 0.3291 | 0 | 66.4 | 42.3 | 140 | | | |
| Chrysene | 0.23 | 0.020 | 0.3291 | 0 | 68.5 | 28.7 | 146 | | | |
| Benzo(b)fluoranthene | 0.20 | 0.020 | 0.3291 | 0 | 61.3 | 22.9 | 172 | | | |
| Benzo(k)fluoranthene | 0.20 | 0.020 | 0.3291 | 0 | 62.1 | 18.9 | 172 | | | |
| Benzo(a)pyrene | 0.21 | 0.020 | 0.3291 | 0 | 62.4 | 24.6 | 166 | | | |
| Dibenz(a,h)anthracene | 0.22 | 0.020 | 0.3291 | 0 | 65.6 | 22.8 | 172 | | | |
| Indeno(1,2,3-cd)pyrene | 0.22 | 0.020 | 0.3291 | 0 | 66.4 | 17.4 | 175 | | | |
| Surr: N-hexadecane | 1.8 | | 1.456 | | 124 | 46.4 | 117 | | | S |
| Surr: Benzo(e)pyrene | 0.24 | | 0.3291 | | 72.0 | 32.5 | 200 | | | |

| | | | | | | | | | | |
|------------------------|-----------------|----------------|-----------|-------------|------------------------|----------|-----------|------|----------|------|
| Sample ID | 1505363-001Amsd | SampType: | MSD | TestCode: | EPA Method 8270C: PAHs | | | | | |
| Client ID: | BatchQC | Batch ID: | 19300 | RunNo: | 26326 | | | | | |
| Prep Date: | 5/19/2015 | Analysis Date: | 5/20/2015 | SeqNo: | 782385 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Naphthalene | 0.39 | 0.020 | 0.3282 | 0.06194 | 99.4 | 33.9 | 104 | 1.72 | 26.5 | |
| Acenaphthene | 0.28 | 0.020 | 0.3282 | 0 | 85.6 | 33.3 | 113 | 1.79 | 32.5 | |
| Fluorene | 0.31 | 0.020 | 0.3282 | 0.006327 | 92.9 | 40.7 | 111 | 2.87 | 30.6 | |
| Anthracene | 0.33 | 0.020 | 0.3282 | 0 | 99.6 | 39.1 | 116 | 4.41 | 31.1 | |
| Fluoranthene | 0.33 | 0.020 | 0.3282 | 0 | 101 | 43 | 124 | 6.04 | 36.1 | |
| Pyrene | 0.23 | 0.020 | 0.3282 | 0 | 70.6 | 41.9 | 143 | 5.47 | 31.6 | |
| Benz(a)anthracene | 0.22 | 0.020 | 0.3282 | 0 | 65.8 | 42.3 | 140 | 1.18 | 32.5 | |
| Chrysene | 0.22 | 0.020 | 0.3282 | 0 | 66.9 | 28.7 | 146 | 2.65 | 33.6 | |
| Benzo(b)fluoranthene | 0.21 | 0.020 | 0.3282 | 0 | 63.6 | 22.9 | 172 | 3.45 | 33 | |
| Benzo(k)fluoranthene | 0.22 | 0.020 | 0.3282 | 0 | 67.5 | 18.9 | 172 | 8.00 | 30.8 | |
| Benzo(a)pyrene | 0.21 | 0.020 | 0.3282 | 0 | 64.6 | 24.6 | 166 | 3.23 | 34.3 | |
| Dibenz(a,h)anthracene | 0.21 | 0.020 | 0.3282 | 0 | 63.4 | 22.8 | 172 | 3.55 | 27.9 | |
| Indeno(1,2,3-cd)pyrene | 0.21 | 0.020 | 0.3282 | 0 | 63.1 | 17.4 | 175 | 5.26 | 30.9 | |
| Surr: N-hexadecane | 1.7 | | 1.452 | | 120 | 46.4 | 117 | 0 | 0 | S |
| Surr: Benzo(e)pyrene | 0.22 | | 0.3282 | | 67.6 | 32.5 | 200 | 0 | 0 | |

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505585

15-Jun-15

Client: Animas Environmental

Project: CoP Sunnyside Pipeline D5L-1

| | | | | | | | | | | | |
|------------|-----------|-------|----------------|-------------|------|-----------|--------------------------|------|--------------|------|--|
| Sample ID | MB-19445 | | SampType: | MBLK | | TestCode: | EPA Method 7471: Mercury | | | | |
| Client ID: | PBS | | Batch ID: | 19445 | | RunNo: | 26497 | | | | |
| Prep Date: | 5/28/2015 | | Analysis Date: | 5/29/2015 | | SeqNo: | 787358 | | Units: mg/Kg | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Mercury | ND | 0.033 | | | | | | | | | |

| | | | | | | | | | | | |
|------------|-----------|-------|-----------|----------------|-----------|----------|-----------|--------------------------|----------|--------|-------|
| Sample ID | LCS-19445 | | | SampType: | LCS | | TestCode: | EPA Method 7471: Mercury | | | |
| Client ID: | LCSS | | | Batch ID: | 19445 | | RunNo: | 26497 | | | |
| Prep Date: | 5/28/2015 | | | Analysis Date: | 5/29/2015 | | SeqNo: | 787359 | | Units: | mg/Kg |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Mercury | 0.17 | 0.033 | 0.1667 | 0 | 99.7 | 80 | 120 | | | | |

| | | | | | | | | | | |
|------------|----------------|-------|--------------------------|-------------|------------------------------------|----------|------------------|------|----------|------|
| Sample ID | 1505570-002BMS | | SampType: MS | | TestCode: EPA Method 7471: Mercury | | | | | |
| Client ID: | BatchQC | | Batch ID: 19445 | | RunNo: 26497 | | | | | |
| Prep Date: | 5/28/2015 | | Analysis Date: 5/29/2015 | | SeqNo: 787374 | | Units: mg/Kg-dry | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury | 0.19 | 0.035 | 0.1789 | 0.003199 | 103 | 75 | 125 | | | |

| | | | | | | | | | | |
|------------|-----------------|-------|--------------------------|-------------|------------------------------------|----------|------------------|------|----------|------|
| Sample ID | 1505570-002BMSD | | SampType: MSD | | TestCode: EPA Method 7471: Mercury | | | | | |
| Client ID: | BatchQC | | Batch ID: 19445 | | RunNo: 26497 | | | | | |
| Prep Date: | 5/28/2015 | | Analysis Date: 5/29/2015 | | SeqNo: 787375 | | Units: mg/Kg-dry | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury | 0.19 | 0.036 | 0.1839 | 0.003199 | 102 | 75 | 125 | 1.94 | 20 | |

| | | | | | | | | | | |
|------------|----------------|------|--------------------------|-------------|------------------------------------|----------|------------------|------|----------|------|
| Sample ID | 1505057-001BMS | | SampType: MS | | TestCode: EPA Method 7471: Mercury | | | | | |
| Client ID: | BatchQC | | Batch ID: 19445 | | RunNo: 26497 | | | | | |
| Prep Date: | 5/28/2015 | | Analysis Date: 5/29/2015 | | SeqNo: 787390 | | Units: mg/Kg-dry | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury | 0.34 | 0.21 | 0.2110 | 0.07022 | 127 | 75 | 125 | | | S |

| | | | | | | | | | | | |
|------------|-----------------|------|-----------|----------------|-----------|----------|-----------|--------------------------|----------|------------------|--|
| Sample ID | 1505057-001BMSD | | | SampType: | MSD | | TestCode: | EPA Method 7471: Mercury | | | |
| Client ID: | BatchQC | | | Batch ID: | 19445 | | RunNo: | 26497 | | | |
| Prep Date: | 5/28/2015 | | | Analysis Date: | 5/29/2015 | | SeqNo: | 787391 | | Units: mg/Kg-dry | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Mercury | 0.41 | 0.20 | 0.1970 | 0.07022 | 172 | 75 | 125 | 19.2 | 20 | S | |

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505585

15-Jun-15

Client: Animas Environmental

Project: CoP Sunnyside Pipeline D5L-1

| | | | | | | | | | | |
|------------|------------------|------|----------------|------------------|------|-----------|--------------------------------------|------|---------------------|------|
| Sample ID | MB-19279 | | SampType: | MBLK | | TestCode: | EPA Method 6010B: Soil Metals | | | |
| Client ID: | PBS | | Batch ID: | 19279 | | RunNo: | 26309 | | | |
| Prep Date: | 5/18/2015 | | Analysis Date: | 5/20/2015 | | SeqNo: | 781613 | | Units: mg/Kg | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic | ND | 2.5 | | | | | | | | |
| Barium | ND | 0.10 | | | | | | | | |
| Cadmium | ND | 0.10 | | | | | | | | |
| Chromium | ND | 0.30 | | | | | | | | |
| Copper | ND | 0.30 | | | | | | | | |
| Lead | ND | 0.25 | | | | | | | | |
| Nickel | ND | 0.50 | | | | | | | | |
| Selenium | ND | 2.5 | | | | | | | | |
| Silver | ND | 0.25 | | | | | | | | |
| Zinc | ND | 2.5 | | | | | | | | |

| | | | | | | | | | | |
|------------|------------------|------|----------------|------------------|------|-----------|--------------------------------------|------|---------------------|------|
| Sample ID | LCS-19279 | | SampType: | LCS | | TestCode: | EPA Method 6010B: Soil Metals | | | |
| Client ID: | LCSS | | Batch ID: | 19279 | | RunNo: | 26309 | | | |
| Prep Date: | 5/18/2015 | | Analysis Date: | 5/20/2015 | | SeqNo: | 781614 | | Units: mg/Kg | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic | 25 | 2.5 | 25.00 | 0 | 99.0 | 80 | 120 | | | |
| Barium | 25 | 0.10 | 25.00 | 0 | 100 | 80 | 120 | | | |
| Cadmium | 25 | 0.10 | 25.00 | 0 | 100 | 80 | 120 | | | |
| Chromium | 25 | 0.30 | 25.00 | 0 | 101 | 80 | 120 | | | |
| Copper | 27 | 0.30 | 25.00 | 0 | 106 | 80 | 120 | | | |
| Lead | 25 | 0.25 | 25.00 | 0 | 99.1 | 80 | 120 | | | |
| Nickel | 25 | 0.50 | 25.00 | 0 | 99.1 | 80 | 120 | | | |
| Selenium | 25 | 2.5 | 25.00 | 0 | 101 | 80 | 120 | | | |
| Silver | 5.1 | 0.25 | 5.000 | 0 | 103 | 80 | 120 | | | |
| Zinc | 25 | 2.5 | 25.00 | 0 | 100 | 80 | 120 | | | |

| | | | | | | | | | | |
|------------|-----------------------|-------|----------------|------------------|------|-----------|--------------------------------------|------|---------------------|------|
| Sample ID | 1505717-001AMS | | SampType: | MS | | TestCode: | EPA Method 6010B: Soil Metals | | | |
| Client ID: | BatchQC | | Batch ID: | 19279 | | RunNo: | 26309 | | | |
| Prep Date: | 5/18/2015 | | Analysis Date: | 5/20/2015 | | SeqNo: | 781727 | | Units: mg/Kg | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic | 22 | 2.4 | 23.91 | 2.467 | 80.2 | 75 | 125 | | | |
| Barium | 150 | 0.096 | 23.91 | 125.4 | 114 | 75 | 125 | | | |
| Cadmium | 20 | 0.096 | 23.91 | 0.2169 | 82.7 | 75 | 125 | | | |
| Chromium | 29 | 0.29 | 23.91 | 9.062 | 82.1 | 75 | 125 | | | |
| Silver | 4.1 | 0.24 | 4.781 | 0 | 85.1 | 75 | 125 | | | |

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505585

15-Jun-15

Client: Animas Environmental

Project: CoP Sunnyside Pipeline D5L-1

| | | | | | | | | | | |
|------------|-----------------|--------------------------|-----------|---|------|--------------|-----------|------|----------|------|
| Sample ID | 1505717-001AMSD | SampType: MSD | | TestCode: EPA Method 6010B: Soil Metals | | | | | | |
| Client ID: | BatchQC | Batch ID: 19279 | | RunNo: 26309 | | | | | | |
| Prep Date: | 5/18/2015 | Analysis Date: 5/20/2015 | | SeqNo: 781728 | | Units: mg/Kg | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic | 23 | 2.5 | 25.18 | 2.467 | 80.0 | 75 | 125 | 4.38 | 20 | |
| Barium | 150 | 0.10 | 25.18 | 125.4 | 78.7 | 75 | 125 | 5.01 | 20 | |
| Cadmium | 21 | 0.10 | 25.18 | 0.2169 | 82.7 | 75 | 125 | 5.18 | 20 | |
| Chromium | 29 | 0.30 | 25.18 | 9.062 | 80.3 | 75 | 125 | 2.02 | 20 | |
| Silver | 4.3 | 0.25 | 5.036 | 0 | 85.9 | 75 | 125 | 6.12 | 20 | |

| | | | | | | | | | | |
|------------|----------------|----------------|-----------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID | 1505717-001AMS | SampType: | MS | TestCode: | EPA Method 6010B: Soil Metals | | | | | |
| Client ID: | BatchQC | Batch ID: | 19279 | RunNo: | 26309 | | | | | |
| Prep Date: | 5/18/2015 | Analysis Date: | 5/20/2015 | SeqNo: | 781781 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Lead | 31 | 0.24 | 23.91 | 10.91 | 82.8 | 75 | 125 | | | |
| Selenium | 17 | 2.4 | 23.91 | 0 | 70.0 | 75 | 125 | | | S |

| | | | | | | | | | | | |
|------------|-----------------|----------------|-----------|-------------|-----------|-------------------------------|-----------|-------|----------|------|--|
| Sample ID | 1505717-001AMSD | SampType: | MSD | | TestCode: | EPA Method 6010B: Soil Metals | | | | | |
| Client ID: | BatchQC | Batch ID: | 19279 | | RunNo: | 26309 | | | | | |
| Prep Date: | 5/18/2015 | Analysis Date: | 5/20/2015 | | SeqNo: | 781782 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Lead | 29 | 0.25 | 25.18 | 10.91 | 70.8 | 75 | 125 | 6.66 | 20 | S | |
| Selenium | 18 | 2.5 | 25.18 | 0 | 72.7 | 75 | 125 | 8.99 | 20 | S | |

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505585

15-Jun-15

Client: Animas Environmental

Project: CoP Sunnyside Pipeline D5L-1

| | | | | | | | | | | | |
|------------|--|-----------------|------|----------------|---------------|-----------|--------------------------|---------------|------|-----------------|------|
| Sample ID | | 1505804-002ADUP | | | SampType: DUP | | TestCode: SM4500-H+B: pH | | | | |
| Client ID: | | BatchQC | | Batch ID: | | R26369 | | RunNo: 26369 | | | |
| Prep Date: | | | | Analysis Date: | | 5/22/2015 | | SeqNo: 783713 | | Units: pH Units | |
| Analyte | | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| pH | | 8.47 | 1.68 | | | | | | | | |

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1505585

RcptNo: 1

Received by/date:

Am 05/12/13

Logged By: Ashley Gallegos

5/12/2015 7:00:00 AM

Ag

Completed By: Ashley Gallegos

5/13/2015 11:55:50 AM

Ag

Reviewed By:

JA 05/13/13

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☐

No ☐

No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

| Cooler No | Temp $^{\circ}\text{C}$ | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|-------------------------|-----------|-------------|---------|-----------|-----------|
| 1 | 2.8 | Good | Yes | | | |

