# EMR

Environmental Management Resources, Inc.
2500 39th Ave. NE, Suite 220
Minneapolis, MN 55421
(612) 789-2642
(612) 789-2689 (Fax)

SDMS Document ID
2022589

## Facsimile transmittal

EMR Project Number: 5539.003-1

To: Jim Christiansen Fax: 303-312-6897

From: Tanya Drake Date 8/18/03

Re: Libby analytical Pages: 18 (Incl. Cover)

cc: Dave Smith (BNSF) 406-449-8610

☐ Urgent ☐ For Review ☐ Please Comment ☑ Please Reply ☐ For Entry

Jim,

Attached are laboratory results for air and soil samples collected to date at Libby.

An additional round of sampling is to have taken place this morning with CDM collecting split samples for analysis. Courtney Zamora has a copy of these results. If EMSL will supply results electronically I will forward them to you. Otherwise I will fax them upon receipt. Please call with questions or comments.

Tanya

CONFIDENTIAL

**EMSL Analytical, Inc.** **Asbestos**

# CHAIN OF CUSTODY

Revised January 1, 2000

27030888
TEM AHERA

**EMSL Rep:**

**Your Company Name:** EMR

**Street:** 2500 39th Ave NE Suite 220

**Box #:**

**City/State:** Minneapolis, MN **Zip:** 55421

**Bill to:** EMR

**Street:** 2500 39th Ave NE Suite 220

**City/State:** Minneapolis, MN **Zip:** 55421

**Phone Results to:**

**Name:**

**Telephone #:** (612)

**Project Name/Number:** BNSF Libby, MT Railyard #5539.003-1

**Fax Results to:**

**Name:** Tanya Drake

**Fax #:** (612) 789-2689

**Purchase Order #:**

**MATRIX** **TURNAROUND**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ☒ Air | ☐ Soil | ☐ Micro-Vac | | ☐ 3 hrs | ☐ 6 Hours | ☐ Same Day or 12 Hours* | ☒ 24 Hours (1 day) |
| ☐ Bulk | ☐ Drinking Water | | | ☐ 48 Hours (2 days) | ☐ 72 Hours (3 days) | ☐ 96 Hours (4 days) | ☐ 120 Hours (5 Days) |
| ☐ Wipe | ☐ Wastewater | | | ☐ 144+ hours (6-10 Days) | | | |

TEM AIR, 3 hours, 6 hours, Please call ahead to schedule. There is a premium charge for 3-hour tat; please call 1-800-220-3675 for price prior to sending samples. You will be asked to sign an authorization form for this service.
*12 hours (must arrive by 11:00 a.m Mon - Fri.), Please Refer to Price Quote

**PCM - Air**
- ☐ NIOSH 7400(A) Issue 2: August 1994
- ☐ OSHA w/ TWA
- ☐ Other:

**PLM - Bulk**
- ☐ EPA 600/R-93/116
- ☐ EPA Point Count
- ☐ NYS Stratified Point Count
- ☐ PLM NOB (Gravimetric) NYS 198.1
- ☐ NIOSH 9002
- ☐ EMSL Standard Addition

**SEM Air or Bulk**
- ☐ Qualitative
- ☐ Quantitative

**TEM Air**
- ☒ AHERA 40 CFR, Part 763 Subpart E
- ☐ NIOSH 7402 Issue 2
- ☐ EPA Level II

**TEM Bulk**
- ☐ Drop Mount (Qualitative)
- ☐ Chatfield SOP – 1988-02
- ☐ TEM NOB (Gravimetric) NYS 198.4
- ☐ EMSL Standard Addition

**PLM Soil**
- ☐ EPA Protocol Qualitative
- ☐ EPA Protocol Quantitative
- ☐ EMSL MSD 9000 Method fibers/gram

**TEM Water**
- ☐ EPA 100.1
- ☐ EPA 100.2
- ☐ NYS 198.2

**TEM Microvac/Wipe**
- ☐ ASTM D 5755-95 quantitative
- ☐ Wipe Qualitative

**XRD**
- ☐ Asbestos
- ☐ Silica NIOSH 7500

**OTHER**
- ☐

**Client Sample # (s)** E1-02001 - E1-02005 **Total Samples #:** 5

**Relinquished:** [signature] **Date:** 8/14/03 **Time:** 10:45am

**Received:** [signature] **Date:** 8-14-03 **Time:** 10:46 am

Sheet No.: BNSF-SA-000003

**BNSF**

**LIBBY, MONTANA FIELD SAMPLE DATA SHEET**

# STATIONARY AIR

Scenario No.: NA Field Logbook No: 1 Page No: 33 Sampling Date: 8-13-03

Address: BNSF Libby Railyard Owner/Tenant: BNSF

Business Name: BNSF

Land Use: Residential School Commercial Mining Roadway Other (Industrial)

Sampling Team: MACTEC CDM (Other) BNSF Name(s): Scott Rhen

| Data Item | Cassette 1 | Cassette 2 | Cassette 3 |
|---|---|---|---|
| Index ID | E1- 02001 | E1- 02002 | E1- 02003 |
| Location ID | AD00739 | AD00739 | AD00739 |
| Sample Group | Property | Property | Property |
| Location Description | Rear of vacuum truck N 48.39424 W 115.54564 | South side of water tank car N 48.39434 W 115.54582 | NW side of exclusion zone N 48.39441 W 115.54604 |
| Category (circle) | (FS) Blank Rep____ | (FS) Blank Rep____ | (FS) Blank Rep____ |
| Matrix Type (circle) | Indoor (Outdoor) NA | Indoor (Outdoor) NA | Indoor (Outdoor) NA |
| Filter Diameter (circle) | (25mm) 37mm | (25mm) 37mm | (25mm) 37mm |
| Pore Size (circle) | TEM- .45 (PCM- 0.8) | TEM- .45 (PCM- 0.8) | TEM- .45 (PCM- 0.8) |
| Flow Meter Type (circle) | (Rotometer) DryCal NA | (Rotometer) DryCal NA | (Rotometer) DryCal NA |
| Pump ID Number | 812158 | 812154 | 812078 |
| Flow Meter ID No. | 1360 | 1360 | 1360 |
| Start Date | 8-13-03 1844 l. | 8-13-03 1859 l | 8-13-03 2165 ~~2399~~ l |
| Start Time | 0826 | 0829 | 0835 |
| Start Flow (L/min) | 4.6 | 4.6 | 5.8 |
| Stop Date | 8/13/03 | 8-13-03 | 8-13-03 |
| Stop Time | 15:07 | 15:16 | 14:45 |
| Stop Flow (L/min) | 4.6 | 4.5 | 5.9 |
| Pump fault? (circle) | (No) Yes NA | (No) Yes NA | (No) Yes NA |
| MET Station onsite? | (No) Yes NA | (No) Yes NA | (No) Yes NA |
| Pre/Post (circle) | Pre (Post) Clear 2nd Clear 3rd Clear NA | Pre (Post) Clear 2nd Clear 3rd Clear NA | Pre (Post) Clear 2nd Clear 3rd Clear NA |
| Field Comments | Morning clear 50° wind ESE 0-5mph | Afternoon clear 95° wind calm | Removed with vac truck 50 linear feet of soil + ballast from tracks 3,4. |
| QC (Field Team) ____ Entered (LFO) ____ | Volpe: Entered ____ Validated ____ | Volpe: Entered ____ Validated ____ | Volpe: Entered ____ Validated ____ |

Sheet No.: BNSF-SA- 000004

**BNSF**

**LIBBY, MONTANA FIELD SAMPLE DATA SHEET**

# STATIONARY AIR

Scenario No.: NA Field Logbook No: 1 Page No: 33 Sampling Date: 8-13-03

Address: BNSF Rail Owner/Tenant: BNSF

Business Name: BNSF

Land Use: Residential School Commercial Mining Roadway (Other) (Industrial)

Sampling Team: MACTEC CDM (Other) (BNSF) Name(s): Scott Rhen

| Data Item | Cassette 1 | Cassette 2 | Cassette 3 |
|---|---|---|---|
| Index ID | E1- 02004 | E1- 02005 | |
| Location ID | AD 00739 | AD 00739 | |
| Sample Group | property | Property | |
| Location Description | SW side of exclusion zone N 48.39429 W 115.54607 | SE side of exclusion zone N. 48.39424 W 115.54588 | |
| Category (circle) | (FS) Blank Rep_____ | (FS) Blank Rep_____ | FS Blank Rep_____ |
| Matrix Type (circle) | Indoor (Outdoor) NA | Indoor (Outdoor) NA | Indoor Outdoor NA |
| Filter Diameter (circle) | (25mm) 37mm | (25mm) 37mm | 25mm 37mm |
| Pore Size (circle) | TEM- .45 (PCM- 0.8) | TEM- .45 (PCM- 0.8) | TEM- .45 PCM- 0.8 |
| Flow Meter Type (circle) | (Rotometer) DryCal NA | (Rotometer) DryCal NA | Rotometer DryCal NA |
| Pump ID Number | 812159 | 812157 | |
| Flow Meter ID No. | 1360 | 1360 | |
| Start Date | 8-13-03 (1799 l) | 8-13-03 (1789 l) | |
| Start Time | 0839 | 0843 | |
| Start Flow (L/min) | 4.6 | 4.6 | |
| Stop Date | 8-13-03 | 8-13-03 | |
| Stop Time | [illegible] 15:10 | 15:12 | |
| Stop Flow (L/min) | 4.6 | 4.6 | |
| Pump fault? (circle) | (No) Yes NA | (No) Yes NA | No Yes NA |
| MET Station onsite? | (No) Yes NA | (No) Yes NA | No Yes NA |
| Pre/Post: (circle) | Pre (Post) Clear<br>2nd Clear 3rd Clear NA | Pre (Post) Clear<br>2nd Clear 3rd Clear NA | Pre Post Clear<br>2nd Clear 3rd Clear NA |
| Field Comments | | | |
| QC (Field Team) ____<br>Entered (LFO) ____ | Volpe:<br>Entered ____ Validated ____ | Volpe:<br>Entered ____ Validated ____ | Volpe:<br>Entered ____ Validated ____ |

**EMSL Analytical, Inc.**
107 West 4th Street, Libby, MT 59923
Phone: (406) 293-9066 Fax: Email: mobileasbestoslab@emsl.com

EMSL

| | | | |
|---|---|---|---|
| Attn: | Tanya Drake<br>EMR, Inc.<br>2500 39th Avenue NE<br>Suite 220<br>Minneapolis, MN 55421 | Customer ID: | EMR153A |
| | | Customer PO: | |
| | | Received: | 08/14/03 10:45 AM |
| Fax: | (612) 789-2689 Phone: (612) 789-2642 | EMSL Order: | 270300888 |
| Project: | BNSF Libby , MT Railyard<br>5539.003-1 | EMSL Project ID: | |
| | | Analysis Date: | 8/14/2003 |

## Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Final Rule (AHERA)

| Sample | Volume (Liters) | Area Analyzed (mm²) | Non Asb | Asbestos Type(s) | # Structures ≥ 0.5μ < 5 | # Structures ≥ 5μ | Analytical Sensitivity (S/cc) | Asbestos Concentration (S/mm²) | Asbestos Concentration (S/cc) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| E1-02001<br>270300888-0001 | 1844.00 | 0.0500 | 0 | None Detected | | | 0.0042 | <20.00 | <0.0042 | |
| E1-02002<br>270300888-0002 | 1852.00 | 0.0500 | 0 | None Detected | | | 0.0042 | <20.00 | <0.0042 | |
| E1-02003<br>270300888-0003 | 2165.00 | 0.0500 | 0 | None Detected | | | 0.0036 | <20.00 | <0.0036 | |
| E1-02004<br>270300888-0004 | 1799.00 | 0.0500 | 0 | None Detected | | | 0.0043 | <20.00 | <0.0043 | |
| E1-02005<br>270300888-0005 | 1769.00 | 0.0500 | 0 | None Detected | | | 0.0043 | <20.00 | <0.0043 | |

Analyst(s)

*Ron Mahoney (5)*

or other approved signatory

Disclaimers: The laboratory is not responsible for data reported in structures/cc, which is dependent on volume collected by non-laboratory personnel. This lab is only responsible for data reported in structures/mm². This report may not be reproduced, except in full, without written approval by EMSL. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the samples reported above. Quality control data (including 95% confidence limits and laboratory and analysts' accuracy and precision) is available upon request. As per 40 CFR 763, the initial screening test may not be applied to samples with collected volumes of <1200 liters.
Accredited for NVLAP PLM/TEM 200491-0

EMA HERA-1

THIS IS THE LAST PAGE OF THE REPORT.

**EMSL Analytical, Inc.** **Asbestos**

# CHAIN OF CUSTODY

Revised January 1, 2000

270300885

PLM NIOSH 9002

EMSL Rep:

Your Company Name: EMR, Inc.

Street: 2509 152nd AVE NE Suite E

Box #:

City/State: Redmond Zip: WA 98052

Phone Results to:

Name: David Wescott

Telephone #: 206 890-4181

Project Name/Number: BNSF Railyard 5539.003-1

Bill to: EMR

Street: 2500 39th AVE NE Suite #20

City/State: Minneapolis MN Zip: 55421

Fax Results to:

Name: Tanya Drake

Fax #: (612) 789-7689

Purchase Order #:

**MATRIX**

| | | | | | | |
|---|---|---|---|---|---|---|
| ☐ Air | ☒ Soil | ☐ Micro-Vac | ☐ 3 hrs | ☐ 6 Hours | ☐ Same Day or 12 Hours* | ☒ 24 Hours (1 day) |
| ☐ Bulk | ☐ Drinking Water | | ☐ 48 Hours (2 days) | ☐ 72 Hours (3 days) | ☐ 96 Hours (4 days) | ☐ 120 Hours (5 Days) |
| ☐ Wipe | ☐ Wastewater | | ☐ 144+ hours (6-10 Days) | | | |

**TURNAROUND**

TEM AIR, 3 hours, 6 hours, Please call ahead to schedule. There is a premium charge for 3-hour tat; please call 1-800-220-3675 for price prior to sending samples. You will be asked to sign an authorization form for this service.

*12 hours (must arrive by 11:00 a.m Mon - Fri.), Please Refer to Price Quote

**PCM - Air**
- ☐ NIOSH 7400(A) Issue 2: August 1994
- ☐ OSHA w/ TWA
- ☐ Other:

**TEM Air**
- ☐ AHERA 40 CFR, Part 763 Subpart E
- ☐ NIOSH 7402 Issue 2
- ☐ EPA Level II

**TEM Water**
- ☐ EPA 100.1
- ☐ EPA 100.2
- ☐ NYS 198.2

**PLM - Bulk**
- ☐ EPA 600/R-93/116
- ☐ EPA Point Count
- ☐ NYS Stratified Point Count
- ☐ PLM NOB (Gravimetric) NYS 198.1
- ☒ NIOSH 9002
- ☐ EMSL Standard Addition

**TEM Bulk**
- ☐ Drop Mount (Qualitative)
- ☐ Chatfield SOP – 1988-02
- ☐ TEM NOB (Gravimetric) NYS 198.4
- ☐ EMSL Standard Addition

**TEM Microvac/Wipe**
- ☐ ASTM D 5755-95 quantitative
- ☐ Wipe Qualitative

**XRD**
- ☐ Asbestos
- ☐ Silica NIOSH 7500

**SEM Air or Bulk**
- ☐ Qualitative
- ☐ Quantitative

**PLM Soil**
- ☐ EPA Protocol Qualitative
- ☐ EPA Protocol Quantitative
- ☐ EMSL MSD 9000 Method fibers/gram

**OTHER** LIBBY AMPHIBOLE
- ☒ METHOD 9002 ISSUE 2

Client Sample # (s): T3-00001 - T4-00001 Total Samples #: 2

Relinquished: [signature] Date: 8-13-03 Time:

Received: R.K. Mahony Date: 8/13/03 Time: 1547

Page 1 of 1

**EMSL Analytical, Inc.** **Asbestos**

# CHAIN OF CUSTODY

Revised January 1, 2000

| SAMPLE NUMBER | SAMPLE DESCRIPTION/LOCATION | VOLUME (If Applicable) |
|---|---|---|
| T3- 00001 | SOIL ALONG EDGE OF TIE - FROG BETWEEN TRACKS 3 & 4 | |
| T4- 00001 | SOIL / ROCK BETWEEN TIES (RED) | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

RK Malony EMSL 8/13/03

Page ___ of ___

Sheet No.: BNSF-S- 000001

**BNSF**

**LIBBY, MONTANA FIELD SAMPLE DATA SHEET**

# SOIL-LIKE MATERIALS

Scenario No.: NA Field Logbook No: 1 Page No: 39 Sampling Date: 8-13-03

Address: BNSF RAILYARD Owner/Tenant: BNSF

Business Name: BNSF

Land Use: Residential School Commercial Mining Roadway Other ( INDUSTRIAL

Sampling Team: CDM MACTEC Other BNSF Name(s): EMR

| Data Item | Sample 1 | Sample 2 | Sample 3 |
|---|---|---|---|
| Index ID | T3- 00001 | T4- 00001 | |
| Location ID | SP- 122351 | SP- 122352 | |
| Sample Group | PROPERTY | PROPERTY | |
| Location Description | GPS: LAT = 48.39417° LONG = 115.54572° FROG JUNCTION TRACKS 3 & 4 | GPS LAT = 48.39417° LONG = 115.54572° FROG JUNCTION TRACKS 3 & 4 | |
| Category (circle) | (FS) FD ____ | (FS) FD ____ | FS FD ____ |
| Matrix Type (circle) | Mining Waste Subsurface Soil >6" (Surface Soil) 0-6" Fill Other ____ | Mining Waste Subsurface Soil (Surface Soil) Fill Other ____ | Mining Waste Subsurface Soil Surface Soil Fill Other ____ |
| Type (circle) | (Grab) Comp. # subsamples ____ | (Grab) Comp. # subsamples ____ | Grab Comp. # subsamples ____ |
| Sample Time | 1400 | 1405 | |
| Top Depth (in.) | 3" | 3" | |
| Bottom Depth (in.) | 6" | 6" | |
| Map Location | — | — | |
| Field Comments | SOIL: ALONG EDGE OF RR TIE. Brown | RED CRUSHED ROCK/ SOIL ON OPPOSITE SIDE OF TIE | |
| QC (Field Team) ____ Entered (LFO) ____ | Volpe: Entered ____ Validated ____ | Volpe: Entered ____ Validated ____ | Volpe: Entered ____ Validated ____ |

Vs080603

**EMSL Analytical, Inc.**
107 West 4th Street, Libby, MT 59923
Phone: (406) 293-9065 Fax: Email: mobileasbestosiam@emsl.com

EMSL

Attn: Tanya Drake
EMR, Inc.
2500 39th Avenue NE
Suite 220
Minneapolis, MN 55421
Fax: (612) 789-2689 Phone: (612) 789-2642
Project: BNSF Railyard
6539.003-1

Customer ID: EMRI53A
Customer PO:
Received: 08/13/03 3:47 PM

EMSL Order: 270300885
EMSL Project ID:

Analysis Date: 8/14/2003

## Polarized Light Microscopy (PLM) Performed on Soil Samples by NIOSH Method 9002, Issue 2

| Sample | Location | Appearance | Treatment | % Fibrous (Non-Asbestos) | % Non-Fibrous (Non-Asbestos) | % Asbestos Type |
|---|---|---|---|---|---|---|
| T3-00001<br>270300885-0001 | | Brown<br>Non-Fibrous<br>Heterogeneous | Teased | 2% Cellulose | 78% Non-fibrous (other)<br>20% Mica | None Detected |
| T4-00001<br>270300885-0002 | | Brown/Red<br>Non-Fibrous<br>Heterogeneous | Teased | | 90% Non-fibrous (other)<br>10% Mica | None Detected |

Analyst(s)

*Sharon Donald (2)*

Sharon Donald

or other approved signatory

Disclaimer: PLM has been known to miss asbestos in a small percentage of samples which contain asbestos. Thus negative PLM results cannot be guaranteed. EMSL suggests that samples reported as <1% or none detected be tested with either SEM or TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL. The above test must not be used by the client to claim product endorsement by NVLAP nor any agency of the United States Government. Laboratory is not responsible for the accuracy of results when requested to physically separate and analyze layered samples.

PLM-1



THIS IS THE LAST PAGE OF THE REPORT.

107 W. 4th Street
Libby MT. 59923
Phone 406.293.9066
Fax 406.293.7016

**EMSL Analytical, Inc.**

# Fax

| | | | |
|---|---|---|---|
| **To:** | Tanya Drake | **From:** | EMSL Mobile Asbestos Lab |
| **Fax:** | | **Pages:** | 8 |
| **Phone:** | | **Date:** | 15 August 2003 |
| **Re:** | | | |

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

• **Comments:**

**EMSL Analytical, Inc.**
107 West 4th Street, Libby, MT 59923
Phone: (406) 293-8066 Fax: Email: mobileasbestoslab@emsl.com

EMSL

Attn: Tanya Drake
EMR, Inc.
2500 39th Avenue NE
Suite 220
Minneapolis, MN 55421
Fax: (612) 789-2689 Phone: (612) 789-2642
Project: BNSF Libby,MT Railyard
6539.003-1

Customer ID: EMRI53A
Customer PO:
Received: 08/15/03 10:46 AM

EMSL Order: 270300895
EMSL Project ID: BNSF Libby, MT Railyard
Analysis Date: 8/15/2003

## Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Final Rule (AHERA)

| Sample | Volume (Liters) | Area Analyzed (mm²) | Non Asb | Asbestos Type(s) | # Structures ≥ 0.5µ < 5 | # Structures ≥ 5µ | Analytical Sensitivity (S/cc) | Asbestos Concentration (S/cm³) | Asbestos Concentration (S/cc) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| E1-03001<br>270300895-0001 | 2383.00 | 0.0500 | 0 | L. Amphibole | | 1 | 0.0032 | 20.00 | 0.0032 | |
| E1-03002<br>270300895-0002 | 2382.00 | 0.0500 | 0 | None Detected | | | 0.0032 | <20.00 | <0.0032 | |
| E1-03003<br>270300895-0003 | 2374.00 | 0.0500 | 0 | None Detected | | | 0.0032 | <20.00 | <0.0032 | |
| E1-03004<br>270300895-0004 | 2568.00 | 0.0500 | 0 | None Detected | | | 0.0030 | <20.00 | <0.0030 | |
| E1-03005<br>270300895-0005 | 2456.00 | 0.0500 | 0 | None Detected | | | 0.0031 | <20.00 | <0.0031 | |
| BN-00025<br>270300895-0006 | 492.00 | 0.1250 | 0 | None Detected | | | 0.0063 | <8.00 | <0.0063 | Volume is below recommended limit for method. |
| BN-00029<br>270300895-0007 | 236.00 | 0.1250 | 0 | None Detected | | | 0.0131 | <8.00 | <0.0131 | Volume is below recommended limit for method. |
| BN-00032<br>270300895-0008 | 580.00 | 0.1250 | 0 | None Detected | | | 0.0053 | <8.00 | <0.0053 | Volume is below recommended limit for method. |
| BN-00033<br>270300895-0009 | 273.00 | 0.1250 | 0 | None Detected | | | 0.0113 | <8.00 | <0.0113 | Volume is below recommended limit for method. |

Analyst(s)
*Ron Mahoney (9)*

or other approved signatory

Disclaimers: The laboratory is not responsible for data reported in structures/cc, which is dependent on volume collected by non-laboratory personnel. This lab is only responsible for data reported in structures/mm². This report may not be reproduced, except in full, without written approval by EMSL. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the samples reported above. Quality control data (including 95% confidence limits and laboratory and analyst accuracy and precision) is available upon request. As per 40 CFR 763, the initial screening test may not be applied to samples with collected volumes of <1200 liters.
Accredited for NVLAP PLM/TEM #200491-0



THIS IS THE LAST PAGE OF THE REPORT.

**EMSL Analytical, Inc.** **Asbestos**

# CHAIN OF CUSTODY

Revised January 1, 2000

270300895

**EMSL Rep:**

| | | | |
|---|---|---|---|
| **Your Company Name:** | EMR | **Bill to:** | EMR |
| **Street:** | 2600 39th Ave NE Ste 220 | **Street:** | 2600 39th Ave NE Suite 220 |
| **Box #:** | | | |
| **City/State:** | Minneapolis, MN Zip: 55421 | **City/State:** | Minneapolis, MN Zip: 55421 |
| **Phone Results to:** | | **Fax Results to:** | |
| **Name:** | Tanya Drake | **Name:** | Tanya Drake |
| **Telephone #:** | (612) 789-2642 | **Fax #:** | (612) 789-2689 |
| **Project Name/Number:** | BNSF Libby, MT Railyard #5539.003-1 | **Purchase Order #:** | |

**MATRIX**

| | | | |
|---|---|---|---|
| ☒ Air | ☐ Soil | ☐ Micro-Vac | |
| ☐ Bulk | ☐ Drinking Water | | |
| ☐ Wipe | ☐ Wastewater | | |

**TURNAROUND**

| | | | | |
|---|---|---|---|---|
| ☐ 3 hrs | ☐ 6 Hours | ☐ Same Day or 12 Hours* | ☒ 24 Hours (1 day) |
| ☐ 48 Hours (2 days) | ☐ 72 Hours (3 days) | ☐ 96 Hours (4 days) | ☐ 120 Hours (5 Days) |
| ☐ 144+ hours (6-10 Days) | | | |

TEM AIR, 3 hours, 6 hours, Please call ahead to schedule. There is a premium charge for 3-hour tat; please call 1-800-220-3675 for price prior to sending samples. You will be asked to sign an authorization form for this service.
*12 hours (must arrive by 11:00 a.m Mon - Fri.), Please Refer to Price Quote

**PCM - Air**
- ☐ NIOSH 7400(A) Issue 2: August 1994
- ☐ OSHA w/ TWA
- ☐ Other:

**PLM - Bulk**
- ☐ EPA 600/R-93/116
- ☐ EPA Point Count
- ☐ NYS Stratified Point Count
- ☐ PLM NOB (Gravimetric) NYS 198.1
- ☐ NIOSH 9002
- ☐ EMSL Standard Addition

**SEM Air or Bulk**
- ☐ Qualitative
- ☐ Quantitative

**TEM Air**
- ☒ AHERA 40 CFR, Part 763 Subpart E
- ☐ NIOSH 7402 Issue 2
- ☐ EPA Level II

**TEM Bulk**
- ☐ Drop Mount (Qualitative)
- ☐ Chatfield SOP – 1988-02
- ☐ TEM NOB (Gravimetric) NYS 198.4
- ☐ EMSL Standard Addition

**PLM Soil**
- ☐ EPA Protocol Qualitative
- ☐ EPA Protocol Quantitative
- ☐ EMSL MSD 9000 Method fibers/gram

**TEM Water**
- ☐ EPA 100.1
- ☐ EPA 100.2
- ☐ NYS 198.2

**TEM Microvac/Wipe**
- ☐ ASTM D 5755-95 quantitative
- ☐ Wipe Qualitative

**XRD**
- ☐ Asbestos
- ☐ Silica NIOSH 7500

**OTHER**
- ☐

Client Sample # (s) EI-03001 thru EI-03005 - BN-00025 BN-00029 BN-00032 BN-00033 Total Samples #: 9

Relinquished: [signature] Date: 8/15/03 Time: 10:30am

Received: [signature] EMSL Date: 8-15-03 Time: 10:30am

Page 1 of 1

# BNSF
# LIBBY, MONTANA FIELD SAMPLE DATA SHEET
# STATIONARY AIR

Scenario No.: NA Field Logbook No: 1 Page No: 41 Sampling Date: 8-14-03

Address: BNSF Libby Railyard Owner/Tenant: BNSF

Business Name: BNSF

Land Use: Residential School Commercial Mining Roadway (Other) (Industrial)

Sampling Team: MACTEC CDM (Other) BNSF Name(s): Scott Rhen

| Data Item | Cassette 1 | Cassette 2 | Cassette 3 |
|---|---|---|---|
| Index ID | E1- 03001 ✓ | E1- 03002 ✓ | E1- 03003 ✓ |
| Location ID | AD00739 | AD00739 | AD00739 |
| Sample Group | Property | Property | Property |
| Location Description | SW side of exclusion zone N 48.39429 W 115.54607 | NW side of exclusion zone N 48.39441 W 115.54604 | SE side of exclusion zone N 48.39424 W 115.54588 |
| Category (circle) | (FS) Blank Rep____ | (FS) Blank Rep____ | (FS) Blank Rep____ |
| Matrix Type (circle) | Indoor (Outdoor) NA | Indoor (Outdoor) NA | Indoor (Outdoor) NA |
| Filter Diameter (circle) | (25mm) 37mm | (25mm) 37mm | (25mm) 37mm |
| Pore Size (circle) | TEM- .45 (PCM- 0.8) | TEM- .45 (PCM- 0.8) | TEM- .45 (PCM- 0.8) |
| Flow Meter Type (circle) | (Rotometer) DryCal NA | (Rotometer) DryCal NA | (Rotometer) DryCal NA |
| Pump ID Number | 812157 | 812078 | 812154 |
| Flow Meter ID No. | 1360 | 1360 | 1360 |
| Start Date | 8/14/03 | 8/14/03 | 8/14/03 |
| Start Time | 0640 | 0638 | 0644 |
| Start Flow (L/min) | 4.6 | 6.0 | 4.6 |
| Stop Date | 8-14-03 | 8-14-03 | 8-14-03 |
| Stop Time | 1518 | 1315 | 1520 |
| Stop Flow (L/min) | 4.6 | 6.0 | 4.6 |
| Pump fault? (circle) | (No) Yes NA | (No) Yes NA | (No) Yes NA |
| MET Station onsite? | (No) Yes NA | (No) Yes NA | (No) Yes NA |
| Pre/Post (circle) | Pre (Post) Clear 2nd Clear 3rd Clear NA | Pre (Post) Clear 2nd Clear 3rd Clear NA | Pre (Post) Clear 2nd Clear 3rd Clear NA |
| Field Comments | Morning clear 50° wind ESE 0-5mph Total minutes 518 Volume 2383 l | Afternoon clear 95° wind ESE 0-5mph Total minutes 382 Volume 2382 l | Total minutes 516 Volume 2374 |
| QC (Field Team) ____ Entered (LFO) ____ | Volpe: Entered ____ Validated ____ | Volpe: Entered ____ Validated ____ | Volpe: Entered ____ Validated ____ |