



LABORATORY ANALYTICAL REPORT

**Client:** AMPP  
**Project:** Tongue River Monitoring Tier 2 Spring 2004  
**Lab ID:** H04050024-031  
**Client Sample ID:** T2/GC-10 (0-2)

**Report Date:** 07/04/04  
**Collection Date:** 04/30/04 16:30  
**Date Received:** 05/04/04  
**Matrix:** Soil

| Analyses                                    | Result | Units    | Qual | MCL/ |     | Method      | Analysis Date / By   |
|---|--------|----------|------|------|-----|-------------|----------------------|
|   |        |          |      | RL   | QCL |             |                      |
| <b>SATURATED PASTE</b>                      |        |          |      |      |     |             |                      |
| pH, Saturated Paste                         | 7.5    | s.u.     |      | 0.1  |     | ASAM10-3.2  | 06/28/04 07:41 / rp  |
| Conductivity, Paste Extract                 | 1.58   | mmhos/cm |      | 0.01 |     | ASAM10-3    | 06/28/04 07:41 / rp  |
| Chloride, Saturated Paste                   | 4.94   | meq/L    |      | 0.01 |     | ASA10-3     | 06/21/04 13:00 / jdh |
| Saturation                                  | 58.7   | wt%      |      | 0.1  |     | USDA27a     | 06/28/04 07:41 / rp  |
| Sodium Adsorption Ratio (SAR)               | 0.7    | unitless |      | 0.1  |     | Calculation | 06/28/04 07:41 / rp  |
| Alkalinity, Saturated Paste                 | 7.0    | meq/L    |      | 1.0  |     | ASA10-3     | 06/24/04 13:00 / jdh |
| <b>SATURATED PASTE</b>                      |        |          |      |      |     |             |                      |
| Calcium, Saturated Paste                    | 8.07   | meq/l    |      | 0.05 |     | SW6010B     | 06/21/04 02:06 / jdh |
| Magnesium, Saturated Paste                  | 5.14   | meq/l    |      | 0.08 |     | SW6010B     | 06/21/04 02:06 / jdh |
| Sodium, Saturated Paste                     | 1.74   | meq/l    |      | 0.04 |     | SW6010B     | 06/21/04 02:06 / jdh |
| <b>PHYSICAL CHARACTERISTICS</b>             |        |          |      |      |     |             |                      |
| Sand  | 11     | wt%      |      | 1.0  |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Silt  | 52     | wt%      |      | 1.0  |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Clay  | 37     | wt%      |      | 1.0  |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Texture                                     | SiCL   | unitless |      |      |     | ASA15-5     | 06/28/04 07:41 / rp  |
| <b>CHEMICAL CHARACTERISTICS</b>             |        |          |      |      |     |             |                      |
| Cation Exchange Capacity                    | 36.8   | meq/100g |      | 0.09 |     | SW6010B     | 06/09/04 02:16 / rp  |
| Exchangeable Sodium Percentage              | 1.6    | %        |      | 0.1  |     | USDA20b     | 06/28/04 07:41 / rp  |
| Lime as CaCO3                               | 8.0    | wt%      |      | 0.1  |     | USDA23c     | 06/28/04 07:41 / rp  |
| <b>METALS, AMMONIUM ACETATE EXTRACTABLE</b> |        |          |      |      |     |             |                      |
| Sodium, Extractable                         | 0.71   | meq/100g |      | 0.04 |     | SW6010B     | 06/14/04 02:52 / rp  |

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

**Client:** AMPP  
**Project:** Tongue River Monitoring Tier 2 Spring 2004  
**Lab ID:** H04050024-032  
**Client Sample ID:** T2/GC-10 (0-6)

**Report Date:** 07/04/04  
**Collection Date:** 04/30/04 16:30  
**Date Received:** 05/04/04  
**Matrix:** Soil

| Analyses                                    | Result | Units    | Qual | MCL/  |     | Method      | Analysis Date / By   |
|---|--------|----------|------|-------|-----|-------------|----------------------|
|   |        |          |      | RL    | QCL |             |                      |
| <b>SATURATED PASTE</b>                      |        |          |      |       |     |             |                      |
| pH, Saturated Paste                         | 7.7    | s.u.     |      | 0.1   |     | ASAM10-3.2  | 06/28/04 07:41 / rp  |
| Conductivity, Paste Extract                 | 0.72   | mmhos/cm |      | 0.01  |     | ASAM10-3    | 06/28/04 07:41 / rp  |
| Chloride, Saturated Paste                   | 2.40   | meq/L    |      | 0.01  |     | ASA10-3     | 06/21/04 13:00 / jdh |
| Saturation                                  | 56.8   | wt%      |      | 0.1   |     | USDA27a     | 06/28/04 07:41 / rp  |
| Sodium Adsorption Ratio (SAR)               | 0.8    | unitless |      | 0.1   |     | Calculation | 06/28/04 07:41 / rp  |
| Alkalinity, Saturated Paste                 | 5.6    | meq/L    |      | 1.0   |     | ASA10-3     | 06/24/04 13:00 / jdh |
| Nitrate as N, Saturated Paste               | 1.0    | mg/L     |      | 0.1   |     | ASA10-3     | 06/15/04 12:35 / cwh |
| Sulfate, Saturated Paste                    | 2.22   | meq/L    |      | 0.002 |     | ASA10-3     | 06/20/04 13:00 / rp  |
| <b>SATURATED PASTE</b>                      |        |          |      |       |     |             |                      |
| Calcium, Saturated Paste                    | 3.93   | meq/l    |      | 0.05  |     | SW6010B     | 06/21/04 02:09 / jdh |
| Magnesium, Saturated Paste                  | 2.27   | meq/l    |      | 0.08  |     | SW6010B     | 06/21/04 02:09 / jdh |
| Sodium, Saturated Paste                     | 1.35   | meq/l    |      | 0.04  |     | SW6010B     | 06/21/04 02:09 / jdh |
| <b>PHYSICAL CHARACTERISTICS</b>             |        |          |      |       |     |             |                      |
| Sand  | 5.0    | wt%      |      | 1.0   |     | ASA15-5     | 06/20/04 13:00 / rp  |
| Silt  | 56     | wt%      |      | 1.0   |     | ASA15-5     | 06/20/04 13:00 / rp  |
| Clay  | 39     | wt%      |      | 1.0   |     | ASA15-5     | 06/20/04 13:00 / rp  |
| Texture                                     | SICL   | unitless |      |       |     | ASA15-5     | 06/20/04 13:00 / rp  |
| <b>CHEMICAL CHARACTERISTICS</b>             |        |          |      |       |     |             |                      |
| Fluoride                                    | ND     | mg/kg    |      | 1.0   |     | A4500-F C   | 06/17/04 13:00 / ddb |
| Organic Matter                              | 3.30   | wt%      |      | 0.02  |     | ASA29-3     | 06/28/04 07:41 / rp  |
| Cation Exchange Capacity                    | 29.3   | meq/100g |      | 0.09  |     | SW6010B     | 06/09/04 02:19 / rp  |
| Exchangeable Sodium Percentage              | 2.5    | %        |      | 0.1   |     | USDA20b     | 06/28/04 07:41 / rp  |
| Lime as CaCO3                               | 8.2    | wt%      |      | 0.1   |     | USDA23c     | 06/28/04 07:41 / rp  |
| Phosphorus                                  | 15     | mg/kg    |      | 0.1   |     | ASA24-5     | 06/24/04 05:20 / rp  |
| <b>METALS, AMMONIUM ACETATE EXTRACTABLE</b> |        |          |      |       |     |             |                      |
| Potassium                                   | 218    | mg/kg    |      | 1     |     | SW6010B     | 06/14/04 02:55 / rp  |
| Sodium, Extractable                         | 0.81   | meq/100g |      | 0.04  |     | SW6010B     | 06/14/04 02:55 / rp  |
| <b>METALS, WATER EXTRACTABLE</b>            |        |          |      |       |     |             |                      |
| Selenium                                    | 0.082  | mg/kg    |      | 0.010 |     | SW6020      | 06/28/04 13:35 / car |
| <b>METALS, DTPA EXTRACTABLE</b>             |        |          |      |       |     |             |                      |
| Zinc  | 0.36   | mg/kg    |      | 0.02  |     | SW6010B     | 06/16/04 02:29 / rp  |

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: AMPP  
Project: Tongue River Monitoring Tier 2 Spring 2004  
Lab ID: H04050024-032  
Client Sample ID: T2/GC-10 (0-6)

Report Date: 07/04/04  
Collection Date: 04/30/04 16:30  
Date Received: 05/04/04  
Matrix: Soil

---

| Analyses                         | Result | Units | Qual | MCL/ |     | Method  | Analysis Date / By  |
|----------------------------------|--------|-------|------|------|-----|---------|---------------------|
|                                  |        |       |      | RL   | QCL |         |                     |
| <b>METALS, CACL2 EXTRACTABLE</b> |        |       |      |      |     |         |                     |
| Barium                           | 8.4    | mg/L  |      | 0.04 |     | SW6010B | 06/16/04 01:01 / rp |
| Boron                            | 0.98   | mg/L  |      | 0.04 |     | SW6010B | 06/16/04 01:01 / rp |

---

Report Definitions: RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

**Client:** AMPP  
**Project:** Tongue River Monitoring Tier 2 Spring 2004  
**Lab ID:** H04050024-033  
**Client Sample ID:** T2/GC-10 (6-12)

**Report Date:** 07/04/04  
**Collection Date:** 04/30/04 16:30  
**Date Received:** 05/04/04  
**Matrix:** Soil

| Analyses                                    | Result | Units    | Qual | MCL/  |     | Method      | Analysis Date / By   |
|---|--------|----------|------|-------|-----|-------------|----------------------|
|   |        |          |      | RL    | QCL |             |                      |
| <b>SATURATED PASTE</b>                      |        |          |      |       |     |             |                      |
| pH, Saturated Paste                         | 7.8    | s.u.     |      | 0.1   |     | ASAM10-3.2  | 06/28/04 07:41 / rp  |
| Conductivity, Paste Extract                 | 0.53   | mmhos/cm |      | 0.01  |     | ASAM10-3    | 06/28/04 07:41 / rp  |
| Chloride, Saturated Paste                   | 1.27   | meq/L    |      | 0.01  |     | ASA10-3     | 06/21/04 13:00 / jdh |
| Saturation                                  | 50.5   | wt%      |      | 0.1   |     | USDA27a     | 06/28/04 07:41 / rp  |
| Sodium Adsorption Ratio (SAR)               | 1.1    | unitless |      | 0.1   |     | Calculation | 06/28/04 07:41 / rp  |
| Alkalinity, Saturated Paste                 | 4.0    | meq/L    |      | 1.0   |     | ASA10-3     | 06/24/04 13:00 / jdh |
| Nitrate as N, Saturated Paste               | 4.8    | mg/L     |      | 0.6   |     | ASA10-3     | 06/15/04 12:03 / cwh |
| Sulfate, Saturated Paste                    | 2.41   | meq/L    |      | 0.002 |     | ASA10-3     | 06/20/04 13:00 / rp  |
| <b>SATURATED PASTE</b>                      |        |          |      |       |     |             |                      |
| Calcium, Saturated Paste                    | 2.57   | meq/l    |      | 0.05  |     | SW6010B     | 06/21/04 02:12 / jdh |
| Magnesium, Saturated Paste                  | 1.57   | meq/l    |      | 0.08  |     | SW6010B     | 06/21/04 02:12 / jdh |
| Sodium, Saturated Paste                     | 1.62   | meq/l    |      | 0.04  |     | SW6010B     | 06/21/04 02:12 / jdh |
| <b>PHYSICAL CHARACTERISTICS</b>             |        |          |      |       |     |             |                      |
| Sand  | 7.0    | wt%      |      | 1.0   |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Silt  | 53     | wt%      |      | 1.0   |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Clay  | 40     | wt%      |      | 1.0   |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Texture                                     | SiC    | unitless |      |       |     | ASA15-5     | 06/28/04 07:41 / rp  |
| <b>CHEMICAL CHARACTERISTICS</b>             |        |          |      |       |     |             |                      |
| Cation Exchange Capacity                    | 30.3   | meq/100g |      | 0.09  |     | SW6010B     | 06/09/04 02:22 / rp  |
| Exchangeable Sodium Percentage              | 3.0    | %        |      | 0.1   |     | USDA20b     | 06/28/04 07:41 / rp  |
| Lime as CaCO3                               | 8.5    | wt%      |      | 0.1   |     | USDA23c     | 06/28/04 07:41 / rp  |
| <b>METALS, AMMONIUM ACETATE EXTRACTABLE</b> |        |          |      |       |     |             |                      |
| Sodium, Extractable                         | 0.99   | meq/100g |      | 0.04  |     | SW6010B     | 06/14/04 02:58 / rp  |

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

**Client:** AMPP  
**Project:** Tongue River Monitoring Tier 2 Spring 2004  
**Lab ID:** H04050024-034  
**Client Sample ID:** T2/GC-10 (12-24)

**Report Date:** 07/04/04  
**Collection Date:** 04/30/04 16:30  
**Date Received:** 05/04/04  
**Matrix:** Soil

| Analyses                                    | Result | Units    | Qual | MCL/  |     | Method      | Analysis Date / By   |
|---|--------|----------|------|-------|-----|-------------|----------------------|
|   |        |          |      | RL    | QCL |             |                      |
| <b>SATURATED PASTE</b>                      |        |          |      |       |     |             |                      |
| pH, Saturated Paste                         | 7.9    | s.u.     |      | 0.1   |     | ASAM10-3.2  | 06/28/04 07:41 / rp  |
| Conductivity, Paste Extract                 | 0.78   | mmhos/cm |      | 0.01  |     | ASAM10-3    | 06/28/04 07:41 / rp  |
| Chloride, Saturated Paste                   | 1.13   | meq/L    |      | 0.01  |     | ASA10-3     | 06/21/04 13:00 / jdH |
| Saturation                                  | 47.9   | wt%      |      | 0.1   |     | USDA27a     | 06/28/04 07:41 / rp  |
| Sodium Adsorption Ratio (SAR)               | 1.2    | unitless |      | 0.1   |     | Calculation | 06/28/04 07:41 / rp  |
| Alkalinity, Saturated Paste                 | 2.8    | meq/L    |      | 1.0   |     | ASA10-3     | 06/24/04 13:00 / jdH |
| Nitrate as N, Saturated Paste               | 5.3    | mg/L     |      | 0.6   |     | ASA10-3     | 06/15/04 12:05 / cwh |
| Sulfate, Saturated Paste                    | 6.20   | meq/L    |      | 0.002 |     | ASA10-3     | 06/20/04 13:00 / rp  |
| <b>SATURATED PASTE</b>                      |        |          |      |       |     |             |                      |
| Calcium, Saturated Paste                    | 3.38   | meq/l    |      | 0.05  |     | SW6010B     | 06/21/04 02:15 / jdH |
| Magnesium, Saturated Paste                  | 2.12   | meq/l    |      | 0.08  |     | SW6010B     | 06/21/04 02:15 / jdH |
| Sodium, Saturated Paste                     | 2.00   | meq/l    |      | 0.04  |     | SW6010B     | 06/21/04 02:15 / jdH |
| <b>PHYSICAL CHARACTERISTICS</b>             |        |          |      |       |     |             |                      |
| Sand  | 12     | wt%      |      | 1.0   |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Silt  | 55     | wt%      |      | 1.0   |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Clay  | 33     | wt%      |      | 1.0   |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Texture                                     | SiCL   | unitless |      |       |     | ASA15-5     | 06/28/04 07:41 / rp  |
| <b>CHEMICAL CHARACTERISTICS</b>             |        |          |      |       |     |             |                      |
| Cation Exchange Capacity                    | 25.7   | meq/100g |      | 0.09  |     | SW6010B     | 06/09/04 02:25 / rp  |
| Exchangeable Sodium Percentage              | 4.0    | %        |      | 0.1   |     | USDA20b     | 06/28/04 07:41 / rp  |
| Lime as CaCO3                               | 9.2    | wt%      |      | 0.1   |     | USDA23c     | 06/28/04 07:41 / rp  |
| <b>METALS, AMMONIUM ACETATE EXTRACTABLE</b> |        |          |      |       |     |             |                      |
| Sodium, Extractable                         | 1.11   | meq/100g |      | 0.04  |     | SW6010B     | 06/14/04 03:01 / rp  |

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

**Client:** AMPP  
**Project:** Tongue River Monitoring Tier 2 Spring 2004  
**Lab ID:** H04050024-035  
**Client Sample ID:** T2/GC-10 (24-36)

**Report Date:** 07/04/04  
**Collection Date:** 04/30/04 16:30  
**Date Received:** 05/04/04  
**Matrix:** Soil

| Analyses                                    | Result | Units    | Qual | MCL/ |     | Method      | Analysis Date / By   |
|---|--------|----------|------|------|-----|-------------|----------------------|
|   |        |          |      | RL   | QCL |             |                      |
| <b>SATURATED PASTE</b>                      |        |          |      |      |     |             |                      |
| pH, Saturated Paste                         | 7.9    | s.u.     |      | 0.1  |     | ASAM10-3.2  | 06/28/04 07:41 / rp  |
| Conductivity, Paste Extract                 | 0.81   | mmhos/cm |      | 0.01 |     | ASAM10-3    | 06/28/04 07:41 / rp  |
| Chloride, Saturated Paste                   | 1.41   | meq/L    |      | 0.01 |     | ASA10-3     | 06/21/04 13:00 / jdh |
| Saturation                                  | 43.3   | wt%      |      | 0.1  |     | USDA27a     | 06/28/04 07:41 / rp  |
| Sodium Adsorption Ratio (SAR)               | 1.2    | unitless |      | 0.1  |     | Calculation | 06/28/04 07:41 / rp  |
| Alkalinity, Saturated Paste                 | 3.2    | meq/L    |      | 1.0  |     | ASA10-3     | 06/24/04 13:00 / jdh |
| <b>SATURATED PASTE</b>                      |        |          |      |      |     |             |                      |
| Calcium, Saturated Paste                    | 3.68   | meq/l    |      | 0.05 |     | SW6010B     | 06/21/04 02:18 / jdh |
| Magnesium, Saturated Paste                  | 2.40   | meq/l    |      | 0.08 |     | SW6010B     | 06/21/04 02:18 / jdh |
| Sodium, Saturated Paste                     | 2.01   | meq/l    |      | 0.04 |     | SW6010B     | 06/21/04 02:18 / jdh |
| <b>PHYSICAL CHARACTERISTICS</b>             |        |          |      |      |     |             |                      |
| Sand  | 25     | wt%      |      | 1.0  |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Silt  | 49     | wt%      |      | 1.0  |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Clay  | 26     | wt%      |      | 1.0  |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Texture                                     | L      | unitless |      |      |     | ASA15-5     | 06/28/04 07:41 / rp  |
| <b>CHEMICAL CHARACTERISTICS</b>             |        |          |      |      |     |             |                      |
| Cation Exchange Capacity                    | 22.1   | meq/100g |      | 0.09 |     | SW6010B     | 06/09/04 02:34 / rp  |
| Exchangeable Sodium Percentage              | 3.6    | %        |      | 0.1  |     | USDA20b     | 06/28/04 07:41 / rp  |
| Lime as CaCO3                               | 8.7    | wt%      |      | 0.1  |     | USDA23c     | 06/28/04 07:41 / rp  |
| <b>METALS, AMMONIUM ACETATE EXTRACTABLE</b> |        |          |      |      |     |             |                      |
| Sodium, Extractable                         | 0.89   | meq/100g |      | 0.04 |     | SW6010B     | 06/14/04 03:04 / rp  |

**Report Definitions:** RL - Analyte reporting limit.  
 QCL - Quality control limit.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

**Client:** AMPP  
**Project:** Tongue River Monitoring Tier 2 Spring 2004  
**Lab ID:** H04050024-036  
**Client Sample ID:** T2/GC-10 (36-60)

**Report Date:** 07/04/04  
**Collection Date:** 04/30/04 16:30  
**Date Received:** 05/04/04  
**Matrix:** Soil

| Analyses                                    | Result | Units    | Qual | MCL/  |     | Method      | Analysis Date / By   |
|---|--------|----------|------|-------|-----|-------------|----------------------|
|   |        |          |      | RL    | QCL |             |                      |
| <b>SATURATED PASTE</b>                      |        |          |      |       |     |             |                      |
| pH, Saturated Paste                         | 7.8    | s.u.     |      | 0.1   |     | ASAM10-3.2  | 06/28/04 07:41 / rp  |
| Conductivity, Paste Extract                 | 0.99   | mmhos/cm |      | 0.01  |     | ASAM10-3    | 06/28/04 07:41 / rp  |
| Chloride, Saturated Paste                   | 8.04   | meq/L    |      | 0.01  |     | ASA10-3     | 06/21/04 13:00 / jdh |
| Saturation                                  | 39.5   | wt%      |      | 0.1   |     | USDA27a     | 06/28/04 07:41 / rp  |
| Sodium Adsorption Ratio (SAR)               | 1.2    | unitless |      | 0.1   |     | Calculation | 06/28/04 07:41 / rp  |
| Alkalinity, Saturated Paste                 | 3.6    | meq/L    |      | 1.0   |     | ASA10-3     | 06/24/04 13:00 / jdh |
| <b>SATURATED PASTE</b>                      |        |          |      |       |     |             |                      |
| Calcium, Saturated Paste                    | 5.35   | meq/l    |      | 0.05  |     | SW6010B     | 06/21/04 02:27 / jdh |
| Magnesium, Saturated Paste                  | 3.74   | meq/l    |      | 0.08  |     | SW6010B     | 06/21/04 02:27 / jdh |
| Sodium, Saturated Paste                     | 2.59   | meq/l    |      | 0.04  |     | SW6010B     | 06/21/04 02:27 / jdh |
| <b>PHYSICAL CHARACTERISTICS</b>             |        |          |      |       |     |             |                      |
| Sand  | 30     | wt%      |      | 1.0   |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Silt  | 46     | wt%      |      | 1.0   |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Clay  | 24     | wt%      |      | 1.0   |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Texture                                     | L      | unitless |      |       |     | ASA15-5     | 06/28/04 07:41 / rp  |
| <b>CHEMICAL CHARACTERISTICS</b>             |        |          |      |       |     |             |                      |
| Fluoride                                    | 1.0    | mg/kg    |      | 1.0   |     | A4500-F C   | 06/17/04 13:00 / ddb |
| Cation Exchange Capacity                    | 18.3   | meq/100g |      | 0.09  |     | SW6010B     | 06/09/04 02:37 / rp  |
| Exchangeable Sodium Percentage              | 5.2    | %        |      | 0.1   |     | USDA20b     | 06/28/04 07:41 / rp  |
| Lime as CaCO3                               | 8.1    | wt%      |      | 0.1   |     | USDA23c     | 06/28/04 07:41 / rp  |
| <b>METALS, AMMONIUM ACETATE EXTRACTABLE</b> |        |          |      |       |     |             |                      |
| Sodium, Extractable                         | 1.05   | meq/100g |      | 0.04  |     | SW6010B     | 06/14/04 03:07 / rp  |
| <b>METALS, WATER EXTRACTABLE</b>            |        |          |      |       |     |             |                      |
| Selenium                                    | 0.079  | mg/kg    |      | 0.010 |     | SW6020      | 06/28/04 13:39 / car |
| <b>METALS, CaCl2 EXTRACTABLE</b>            |        |          |      |       |     |             |                      |
| Barium                                      | 5.6    | mg/L     |      | 0.04  |     | SW6010B     | 06/16/04 01:04 / rp  |
| Boron                                       | 1.2    | mg/L     |      | 0.04  |     | SW6010B     | 06/16/04 01:04 / rp  |

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

**Client:** AMPP  
**Project:** Tongue River Monitoring Tier 2 Spring 2004  
**Lab ID:** H04050024-037  
**Client Sample ID:** T2/GC-10 (60-96)

**Report Date:** 07/04/04  
**Collection Date:** 04/30/04 16:30  
**Date Received:** 05/04/04  
**Matrix:** Soil

| Analyses                                    | Result | Units    | Qual | MCL/ |     | Method      | Analysis Date / By   |
|---|--------|----------|------|------|-----|-------------|----------------------|
|   |        |          |      | RL   | QCL |             |                      |
| <b>SATURATED PASTE</b>                      |        |          |      |      |     |             |                      |
| pH, Saturated Paste                         | 7.9    | s.u.     |      | 0.1  |     | ASAM10-3.2  | 06/28/04 07:41 / rp  |
| Conductivity, Paste Extract                 | 1.27   | mmhos/cm |      | 0.01 |     | ASAM10-3    | 06/28/04 07:41 / rp  |
| Chloride, Saturated Paste                   | 1.13   | meq/L    |      | 0.01 |     | ASA10-3     | 06/21/04 13:00 / jdh |
| Saturation                                  | 24.9   | wt%      |      | 0.1  |     | USDA27a     | 06/28/04 07:41 / rp  |
| Sodium Adsorption Ratio (SAR)               | 2.1    | unitless |      | 0.1  |     | Calculation | 06/28/04 07:41 / rp  |
| Alkalinity, Saturated Paste                 | 3.6    | meq/L    |      | 1.0  |     | ASA10-3     | 06/24/04 13:00 / jdh |
| <b>SATURATED PASTE</b>                      |        |          |      |      |     |             |                      |
| Calcium, Saturated Paste                    | 6.80   | meq/l    |      | 0.05 |     | SW6010B     | 06/21/04 02:30 / jdh |
| Magnesium, Saturated Paste                  | 4.51   | meq/l    |      | 0.08 |     | SW6010B     | 06/21/04 02:30 / jdh |
| Sodium, Saturated Paste                     | 5.02   | meq/l    |      | 0.04 |     | SW6010B     | 06/21/04 02:30 / jdh |
| <b>PHYSICAL CHARACTERISTICS</b>             |        |          |      |      |     |             |                      |
| Sand  | 40     | wt%      |      | 1.0  |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Silt  | 51     | wt%      |      | 1.0  |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Clay  | 9.0    | wt%      |      | 1.0  |     | ASA15-5     | 06/28/04 07:41 / rp  |
| Texture                                     | SiL    | unitless |      |      |     | ASA15-5     | 06/28/04 07:41 / rp  |
| <b>CHEMICAL CHARACTERISTICS</b>             |        |          |      |      |     |             |                      |
| Cation Exchange Capacity                    | 10.8   | meq/100g |      | 0.09 |     | SW6010B     | 06/09/04 02:40 / rp  |
| Exchangeable Sodium Percentage              | 8.0    | %        |      | 0.1  |     | USDA20b     | 06/28/04 07:41 / rp  |
| Lime as CaCO3                               | 5.9    | wt%      |      | 0.1  |     | USDA23c     | 06/28/04 07:41 / rp  |
| <b>METALS, AMMONIUM ACETATE EXTRACTABLE</b> |        |          |      |      |     |             |                      |
| Sodium, Extractable                         | 0.99   | meq/100g |      | 0.04 |     | SW6010B     | 06/14/04 03:10 / rp  |

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.