To: Ross Vellacott
Subject: RE: NMet Cliffs Erie 2009 – SDEIS Citation Document

From: Johnson, Bill H (DNR) [mailto:bill.johnson@state.mn.us]
Sent: Thursday, October 03, 2013 1:41 PM
To: Ross Vellacott
Cc: Fay, Lisa (DNR)
Subject: FW: NMet Cliffs Erie 2009 – SDEIS Citation Document

Ross, attached please find a MPCA database spreadsheet for use in the SDEIS.

Please use this email as the official transmittal cover message for sourcing the information.

Thanks. Bill J.

Bill Johnson, Mining Section Lead
Environmental Policy & Review Unit
MDNR Division of Ecological & Water Resources, Box 25
500 Lafayette Road
St. Paul, MN 55155
651-259-5126
bill.johnson@state.mn.us

From: Robin, Jim (MPCA)
Sent: Thursday, October 03, 2013 1:36 PM
To: Johnson, Bill H (DNR)
Cc: Carlson, Erik (MPCA); Fay, Lisa (DNR)
Subject: NMet Cliffs Erie 2009 – SDEIS Citation Document

Bill, as requested by MDNR attached please find a MPCA database spreadsheet that summarizes monitoring of the former LTVSMC tailings basin in 2009. These results are from a Cliffs Erie report submitted to the agency as part of ongoing MPCA regulatory oversight of the facility.

James E. Robin, PE
Metallic Mining Sector
Minnesota Pollution Control Agency
Telephone 651-757-2739

Minnesota Pollution Control Agency

CLIFFS ERIE - TAILINGS BASIN MONITORING

SVOC / VOC Reporting Limits

Analyte	RL (ug/L)
1,1,1,2-Tetrachloroethane	<1
1,1,1-Trichloroethane	<1
1,1,2,2-Tetrachloroethane	<1
1,1,2-Trichloroethane	<1
1,1,2-Trichlorotrifluoroethane	<1
1,1-Dichloroeethane	<1
1,1-Dichloroethylene	<1
1,1-Dichloropropene	<1
1,2,3-Trichlorobenzene	<2
1,2,3-Trichloropropane	<2
1,2,4-Trichlorobenzene	<2
1,2,4-Trimethylbenzene	<1
1,2-Dibromo-3-chloropropane	<2
1,2-Dibromoethane	<1
1,2-Dichlorobenzene	<1
1,2-Dichloropropane	<2
1,3,5-Trimethylbenzene	<1
1,3-Dichlorobenzene	<1
1,3-Dichloropropane	<1
1,4-Dichlorobenzene	<1
2,2-Dichloropropane	<1
2-Chlorotoluene	<1
4-Chlorotoluene	<1
Acetone	<20
Ally Chloride	<1
Benzene	<1
Bromobenzene	<1
Bromochloromethane	<1
Bromodichloromethane	<1
Bromoform	<1
Bromomethane	<2

Carbon Tetrachloride	<1
Chlorobenzene	<1
Chloroethane	<1
Chloroform	<1
Chloromethane	<1
Cis-1,2-Dichloromethane	<1
Cis-1,3-Dichloropropene	<1
Dibromochloromethane	<1
Dibromomethane	<1
Dichlorodifluoromethane	<2
Dichlorofluoromethane	<1
Ethyl Benzene	<1
Ethyl Ether	<2
Hexachlorobutadiene	<2
Isopropylbenzene	<1
Methyl Ethyl Ketone	<10
Methyl Isobutyl Ketone	<10
Methyl Tert-butyl Ether	<1
Methylene Chloride	<1
Napthalene	<2
n-Butylbenzene	<1
n-Propylbenzene	<1
p-Isopropyltoluene	<1
sec-Butylbenzene	<1
Styrene	<1
tert-Butylbenzene	<1
Tetrachloroethylene	<1
Tetrahydrofuran	<5
Toluene	<1
Trans-1,2-Dichloroethylene	<1
Trans-1,3-Dichloropropene	<1
Trichloroethylene	<1
Trichlorofluoromethane	<2
Vinyl Chloride	<1
Xylene, M&P	<2
Xylene, O	<1

CLIFFS ERIE - TAILINGS BASIN MONITORING

SURFACE WATER SAMPLES - May 4-5, 2009

Sample No.		350163	350164	350165	350166	350434	350445	350446
Sample Loc. (see notes)	**Units**	**SD001**	**SD002**	**SD006**	**SD026**	**WS011**	**SD004**	**SD005**
Al	ug/L	41	<25	44.2	<25	<25	<25	<25
Sb	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
As	ug/L	<2	<2	<2	<2	<2	<2	3
Ba	ug/L	19.4	85.5	11.9	31.8	40	28.1	33.6
Be	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
B	ug/L	242	271	193	296	322	423	494
Cd	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cr	ug/L	<2	<2	<2	<2	<1	<1	<1
Co	ug/L	<2	<2	<2	3.16	2.9	0.84	4.4
Cu	ug/L	<2	<2	<2	<2	1	1.1	1.1
Fe	ug/L	221	278	248	1500	575	7010	6850
Pb	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Li	ug/L	<10	<10	13.6	20.1	<40	30.6	36.2
Mn	ug/L	35.4	405	61.7	3830	755	487	601
Mo	ug/L	15.6	17.2	18.2	44.6	14.6	17.6	53.2
Ni	ug/L	<2	<2	<2	<2	6.3	3.4	5.1
K	mg/L	5.18	7.09	7.75	9.81	10	8.28	12.9
Se	ug/L	<1	<1	<1	<1	<1	<1	<1
Ag	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Na	mg/L	25	64.6	39.4	56.6	54.1	52.3	62
Sr	ug/L	215	302	233	341	605	595	522
Tl	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sn	ug/L	<20	<20	<20	<20	<0.5	<0.5	<0.5
Ti	ug/L	<10	<10	<10	<10	<10	<10	<10
V	ug/L	<10	<10	<10	<10	<10	<10	<10
Zn	ug/L	<25	<25	<25	<25	<6	<6	<6
DRO	mg/L	<0.09	<0.09	<0.09	<0.09	<0.09	<0.1	<0.1
GRO	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PCB 1016	ug/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
PCB 1221	ug/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
PCB 1232	ug/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
PCB 1242	ug/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
PCB 1248	ug/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
PCB 1254	ug/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
PCB 1260	ug/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
pH	su	7.55	7.59	7.92	7.22	7.83	7.27	7.36
Sp Cond	umho	652	1008	795	941	1870	1769	1865
TOC	mg/L	8	6.1	5.4	2.8	4.4	3.3	1.3
Alk	mg/L	103	388	269	492	638	631	598
BOD	mg/L	<2.4	<2.4	<2.4	<2.4	<2.4	<3	<12
Br	mg/L	0.16	0.18	0.12	0.16	<0.1	0.18	0.19
Chl	mg/L	12.5	16.5	9.92	14.2	22.8	18.8	20.1
COD	mg/L	21.3	15.4	17.6	1.4	14	12.7	<10
Colour	Pt/Co Units	35	30	15	30	15	35	35
Fecal	cfu/100 ml	<2	<2	2	<2	<2	<2	<2
F	mg/L	0.85	1.3	1.33	2.53	1.6	1.17	1.98
N-Amine	mg/L	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
N-Amm	mg/L	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	0.14
N-NO3=NO2	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-T. Kjel	mg/L	0.84	0.71	0.53	0.53	0.52	0.63	<0.5
N-T. Org	mg/L	0.84	0.71	0.53	<0.5	0.52	0.63	<0.5
P	mg/L	0.011	0.029	0.005	0.009	0.006	0.023	0.008
TDS	mg/L	392	590	509	759	1280	1170	1250
SO4	mg/L	124	145	154	208	490	450	471
Sulfide	mg/L	<1	<1	<1	<1	<1	<1	<1
Surfactants	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Fiber-Amb	mil fibres/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Fiber-Amph	mil fibres/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Fiber-Chrys	mil fibres/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Fiber-Non Amph/Chrsy	mil fibres/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Fibers-Tot	mil fibres/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SVOC / VOC	ug/L	all <RL	all <RL	all <RL	all <RL	all <RL	all <RL	all <RL

NOTES:

SD001 - Sampled likely diluted seep water from SD001; no undiluted seep water present in this area

SD002 - Sampled likely diluted seep water from SD002; no undiluted seep water present in this area

SD006 - Sampled 'undiluted water' from the Emergency Basin T-culvert approximately 0.25 miles upstream of SD006 (wetland area between T-culvert and SD006)

SD026 - Sampled 'undiluted seep water' at Tailings Basin Seep #32 instead of SD026 (large wetland between Seep #32 and SD026)

WS011 - Sampled 'undiluted seep water' at Emergency Basin inflow. Sampled at earliest point downstream of WS011 and WS012 where flow was high enough to sample

SD004 - Sampled 'undiluted seep water' from Seep #20 instead of SD004 since SD004 had no flow

SD005 - Sampled 'undiluted seep water' at Seep #24 instead of SD005 since SD005 had no flow

CLIFFS ERIE - TAILINGS BASIN MONITORING

GROUND WATER SAMPLES - May 6-7, 2009

Sample No.		350795	350799	350806	350809	350811	351073
		350797	350800	350807	350810	350812	351074
Sample Loc.	**Units**	**GW001**	**GW002**	**GW006**	**GW007**	**GW008**	**GW005**
pH	su	7.15	7.16	7.58	7.72	7.62	8.47
Sp. Cond.	uS/cm	863	87	1157	883	230	885
Turbidity	NTU	112	471	1	1	2	165
D.O.	mg/L	2.72	1.16	0.98	1.63	2.93	1.39
Temp.	*C	3.7	11.9	9.9	6.5	5.3	10.7
Eh	mV	412	317	371	5	468	235
D. Al	ug/L	<25	215	<25	<25	<25	30.1
D. Sb	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.5
D. As	ug/L	<2	<2	2.2	2.4	<2	<2
D. Cd	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	0.3
D. Cr	ug/L	<1	<1	<1	<1	<1	<1
D. Co	ug/L	0.32	<0.2	2.7	0.86	<0.2	0.4
D. Cu	ug/L	1.3	3.7	1	<0.7	<0.7	4.1
D. Fe	ug/L	9440	195	2010	120	<50	107
D. Pb	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	1.2
D. Li	ug/L	<10	<10	<10	17.7	<10	26.6
D. Ni	ug/L	1.9	1.2	4.5	1.8	2.6	6.3
D. K	mg/L	3.41	0.36	11.9	7.48	1.36	14.9
D. Se	ug/L	<1	<1	<1	<1	<1	<1
D. Ag	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
D. Na	mg/L	49.8	<2	54.7	46	4.56	105
D. Sr	ug/L	246	36.8	650	316	73.7	310
D. Tl	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
D. V	ug/L	<10	<10	<10	<10	<10	<10
D. Zn	ug/L	11.4	12.4	6.5	6.2	<6	33.6
DRO	mg/L	<0.09	<0.09	<0.09	<0.09	<0.09	0.2
GRO	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	ug/L	<5.59	<5.78	<5.18	<5.1	<5.26	<5.71
N-Amine	mg/L	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
N-Amm	mg/L	<0.1	<0.1	0.1	<0.1	<0.1	0.14
N-NO3+NO2	mg/L	0.11	<0.1	<0.1	<0.1	<0.1	0.11
Sulfide	mg/L	<1	<1	<1	<1	<1	<1
Surfactants	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
VOCs	ug/L	all <RL	all <RL	all <RL	all <RL	all <RL	all <RL

CLIFFS NATURAL RESOURCES
Cliffs Erie LLC – Hoyt Lakes Plant
County Road 666, PO Box 900, Hoyt Lakes, MN 55750-0900
P 218.225.3127 F 218.225.3144 cliffsnaturalresources.com

June 9, 2009

Mr. Richard Clark
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

RE: **NPDES Permit No. MN0054089 (Tailings Basin)**
Cliffs Erie LLC
Hoyt Lakes, Minnesota 55750

Dear Mr. Clark:

Please accept this letter and enclosures as fulfillment of your request, submitted via Mr. Dave Skolasinski of Cliffs Natural Resources (see enclosure), for the collection of supplemental data for the 2005 Hoyt Lakes Tailings Basin Area Permit (MN0054089) reissuance application.

Surface water samples were collected on May 4th and 5th, 2009 by Mr. Tim Settimi and Mr. Kurt Doran of NTS, Inc. with the assistance of Mr. Kevin Pylka of PolyMet Mining on May 4th. Due to the requirement to sample undiluted seep water to the extent possible, *not all sample labels listed on the Chains of Custody (COC) and corresponding lab reports accurately describe the actual sampling location. Please refer to the following enclosures for clarification:*

- Table 1 – Surface Water Sample Summary
- Figure 1 – Surface Water Sample Locations Map
- Figure 2a – Site Photos
- Figure 2b – Additional Site Photos

Lab results are also enclosed for Chains of Custody #94826 and #94860.

On May 6th and 7th, 2009, groundwater wells were sampled by Mr. Bruce Sabetti and Mr. Shaun Troumbly of NTS, Inc. See enclosed for details:

- Table 2 – Groundwater Sample Summary
- Figure 3 – Groundwater Sample Locations Map
- Lab results for Chains of Custody #94934 and #94966

If you have questions, please contact Mr. Bruce Trebnick, NTS, Inc. at telephone number 218.742.1051.

Sincerely,

Craig Hartmann
Senior Staff Engineer
Cliffs Erie, LLC

CH/rkg
Encl.

cc: Letter & Reports
B.F. Trebnick (NTS, Inc. – Secondary Data Retention)
K.L. Pylka (PolyMet Mining, Inc.)

Letter Only
D.T. Cartella (CNR – Cleveland)
D.Z. Skolasinski (CNR – Duluth)
M.P. Mlinar (CNR – Northshore)

Cliffs Erie Tailings Basin Area NPDES Permit

MPCA Request For Supplemental Monitoring

Prepared by Dave Skolasinski

April 17, 2009

Cliffs Erie submitted an application during early 2005 for reissuance of the Hoyt Lakes Plant Site and Tailings Basin NPDES Permit MN0054089, which expired on November 30, 2005. The permit has been administratively continued since that time. Polymet Mining, which is in the process of purchasing the plant site and tailings basin area as part of its proposed copper-nickel mining project, is awaiting release of the draft project EIS from the DNR for public comment. The MPCA is addressing water quality matters related to the proposed project.

Questions have arisen regarding possible petroleum contamination associated with the tailings basin and certain areas of concern (AOCs) identified through the Voluntary Investigation and Cleanup (VIC) program in the vicinity of the tailings basin. This is due to concern resulting from possible past petroleum product spills and leaks in the vicinity of the tailings basin. It is also due to concern for petroleum product leaks from equipment that may have occurred in the concentrator during ore processing operations and flow of the product with tailings to the tailings basin. Also, during 2007 a petroleum contaminated soil land farm was established on the western cell of the tailings basin. The MPCA wishes to address this concern with regard to the Polymet EIS. Richard Clark, MPCA NPDES permit writer, contacted me on Friday April 10 to discuss this matter and to request that water samples be collected, analyzed, and submitted as supplemental data to the 2005 permit reissuance application. Details of his request are as follows:

Samples To Be Collected

- Collect one sample from each location of **undiluted seep water to the extent possible** (or collect it as close to the seep as possible) from the tailings basin to satisfy sampling in the vicinity of Outfalls SD-001, SD-002, SD-004, and SD-005.

- Collect one sample of **undiluted water** from the Emergency Basin overflow at the T-culvert or immediately upstream of the T-culvert if necessary to satisfy sampling in the vicinity of SD-006.

- Collect one sample of **undiluted tailings basin water** from tailings basin Cell 1E at the culvert outfall to satisfy sampling in the vicinity of SD-026.

- For seeps WS-011, WS-012, and WS-013, which flow to the Emergency Basin, choose the seep with the most flow and collect one sample of **undiluted seep water to the extent possible** from that seep.

- Collect one sample from each of the groundwater monitoring wells (GW-001, GW-002, GW-003, GW-004, GW-005, GW-006, GW-007, and GW-008).

    - Richard Clark indicated he was aware of well sampling that Barr Engineering was going to conduct for Polymet this spring. He suggested consideration be given to coordinating Barr's effort with that requested above as a possible cost savings for sample collection and analysis.

Sample Analysis

- All surface water and seep water samples are to be analyzed for the parameters specified in the current permit on page 46, Chapter 10 – Total Facility Requirements, Conditions 18.3.a-f, a copy of which is attached.

    - However, analysis is not required for radionuclides as specified in Condition 18.3.d (gross alpha particles, radium-226, radium-228, radon-222, and uranium).

- All groundwater samples are to be analyzed for the parameters specified in the current permit on page 46, Chapter 10 – Total Facility Requirements, Condition 18.4, a copy of which is attached.

    - However, analysis is not required for radionuclides (radium-226 and radium-228).

    - Add volatile organic carbon (VOC) to the list of analyses for the groundwater monitoring wells (GW-001 – GW-008).

Schedule And Submittal

- Samples are to be collected an analyzed in an expeditious manner, but not at shorter, higher-cost laboratory turn-around times. The water quality data is to be submitted to the MPCA in a one to two-month period from April 10 and as soon as the data is available from the laboratory. The data will be considered as supplemental data to the previously submitted application for renewal of the NPDES permit.

- The water quality data will be submitted to Richard Clark under a cover letter that will be signed by Craig Hartmann.

Distribution:

Craig Hartman – Cliffs Erie
Kevin Pylka – Polymet
Bruce Trebnick - NTS

WORKING COPY

STATE OF MINNESOTA

Minnesota Pollution Control Agency

National Pollutant Discharge Elimination System (NPDES) and State Disposal System (SDS) Permit MN0054089

PERMITTEE: LTV Steel Mining Company; Erie B Corporation; Erie I Corporation; YST Erie Corporation; Youngstown Erie Corporation; LTV Steel Company, Inc.

FACILITY NAME: Hoyt Lakes Tailings Basin Area

RECEIVING WATERS: Unnamed wetlands and creeks to Kaunonen Creek, Trimble Creek and the Embarrass River to Sabin and Wynne Lakes

CITY/TOWNSHIP: Hoyt Lakes; Waasa Township **COUNTY: St. Louis**

ISSUANCE DATE: May 4, 2001 **EXPIRATION DATE: November 30, 2005**

The state of Minnesota, on behalf of its citizens through the Minnesota Pollution Control Agency (MPCA), authorizes the Permittee to construct, install and operate a disposal system at the facility named above, and to discharge from this facility to the receiving waters named above, in accordance with the requirements of this permit.

The goal of this permit is to protect water quality according to Minnesota and U.S. statutes and rules, including Minn. Stat. chs. 115 and 116, Minn. R. chs. 7001, 7041, 7050, 7052 and 7060, and the U.S. Clean Water Act.

This permit is effective on the issuance date identified above, and supersedes the previous permit that was issued for this facility on June 25, 1986.

This permit expires at midnight on the expiration date identified above.

Signature: Ann Foss

Ann Foss, Manager
North/South Major Facilities

for Karen A. Studders
Commissioner
Minnesota Pollution Control Agency

If you have questions on this permit, including the specific permit requirements, permit reporting or permit compliance status, please contact:

Minnesota Pollution Control Agency
North/South Major Facilities Section
520 Lafayette Road North
St. Paul, MN 55155-4194
Telephone: (651) 296-7162
Fax: (651) 297-8683
Telephone Device for Deaf (TTY): (651) 282-5332

Chapter 10. Total Facility Requirements

18. Permit Reissuance

18.2 The Permittee shall include analytical data as part of the application for reissuance of this permit. These analyses shall be done on individual samples taken during the twelve-month period before the reissuance application is submitted. The application shall identify the sampling date(s).

18.3 The permit application shall include analytical data for at least the following parameters at each of the individual outfalls SD001 through SD006:

a. biochemical oxygen demand, chemical oxygen demand, total organic carbon, gasoline range organics, diesel range organics, pyrene, fecal coliform, ammonia, temperature, amines;

b. fibers, color, nitrate-nitrite (as nitrogen), total organic nitrogen, total phosphorus, bromide, chloride, fluoride, sulfide (as sulfur), sulfate, surfactants, alkalinity, total dissolved solids;

c. aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, iron, lead, lithium, manganese, molybdenum, nickel, potassium, selenium, silver, sodium, strontium, thallium, tin, titanium, vanadium, zinc (all in total form) using atomic absorption (AA) furnace methods according to 40 CFR Part 136.3;

d. gross alpha particles, radium-226, radium-228, radon-222, uranium;

e. PCB-1016, PCB-1221, PCB-1232, PCB-1242, PCB-1248, PCB-1254, PCB-1260; and

f. a scan of constituents using EPA Methods 624 and 625, in 40 CFR Part 136. The Permittee shall identify, in addition to those pollutants noted in Methods 624 and 625 (Appendix D, Table II), the concentrations of at least ten of the most abundant constituents of the acid and base/neutral organic fractions shown to be present by peaks on the total ion plots (reconstructed gas chromatograms) within ten percent of the nearest internal standard. Identification shall be through the use of U.S. EPA/NIH computerized library of mass spectra, with visual confirmation and potential quantification.

18.4 The permit application shall include low-level detection analytical data for the following parameters at monitoring stations GW001 through GW008: aluminum, amines, antimony, arsenic, cadmium, chromium, cobalt, copper, iron, lead, lithium, nickel, potassium, radium-226, radium-228, selenium, silver, sodium, strontium, sulfide, thallium, vanadium, zinc (all in dissolved form), Eh, dissolved oxygen, nitrate-nitrite, ammonia, surfactants, gasoline range organics, diesel range organics and pyrene.

18.5 The Permittee shall include, as part of the application for reissuance of this permit:

a. an updated water balance for the facility; and

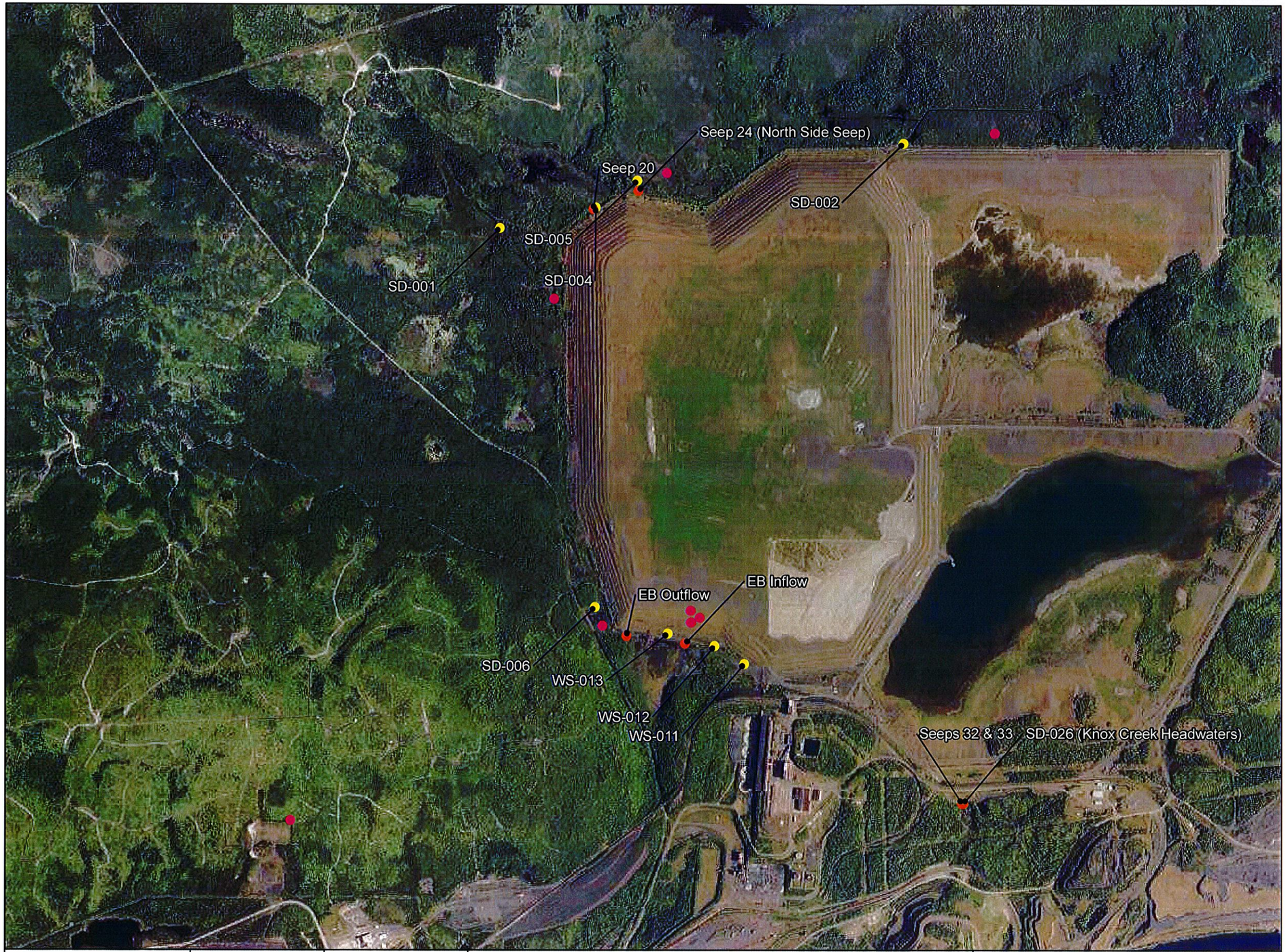
b. an updated Operating Plan for the tailings basin, including the Emergency Basin, for the next five years.

Table 1
Surface Water Sample Summary

SAMPLE LABEL	FIELD LOCATION	DATE	pH	SPECIFIC CONDUCTANCE	TEMPERATURE
SD-001	**SD-001**	4-May-09	7.55	652 µS/cm	6.9 C°
SAMPLE ID #: 350163		**COC #:** 94826			
Comments: Unable to sample "undiluted seep water" as there is no direct seep or seep ditch that flows to this area. This was sampled at the normal SD-001 NPDES sample location, which is a wetland channel.					
SD-002	**SD-002**	4-May-09	7.59	1008 µS/cm	10.3 C°
SAMPLE ID #: 350164		**COC #:** 94826			
Comments: Unable to sample "undiluted seep water" as there is no seep or seep ditch that flows unobstructed to this area. This was sampled at the normal SD-002 NPDES sample location, which is a wetland channel.					
SD-004	**Seep #20**	5-May-09	7.27	1769 µS/cm	6.5 C°
SAMPLE ID #: 350445		**COC #:** 94860			
Comments: Sampled "undiluted seep water" from this culvert as opposed to SD-004. SD-004 has recently stopped flowing and had no flow on this day. Seep #20 has been previously identified in annual seep inspections.					
SD-005	**Seep #24 - North Side Seep**	5-May-09	7.36	1865 µS/cm	5.9 C°
SAMPLE ID #: 350446		**COC #:** 94860			
Comments: Sampled "undiluted seep water" from the Seep #24 culvert as opposed to SD-005. SD-005 has not flowed in recent years. Seep #24 has been previously identified in annual seep inspections.					

Table 1
Surface Water Sample Summary

SAMPLE LABEL	FIELD LOCATION	DATE	pH	SPECIFIC CONDUCTANCE	TEMPERATURE
SD-006	**Outflow of T-Culvert at Emergency Basin**	4-May-09	7.92	795 µS/cm	10.6 C°
SAMPLE ID #: 350165		**COC #:** 94826			
Comments: Sampled from the T-culvert as requested. The T-culvert location is approximately a ¼ mile before SD-006 and there is a wetland area between the two locations. Please note the Emergency Basin collects not only seep water flowing into the north side of the Emergency Basin, but also overland runoff and waters from the east and south sides of the Emergency Basin.					
SD-026	**Seep #32 / 33**	4-May-09	7.22	941 µS/cm	8.2 C°
SAMPLE ID #: 350166		**COC #:** 94826			
Comments: A sample was collected of "undiluted tailings basin water" at Seep #32 instead of at SD-026 as there is a large wetland area between Seeps 32 / 33 and SD-026. The Seep #32 sample location is the best representation of undiluted seep water from the vicinity of tailings basin Cell 1E. Seep 32/33 has been previously identified in annual seep reports.					
WS011	**Emergency Basin Inflow**	5-May-09	7.83	1870 µS/cm	7.4 C°
SAMPLE ID #: 350434		**COC #:** 94860			
Comments: The Emergency Basin Inflow is a flow of water that includes flow from the direction of WS011 and from a seep that begins at this point. There was not enough seepage at the WS011 sample point or upstream from it to provide the necessary samples. The seeps that begin upstream of WS012 also did not provide enough flow to sample and do not make it to WS012 but infiltrate into the ditch bottom and may possibly daylight at the "Emergency Basin Inflow" spot as it is directly across the road. This Emergency Basin inflow point has been identified in previous annual seep reports.					



N

0 0.25 0.5 Miles

1:2000

Legend

- NPDES Groundwater Location
- Seep Location
- NPDES Location

Notes

2008 FSA Aerial Photography

Drawing File Path: P:/HoytLakeswork/...mxd	Drawn By: RKG Date: June 2009	Reviewed By: BFT Date: June 2009	**Project #: 7158H.08 Tailings Basin Permit Reissuance Sampling Hoyt Lakes, MN**	NTS, Inc. 526 Chestnut Street P.O. Box 1142 Virginia, MN 55792	Figure 1 Sample Locations — 1 Figure

1

2

3

4

Notes

1. SD-001
2. SD-002
3. SD-004
4. Seep 20 (Picture taken 8/6/2008)

Drawing File Path: P:/HoytLakeswork/...mxd	Drawn By: RKG Date: June 2009	Reviewed By: BFT Date: June 2009	**Project #: 7158H.08 Tailings Basin Permit Reissuance Sampling Hoyt Lakes, MN**	NTS, Inc. 526 Chestnut Street P.O. Box 1142 Virginia, MN 55792	Figure 2a Site Photographs	2a Figure

Notes

5. North Side Seep

6. Emergency Basin Outflow

7. Seep 32/33 (picture taken 8/6/2008)

8. Emergency Basin Inflow

Drawing File Path: P:/HoytLakeswork/...mxd	Drawn By: RKG Date: June 2009	Reviewed By: BFT Date: June 2009	**Project #: 7158H.08** **Tailings Basin Permit Reissuance Sampling** **PolyMet Mining, Inc.**	NTS, Inc. 526 Chestnut Street P.O. Box 1142 Virginia, MN 55792	Figure 2b Site Photographs **2b** Figure

315 CHESTNUT STREET * P.O. BOX 1142
VIRGINIA, MINNESOTA 55792
218-741-4290 * FAX 218-741-4291

Chain of Custody Record

COC#: 94826

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER: Kurt Dorn	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH:
PROJ. NO: 7158.08H	

LOG-IN	SAMPLE #	DESCRIPTION	COLLECTION: DATE	COLLECTION: TIME	MATRIX: LIQ	MATRIX: SOL	Filtered	TYPE & # CONTAINERS: General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH Field	Specific Conductance Field	Temperature Field	Flow Field	ANALYSIS:
350163	SD-001	NW seep ditch	4 May 09	0935									7.55	652	6.9	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*
350164	SD-002	NE seep ditch	4 May 09	0843									7.59	1008	10.3	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*
350165	SD-006	Culverts	4 May 09	1019									7.92	795	10.6	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*

Comments:

USE LOW REPORTING LIMIT METHODS
Samples due back to lab NO LATER THAN 2PM

* (See 40 CFR Part 136) Reference Pg. 46 of Permit #MN0054089 (Tailings Basin)

See attachments for all sampling and analysis details

RELINQUISHED BY:	DATE: 4-May-09	RECEIVED BY:	DATE:
Kurt Dorn	TIME: ~~1520~~ 1330		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:
RECEIVED FOR LAB BY: M Kosick		TEMP AT ARRIVAL: 4.7 °C	
DATE: 5-4-09	TIME: 15:30	REPORT DATE:	

315 CHESTNUT STREET * P.O. BOX 1142
VIRGINIA, MINNESOTA 55792
218-741-4290 * FAX 218-741-4291

Chain of Custody Record

COC#: 94826

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER: Kurt Doran	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH:
PROJ. NO: 7158.08H	

LOG-IN	SAMPLE #	DESCRIPTION	COLLECTION: DATE	COLLECTION: TIME	MATRIX: LIQ	MATRIX: SOL	Filtered	TYPE & # CONTAINERS: General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH Field	Specific Conductance Field	Temperature Field	Flow Field	ANALYSIS:
350166	SD-026	Mine Area SD	4 may 09	1139									7.22	941	8.2	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*
350167	Field Blank		4 may 09	1039									—	—	—	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*
350168	Duplicate		4 may 09	1031									—	—	—	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*

Comments:

USE LOW REPORTING LIMIT METHODS
Samples due back to lab NO LATER THAN 2PM

* (See 40 CFR Part 136) Reference Pg. 46 of Permit #MN0054089 (Tailings Basin)

See attachments for all sampling and analysis details

RELINQUISHED BY:	DATE: 4-May-09	RECEIVED BY:	DATE:
Kurt Doran	TIME: 1330		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:
RECEIVED FOR LAB BY: Mikoski		TEMP AT ARRIVAL: 4.7 °C	
DATE: 5-4-09	TIME: 13:30	REPORT DATE:	

315 CHESTNUT STREET * P.O. BOX 1142

VIRGINIA, MINNESOTA 55792

218-741-4290 * FAX 218-741-4291

Chain of Custody Record

Page: 3 of 3

COC#: 94826

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER: Kurt Dorn	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH:
PROJ. NO: 7158.08H	COLLECTION:

LOG-IN	SAMPLE #	DESCRIPTION	COLLECTION: DATE	COLLECTION: TIME	MATRIX: LIQ	MATRIX: SOL	Filtered	TYPE & # CONTAINERS: General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH	Specific Conductance	Temperature	Flow
													Field	Field	Field	Field
350169	Trip Blank		4 May 09	—									—	—	—	—

Comments:

USE LOW REPORTING LIMIT METHODS

Samples due back to lab NO LATER THAN 2PM

* (See 40 CFR Part 136) Reference Pg. 46 of Permit #MN0054089 (Tailings Basin)

See attachments for all sampling and analysis details

ANALYSIS:

Method 624 VOCs+TICs*, GRO

Pyrene is included in SVOC analysis

RELINQUISHED BY:	DATE: 4-May-09	RECEIVED BY:	DATE:
Kurt Dorn	TIME: ~~1530~~ 1330		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:
RECEIVED FOR LAB BY:		TEMP AT ARRIVAL: 4.7 °C	
DATE: 5-4-09	TIME: 13:30	REPORT DATE:	

SAMPLE SUMMARY

Northeast Technical Services
315 Chestnut Street
PO Box 1142
Virginia, MN 55792
Phone: 218-741-4290
Fax: 218-742-1010

Laboratory Results

MDH Certification: 027-137-157

NTS COC: 94826

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/9/2009
Rec'd Temperature: 4.7 °C

Approved by: _____
Terri Zeleznikar
Project Manager

Northeast Technical Services
Attn: Bruce Trebnick
526 Chestnut Street
Virginia, MN 55792

Sample Description	Sample ID	Sample Type	Matrix	Sample Date	Received Date
SD-001	350163	Grab	Aqueous	5/4/2009 09:35	5/4/2009 13:30
SD-002	350164	Grab	Aqueous	5/4/2009 08:43	5/4/2009 13:30
SD-006	350165	Grab	Aqueous	5/4/2009 10:19	5/4/2009 13:30
SD-026	350166	Grab	Aqueous	5/4/2009 11:39	5/4/2009 13:30
Field Blank	350167	Grab	Aqueous	5/4/2009 10:39	5/4/2009 13:30
Duplicate	350168	Grab	Aqueous	5/4/2009 10:31	5/4/2009 13:30
Trip Blank	350169	Grab	Aqueous	5/4/2009	5/4/2009 13:30

SAMPLE RESULTS

NTS Sample: 350163
Description: SD-001
Sample Date: 5/4/2009 9:35:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94826
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 4.7 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Aluminum	41	25	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:00	
Antimony	<0.5	0.5	µg/L	EPA 200.8		5/5/2009 21:20	
Arsenic	<2	2	µg/L	EPA 200.8		5/5/2009 21:20	
Barium	19.4	10	µg/L	EPA 200.7		5/12/2009 16:00	
Beryllium	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 21:20	
Boron	242	50	µg/L	EPA 200.7		5/12/2009	
Cadmium	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 21:20	
Chromium	<2	2	µg/L	EPA 200.8	6/4/2009	5/12/2009 16:00	
Cobalt	<2	2	µg/L	EPA 200.8	6/4/2009	5/12/2009 16:00	
Copper	<2	2	µg/L	EPA 200.8	6/4/2009	5/12/2009 16:00	
Iron	221	50	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:00	
Lead	<0.5	0.5	µg/L	EPA 200.8		5/5/2009 21:20	
Lithium	<10	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:00	
Manganese	35.4	10	µg/L	EPA 200.7		5/12/2009 16:00	
Molybdenum	15.6	5	µg/L	EPA 200.8	6/4/2009	5/12/2009 16:00	
Nickel	<2	2	µg/L	EPA 200.8	6/4/2009	5/12/2009 16:00	
Potassium	5.18	0.5	mg/L	EPA 200.7	5/6/2009	5/12/2009 16:02	
Selenium	<1	1	µg/L	EPA 200.8		5/5/2009 21:20	
Silver	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 21:20	
Sodium	25	2	mg/L	EPA 200.7	5/6/2009	5/12/2009 16:00	
Strontium	215	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:02	
Thallium	<0.4	0.4	µg/L	EPA 200.8		5/8/2009 19:52	
Tin	<20	20	µg/L	EPA 282.2		5/12/2009 16:00	
Titanium	<10	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:00	
Vanadium	<10	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:00	
Zinc	<25	25	µg/L	EPA 200.8	6/4/2009	5/12/2009 16:00	
DRO	<0.09	0.09	mg/L	WI(95) DRO	5/7/2009	5/8/2009 12:14	
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/8/2009 01:10	
Aroclor 1016	<0.3	0.3	µg/L	EPA 8082	5/8/2009	5/27/2009	
Aroclor 1221	<0.6	0.6	µg/L	EPA 8082		5/27/2009	
Aroclor 1232	<0.6	0.6	µg/L	EPA 8082		5/27/2009	
Aroclor 1242	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1248	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1254	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1260	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
TOC	8.0	1	mg/L	SM 5310 C-00		5/7/2009	
Alkalinity, Total	103	10	mg/L as CaCO3	EPA 310.1		5/12/2009	
BOD	<2.4	2.4	mg/L	SM 5210B		5/6/2009 07:43	z
Bromide	0.16	0.1	mg/L	EPA 300.0		5/22/2009 18:38	

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	Sample received more than six hours after collection. Fecal coliform bacteria results may not be valid.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.
z	D.O. depletion < 2 mg/L	

SAMPLE RESULTS

NTS Sample: 350163
Description: SD-001
Sample Date: 5/4/2009 9:35:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94826
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 4.7 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloride	12.5	0.5	mg/L	EPA 300.0		5/22/2009 18:38	
COD	21.3	10	mg/L	SM 5220D	5/7/2009	5/7/2009	
Color	35	5	Pt/Co Units	EPA 110.2		5/5/2009	
Fecal Coliform Bacteria	<2	2	cfu/100 ml	SM 9222D	5/4/2009	5/4/2009 16:00	h
Fluoride	0.85	0.1	mg/L	EPA 300.0		5/22/2009 18:38	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/5/2009	
Nitrogen, Ammonia	<0.1	0.1	mg/L as N	EPA 350.1	5/5/2009	5/6/2009	
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/11/2009	
Nitrogen, Total Kjeldahl	0.84	0.5	mg/L as N	EPA 351.2	5/13/2009	5/14/2009	
Nitrogen, Total Organic (TON)	0.84	0.5	mg/L	EPA 350.1/351.2		6/5/2009	
Phosphorous, Total	0.011	0.004	mg/L as P	EPA 365.2	5/6/2009	5/7/2009	
Solids, Filterable (TDS)	392	10	mg/L	EPA 160.1		5/11/2009	
Sulfate	124	5	mg/L	EPA 300.0		5/22/2009 19:07	
Sulfide	<1	1	mg/L	SM 4500-S2 F-00		5/7/2009	S2
Ambiguous Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Amphibole Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Chrysotile Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Non-Amphibole, Non-Chrysotile F	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Total Fibers	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Surfactants	<0.03	0.03	mg/L	5540C		5/6/2009	S2
SVOC	See Report		µg/L	EPA 625		5/12/2009	S2
VOC	See Report		µg/L	EPA 624		5/6/2009	S2

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	Sample received more than six hours after collection. Fecal coliform bacteria results may not be valid.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.
z	D.O. depletion < 2 mg/L	

SAMPLE RESULTS

NTS Sample: 350164
Description: SD-002
Sample Date: 5/4/2009 8:43:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94826
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 4.7 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Aluminum	<25	25	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01	
Antimony	<0.5	0.5	µg/L	EPA 200.8		5/5/2009 21:25	
Arsenic	<2	2	µg/L	EPA 200.8		5/5/2009 21:25	
Barium	85.5	10	µg/L	EPA 200.7		5/12/2009 16:01	
Beryllium	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 21:25	
Boron	271	50	µg/L	EPA 200.7		5/12/2009	
Cadmium	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 21:25	
Chromium	<2	2	µg/L	EPA 200.8	6/4/2009	5/12/2009 16:01	
Cobalt	<2	2	µg/L	EPA 200.8	6/4/2009	5/12/2009 16:02	
Copper	<2	2	µg/L	EPA 200.8	6/4/2009	5/12/2009 16:01	
Iron	278	50	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01	
Lead	<0.5	0.5	µg/L	EPA 200.8		5/5/2009 21:25	
Lithium	<10	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01	
Manganese	405	10	µg/L	EPA 200.7		5/12/2009 16:01	
Molybdenum	17.2	5	µg/L	EPA 200.8	6/4/2009	5/12/2009 16:02	
Nickel	<2	2	µg/L	EPA 200.8	6/4/2009	5/12/2009 16:01	
Potassium	7.09	0.25	mg/L	EPA 200.7	5/6/2009	5/12/2009 16:01	
Selenium	<1	1	µg/L	EPA 200.8		5/5/2009 21:25	
Silver	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 21:25	
Sodium	64.6	2	mg/L	EPA 200.7	5/6/2009	5/12/2009 16:01	
Strontium	302	5	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01	
Thallium	<0.4	0.4	µg/L	EPA 200.8		5/5/2009 21:25	
Tin	<20	20	µg/L	EPA 282.2		5/12/2009 16:02	
Titanium	<10	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:02	
Vanadium	<10	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01	
Zinc	<25	25	µg/L	EPA 200.8	6/4/2009	5/12/2009 16:01	
DRO	<0.09	0.09	mg/L	WI(95) DRO	5/7/2009	5/8/2009 12:41	
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/8/2009 01:38	
Aroclor 1016	<0.3	0.3	µg/L	EPA 8082	5/8/2009	5/27/2009	
Aroclor 1221	<0.6	0.6	µg/L	EPA 8082		5/27/2009	
Aroclor 1232	<0.6	0.6	µg/L	EPA 8082		5/27/2009	
Aroclor 1242	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1248	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1254	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1260	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
TOC	6.1	1	mg/L	SM 5310 C-00		5/7/2009	
Alkalinity, Total	388	20	mg/L as CaCO3	EPA 310.1		5/7/2009	
BOD	<2.4	2.4	mg/L	SM 5210B		5/6/2009 07:43	z
Bromide	0.18	0.1	mg/L	EPA 300.0		5/19/2009	

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	Sample received more than six hours after collection. Fecal coliform bacteria results may not be valid.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.
z	D.O. depletion < 2 mg/L	

SAMPLE RESULTS

NTS Sample: 350164
Description: SD-002
Sample Date: 5/4/2009 8:43:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94826
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 4.7 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloride	16.5	0.5	mg/L	EPA 300.0		5/19/2009 17:36	
COD	15.4	10	mg/L	SM 5220D	5/7/2009	5/7/2009	
Color	30	5	Pt/Co Units	EPA 110.2		5/5/2009	
Fecal Coliform Bacteria	<2	2	cfu/100 ml	SM 9222D	5/4/2009	5/4/2009 16:00	h
Fluoride	1.3	0.1	mg/L	EPA 300.0		5/19/2009 17:36	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/5/2009	
Nitrogen, Ammonia	<0.1	0.1	mg/L as N	EPA 350.1	5/5/2009	5/6/2009	
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/11/2009	
Nitrogen, Total Kjeldahl	0.71	0.5	mg/L as N	EPA 351.2	5/13/2009	5/14/2009	
Nitrogen, Total Organic (TON)	0.71	0.5	mg/L	EPA 350.1/351.2		6/5/2009	
Phosphorous, Total	0.029	0.004	mg/L as P	EPA 365.2	5/6/2009	5/7/2009	
Solids, Filterable (TDS)	590	10	mg/L	EPA 160.1		5/11/2009	
Sulfate	145	2	mg/L	EPA 300.0		5/21/2009 11:31	
Sulfide	<1	1	mg/L	SM 4500-S2 F-00		5/7/2009	S2
Ambiguous Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Amphibole Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Chrysotile Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Non-Amphibole, Non-Chrysotile F	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Total Fibers	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Surfactants	<0.03	0.03	mg/L	5540C		5/6/2009	S2
SVOC	See Report		µg/L	EPA 625		5/12/2009	S2
VOC	See Report		µg/L	EPA 624		5/7/2009	S2

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	Sample received more than six hours after collection. Fecal coliform bacteria results may not be valid.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.
z	D.O. depletion < 2 mg/L	

SAMPLE RESULTS

NTS Sample: 350165
Description: SD-006
Sample Date: 5/4/2009 10:19:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94826

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 4.7 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Aluminum	44.2	25	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:03	
Antimony	<0.5	0.5	µg/L	EPA 200.8		5/5/2009 21:07	
Arsenic	<2	2	µg/L	EPA 200.8		5/5/2009 21:07	
Barium	11.9	10	µg/L	EPA 200.7		5/12/2009 16:03	
Beryllium	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 21:07	
Boron	193	50	µg/L	EPA 200.7		5/12/2009	
Cadmium	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 21:07	
Chromium	<2	2	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:03	
Cobalt	<2	2	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:03	
Copper	<2	2	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:03	
Iron	248	50	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:03	
Lead	<0.5	0.5	µg/L	EPA 200.8		5/5/2009 21:07	
Lithium	13.6	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:03	
Manganese	61.7	10	µg/L	EPA 200.7		5/12/2009 16:03	
Molybdenum	18.2	5	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:03	
Nickel	<2	2	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:03	
Potassium	7.75	0.25	mg/L	EPA 200.7	5/6/2009	5/12/2009 16:03	
Selenium	<1	1	µg/L	EPA 200.8		5/5/2009 21:07	
Silver	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 21:07	
Sodium	39.4	2	mg/L	EPA 200.7	5/6/2009	5/12/2009 16:03	
Strontium	233	5	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:03	
Thallium	<0.4	0.4	µg/L	EPA 200.8		5/5/2009 21:07	
Tin	<20	20	µg/L	EPA 282.2		5/12/2009 16:03	
Titanium	<10	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:03	
Vanadium	<10	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:03	
Zinc	<25	25	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:03	
DRO	<0.09	0.09	mg/L	WI(95) DRO	5/7/2009	5/8/2009 13:09	
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/8/2009 02:06	
Aroclor 1016	<0.3	0.3	µg/L	EPA 8082	5/8/2009	5/27/2009	
Aroclor 1221	<0.6	0.6	µg/L	EPA 8082		5/27/2009	
Aroclor 1232	<0.6	0.6	µg/L	EPA 8082		5/27/2009	
Aroclor 1242	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1248	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1254	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1260	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
TOC	5.4	1	mg/L	SM 5310 C-00		5/7/2009	
Alkalinity, Total	269	20	mg/L as CaCO3	EPA 310.1		5/7/2009	
BOD	<2.4	2.4	mg/L	SM 5210B		5/6/2009 07:43	z
Bromide	0.12	0.1	mg/L	EPA 300.0		5/19/2009	

Qualifier	Description	Note
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.
z	D.O. depletion < 2 mg/L	

SAMPLE RESULTS

NTS Sample: 350165
Description: SD-006
Sample Date: 5/4/2009 10:19:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94826

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 4.7 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloride	9.92	0.5	mg/L	EPA 300.0		5/19/2009 19:01	
COD	17.6	10	mg/L	SM 5220D	5/7/2009	5/7/2009	
Color	15	5	Pt/Co Units	EPA 110.2		5/5/2009	
Fecal Coliform Bacteria	2	2	cfu/100 ml	SM 9222D	5/4/2009	5/4/2009 16:00	
Fluoride	1.33	0.1	mg/L	EPA 300.0		5/19/2009 19:01	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/5/2009	
Nitrogen, Ammonia	<0.1	0.1	mg/L as N	EPA 350.1	5/5/2009	5/6/2009	
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/11/2009	
Nitrogen, Total Kjeldahl	0.53	0.5	mg/L as N	EPA 351.2	5/13/2009	5/14/2009	
Nitrogen, Total Organic (TON)	0.53	0.5	mg/L	EPA 350.1/351.2		6/5/2009	
Phosphorous, Total	0.005	0.004	mg/L as P	EPA 365.2	5/6/2009	5/7/2009	
Solids, Filterable (TDS)	509	10	mg/L	EPA 160.1		5/11/2009	
Sulfate	154	2	mg/L	EPA 300.0		5/21/2009 11:02	
Sulfide	<1	1	mg/L	SM 4500-S2 F-00		5/7/2009	S2
Ambiguous Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Amphibole Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Chrysotile Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Non-Amphibole, Non-Chrysotile F	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Total Fibers	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Surfactants	<0.03	0.03	mg/L	5540C		5/6/2009	S2
SVOC	See Report		µg/L	EPA 625		5/12/2009	S2
VOC	See Report		µg/L	EPA 624		5/7/2009	S2

Qualifier	Description	Note
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.
z	D.O. depletion < 2 mg/L	

SAMPLE RESULTS

NTS Sample: 350166
Description: SD-026
Sample Date: 5/4/2009 11:39:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94826

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 4.7 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Aluminum	<25	25	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01	
Antimony	<0.5	0.5	µg/L	EPA 200.8		5/5/2009 21:34	
Arsenic	<2	2	µg/L	EPA 200.8		5/5/2009 21:34	
Barium	31.8	10	µg/L	EPA 200.7		5/12/2009 16:01	
Beryllium	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 21:34	
Boron	296	50	µg/L	EPA 200.7		5/12/2009	
Cadmium	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 21:34	
Chromium	<2	2	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01	
Cobalt	3.16	2	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01	
Copper	<2	2	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01	
Iron	1500	50	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01	
Lead	<0.5	0.5	µg/L	EPA 200.8		5/5/2009 21:34	
Lithium	20.1	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01	
Manganese	3830	40	µg/L	EPA 200.7		5/12/2009 16:03	
Molybdenum	44.6	5	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01	
Nickel	<2	2	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01	
Potassium	9.81	1	mg/L	EPA 200.7	5/6/2009	5/12/2009 16:03	
Selenium	<1	1	µg/L	EPA 200.8		5/5/2009 21:34	
Silver	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 21:34	
Sodium	56.6	2	mg/L	EPA 200.7	5/6/2009	5/12/2009 16:01	
Strontium	341	5	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01	
Thallium	<0.4	0.4	µg/L	EPA 200.8		5/5/2009 21:34	
Tin	<20	20	µg/L	EPA 282.2		5/12/2009 16:01	
Titanium	<10	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01	
Vanadium	<10	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01	
Zinc	<25	25	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01	
DRO	<0.09	0.09	mg/L	WI(95) DRO	5/7/2009	5/8/2009 13:38	
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/8/2009 02:34	
Aroclor 1016	<0.3	0.3	µg/L	EPA 8082	5/8/2009	5/27/2009	
Aroclor 1221	<0.6	0.6	µg/L	EPA 8082		5/27/2009	
Aroclor 1232	<0.6	0.6	µg/L	EPA 8082		5/27/2009	
Aroclor 1242	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1248	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1254	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1260	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
TOC	2.8	1	mg/L	SM 5310 C-00		5/7/2009	
Alkalinity, Total	492	10	mg/L as CaCO3	EPA 310.1		5/12/2009	
BOD	<2.4	2.4	mg/L	SM 5210B		5/6/2009 07:43	z
Bromide	0.16	0.1	mg/L	EPA 300.0		5/21/2009 22:51	

Qualifier	Description	Note
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.
z	D.O. depletion < 2 mg/L	

SAMPLE RESULTS

NTS Sample: 350166
Description: SD-026
Sample Date: 5/4/2009 11:39:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94826
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 4.7 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloride	14.2	0.5	mg/L	EPA 300.0		5/21/2009 22:51	
COD	11.4	10	mg/L	SM 5220D	5/7/2009	5/7/2009	
Color	30	5	Pt/Co Units	EPA 110.2		5/5/2009	
Fecal Coliform Bacteria	<2	2	cfu/100 ml	SM 9222D	5/4/2009	5/4/2009 16:00	
Fluoride	2.53	0.1	mg/L	EPA 300.0		5/21/2009 22:51	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/5/2009	
Nitrogen, Ammonia	0.1	0.1	mg/L as N	EPA 350.1	5/5/2009	5/6/2009	
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/11/2009	
Nitrogen, Total Kjeldahl	0.53	0.5	mg/L as N	EPA 351.2	5/13/2009	5/14/2009	
Nitrogen, Total Organic (TON)	<0.5	0.5	mg/L	EPA 350.1/351.2		6/5/2009	
Phosphorous, Total	0.009	0.004	mg/L as P	EPA 365.2	5/6/2009	5/7/2009	
Solids, Filterable (TDS)	759	10	mg/L	EPA 160.1		5/11/2009	
Sulfate	208	5	mg/L	EPA 300.0		5/21/2009 23:19	
Sulfide	<1	1	mg/L	SM 4500-S2 F-00		5/7/2009	S2
Ambiguous Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Amphibole Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Chrysotile Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Non-Amphibole, Non-Chrysotile F	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Total Fibers	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Surfactants	<0.03	0.03	mg/L	5540C		5/6/2009	S2
SVOC	See Report		µg/L	EPA 625		5/12/2009	S2
VOC	See Report		µg/L	EPA 624		5/7/2009	S2

Qualifier	Description	Note
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.
z	D.O. depletion < 2 mg/L	

SAMPLE RESULTS

NTS Sample: 350167
Description: Field Blank
Sample Date: 5/4/2009 10:39:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94826
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 4.7 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
Aluminum	<25	25	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01
Antimony	<0.5	0.5	µg/L	EPA 200.8		5/5/2009 20:44
Arsenic	<2	2	µg/L	EPA 200.8		5/5/2009 20:44
Barium	<10	10	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01
Beryllium	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 20:44
Boron	<50	50	µg/L	EPA 200.7		5/12/2009
Cadmium	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 20:44
Chromium	<2	2	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01
Cobalt	<2	2	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01
Copper	<2	2	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01
Iron	<50	50	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01
Lead	1.3	0.5	µg/L	EPA 200.8		5/8/2009 16:06
Lithium	<10	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01
Manganese	<10	10	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01
Molybdenum	<5	5	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01
Nickel	<2	2	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01
Potassium	<0.25	0.25	mg/L	EPA 200.7	5/6/2009	5/12/2009 16:01
Selenium	<1	1	µg/L	EPA 200.8		5/5/2009 20:44
Silver	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 20:44
Sodium	<2	2	mg/L	EPA 200.7	5/6/2009	5/12/2009 16:01
Strontium	<5	5	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01
Thallium	<0.4	0.4	µg/L	EPA 200.8		5/8/2009 16:06
Tin	<20	20	µg/L	EPA 282.2		5/12/2009 16:01
Titanium	<10	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01
Vanadium	<10	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01
Zinc	<25	25	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01
DRO	<0.1	0.1	mg/L	WI(95) DRO	5/7/2009	5/8/2009 14:06
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/8/2009 03:02
Aroclor 1016	<0.3	0.3	µg/L	EPA 8082	5/8/2009	5/27/2009
Aroclor 1221	<0.6	0.6	µg/L	EPA 8082		5/27/2009
Aroclor 1232	<0.6	0.6	µg/L	EPA 8082		5/27/2009
Aroclor 1242	<0.3	0.3	µg/L	EPA 8082		5/27/2009
Aroclor 1248	<0.3	0.3	µg/L	EPA 8082		5/27/2009
Aroclor 1254	<0.3	0.3	µg/L	EPA 8082		5/27/2009
Aroclor 1260	<0.3	0.3	µg/L	EPA 8082		5/27/2009
TOC	<1	1	mg/L	SM 5310 C-00		5/7/2009
Alkalinity, Total	<10	10	mg/L as CaCO3	EPA 310.1		5/7/2009
BOD	<2.4	2.4	mg/L	SM 5210B		5/6/2009 07:43
Bromide	<0.1	0.1	mg/L	EPA 300.0		5/19/2009

Qualifier	Description	Note
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350167
Description: Field Blank
Sample Date: 5/4/2009 10:39:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94826
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 4.7 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloride	<0.5	0.5	mg/L	EPA 300.0		5/19/2009 18:04	
COD	<10	10	mg/L	SM 5220D	5/7/2009	5/7/2009	
Color	<5	5	Pt/Co Units	EPA 110.2		5/5/2009	
Fecal Coliform Bacteria	<2	2	cfu/100 ml	SM 9222D	5/4/2009	5/4/2009 16:00	
Fluoride	<0.1	0.1	mg/L	EPA 300.0		5/19/2009 18:04	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/5/2009	
Nitrogen, Ammonia	<0.1	0.1	mg/L as N	EPA 350.1	5/5/2009	5/6/2009	
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/11/2009	
Nitrogen, Total Kjeldahl	<0.5	0.5	mg/L as N	EPA 351.2	5/13/2009	5/14/2009	
Nitrogen, Total Organic (TON)	<0.5	0.5	mg/L	EPA 350.1/351.2		6/5/2009	
Phosphorous, Total	<0.004	0.004	mg/L as P	EPA 365.2	5/6/2009	5/7/2009	
Solids, Filterable (TDS)	<10	10	mg/L	EPA 160.1		5/11/2009	
Sulfate	<1	1	mg/L	EPA 300.0		5/19/2009 18:04	
Sulfide	<1	1	mg/L	SM 4500-S2 F-00		5/7/2009	S2
Ambiguous Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Amphibole Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Chrysotile Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Non-Amphibole, Non-Chrysotile F	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Total Fibers	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Surfactants	<0.03	0.03	mg/L	5540C		5/6/2009	S2
SVOC	See Report		µg/L	EPA 625		5/12/2009	S2
VOC	See Report		µg/L	EPA 624		5/7/2009	S2

Qualifier	Description	Note
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350168
Description: Duplicate
Sample Date: 5/4/2009 10:31:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94826
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 4.7 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
Aluminum	39.7	25	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01
Antimony	<0.5	0.5	µg/L	EPA 200.8		5/5/2009 21:30
Arsenic	<2	2	µg/L	EPA 200.8		5/5/2009 21:30
Barium	11.5	10	µg/L	EPA 200.7		5/12/2009 16:01
Beryllium	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 21:30
Boron	193	50	µg/L	EPA 200.7		5/12/2009
Cadmium	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 21:30
Chromium	<2	2	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01
Cobalt	<2	2	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01
Copper	<2	2	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01
Iron	233	50	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01
Lead	<0.5	0.5	µg/L	EPA 200.8		5/5/2009 21:30
Lithium	13.5	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01
Manganese	62	10	µg/L	EPA 200.7		5/12/2009 16:01
Molybdenum	18.4	5	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01
Nickel	<2	2	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01
Potassium	7.69	0.25	mg/L	EPA 200.7	5/6/2009	5/12/2009 16:01
Selenium	<1	1	µg/L	EPA 200.8		5/5/2009 21:30
Silver	<0.2	0.2	µg/L	EPA 200.8		5/5/2009 21:30
Sodium	38.9	2	mg/L	EPA 200.7	5/6/2009	5/12/2009 16:01
Strontium	230	5	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01
Thallium	<0.4	0.4	µg/L	EPA 200.8		5/5/2009 21:30
Tin	<20	20	µg/L	EPA 282.2		5/12/2009 16:01
Titanium	<10	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01
Vanadium	<10	10	µg/L	EPA 200.7	5/6/2009	5/12/2009 16:01
Zinc	<25	25	µg/L	EPA 200.8	5/5/2009	5/12/2009 16:01
DRO	<0.1	0.1	mg/L	WI(95) DRO	5/7/2009	5/8/2009 14:34
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/8/2009 03:30
Aroclor 1016	<0.3	0.3	µg/L	EPA 8082	5/8/2009	5/27/2009
Aroclor 1221	<0.6	0.6	µg/L	EPA 8082		5/27/2009
Aroclor 1232	<0.6	0.6	µg/L	EPA 8082		5/27/2009
Aroclor 1242	<0.3	0.3	µg/L	EPA 8082		5/27/2009
Aroclor 1248	<0.3	0.3	µg/L	EPA 8082		5/27/2009
Aroclor 1254	<0.3	0.3	µg/L	EPA 8082		5/27/2009
Aroclor 1260	<0.3	0.3	µg/L	EPA 8082		5/27/2009
TOC	5.4	1	mg/L	SM 5310 C-00		5/7/2009
Alkalinity, Total	257	20	mg/L as CaCO3	EPA 310.1		5/7/2009
BOD	<2.4	2.4	mg/L	SM 5210B		5/6/2009 07:43
Bromide	0.12	0.1	mg/L	EPA 300.0		5/19/2009

Qualifier	Description	Note
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350168
Description: Duplicate
Sample Date: 5/4/2009 10:31:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94826
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 4.7 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloride	9.87	0.5	mg/L	EPA 300.0		5/19/2009 18:33	
COD	16.3	10	mg/L	SM 5220D	5/7/2009	5/7/2009	
Color	15	5	Pt/Co Units	EPA 110.2		5/5/2009	
Fecal Coliform Bacteria	<2	2	cfu/100 ml	SM 9222D	5/4/2009	5/4/2009 16:00	
Fluoride	1.33	0.1	mg/L	EPA 300.0		5/19/2009 18:33	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/5/2009	
Nitrogen, Ammonia	0.15	0.1	mg/L as N	EPA 350.1	5/5/2009	5/6/2009	
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/7/2009	
Nitrogen, Total Kjeldahl	0.59	0.5	mg/L as N	EPA 351.2	5/13/2009	5/14/2009	
Nitrogen, Total Organic (TON)	<0.5	0.5	mg/L	EPA 350.1/351.2		6/5/2009	
Phosphorous, Total	0.006	0.004	mg/L as P	EPA 365.2	5/6/2009	5/7/2009	
Solids, Filterable (TDS)	488	10	mg/L	EPA 160.1		5/11/2009	
Sulfate	155	2	mg/L	EPA 300.0		5/21/2009 11:59	
Sulfide	<1	1	mg/L	SM 4500-S2 F-00		5/7/2009	S2
Ambiguous Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Amphibole Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Chrysotile Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Non-Amphibole, Non-Chrysotile F	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Total Fibers	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Surfactants	<0.03	0.03	mg/L	5540C		5/6/2009	S2
SVOC	See Report		µg/L	EPA 625		5/12/2009	S2
VOC	See Report		µg/L	EPA 624		5/7/2009	S2

Qualifier	Description	Note
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350169
Description: Trip Blank
Sample Date: 5/4/2009

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94826

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 4.7 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/8/2009 03:58	
VOC	See Report		µg/L	EPA 624		5/7/2009	S2

Qualifier	Description	Note
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	

Sample Receiving Checklist 4.07

(non criminal Chain of Custody)

Samples require client direction, discrepancies noted below: COC# 94826 ⊘

- o No COC Documentation supplied
- o Incomplete COC Documentation
- o Sample Containers listed on COC do not match
- o Sample Containers listed on COC are compromised
- o Sample Temp is over range and cooling preservation is required
- o Signatures and Times for collection and/or transfer are not complete
- o Custody seals requested but not intact
- o Sample parameters exceed hold time
- o Sample volume/mass does not meet minimum requirements (PM to discuss w/analysts)

Attach to COC if available and notify Project Manager

PM Record of client information:

Date:_____

PM Signature:_____

tribal/qapcurrent/Virginia/sops/support/title

315 CHESTNUT STREET * P.O. BOX 1142
VIRGINIA, MINNESOTA 55792
218-741-4290 * FAX 218-741-4291

Chain of Custody Record

Page: 1 of 3

COC#: 94826

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER: Kurt Doran	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH:
PROJ. NO: 7158.08H	COLLECTION:

LOG-IN	SAMPLE #	DESCRIPTION	DATE	TIME	MATRIX LIQ	MATRIX SOL	Filtered	TYPE & # CONTAINERS: General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH Field	Specific Conductance Field	Temperature Field	Flow Field	ANALYSIS:
350163	SD-001	NW seep ditch	4 May 09	0935									7.55	652	6.9	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*
350164	SD-002	NE seep ditch	4 May 09	0843									7.59	1008	10.3	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*
350165	SD-006	Culverts	4 May 09	1019									7.92	795	10.6	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*

Comments:
USE LOW REPORTING LIMIT METHODS
Samples due back to lab NO LATER THAN 2PM

* (See 40 CFR Part 136) Reference Pg. 46 of Permit #MN0054089 (Tailings Basin)

See attachments for all sampling and analysis details

RELINQUISHED BY: Kurt Doran	DATE: 4-May-09 TIME: ~~1530~~ 1330	RECEIVED BY:	DATE: TIME:
RELINQUISHED BY:	DATE: TIME:	RECEIVED BY:	DATE: TIME:
RECEIVED FOR LAB BY: M Kosich		TEMP AT ARRIVAL: 4.7 °C	
DATE: 5-4-09	TIME: 13:30	REPORT DATE:	

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VIRGINIA, MINNESOTA 55792
218-741-4290 * FAX 218-741-4291

Chain of Custody Record

Page: 2 of 3

COC#: 94826

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER: Kurt Dorn	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH:
PROJ. NO: 7158.08H	COLLECTION: MATRIX

LOG-IN	SAMPLE #	DESCRIPTION	DATE	TIME	LIQ	SOL	Filtered	TYPE & # CONTAINERS: General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH Field	Specific Conductance Field	Temperature Field	Flow Field	ANALYSIS:
350166	SD-026	Mine Area SD	4 May 05	1139									7.22	941	8.2	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*
350167	Field Blank		4 May 05	1039									—	—	—	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*
350168	Duplicate		4 May 05	1031									—	—	—	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*

Comments:
USE LOW REPORTING LIMIT METHODS
Samples due back to lab NO LATER THAN 2PM

* (See 40 CFR Part 136) Reference Pg. 46 of Permit #MN0054089 (Tailings Basin)

See attachments for all sampling and analysis details

RELINQUISHED BY:	DATE: 4-May-05	RECEIVED BY:	DATE:
Kurt Dorn	TIME: 1330		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:
RECEIVED FOR LAB BY: Koski		TEMP AT ARRIVAL: 4.7 °C	
DATE: 5-4-05	TIME: 13:30	REPORT DATE:	

315 CHESTNUT STREET * P.O. BOX 1142
VIRGINIA, MINNESOTA 55792
218-741-4290 * FAX 218-741-4291

Chain of Custody Record

Page: 3 of 3

COC#: 94826

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER: Kurt Dorn	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH:
PROJ. NO: 7158.08H	COLLECTION: / MATRIX

LOG-IN	SAMPLE #	DESCRIPTION	DATE	TIME	LIQ	SOL	Filtered	General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH Field	Specific Conductance Field	Temperature Field	Flow Field	ANALYSIS:
								TYPE & # CONTAINERS									
350169	Trip Blank		4 May 09	—									—	—	—	—	Method 624 VOCs+TICs*, GRO

Comments:
USE LOW REPORTING LIMIT METHODS
Samples due back to lab NO LATER THAN 2PM

* (See 40 CFR Part 136) Reference Pg. 46 of Permit #MN0054089 (Tailings Basin)

See attachments for all sampling and analysis details

Pyrene is included in SVOC analysis

RELINQUISHED BY:	DATE: 4-May-09	RECEIVED BY:	DATE:
Kurt Dorn	TIME: ~~1530~~ 1330		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:
RECEIVED FOR LAB BY:		TEMP AT ARRIVAL: 4.7 °C	
DATE: 5-4-09	TIME: 13:30	REPORT DATE:	

Chapter 10. Total Facility Requirements

18. Permit Reissuance

18.2 The Permittee shall include analytical data as part of the application for reissuance of this permit. These analyses shall be done on individual samples taken during the twelve-month period before the reissuance application is submitted. The application shall identify the sampling date(s).

18.3 The permit application shall include analytical data for at least the following parameters at each of the individual outfalls SD001 through SD006:

a. biochemical oxygen demand, chemical oxygen demand, total organic carbon, gasoline range organics, diesel range organics, pyrene (625), fecal coliform, ammonia, temperature, amines;

b. fibers, color, nitrate-nitrite (as nitrogen), total organic nitrogen, total phosphorus, bromide, chloride, fluoride, sulfide (as sulfur), sulfate, surfactants, alkalinity, total dissolved solids;

c. aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, iron, lead, lithium, manganese, molybdenum, nickel, potassium, selenium, silver, sodium, strontium, thallium, tin, titanium, vanadium, zinc (all in total form) using atomic absorption (AA) furnace methods according to 40 CFR Part 136.3;

d. gross alpha particles, radium-226, radium-228, radon-222, uranium; See pg. 2or-2

e. PCB-1016, PCB-1221, PCB-1232, PCB-1242, PCB-1248, PCB-1254, PCB-1260; and (625)

f. a scan of constituents using EPA Methods 624 and 625, in 40 CFR Part 136. The Permittee shall identify, in addition to those pollutants noted in Methods 624 and 625 (Appendix D, Table II), the concentrations of at least ten of the most abundant constituents of the acid and base/neutral organic fractions shown to be present by peaks on the total ion plots (reconstructed gas chromatograms) within ten percent of the nearest internal standard. Identification shall be through the use of U.S. EPA/NIH computerized library of mass spectra, with visual confirmation and potential quantification.

18.4 The permit application shall include low-level detection analytical data for the following parameters at monitoring stations GW001 through GW008: aluminum, amines, antimony, arsenic, cadmium, chromium, cobalt, copper, iron, lead, lithium, nickel, potassium, radium-226, radium-228, selenium, silver, sodium, strontium, sulfide, thallium, vanadium, zinc (all in dissolved form), Eh, dissolved oxygen, nitrate-nitrite, ammonia, surfactants, gasoline range organics, diesel range organics and pyrene.

18.5 The Permittee shall include, as part of the application for reissuance of this permit:

a. an updated water balance for the facility; and

b. an updated Operating Plan for the tailings basin, including the Emergency Basin, for the next five years.

Cliffs Erie Tailings Basin Area NPDES Permit

MPCA Request For Supplemental Monitoring

Prepared by Dave Skolasinski

April 17, 2009

Cliffs Erie submitted an application during early 2005 for reissuance of the Hoyt Lakes Plant Site and Tailings Basin NPDES Permit MN0054089, which expired on November 30, 2005. The permit has been administratively continued since that time. Polymet Mining, which is in the process of purchasing the plant site and tailings basin area as part of its proposed copper-nickel mining project, is awaiting release of the draft project EIS from the DNR for public comment. The MPCA is addressing water quality matters related to the proposed project.

Questions have arisen regarding possible petroleum contamination associated with the tailings basin and certain areas of concern (AOCs) identified through the Voluntary Investigation and Cleanup (VIC) program in the vicinity of the tailings basin. This is due to concern resulting from possible past petroleum product spills and leaks in the vicinity of the tailings basin. It is also due to concern for petroleum product leaks from equipment that may have occurred in the concentrator during ore processing operations and flow of the product with tailings to the tailings basin. Also, during 2007 a petroleum contaminated soil land farm was established on the western cell of the tailings basin. The MPCA wishes to address this concern with regard to the Polymet EIS. Richard Clark, MPCA NPDES permit writer, contacted me on Friday April 10 to discuss this matter and to request that water samples be collected, analyzed, and submitted as supplemental data to the 2005 permit reissuance application. Details of his request are as follows:

Samples To Be Collected

- Collect one sample from each location of **undiluted seep water to the extent possible** (or collect it as close to the seep as possible) from the tailings basin to satisfy sampling in the vicinity of Outfalls SD-001, SD-002, SD-004, and SD-005.

- Collect one sample of **undiluted water** from the Emergency Basin overflow at the T-culvert or immediately upstream of the T-culvert if necessary to satisfy sampling in the vicinity of SD-006.

- Collect one sample of **undiluted tailings basin water** from tailings basin Cell 1E at the culvert outfall to satisfy sampling in the vicinity of SD-026.

- For seeps WS-011, WS-012, and WS-013, which flow to the Emergency Basin, choose the seep with the most flow and collect one sample of **undiluted seep water to the extent possible** from that seep.

- Collect one sample from each of the groundwater monitoring wells (GW-001, GW-002, GW-003, GW-004, GW-005, GW-006, GW-007, and GW-008).
    - Richard Clark indicated he was aware of well sampling that Barr Engineering was going to conduct for Polymet this spring. He suggested consideration be given to coordinating Barr's effort with that requested above as a possible cost savings for sample collection and analysis.

Sample Analysis

- All surface water and seep water samples are to be analyzed for the parameters specified in the current permit on page 46, Chapter 10 – Total Facility Requirements, Conditions 18.3.a-f, a copy of which is attached.
    - However, analysis is not required for radionuclides as specified in Condition 18.3.d (gross alpha particles, radium-226, radium-228, radon-222, and uranium).
- All groundwater samples are to be analyzed for the parameters specified in the current permit on page 46, Chapter 10 – Total Facility Requirements, Condition 18.4, a copy of which is attached.
    - However, analysis is not required for radionuclides (radium-226 and radium-228).
    - Add volatile organic carbon (VOC) to the list of analyses for the groundwater monitoring wells (GW-001 – GW-008).

Schedule And Submittal

- Samples are to be collected an analyzed in an expeditious manner, but not at shorter, higher-cost laboratory turn-around times. The water quality data is to be submitted to the MPCA in a one to two-month period from April 10 and as soon as the data is available from the laboratory. The data will be considered as supplemental data to the previously submitted application for renewal of the NPDES permit.
- The water quality data will be submitted to Richard Clark under a cover letter that will be signed by Craig Hartmann.

Distribution:

Craig Hartman – Cliffs Erie
Kevin Pylka – Polymet
Bruce Trebnick - NTS

WORKING COPY

STATE OF MINNESOTA

Minnesota Pollution Control Agency

National Pollutant Discharge Elimination System (NPDES) and State Disposal System (SDS) Permit MN0054089

PERMITTEE: LTV Steel Mining Company; Erie B Corporation; Erie I Corporation; YST Erie Corporation; Youngstown Erie Corporation; LTV Steel Company, Inc.

FACILITY NAME: Hoyt Lakes Tailings Basin Area

RECEIVING WATERS: Unnamed wetlands and creeks to Kaunonen Creek, Trimble Creek and the Embarrass River to Sabin and Wynne Lakes

CITY/TOWNSHIP: Hoyt Lakes; Waasa Township **COUNTY:** St. Louis

ISSUANCE DATE: May 4, 2001 **EXPIRATION DATE:** November 30, 2005

The state of Minnesota, on behalf of its citizens through the Minnesota Pollution Control Agency (MPCA), authorizes the Permittee to construct, install and operate a disposal system at the facility named above, and to discharge from this facility to the receiving waters named above, in accordance with the requirements of this permit.

The goal of this permit is to protect water quality according to Minnesota and U.S. statutes and rules, including Minn. Stat. chs. 115 and 116, Minn. R. chs. 7001, 7041, 7050, 7052 and 7060, and the U.S. Clean Water Act.

This permit is effective on the issuance date identified above, and supersedes the previous permit that was issued for this facility on June 25, 1986.

This permit expires at midnight on the expiration date identified above.

Signature: Ann Foss

Ann Foss, Manager
North/South Major Facilities

for Karen A. Studders
Commissioner
Minnesota Pollution Control Agency

If you have questions on this permit, including the specific permit requirements, permit reporting or permit compliance status, please contact:

Minnesota Pollution Control Agency
North/South Major Facilities Section
520 Lafayette Road North
St. Paul, MN 55155-4194
Telephone: (651) 296-7162
Fax: (651) 297-8683
Telephone Device for Deaf (TTY): (651) 282-5332

EMSL ANALYTICAL, INC.
14375 23RD AVENUE NORTH
MINNEAPOLIS, MN 55447
TEL: 763-449-4922
FAX: 763-449-4924

EMSL Analytical, Inc.

NTS, Inc.
315 Chestnut Street
P.O. Box 1142
Virginia, MN 55792

Monday, May 18, 2009
Order ID: 350902109
Date and Time Received by Lab: 5/5/2009 9:00 AM

Asbestos Analysis in Water by Transmission Electron Microscopy (TEM) Performed by Method EPA 600/R-94/134-(100.2)

Project: #7158H COC #94826

Lab ID	Sample ID	Number of Fibers	Fiber Type	Concentration of Fibers (Million Fibers/Liter)	95% Confidence Limits (Million Fibers/Liter) Lower	Upper
350902109-0001	350163	ND	Ambiguous Fiber	<0.20	0.00	0.76
		ND	Amphibole Fiber	<0.20	0.00	0.76
		ND	Chrysotile Fiber	<0.20	0.00	0.76
		ND	Non-Amphibole, Non-Chrysotile	<0.20	0.00	0.76
		ND	**Total Fibers**	<0.20	0.00	0.76

Collection Date: 5/4/2009 9:35 AM
Date and Time Prepped: 5/5/2009 5:30 PM
Analysis Date: 5/14/2009

Lab ID	Sample ID	Number of Fibers	Fiber Type	Concentration of Fibers (Million Fibers/Liter)	95% Confidence Limits (Million Fibers/Liter) Lower	Upper
350902109-0002	350164	ND	Ambiguous Fiber	<0.20	0.00	0.76
		ND	Amphibole Fiber	<0.20	0.00	0.76
		ND	Chrysotile Fiber	<0.20	0.00	0.76
		ND	Non-Amphibole, Non-Chrysotile	<0.20	0.00	0.76
		ND	**Total Fibers**	<0.20	0.00	0.76

Collection Date: 5/4/2009 8:43 AM
Date and Time Prepped: 5/5/2009 5:30 PM
Analysis Date: 5/14/2009

Lynn Scott
Analyst

Rachel Traver
Approved Signatory

Note: Samples were analyzed in compliance with Minnesota Department of Health Method Code 851.

Sample collection and containers provided by client, acceptable bottle blank level is defined as ≤0.01MFL >10um. When less than four fibers are detected the concentration is reported as less than the lower confidence limit (3.69 times the analytical sensitivity) as dictated by the methodology. ND=None Detected. These test results meet all requirements of NELAP/Part 186 (ELAP Accreditation #11839)

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315 Chestnut Street
P.O. Box 1142
Virginia, MN 55792

Monday, May 18, 2009
Order ID: 350902109
Date and Time Received by Lab: 5/5/2009 9:00 AM

Asbestos Analysis in Water by Transmission Electron Microscopy (TEM) Performed by Method EPA 600/R-94/134-(100.2)

Project: #7158H COC #94826

Lab ID	Sample ID	Number of Fibers	Fiber Type	Concentration of Fibers (Million Fibers/Liter)	95% Confidence Limits (Million Fibers/Liter) Lower	Upper
350902109-0003	350165	ND	Ambiguous Fiber	<0.20	0.00	0.76
		ND	Amphibole Fiber	<0.20	0.00	0.76
		ND	Chrysotile Fiber	<0.20	0.00	0.76
		ND	Non-Amphibole, Non-Chrysotile	<0.20	0.00	0.76
		ND	**Total Fibers**	<0.20	0.00	0.76

Collection Date: 5/4/2009 10:19 AM
Date and Time Prepped: 5/5/2009 5:30 PM
Analysis Date: 5/14/2009

Lab ID	Sample ID	Number of Fibers	Fiber Type	Concentration of Fibers (Million Fibers/Liter)	95% Confidence Limits (Million Fibers/Liter) Lower	Upper
350902109-0004	350166	ND	Ambiguous Fiber	<0.20	0.00	0.76
		ND	Amphibole Fiber	<0.20	0.00	0.76
		ND	Chrysotile Fiber	<0.20	0.00	0.76
		ND	Non-Amphibole, Non-Chrysotile	<0.20	0.00	0.76
		ND	**Total Fibers**	<0.20	0.00	0.76

Collection Date: 5/4/2009 11:39 AM
Date and Time Prepped: 5/5/2009 5:30 PM
Analysis Date: 5/14/2009

Lynn Scott
Analyst

Approved Signatory

Note: Samples were analyzed in compliance with Minnesota Department of Health Method Code 851.

Sample collection and containers provided by client, acceptable bottle blank level is defined as ≤0.01MFL >10um. When less than four fibers are detected the concentration is reported as less than the lower confidence limit (3.69 times the analytical sensitivity) as dictated by the methodology. ND=None Detected These test results meet all requirements of NELAP/Part 186 (ELAP Accreditation #11839).

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EMSL Analytical, Inc.

NTS, Inc.

315 Chestnut Street
P.O. Box 1142
Virginia, MN 55792

Monday, May 18, 2009
Order ID: 350902109
Date and Time Received by Lab: 5/5/2009 9:00 AM

Asbestos Analysis in Water by Transmission Electron Microscopy (TEM) Performed by Method EPA 600/R-94/134-(100.2)

Project: #7158H COC #94826

Lab ID	Sample ID	Number of Fibers	Fiber Type	Concentration of Fibers (Million Fibers/Liter)	95% Confidence Limits (Million Fibers/Liter) Lower	Upper
350902109-0005	350167	ND	Ambiguous Fiber	<0.20	0.00	0.76
		ND	Amphibole Fiber	<0.20	0.00	0.76
		ND	Chrysotile Fiber	<0.20	0.00	0.76
		ND	Non-Amphibole, Non-Chrysotile	<0.20	0.00	0.76
		ND	**Total Fibers**	<0.20	0.00	0.76

Collection Date: 5/4/2009 10:39AM
Date and Time Prepped: 5/5/2009 5:30 PM
Analysis Date: 5/14/2009

Lab ID	Sample ID	Number of Fibers	Fiber Type	Concentration of Fibers (Million Fibers/Liter)	95% Confidence Limits (Million Fibers/Liter) Lower	Upper
350902109-0006	350168	ND	Ambiguous Fiber	<0.20	0.00	0.76
		ND	Amphibole Fiber	<0.20	0.00	0.76
		ND	Chrysotile Fiber	<0.20	0.00	0.76
		ND	Non-Amphibole, Non-Chrysotile	<0.20	0.00	0.76
		ND	**Total Fibers**	<0.20	0.00	0.76

Collection Date: 5/4/2009 10:31 AM
Date and Time Prepped: 5/5/2009 5:30 PM
Analysis Date: 5/14/2009

Lynn Scott
Analyst

Approved Signatory

Note: Samples were analyzed in compliance with Minnesota Department of Health Method Code 851.

Sample collection and containers provided by client, acceptable bottle blank level is defined as ≤0.01MFL >10um. When less than four fibers are detected the concentration is reported as less than the lower confidence limit (3.69 times the analytical sensitivity) as dictated by the methodology. ND=None Detected. These test results meet all requirements of NELAP/Part 186 (ELAP Accreditation #11839).

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51 L Avenue ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885
www.mvtl.com

RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17914
Work Order #:22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 9:35
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350163
SD-001

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Anionic Surfactants	< 0.03	mg/L	0.03	5540C	6 May 09 6:10	JD
Sulfide, Total	< 1	mg/L	1	SM 4500-S2(E)	7 May 09 3:01	JD

5/20/09

Approved by: Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN or Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration
! = Due to sample quantity + = Due to extract volume
^ = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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Sample Matrix: WASTEWATER
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Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350163
SD-001

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
625/8270 SVMS Extraction						7 May 09	CJW
Acenaphthene	83-32-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Acenaphthylene	208-96-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Anthracene	120-12-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzidine	92-87-5	< 10	ug/L	10	EPA 625	12 May 09	JG
Benzo(a)anthracene	56-55-3	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(a)pyrene	50-32-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(b)fluoranthene	205-99-2	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(ghi)perylene	191-24-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(k)fluoranthene	207-08-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Benzyl Butyl Phthalate	85-68-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Bis(2-chloroethoxy)methane	111-91-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Bis(2-chloroethyl)ether	111-44-4	< 2	ug/L	2	EPA 625	12 May 09	JG
Bis(2-chloroisopropyl)ether	108-60-1	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Bis(2-ethylhexyl)phthalate	117-81-7	< 2.6	ug/L	2.6	EPA 625	12 May 09	JG
4-Bromophenyl Phenyl Ether	101-55-3	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
4-Chloro-3-methyl phenol	59-50-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chloronaphthalene	91-58-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chlorophenol	95-57-8	< 2	ug/L	2	EPA 625	12 May 09	JG
4-Chlorophenyl Phenyl Ether	7005-72-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Chrysene	218-01-9	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Di-n-butyl phthalate	84-74-2	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
Di-n-octyl phthalate	117-84-0	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Dibenzo(a,h)anthracene	53-70-3	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
3,3-Dichlorobenzidine	91-94-1	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dichlorophenol	120-83-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Diethyl phthalate	84-66-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Dimethyl phthalate	131-11-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2,4-Dimethylphenol	105-67-9	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dinitrophenol	51-28-5	< 10	ug/L	10	EPA 625	12 May 09	JG
2,4-Dinitrotoluene	121-14-2	< 3.8	ug/L	3.8	EPA 625	12 May 09	JG
2,6-Dinitrotoluene	606-20-2	< 1	ug/L	1	EPA 625	12 May 09	JG
1,2-Diphenylhydrazine	122-66-7	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Fluoranthene	206-44-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Fluorene	86-73-7	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Hexachlorobenzene	118-74-1	< 1.8	ug/L	1.8	EPA 625	12 May 09	JG
Hexachlorobutadiene	87-68-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Hexachlorocyclopentadiene	77-47-4	< 4.8	ug/L	4.8	EPA 625	12 May 09	JG
Hexachloroethane	67-72-1	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG

RL = Reporting Limit

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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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MEMBER ACIL

RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17914
Work Order: 22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 9:35
Sampled By:
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350163
SD-001

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Isophorone	78-59-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2-Methyl-4,6-dinitrophenol	534-52-1	< 5.9	ug/L	5.9	EPA 625	12 May 09	JG
N-Nitrosodi-n-propylamine	621-64-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
N-Nitrosodimethylamine	62-75-9	< 4.2	ug/L	4.2	EPA 625	12 May 09	JG
N-Nitrosodiphenylamine	86-30-6	< 8.1	ug/L	8.1	EPA 625	12 May 09	JG
Naphthalene	91-20-3	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Nitrobenzene	98-95-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Nitrophenol	88-75-5	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
4-Nitrophenol	100-02-7	< 10	ug/L	10	EPA 625	12 May 09	JG
Pentachlorophenol	87-86-5	< 5.5	ug/L	5.5	EPA 625	12 May 09	JG
Phenanthrene	85-01-8	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Phenol	108-95-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Pyrene	129-00-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
1,2,4-Trichlorobenzene	120-82-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2,4,6-Trichlorophenol	88-06-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Acrolein	107-02-8	< 2	ug/L	2	EPA 624	6 May 09	JG
Acrylonitrile	107-13-1	< 1.8	ug/L	1.8	EPA 624	6 May 09	JG
Benzene	71-43-2	< 1	ug/L	1	EPA 624	6 May 09	JG
Bromodichloromethane	75-27-4	< 1	ug/L	1	EPA 624	6 May 09	JG
Bromoform	75-25-2	< 1	ug/L	1	EPA 624	6 May 09	JG
Bromomethane	74-83-9	< 2	ug/L	2	EPA 624	6 May 09	JG
Carbon Tetrachloride	56-23-5	< 1	ug/L	1	EPA 624	6 May 09	JG
Chlorobenzene	108-90-7	< 1	ug/L	1	EPA 624	6 May 09	JG
Chlorodibromomethane	124-48-1	< 1	ug/L	1	EPA 624	6 May 09	JG
Chloroethane	75-00-3	< 1	ug/L	1	EPA 624	6 May 09	JG
2-Chloroethyl Vinyl Ether	110-75-8	< 1	ug/L	1	EPA 624	6 May 09	JG
Chloroform	67-66-3	< 1	ug/L	1	EPA 624	6 May 09	JG
Chloromethane	74-87-3	< 1	ug/L	1	EPA 624	6 May 09	JG
1,2-Dichlorobenzene	95-50-1	< 1	ug/L	1	EPA 624	6 May 09	JG
1,3-Dichlorobenzene	541-73-1	< 1	ug/L	1	EPA 624	6 May 09	JG
1,4-Dichlorobenzene	106-46-7	< 1	ug/L	1	EPA 624	6 May 09	JG
1,1-Dichloroethane	75-34-3	< 1	ug/L	1	EPA 624	6 May 09	JG
1,2-Dichloroethane	107-06-2	< 1	ug/L	1	EPA 624	6 May 09	JG
1,1-Dichloroethene	75-35-4	< 1	ug/L	1	EPA 624	6 May 09	JG
trans-1,2-Dichloroethene	156-60-5	< 1	ug/L	1	EPA 624	6 May 09	JG
1,2-Dichloropropane	78-87-5	< 1	ug/L	1	EPA 624	6 May 09	JG
cis-1,3-Dichloropropene	10061-01-5	< 1	ug/L	1	EPA 624	6 May 09	JG
trans-1,3-Dichloropropene	10061-02-6	< 1	ug/L	1	EPA 624	6 May 09	JG

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration
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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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NORTHEAST TECHNICAL SERVICES
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VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17914
Work Order: 22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 9:35
Sampled By:
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350163
SD-001

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Ethyl Benzene	100-41-4	< 1	ug/L	1	EPA 624	6 May 09	JG
Methylene Chloride	75-09-2	< 2	ug/L	2	EPA 624	6 May 09	JG
1,1,2,2-Tetrachloroethane	79-34-5	< 1	ug/L	1	EPA 624	6 May 09	JG
Tetrachloroethene	127-18-4	< 1	ug/L	1	EPA 624	6 May 09	JG
Toluene	108-88-3	< 1	ug/L	1	EPA 624	6 May 09	JG
1,1,1-Trichloroethane	71-55-6	< 1	ug/L	1	EPA 624	6 May 09	JG
1,1,2-Trichloroethane	79-00-5	< 1	ug/L	1	EPA 624	6 May 09	JG
Trichloroethene	79-01-6	< 1	ug/L	1	EPA 624	6 May 09	JG
Trichlorofluoromethane	75-69-4	< 1	ug/L	1	EPA 624	6 May 09	JG
Vinyl Chloride	75-01-4	< 1	ug/L	1	EPA 624	6 May 09	JG

SW8270 - No TICs to report.

SW8260 - No TICs to report.

NITROBENZENE (SURROGATE) RECOVERY: 91 %
2-FLUOROBIPHENYL (SURROGATE) RECOVERY: 87 %
TERPHENYL-d14 (SURROGATE) RECOVERY: 90 %

2-FLUOROPHENOL (SURROGATE) RECOVERY: 63 %
PHENOL-d5 (SURROGATE) RECOVERY: 41 %
2,4,6-TRIBROMOPHENOL (SURROGATE) RECOVERY: 87 %

DIBROMOFLUOROMETHANE (SURROGATE) RECOVERY: 101 %
TOLUENE-d8 (SURROGATE) RECOVERY: 93 %
4-BROMOFLUOROBENZENE (SURROGATE) RECOVERY: 90 %

Approved by: Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN or Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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VIRGINIA MN 55792-1142

Project Number: 7158H
Sample Description: 350164
SD-002

Report Date: 13 May 09
Lab Number: 09-A17915
Work Order #:22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 8:43
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

	As Received Result		Method RL	Method Reference	Date Analyzed		Analyst
Anionic Surfactants	< 0.03	mg/L	0.03	5540C	6 May 09	6:10	JD
Sulfide, Total	< 1	mg/L	1	SM 4500-S2(E)	7 May 09	3:01	JD

Approved by:
Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN
or
Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix
! = Due to sample quantity
^ = Due to instrument performance at RL
# = Due to sample concentration
+ = Due to extract volume

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17915
Work Order: 22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 8:43
Sampled By:
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350164
SD-002

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
625/8270 SVMS Extraction						7 May 09	CJW
Acenaphthene	83-32-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Acenaphthylene	208-96-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Anthracene	120-12-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzidine	92-87-5	< 10	ug/L	10	EPA 625	12 May 09	JG
Benzo(a)anthracene	56-55-3	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(a)pyrene	50-32-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(b)fluoranthene	205-99-2	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(ghi)perylene	191-24-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(k)fluoranthene	207-08-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Benzyl Butyl Phthalate	85-68-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Bis(2-chloroethoxy)methane	111-91-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Bis(2-chloroethyl)ether	111-44-4	< 2	ug/L	2	EPA 625	12 May 09	JG
Bis(2-chloroisopropyl)ether	108-60-1	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Bis(2-ethylhexyl)phthalate	117-81-7	< 2.6	ug/L	2.6	EPA 625	12 May 09	JG
4-Bromophenyl Phenyl Ether	101-55-3	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
4-Chloro-3-methyl phenol	59-50-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chloronaphthalene	91-58-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chlorophenol	95-57-8	< 2	ug/L	2	EPA 625	12 May 09	JG
4-Chlorophenyl Phenyl Ether	7005-72-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Chrysene	218-01-9	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Di-n-butyl phthalate	84-74-2	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
Di-n-octyl phthalate	117-84-0	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Dibenzo(a,h)anthracene	53-70-3	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
3,3-Dichlorobenzidine	91-94-1	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dichlorophenol	120-83-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Diethyl phthalate	84-66-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Dimethyl phthalate	131-11-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2,4-Dimethylphenol	105-67-9	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dinitrophenol	51-28-5	< 10	ug/L	10	EPA 625	12 May 09	JG
2,4-Dinitrotoluene	121-14-2	< 3.8	ug/L	3.8	EPA 625	12 May 09	JG
2,6-Dinitrotoluene	606-20-2	< 1	ug/L	1	EPA 625	12 May 09	JG
1,2-Diphenylhydrazine	122-66-7	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Fluoranthene	206-44-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Fluorene	86-73-7	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Hexachlorobenzene	118-74-1	< 1.8	ug/L	1.8	EPA 625	12 May 09	JG
Hexachlorobutadiene	87-68-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Hexachlorocyclopentadiene	77-47-4	< 4.8	ug/L	4.8	EPA 625	12 May 09	JG
Hexachloroethane	67-72-1	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix
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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17915
Work Order: 22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 8:43
Sampled By:
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350164
SD-002

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Isophorone	78-59-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2-Methyl-4,6-dinitrophenol	534-52-1	< 5.9	ug/L	5.9	EPA 625	12 May 09	JG
N-Nitrosodi-n-propylamine	621-64-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
N-Nitrosodimethylamine	62-75-9	< 4.2	ug/L	4.2	EPA 625	12 May 09	JG
N-Nitrosodiphenylamine	86-30-6	< 8.1	ug/L	8.1	EPA 625	12 May 09	JG
Naphthalene	91-20-3	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Nitrobenzene	98-95-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Nitrophenol	88-75-5	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
4-Nitrophenol	100-02-7	< 10	ug/L	10	EPA 625	12 May 09	JG
Pentachlorophenol	87-86-5	< 5.5	ug/L	5.5	EPA 625	12 May 09	JG
Phenanthrene	85-01-8	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Phenol	108-95-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Pyrene	129-00-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
1,2,4-Trichlorobenzene	120-82-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2,4,6-Trichlorophenol	88-06-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Acrolein	107-02-8	< 2	ug/L	2	EPA 624	7 May 09	JG
Acrylonitrile	107-13-1	< 1.8	ug/L	1.8	EPA 624	7 May 09	JG
Benzene	71-43-2	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromodichloromethane	75-27-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromoform	75-25-2	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromomethane	74-83-9	< 2	ug/L	2	EPA 624	7 May 09	JG
Carbon Tetrachloride	56-23-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Chlorobenzene	108-90-7	< 1	ug/L	1	EPA 624	7 May 09	JG
Chlorodibromomethane	124-48-1	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloroethane	75-00-3	< 1	ug/L	1	EPA 624	7 May 09	JG
2-Chloroethyl Vinyl Ether	110-75-8	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloroform	67-66-3	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloromethane	74-87-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichlorobenzene	95-50-1	< 1	ug/L	1	EPA 624	7 May 09	JG
1,3-Dichlorobenzene	541-73-1	< 1	ug/L	1	EPA 624	7 May 09	JG
1,4-Dichlorobenzene	106-46-7	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1-Dichloroethane	75-34-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichloroethane	107-06-2	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1-Dichloroethene	75-35-4	< 1	ug/L	1	EPA 624	7 May 09	JG
trans-1,2-Dichloroethene	156-60-5	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichloropropane	78-87-5	< 1	ug/L	1	EPA 624	7 May 09	JG
cis-1,3-Dichloropropene	10061-01-5	< 1	ug/L	1	EPA 624	7 May 09	JG
trans-1,3-Dichloropropene	10061-02-6	< 1	ug/L	1	EPA 624	7 May 09	JG

RL = Reporting Limit

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! = Due to sample quantity + = Due to extract volume
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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17915
Work Order: 22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 8:43
Sampled By:
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350164
SD-002

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Ethyl Benzene	100-41-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Methylene Chloride	75-09-2	< 2	ug/L	2	EPA 624	7 May 09	JG
1,1,2,2-Tetrachloroethane	79-34-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Tetrachloroethene	127-18-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Toluene	108-88-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1,1-Trichloroethane	71-55-6	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1,2-Trichloroethane	79-00-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Trichloroethene	79-01-6	< 1	ug/L	1	EPA 624	7 May 09	JG
Trichlorofluoromethane	75-69-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Vinyl Chloride	75-01-4	< 1	ug/L	1	EPA 624	7 May 09	JG

SW8270 - No TICs to report.

SW8260- No TICs to report.

NITROBENZENE (SURROGATE) RECOVERY: 88 %
2-FLUOROBIPHENYL (SURROGATE) RECOVERY: 81 %
TERPHENYL-d14 (SURROGATE) RECOVERY: 86 %

2-FLUOROPHENOL (SURROGATE) RECOVERY: 61 %
PHENOL-d5 (SURROGATE) RECOVERY: 41 %
2,4,6-TRIBROMOPHENOL (SURROGATE) RECOVERY: 88 %

DIBROMOFLUOROMETHANE (SURROGATE) RECOVERY: 98 %
TOLUENE-d8 (SURROGATE) RECOVERY: 92 %
4-BROMOFLUOROBENZENE (SURROGATE) RECOVERY: 91 %

Approved by:
Jason G. Smith, Chemistry
Laboratory Manager New Ulm, MN
or
Dan O'Connell, Asst. Chemistry
Laboratory Manager New Ulm, MN

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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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Report Date: 13 May 09
Lab Number: 09-A17916
Work Order #:22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 10:19
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Project Number: 7158H
Sample Description: 350165
SD006

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Anionic Surfactants	< 0.03	mg/L	0.03	5540C	6 May 09 6:10	JD
Sulfide, Total	< 1	mg/L	1	SM 4500-S2(E)	7 May 09 3:01	JD

Approved by:
Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN
or
Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL = Reporting Limit

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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17916
Work Order: 22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 10:19
Sampled By:
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350165
SD006

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
625/8270 SVMS Extraction						7 May 09	CJW
Acenaphthene	83-32-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Acenaphthylene	208-96-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Anthracene	120-12-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzidine	92-87-5	< 10	ug/L	10	EPA 625	12 May 09	JG
Benzo(a)anthracene	56-55-3	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(a)pyrene	50-32-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(b)fluoranthene	205-99-2	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(ghi)perylene	191-24-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(k)fluoranthene	207-08-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Benzyl Butyl Phthalate	85-68-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Bis(2-chloroethoxy)methane	111-91-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Bis(2-chloroethyl)ether	111-44-4	< 2	ug/L	2	EPA 625	12 May 09	JG
Bis(2-chloroisopropyl)ether	108-60-1	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Bis(2-ethylhexyl)phthalate	117-81-7	< 2.6	ug/L	2.6	EPA 625	12 May 09	JG
4-Bromophenyl Phenyl Ether	101-55-3	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
4-Chloro-3-methyl phenol	59-50-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chloronaphthalene	91-58-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chlorophenol	95-57-8	< 2	ug/L	2	EPA 625	12 May 09	JG
4-Chlorophenyl Phenyl Ether	7005-72-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Chrysene	218-01-9	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Di-n-butyl phthalate	84-74-2	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
Di-n-octyl phthalate	117-84-0	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Dibenzo(a,h)anthracene	53-70-3	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
3,3-Dichlorobenzidine	91-94-1	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dichlorophenol	120-83-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Diethyl phthalate	84-66-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Dimethyl phthalate	131-11-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2,4-Dimethylphenol	105-67-9	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dinitrophenol	51-28-5	< 10	ug/L	10	EPA 625	12 May 09	JG
2,4-Dinitrotoluene	121-14-2	< 3.8	ug/L	3.8	EPA 625	12 May 09	JG
2,6-Dinitrotoluene	606-20-2	< 1	ug/L	1	EPA 625	12 May 09	JG
1,2-Diphenylhydrazine	122-66-7	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Fluoranthene	206-44-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Fluorene	86-73-7	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Hexachlorobenzene	118-74-1	< 1.8	ug/L	1.8	EPA 625	12 May 09	JG
Hexachlorobutadiene	87-68-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Hexachlorocyclopentadiene	77-47-4	< 4.8	ug/L	4.8	EPA 625	12 May 09	JG
Hexachloroethane	67-72-1	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix
! = Due to sample quantity
^ = Due to instrument performance at RL
# = Due to sample concentration
+ = Due to extract volume

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17916
Work Order: 22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 10:19
Sampled By:
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350165
SD006

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Isophorone	78-59-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2-Methyl-4,6-dinitrophenol	534-52-1	< 5.9	ug/L	5.9	EPA 625	12 May 09	JG
N-Nitrosodi-n-propylamine	621-64-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
N-Nitrosodimethylamine	62-75-9	< 4.2	ug/L	4.2	EPA 625	12 May 09	JG
N-Nitrosodiphenylamine	86-30-6	< 8.1	ug/L	8.1	EPA 625	12 May 09	JG
Naphthalene	91-20-3	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Nitrobenzene	98-95-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Nitrophenol	88-75-5	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
4-Nitrophenol	100-02-7	< 10	ug/L	10	EPA 625	12 May 09	JG
Pentachlorophenol	87-86-5	< 5.5	ug/L	5.5	EPA 625	12 May 09	JG
Phenanthrene	85-01-8	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Phenol	108-95-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Pyrene	129-00-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
1,2,4-Trichlorobenzene	120-82-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2,4,6-Trichlorophenol	88-06-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Acrolein	107-02-8	< 2	ug/L	2	EPA 624	7 May 09	JG
Acrylonitrile	107-13-1	< 1.8	ug/L	1.8	EPA 624	7 May 09	JG
Benzene	71-43-2	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromodichloromethane	75-27-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromoform	75-25-2	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromomethane	74-83-9	< 2	ug/L	2	EPA 624	7 May 09	JG
Carbon Tetrachloride	56-23-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Chlorobenzene	108-90-7	< 1	ug/L	1	EPA 624	7 May 09	JG
Chlorodibromomethane	124-48-1	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloroethane	75-00-3	< 1	ug/L	1	EPA 624	7 May 09	JG
2-Chloroethyl Vinyl Ether	110-75-8	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloroform	67-66-3	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloromethane	74-87-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichlorobenzene	95-50-1	< 1	ug/L	1	EPA 624	7 May 09	JG
1,3-Dichlorobenzene	541-73-1	< 1	ug/L	1	EPA 624	7 May 09	JG
1,4-Dichlorobenzene	106-46-7	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1-Dichloroethane	75-34-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichloroethane	107-06-2	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1-Dichloroethene	75-35-4	< 1	ug/L	1	EPA 624	7 May 09	JG
trans-1,2-Dichloroethene	156-60-5	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichloropropane	78-87-5	< 1	ug/L	1	EPA 624	7 May 09	JG
cis-1,3-Dichloropropene	10061-01-5	< 1	ug/L	1	EPA 624	7 May 09	JG
trans-1,3-Dichloropropene	10061-02-6	< 1	ug/L	1	EPA 624	7 May 09	JG

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration
! = Due to sample quantity + = Due to extract volume
^ = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17916
Work Order: 22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 10:19
Sampled By:
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350165
SD006

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Ethyl Benzene	100-41-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Methylene Chloride	75-09-2	< 2	ug/L	2	EPA 624	7 May 09	JG
1,1,2,2-Tetrachloroethane	79-34-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Tetrachloroethene	127-18-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Toluene	108-88-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1,1-Trichloroethane	71-55-6	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1,2-Trichloroethane	79-00-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Trichloroethene	79-01-6	< 1	ug/L	1	EPA 624	7 May 09	JG
Trichlorofluoromethane	75-69-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Vinyl Chloride	75-01-4	< 1	ug/L	1	EPA 624	7 May 09	JG

SW8270 - No TICs to report.

SW8260- No TICs to report.

NITROBENZENE (SURROGATE) RECOVERY: 84 %
2-FLUOROBIPHENYL (SURROGATE) RECOVERY: 82 %
TERPHENYL-d14 (SURROGATE) RECOVERY: 90 %

2-FLUOROPHENOL (SURROGATE) RECOVERY: 61 %
PHENOL-d5 (SURROGATE) RECOVERY: 40 %
2,4,6-TRIBROMOPHENOL (SURROGATE) RECOVERY: 71 %

DIBROMOFLUOROMETHANE (SURROGATE) RECOVERY: 101 %
TOLUENE-d8 (SURROGATE) RECOVERY: 94 %
4-BROMOFLUOROBENZENE (SURROGATE) RECOVERY: 93 %

Approved by:
Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN
or
Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration
! = Due to sample quantity + = Due to extract volume
^ = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17917
Work Order #:22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 11:39
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350166
SD-026

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Anionic Surfactants	< 0.03	mg/L	0.03	5540C	6 May 09 6:10	JD
Sulfide, Total	< 1	mg/L	1	SM 4500-S2(E)	7 May 09 3:01	JD

Approved by:
Jason G. Smith, Chemistry
Laboratory Manager New Ulm, MN
or
Dan O'Connell, Asst. Chemistry
Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration
! = Due to sample quantity + = Due to extract volume
^ = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17917
Work Order: 22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 11:39
Sampled By:
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350166
SD-026

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
625/8270 SVMS Extraction						7 May 09	CJW
Acenaphthene	83-32-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Acenaphthylene	208-96-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Anthracene	120-12-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzidine	92-87-5	< 10	ug/L	10	EPA 625	12 May 09	JG
Benzo(a)anthracene	56-55-3	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(a)pyrene	50-32-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(b)fluoranthene	205-99-2	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(ghi)perylene	191-24-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(k)fluoranthene	207-08-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Benzyl Butyl Phthalate	85-68-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Bis(2-chloroethoxy)methane	111-91-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Bis(2-chloroethyl)ether	111-44-4	< 2	ug/L	2	EPA 625	12 May 09	JG
Bis(2-chloroisopropyl)ether	108-60-1	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Bis(2-ethylhexyl)phthalate	117-81-7	< 2.6	ug/L	2.6	EPA 625	12 May 09	JG
4-Bromophenyl Phenyl Ether	101-55-3	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
4-Chloro-3-methyl phenol	59-50-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chloronaphthalene	91-58-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chlorophenol	95-57-8	< 2	ug/L	2	EPA 625	12 May 09	JG
4-Chlorophenyl Phenyl Ether	7005-72-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Chrysene	218-01-9	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Di-n-butyl phthalate	84-74-2	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
Di-n-octyl phthalate	117-84-0	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Dibenzo(a,h)anthracene	53-70-3	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
3,3-Dichlorobenzidine	91-94-1	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dichlorophenol	120-83-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Diethyl phthalate	84-66-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Dimethyl phthalate	131-11-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2,4-Dimethylphenol	105-67-9	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dinitrophenol	51-28-5	< 10	ug/L	10	EPA 625	12 May 09	JG
2,4-Dinitrotoluene	121-14-2	< 3.8	ug/L	3.8	EPA 625	12 May 09	JG
2,6-Dinitrotoluene	606-20-2	< 1	ug/L	1	EPA 625	12 May 09	JG
1,2-Diphenylhydrazine	122-66-7	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Fluoranthene	206-44-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Fluorene	86-73-7	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Hexachlorobenzene	118-74-1	< 1.8	ug/L	1.8	EPA 625	12 May 09	JG
Hexachlorobutadiene	87-68-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Hexachlorocyclopentadiene	77-47-4	< 4.8	ug/L	4.8	EPA 625	12 May 09	JG
Hexachloroethane	67-72-1	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG

RL = Reporting Limit

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! = Due to sample quantity + = Due to extract volume
^ = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17917
Work Order: 22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 11:39
Sampled By:
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350166
SD-026

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Isophorone	78-59-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2-Methyl-4,6-dinitrophenol	534-52-1	< 5.9	ug/L	5.9	EPA 625	12 May 09	JG
N-Nitrosodi-n-propylamine	621-64-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
N-Nitrosodimethylamine	62-75-9	< 4.2	ug/L	4.2	EPA 625	12 May 09	JG
N-Nitrosodiphenylamine	86-30-6	< 8.1	ug/L	8.1	EPA 625	12 May 09	JG
Naphthalene	91-20-3	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Nitrobenzene	98-95-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Nitrophenol	88-75-5	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
4-Nitrophenol	100-02-7	< 10	ug/L	10	EPA 625	12 May 09	JG
Pentachlorophenol	87-86-5	< 5.5	ug/L	5.5	EPA 625	12 May 09	JG
Phenanthrene	85-01-8	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Phenol	108-95-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Pyrene	129-00-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
1,2,4-Trichlorobenzene	120-82-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2,4,6-Trichlorophenol	88-06-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Acrolein	107-02-8	< 2	ug/L	2	EPA 624	7 May 09	JG
Acrylonitrile	107-13-1	< 1.8	ug/L	1.8	EPA 624	7 May 09	JG
Benzene	71-43-2	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromodichloromethane	75-27-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromoform	75-25-2	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromomethane	74-83-9	< 2	ug/L	2	EPA 624	7 May 09	JG
Carbon Tetrachloride	56-23-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Chlorobenzene	108-90-7	< 1	ug/L	1	EPA 624	7 May 09	JG
Chlorodibromomethane	124-48-1	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloroethane	75-00-3	< 1	ug/L	1	EPA 624	7 May 09	JG
2-Chloroethyl Vinyl Ether	110-75-8	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloroform	67-66-3	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloromethane	74-87-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichlorobenzene	95-50-1	< 1	ug/L	1	EPA 624	7 May 09	JG
1,3-Dichlorobenzene	541-73-1	< 1	ug/L	1	EPA 624	7 May 09	JG
1,4-Dichlorobenzene	106-46-7	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1-Dichloroethane	75-34-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichloroethane	107-06-2	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1-Dichloroethene	75-35-4	< 1	ug/L	1	EPA 624	7 May 09	JG
trans-1,2-Dichloroethene	156-60-5	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichloropropane	78-87-5	< 1	ug/L	1	EPA 624	7 May 09	JG
cis-1,3-Dichloropropene	10061-01-5	< 1	ug/L	1	EPA 624	7 May 09	JG
trans-1,3-Dichloropropene	10061-02-6	< 1	ug/L	1	EPA 624	7 May 09	JG

RL = Reporting Limit

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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17917
Work Order: 22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 11:39
Sampled By:
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350166
SD-026

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Ethyl Benzene	100-41-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Methylene Chloride	75-09-2	< 2	ug/L	2	EPA 624	7 May 09	JG
1,1,2,2-Tetrachloroethane	79-34-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Tetrachloroethene	127-18-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Toluene	108-88-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1,1-Trichloroethane	71-55-6	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1,2-Trichloroethane	79-00-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Trichloroethene	79-01-6	< 1	ug/L	1	EPA 624	7 May 09	JG
Trichlorofluoromethane	75-69-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Vinyl Chloride	75-01-4	< 1	ug/L	1	EPA 624	7 May 09	JG

SW8270 - No TICs to report.

SW8260- No TICs to report.

NITROBENZENE (SURROGATE) RECOVERY: 90 %
2-FLUOROBIPHENYL (SURROGATE) RECOVERY: 84 %
TERPHENYL-d14 (SURROGATE) RECOVERY: 86 %

2-FLUOROPHENOL (SURROGATE) RECOVERY: 66 %
PHENOL-d5 (SURROGATE) RECOVERY: 45 %
2,4,6-TRIBROMOPHENOL (SURROGATE) RECOVERY: 94 %

DIBROMOFLUOROMETHANE (SURROGATE) RECOVERY: 99 %
TOLUENE-d8 (SURROGATE) RECOVERY: 92 %
4-BROMOFLUOROBENZENE (SURROGATE) RECOVERY: 91 %

Approved by:
Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN
or
Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

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! = Due to sample quantity
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# = Due to sample concentration
+ = Due to extract volume

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17918
Work Order #:22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 10:39
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350167
FIELD BLANK

	As Received Result		Method RL	Method Reference	Date Analyzed		Analyst
Anionic Surfactants	< 0.03	mg/L	0.03	5540C	6 May 09	6:10	JD
Sulfide, Total	< 1	mg/L	1	SM 4500-S2(E)	7 May 09	3:01	JD

Approved by:
Jason G. Smith, Chemistry
Laboratory Manager New Ulm, MN
or
Dan O'Connell, Asst. Chemistry
Laboratory Manager New Ulm, MN

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Elevated "Less Than Result" (<): @ = Due to sample matrix
! = Due to sample quantity
^ = Due to instrument performance at RL
# = Due to sample concentration
+ = Due to extract volume

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

MINNESOTA VALLEY TESTING LABORATORIES, INC.
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RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17918
Work Order: 22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 10:39
Sampled By:
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350167
FIELD BLANK

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
625/8270 SVMS Extraction						7 May 09	CJW
Acenaphthene	83-32-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Acenaphthylene	208-96-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Anthracene	120-12-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzidine	92-87-5	< 10	ug/L	10	EPA 625	12 May 09	JG
Benzo(a)anthracene	56-55-3	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(a)pyrene	50-32-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(b)fluoranthene	205-99-2	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(ghi)perylene	191-24-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(k)fluoranthene	207-08-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Benzyl Butyl Phthalate	85-68-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Bis(2-chloroethoxy)methane	111-91-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Bis(2-chloroethyl)ether	111-44-4	< 2	ug/L	2	EPA 625	12 May 09	JG
Bis(2-chloroisopropyl)ether	108-60-1	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Bis(2-ethylhexyl)phthalate	117-81-7	< 2.6	ug/L	2.6	EPA 625	12 May 09	JG
4-Bromophenyl Phenyl Ether	101-55-3	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
4-Chloro-3-methyl phenol	59-50-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chloronaphthalene	91-58-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chlorophenol	95-57-8	< 2	ug/L	2	EPA 625	12 May 09	JG
4-Chlorophenyl Phenyl Ether	7005-72-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Chrysene	218-01-9	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Di-n-butyl phthalate	84-74-2	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
Di-n-octyl phthalate	117-84-0	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Dibenzo(a,h)anthracene	53-70-3	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
3,3-Dichlorobenzidine	91-94-1	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dichlorophenol	120-83-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Diethyl phthalate	84-66-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Dimethyl phthalate	131-11-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2,4-Dimethylphenol	105-67-9	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dinitrophenol	51-28-5	< 10	ug/L	10	EPA 625	12 May 09	JG
2,4-Dinitrotoluene	121-14-2	< 3.8	ug/L	3.8	EPA 625	12 May 09	JG
2,6-Dinitrotoluene	606-20-2	< 1	ug/L	1	EPA 625	12 May 09	JG
1,2-Diphenylhydrazine	122-66-7	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Fluoranthene	206-44-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Fluorene	86-73-7	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Hexachlorobenzene	118-74-1	< 1.8	ug/L	1.8	EPA 625	12 May 09	JG
Hexachlorobutadiene	87-68-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Hexachlorocyclopentadiene	77-47-4	< 4.8	ug/L	4.8	EPA 625	12 May 09	JG
Hexachloroethane	67-72-1	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG

RL = Reporting Limit

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Report Date: 13 May 09
Lab Number: 09-A17918
Work Order: 22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 10:39
Sampled By:
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350167
FIELD BLANK

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Isophorone	78-59-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2-Methyl-4,6-dinitrophenol	534-52-1	< 5.9	ug/L	5.9	EPA 625	12 May 09	JG
N-Nitrosodi-n-propylamine	621-64-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
N-Nitrosodimethylamine	62-75-9	< 4.2	ug/L	4.2	EPA 625	12 May 09	JG
N-Nitrosodiphenylamine	86-30-6	< 8.1	ug/L	8.1	EPA 625	12 May 09	JG
Naphthalene	91-20-3	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Nitrobenzene	98-95-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Nitrophenol	88-75-5	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
4-Nitrophenol	100-02-7	< 10	ug/L	10	EPA 625	12 May 09	JG
Pentachlorophenol	87-86-5	< 5.5	ug/L	5.5	EPA 625	12 May 09	JG
Phenanthrene	85-01-8	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Phenol	108-95-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Pyrene	129-00-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
1,2,4-Trichlorobenzene	120-82-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2,4,6-Trichlorophenol	88-06-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Acrolein	107-02-8	< 2	ug/L	2	EPA 624	7 May 09	JG
Acrylonitrile	107-13-1	< 1.8	ug/L	1.8	EPA 624	7 May 09	JG
Benzene	71-43-2	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromodichloromethane	75-27-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromoform	75-25-2	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromomethane	74-83-9	< 2	ug/L	2	EPA 624	7 May 09	JG
Carbon Tetrachloride	56-23-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Chlorobenzene	108-90-7	< 1	ug/L	1	EPA 624	7 May 09	JG
Chlorodibromomethane	124-48-1	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloroethane	75-00-3	< 1	ug/L	1	EPA 624	7 May 09	JG
2-Chloroethyl Vinyl Ether	110-75-8	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloroform	67-66-3	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloromethane	74-87-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichlorobenzene	95-50-1	< 1	ug/L	1	EPA 624	7 May 09	JG
1,3-Dichlorobenzene	541-73-1	< 1	ug/L	1	EPA 624	7 May 09	JG
1,4-Dichlorobenzene	106-46-7	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1-Dichloroethane	75-34-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichloroethane	107-06-2	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1-Dichloroethene	75-35-4	< 1	ug/L	1	EPA 624	7 May 09	JG
trans-1,2-Dichloroethene	156-60-5	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichloropropane	78-87-5	< 1	ug/L	1	EPA 624	7 May 09	JG
cis-1,3-Dichloropropene	10061-01-5	< 1	ug/L	1	EPA 624	7 May 09	JG
trans-1,3-Dichloropropene	10061-02-6	< 1	ug/L	1	EPA 624	7 May 09	JG

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NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17918
Work Order: 22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 10:39
Sampled By:
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350167
FIELD BLANK

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Ethyl Benzene	100-41-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Methylene Chloride	75-09-2	< 2	ug/L	2	EPA 624	7 May 09	JG
1,1,2,2-Tetrachloroethane	79-34-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Tetrachloroethene	127-18-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Toluene	108-88-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1,1-Trichloroethane	71-55-6	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1,2-Trichloroethane	79-00-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Trichloroethene	79-01-6	< 1	ug/L	1	EPA 624	7 May 09	JG
Trichlorofluoromethane	75-69-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Vinyl Chloride	75-01-4	< 1	ug/L	1	EPA 624	7 May 09	JG

SW8270 - No TICs to report.

SW8260- No TICs to report.

NITROBENZENE (SURROGATE) RECOVERY: 87 %
2-FLUOROBIPHENYL (SURROGATE) RECOVERY: 83 %
TERPHENYL-d14 (SURROGATE) RECOVERY: 85 %

2-FLUOROPHENOL (SURROGATE) RECOVERY: 63 %
PHENOL-d5 (SURROGATE) RECOVERY: 42 %
2,4,6-TRIBROMOPHENOL (SURROGATE) RECOVERY: 82 %

DIBROMOFLUOROMETHANE (SURROGATE) RECOVERY: 103 %
TOLUENE-d8 (SURROGATE) RECOVERY: 91 %
4-BROMOFLUOROBENZENE (SURROGATE) RECOVERY: 91 %

Approved by:
Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN
or
Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

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Report Date: 13 May 09
Lab Number: 09-A17919
Work Order #:22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 10:31
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

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NORTHEAST TECHNICAL SERVICES
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Project Number: 7158H
Sample Description: 350168
DUPLICATE

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Anionic Surfactants	< 0.03	mg/L	0.03	5540C	6 May 09 6:10	JD
Sulfide, Total	< 1	mg/L	1	SM 4500-S2(E)	7 May 09 3:01	JD

Approved by:
Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN or Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

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DUPLICATE

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
625/8270 SVMS Extraction						7 May 09	CJW
Acenaphthene	83-32-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Acenaphthylene	208-96-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Anthracene	120-12-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzidine	92-87-5	< 10	ug/L	10	EPA 625	12 May 09	JG
Benzo(a)anthracene	56-55-3	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(a)pyrene	50-32-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(b)fluoranthene	205-99-2	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(ghi)perylene	191-24-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(k)fluoranthene	207-08-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Benzyl Butyl Phthalate	85-68-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Bis(2-chloroethoxy)methane	111-91-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Bis(2-chloroethyl)ether	111-44-4	< 2	ug/L	2	EPA 625	12 May 09	JG
Bis(2-chloroisopropyl)ether	108-60-1	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Bis(2-ethylhexyl)phthalate	117-81-7	< 2.6	ug/L	2.6	EPA 625	12 May 09	JG
4-Bromophenyl Phenyl Ether	101-55-3	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
4-Chloro-3-methyl phenol	59-50-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chloronaphthalene	91-58-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chlorophenol	95-57-8	< 2	ug/L	2	EPA 625	12 May 09	JG
4-Chlorophenyl Phenyl Ether	7005-72-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Chrysene	218-01-9	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Di-n-butyl phthalate	84-74-2	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
Di-n-octyl phthalate	117-84-0	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Dibenzo(a,h)anthracene	53-70-3	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
3,3-Dichlorobenzidine	91-94-1	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dichlorophenol	120-83-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Diethyl phthalate	84-66-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Dimethyl phthalate	131-11-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2,4-Dimethylphenol	105-67-9	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dinitrophenol	51-28-5	< 10	ug/L	10	EPA 625	12 May 09	JG
2,4-Dinitrotoluene	121-14-2	< 3.8	ug/L	3.8	EPA 625	12 May 09	JG
2,6-Dinitrotoluene	606-20-2	< 1	ug/L	1	EPA 625	12 May 09	JG
1,2-Diphenylhydrazine	122-66-7	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Fluoranthene	206-44-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Fluorene	86-73-7	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Hexachlorobenzene	118-74-1	< 1.8	ug/L	1.8	EPA 625	12 May 09	JG
Hexachlorobutadiene	87-68-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Hexachlorocyclopentadiene	77-47-4	< 4.8	ug/L	4.8	EPA 625	12 May 09	JG
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DUPLICATE

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Isophorone	78-59-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2-Methyl-4,6-dinitrophenol	534-52-1	< 5.9	ug/L	5.9	EPA 625	12 May 09	JG
N-Nitrosodi-n-propylamine	621-64-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
N-Nitrosodimethylamine	62-75-9	< 4.2	ug/L	4.2	EPA 625	12 May 09	JG
N-Nitrosodiphenylamine	86-30-6	< 8.1	ug/L	8.1	EPA 625	12 May 09	JG
Naphthalene	91-20-3	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Nitrobenzene	98-95-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Nitrophenol	88-75-5	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
4-Nitrophenol	100-02-7	< 10	ug/L	10	EPA 625	12 May 09	JG
Pentachlorophenol	87-86-5	< 5.5	ug/L	5.5	EPA 625	12 May 09	JG
Phenanthrene	85-01-8	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Phenol	108-95-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Pyrene	129-00-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
1,2,4-Trichlorobenzene	120-82-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2,4,6-Trichlorophenol	88-06-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Acrolein	107-02-8	< 2	ug/L	2	EPA 624	7 May 09	JG
Acrylonitrile	107-13-1	< 1.8	ug/L	1.8	EPA 624	7 May 09	JG
Benzene	71-43-2	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromodichloromethane	75-27-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromoform	75-25-2	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromomethane	74-83-9	< 2	ug/L	2	EPA 624	7 May 09	JG
Carbon Tetrachloride	56-23-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Chlorobenzene	108-90-7	< 1	ug/L	1	EPA 624	7 May 09	JG
Chlorodibromomethane	124-48-1	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloroethane	75-00-3	< 1	ug/L	1	EPA 624	7 May 09	JG
2-Chloroethyl Vinyl Ether	110-75-8	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloroform	67-66-3	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloromethane	74-87-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichlorobenzene	95-50-1	< 1	ug/L	1	EPA 624	7 May 09	JG
1,3-Dichlorobenzene	541-73-1	< 1	ug/L	1	EPA 624	7 May 09	JG
1,4-Dichlorobenzene	106-46-7	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1-Dichloroethane	75-34-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichloroethane	107-06-2	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1-Dichloroethene	75-35-4	< 1	ug/L	1	EPA 624	7 May 09	JG
trans-1,2-Dichloroethene	156-60-5	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichloropropane	78-87-5	< 1	ug/L	1	EPA 624	7 May 09	JG
cis-1,3-Dichloropropene	10061-01-5	< 1	ug/L	1	EPA 624	7 May 09	JG
trans-1,3-Dichloropropene	10061-02-6	< 1	ug/L	1	EPA 624	7 May 09	JG

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration
! = Due to sample quantity + = Due to extract volume
^ = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

MINNESOTA VALLEY TESTING LABORATORIES, INC.
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www.mvtl.com

RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17919
Work Order: 22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09 10:31
Sampled By:
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350168
DUPLICATE

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Ethyl Benzene	100-41-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Methylene Chloride	75-09-2	< 2	ug/L	2	EPA 624	7 May 09	JG
1,1,2,2-Tetrachloroethane	79-34-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Tetrachloroethene	127-18-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Toluene	108-88-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1,1-Trichloroethane	71-55-6	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1,2-Trichloroethane	79-00-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Trichloroethene	79-01-6	< 1	ug/L	1	EPA 624	7 May 09	JG
Trichlorofluoromethane	75-69-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Vinyl Chloride	75-01-4	< 1	ug/L	1	EPA 624	7 May 09	JG

SW8270 - No TICs to report.

SW8260- No TICs to report.

NITROBENZENE (SURROGATE) RECOVERY: 81 %
2-FLUOROBIPHENYL (SURROGATE) RECOVERY: 78 %
TERPHENYL-d14 (SURROGATE) RECOVERY: 79 %

2-FLUOROPHENOL (SURROGATE) RECOVERY: 58 %
PHENOL-d5 (SURROGATE) RECOVERY: 38 %
2,4,6-TRIBROMOPHENOL (SURROGATE) RECOVERY: 78 %

DIBROMOFLUOROMETHANE (SURROGATE) RECOVERY: 102 %
TOLUENE-d8 (SURROGATE) RECOVERY: 91 %
4-BROMOFLUOROBENZENE (SURROGATE) RECOVERY: 92 %

Approved by:
Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN
or
Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix
! = Due to sample quantity
^ = Due to instrument performance at RL
# = Due to sample concentration
+ = Due to extract volume

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

MINNESOTA VALLEY TESTING LABORATORIES, INC.

MVTL

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51 W. Lincoln Way ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885

MEMBER ACIL

RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17920
Work Order: 22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09
Sampled By:
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350169
TRIP BLANK

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Acrolein	107-02-8	< 2	ug/L	2	EPA 624	7 May 09	JG
Acrylonitrile	107-13-1	< 1.8	ug/L	1.8	EPA 624	7 May 09	JG
Benzene	71-43-2	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromodichloromethane	75-27-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromoform	75-25-2	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromomethane	74-83-9	< 2	ug/L	2	EPA 624	7 May 09	JG
Carbon Tetrachloride	56-23-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Chlorobenzene	108-90-7	< 1	ug/L	1	EPA 624	7 May 09	JG
Chlorodibromomethane	124-48-1	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloroethane	75-00-3	< 1	ug/L	1	EPA 624	7 May 09	JG
2-Chloroethyl Vinyl Ether	110-75-8	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloroform	67-66-3	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloromethane	74-87-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichlorobenzene	95-50-1	< 1	ug/L	1	EPA 624	7 May 09	JG
1,3-Dichlorobenzene	541-73-1	< 1	ug/L	1	EPA 624	7 May 09	JG
1,4-Dichlorobenzene	106-46-7	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1-Dichloroethane	75-34-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichloroethane	107-06-2	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1-Dichloroethene	75-35-4	< 1	ug/L	1	EPA 624	7 May 09	JG
trans-1,2-Dichloroethene	156-60-5	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichloropropane	78-87-5	< 1	ug/L	1	EPA 624	7 May 09	JG
cis-1,3-Dichloropropene	10061-01-5	< 1	ug/L	1	EPA 624	7 May 09	JG
trans-1,3-Dichloropropene	10061-02-6	< 1	ug/L	1	EPA 624	7 May 09	JG
Ethyl Benzene	100-41-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Methylene Chloride	75-09-2	< 2	ug/L	2	EPA 624	7 May 09	JG
1,1,2,2-Tetrachloroethane	79-34-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Tetrachloroethene	127-18-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Toluene	108-88-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1,1-Trichloroethane	71-55-6	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1,2-Trichloroethane	79-00-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Trichloroethene	79-01-6	< 1	ug/L	1	EPA 624	7 May 09	JG
Trichlorofluoromethane	75-69-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Vinyl Chloride	75-01-4	< 1	ug/L	1	EPA 624	7 May 09	JG

SW8260- No TICs to report.

DIBROMOFLUOROMETHANE (SURROGATE) RECOVERY: 104 %
TOLUENE-d8 (SURROGATE) RECOVERY: 91 %
4-BROMOFLUOROBENZENE (SURROGATE) RECOVERY: 95 %

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration
! = Due to sample quantity + = Due to extract volume
^ = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447660 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

MINNESOTA VALLEY TESTING LABORATORIES, INC.

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MEMBER ACIL

RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 13 May 09
Lab Number: 09-A17920
Work Order: 22-2154
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 4 May 09
Sampled By:
Date Received: 5 May 09
PO #: 94826/7158H
Chain of Custody Number: 94826
Temp at Receipt: 0.0 C

Project Number: 7158H
Sample Description: 350169
TRIP BLANK

	CAS #	As Received Result	Method RL	Method Reference	Date Analyzed	Analyst

Approved by:

Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration
! = Due to sample quantity , = Due to extract volume
^ = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

315 CHESTNUT STREET * P.O. BOX 1142
VIRGINIA, MINNESOTA 55792
218-741-4290 * FAX 218-741-4291

Chain of Custody Record

COC#: 94860

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER: Kurt Dorn	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH:
PROJ. NO: 7158.08H	COLLECTION: MATRIX

LOG-IN	SAMPLE #	DESCRIPTION	DATE	TIME	LIQ	SOL	Filtered	TYPE & # CONTAINERS: General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH Field	Specific Conductance Field	Temperature Field	Flow Field	ANALYSIS:
350434	WS-011		5 May 09	0827									7.83	1870	7.4	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*
350445	SD-004	2W Seep A	5 May 09	0937									7.27	1769	6.5	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*
350446	SD-005	2W Seep B	5 May 09	1023									7.36	1865	5.9	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*

Comments:

USE LOW REPORTING LIMIT METHODS
Samples due back to lab NO LATER THAN 2PM

* (See 40 CFR Part 136) Reference Pg. 46 of Permit #MN0054089 (Tailings Basin)

See attachments for all sampling and analysis details

RELINQUISHED BY: Kurt Dorn	DATE: 5-May-09 TIME: 1345	RECEIVED BY:	DATE: TIME:
RELINQUISHED BY:	DATE: TIME:	RECEIVED BY:	DATE: TIME:
RECEIVED FOR LAB BY:		TEMP AT ARRIVAL: 3.4 °C	
DATE: 5/5/09 TIME: 13:45		REPORT DATE:	

315 CHESTNUT STREET * P.O. BOX 1142

VIRGINIA, MINNESOTA 55792

218-741-4290 * FAX 218-741-4291

Chain of Custody Record

Page: 2 of 2

COC#: 948620

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER: Kurt Dora	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH:
PROJ. NO: 7158.08H	COLLECTION: / MATRIX

LOG-IN	SAMPLE #	DESCRIPTION	DATE	TIME	LIQ	SOL	Filtered	General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH Field	Specific Conductance Field	Temperature Field	Flow Field	ANALYSIS:
350447	FB-2	Field Blank	5 May 09	0857									—	—	—	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*
350448	DUP-2	Duplicate	5 May 09	0837									—	—	—	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*
350449	TB-2	Trip Blank	5 May 09	—									—	—	—	—	Method 624 VOCs+TICs*, GRO

TYPE & # CONTAINERS

Comments:

USE LOW REPORTING LIMIT METHODS

Samples due back to lab NO LATER THAN 2PM

* (See 40 CFR Part 136) Reference Pg. 46 of Permit #MN0054089 (Tailings Basin)

See attachments for all sampling and analysis details

Pyrene is included in SVOC analysis

RELINQUISHED BY: Kurt Dora	DATE: 5-May-09 TIME: 1345	RECEIVED BY:	DATE: TIME:
RELINQUISHED BY:	DATE: TIME:	RECEIVED BY:	DATE: TIME:
RECEIVED FOR LAB BY:		TEMP AT ARRIVAL: 3.8 °C	
DATE: 5/5/09	TIME: 13:45	REPORT DATE:	

SAMPLE SUMMARY

Northeast Technical Services
315 Chestnut Street
PO Box 1142
Virginia, MN 55792
Phone: 218-741-4290
Fax: 218-742-1010

Laboratory Results

MDH Certification: 027-137-157

NTS COC: 94860

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/9/2009
Rec'd Temperature: 3.8 °C

Approved by: _____
Terri Zeleznikar
Project Manager

Northeast Technical Services
Attn: Bruce Trebnick
526 Chestnut Street
Virginia, MN 55792

Sample Description	Sample ID	Sample Type	Matrix	Sample Date	Received Date
WS-011	350434	Grab	Aqueous	5/5/2009 08:27	5/5/2009 13:45
SD-004	350445	Grab	Aqueous	5/5/2009 09:37	5/5/2009 13:45
SD-005	350446	Grab	Aqueous	5/5/2009 10:23	5/5/2009 13:45
FB-2	350447	Grab	Aqueous	5/5/2009 08:57	5/5/2009 13:45
Dup-2	350448	Grab	Aqueous	5/5/2009 08:37	5/5/2009 13:45
TB-2	350449	Grab	Aqueous	5/5/2009	5/5/2009 13:45

SAMPLE RESULTS

NTS Sample: 350434
Description: WS-011
Sample Date: 5/5/2009 8:27:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94860
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 3.8 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Aluminum	<25	25	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:19	
Antimony	<0.5	0.5	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:47	
Arsenic	<2	2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:47	
Barium	40	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:19	
Beryllium	<0.2	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:47	
Boron	322	50	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:19	
Cadmium	<0.2	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:47	
Chromium	<1	1	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:47	
Cobalt	2.9	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:47	
Copper	1.0	0.7	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:47	
Iron	575	50	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:19	
Lead	<0.5	0.5	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:47	
Lithium	<40	40	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:21	
Manganese	755	40	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:21	
Molybdenum	14.6	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:47	
Nickel	6.3	0.6	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:47	
Potassium	10	2.5	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:21	
Selenium	<1	1	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:47	
Silver	<0.2	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:47	
Sodium	54.1	20	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:21	
Strontium	605	20	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:21	
Thallium	<0.4	0.4	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:47	
Tin	<0.5	0.5	µg/L	EPA 200.8	5/7/2009	5/15/2009	
Titanium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:19	
Vanadium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:19	
Zinc	<6	6	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:47	
DRO	<0.09	0.09	mg/L	WI(95) DRO	5/7/2009	5/8/2009 10:24	
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/8/2009 06:45	
Aroclor 1016	<0.3	0.3	µg/L	EPA 8082	5/8/2009	5/27/2009	
Aroclor 1221	<0.6	0.6	µg/L	EPA 8082		5/27/2009	
Aroclor 1232	<0.6	0.6	µg/L	EPA 8082		5/27/2009	
Aroclor 1242	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1248	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1254	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1260	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
TOC	4.4	1	mg/L	SM 5310 C-00		5/7/2009	
Alkalinity, Total	638	20	mg/L as CaCO3	EPA 310.1		5/7/2009	
BOD	<2.4	2.4	mg/L	SM 5210B		5/6/2009 07:43	z
Bromide	<0.1	0.1	mg/L	EPA 300.0		5/23/2009	

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	Sample received more than six hours after collection. Fecal coliform bacteria results may not be valid.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.
z	D.O. depletion < 2 mg/L	

SAMPLE RESULTS

NTS Sample: 350434
Description: WS-011
Sample Date: 5/5/2009 8:27:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94860
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 3.8 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloride	22.8	0.5	mg/L	EPA 300.0		5/23/2009 12:32	
COD	14	10	mg/L	SM 5220D	5/7/2009	5/7/2009	
Color	15	5	Pt/Co Units	EPA 110.2		5/6/2009	
Fecal Coliform Bacteria	<2	2	cfu/100 ml	SM 9222D	5/5/2009	5/5/2009 16:35	h
Fluoride	1.6	0.1	mg/L	EPA 300.0		5/23/2009 12:32	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/6/2009	
Nitrogen, Ammonia	<0.1	0.1	mg/L as N	EPA 350.1	5/12/2009	5/12/2009	
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/11/2009	
Nitrogen, Total Kjeldahl	0.52	0.5	mg/L as N	EPA 351.2	5/13/2009	5/14/2009	
Nitrogen, Total Organic (TON)	0.52	0.5	mg/L	EPA 350.1/351.2		6/5/2009	
Phosphorous, Total	0.006	0.004	mg/L as P	EPA 365.2	5/6/2009	5/7/2009	
Solids, Filterable (TDS)	1280	10	mg/L	EPA 160.1		5/11/2009	
Sulfate	490	5	mg/L	EPA 300.0		5/23/2009 13:00	
Sulfide	<1	1	mg/L	SM 4500-S2 F-00		5/7/2009	S2
Ambiguous Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Amphibole Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Chrysotile Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Non-Amphibole, Non-Chrysotile F	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Total Fibers	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Surfactants	<0.03	0.03	mg/L	5540C		5/7/2009	S2
SVOC	See Report		µg/L	EPA 625		5/12/2009	S2
VOC	See Report		µg/L	EPA 624		5/8/2009	S2

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	Sample received more than six hours after collection.. Fecal coliform bacteria results may not be valid.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.
z	D.O. depletion < 2 mg/L	

SAMPLE RESULTS

NTS Sample: 350445
Description: SD-004
Sample Date: 5/5/2009 9:37:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94860
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 3.8 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Aluminum	<25	25	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20	
Antimony	<0.5	0.5	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:42	
Arsenic	<2	2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:42	
Barium	28.1	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20	
Beryllium	<0.2	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:42	
Boron	423	50	µg/L	EPA 200.7		5/18/2009	
Cadmium	<0.2	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:42	
Chromium	<1	1	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:42	
Cobalt	0.84	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:42	
Copper	1.1	0.7	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:42	
Iron	7010	50	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20	
Lead	<0.5	0.5	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:42	
Lithium	30.6	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20	
Manganese	487	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20	
Molybdenum	17.6	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:42	
Nickel	3.4	0.6	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:42	
Potassium	8.28	1	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:20	
Selenium	<1	1	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:42	
Silver	<0.2	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:42	
Sodium	52.3	8	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:20	
Strontium	595	20	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20	
Thallium	<0.4	0.4	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:42	
Tin	<0.5	0.5	µg/L	EPA 200.8	5/7/2009	5/15/2009	
Titanium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20	
Vanadium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20	
Zinc	<6	6	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:42	
DRO	<0.1	0.1	mg/L	WI(95) DRO	5/8/2009	5/11/2009 07:29	
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/13/2009 03:49	
Aroclor 1016	<0.3	0.3	µg/L	EPA 8082	5/8/2009	5/27/2009	
Aroclor 1221	<0.6	0.6	µg/L	EPA 8082		5/27/2009	
Aroclor 1232	<0.6	0.6	µg/L	EPA 8082		5/27/2009	
Aroclor 1242	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1248	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1254	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
Aroclor 1260	<0.3	0.3	µg/L	EPA 8082		5/27/2009	
TOC	3.3	1	mg/L	SM 5310 C-00		5/7/2009	
Alkalinity, Total	631	20	mg/L as CaCO3	EPA 310.1		5/12/2009	
BOD	<3	3	mg/L	SM 5210B		5/6/2009 07:43	z
Bromide	0.18	0.1	mg/L	EPA 300.0		5/21/2009	

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	Sample received more than six hours after collection. Fecal coliform bacteria results may not be valid.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.
z	D.O. depletion < 2 mg/L	

SAMPLE RESULTS

NTS Sample: 350445
Description: SD-004
Sample Date: 5/5/2009 9:37:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94860
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 3.8 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloride	18.8	0.5	mg/L	EPA 300.0		5/21/2009 23:47	
COD	12.7	10	mg/L	SM 5220D	5/7/2009	5/7/2009	
Color	35	5	Pt/Co Units	EPA 110.2		5/6/2009	
Fecal Coliform Bacteria	<2	2	cfu/100 ml	SM 9222D	5/5/2009	5/5/2009 16:35	h
Fluoride	1.17	0.1	mg/L	EPA 300.0		5/21/2009 23:47	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/6/2009	
Nitrogen, Ammonia	<0.1	0.1	mg/L as N	EPA 350.1	5/12/2009	5/12/2009	
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/11/2009	
Nitrogen, Total Kjeldahl	0.63	0.5	mg/L as N	EPA 351.2	5/13/2009	5/14/2009	
Nitrogen, Total Organic (TON)	0.63	0.5	mg/L	EPA 350.1/351.2		6/5/2009	
Phosphorous, Total	0.023	0.004	mg/L as P	EPA 365.2	5/6/2009	5/7/2009	
Solids, Filterable (TDS)	1170	10	mg/L	EPA 160.1		5/11/2009	
Sulfate	450	5	mg/L	EPA 300.0		5/22/2009 00:15	
Sulfide	<1	1	mg/L	SM 4500-S2 F-00		5/7/2009	S2
Ambiguous Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Amphibole Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Chrysotile Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Non-Amphibole, Non-Chrysotile F	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Total Fibers	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Surfactants	<0.03	0.03	mg/L	5540C		5/7/2009	S2
SVOC	See Report		µg/L	EPA 625		5/12/2009	S2
VOC	See report		µg/L	EPA 624		5/8/2009	S2

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	Sample received more than six hours after collection. Fecal coliform bacteria results may not be valid.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.
z	D.O. depletion < 2 mg/L	

SAMPLE RESULTS

NTS Sample: 350446
Description: SD-005
Sample Date: 5/5/2009 10:23:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94860
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 3.8 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
Aluminum	<25	25	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Antimony	<0.5	0.5	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:16
Arsenic	3.0	2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:16
Barium	33.6	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Beryllium	<0.2	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:16
Boron	494	50	µg/L	EPA 200.7		5/18/2009
Cadmium	<0.2	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:16
Chromium	<1	1	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:16
Cobalt	4.4	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:16
Copper	1.1	0.7	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:16
Iron	6850	50	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Lead	<0.5	0.5	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:16
Lithium	36.2	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Manganese	601	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Molybdenum	53.2	0.2	µg/L	EPA 200.8	5/7/2009	5/18/2009 16:00
Nickel	5.1	0.6	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:16
Potassium	12.9	1	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Selenium	<1	1	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:16
Silver	<0.2	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:16
Sodium	62	8	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Strontium	522	20	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Thallium	<0.4	0.4	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:16
Tin	<0.5	0.5	µg/L	EPA 200.8	5/7/2009	5/15/2009
Titanium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Vanadium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Zinc	<6	6	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:16
DRO	<0.1	0.1	mg/L	WI(95) DRO	5/8/2009	5/11/2009 07:57
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/13/2009 04:17
Aroclor 1016	<0.3	0.3	µg/L	EPA 8082	5/8/2009	5/27/2009
Aroclor 1221	<0.6	0.6	µg/L	EPA 8082		5/27/2009
Aroclor 1232	<0.6	0.6	µg/L	EPA 8082		5/27/2009
Aroclor 1242	<0.3	0.3	µg/L	EPA 8082		5/27/2009
Aroclor 1248	<0.3	0.3	µg/L	EPA 8082		5/27/2009
Aroclor 1254	<0.3	0.3	µg/L	EPA 8082		5/27/2009
Aroclor 1260	<0.3	0.3	µg/L	EPA 8082		5/27/2009
TOC	1.3	1	mg/L	SM 5310 C-00		5/7/2009
Alkalinity, Total	598	20	mg/L as CaCO3	EPA 310.1		5/12/2009
BOD	<12	12	mg/L	SM 5210B		5/6/2009 07:43
Bromide	0.19	0.1	mg/L	EPA 300.0		5/22/2009

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350446
Description: SD-005
Sample Date: 5/5/2009 10:23:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94860
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 3.8 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloride	20.1	0.5	mg/L	EPA 300.0		5/22/2009 00:44	
COD	<10	10	mg/L	SM 5220D	5/7/2009	5/7/2009	
Color	35	5	Pt/Co Units	EPA 110.2		5/6/2009	
Fecal Coliform Bacteria	<2	2	cfu/100 ml	SM 9222D	5/5/2009	5/5/2009 16:35	
Fluoride	1.98	0.1	mg/L	EPA 300.0		5/22/2009 00:44	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/6/2009	
Nitrogen, Ammonia	0.14	0.1	mg/L as N	EPA 350.1	6/5/2009	6/6/2009	h
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/7/2009	
Nitrogen, Total Kjeldahl	<0.5	0.5	mg/L as N	EPA 351.2	5/13/2009	5/14/2009	
Nitrogen, Total Organic (TON)	<0.5	0.5	mg/L	EPA 350.1/351.2		6/8/2009	
Phosphorous, Total	0.008	0.004	mg/L as P	EPA 365.2	5/6/2009	5/7/2009	
Solids, Filterable (TDS)	1250	10	mg/L	EPA 160.1		5/11/2009	
Sulfate	471	5	mg/L	EPA 300.0		5/22/2009 01:12	
Sulfide	<1	1	mg/L	SM 4500-S2 F-00		5/7/2009	S2
Ambiguous Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Amphibole Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Chrysotile Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Non-Amphibole, Non-Chrysotile F	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Total Fibers	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Surfactants	<0.03	0.03	mg/L	5540C		5/7/2009	S2
SVOC	See Report		µg/L	EPA 625		5/19/2009	S2
VOC	See report		µg/L	EPA 624		5/8/2009	S2

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350447
Description: FB-2
Sample Date: 5/5/2009 8:57:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94860
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 3.8 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
Aluminum	<25	25	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Antimony	<0.5	0.5	µg/L	EPA 200.8	5/7/2009	5/20/2009 11:16
Arsenic	<2	2	µg/L	EPA 200.8	5/7/2009	5/20/2009 11:16
Barium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Beryllium	<0.2	0.2	µg/L	EPA 200.8	5/7/2009	5/20/2009 11:16
Boron	<50	50	µg/L	EPA 200.7		5/18/2009
Cadmium	<0.2	0.2	µg/L	EPA 200.8	5/7/2009	5/20/2009 11:16
Chromium	<1	1	µg/L	EPA 200.8	5/7/2009	5/20/2009 11:16
Cobalt	<0.2	0.2	µg/L	EPA 200.8	5/7/2009	5/20/2009 11:16
Copper	<0.7	0.7	µg/L	EPA 200.8	5/7/2009	5/20/2009 11:16
Iron	<50	50	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Lead	<0.5	0.5	µg/L	EPA 200.8	5/7/2009	5/20/2009 11:16
Lithium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Manganese	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Molybdenum	<0.2	0.2	µg/L	EPA 200.8	5/7/2009	5/20/2009 11:16
Nickel	<0.6	0.6	µg/L	EPA 200.8	5/7/2009	5/20/2009 11:16
Potassium	<0.25	0.25	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Selenium	<1	1	µg/L	EPA 200.8	5/7/2009	5/20/2009 11:16
Silver	<0.2	0.2	µg/L	EPA 200.8	5/7/2009	5/20/2009 11:16
Sodium	<2	2	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Strontium	<5	5	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Thallium	<0.4	0.4	µg/L	EPA 200.8	5/7/2009	5/20/2009 11:16
Tin	<0.5	0.5	µg/L	EPA 200.8	5/7/2009	5/20/2009
Titanium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Vanadium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Zinc	<6	6	µg/L	EPA 200.8	5/7/2009	5/20/2009 11:16
DRO	<0.09	0.09	mg/L	WI(95) DRO	5/8/2009	5/11/2009 08:24
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/13/2009 04:45
Aroclor 1016	<0.3	0.3	µg/L	EPA 8082	5/8/2009	5/27/2009
Aroclor 1221	<0.6	0.6	µg/L	EPA 8082		5/27/2009
Aroclor 1232	<0.6	0.6	µg/L	EPA 8082		5/27/2009
Aroclor 1242	<0.3	0.3	µg/L	EPA 8082		5/27/2009
Aroclor 1248	<0.3	0.3	µg/L	EPA 8082		5/27/2009
Aroclor 1254	<0.3	0.3	µg/L	EPA 8082		5/27/2009
Aroclor 1260	<0.3	0.3	µg/L	EPA 8082		5/27/2009
TOC	<1	1	mg/L	SM 5310 C-00		5/7/2009
Alkalinity, Total	<10	10	mg/L as CaCO3	EPA 310.1		5/7/2009
BOD	<2.4	2.4	mg/L	SM 5210B		5/6/2009 07:43
Bromide	<0.1	0.1	mg/L	EPA 300.0		5/23/2009

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	Sample received more than six hours after collection. Fecal coliform bacteria results may not be valid.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350447
Description: FB-2
Sample Date: 5/5/2009 8:57:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94860
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 3.8 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloride	<0.5	0.5	mg/L	EPA 300.0		5/23/2009 13:29	
COD	<10	10	mg/L	SM 5220D	5/7/2009	5/7/2009	
Color	<5	5	Pt/Co Units	EPA 110.2		5/6/2009	
Fecal Coliform Bacteria	<2	2	cfu/100 ml	SM 9222D	5/5/2009	5/5/2009 16:35	h
Fluoride	<0.1	0.1	mg/L	EPA 300.0		5/23/2009 13:29	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/6/2009	
Nitrogen, Ammonia	<0.1	0.1	mg/L as N	EPA 350.1	6/5/2009	6/6/2009	h
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/7/2009	
Nitrogen, Total Kjeldahl	<0.5	0.5	mg/L as N	EPA 351.2	5/13/2009	5/14/2009	
Nitrogen, Total Organic (TON)	<0.5	0.5	mg/L	EPA 350.1/351.2		6/8/2009	
Phosphorous, Total	<0.004	0.004	mg/L as P	EPA 365.2	5/6/2009	5/7/2009	
Solids, Filterable (TDS)	<10	10	mg/L	EPA 160.1		5/11/2009	
Sulfate	<1	1	mg/L	EPA 300.0		5/23/2009 13:29	
Sulfide	<1	1	mg/L	SM 4500-S2 F-00		5/7/2009	S2
Ambiguous Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Amphibole Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Chrysotile Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Non-Amphibole, Non-Chrysotile F	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Total Fibers	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Surfactants	<0.03	0.03	mg/L	5540C		5/7/2009	S2
SVOC	See Report		µg/L	EPA 625		5/12/2009	S2
VOC	See Report		µg/L	EPA 624		5/7/2009	S2

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	Sample received more than six hours after collection. Fecal coliform bacteria results may not be valid.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350448
Description: Dup-2
Sample Date: 5/5/2009 8:37:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94860
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 3.8 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
Aluminum	<25	25	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Antimony	<0.5	0.5	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:52
Arsenic	<2	2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:52
Barium	40.2	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Beryllium	<0.2	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:52
Boron	324	50	µg/L	EPA 200.7		5/18/2009
Cadmium	<0.2	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:52
Chromium	<1	1	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:52
Cobalt	2.9	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:52
Copper	1	0.7	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:52
Iron	591	50	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Lead	<0.5	0.5	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:52
Lithium	30.5	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Manganese	747	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Molybdenum	14.5	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:52
Nickel	6.4	0.6	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:52
Potassium	10.4	1	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Selenium	<1	1	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:52
Silver	<0.2	0.2	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:52
Sodium	56.2	8	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Strontium	583	20	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Thallium	<0.4	0.4	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:52
Tin	<0.5	0.5	µg/L	EPA 200.8	5/7/2009	5/15/2009
Titanium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Vanadium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:20
Zinc	<6	6	µg/L	EPA 200.8	5/7/2009	5/15/2009 11:52
DRO	<0.09	0.09	mg/L	WI(95) DRO	5/8/2009	5/11/2009 08:52
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/13/2009 05:13
Aroclor 1016	<0.3	0.3	µg/L	EPA 8082	5/8/2009	5/27/2009
Aroclor 1221	<0.6	0.6	µg/L	EPA 8082		5/27/2009
Aroclor 1232	<0.6	0.6	µg/L	EPA 8082		5/27/2009
Aroclor 1242	<0.3	0.3	µg/L	EPA 8082		5/27/2009
Aroclor 1248	<0.3	0.3	µg/L	EPA 8082		5/27/2009
Aroclor 1254	<0.3	0.3	µg/L	EPA 8082		5/27/2009
Aroclor 1260	<0.3	0.3	µg/L	EPA 8082		5/27/2009
TOC	4.3	1	mg/L	SM 5310 C-00		5/7/2009
Alkalinity, Total	597	20	mg/L as CaCO3	EPA 310.1		5/7/2009
BOD	<2.4	2.4	mg/L	SM 5210B		5/6/2009 07:43
Bromide	0.14	0.1	mg/L	EPA 300.0		5/23/2009

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	Sample received more than six hours after collection. Fecal coliform bacteria results may not be valid.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350448
Description: Dup-2
Sample Date: 5/5/2009 8:37:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94860

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 3.8 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloride	22.6	0.5	mg/L	EPA 300.0		5/23/2009 04:32	
COD	13.5	10	mg/L	SM 5220D	5/7/2009	5/7/2009	
Color	15	5	Pt/Co Units	EPA 110.2		5/6/2009	
Fecal Coliform Bacteria	<2	2	cfu/100 ml	SM 9222D	5/5/2009	5/5/2009 16:35	h
Fluoride	1.64	0.1	mg/L	EPA 300.0		5/23/2009 04:32	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/6/2009	
Nitrogen, Ammonia	<0.1	0.1	mg/L as N	EPA 350.1	6/5/2009	6/6/2009	h
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/7/2009	
Nitrogen, Total Kjeldahl	0.62	0.5	mg/L as N	EPA 351.2	5/13/2009	5/14/2009	
Nitrogen, Total Organic (TON)	0.62	0.5	mg/L	EPA 350.1/351.2		6/8/2009	
Phosphorous, Total	<0.004	0.004	mg/L as P	EPA 365.2	5/6/2009	5/7/2009	
Solids, Filterable (TDS)	1290	10	mg/L	EPA 160.1		5/11/2009	
Sulfate	484	5	mg/L	EPA 300.0		5/23/2009 05:00	
Sulfide	<1	1	mg/L	SM 4500-S2 F-00		5/7/2009	S2
Ambiguous Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Amphibole Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Chrysotile Fiber	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Non-Amphibole, Non-Chrysotile F	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Total Fibers	<0.2	0.2	Million Fibers/L	EPA 100.2		5/14/2009	S9
Surfactants	<0.03	0.03	mg/L	5540C		5/7/2009	S2
SVOC	See Report		µg/L	EPA 625		5/19/2009	S2
VOC	See Report		µg/L	EPA 624		5/8/2009	S2

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	Sample received more than six hours after collection. Fecal coliform bacteria results may not be valid.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.
S9	Analysis performed by EMSL	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350449
Description: TB-2
Sample Date: 5/5/2009

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94860
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: K. Doran
Report Date: 6/8/2009
Rec'd Temperature: 3.8 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/13/2009 05:41	
VOC	See Report		µg/L	EPA 624		6/8/2009	S2

Qualifier	Description	Note
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

Sample Receiving Checklist 4.07

(non criminal Chain of Custody)

Samples require client direction, discrepancies noted below: COC# 948600

- o No COC Documentation supplied
- o Incomplete COC Documentation
- o Sample Containers listed on COC do not match
- o Sample Containers listed on COC are compromised
- o Sample Temp is over range and cooling preservation is required
- o Signatures and Times for collection and/or transfer are not complete
- o Custody seals requested but not intact
- o Sample parameters exceed hold time
- o Sample volume/mass does not meet minimum requirements (PM to discuss w/analysts)

Attach to COC if available and notify Project Manager

PM Record of client information:

Date:_____

PM Signature:_____

tribal/qapcurrent/Virginia/sops/support/title

315 CHESTNUT STREET * P.O. BOX 1142
VIRGINIA, MINNESOTA 55792
218-741-4290 * FAX 218-741-4291

Chain of Custody Record

Page: 1 of 2

COC#: 94860

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER: Kurt Dorn	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH:
PROJ. NO: 7158.08H	COLLECTION: / MATRIX

LOG-IN	SAMPLE #	DESCRIPTION	DATE	TIME	LIQ	SOL	Filtered	TYPE & # CONTAINERS: General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH Field	Specific Conductance Field	Temperature Field	Flow Field	ANALYSIS:
350434	WS-011		5 May 09	0827									7.83	1870	7.4	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*
350445	SD-004	2W Seep A	5 May 09	0937									7.27	1769	6.5	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*
350446	SD-005	2W Seep B	5 May 09	1023									7.36	1865	5.9	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*

Comments:
USE LOW REPORTING LIMIT METHODS
Samples due back to lab NO LATER THAN 2PM

* (See 40 CFR Part 136) Reference Pg. 46 of Permit #MN0054089 (Tailings Basin)

See attachments for all sampling and analysis details

RELINQUISHED BY: Kurt Dorn	DATE: 5-May-09 TIME: 1345
RECEIVED BY:	DATE: TIME:
RELINQUISHED BY:	DATE: TIME:
RECEIVED BY:	DATE: TIME:
RECEIVED FOR LAB BY:	TEMP AT ARRIVAL: 3.5 °C
DATE: 5/5/09 TIME: 13:45	REPORT DATE:

NTS

315 CHESTNUT STREET * P.O. BOX 1142

VIRGINIA, MINNESOTA 55792

218-741-4290 * FAX 218-741-4291

Chain of Custody Record

Page: 2 of 2

COC#: 94860

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER: Kurt Dora	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH:
PROJ. NO: 7158.08H	COLLECTION:

LOG-IN	SAMPLE #	DESCRIPTION	DATE	TIME	MATRIX LIQ	MATRIX SOL	Filtered	TYPE & # CONTAINERS: General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH Field	Specific Conductance Field	Temperature Field	Flow Field	ANALYSIS:
350447	FB-2	Field Blank	5 May 09	0857									—	—	—	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*
350448	DUP-2	Duplicate	5 May 09	0837									—	—	—	—	BOD, COD, TOC, GRO, DRO, Fecal Coliform, NH3, Amines, Total Fibers, Color, NO2+NO3, TON, LL-Phos, Br, Cl, F, Sulfide, SO4, Surfactants, Alk., TDS, Al, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, PCBs, Method 624 VOCs+TICs*, Method 625 SVOCs+TICs*
350449	TB-2	Trip Blank	5 May 09	—									—	—	—	—	Method 624 VOCs+TICs*, GRO

Comments:

USE LOW REPORTING LIMIT METHODS

Samples due back to lab NO LATER THAN 2PM

* (See 40 CFR Part 136) Reference Pg. 46 of Permit #MN0054089 (Tailings Basin)

See attachments for all sampling and analysis details

Pyrene is included in SVOC analysis

RELINQUISHED BY: Kurt Dora	DATE: 5-May-09 TIME: 1345	RECEIVED BY:	DATE: TIME:
RELINQUISHED BY:	DATE: TIME:	RECEIVED BY:	DATE: TIME:
RECEIVED FOR LAB BY:		TEMP AT ARRIVAL: 3.8 °C	

DATE: 5/5/09 TIME: 13:45

REPORT DATE:

Chapter 10. Total Facility Requirements

18. Permit Reissuance

18.2 The Permittee shall include analytical data as part of the application for reissuance of this permit. These analyses shall be done on individual samples taken during the twelve-month period before the reissuance application is submitted. The application shall identify the sampling date(s).

18.3 The permit application shall include analytical data for at least the following parameters at each of the individual outfalls SD001 through SD006:

a. biochemical oxygen demand, chemical oxygen demand, total organic carbon, gasoline range organics, diesel range organics, pyrene (625), fecal coliform, ammonia, temperature, amines;

b. fibers, color, nitrate-nitrite (as nitrogen), total organic nitrogen, total phosphorus, bromide, chloride, fluoride, sulfide (as sulfur), sulfate, surfactants, alkalinity, total dissolved solids;

c. aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, iron, lead, lithium, manganese, molybdenum, nickel, potassium, selenium, silver, sodium, strontium, thallium, tin, titanium, vanadium, zinc (all in total form) using atomic absorption (AA) furnace methods according to 40 CFR Part 136.3;

d. gross alpha particles, radium-226, radium-228, radon-222, uranium; See pg. 20f-2

e. PCB-1016, PCB-1221, PCB-1232, PCB-1242, PCB-1248, PCB-1254, PCB-1260; and 625

f. a scan of constituents using EPA Methods 624 and 625, in 40 CFR Part 136. The Permittee shall identify, in addition to those pollutants noted in Methods 624 and 625 (Appendix D, Table II), the concentrations of at least ten of the most abundant constituents of the acid and base/neutral organic fractions shown to be present by peaks on the total ion plots (reconstructed gas chromatograms) within ten percent of the nearest internal standard. Identification shall be through the use of U.S. EPA/NIH computerized library of mass spectra, with visual confirmation and potential quantification.

18.4 The permit application shall include low-level detection analytical data for the following parameters at monitoring stations GW001 through GW008: aluminum, amines, antimony, arsenic, cadmium, chromium, cobalt, copper, iron, lead, lithium, nickel, potassium, radium-226, radium-228, selenium, silver, sodium, strontium, sulfide, thallium, vanadium, zinc (all in dissolved form), Eh, dissolved oxygen, nitrate-nitrite, ammonia, surfactants, gasoline range organics, diesel range organics and pyrene.

18.5 The Permittee shall include, as part of the application for reissuance of this permit:

a. an updated water balance for the facility; and

b. an updated Operating Plan for the tailings basin, including the Emergency Basin, for the next five years.

Cliffs Erie Tailings Basin Area NPDES Permit

MPCA Request For Supplemental Monitoring

Prepared by Dave Skolasinski

April 17, 2009

Cliffs Erie submitted an application during early 2005 for reissuance of the Hoyt Lakes Plant Site and Tailings Basin NPDES Permit MN0054089, which expired on November 30, 2005. The permit has been administratively continued since that time. Polymet Mining, which is in the process of purchasing the plant site and tailings basin area as part of its proposed copper-nickel mining project, is awaiting release of the draft project EIS from the DNR for public comment. The MPCA is addressing water quality matters related to the proposed project.

Questions have arisen regarding possible petroleum contamination associated with the tailings basin and certain areas of concern (AOCs) identified through the Voluntary Investigation and Cleanup (VIC) program in the vicinity of the tailings basin. This is due to concern resulting from possible past petroleum product spills and leaks in the vicinity of the tailings basin. It is also due to concern for petroleum product leaks from equipment that may have occurred in the concentrator during ore processing operations and flow of the product with tailings to the tailings basin. Also, during 2007 a petroleum contaminated soil land farm was established on the western cell of the tailings basin. The MPCA wishes to address this concern with regard to the Polymet EIS. Richard Clark, MPCA NPDES permit writer, contacted me on Friday April 10 to discuss this matter and to request that water samples be collected, analyzed, and submitted as supplemental data to the 2005 permit reissuance application. Details of his request are as follows:

Samples To Be Collected

- Collect one sample from each location of **undiluted seep water to the extent possible** (or collect it as close to the seep as possible) from the tailings basin to satisfy sampling in the vicinity of Outfalls SD-001, SD-002, SD-004, and SD-005.

- Collect one sample of **undiluted water** from the Emergency Basin overflow at the T-culvert or immediately upstream of the T-culvert if necessary to satisfy sampling in the vicinity of SD-006.

- Collect one sample of **undiluted tailings basin water** from tailings basin Cell 1E at the culvert outfall to satisfy sampling in the vicinity of SD-026.

- For seeps WS-011, WS-012, and WS-013, which flow to the Emergency Basin, choose the seep with the most flow and collect one sample of **undiluted seep water to the extent possible** from that seep.

- Collect one sample from each of the groundwater monitoring wells (GW-001, GW-002, GW-003, GW-004, GW-005, GW-006, GW-007, and GW-008).
    - Richard Clark indicated he was aware of well sampling that Barr Engineering was going to conduct for Polymet this spring. He suggested consideration be given to coordinating Barr's effort with that requested above as a possible cost savings for sample collection and analysis.

Sample Analysis

- All surface water and seep water samples are to be analyzed for the parameters specified in the current permit on page 46, Chapter 10 – Total Facility Requirements, Conditions 18.3.a-f, a copy of which is attached.
    - However, analysis is not required for radionuclides as specified in Condition 18.3.d (gross alpha particles, radium-226, radium-228, radon-222, and uranium).
- All groundwater samples are to be analyzed for the parameters specified in the current permit on page 46, Chapter 10 – Total Facility Requirements, Condition 18.4, a copy of which is attached.
    - However, analysis is not required for radionuclides (radium-226 and radium-228).
    - Add volatile organic carbon (VOC) to the list of analyses for the groundwater monitoring wells (GW-001 – GW-008).

Schedule And Submittal

- Samples are to be collected an analyzed in an expeditious manner, but not at shorter, higher-cost laboratory turn-around times. The water quality data is to be submitted to the MPCA in a one to two-month period from April 10 and as soon as the data is available from the laboratory. The data will be considered as supplemental data to the previously submitted application for renewal of the NPDES permit.
- The water quality data will be submitted to Richard Clark under a cover letter that will be signed by Craig Hartmann.

Distribution:

Craig Hartman – Cliffs Erie
Kevin Pylka – Polymet
Bruce Trebnick - NTS

WORKING COPY

STATE OF MINNESOTA

Minnesota Pollution Control Agency

National Pollutant Discharge Elimination System (NPDES) and State Disposal System (SDS) Permit MN0054089

PERMITTEE: LTV Steel Mining Company; Erie B Corporation; Erie I Corporation; YST Erie Corporation; Youngstown Erie Corporation; LTV Steel Company, Inc.

FACILITY NAME: Hoyt Lakes Tailings Basin Area

RECEIVING WATERS: Unnamed wetlands and creeks to Kaunonen Creek, Trimble Creek and the Embarrass River to Sabin and Wynne Lakes

CITY/TOWNSHIP: Hoyt Lakes; Waasa Township **COUNTY: St. Louis**

ISSUANCE DATE: May 4, 2001 **EXPIRATION DATE: November 30, 2005**

The state of Minnesota, on behalf of its citizens through the Minnesota Pollution Control Agency (MPCA), authorizes the Permittee to construct, install and operate a disposal system at the facility named above, and to discharge from this facility to the receiving waters named above, in accordance with the requirements of this permit.

The goal of this permit is to protect water quality according to Minnesota and U.S. statutes and rules, including Minn. Stat. chs. 115 and 116, Minn. R. chs. 7001, 7041, 7050, 7052 and 7060, and the U.S. Clean Water Act.

This permit is effective on the issuance date identified above, and supersedes the previous permit that was issued for this facility on June 25, 1986.

This permit expires at midnight on the expiration date identified above.

Signature: Ann Foss

Ann Foss, Manager
North/South Major Facilities

for Karen A. Studders
Commissioner
Minnesota Pollution Control Agency

If you have questions on this permit, including the specific permit requirements, permit reporting or permit compliance status, please contact:

Minnesota Pollution Control Agency
North/South Major Facilities Section
520 Lafayette Road North
St. Paul, MN 55155-4194
Telephone: (651) 296-7162
Fax: (651) 297-8683
Telephone Device for Deaf (TTY): (651) 282-5332

EMSL ANALYTICAL, INC.
14375 23RD AVENUE NORTH
MINNEAPOLIS, MN 55447
TEL: 763-449-4922
FAX: 763-449-4924

EMSL Analytical, Inc.

NTS, Inc.
315 Chestnut Street
P.O. Box 1142
Virginia, MN 55792

Monday, May 18, 2009
Order ID: 350902123
Date and Time Received by Lab: 5/6/2009 7:20 AM

Asbestos Analysis in Water by Transmission Electron Microscopy (TEM) Performed by Method EPA 600/R-94/134-(100.2)

Project: #7158H COC #94860

Lab ID	Sample ID	Number of Fibers	Fiber Type	Concentration of Fibers (Million Fibers/Liter)	95% Confidence Limits (Million Fibers/Liter) Lower	Upper
350902123-0001	350434	ND	Ambiguous Fiber	<0.20	0.00	0.76
		ND	Amphibole Fiber	<0.20	0.00	0.76
		ND	Chrysotile Fiber	<0.20	0.00	0.76
		ND	Non-Amphibole, Non-Chrysotile	<0.20	0.00	0.76
		ND	**Total Fibers**	<0.20	0.00	0.76

Collection Date: 5/5/2009 8:27 PM
Date and Time Prepped: 5/6/2009 11:00 AM
Analysis Date: 5/14/2009

Lab ID	Sample ID	Number of Fibers	Fiber Type	Concentration of Fibers (Million Fibers/Liter)	95% Confidence Limits (Million Fibers/Liter) Lower	Upper
350902123-0002	350445	ND	Ambiguous Fiber	<0.20	0.00	0.76
		ND	Amphibole Fiber	<0.20	0.00	0.76
		ND	Chrysotile Fiber	<0.20	0.00	0.76
		ND	Non-Amphibole, Non-Chrysotile	<0.20	0.00	0.76
		ND	**Total Fibers**	<0.20	0.00	0.76

Collection Date: 5/5/2009 9:37 AM
Date and Time Prepped: 5/6/2009 11:00 AM
Analysis Date: 5/14/2009

Lynn Scott
Analyst

Approved Signatory

Note: Samples were analyzed in compliance with Minnesota Department of Health Method Code 851.

Sample collection and containers provided by client, acceptable bottle blank level is defined as ≤0.01MFL >10um. When less than four fibers are detected the concentration is reported as less than the lower confidence limit (3.69 times the analytical sensitivity) as dictated by the methodology. ND=None Detected. These test results meet all requirements of NELAP/Part 186 (ELAP Accreditation #11839)

EMSL ANALYTICAL, INC.
14375 23RD AVENUE NORTH
MINNEAPOLIS, MN 55447
TEL: 763-449-4922
FAX: 763-449-4924

EMSL Analytical, Inc.

NTS, Inc.

315 Chestnut Street
P.O. Box 1142
Virginia, MN 55792

Monday, May 18, 2009
Order ID: 350902123
Date and Time Received by Lab: 5/6/2009 7:20 AM

Asbestos Analysis in Water by Transmission Electron Microscopy (TEM) Performed by Method EPA 600/R-94/134-(100.2)

Project: #7158H COC #94860

Lab ID	Sample ID	Number of Fibers	Fiber Type	Concentration of Fibers (Million Fibers/Liter)	95% Confidence Limits (Million Fibers/Liter) Lower	Upper
350902123-0003	350446	ND	Ambiguous Fiber	<0.20	0.00	0.76
		ND	Amphibole Fiber	<0.20	0.00	0.76
		ND	Chrysotile Fiber	<0.20	0.00	0.76
		ND	Non-Amphibole, Non-Chrysotile	<0.20	0.00	0.76
		ND	**Total Fibers**	<0.20	0.00	0.76

Collection Date: 5/5/2009 10:23 AM
Date and Time Prepped: 5/6/2009 11:00 AM
Analysis Date: 5/14/2009

Lab ID	Sample ID	Number of Fibers	Fiber Type	Concentration of Fibers (Million Fibers/Liter)	95% Confidence Limits (Million Fibers/Liter) Lower	Upper
350902123-0004	350447	ND	Ambiguous Fiber	<0.20	0.00	0.76
		ND	Amphibole Fiber	<0.20	0.00	0.76
		ND	Chrysotile Fiber	<0.20	0.00	0.76
		ND	Non-Amphibole, Non-Chrysotile	<0.20	0.00	0.76
		ND	**Total Fibers**	<0.20	0.00	0.76

Collection Date: 5/5/2009 8:57 AM
Date and Time Prepped: 5/6/2009 11:00 AM
Analysis Date: 5/14/2009

Lynn Scott
Analyst

Rachel Travis
Approved Signatory

Note: Samples were analyzed in compliance with Minnesota Department of Health Method Code 851.

Sample collection and containers provided by client, acceptable bottle blank level is defined as ≤0.01MFL >10um. When less than four fibers are detected the concentration is reported as less than the lower confidence limit (3.69 times the analytical sensitivity) as dictated by the methodology. ND=None Detected These test results meet all requirements of NELAP/Part 186 (ELAP Accreditation #11839)

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TEL: 763-449-4922
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EMSL Analytical, Inc.

NTS, Inc.

315 Chestnut Street
P.O. Box 1142
Virginia, MN 55792

Monday, May 18, 2009
Order ID: 350902123
Date and Time Received by Lab: 5/6/2009 7:20 AM

Asbestos Analysis in Water by Transmission Electron Microscopy (TEM) Performed by Method EPA 600/R-94/134-(100.2)

Project: #7158H COC #94860

Lab ID	Sample ID	Number of Fibers	Fiber Type	Concentration of Fibers (Million Fibers/Liter)	95% Confidence Limits (Million Fibers/Liter) Lower	Upper
350902123-0005	350448	ND	Ambiguous Fiber	<0.20	0.00	0.76
		ND	Amphibole Fiber	<0.20	0.00	0.76
		ND	Chrysotile Fiber	<0.20	0.00	0.76
		ND	Non-Amphibole, Non-Chrysotile	<0.20	0.00	0.76
		ND	**Total Fibers**	<0.20	0.00	0.76

Collection Date: 5/5/2009 8:37 AM
Date and Time Prepped: 5/6/2009 11:00 AM
Analysis Date: 5/14/2009

Lynn Scott
Analyst

Approved Signatory

Note: Samples were analyzed in compliance with Minnesota Department of Health Method Code 851.

Sample collection and containers provided by client, acceptable bottle blank level is defined as ≤0.01MFL >10um. When less than four fibers are detected the concentration is reported as less than the lower confidence limit (3.69 times the analytical sensitivity) as dictated by the methodology. ND=None Detected. These test results meet all requirements of NELAP/Part 186 (ELAP Accreditation #11839).

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51 L Avenue ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885
www.mvtl.com
MEMBER ACIL

RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 20 May 09
Lab Number: 09-A18306
Work Order #:22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09 8:27
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350434
WS-011

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Anionic Surfactants	< 0.03	mg/L	0.03	5540C	7 May 09 3:04	JD
Sulfide, Total	< 1	mg/L	1	SM 4500-S2(E)	7 May 09 3:05	JD

Approved by: Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN or Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix
! = Due to sample quantity
^ = Due to instrument performance at RL
# = Due to sample concentration
+ = Due to extract volume

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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VIRGINIA MN 55792-1142

Report Date: 20 May 09
Lab Number: 09-A18306
Work Order: 22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09 8:27
Sampled By:
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350434
WS-011

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
625/8270 SVMS Extraction						7 May 09	CJW
Acenaphthene	83-32-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Acenaphthylene	208-96-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Anthracene	120-12-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzidine	92-87-5	< 10	ug/L	10	EPA 625	12 May 09	JG
Benzo(a)anthracene	56-55-3	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(a)pyrene	50-32-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(b)fluoranthene	205-99-2	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(ghi)perylene	191-24-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(k)fluoranthene	207-08-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Benzyl Butyl Phthalate	85-68-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Bis(2-chloroethoxy)methane	111-91-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Bis(2-chloroethyl)ether	111-44-4	< 2	ug/L	2	EPA 625	12 May 09	JG
Bis(2-chloroisopropyl)ether	108-60-1	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Bis(2-ethylhexyl)phthalate	117-81-7	< 2.6	ug/L	2.6	EPA 625	12 May 09	JG
4-Bromophenyl Phenyl Ether	101-55-3	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
4-Chloro-3-methyl phenol	59-50-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chloronaphthalene	91-58-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chlorophenol	95-57-8	< 2	ug/L	2	EPA 625	12 May 09	JG
4-Chlorophenyl Phenyl Ether	7005-72-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Chrysene	218-01-9	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Di-n-butyl phthalate	84-74-2	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
Di-n-octyl phthalate	117-84-0	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Dibenzo(a,h)anthracene	53-70-3	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
3,3-Dichlorobenzidine	91-94-1	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dichlorophenol	120-83-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Diethyl phthalate	84-66-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Dimethyl phthalate	131-11-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2,4-Dimethylphenol	105-67-9	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dinitrophenol	51-28-5	< 10	ug/L	10	EPA 625	12 May 09	JG
2,4-Dinitrotoluene	121-14-2	< 3.8	ug/L	3.8	EPA 625	12 May 09	JG
2,6-Dinitrotoluene	606-20-2	< 1	ug/L	1	EPA 625	12 May 09	JG
1,2-Diphenylhydrazine	122-66-7	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Fluoranthene	206-44-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Fluorene	86-73-7	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Hexachlorobenzene	118-74-1	< 1.8	ug/L	1.8	EPA 625	12 May 09	JG
Hexachlorobutadiene	87-68-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Hexachlorocyclopentadiene	77-47-4	< 4.8	ug/L	4.8	EPA 625	12 May 09	JG
Hexachloroethane	67-72-1	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG

RL = Reporting Limit

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! = Due to sample quantity + = Due to extract volume
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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 20 May 09
Lab Number: 09-A18306
Work Order: 22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09 8:27
Sampled By:
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350434
WS-011

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Isophorone	78-59-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2-Methyl-4,6-dinitrophenol	534-52-1	< 5.9	ug/L	5.9	EPA 625	12 May 09	JG
N-Nitrosodi-n-propylamine	621-64-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
N-Nitrosodimethylamine	62-75-9	< 4.2	ug/L	4.2	EPA 625	12 May 09	JG
N-Nitrosodiphenylamine	86-30-6	< 8.1	ug/L	8.1	EPA 625	12 May 09	JG
Naphthalene	91-20-3	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Nitrobenzene	98-95-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Nitrophenol	88-75-5	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
4-Nitrophenol	100-02-7	< 10	ug/L	10	EPA 625	12 May 09	JG
Pentachlorophenol	87-86-5	< 5.5	ug/L	5.5	EPA 625	12 May 09	JG
Phenanthrene	85-01-8	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Phenol	108-95-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Pyrene	129-00-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
1,2,4-Trichlorobenzene	120-82-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2,4,6-Trichlorophenol	88-06-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Acrolein	107-02-8	< 2	ug/L	2	EPA 624	8 May 09	JG
Acrylonitrile	107-13-1	< 1.8	ug/L	1.8	EPA 624	8 May 09	JG
Benzene	71-43-2	< 1	ug/L	1	EPA 624	8 May 09	JG
Bromodichloromethane	75-27-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Bromoform	75-25-2	< 1	ug/L	1	EPA 624	8 May 09	JG
Bromomethane	74-83-9	< 2	ug/L	2	EPA 624	8 May 09	JG
Carbon Tetrachloride	56-23-5	< 1	ug/L	1	EPA 624	8 May 09	JG
Chlorobenzene	108-90-7	< 1	ug/L	1	EPA 624	8 May 09	JG
Chlorodibromomethane	124-48-1	< 1	ug/L	1	EPA 624	8 May 09	JG
Chloroethane	75-00-3	< 1	ug/L	1	EPA 624	8 May 09	JG
2-Chloroethyl Vinyl Ether	110-75-8	< 1	ug/L	1	EPA 624	8 May 09	JG
Chloroform	67-66-3	< 1	ug/L	1	EPA 624	8 May 09	JG
Chloromethane	74-87-3	< 1	ug/L	1	EPA 624	8 May 09	JG
1,2-Dichlorobenzene	95-50-1	< 1	ug/L	1	EPA 624	8 May 09	JG
1,3-Dichlorobenzene	541-73-1	< 1	ug/L	1	EPA 624	8 May 09	JG
1,4-Dichlorobenzene	106-46-7	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1-Dichloroethane	75-34-3	< 1	ug/L	1	EPA 624	8 May 09	JG
1,2-Dichloroethane	107-06-2	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1-Dichloroethene	75-35-4	< 1	ug/L	1	EPA 624	8 May 09	JG
trans-1,2-Dichloroethene	156-60-5	< 1	ug/L	1	EPA 624	8 May 09	JG
1,2-Dichloropropane	78-87-5	< 1	ug/L	1	EPA 624	8 May 09	JG
cis-1,3-Dichloropropene	10061-01-5	< 1	ug/L	1	EPA 624	8 May 09	JG
trans-1,3-Dichloropropene	10061-02-6	< 1	ug/L	1	EPA 624	8 May 09	JG

RL = Reporting Limit

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! = Due to sample quantity + = Due to extract volume
^ = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 20 May 09
Lab Number: 09-A18306
Work Order: 22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09 8:27
Sampled By:
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350434
WS-011

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Ethyl Benzene	100-41-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Methylene Chloride	75-09-2	< 2	ug/L	2	EPA 624	8 May 09	JG
1,1,2,2-Tetrachloroethane	79-34-5	< 1	ug/L	1	EPA 624	8 May 09	JG
Tetrachloroethene	127-18-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Toluene	108-88-3	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1,1-Trichloroethane	71-55-6	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1,2-Trichloroethane	79-00-5	< 1	ug/L	1	EPA 624	8 May 09	JG
Trichloroethene	79-01-6	< 1	ug/L	1	EPA 624	8 May 09	JG
Trichlorofluoromethane	75-69-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Vinyl Chloride	75-01-4	< 1	ug/L	1	EPA 624	8 May 09	JG

METHOD 625 TENTATIVELY IDENTIFIED COMPOUNDS

COMPOUND NAMES	CAS #	ug/L
Hexacosane	630-01-3	4.0

SW8260- No TICs to report.

NITROBENZENE (SURROGATE) RECOVERY: 83 %
2-FLUOROBIPHENYL (SURROGATE) RECOVERY: 80 %
TERPHENYL-d14 (SURROGATE) RECOVERY: 80 %

2-FLUOROPHENOL (SURROGATE) RECOVERY: 63 %
PHENOL-d5 (SURROGATE) RECOVERY: 42 %
2,4,6-TRIBROMOPHENOL (SURROGATE) RECOVERY: 87 %

DIBROMOFLUOROMETHANE (SURROGATE) RECOVERY: 102 %
TOLUENE-d8 (SURROGATE) RECOVERY: 90 %
4-BROMOFLUOROBENZENE (SURROGATE) RECOVERY: 94 %

Approved by: Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN or Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

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! = Due to sample quantity + = Due to extract volume
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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 20 May 09
Lab Number: 09-A18307
Work Order #:22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09 9:37
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350445
SD-004

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Anionic Surfactants	< 0.03	mg/L	0.03	5540C	7 May 09 3:04	JD
Sulfide, Total	< 1	mg/L	1	SM 4500-S2(E)	7 May 09 3:05	JD

Approved by:
Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN
or
Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix
! = Due to sample quantity
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# = Due to sample concentration
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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350445
SD-004

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
625/8270 SVMS Extraction						7 May 09	CJW
Acenaphthene	83-32-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Acenaphthylene	208-96-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Anthracene	120-12-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzidine	92-87-5	< 10	ug/L	10	EPA 625	12 May 09	JG
Benzo(a)anthracene	56-55-3	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(a)pyrene	50-32-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(b)fluoranthene	205-99-2	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(ghi)perylene	191-24-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(k)fluoranthene	207-08-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Benzyl Butyl Phthalate	85-68-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Bis(2-chloroethoxy)methane	111-91-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Bis(2-chloroethyl)ether	111-44-4	< 2	ug/L	2	EPA 625	12 May 09	JG
Bis(2-chloroisopropyl)ether	108-60-1	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Bis(2-ethylhexyl)phthalate	117-81-7	< 2.6	ug/L	2.6	EPA 625	12 May 09	JG
4-Bromophenyl Phenyl Ether	101-55-3	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
4-Chloro-3-methyl phenol	59-50-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chloronaphthalene	91-58-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chlorophenol	95-57-8	< 2	ug/L	2	EPA 625	12 May 09	JG
4-Chlorophenyl Phenyl Ether	7005-72-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Chrysene	218-01-9	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Di-n-butyl phthalate	84-74-2	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
Di-n-octyl phthalate	117-84-0	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Dibenzo(a,h)anthracene	53-70-3	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
3,3-Dichlorobenzidine	91-94-1	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dichlorophenol	120-83-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Diethyl phthalate	84-66-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Dimethyl phthalate	131-11-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2,4-Dimethylphenol	105-67-9	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dinitrophenol	51-28-5	< 10	ug/L	10	EPA 625	12 May 09	JG
2,4-Dinitrotoluene	121-14-2	< 3.8	ug/L	3.8	EPA 625	12 May 09	JG
2,6-Dinitrotoluene	606-20-2	< 1	ug/L	1	EPA 625	12 May 09	JG
1,2-Diphenylhydrazine	122-66-7	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Fluoranthene	206-44-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Fluorene	86-73-7	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Hexachlorobenzene	118-74-1	< 1.8	ug/L	1.8	EPA 625	12 May 09	JG
Hexachlorobutadiene	87-68-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Hexachlorocyclopentadiene	77-47-4	< 4.8	ug/L	4.8	EPA 625	12 May 09	JG
Hexachloroethane	67-72-1	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG

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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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MEMBER ACIL

RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 20 May 09
Lab Number: 09-A18307
Work Order: 22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09 9:37
Sampled By:
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350445
SD-004

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Isophorone	78-59-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2-Methyl-4,6-dinitrophenol	534-52-1	< 5.9	ug/L	5.9	EPA 625	12 May 09	JG
N-Nitrosodi-n-propylamine	621-64-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
N-Nitrosodimethylamine	62-75-9	< 4.2	ug/L	4.2	EPA 625	12 May 09	JG
N-Nitrosodiphenylamine	86-30-6	< 8.1	ug/L	8.1	EPA 625	12 May 09	JG
Naphthalene	91-20-3	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Nitrobenzene	98-95-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Nitrophenol	88-75-5	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
4-Nitrophenol	100-02-7	< 10	ug/L	10	EPA 625	12 May 09	JG
Pentachlorophenol	87-86-5	< 5.5	ug/L	5.5	EPA 625	12 May 09	JG
Phenanthrene	85-01-8	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Phenol	108-95-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Pyrene	129-00-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
1,2,4-Trichlorobenzene	120-82-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2,4,6-Trichlorophenol	88-06-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Acrolein	107-02-8	< 2	ug/L	2	EPA 624	8 May 09	JG
Acrylonitrile	107-13-1	< 1.8	ug/L	1.8	EPA 624	8 May 09	JG
Benzene	71-43-2	< 1	ug/L	1	EPA 624	8 May 09	JG
Bromodichloromethane	75-27-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Bromoform	75-25-2	< 1	ug/L	1	EPA 624	8 May 09	JG
Bromomethane	74-83-9	< 2	ug/L	2	EPA 624	8 May 09	JG
Carbon Tetrachloride	56-23-5	< 1	ug/L	1	EPA 624	8 May 09	JG
Chlorobenzene	108-90-7	< 1	ug/L	1	EPA 624	8 May 09	JG
Chlorodibromomethane	124-48-1	< 1	ug/L	1	EPA 624	8 May 09	JG
Chloroethane	75-00-3	< 1	ug/L	1	EPA 624	8 May 09	JG
2-Chloroethyl Vinyl Ether	110-75-8	< 1	ug/L	1	EPA 624	8 May 09	JG
Chloroform	67-66-3	< 1	ug/L	1	EPA 624	8 May 09	JG
Chloromethane	74-87-3	< 1	ug/L	1	EPA 624	8 May 09	JG
1,2-Dichlorobenzene	95-50-1	< 1	ug/L	1	EPA 624	8 May 09	JG
1,3-Dichlorobenzene	541-73-1	< 1	ug/L	1	EPA 624	8 May 09	JG
1,4-Dichlorobenzene	106-46-7	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1-Dichloroethane	75-34-3	< 1	ug/L	1	EPA 624	8 May 09	JG
1,2-Dichloroethane	107-06-2	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1-Dichloroethene	75-35-4	< 1	ug/L	1	EPA 624	8 May 09	JG
trans-1,2-Dichloroethene	156-60-5	< 1	ug/L	1	EPA 624	8 May 09	JG
1,2-Dichloropropane	78-87-5	< 1	ug/L	1	EPA 624	8 May 09	JG
cis-1,3-Dichloropropene	10061-01-5	< 1	ug/L	1	EPA 624	8 May 09	JG
trans-1,3-Dichloropropene	10061-02-6	< 1	ug/L	1	EPA 624	8 May 09	JG

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Lab Number: 09-A18307
Work Order: 22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09 9:37
Sampled By:
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350445
SD-004

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Ethyl Benzene	100-41-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Methylene Chloride	75-09-2	< 2	ug/L	2	EPA 624	8 May 09	JG
1,1,2,2-Tetrachloroethane	79-34-5	< 1	ug/L	1	EPA 624	8 May 09	JG
Tetrachloroethene	127-18-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Toluene	108-88-3	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1,1-Trichloroethane	71-55-6	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1,2-Trichloroethane	79-00-5	< 1	ug/L	1	EPA 624	8 May 09	JG
Trichloroethene	79-01-6	< 1	ug/L	1	EPA 624	8 May 09	JG
Trichlorofluoromethane	75-69-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Vinyl Chloride	75-01-4	< 1	ug/L	1	EPA 624	8 May 09	JG

SW8270 - No TICs to report.

METHOD 624 TENTATIVELY IDENTIFIED COMPOUNDS

COMPOUND NAMES	CAS #	ug/L
Ethyl Ether	60-29-7	1.1

NITROBENZENE (SURROGATE) RECOVERY: 90 %
2-FLUOROBIPHENYL (SURROGATE) RECOVERY: 83 %
TERPHENYL-d14 (SURROGATE) RECOVERY: 92 %

2-FLUOROPHENOL (SURROGATE) RECOVERY: 65 %
PHENOL-d5 (SURROGATE) RECOVERY: 42 %
2,4,6-TRIBROMOPHENOL (SURROGATE) RECOVERY: 82 %

DIBROMOFLUOROMETHANE (SURROGATE) RECOVERY: 100 %
TOLUENE-d8 (SURROGATE) RECOVERY: 93 %
4-BROMOFLUOROBENZENE (SURROGATE) RECOVERY: 93 %

Approved by: Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN or Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

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Report Date: 20 May 09
Lab Number: 09-A18308
Work Order #:22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09 10:23
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Project Number: 7158H
Sample Description: 350446
SD-005

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Anionic Surfactants	< 0.03	mg/L	0.03	5540C	7 May 09 3:04	JD
Sulfide, Total	< 1	mg/L	1	SM 4500-S2(E)	7 May 09 3:05	JD

Approved by:
Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN
or
Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

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Date Sampled: 5 May 09 10:23
Sampled By:
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350446
SD-005

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
625/8270 SVMS Extraction						12 May 09	CJW
Acenaphthene	83-32-9	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
Acenaphthylene	208-96-8	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Anthracene	120-12-7	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Benzidine	92-87-5	< 10	ug/L	10	EPA 625	19 May 09	JG
Benzo(a)anthracene	56-55-3	< 1.4	ug/L	1.4	EPA 625	19 May 09	JG
Benzo(a)pyrene	50-32-8	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Benzo(b)fluoranthene	205-99-2	< 1.4	ug/L	1.4	EPA 625	19 May 09	JG
Benzo(ghi)perylene	191-24-2	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Benzo(k)fluoranthene	207-08-9	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
Benzyl Butyl Phthalate	85-68-7	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Bis(2-chloroethoxy)methane	111-91-1	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
Bis(2-chloroethyl)ether	111-44-4	< 2	ug/L	2	EPA 625	19 May 09	JG
Bis(2-chloroisopropyl)ether	108-60-1	< 1.3	ug/L	1.3	EPA 625	19 May 09	JG
Bis(2-ethylhexyl)phthalate	117-81-7	< 2.6	ug/L	2.6	EPA 625	19 May 09	JG
4-Bromophenyl Phenyl Ether	101-55-3	< 1.7	ug/L	1.7	EPA 625	19 May 09	JG
4-Chloro-3-methyl phenol	59-50-7	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
2-Chloronaphthalene	91-58-7	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
2-Chlorophenol	95-57-8	< 2	ug/L	2	EPA 625	19 May 09	JG
4-Chlorophenyl Phenyl Ether	7005-72-3	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Chrysene	218-01-9	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Di-n-butyl phthalate	84-74-2	< 1.7	ug/L	1.7	EPA 625	19 May 09	JG
Di-n-octyl phthalate	117-84-0	< 1.3	ug/L	1.3	EPA 625	19 May 09	JG
Dibenzo(a,h)anthracene	53-70-3	< 1.3	ug/L	1.3	EPA 625	19 May 09	JG
3,3-Dichlorobenzidine	91-94-1	< 5	ug/L	5	EPA 625	19 May 09	JG
2,4-Dichlorophenol	120-83-2	< 2	ug/L	2	EPA 625	19 May 09	JG
Diethyl phthalate	84-66-2	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Dimethyl phthalate	131-11-3	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
2,4-Dimethylphenol	105-67-9	< 5	ug/L	5	EPA 625	19 May 09	JG
2,4-Dinitrophenol	51-28-5	< 10	ug/L	10	EPA 625	19 May 09	JG
2,4-Dinitrotoluene	121-14-2	< 3.8	ug/L	3.8	EPA 625	19 May 09	JG
2,6-Dinitrotoluene	606-20-2	< 1	ug/L	1	EPA 625	19 May 09	JG
1,2-Diphenylhydrazine	122-66-7	< 1.4	ug/L	1.4	EPA 625	19 May 09	JG
Fluoranthene	206-44-0	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
Fluorene	86-73-7	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
Hexachlorobenzene	118-74-1	< 1.8	ug/L	1.8	EPA 625	19 May 09	JG
Hexachlorobutadiene	87-68-3	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Hexachlorocyclopentadiene	77-47-4	< 4.8	ug/L	4.8	EPA 625	19 May 09	JG
Hexachloroethane	67-72-1	< 1.3	ug/L	1.3	EPA 625	19 May 09	JG

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Sample Description: 350446
SD-005

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.4	ug/L	1.4	EPA 625	19 May 09	JG
Isophorone	78-59-1	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
2-Methyl-4,6-dinitrophenol	534-52-1	< 5.9	ug/L	5.9	EPA 625	19 May 09	JG
N-Nitrosodi-n-propylamine	621-64-7	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
N-Nitrosodimethylamine	62-75-9	< 4.2	ug/L	4.2	EPA 625	19 May 09	JG
N-Nitrosodiphenylamine	86-30-6	< 8.1	ug/L	8.1	EPA 625	19 May 09	JG
Naphthalene	91-20-3	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
Nitrobenzene	98-95-3	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
2-Nitrophenol	88-75-5	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
4-Nitrophenol	100-02-7	< 10	ug/L	10	EPA 625	19 May 09	JG
Pentachlorophenol	87-86-5	< 5.5	ug/L	5.5	EPA 625	19 May 09	JG
Phenanthrene	85-01-8	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
Phenol	108-95-2	< 2	ug/L	2	EPA 625	19 May 09	JG
Pyrene	129-00-0	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
1,2,4-Trichlorobenzene	120-82-1	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
2,4,6-Trichlorophenol	88-06-2	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Acrolein	107-02-8	< 2	ug/L	2	EPA 624	8 May 09	JG
Acrylonitrile	107-13-1	< 1.8	ug/L	1.8	EPA 624	8 May 09	JG
Benzene	71-43-2	< 1	ug/L	1	EPA 624	8 May 09	JG
Bromodichloromethane	75-27-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Bromoform	75-25-2	< 1	ug/L	1	EPA 624	8 May 09	JG
Bromomethane	74-83-9	< 2	ug/L	2	EPA 624	8 May 09	JG
Carbon Tetrachloride	56-23-5	< 1	ug/L	1	EPA 624	8 May 09	JG
Chlorobenzene	108-90-7	< 1	ug/L	1	EPA 624	8 May 09	JG
Chlorodibromomethane	124-48-1	< 1	ug/L	1	EPA 624	8 May 09	JG
Chloroethane	75-00-3	< 1	ug/L	1	EPA 624	8 May 09	JG
2-Chloroethyl Vinyl Ether	110-75-8	< 1	ug/L	1	EPA 624	8 May 09	JG
Chloroform	67-66-3	< 1	ug/L	1	EPA 624	8 May 09	JG
Chloromethane	74-87-3	< 1	ug/L	1	EPA 624	8 May 09	JG
1,2-Dichlorobenzene	95-50-1	< 1	ug/L	1	EPA 624	8 May 09	JG
1,3-Dichlorobenzene	541-73-1	< 1	ug/L	1	EPA 624	8 May 09	JG
1,4-Dichlorobenzene	106-46-7	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1-Dichloroethane	75-34-3	< 1	ug/L	1	EPA 624	8 May 09	JG
1,2-Dichloroethane	107-06-2	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1-Dichloroethene	75-35-4	< 1	ug/L	1	EPA 624	8 May 09	JG
trans-1,2-Dichloroethene	156-60-5	< 1	ug/L	1	EPA 624	8 May 09	JG
1,2-Dichloropropane	78-87-5	< 1	ug/L	1	EPA 624	8 May 09	JG
cis-1,3-Dichloropropene	10061-01-5	< 1	ug/L	1	EPA 624	8 May 09	JG
trans-1,3-Dichloropropene	10061-02-6	< 1	ug/L	1	EPA 624	8 May 09	JG

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix
! = Due to sample quantity
^ = Due to instrument performance at RL
# = Due to sample concentration
+ = Due to extract volume

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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MEMBER ACIL

RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 20 May 09
Lab Number: 09-A18308
Work Order: 22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09 10:23
Sampled By:
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350446
SD-005

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Ethyl Benzene	100-41-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Methylene Chloride	75-09-2	< 2	ug/L	2	EPA 624	8 May 09	JG
1,1,2,2-Tetrachloroethane	79-34-5	< 1	ug/L	1	EPA 624	8 May 09	JG
Tetrachloroethene	127-18-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Toluene	108-88-3	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1,1-Trichloroethane	71-55-6	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1,2-Trichloroethane	79-00-5	< 1	ug/L	1	EPA 624	8 May 09	JG
Trichloroethene	79-01-6	< 1	ug/L	1	EPA 624	8 May 09	JG
Trichlorofluoromethane	75-69-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Vinyl Chloride	75-01-4	< 1	ug/L	1	EPA 624	8 May 09	JG

METHOD 625 TENTATIVELY IDENTIFIED COMPOUNDS

COMPOUND NAMES	CAS #	ug/L
Octadecanoic acid	57-11-4	6.4

SW8260- No TICs to report.

NITROBENZENE (SURROGATE) RECOVERY: 88 %
2-FLUOROBIPHENYL (SURROGATE) RECOVERY: 84 %
TERPHENYL-d14 (SURROGATE) RECOVERY: 85 %

2-FLUOROPHENOL (SURROGATE) RECOVERY: 64 %
PHENOL-d5 (SURROGATE) RECOVERY: 43 %
2,4,6-TRIBROMOPHENOL (SURROGATE) RECOVERY: 93 %

DIBROMOFLUOROMETHANE (SURROGATE) RECOVERY: 101 %
TOLUENE-d8 (SURROGATE) RECOVERY: 93 %
4-BROMOFLUOROBENZENE (SURROGATE) RECOVERY: 94 %

Approved by: Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN or Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix
! = Due to sample quantity
^ = Due to instrument performance at RL
# = Due to sample concentration
+ = Due to extract volume

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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www.mvtl.com
MEMBER ACIL

Report Date: 20 May 09
Lab Number: 09-A18231
Work Order #:22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09 8:57
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Project Number: 7158H
Sample Description: 350447
FB-2

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Anionic Surfactants	< 0.03	mg/L	0.03	5540C	7 May 09 3:04	JD
Sulfide, Total	< 1	mg/L	1	SM 4500-S2(E)	7 May 09 3:05	JD

Approved by:
Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN or Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration
! = Due to sample quantity + = Due to extract volume
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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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VIRGINIA MN 55792-1142

Report Date: 20 May 09
Lab Number: 09-A18231
Work Order: 22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09 8:57
Sampled By:
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350447
FB-2

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
625/8270 SVMS Extraction						7 May 09	CJW
Acenaphthene	83-32-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Acenaphthylene	208-96-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Anthracene	120-12-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzidine	92-87-5	< 10	ug/L	10	EPA 625	12 May 09	JG
Benzo(a)anthracene	56-55-3	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(a)pyrene	50-32-8	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(b)fluoranthene	205-99-2	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Benzo(ghi)perylene	191-24-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Benzo(k)fluoranthene	207-08-9	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Benzyl Butyl Phthalate	85-68-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Bis(2-chloroethoxy)methane	111-91-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Bis(2-chloroethyl)ether	111-44-4	< 2	ug/L	2	EPA 625	12 May 09	JG
Bis(2-chloroisopropyl)ether	108-60-1	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Bis(2-ethylhexyl)phthalate	117-81-7	< 2.6	ug/L	2.6	EPA 625	12 May 09	JG
4-Bromophenyl Phenyl Ether	101-55-3	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
4-Chloro-3-methyl phenol	59-50-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chloronaphthalene	91-58-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Chlorophenol	95-57-8	< 2	ug/L	2	EPA 625	12 May 09	JG
4-Chlorophenyl Phenyl Ether	7005-72-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Chrysene	218-01-9	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Di-n-butyl phthalate	84-74-2	< 1.7	ug/L	1.7	EPA 625	12 May 09	JG
Di-n-octyl phthalate	117-84-0	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
Dibenzo(a,h)anthracene	53-70-3	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG
3,3-Dichlorobenzidine	91-94-1	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dichlorophenol	120-83-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Diethyl phthalate	84-66-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Dimethyl phthalate	131-11-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2,4-Dimethylphenol	105-67-9	< 5	ug/L	5	EPA 625	12 May 09	JG
2,4-Dinitrophenol	51-28-5	< 10	ug/L	10	EPA 625	12 May 09	JG
2,4-Dinitrotoluene	121-14-2	< 3.8	ug/L	3.8	EPA 625	12 May 09	JG
2,6-Dinitrotoluene	606-20-2	< 1	ug/L	1	EPA 625	12 May 09	JG
1,2-Diphenylhydrazine	122-66-7	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Fluoranthene	206-44-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Fluorene	86-73-7	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Hexachlorobenzene	118-74-1	< 1.8	ug/L	1.8	EPA 625	12 May 09	JG
Hexachlorobutadiene	87-68-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Hexachlorocyclopentadiene	77-47-4	< 4.8	ug/L	4.8	EPA 625	12 May 09	JG
Hexachloroethane	67-72-1	< 1.3	ug/L	1.3	EPA 625	12 May 09	JG

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! = Due to sample quantity + = Due to extract volume
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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 20 May 09
Lab Number: 09-A18231
Work Order: 22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09 8:57
Sampled By:
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350447
FB-2

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.4	ug/L	1.4	EPA 625	12 May 09	JG
Isophorone	78-59-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2-Methyl-4,6-dinitrophenol	534-52-1	< 5.9	ug/L	5.9	EPA 625	12 May 09	JG
N-Nitrosodi-n-propylamine	621-64-7	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
N-Nitrosodimethylamine	62-75-9	< 4.2	ug/L	4.2	EPA 625	12 May 09	JG
N-Nitrosodiphenylamine	86-30-6	< 8.1	ug/L	8.1	EPA 625	12 May 09	JG
Naphthalene	91-20-3	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Nitrobenzene	98-95-3	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
2-Nitrophenol	88-75-5	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
4-Nitrophenol	100-02-7	< 10	ug/L	10	EPA 625	12 May 09	JG
Pentachlorophenol	87-86-5	< 5.5	ug/L	5.5	EPA 625	12 May 09	JG
Phenanthrene	85-01-8	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
Phenol	108-95-2	< 2	ug/L	2	EPA 625	12 May 09	JG
Pyrene	129-00-0	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
1,2,4-Trichlorobenzene	120-82-1	< 1.6	ug/L	1.6	EPA 625	12 May 09	JG
2,4,6-Trichlorophenol	88-06-2	< 1.5	ug/L	1.5	EPA 625	12 May 09	JG
Acrolein	107-02-8	< 2	ug/L	2	EPA 624	7 May 09	JG
Acrylonitrile	107-13-1	< 1.8	ug/L	1.8	EPA 624	7 May 09	JG
Benzene	71-43-2	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromodichloromethane	75-27-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromoform	75-25-2	< 1	ug/L	1	EPA 624	7 May 09	JG
Bromomethane	74-83-9	< 2	ug/L	2	EPA 624	7 May 09	JG
Carbon Tetrachloride	56-23-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Chlorobenzene	108-90-7	< 1	ug/L	1	EPA 624	7 May 09	JG
Chlorodibromomethane	124-48-1	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloroethane	75-00-3	< 1	ug/L	1	EPA 624	7 May 09	JG
2-Chloroethyl Vinyl Ether	110-75-8	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloroform	67-66-3	< 1	ug/L	1	EPA 624	7 May 09	JG
Chloromethane	74-87-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichlorobenzene	95-50-1	< 1	ug/L	1	EPA 624	7 May 09	JG
1,3-Dichlorobenzene	541-73-1	< 1	ug/L	1	EPA 624	7 May 09	JG
1,4-Dichlorobenzene	106-46-7	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1-Dichloroethane	75-34-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichloroethane	107-06-2	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1-Dichloroethene	75-35-4	< 1	ug/L	1	EPA 624	7 May 09	JG
trans-1,2-Dichloroethene	156-60-5	< 1	ug/L	1	EPA 624	7 May 09	JG
1,2-Dichloropropane	78-87-5	< 1	ug/L	1	EPA 624	7 May 09	JG
cis-1,3-Dichloropropene	10061-01-5	< 1	ug/L	1	EPA 624	7 May 09	JG
trans-1,3-Dichloropropene	10061-02-6	< 1	ug/L	1	EPA 624	7 May 09	JG

RL = Reporting Limit

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# = Due to sample concentration
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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 20 May 09
Lab Number: 09-A18231
Work Order: 22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09 8:57
Sampled By:
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350447
FB-2

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Ethyl Benzene	100-41-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Methylene Chloride	75-09-2	< 2	ug/L	2	EPA 624	7 May 09	JG
1,1,2,2-Tetrachloroethane	79-34-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Tetrachloroethene	127-18-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Toluene	108-88-3	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1,1-Trichloroethane	71-55-6	< 1	ug/L	1	EPA 624	7 May 09	JG
1,1,2-Trichloroethane	79-00-5	< 1	ug/L	1	EPA 624	7 May 09	JG
Trichloroethene	79-01-6	< 1	ug/L	1	EPA 624	7 May 09	JG
Trichlorofluoromethane	75-69-4	< 1	ug/L	1	EPA 624	7 May 09	JG
Vinyl Chloride	75-01-4	< 1	ug/L	1	EPA 624	7 May 09	JG

SW8270 - No TICs to report.

SW8260- No TICs to report.

NITROBENZENE (SURROGATE) RECOVERY: 86 %
2-FLUOROBIPHENYL (SURROGATE) RECOVERY: 81 %
TERPHENYL-d14 (SURROGATE) RECOVERY: 82 %

2-FLUOROPHENOL (SURROGATE) RECOVERY: 62 %
PHENOL-d5 (SURROGATE) RECOVERY: 42 %
2,4,6-TRIBROMOPHENOL (SURROGATE) RECOVERY: 84 %

DIBROMOFLUOROMETHANE (SURROGATE) RECOVERY: 103 %
TOLUENE-d8 (SURROGATE) RECOVERY: 92 %
4-BROMOFLUOROBENZENE (SURROGATE) RECOVERY: 94 %

Approved by: Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN or Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 20 May 09
Lab Number: 09-A18309
Work Order #:22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09 8:37
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350448
DUP-2

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Anionic Surfactants	< 0.03	mg/L	0.03	5540C	7 May 09 3:04	JD
Sulfide, Total	< 1	mg/L	1	SM 4500-S2(E)	7 May 09 3:05	JD

Approved by:
Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN or Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

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Report Date: 20 May 09
Lab Number: 09-A18309
Work Order: 22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09 8:37
Sampled By:
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350448
DUP-2

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
625/8270 SVMS Extraction						12 May 09	CJW
Acenaphthene	83-32-9	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
Acenaphthylene	208-96-8	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Anthracene	120-12-7	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Benzidine	92-87-5	< 10	ug/L	10	EPA 625	19 May 09	JG
Benzo(a)anthracene	56-55-3	< 1.4	ug/L	1.4	EPA 625	19 May 09	JG
Benzo(a)pyrene	50-32-8	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Benzo(b)fluoranthene	205-99-2	< 1.4	ug/L	1.4	EPA 625	19 May 09	JG
Benzo(ghi)perylene	191-24-2	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Benzo(k)fluoranthene	207-08-9	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
Benzyl Butyl Phthalate	85-68-7	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Bis(2-chloroethoxy)methane	111-91-1	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
Bis(2-chloroethyl)ether	111-44-4	< 2	ug/L	2	EPA 625	19 May 09	JG
Bis(2-chloroisopropyl)ether	108-60-1	< 1.3	ug/L	1.3	EPA 625	19 May 09	JG
Bis(2-ethylhexyl)phthalate	117-81-7	< 2.6	ug/L	2.6	EPA 625	19 May 09	JG
4-Bromophenyl Phenyl Ether	101-55-3	< 1.7	ug/L	1.7	EPA 625	19 May 09	JG
4-Chloro-3-methyl phenol	59-50-7	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
2-Chloronaphthalene	91-58-7	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
2-Chlorophenol	95-57-8	< 2	ug/L	2	EPA 625	19 May 09	JG
4-Chlorophenyl Phenyl Ether	7005-72-3	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Chrysene	218-01-9	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Di-n-butyl phthalate	84-74-2	< 1.7	ug/L	1.7	EPA 625	19 May 09	JG
Di-n-octyl phthalate	117-84-0	< 1.3	ug/L	1.3	EPA 625	19 May 09	JG
Dibenzo(a,h)anthracene	53-70-3	< 1.3	ug/L	1.3	EPA 625	19 May 09	JG
3,3-Dichlorobenzidine	91-94-1	< 5	ug/L	5	EPA 625	19 May 09	JG
2,4-Dichlorophenol	120-83-2	< 2	ug/L	2	EPA 625	19 May 09	JG
Diethyl phthalate	84-66-2	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Dimethyl phthalate	131-11-3	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
2,4-Dimethylphenol	105-67-9	< 5	ug/L	5	EPA 625	19 May 09	JG
2,4-Dinitrophenol	51-28-5	< 10	ug/L	10	EPA 625	19 May 09	JG
2,4-Dinitrotoluene	121-14-2	< 3.8	ug/L	3.8	EPA 625	19 May 09	JG
2,6-Dinitrotoluene	606-20-2	< 1	ug/L	1	EPA 625	19 May 09	JG
1,2-Diphenylhydrazine	122-66-7	< 1.4	ug/L	1.4	EPA 625	19 May 09	JG
Fluoranthene	206-44-0	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
Fluorene	86-73-7	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
Hexachlorobenzene	118-74-1	< 1.8	ug/L	1.8	EPA 625	19 May 09	JG
Hexachlorobutadiene	87-68-3	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Hexachlorocyclopentadiene	77-47-4	< 4.8	ug/L	4.8	EPA 625	19 May 09	JG
Hexachloroethane	67-72-1	< 1.3	ug/L	1.3	EPA 625	19 May 09	JG

RL = Reporting Limit

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! = Due to sample quantity
^ = Due to instrument performance at RL
# = Due to sample concentration
+ = Due to extract volume

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

MINNESOTA VALLEY TESTING LABORATORIES, INC.
1126 N. Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
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51 L Avenue ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885
www.mvtl.com
MEMBER ACIL

RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 20 May 09
Lab Number: 09-A18309
Work Order: 22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09 8:37
Sampled By:
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350448
DUP-2

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.4	ug/L	1.4	EPA 625	19 May 09	JG
Isophorone	78-59-1	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
2-Methyl-4,6-dinitrophenol	534-52-1	< 5.9	ug/L	5.9	EPA 625	19 May 09	JG
N-Nitrosodi-n-propylamine	621-64-7	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
N-Nitrosodimethylamine	62-75-9	< 4.2	ug/L	4.2	EPA 625	19 May 09	JG
N-Nitrosodiphenylamine	86-30-6	< 8.1	ug/L	8.1	EPA 625	19 May 09	JG
Naphthalene	91-20-3	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
Nitrobenzene	98-95-3	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
2-Nitrophenol	88-75-5	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
4-Nitrophenol	100-02-7	< 10	ug/L	10	EPA 625	19 May 09	JG
Pentachlorophenol	87-86-5	< 5.5	ug/L	5.5	EPA 625	19 May 09	JG
Phenanthrene	85-01-8	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
Phenol	108-95-2	< 2	ug/L	2	EPA 625	19 May 09	JG
Pyrene	129-00-0	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
1,2,4-Trichlorobenzene	120-82-1	< 1.6	ug/L	1.6	EPA 625	19 May 09	JG
2,4,6-Trichlorophenol	88-06-2	< 1.5	ug/L	1.5	EPA 625	19 May 09	JG
Acrolein	107-02-8	< 2	ug/L	2	EPA 624	8 May 09	JG
Acrylonitrile	107-13-1	< 1.8	ug/L	1.8	EPA 624	8 May 09	JG
Benzene	71-43-2	< 1	ug/L	1	EPA 624	8 May 09	JG
Bromodichloromethane	75-27-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Bromoform	75-25-2	< 1	ug/L	1	EPA 624	8 May 09	JG
Bromomethane	74-83-9	< 2	ug/L	2	EPA 624	8 May 09	JG
Carbon Tetrachloride	56-23-5	< 1	ug/L	1	EPA 624	8 May 09	JG
Chlorobenzene	108-90-7	< 1	ug/L	1	EPA 624	8 May 09	JG
Chlorodibromomethane	124-48-1	< 1	ug/L	1	EPA 624	8 May 09	JG
Chloroethane	75-00-3	< 1	ug/L	1	EPA 624	8 May 09	JG
2-Chloroethyl Vinyl Ether	110-75-8	< 1	ug/L	1	EPA 624	8 May 09	JG
Chloroform	67-66-3	< 1	ug/L	1	EPA 624	8 May 09	JG
Chloromethane	74-87-3	< 1	ug/L	1	EPA 624	8 May 09	JG
1,2-Dichlorobenzene	95-50-1	< 1	ug/L	1	EPA 624	8 May 09	JG
1,3-Dichlorobenzene	541-73-1	< 1	ug/L	1	EPA 624	8 May 09	JG
1,4-Dichlorobenzene	106-46-7	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1-Dichloroethane	75-34-3	< 1	ug/L	1	EPA 624	8 May 09	JG
1,2-Dichloroethane	107-06-2	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1-Dichloroethene	75-35-4	< 1	ug/L	1	EPA 624	8 May 09	JG
trans-1,2-Dichloroethene	156-60-5	< 1	ug/L	1	EPA 624	8 May 09	JG
1,2-Dichloropropane	78-87-5	< 1	ug/L	1	EPA 624	8 May 09	JG
cis-1,3-Dichloropropene	10061-01-5	< 1	ug/L	1	EPA 624	8 May 09	JG
trans-1,3-Dichloropropene	10061-02-6	< 1	ug/L	1	EPA 624	8 May 09	JG

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration
! = Due to sample quantity + = Due to extract volume
^ = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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www.mvtl.com
MEMBER ACIL

RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 20 May 09
Lab Number: 09-A18309
Work Order: 22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09 8:37
Sampled By:
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350448
DUP-2

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Ethyl Benzene	100-41-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Methylene Chloride	75-09-2	< 2	ug/L	2	EPA 624	8 May 09	JG
1,1,2,2-Tetrachloroethane	79-34-5	< 1	ug/L	1	EPA 624	8 May 09	JG
Tetrachloroethene	127-18-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Toluene	108-88-3	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1,1-Trichloroethane	71-55-6	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1,2-Trichloroethane	79-00-5	< 1	ug/L	1	EPA 624	8 May 09	JG
Trichloroethene	79-01-6	< 1	ug/L	1	EPA 624	8 May 09	JG
Trichlorofluoromethane	75-69-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Vinyl Chloride	75-01-4	< 1	ug/L	1	EPA 624	8 May 09	JG

SW8270 - No TICs to report.

SW8260- No TICs to report.

NITROBENZENE (SURROGATE) RECOVERY: 87 %
2-FLUOROBIPHENYL (SURROGATE) RECOVERY: 81 %
TERPHENYL-d14 (SURROGATE) RECOVERY: 85 %

2-FLUOROPHENOL (SURROGATE) RECOVERY: 63 %
PHENOL-d5 (SURROGATE) RECOVERY: 42 %
2,4,6-TRIBROMOPHENOL (SURROGATE) RECOVERY: 91 %

DIBROMOFLUOROMETHANE (SURROGATE) RECOVERY: 102 %
TOLUENE-d8 (SURROGATE) RECOVERY: 91 %
4-BROMOFLUOROBENZENE (SURROGATE) RECOVERY: 94 %

Approved by: Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN or Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL = Reporting Limit

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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

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MEMBER ACIL

RENEE STONE
NORTHEAST TECHNICAL SERVICES
PO BOX 1142
VIRGINIA MN 55792-1142

Report Date: 20 May 09
Lab Number: 09-A18311
Work Order: 22-2158
Account #: 022015
Sample Matrix: WASTEWATER
Date Sampled: 5 May 09
Sampled By:
Date Received: 6 May 09
PO #: 94860/7158H
Chain of Custody Number: 94860
Temp at Receipt: 5.0 C

Project Number: 7158H
Sample Description: 350449
TB-2

	CAS #	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Acrolein	107-02-8	< 2	ug/L	2	EPA 624	8 May 09	JG
Acrylonitrile	107-13-1	< 1.8	ug/L	1.8	EPA 624	8 May 09	JG
Benzene	71-43-2	< 1	ug/L	1	EPA 624	8 May 09	JG
Bromodichloromethane	75-27-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Bromoform	75-25-2	< 1	ug/L	1	EPA 624	8 May 09	JG
Bromomethane	74-83-9	< 2	ug/L	2	EPA 624	8 May 09	JG
Carbon Tetrachloride	56-23-5	< 1	ug/L	1	EPA 624	8 May 09	JG
Chlorobenzene	108-90-7	< 1	ug/L	1	EPA 624	8 May 09	JG
Chlorodibromomethane	124-48-1	< 1	ug/L	1	EPA 624	8 May 09	JG
Chloroethane	75-00-3	< 1	ug/L	1	EPA 624	8 May 09	JG
2-Chloroethyl Vinyl Ether	110-75-8	< 1	ug/L	1	EPA 624	8 May 09	JG
Chloroform	67-66-3	< 1	ug/L	1	EPA 624	8 May 09	JG
Chloromethane	74-87-3	< 1	ug/L	1	EPA 624	8 May 09	JG
1,2-Dichlorobenzene	95-50-1	< 1	ug/L	1	EPA 624	8 May 09	JG
1,3-Dichlorobenzene	541-73-1	< 1	ug/L	1	EPA 624	8 May 09	JG
1,4-Dichlorobenzene	106-46-7	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1-Dichloroethane	75-34-3	< 1	ug/L	1	EPA 624	8 May 09	JG
1,2-Dichloroethane	107-06-2	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1-Dichloroethene	75-35-4	< 1	ug/L	1	EPA 624	8 May 09	JG
trans-1,2-Dichloroethene	156-60-5	< 1	ug/L	1	EPA 624	8 May 09	JG
1,2-Dichloropropane	78-87-5	< 1	ug/L	1	EPA 624	8 May 09	JG
cis-1,3-Dichloropropene	10061-01-5	< 1	ug/L	1	EPA 624	8 May 09	JG
trans-1,3-Dichloropropene	10061-02-6	< 1	ug/L	1	EPA 624	8 May 09	JG
Ethyl Benzene	100-41-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Methylene Chloride	75-09-2	< 2	ug/L	2	EPA 624	8 May 09	JG
1,1,2,2-Tetrachloroethane	79-34-5	< 1	ug/L	1	EPA 624	8 May 09	JG
Tetrachloroethene	127-18-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Toluene	108-88-3	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1,1-Trichloroethane	71-55-6	< 1	ug/L	1	EPA 624	8 May 09	JG
1,1,2-Trichloroethane	79-00-5	< 1	ug/L	1	EPA 624	8 May 09	JG
Trichloroethene	79-01-6	< 1	ug/L	1	EPA 624	8 May 09	JG
Trichlorofluoromethane	75-69-4	< 1	ug/L	1	EPA 624	8 May 09	JG
Vinyl Chloride	75-01-4	< 1	ug/L	1	EPA 624	8 May 09	JG

DIBROMOFLUOROMETHANE (SURROGATE) RECOVERY: 104 %
TOLUENE-d8 (SURROGATE) RECOVERY: 93 %
4-BROMOFLUOROBENZENE (SURROGATE) RECOVERY: 96 %

Approved by:
Jason G. Smith, Chemistry Laboratory Manager New Ulm, MN or Dan O'Connell, Asst. Chemistry Laboratory Manager New Ulm, MN

RL = Reporting Limit

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CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

Table 2
Groundwater Sample Summary

SAMPLE LABEL	DATE	pH	SPECIFIC CONDUCTANCE	TURBIDITY	DISSOLVED OXYGEN	TEMPERATURE	eH
GW-001	6-May-09	7.15	863 µS/cm	112 NTU	2.72 mg/L	3.7 C°	412 mV
SAMPLE ID #: 350795, -7 **COC #:** 94934 **Comments:** 9 gallons (3 well vol.) removed at 0.25 gpm							
GW-002	6-May-09	7.16	87 µS/cm	471 NTU	1.16 mg/L	11.9 C°	317 mV
SAMPLE ID #: 350799, -800 **COC #:** 94934 **Comments:** Recovery well; 2 gallons removed at 0.25 gpm; dedicated bailer							
GW-003	7-May-09						
SAMPLE ID #: **COC #:** **Comments:** DRY							
GW-004	7-May-09						
SAMPLE ID #: **COC #:** **Comments:** DRY							
GW-005	7-May-09	8.47	885 µS/cm	165 NTU	1.39 mg/L	10.7 C°	235 mV
SAMPLE ID #: 351073, -4 **COC #:** 94966 **Comments:** Recovery well; 5.69 gallons removed at 0.5 gpm; sampled with disposable bailer; black and odorous							
GW-006	6-May-09	7.58	1157 µS/cm	1 NTU	0.98 mg/L	9.9 C°	371 mV
SAMPLE ID #: 350806, -7 **COC #:** 94934 **Comments:** 6 gallons (6 well vol.) removed at 0.25 gpm							
GW-007	6-May-09	7.72	883 µS/cm	1 NTU	1.63 mg/L	6.5 C°	5 mV
SAMPLE ID #: 850809, -10 **COC #:** 94934 **Comments:** 6.5 gallons (4+ well vol.) removed at 0.5 gpm							
GW-008	6-May-09	7.62	230 µS/cm	2 NTU	2.93 mg/L	5.3 C°	468 mV
SAMPLE ID #: 350811, -2 **COC #:** 94934 **Comments:** 8 gallons (4+ well vol.) removed at 0.5 gpm							

N

0 0.25 0.5 Miles

1:2000

Legend

- NPDES Groundwater Location
- Seep Location
- NPDES Location

Notes

2008 FSA Aerial Photography

Drawing File Path: P:/HoytLakeswork/...mxd	Drawn By: RKG Date: June 2009	Reviewed By: BFT Date: June 2009	**Project #: 7158H.08** **Tailings Basin Permit Reissuance Sampling** **Hoyt Lakes, MN**	NTS, Inc. 526 Chestnut Street P.O. Box 1142 Virginia, MN 55792	Figure 3 GW Sample Locations 3 Figure

NTS

Chain of Custody Record

Page: 1 of 2

315 CHESTNUT STREET * P.O. BOX 1142

VIRGINIA, MINNESOTA 55792

218-741-4290 * FAX 218-741-4291

COC#: 94934

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER:	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH: May-09
PROJ. NO: 7158.08H	COLLECTION:

LOG-IN	SAMPLE #	DESCRIPTION	DATE	TIME	MATRIX LIQ	MATRIX SOL	Filtered	TYPE & # CONTAINERS: General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH Field	Specific Conductance Field	Temperature Field	DO Field	eH Field	ANALYSIS:
350795	GW-001	ST-2 NE	5-6-09	0957	X		N											NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
350797	GW-001	ST-2 NE	"	"	X		(Y)						---	---	---	---	---	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
350799	GW-002	MW-6S	"	1306	X		N											NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
350800	GW-002	MW-6S	"	"	X		(Y)						---	---	---	---	---	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
350804	GW-006	NNW	"	1106	X		N											NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
350807	GW-006	NNW	"	"	X		(Y)						---	---	---	---	---	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
350809	GW-007	WNW	"	1002	X		N											NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
350810	GW-007	WNW	"	"	X		(Y)						---	---	---	---	---	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn

Comments:

-USE LOW LEVEL DETECTION METHODS
-See attachments for all sampling and analysis details

SAMPLES DUE BACK TO LAB NO LATER THAN 2PM

RELINQUISHED BY:	DATE: 5-6-09	RECEIVED BY:	DATE:
	TIME: 1400		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:
RECEIVED FOR LAB BY:		TEMP AT ARRIVAL: 3.9 °C ON ICE 3.7	
DATE: 5-6-09	TIME: 14:00	REPORT DATE:	

NTS

Chain of Custody Record

Page: 2 of 2

315 CHESTNUT STREET * P.O. BOX 1142

VIRGINIA, MINNESOTA 55792

218-741-4290 * FAX 218-741-4291

COC#: 94934

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER:	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH: May-09
PROJ. NO: 7158.08H	

LOG-IN	SAMPLE #	DESCRIPTION	COLLECTION: DATE	COLLECTION: TIME	MATRIX: LIQ	MATRIX: SOL	Filtered	TYPE & # CONTAINERS: General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH Field	Specific Conductance Field	Temperature Field	DO Field	eH Field	ANALYSIS:
350811	GW-008	SW	5-6-09	1109			N											NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
350812	GW-008	SW	"	"			(Y)						---	---	---	---	---	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
350813	Duplicate	Duplicate	"	0600			N						---	---	---	---	---	NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
350814	Duplicate	Duplicate	"	"			(Y)						---	---	---	---	---	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
350815	Field Blank	Field Blank	"	1114			N						---	---	---	---	---	NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
350816	Field Blank	Field Blank	"	"			(Y)						---	---	---	---	---	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
350817	Trip Blank	Trip Blank	"	0600									---	---	---	---	---	VOCs, GRO

Comments:

-USE LOW LEVEL DETECTION METHODS
-See attachments for all sampling and analysis details

SAMPLES DUE BACK TO LAB NO LATER THAN 2PM

RELINQUISHED BY:	DATE: 5-6-09	RECEIVED BY:	DATE:
	TIME: 1400		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:
RECEIVED FOR LAB BY:		TEMP AT ARRIVAL:	
		3.9 °C	
DATE: 5-6-09	TIME: 14:00	3.7	REPORT DATE:

SAMPLE SUMMARY

Northeast Technical Services
315 Chestnut Street
PO Box 1142
Virginia, MN 55792
Phone: 218-741-4290
Fax: 218-742-1010

MDH Certification: 027-137-157

Laboratory Results

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Approved by: _____
Renee Stone
Project Manager

Northeast Technical Services
Attn: Rita Gabrielson

, MN

Sample Description	Sample ID	Sample Type	Matrix	Sample Date	Received Date
GW-001	350795	Grab	Aqueous	5/6/2009 09:57	5/6/2009 14:00
GW-001	350797	Grab - Filtered	Aqueous	5/6/2009 09:57	5/6/2009 14:00
GW-002	350799	Grab	Aqueous	5/6/2009 13:06	5/6/2009 14:00
GW-002	350800	Grab - Filtered	Aqueous	5/6/2009 13:06	5/6/2009 14:00
GW-006	350806	Grab	Aqueous	5/6/2009 11:06	5/6/2009 14:00
GW-006	350807	Grab - Filtered	Aqueous	5/6/2009 11:06	5/6/2009 14:00
GW-007	350809	Grab	Aqueous	5/6/2009 10:02	5/6/2009 14:00
GW-007	350810	Grab - Filtered	Aqueous	5/6/2009 10:02	5/6/2009 14:00
GW-008	350811	Grab	Aqueous	5/6/2009 11:09	5/6/2009 14:00
GW-008	350812	Grab - Filtered	Aqueous	5/6/2009 11:09	5/6/2009 14:00
Duplicate	350813	Grab	Aqueous	5/6/2009 06:00	5/6/2009 14:00
Duplicate	350814	Grab - Filtered	Aqueous	5/6/2009 06:00	5/6/2009 14:00
Field Blank	350815	Grab	Aqueous	5/6/2009 11:16	5/6/2009 14:00
Field Blank	350816	Grab - Filtered	Aqueous	5/6/2009 11:16	5/6/2009 14:00
Trip Blank	350817	Grab	Aqueous	5/6/2009 06:00	5/6/2009 14:00

SAMPLE RESULTS

NTS Sample: 350795
Description: GW-001
Sample Date: 5/6/2009 9:57:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
DRO	<0.09	0.09	mg/L	WI(95) DRO	5/8/2009	5/11/2009 14:25	
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/13/2009 06:09	
Pyrene	<5.59	5.59	µg/L	EPA 8270C	5/13/2009	5/23/2009 02:08	n,r
1,1,1,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
1,1,1-Trichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
1,1,2,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
1,1,2-Trichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
1,1,2-Trichlorotrifluoroethane	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
1,1-Dichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
1,1-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
1,1-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
1,2,3-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/13/2009 11:24	
1,2,3-Trichloropropane	<2	2	µg/L	EPA 8260B		5/13/2009 11:24	
1,2,4-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/13/2009 11:24	
1,2,4-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
1,2-Dibromo-3-chloropropane	<2	2	µg/L	EPA 8260B		5/13/2009 11:24	
1,2-Dibromoethane	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
1,2-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
1,2-Dichloroethane	<2	2	µg/L	EPA 8260B		5/13/2009 11:24	
1,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
1,3,5-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
1,3-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
1,3-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
1,4-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
2,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
2-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
4-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Acetone	<20	20	µg/L	EPA 8260B		5/13/2009 11:24	
Allyl Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Benzene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Bromobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Bromochloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Bromodichloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Bromoform	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Bromomethane	<2	2	µg/L	EPA 8260B		5/13/2009 11:24	
Carbon Tetrachloride	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Chlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Chloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Chloroform	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by WVTL - New Ulm: VDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350795
Description: GW-001
Sample Date: 5/6/2009 9:57:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Cis-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Cis-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Dibromochloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Dibromomethane	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Dichlorodifluoromethane	<2	2	µg/L	EPA 8260B		5/13/2009 11:24	
Dichlorofluoromethane	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Ethyl Benzene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Ethyl Ether	<2	2	µg/L	EPA 8260B		5/13/2009 11:24	
Hexachlorobutadiene	<2	2	µg/L	EPA 8260B		5/13/2009 11:24	
Isopropylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Methyl Ethyl Ketone	<10	10	µg/L	EPA 8260B		5/13/2009 11:24	
Methyl Isobutyl Ketone	<10	10	µg/L	EPA 8260B		5/13/2009 11:24	
Methyl Tert-butyl Ether	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Methylene Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Naphthalene	<2	2	µg/L	EPA 8260B		5/13/2009 11:24	
n-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
n-Propylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
p-Isopropyltoluene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
sec-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Styrene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
tert-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Tetrachloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Tetrahydrofuran	<5	5	µg/L	EPA 8260B		5/13/2009 11:24	
Toluene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Trans-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Trans-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Trichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Trichlorofluoromethane	<2	2	µg/L	EPA 8260B		5/13/2009 11:24	
Vinyl Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Xylene, M&P	<2	2	µg/L	EPA 8260B		5/13/2009 11:24	
Xylene, O	<1	1	µg/L	EPA 8260B		5/13/2009 11:24	
Surrogate 1,2-Dichloroethane-d4	110	1	%	EPA 8260B		5/13/2009 11:24	
Surrogate Bromofluorobenzene	102	1	%	EPA 8260B		5/13/2009 11:24	
Surrogate Toluene-d8	100	1	%	EPA 8260B		5/13/2009 11:24	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/7/2009	
Nitrogen, Ammonia	<0.1	0.1	mg/L as N	EPA 350.1	5/8/2009	5/8/2009	
Nitrogen, Nitrate+Nitrite	0.11	0.1	mg/L as N	EPA 353.2		5/8/2009	
Sulfide	<1	1	mg/L	EPA 376.1		5/12/2009	S2

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm; MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350795
Description: GW-001
Sample Date: 5/6/2009 9:57:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Surfactants	<0.03	0.03	mg/L	EPA 425.1		5/8/2009	S2

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analys's performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350797
Description: GW-001
Sample Date: 5/6/2009 9:57:00 AM

Matrix: Aqueous
Sample Type: Grab - Filtered

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
Aluminum	<25	25	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:21
Antimony	<0.5	0.5	µg/L	SM 3113B	5/7/2009	5/14/2009 16:18
Arsenic	<2	2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:18
Cadmium	<0.2	0.2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:18
Chromium	<1	1	µg/L	EPA 200.7	5/7/2009	5/11/2009 14:10
Cobalt	0.32	0.2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:18
Copper	1.3	0.7	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:18
Iron	9440	50	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:21
Lead	<0.5	0.5	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:18
Lithium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:21
Nickel	1.9	0.6	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:18
Potassium	3.41	0.25	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:21
Selenium	<1	1	µg/L	EPA 270.2	5/7/2009	5/14/2009 16:18
Silver	<0.2	0.2	µg/L	EPA 272.2	5/7/2009	5/14/2009 16:18
Sodium	49.8	8	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:22
Strontium	246	20	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:22
Thallium	<0.4	0.4	µg/L	EPA 279.2	5/7/2009	5/14/2009 16:18
Vanadium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:21
Zinc	11.4	6	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:18

SAMPLE RESULTS

NTS Sample: 350799
Description: GW-002
Sample Date: 5/6/2009 1:06:00 PM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
DRO	<0.09	0.09	mg/L	WI(95) DRO	5/8/2009	5/11/2009 14:53	
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/13/2009 06:37	
Pyrene	<5.78	5.78	µg/L	EPA 8270C	5/13/2009	5/23/2009 03:04	n,r
1,1,1,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
1,1,1-Trichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
1,1,2,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
1,1,2-Trichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
1,1,2-Trichlorotrifluoroethane	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
1,1-Dichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
1,1-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
1,1-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
1,2,3-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/13/2009 12:43	
1,2,3-Trichloropropane	<2	2	µg/L	EPA 8260B		5/13/2009 12:43	
1,2,4-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/13/2009 12:43	
1,2,4-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
1,2-Dibromo-3-chloropropane	<2	2	µg/L	EPA 8260B		5/13/2009 12:43	
1,2-Dibromoethane	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
1,2-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
1,2-Dichloroethane	<2	2	µg/L	EPA 8260B		5/13/2009 12:43	
1,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
1,3,5-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
1,3-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
1,3-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
1,4-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
2,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
2-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
4-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Acetone	<20	20	µg/L	EPA 8260B		5/13/2009 12:43	
Allyl Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Benzene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Bromobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Bromochloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Bromodichloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Bromoform	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Bromomethane	<2	2	µg/L	EPA 8260B		5/13/2009 12:43	
Carbon Tetrachloride	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Chlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Chloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Chloroform	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350799
Description: GW-002
Sample Date: 5/6/2009 1:06:00 PM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Cis-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Cis-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Dibromochloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Dibromomethane	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Dichlorodifluoromethane	<2	2	µg/L	EPA 8260B		5/13/2009 12:43	
Dichlorofluoromethane	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Ethyl Benzene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Ethyl Ether	<2	2	µg/L	EPA 8260B		5/13/2009 12:43	
Hexachlorobutadiene	<2	2	µg/L	EPA 8260B		5/13/2009 12:43	
Isopropylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Methyl Ethyl Ketone	<10	10	µg/L	EPA 8260B		5/13/2009 12:43	
Methyl Isobutyl Ketone	<10	10	µg/L	EPA 8260B		5/13/2009 12:43	
Methyl Tert-butyl Ether	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Methylene Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Naphthalene	<2	2	µg/L	EPA 8260B		5/13/2009 12:43	
n-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
n-Propylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
p-Isopropyltoluene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
sec-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Styrene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
tert-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Tetrachloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Tetrahydrofuran	<5	5	µg/L	EPA 8260B		5/13/2009 12:43	
Toluene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Trans-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Trans-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Trichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Trichlorofluoromethane	<2	2	µg/L	EPA 8260B		5/13/2009 12:43	
Vinyl Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Xylene, M&P	<2	2	µg/L	EPA 8260B		5/13/2009 12:43	
Xylene, O	<1	1	µg/L	EPA 8260B		5/13/2009 12:43	
Surrogate 1,2-Dichloroethane-d4	108	1	%	EPA 8260B		5/13/2009 12:43	
Surrogate Bromofluorobenzene	102	1	%	EPA 8260B		5/13/2009 12:43	
Surrogate Toluene-d8	99.9	1	%	EPA 8260B		5/13/2009 12:43	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/7/2009	
Nitrogen, Ammonia	<0.1	0.1	mg/L as N	EPA 350.1	5/8/2009	5/8/2009	
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/8/2009	
Sulfide	<1	1	mg/L	EPA 376.1		5/12/2009	S2

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350799
Description: GW-002
Sample Date: 5/6/2009 1:06:00 PM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Surfactants	<0.03	0.03	mg/L	EPA 425.1		5/8/2009	S2

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350800
Description: GW-002
Sample Date: 5/6/2009 1:06:00 PM

Matrix: Aqueous
Sample Type: Grab - Filtered

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
Aluminum	215	25	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:21
Antimony	<0.5	0.5	µg/L	SM 3113B	5/7/2009	5/14/2009 16:26
Arsenic	<2	2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:26
Cadmium	<0.2	0.2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:26
Chromium	<1	1	µg/L	EPA 200.7	5/7/2009	5/11/2009 14:13
Cobalt	<0.2	0.2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:26
Copper	3.7	0.7	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:26
Iron	195	50	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:21
Lead	<0.5	0.5	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:26
Lithium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:21
Nickel	1.2	0.6	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:26
Potassium	0.36	0.25	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:21
Selenium	<1	1	µg/L	EPA 270.2	5/7/2009	5/14/2009 16:26
Silver	<0.2	0.2	µg/L	EPA 272.2	5/7/2009	5/14/2009 16:26
Sodium	<2	2	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:21
Strontium	36.8	5	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:21
Thallium	<0.4	0.4	µg/L	EPA 279.2	5/7/2009	5/14/2009 16:26
Vanadium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:21
Zinc	12.4	6	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:26

SAMPLE RESULTS

NTS Sample: 350806
Description: GW-006
Sample Date: 5/6/2009 11:06:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
DRO	<0.09	0.09	mg/L	WI(95) DRO	5/8/2009	5/11/2009 15:20	i
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/13/2009 07:05	
Pyrene	<5.18	5.18	µg/L	EPA 8270C	5/13/2009	5/23/2009 04:01	n,r
1,1,1,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
1,1,1-Trichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
1,1,2,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
1,1,2-Trichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
1,1,2-Trichlorotrifluoroethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
1,1-Dichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
1,1-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
1,1-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
1,2,3-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/13/2009 13:09	
1,2,3-Trichloropropane	<2	2	µg/L	EPA 8260B		5/13/2009 13:09	
1,2,4-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/13/2009 13:09	
1,2,4-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
1,2-Dibromo-3-chloropropane	<2	2	µg/L	EPA 8260B		5/13/2009 13:09	
1,2-Dibromoethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
1,2-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
1,2-Dichloroethane	<2	2	µg/L	EPA 8260B		5/13/2009 13:09	
1,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
1,3,5-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
1,3-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
1,3-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
1,4-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
2,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
2-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
4-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Acetone	<20	20	µg/L	EPA 8260B		5/13/2009 13:09	
Allyl Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Benzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Bromobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Bromochloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Bromodichloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Bromoform	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Bromomethane	<2	2	µg/L	EPA 8260B		5/13/2009 13:09	
Carbon Tetrachloride	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Chlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Chloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Chloroform	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	

Qualifier	Description	Note
i	Improper sample preservation noted, analysis performed.	DRO pH 4.
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350806
Description: GW-006
Sample Date: 5/6/2009 11:06:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Cis-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Cis-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Dibromochloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Dibromomethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Dichlorodifluoromethane	<2	2	µg/L	EPA 8260B		5/13/2009 13:09	
Dichlorofluoromethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Ethyl Benzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Ethyl Ether	<2	2	µg/L	EPA 8260B		5/13/2009 13:09	
Hexachlorobutadiene	<2	2	µg/L	EPA 8260B		5/13/2009 13:09	
Isopropylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Methyl Ethyl Ketone	<10	10	µg/L	EPA 8260B		5/13/2009 13:09	
Methyl Isobutyl Ketone	<10	10	µg/L	EPA 8260B		5/13/2009 13:09	
Methyl Tert-butyl Ether	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Methylene Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Naphthalene	<2	2	µg/L	EPA 8260B		5/13/2009 13:09	
n-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
n-Propylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
p-Isopropyltoluene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
sec-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Styrene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
tert-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Tetrachloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Tetrahydrofuran	<5	5	µg/L	EPA 8260B		5/13/2009 13:09	
Toluene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Trans-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Trans-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Trichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Trichlorofluoromethane	<2	2	µg/L	EPA 8260B		5/13/2009 13:09	
Vinyl Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Xylene, M&P	<2	2	µg/L	EPA 8260B		5/13/2009 13:09	
Xylene, O	<1	1	µg/L	EPA 8260B		5/13/2009 13:09	
Surrogate 1,2-Dichloroethane-d4	109	1	%	EPA 8260B		5/13/2009 13:09	
Surrogate Bromofluorobenzene	103	1	%	EPA 8260B		5/13/2009 13:09	
Surrogate Toluene-d8	101	1	%	EPA 8260B		5/13/2009 13:09	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/7/2009	
Nitrogen, Ammonia	0.1	0.1	mg/L as N	EPA 350.1	5/8/2009	5/8/2009	
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/8/2009	
Sulfide	<1	1	mg/L	EPA 376.1		5/12/2009	S2

Qualifier	Description	Note
i	Improper sample preservation noted, analysis performed.	DRO pH 4.
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350806
Description: GW-006
Sample Date: 5/6/2009 11:06:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Surfactants	<0.03	0.03	mg/L	EPA 425.1		5/8/2009	S2

Qualifier	Description	Note
i	Improper sample preservation noted, analysis performed.	DRO pH 4.
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by VVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350807
Description: GW-006
Sample Date: 5/6/2009 11:06:00 AM

Matrix: Aqueous
Sample Type: Grab - Filtered

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
Aluminum	<25	25	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:21
Antimony	<0.5	0.5	µg/L	SM 3113B	5/7/2009	5/14/2009 16:31
Arsenic	2.2	2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:31
Cadmium	<0.2	0.2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:31
Chromium	<1	1	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:31
Cobalt	2.7	0.2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:31
Copper	1.0	0.7	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:31
Iron	2010	50	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:21
Lead	<0.5	0.5	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:31
Lithium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:22
Nickel	4.5	0.6	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:31
Potassium	11.9	1	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:22
Selenium	<1	1	µg/L	EPA 270.2	5/7/2009	5/14/2009 16:31
Silver	<0.2	0.2	µg/L	EPA 272.2	5/7/2009	5/14/2009 16:31
Sodium	54.7	8	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:22
Strontium	650	20	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:22
Thallium	<0.4	0.4	µg/L	EPA 279.2	5/7/2009	5/14/2009 16:31
Vanadium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:21
Zinc	6.5	6	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:31

SAMPLE RESULTS

NTS Sample: 350809
Description: GW-007
Sample Date: 5/6/2009 10:02:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
DRO	<0.09	0.09	mg/L	WI(95) DRO	5/11/2009	5/12/2009 01:39	
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/13/2009 07:34	
Pyrene	<5.1	5.1	µg/L	EPA 8270C	5/13/2009	5/23/2009 08:47	n,r
1,1,1,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
1,1,1-Trichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
1,1,2,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
1,1,2-Trichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
1,1,2-Trichlorotrifluoroethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
1,1-Dichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
1,1-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
1,1-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
1,2,3-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/13/2009 13:36	
1,2,3-Trichloropropane	<2	2	µg/L	EPA 8260B		5/13/2009 13:36	
1,2,4-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/13/2009 13:36	
1,2,4-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
1,2-Dibromo-3-chloropropane	<2	2	µg/L	EPA 8260B		5/13/2009 13:36	
1,2-Dibromoethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
1,2-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
1,2-Dichloroethane	<2	2	µg/L	EPA 8260B		5/13/2009 13:36	
1,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
1,3,5-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
1,3-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
1,3-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
1,4-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
2,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
2-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
4-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Acetone	<20	20	µg/L	EPA 8260B		5/13/2009 13:36	
Allyl Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Benzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Bromobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Bromochloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Bromodichloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Bromoform	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Bromomethane	<2	2	µg/L	EPA 8260B		5/13/2009 13:36	
Carbon Tetrachloride	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Chlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Chloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Chloroform	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by WVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350809
Description: GW-007
Sample Date: 5/6/2009 10:02:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Cis-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Cis-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Dibromochloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Dibromomethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Dichlorodifluoromethane	<2	2	µg/L	EPA 8260B		5/13/2009 13:36	
Dichlorofluoromethane	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Ethyl Benzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Ethyl Ether	<2	2	µg/L	EPA 8260B		5/13/2009 13:36	
Hexachlorobutadiene	<2	2	µg/L	EPA 8260B		5/13/2009 13:36	
Isopropylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Methyl Ethyl Ketone	<10	10	µg/L	EPA 8260B		5/13/2009 13:36	
Methyl Isobutyl Ketone	<10	10	µg/L	EPA 8260B		5/13/2009 13:36	
Methyl Tert-butyl Ether	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Methylene Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Naphthalene	<2	2	µg/L	EPA 8260B		5/13/2009 13:36	
n-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
n-Propylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
p-Isopropyltoluene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
sec-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Styrene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
tert-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Tetrachloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Tetrahydrofuran	<5	5	µg/L	EPA 8260B		5/13/2009 13:36	
Toluene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Trans-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Trans-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Trichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Trichlorofluoromethane	<2	2	µg/L	EPA 8260B		5/13/2009 13:36	
Vinyl Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Xylene, M&P	<2	2	µg/L	EPA 8260B		5/13/2009 13:36	
Xylene, O	<1	1	µg/L	EPA 8260B		5/13/2009 13:36	
Surrogate 1,2-Dichloroethane-d4	108	1	%	EPA 8260B		5/13/2009 13:36	
Surrogate Bromofluorobenzene	99.8	1	%	EPA 8260B		5/13/2009 13:36	
Surrogate Toluene-d8	103	1	%	EPA 8260B		5/13/2009 13:36	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/7/2009	
Nitrogen, Ammonia	<0.1	0.1	mg/L as N	EPA 350.1	5/8/2009	5/8/2009	
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/8/2009	
Sulfide	<1	1	mg/L	EPA 376.1		5/12/2009	S2

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analys's not within control limits.	Not enough sample provided for MS or MSD.
S2	Analys's performed by WVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350809
Description: GW-007
Sample Date: 5/6/2009 10:02:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Surfactants	<0.03	0.03	mg/L	EPA 425.1		5/8/2009	S2

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analys's performed by WVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350810
Description: GW-007
Sample Date: 5/6/2009 10:02:00 AM

Matrix: Aqueous
Sample Type: Grab - Filtered

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
Aluminum	<25	25	µg/L	EPA 200.7	5/19/2009	5/19/2009 14:08
Antimony	<0.5	0.5	µg/L	SM 3113B	5/7/2009	5/14/2009 16:36
Arsenic	2.4	2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:36
Cadmium	<0.2	0.2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:36
Chromium	<1	1	µg/L	EPA 200.7	5/7/2009	5/11/2009 14:22
Cobalt	0.86	0.2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:36
Copper	<0.7	0.7	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:36
Iron	120	50	µg/L	EPA 200.7	5/19/2009	5/19/2009 14:08
Lead	<0.5	0.5	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:36
Lithium	17.7	10	µg/L	EPA 200.7	5/19/2009	5/19/2009 14:08
Nickel	1.8	0.6	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:36
Potassium	7.48	2.5	mg/L	EPA 200.7	5/19/2009	5/19/2009 14:10
Selenium	<1	1	µg/L	EPA 270.2	5/7/2009	5/14/2009 16:36
Silver	<0.2	0.2	µg/L	EPA 272.2	5/7/2009	5/14/2009 16:36
Sodium	46	2	mg/L	EPA 200.7	5/19/2009	5/19/2009 14:08
Strontium	316	10	µg/L	EPA 200.7	5/19/2009	5/19/2009 14:08
Thallium	<0.4	0.4	µg/L	EPA 279.2	5/7/2009	5/14/2009 16:36
Vanadium	<10	10	µg/L	EPA 200.7	5/19/2009	5/19/2009 14:08
Zinc	6.2	6	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:36

SAMPLE RESULTS

NTS Sample: 350811
Description: GW-008
Sample Date: 5/6/2009 11:09:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
DRO	<0.09	0.09	mg/L	WI(95) DRO	5/11/2009	5/12/2009 02:07	
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/13/2009 08:02	
Pyrene	<5.26	5.26	µg/L	EPA 8270C	5/13/2009	5/22/2009	n,r
1,1,1,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
1,1,1-Trichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
1,1,2,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
1,1,2-Trichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
1,1,2-Trichlorotrifluoroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
1,1-Dichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
1,1-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
1,1-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
1,2,3-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/13/2009 14:03	
1,2,3-Trichloropropane	<2	2	µg/L	EPA 8260B		5/13/2009 14:03	
1,2,4-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/13/2009 14:03	
1,2,4-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
1,2-Dibromo-3-chloropropane	<2	2	µg/L	EPA 8260B		5/13/2009 14:03	
1,2-Dibromoethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
1,2-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
1,2-Dichloroethane	<2	2	µg/L	EPA 8260B		5/13/2009 14:03	
1,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
1,3,5-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
1,3-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
1,3-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
1,4-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
2,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
2-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
4-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Acetone	<20	20	µg/L	EPA 8260B		5/13/2009 14:03	
Allyl Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Benzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Bromobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Bromochloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Bromodichloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Bromoform	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Bromomethane	<2	2	µg/L	EPA 8260B		5/13/2009 14:03	
Carbon Tetrachloride	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Chlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Chloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Chloroform	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350811
Description: GW-008
Sample Date: 5/6/2009 11:09:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Cis-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Cis-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Dibromochloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Dibromomethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Dichlorodifluoromethane	<2	2	µg/L	EPA 8260B		5/13/2009 14:03	
Dichlorofluoromethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Ethyl Benzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Ethyl Ether	<2	2	µg/L	EPA 8260B		5/13/2009 14:03	
Hexachlorobutadiene	<2	2	µg/L	EPA 8260B		5/13/2009 14:03	
Isopropylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Methyl Ethyl Ketone	<10	10	µg/L	EPA 8260B		5/13/2009 14:03	
Methyl Isobutyl Ketone	<10	10	µg/L	EPA 8260B		5/13/2009 14:03	
Methyl Tert-butyl Ether	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Methylene Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Naphthalene	<2	2	µg/L	EPA 8260B		5/13/2009 14:03	
n-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
n-Propylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
p-Isopropyltoluene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
sec-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Styrene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
tert-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Tetrachloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Tetrahydrofuran	<5	5	µg/L	EPA 8260B		5/13/2009 14:03	
Toluene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Trans-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Trans-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Trichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Trichlorofluoromethane	<2	2	µg/L	EPA 8260B		5/13/2009 14:03	
Vinyl Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Xylene, M&P	<2	2	µg/L	EPA 8260B		5/13/2009 14:03	
Xylene, O	<1	1	µg/L	EPA 8260B		5/13/2009 14:03	
Surrogate 1,2-Dichloroethane-d4	112	1	%	EPA 8260B		5/13/2009 14:03	
Surrogate Bromofluorobenzene	99.8	1	%	EPA 8260B		5/13/2009 14:03	
Surrogate Toluene-d8	99.1	1	%	EPA 8260B		5/13/2009 14:03	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/7/2009	
Nitrogen, Ammonia	<0.1	0.1	mg/L as N	EPA 350.1	5/8/2009	5/8/2009	
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/8/2009	
Sulfide	<1	1	mg/L	EPA 376.1		5/12/2009	S2

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350811
Description: GW-008
Sample Date: 5/6/2009 11:09:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Surfactants	<0.03	0.03	mg/L	EPA 425.1		5/8/2009	S2

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350812
Description: GW-008
Sample Date: 5/6/2009 11:09:00 AM

Matrix: Aqueous
Sample Type: Grab - Filtered

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
Aluminum	<25	25	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:22
Antimony	<0.5	0.5	µg/L	SM 3113B	5/7/2009	5/14/2009 15:18
Arsenic	<2	2	µg/L	EPA 200.7	5/7/2009	5/14/2009 15:18
Cadmium	<0.2	0.2	µg/L	EPA 200.7	5/7/2009	5/14/2009 15:18
Chromium	<1	1	µg/L	EPA 200.7	5/7/2009	5/21/2009 10:56
Cobalt	<0.2	0.2	µg/L	EPA 200.7	5/7/2009	5/14/2009 15:18
Copper	<0.7	0.7	µg/L	EPA 200.7	5/7/2009	5/14/2009 15:18
Iron	<50	50	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:22
Lead	<0.5	0.5	µg/L	EPA 200.7	5/7/2009	5/14/2009 15:18
Lithium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:22
Nickel	2.6	0.6	µg/L	EPA 200.7	5/7/2009	5/14/2009 15:18
Potassium	1.36	0.25	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:22
Selenium	<1	1	µg/L	EPA 270.2	5/7/2009	5/14/2009 15:18
Silver	<0.2	0.2	µg/L	EPA 272.2	5/7/2009	5/14/2009 15:18
Sodium	4.56	2	mg/L	EPA 200.7	5/12/2009	5/18/2009 07:22
Strontium	73.7	5	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:22
Thallium	<0.4	0.4	µg/L	EPA 279.2	5/7/2009	5/14/2009 15:18
Vanadium	<10	10	µg/L	EPA 200.7	5/12/2009	5/18/2009 07:22
Zinc	<6	6	µg/L	EPA 200.7	5/7/2009	5/14/2009 15:18

SAMPLE RESULTS

NTS Sample: 350813
Description: Duplicate
Sample Date: 5/6/2009 6:00:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
DRO	<0.09	0.09	mg/L	WI(95) DRO	5/11/2009	5/12/2009 07:21	
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/13/2009 08:30	
Pyrene	<5.15	5.15	µg/L	EPA 8270C	5/13/2009	5/22/2009	n,r
1,1,1,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
1,1,1-Trichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
1,1,2,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
1,1,2-Trichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
1,1,2-Trichlorotrifluoroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
1,1-Dichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
1,1-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
1,1-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
1,2,3-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/13/2009 14:29	
1,2,3-Trichloropropane	<2	2	µg/L	EPA 8260B		5/13/2009 14:29	
1,2,4-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/13/2009 14:29	
1,2,4-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
1,2-Dibromo-3-chloropropane	<2	2	µg/L	EPA 8260B		5/13/2009 14:29	
1,2-Dibromoethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
1,2-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
1,2-Dichloroethane	<2	2	µg/L	EPA 8260B		5/13/2009 14:29	
1,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
1,3,5-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
1,3-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
1,3-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
1,4-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
2,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
2-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
4-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Acetone	<20	20	µg/L	EPA 8260B		5/13/2009 14:29	
Allyl Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Benzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Bromobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Bromochloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Bromodichloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Bromoform	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Bromomethane	<2	2	µg/L	EPA 8260B		5/13/2009 14:29	
Carbon Tetrachloride	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Chlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Chloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Chloroform	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350813
Description: Duplicate
Sample Date: 5/6/2009 6:00:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Cis-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Cis-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Dibromochloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Dibromomethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Dichlorodifluoromethane	<2	2	µg/L	EPA 8260B		5/13/2009 14:29	
Dichlorofluoromethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Ethyl Benzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Ethyl Ether	<2	2	µg/L	EPA 8260B		5/13/2009 14:29	
Hexachlorobutadiene	<2	2	µg/L	EPA 8260B		5/13/2009 14:29	
Isopropylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Methyl Ethyl Ketone	<10	10	µg/L	EPA 8260B		5/13/2009 14:29	
Methyl Isobutyl Ketone	<10	10	µg/L	EPA 8260B		5/13/2009 14:29	
Methyl Tert-butyl Ether	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Methylene Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Naphthalene	<2	2	µg/L	EPA 8260B		5/13/2009 14:29	
n-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
n-Propylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
p-Isopropyltoluene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
sec-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Styrene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
tert-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Tetrachloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Tetrahydrofuran	<5	5	µg/L	EPA 8260B		5/13/2009 14:29	
Toluene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Trans-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Trans-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Trichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Trichlorofluoromethane	<2	2	µg/L	EPA 8260B		5/13/2009 14:29	
Vinyl Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Xylene, M&P	<2	2	µg/L	EPA 8260B		5/13/2009 14:29	
Xylene, O	<1	1	µg/L	EPA 8260B		5/13/2009 14:29	
Surrogate 1,2-Dichloroethane-d4	112	1	%	EPA 8260B		5/13/2009 14:29	
Surrogate Bromofluorobenzene	99.7	1	%	EPA 8260B		5/13/2009 14:29	
Surrogate Toluene-d8	101	1	%	EPA 8260B		5/13/2009 14:29	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/7/2009	
Nitrogen, Ammonia	<0.1	0.1	mg/L as N	EPA 350.1	5/8/2009	5/8/2009	
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/8/2009	
Sulfide	<1	1	mg/L	EPA 376.1		5/12/2009	S2

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350813
Description: Duplicate
Sample Date: 5/6/2009 6:00:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Surfactants	<0.03	0.03	mg/L	EPA 425.1		5/8/2009	S2

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by WVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350814
Description: Duplicate
Sample Date: 5/6/2009 6:00:00 AM

Matrix: Aqueous
Sample Type: Grab - Filtered

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
Aluminum	<25	25	µg/L	EPA 200.7	5/19/2009	5/19/2009 14:10
Antimony	<0.5	0.5	µg/L	SM 3113B	5/7/2009	5/14/2009 16:41
Arsenic	2.3	2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:41
Cadmium	<0.2	0.2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:41
Chromium	<1	1	µg/L	EPA 200.7		5/11/2009 14:25
Cobalt	0.88	0.2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:41
Copper	<0.7	0.7	µg/L	EPA 200.7		5/14/2009 16:41
Iron	120	50	µg/L	EPA 200.7	5/19/2009	5/19/2009 14:10
Lead	<0.5	0.5	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:41
Lithium	17.8	10	µg/L	EPA 200.7	5/19/2009	5/19/2009 14:10
Nickel	1.8	0.6	µg/L	EPA 200.7		5/14/2009 16:41
Potassium	8.5	2.5	mg/L	EPA 200.7	5/19/2009	5/19/2009 14:11
Selenium	<1	1	µg/L	EPA 270.2	5/7/2009	5/14/2009 16:41
Silver	<0.2	0.2	µg/L	EPA 272.2	5/7/2009	5/14/2009 16:41
Sodium	46.9	2	mg/L	EPA 200.7	5/19/2009	5/19/2009 14:10
Strontium	306	10	µg/L	EPA 200.7	5/19/2009	5/19/2009 14:12
Thallium	<0.4	0.4	µg/L	EPA 279.2	5/7/2009	5/14/2009 16:41
Vanadium	<10	10	µg/L	EPA 200.7	5/19/2009	5/19/2009 14:10
Zinc	6.0	6	µg/L	EPA 200.7		5/14/2009 16:41

SAMPLE RESULTS

NTS Sample: 350815
Description: Field Blank
Sample Date: 5/6/2009 11:16:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
DRO	<0.1	0.1	mg/L	WI(95) DRO	5/11/2009	5/12/2009 07:50	
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/13/2009 08:58	
Pyrene	<5.4	5.4	µg/L	EPA 8270C	5/13/2009	5/23/2009 13:10	n,r
1,1,1,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
1,1,1-Trichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
1,1,2,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
1,1,2-Trichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
1,1,2-Trichlorotrifluoroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
1,1-Dichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
1,1-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
1,1-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
1,2,3-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/13/2009 14:56	
1,2,3-Trichloropropane	<2	2	µg/L	EPA 8260B		5/13/2009 14:56	
1,2,4-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/13/2009 14:56	
1,2,4-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
1,2-Dibromo-3-chloropropane	<2	2	µg/L	EPA 8260B		5/13/2009 14:56	
1,2-Dibromoethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
1,2-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
1,2-Dichloroethane	<2	2	µg/L	EPA 8260B		5/13/2009 14:56	
1,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
1,3,5-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
1,3-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
1,3-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
1,4-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
2,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
2-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
4-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Acetone	<20	20	µg/L	EPA 8260B		5/13/2009 14:56	
Allyl Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Benzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Bromobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Bromochloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Bromodichloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Bromoform	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Bromomethane	<2	2	µg/L	EPA 8260B		5/13/2009 14:56	
Carbon Tetrachloride	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Chlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Chloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Chloroform	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analys's not within control limits.	Not enough sample provided for MS or MSD.
S2	Analys's performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350815
Description: Field Blank
Sample Date: 5/6/2009 11:16:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Cis-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Cis-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Dibromochloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Dibromomethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Dichlorodifluoromethane	<2	2	µg/L	EPA 8260B		5/13/2009 14:56	
Dichlorofluoromethane	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Ethyl Benzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Ethyl Ether	<2	2	µg/L	EPA 8260B		5/13/2009 14:56	
Hexachlorobutadiene	<2	2	µg/L	EPA 8260B		5/13/2009 14:56	
Isopropylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Methyl Ethyl Ketone	<10	10	µg/L	EPA 8260B		5/13/2009 14:56	
Methyl Isobutyl Ketone	<10	10	µg/L	EPA 8260B		5/13/2009 14:56	
Methyl Tert-butyl Ether	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Methylene Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Naphthalene	<2	2	µg/L	EPA 8260B		5/13/2009 14:56	
n-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
n-Propylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
p-Isopropyltoluene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
sec-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Styrene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
tert-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Tetrachloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Tetrahydrofuran	<5	5	µg/L	EPA 8260B		5/13/2009 14:56	
Toluene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Trans-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Trans-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Trichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Trichlorofluoromethane	<2	2	µg/L	EPA 8260B		5/13/2009 14:56	
Vinyl Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Xylene, M&P	<2	2	µg/L	EPA 8260B		5/13/2009 14:56	
Xylene, O	<1	1	µg/L	EPA 8260B		5/13/2009 14:56	
Surrogate 1,2-Dichloroethane-d4	110	1	%	EPA 8260B		5/13/2009 14:56	
Surrogate Bromofluorobenzene	102	1	%	EPA 8260B		5/13/2009 14:56	
Surrogate Toluene-d8	103	1	%	EPA 8260B		5/13/2009 14:56	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/7/2009	
Nitrogen, Ammonia	<0.1	0.1	mg/L as N	EPA 350.1	5/8/2009	5/8/2009	
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/8/2009	
Sulfide	<1	1	mg/L	EPA 376.1		5/12/2009	S2

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350815
Description: Field Blank
Sample Date: 5/6/2009 11:16:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Surfactants	<0.03	0.03	mg/L	EPA 425.1		5/8/2009	S2

Qualifier	Description	Note
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by WVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 350816
Description: Field Blank
Sample Date: 5/6/2009 11:16:00 AM

Matrix: Aqueous
Sample Type: Grab - Filtered

NTS COC: 94934
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
Aluminum	<25	25	µg/L	EPA 200.7		5/29/2009 10:43
Antimony	<0.5	0.5	µg/L	SM 3113B	5/7/2009	5/14/2009 16:47
Arsenic	<2	2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:47
Cadmium	<0.2	0.2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:47
Chromium	<1	1	µg/L	EPA 200.7	5/7/2009	5/11/2009 14:28
Cobalt	<0.2	0.2	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:47
Copper	<0.7	0.7	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:47
Iron	<50	50	µg/L	EPA 200.7		5/29/2009 10:43
Lead	<0.5	0.5	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:47
Lithium	<10	10	µg/L	EPA 200.7		5/29/2009 10:43
Nickel	<0.6	0.6	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:47
Potassium	<0.25	0.25	mg/L	EPA 200.7		5/29/2009 10:43
Selenium	<1	1	µg/L	EPA 270.2	5/7/2009	5/14/2009 16:47
Silver	<0.2	0.2	µg/L	EPA 272.2	5/7/2009	5/14/2009 16:47
Sodium	<2	2	mg/L	EPA 200.7		5/29/2009 10:43
Strontium	<5	5	µg/L	EPA 200.7		5/29/2009 10:43
Thallium	<0.4	0.4	µg/L	EPA 279.2	5/7/2009	5/14/2009 16:47
Vanadium	<10	10	µg/L	EPA 200.7		5/29/2009 10:43
Zinc	<6	6	µg/L	EPA 200.7	5/7/2009	5/14/2009 16:47

SAMPLE RESULTS

NTS Sample: 350817
Description: Trip Blank
Sample Date: 5/6/2009 6:00:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/13/2009 09:26
1,1,1,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
1,1,1-Trichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
1,1,2,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
1,1,2-Trichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
1,1,2-Trichlorotrifluoroethane	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
1,1-Dichloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
1,1-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
1,1-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
1,2,3-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/13/2009 15:22
1,2,3-Trichloropropane	<2	2	µg/L	EPA 8260B		5/13/2009 15:22
1,2,4-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/13/2009 15:22
1,2,4-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
1,2-Dibromo-3-chloropropane	<2	2	µg/L	EPA 8260B		5/13/2009 15:22
1,2-Dibromoethane	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
1,2-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
1,2-Dichloroethane	<2	2	µg/L	EPA 8260B		5/13/2009 15:22
1,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
1,3,5-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
1,3-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
1,3-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
1,4-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
2,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
2-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
4-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Acetone	<20	20	µg/L	EPA 8260B		5/13/2009 15:22
Allyl Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Benzene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Bromobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Bromochloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Bromodichloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Bromoform	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Bromomethane	<2	2	µg/L	EPA 8260B		5/13/2009 15:22
Carbon Tetrachloride	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Chlorobenzene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Chloroethane	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Chloroform	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Chloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Cis-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22

SAMPLE RESULTS

NTS Sample: 350817
Description: Trip Blank
Sample Date: 5/6/2009 6:00:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94934

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.9 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
Cis-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Dibromochloromethane	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Dibromomethane	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Dichlorodifluoromethane	<2	2	µg/L	EPA 8260B		5/13/2009 15:22
Dichlorofluoromethane	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Ethyl Benzene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Ethyl Ether	<2	2	µg/L	EPA 8260B		5/13/2009 15:22
Hexachlorobutadiene	<2	2	µg/L	EPA 8260B		5/13/2009 15:22
Isopropylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Methyl Ethyl Ketone	<10	10	µg/L	EPA 8260B		5/13/2009 15:22
Methyl Isobutyl Ketone	<10	10	µg/L	EPA 8260B		5/13/2009 15:22
Methyl Tert-butyl Ether	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Methylene Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Naphthalene	<2	2	µg/L	EPA 8260B		5/13/2009 15:22
n-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
n-Propylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
p-Isopropyltoluene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
sec-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Styrene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
tert-Butylbenzene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Tetrachloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Tetrahydrofuran	<5	5	µg/L	EPA 8260B		5/13/2009 15:22
Toluene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Trans-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Trans-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Trichloroethylene	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Trichlorofluoromethane	<2	2	µg/L	EPA 8260B		5/13/2009 15:22
Vinyl Chloride	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Xylene, M&P	<2	2	µg/L	EPA 8260B		5/13/2009 15:22
Xylene, O	<1	1	µg/L	EPA 8260B		5/13/2009 15:22
Surrogate 1,2-Dichloroethane-d4	114	1	%	EPA 8260B		5/13/2009 15:22
Surrogate Bromofluorobenzene	98.2	1	%	EPA 8260B		5/13/2009 15:22
Surrogate Toluene-d8	104	1	%	EPA 8260B		5/13/2009 15:22

Sample Receiving Checklist 4.07

(non criminal Chain of Custody)

Samples require client direction, discrepancies noted below: COC# 94934

- o No COC Documentation supplied
- o Incomplete COC Documentation
- o Sample Containers listed on COC do not match
- o Sample Containers listed on COC are compromised
- o Sample Temp is over range and cooling preservation is required
- o Signatures and Times for collection and/or transfer are not complete
- o Custody seals requested but not intact
- o Sample parameters exceed hold time
- o Sample volume/mass does not meet minimum requirements (PM to discuss w/analysts)

Attach to COC if available and notify Project Manager

PM Record of client information:

Date:_____

PM Signature:_____

315 CHESTNUT STREET * P.O. BOX 1142
VIRGINIA, MINNESOTA 55792
218-741-4290 * FAX 218-741-4291

Chain of Custody Record

Page: 1 of 2

COC#: 94934

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER:	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH: May-09
PROJ. NO: 7158.68H	COLLECTION: / MATRIX

LOG-IN	SAMPLE #	DESCRIPTION	DATE	TIME	LIQ	SOL	Filtered	TYPE & # CONTAINERS: General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH Field	Specific Conductance Field	Temperature Field	DO Field	eH Field	ANALYSIS:
350795	GW-001	ST-2 NE	5-6-09	0957	X		N											NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
350797	GW-001	ST-2 NE		↓	X		(Y)						—	—	—	—	—	Dissolved: Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
350799	GW-002	MW-6S		1306	X		N											NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
350800	GW-002	MW-6S		↓	X		(Y)						—	—	—	—	—	Dissolved: Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
350804	GW-006	NNW		1106	X		N											NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
350807	GW-006	NNW		↓	X		(Y)						—	—	—	—	—	Dissolved: Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
350809	GW-007	WNW		1002	X		N											NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
350810	GW-007	WNW	↓	↓	X		(Y)						—	—	—	—	—	Dissolved: Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn

Comments:

-USE LOW LEVEL DETECTION METHODS
-See attachments for all sampling and analysis details

SAMPLES DUE BACK TO LAB NO LATER THAN 2PM

RELINQUISHED BY:	DATE: 5-6-09 TIME: 1700	RECEIVED BY:	DATE: TIME:
RELINQUISHED BY:	DATE: TIME:	RECEIVED BY:	DATE: TIME:
RECEIVED FOR LAB BY:		TEMP AT ARRIVAL: 3.9 °C ON ICE 3.9	
DATE: 5-6-09	TIME: 14:00	REPORT DATE:	

315 CHESTNUT STREET * P.O. BOX 1142
VIRGINIA, MINNESOTA 55792
218-741-4290 * FAX 218-741-4291

Chain of Custody Record

Page: 2 of 2

COC#: 94934

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER:	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH: May-09
PROJ. NO: 7158.08H	COLLECTION: / MATRIX

LOG-IN	SAMPLE #	DESCRIPTION	DATE	TIME	LIQ	SOL	Filtered	TYPE & # CONTAINERS: General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH Field	Specific Conductance Field	Temperature Field	DO Field	eH Field	ANALYSIS:
350811	GW-008	SW	5-6-09	1109			N											NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
350812	GW-008	SW	"	"			(Y)						---	---	---	---	---	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
350813	Duplicate	Duplicate	"	0600			N						---	---	---	---	---	NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
350814	Duplicate	Duplicate	"	"			(Y)						---	---	---	---	---	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
350815	Field Blank	Field Blank	"	1116			N						---	---	---	---	---	NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
350816	Field Blank	Field Blank	"	"			(Y)						---	---	---	---	---	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
350817	Trip Blank	Trip Blank	"	0600									---	---	---	---	---	VOCs, GRO

Comments:

-USE LOW LEVEL DETECTION METHODS
-See attachments for all sampling and analysis details

SAMPLES DUE BACK TO LAB NO LATER THAN 2PM

RELINQUISHED BY:	DATE: 5-6-09 TIME: 1400	RECEIVED BY:	DATE: TIME:
RELINQUISHED BY:	DATE: TIME:	RECEIVED BY:	DATE: TIME:
RECEIVED FOR LAB BY: Kosik		TEMP AT ARRIVAL: 3.9 °C	

DATE: 5-6-09 TIME: 14:00

3.7

REPORT DATE:

Control Limits Sample I.D.: 350795 Date: 05/13/09 QC Pack: 9-051309-1

LCS LIMITS	MS LIMITS	RPD Limits		Units	DF	Lab Blank Conc ug/L	LCS % Rec	Matrix Spike %	MSD (%)	RPD %
70-130	70-130	0-30	Allyl Chloride	ug/L	1.0	< 1.0	99	107	104	3.1
70-130	70-130	0-30	Bromobenzene	ug/L	1.0	< 1.0	106	105	104	0.8
70-130	70-130	0-30	Bromochloromethane	ug/L	1.0	< 1.0	104	107	108	0.6
70-130	70-130	0-30	Bromodichloromethane	ug/L	1.0	< 1.0	103	107	104	2.0
50-150	50-150	0-30	Bromoform	ug/L	1.0	< 1.0	118	114	113	0.9
70-130	70-130	0-30	Bromomethane	ug/L	1.0	< 2.0	87	106	102	4.1
70-130	70-130	0-30	Carbon Tetrachloride	ug/L	1.0	< 1.0	99	112	108	3.2
70-130	70-130	0-30	Chlorobenzene	ug/L	1.0	< 1.0	109	113	110	2.8
50-150	50-150	0-30	Chloroethane	ug/L	1.0	< 1.0	99	121	122	0.6
80-120	70-130	0-30	Chloroform	ug/L	1.0	< 1.0	108	114	114	0.6
50-150	50-150	0-30	Chloromethane	ug/L	1.0	< 1.0	98	113	116	2.6
70-130	70-130	0-30	2-Chlorotoluene	ug/L	1.0	< 1.0	105	107	106	0.6
70-130	70-130	0-30	4-Chlorotoluene	ug/L	1.0	< 1.0	104	106	105	1.6
70-130	70-130	0-30	Dibromochloromethane	ug/L	1.0	< 1.0	108	110	109	0.7
70-130	70-130	0-30	1,2-Dibromo-3-chloropropane	ug/L	1.0	< 2.0	119	115	117	1.9
70-130	70-130	0-30	1,2-Dibromoethane	ug/L	1.0	< 1.0	110	107	109	1.7
70-130	70-130	0-30	Dibromomethane	ug/l	1.0	< 1.0	117	118	116	1.4
70-130	70-130	0-30	1,2-Dichlorobenzene	ug/L	1.0	< 1.0	109	111	109	2.0
70-130	70-130	0-30	1,3-Dichlorobenzene	ug/L	1.0	< 1.0	105	106	105	1.4
70-130	70-130	0-30	1,4-Dichlorobenzene	ug/L	1.0	< 1.0	108	108	107	1.5
50-150	50-150	0-30	Dichlorodifluoromethane	ug/L	1.0	< 2.0	96	111	101	8.7
70-130	70-130	0-30	1,1-Dichloroethane	ug/L	1.0	< 1.0	105	111	112	0.2
70-130	70-130	0-30	1,2-Dichloroethane	ug/L	1.0	< 2.0	108	110	105	3.9
80-120	70-130	0-30	1,1-Dichloroethylene	ug/L	1.0	< 1.0	101	117	116	0.6
70-130	70-130	0-30	Cis-1,2-Dichloroethylene	ug/L	1.0	< 1.0	104	111	110	0.7
70-130	70-130	0-30	Trans-1,2-Dichloroethylene	ug/L	1.0	< 1.0	99	108	107	1.4
50-150	50-150	0-30	Dichlorofluoromethane	ug/L	1.0	< 1.0	103	121	121	0.3
80-120	70-130	0-30	1,2-Dichloropropane	ug/L	1.0	< 1.0	110	113	112	0.7
70-130	70-130	0-30	1,3-Dichloropropane	ug/L	1.0	< 1.0	116	112	115	2.2
70-130	70-130	0-30	2,2-Dichloropropane	ug/L	1.0	< 1.0	99	106	101	5.5
70-130	70-130	0-30	1,1-Dichloropropene	ug/L	1.0	< 1.0	102	113	113	0.7
70-130	70-130	0-30	Cis-1,3-Dichloropropene	ug/L	1.0	< 1.0	100	103	99	3.1
70-130	70-130	0-30	Trans-1,3-Dichloropropene	ug/L	1.0	< 1.0	110	107	105	1.4
70-130	70-130	0-30	Hexachlorobutadiene	ug/L	1.0	< 2.0	100	103	103	0.1
70-130	70-130	0-30	Methylene Chloride	ug/L	1.0	< 1.0	105	114	110	3.5
70-130	70-130	0-30	1,1,1,2-Tetrachloroethane	ug/L	1.0	< 1.0	101	105	103	2.3
70-130	70-130	0-30	1,1,2,2-Tetrachloroethane	ug/L	1.0	< 1.0	120	116	116	0.4
70-130	70-130	0-30	Tetrachloroethylene	ug/L	1.0	< 1.0	87	93	92	0.6
70-130	70-130	0-30	1,2,3-Trichlorobenzene	ug/L	1.0	< 2.0	107	104	108	3.6
70-130	70-130	0-30	1,2,4-Trichlorobenzene	ug/L	1.0	< 2.0	97	95	97	2.1

Date: 05/13/09

Control Limits | Sample I.D.: 350795 | QC Pack: 9-051309-1

LCS LIMITS	MS LIMITS	RPD Limits		Units	DF	Lab Blank Conc ug/L	LCS % Rec	Matrix Spike %	MSD (%)	RPD %
70-130	70-130	0-30	1,1,1-Trichloroethane	ug/L	1.0	< 1.0	97	106	103	2.9
70-130	70-130	0-30	1,1,2-Trichloroethane	ug/L	1.0	< 1.0	119	115	119	3.2
70-130	70-130	0-30	Trichloroethylene	ug/L	1.0	< 1.0	102	110	107	2.8
50-150	50-150	0-30	Trichlorofluoromethane	ug/L	1.0	< 2.0	99	113	114	0.7
70-130	70-130	0-30	1,2,3-Trichloropropane	ug/L	1.0	< 1.0	113	113	114	1.3
70-130	70-130	0-30	1,1,2-Trichlorotrifluoroethane	ug/L	1.0	< 1.0	99	110	109	1.5
80-120	50-150	0-30	Vinyl Chloride	ug/L	1.0	< 1.0	105	123	123	0.0
70-130	70-130	0-30	Acetone	ug/L	1.0	< 20	133	125	132	5.3
70-130	70-130	0-30	Benzene	ug/L	1.0	< 1.0	109	116	115	0.6
70-130	70-130	0-30	n-Butylbenzene	ug/L	1.0	< 1.0	104	107	106	1.0
70-130	70-130	0-30	sec-Butylbenzene	ug/L	1.0	< 1.0	102	105	104	1.1
70-130	70-130	0-30	tert-Butylbenzene	ug/L	1.0	< 1.0	94	96	94	1.7
70-130	70-130	0-30	Isopropylbenzene (Cumene)	ug/L	1.0	< 1.0	90	93	92	0.8
80-120	70-130	0-30	Ethyl Benzene	ug/L	1.0	< 1.0	106	112	110	1.9
70-130	70-130	0-30	Ethyl Ether	ug/L	1.0	< 2.0	115	116	119	1.9
70-130	70-130	0-30	p-Isopropyltoluene	ug/L	1.0	< 1.0	101	104	101	2.3
70-130	70-130	0-30	Methyl Ethyl Ketone	ug/L	1.0	< 10	137	131	137	4.8
70-130	70-130	0-30	Methyl Isobutyl Ketone	ug/L	1.0	< 10	139	141	142	0.8
70-130	70-130	0-30	Methyl tert-butyl ether	ug/L	1.0	< 1.0	104	105	108	2.4
70-130	70-130	0-30	n-Propylbenzene	ug/L	1.0	< 1.0	99	103	101	2.3
70-130	70-130	0-30	Naphthalene	ug/L	1.0	< 2.0	113	107	112	4.0
70-130	70-130	0-30	Styrene	ug/L	1.0	< 1.0	110	113	111	1.5
70-130	70-130	0-30	Tetrahydrofuran	ug/L	1.0	< 5.0	117	115	122	6.3
80-120	70-130	0-30	Toluene	ug/L	1.0	< 1.0	108	113	113	0.0
70-130	70-130	0-30	1,2,4-Trimethylbenzene	ug/L	1.0	< 1.0	103	105	104	0.8
70-130	70-130	0-30	1,3,5-Trimethylbenzene	ug/L	1.0	< 1.0	101	104	103	1.6
70-130	70-130	0-30	m-Xylene & p-Xylene	ug/L	1.0	< 2.0	107	111	110	1.0
70-130	70-130	0-30	o-Xylene	ug/L	1.0	< 1.0	107	112	110	1.4

315 CHESTNUT STREET * P.O. BOX 1142
VIRGINIA, MINNESOTA 55792
218-741-4290 * FAX 218-741-4291

Chain of Custody Record

Page: 1 of 2

COC#: 949966

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER: DJH ST	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH: May-09
PROJ. NO: 7158.08H	

LOG-IN	SAMPLE #	DESCRIPTION	COLLECTION: DATE	COLLECTION: TIME	MATRIX: LIQ	MATRIX: SOL	Filtered	TYPE & # CONTAINERS: General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH Field	Specific Conductance Field	Temperature Field	DO Field	eH Field	ANALYSIS:
DRH	GW-003	TB Well H-1	5-7-09	DRH	X		N											NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
	GW-003	TB Well H-1		DRH	X		Y						—	—	—	—	—	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
DRH	GW-004	TB Well H-2		DRH	X		N											NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
	GW-004	TB Well H-2			X		Y						—	—	—	—	—	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
351073	GW-005	TB Well H-3		1200	X		N											NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
351074	GW-005	TB Well H-3		"	X		Y						—	—	—	—	—	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
NOT DONE*	Duplicate	Duplicate		NOT* DONE	X		N						—	—	—	—	—	NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
"	Duplicate	Duplicate	"	"	X		Y						—	—	—	—	—	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn

Comments:

-USE LOW LEVEL DETECTION METHODS
SAMPLES DUE BACK TO LAB NO LATER THAN 2PM

-See attachments for details

* See Field Log

RELINQUISHED BY: DJH Sabatte — DATE: 5-7-09 — TIME: 1700

RECEIVED BY: — DATE: — TIME:

RELINQUISHED BY: — DATE: — TIME:

RECEIVED BY: — DATE: — TIME:

RECEIVED FOR LAB BY: Lily Kosch — DATE: 5-7-09 — TIME: 14:00

TEMP AT ARRIVAL: 3.4 °C ON ICE

REPORT DATE:

315 CHESTNUT STREET * P.O. BOX 1142
VIRGINIA, MINNESOTA 55792
218-741-4290 * FAX 218-741-4291

Chain of Custody Record Page: 2 of 2

COC#: 94966

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER: D. Stolpa	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH: May-09
PROJ. NO: 7158.08H	

LOG-IN	SAMPLE #	DESCRIPTION	COLLECTION: DATE	TIME	MATRIX: LIQ	SOL	Filtered	TYPE & # CONTAINERS: General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH Field	Specific Conductance Field	Temperature Field	DO Field	eH Field	ANALYSIS:
351075	Field Blank	Field Blank	5-7-09	1230	X		N						—	—	—	—	—	NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
351076	Field Blank	Field Blank	"	"	X		Y						—	—	—	—	—	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
351077	Trip Blank	Trip Blank	"	0600									—	—	—	—	—	VOCs, GRO

Comments:

-USE LOW LEVEL DETECTION METHODS
-See attachments for all sampling and analysis details

SAMPLES DUE BACK TO LAB NO LATER THAN 2PM

RELINQUISHED BY: D. Stolpa	DATE: 5-7-09 TIME: 1400	RECEIVED BY:	DATE: TIME:
RELINQUISHED BY:	DATE: TIME:	RECEIVED BY:	DATE: TIME:
RECEIVED FOR LAB BY: L. Wolski		TEMP AT ARRIVAL: 3.4 °C ON ICE	
DATE: 5-7-09	TIME: 14:00	REPORT DATE:	

SAMPLE SUMMARY

Northeast Technical Services
315 Chestnut Street
PO Box 1142
Virginia, MN 55792
Phone: 218-741-4290
Fax: 218-742-1010

Laboratory Results

MDH Certification: 027-137-157

NTS COC: 94966

Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.4 °C

Approved by: _____
Renee Stone
Project Manager

Northeast Technical Services
Attn: Bruce Trebnick
526 Chestnut Street
Virginia, MN 55792

Sample Description	Sample ID	Sample Type	Matrix	Sample Date	Received Date
GW-005	351073	Grab	Aqueous	5/7/2009 12:00	5/7/2009 14:00
GW-005	351074	Grab - Filtered	Aqueous	5/7/2009 12:00	5/7/2009 14:00
Field Blank	351075	Grab	Aqueous	5/7/2009 12:30	5/7/2009 14:00
Field Blank	351076	Grab - Filtered	Aqueous	5/7/2009 12:30	5/7/2009 14:00
Trip Blank	351077	Grab	Aqueous	5/7/2009 06:00	5/7/2009 14:00

SAMPLE RESULTS

NTS Sample: 351073
Description: GW-005
Sample Date: 5/7/2009 12:00:00 PM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94966
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.4 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
DRO	0.2	0.09	mg/L	WI(95) DRO	5/11/2009	5/12/2009 09:45	q
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/14/2009 19:18	
Pyrene	<5.71	5.71	µg/L	EPA 8270C	5/13/2009	5/26/2009 11:48	n,r
1,1,1,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
1,1,1-Trichloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
1,1,2,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
1,1,2-Trichloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
1,1,2-Trichlorotrifluoroethane	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
1,1-Dichloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
1,1-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
1,1-Dichloropropene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
1,2,3-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/14/2009 19:39	
1,2,3-Trichloropropane	<2	2	µg/L	EPA 8260B		5/14/2009 19:39	
1,2,4-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/14/2009 19:39	
1,2,4-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
1,2-Dibromo-3-chloropropane	<2	2	µg/L	EPA 8260B		5/14/2009 19:39	
1,2-Dibromoethane	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
1,2-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
1,2-Dichloroethane	<2	2	µg/L	EPA 8260B		5/14/2009 19:39	
1,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
1,3,5-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
1,3-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
1,3-Dichloropropane	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
1,4-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
2,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
2-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
4-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Acetone	<20	20	µg/L	EPA 8260B		5/14/2009 19:39	
Allyl Chloride	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Benzene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Bromobenzene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Bromochloromethane	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Bromodichloromethane	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Bromoform	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Bromomethane	<2	2	µg/L	EPA 8260B		5/14/2009 19:39	
Carbon Tetrachloride	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Chlorobenzene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Chloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Chloroform	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
q	Qualified Data.	Heavy hydrocarbons detected outside DRO window.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 351073
Description: GW-005
Sample Date: 5/7/2009 12:00:00 PM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94966
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.4 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloromethane	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Cis-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Cis-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Dibromochloromethane	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Dibromomethane	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Dichlorodifluoromethane	<2	2	µg/L	EPA 8260B		5/14/2009 19:39	
Dichlorofluoromethane	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Ethyl Benzene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Ethyl Ether	<2	2	µg/L	EPA 8260B		5/14/2009 19:39	
Hexachlorobutadiene	<2	2	µg/L	EPA 8260B		5/14/2009 19:39	
Isopropylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Methyl Ethyl Ketone	<10	10	µg/L	EPA 8260B		5/14/2009 19:39	
Methyl Isobutyl Ketone	<10	10	µg/L	EPA 8260B		5/14/2009 19:39	
Methyl Tert-butyl Ether	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Methylene Chloride	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Naphthalene	<2	2	µg/L	EPA 8260B		5/14/2009 19:39	
n-Butylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
n-Propylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
p-Isopropyltoluene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
sec-Butylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Styrene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
tert-Butylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Tetrachloroethylene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Tetrahydrofuran	<5	5	µg/L	EPA 8260B		5/14/2009 19:39	
Toluene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Trans-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Trans-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Trichloroethylene	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Trichlorofluoromethane	<2	2	µg/L	EPA 8260B		5/14/2009 19:39	
Vinyl Chloride	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Xylene, M&P	<2	2	µg/L	EPA 8260B		5/14/2009 19:39	
Xylene, O	<1	1	µg/L	EPA 8260B		5/14/2009 19:39	
Surrogate 1,2-Dichloroethane-d4	117	1	%	EPA 8260B		5/14/2009 19:39	
Surrogate Bromofluorobenzene	101	1	%	EPA 8260B		5/14/2009 19:39	
Surrogate Toluene-d8	98.6	1	%	EPA 8260B		5/14/2009 19:39	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/8/2009	
Nitrogen, Ammonia	0.14	0.1	mg/L as N	EPA 350.1	5/14/2009	5/14/2009	
Nitrogen, Nitrate+Nitrite	0.11	0.1	mg/L as N	EPA 353.2		5/8/2009	
Sulfide	<1	1	mg/L	EPA 376.1		5/12/2009	S2

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
q	Qualified Data.	Heavy hydrocarbons detected outside DRO window.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 351073
Description: GW-005
Sample Date: 5/7/2009 12:00:00 PM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94966
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.4 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Surfactants	<0.03	0.03	mg/L	EPA 425.1		5/11/2009	S2,h

Qualifier	Description		Note
h	Extraction or Analysis performed past hold time.		
n	Matrix Spike recovery not within control limits.		Not enough sample provided for MS or MSD.
q	Qualified Data.		Heavy hydrocarbons detected outside DRO window.
r	Duplicate analysis not within control limits.		Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125	1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 351074
Description: GW-005
Sample Date: 5/7/2009 12:00:00 PM

Matrix: Aqueous
Sample Type: Grab - Filtered

NTS COC: 94966
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.4 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
Aluminum	30.1	25	µg/L	EPA 200.7		5/29/2009 10:42
Antimony	0.5	0.5	µg/L	SM 3113B	5/12/2009	5/20/2009 17:16
Arsenic	<2	2	µg/L	EPA 200.7	5/12/2009	5/20/2009 17:16
Cadmium	0.3	0.2	µg/L	EPA 200.7	5/12/2009	5/20/2009 17:16
Chromium	<1	1	µg/L	EPA 200.8	5/12/2009	6/1/2009 11:35
Cobalt	0.40	0.2	µg/L	EPA 200.8	5/12/2009	6/1/2009 11:35
Copper	4.1	0.7	µg/L	EPA 200.8	5/12/2009	6/1/2009 11:35
Iron	107	50	µg/L	EPA 200.7		5/29/2009 10:42
Lead	1.2	0.5	µg/L	EPA 200.7	5/12/2009	5/20/2009 17:16
Lithium	26.6	10	µg/L	EPA 200.7		5/29/2009 10:42
Nickel	6.3	0.6	µg/L	EPA 200.8	5/12/2009	6/1/2009 11:35
Potassium	14.9	1.25	mg/L	EPA 200.7		5/29/2009 10:44
Selenium	<1	1	µg/L	EPA 270.2	5/12/2009	5/20/2009 17:16
Silver	<0.2	0.2	µg/L	EPA 272.2	5/12/2009	5/20/2009 17:16
Sodium	105	2	mg/L	EPA 200.7		5/29/2009 10:42
Strontium	310	5	µg/L	EPA 200.7		5/29/2009 10:42
Thallium	<0.4	0.4	µg/L	EPA 279.2	5/12/2009	5/20/2009 17:16
Vanadium	<10	10	µg/L	EPA 200.7		5/29/2009 10:42
Zinc	33.6	6	µg/L	EPA 200.8		5/22/2009 16:40

SAMPLE RESULTS

NTS Sample: 351075
Description: Field Blank
Sample Date: 5/7/2009 12:30:00 PM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94966
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.4 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
DRO	<0.09	0.09	mg/L	WI(95) DRO	5/11/2009	5/12/2009 10:14	
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/14/2009 19:45	
Pyrene	<6.02	6.02	µg/L	EPA 8270C	5/13/2009	5/23/2009 17:52	n,r
1,1,1,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
1,1,1-Trichloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
1,1,2,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
1,1,2-Trichloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
1,1,2-Trichlorotrifluoroethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
1,1-Dichloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
1,1-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
1,1-Dichloropropene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
1,2,3-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/14/2009 20:06	
1,2,3-Trichloropropane	<2	2	µg/L	EPA 8260B		5/14/2009 20:06	
1,2,4-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/14/2009 20:06	
1,2,4-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
1,2-Dibromo-3-chloropropane	<2	2	µg/L	EPA 8260B		5/14/2009 20:06	
1,2-Dibromoethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
1,2-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
1,2-Dichloroethane	<2	2	µg/L	EPA 8260B		5/14/2009 20:06	
1,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
1,3,5-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
1,3-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
1,3-Dichloropropane	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
1,4-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
2,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
2-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
4-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Acetone	<20	20	µg/L	EPA 8260B		5/14/2009 20:06	
Allyl Chloride	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Benzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Bromobenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Bromochloromethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Bromodichloromethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Bromoform	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Bromomethane	<2	2	µg/L	EPA 8260B		5/14/2009 20:06	
Carbon Tetrachloride	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Chlorobenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Chloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Chloroform	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 351075
Description: Field Blank
Sample Date: 5/7/2009 12:30:00 PM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94966
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.4 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Chloromethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Cis-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Cis-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Dibromochloromethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Dibromomethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Dichlorodifluoromethane	<2	2	µg/L	EPA 8260B		5/14/2009 20:06	
Dichlorofluoromethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Ethyl Benzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Ethyl Ether	<2	2	µg/L	EPA 8260B		5/14/2009 20:06	
Hexachlorobutadiene	<2	2	µg/L	EPA 8260B		5/14/2009 20:06	
Isopropylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Methyl Ethyl Ketone	<10	10	µg/L	EPA 8260B		5/14/2009 20:06	
Methyl Isobutyl Ketone	<10	10	µg/L	EPA 8260B		5/14/2009 20:06	
Methyl Tert-butyl Ether	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Methylene Chloride	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Naphthalene	<2	2	µg/L	EPA 8260B		5/14/2009 20:06	
n-Butylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
n-Propylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
p-Isopropyltoluene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
sec-Butylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Styrene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
tert-Butylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Tetrachloroethylene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Tetrahydrofuran	<5	5	µg/L	EPA 8260B		5/14/2009 20:06	
Toluene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Trans-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Trans-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Trichloroethylene	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Trichlorofluoromethane	<2	2	µg/L	EPA 8260B		5/14/2009 20:06	
Vinyl Chloride	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Xylene, M&P	<2	2	µg/L	EPA 8260B		5/14/2009 20:06	
Xylene, O	<1	1	µg/L	EPA 8260B		5/14/2009 20:06	
Surrogate 1,2-Dichloroethane-d4	117	1	%	EPA 8260B		5/14/2009 20:06	
Surrogate Bromofluorobenzene	97.9	1	%	EPA 8260B		5/14/2009 20:06	
Surrogate Toluene-d8	97.8	1	%	EPA 8260B		5/14/2009 20:06	
Nitrogen, Amine	<0.25	0.25	mg/L as N	ASTM D2327-82		5/8/2009	
Nitrogen, Ammonia	<0.1	0.1	mg/L as N	EPA 350.1	5/14/2009	5/14/2009	
Nitrogen, Nitrate+Nitrite	<0.1	0.1	mg/L as N	EPA 353.2		5/8/2009	
Sulfide	<1	1	mg/L	EPA 376.1		5/12/2009	S2

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 351075
Description: Field Blank
Sample Date: 5/7/2009 12:30:00 PM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94966
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.4 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date	
Surfactants	<0.03	0.03	mg/L	EPA 425.1		5/11/2009	S2,h

Qualifier	Description	Note
h	Extraction or Analysis performed past hold time.	
n	Matrix Spike recovery not within control limits.	Not enough sample provided for MS or MSD.
r	Duplicate analysis not within control limits.	Not enough sample provided for MS or MSD.
S2	Analysis performed by MVTL - New Ulm: MDH# 027-015-125 1126 North Front St. New Ulm, MN	See Attached Report.

SAMPLE RESULTS

NTS Sample: 351076
Description: Field Blank
Sample Date: 5/7/2009 12:30:00 PM

Matrix: Aqueous
Sample Type: Grab - Filtered

NTS COC: 94966
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.4 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
Aluminum	<25	25	µg/L	EPA 200.7		5/29/2009 10:42
Antimony	<0.5	0.5	µg/L	SM 3113B	5/12/2009	5/20/2009 17:21
Arsenic	<2	2	µg/L	EPA 200.7	5/12/2009	5/20/2009 17:21
Cadmium	<0.2	0.2	µg/L	EPA 200.7	5/12/2009	5/20/2009 17:21
Chromium	<1	1	µg/L	EPA 200.8	5/12/2009	6/1/2009 11:45
Cobalt	<0.2	0.2	µg/L	EPA 200.8	5/12/2009	6/1/2009 11:46
Copper	1.0	0.7	µg/L	EPA 200.8	5/12/2009	6/1/2009 11:45
Iron	<50	50	µg/L	EPA 200.7		5/29/2009 10:42
Lead	<0.5	0.5	µg/L	EPA 200.7	5/12/2009	5/20/2009 17:21
Lithium	<10	10	µg/L	EPA 200.7		5/29/2009 10:43
Nickel	<0.6	0.6	µg/L	EPA 200.8	5/12/2009	6/1/2009 11:45
Potassium	<0.25	0.25	mg/L	EPA 200.7		5/29/2009 10:42
Selenium	<1	1	µg/L	EPA 270.2	5/12/2009	5/20/2009 17:21
Silver	<0.2	0.2	µg/L	EPA 272.2	5/12/2009	5/20/2009 17:21
Sodium	<2	2	mg/L	EPA 200.7		5/29/2009 10:42
Strontium	<5	5	µg/L	EPA 200.7		5/29/2009 10:42
Thallium	<0.4	0.4	µg/L	EPA 279.2	5/12/2009	5/20/2009 17:21
Vanadium	<10	10	µg/L	EPA 200.7		5/29/2009 10:42
Zinc	<6	6	µg/L	EPA 200.8		5/22/2009 16:50

SAMPLE RESULTS

NTS Sample: 351077
Description: Trip Blank
Sample Date: 5/7/2009 6:00:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94966
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.4 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
GRO	<0.1	0.1	mg/L	WI(95) GRO		5/14/2009 20:13
1,1,1,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
1,1,1-Trichloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
1,1,2,2-Tetrachloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
1,1,2-Trichloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
1,1,2-Trichlorotrifluoroethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
1,1-Dichloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
1,1-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
1,1-Dichloropropene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
1,2,3-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/14/2009 20:32
1,2,3-Trichloropropane	<2	2	µg/L	EPA 8260B		5/14/2009 20:32
1,2,4-Trichlorobenzene	<2	2	µg/L	EPA 8260B		5/14/2009 20:32
1,2,4-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
1,2-Dibromo-3-chloropropane	<2	2	µg/L	EPA 8260B		5/14/2009 20:32
1,2-Dibromoethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
1,2-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
1,2-Dichloroethane	<2	2	µg/L	EPA 8260B		5/14/2009 20:32
1,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
1,3,5-Trimethylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
1,3-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
1,3-Dichloropropane	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
1,4-Dichlorobenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
2,2-Dichloropropane	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
2-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
4-Chlorotoluene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Acetone	<20	20	µg/L	EPA 8260B		5/14/2009 20:32
Allyl Chloride	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Benzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Bromobenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Bromochloromethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Bromodichloromethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Bromoform	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Bromomethane	<2	2	µg/L	EPA 8260B		5/14/2009 20:32
Carbon Tetrachloride	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Chlorobenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Chloroethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Chloroform	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Chloromethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Cis-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32

SAMPLE RESULTS

NTS Sample: 351077
Description: Trip Blank
Sample Date: 5/7/2009 6:00:00 AM

Matrix: Aqueous
Sample Type: Grab

NTS COC: 94966
Client: - Northeast Technical Services
Project: 7158H - PolyMet Mining Inc - Tailings B
Sampled By: B. Sabetti
Report Date: 6/8/2009
Rec'd Temperature: 3.4 °C

Analyte	Result	RL	Units	Method	Prepared Date	Analysis Date
Cis-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Dibromochloromethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Dibromomethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Dichlorodifluoromethane	<2	2	µg/L	EPA 8260B		5/14/2009 20:32
Dichlorofluoromethane	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Ethyl Benzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Ethyl Ether	<2	2	µg/L	EPA 8260B		5/14/2009 20:32
Hexachlorobutadiene	<2	2	µg/L	EPA 8260B		5/14/2009 20:32
Isopropylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Methyl Ethyl Ketone	<10	10	µg/L	EPA 8260B		5/14/2009 20:32
Methyl Isobutyl Ketone	<10	10	µg/L	EPA 8260B		5/14/2009 20:32
Methyl Tert-butyl Ether	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Methylene Chloride	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Naphthalene	<2	2	µg/L	EPA 8260B		5/14/2009 20:32
n-Butylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
n-Propylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
p-Isopropyltoluene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
sec-Butylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Styrene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
tert-Butylbenzene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Tetrachloroethylene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Tetrahydrofuran	<5	5	µg/L	EPA 8260B		5/14/2009 20:32
Toluene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Trans-1,2-Dichloroethylene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Trans-1,3-Dichloropropene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Trichloroethylene	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Trichlorofluoromethane	<2	2	µg/L	EPA 8260B		5/14/2009 20:32
Vinyl Chloride	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Xylene, M&P	<2	2	µg/L	EPA 8260B		5/14/2009 20:32
Xylene, O	<1	1	µg/L	EPA 8260B		5/14/2009 20:32
Surrogate 1,2-Dichloroethane-d4	116	1	%	EPA 8260B		5/14/2009 20:32
Surrogate Bromofluorobenzene	101	1	%	EPA 8260B		5/14/2009 20:32
Surrogate Toluene-d8	98	1	%	EPA 8260B		5/14/2009 20:32

315 CHESTNUT STREET * P.O. BOX 1142
VIRGINIA, MINNESOTA 55792
218-741-4290 * FAX 218-741-4291

Chain of Custody Record

Page: 1 of 2

COC#: 949666

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER: D.J.H. ST	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH: May-09
PROJ. NO: 7158.08R	

LOG-IN	SAMPLE #	DESCRIPTION	COLLECTION: DATE	COLLECTION: TIME	MATRIX: LIQ	MATRIX: SOL	Filtered	TYPE & # CONTAINERS: General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH Field	Specific Conductance Field	Temperature Field	DO Field	eH Field	ANALYSIS:
DHH	GW-003	TB Well H-1	5-7-09	DHH	X		N											NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
	GW-003	TB Well H-1		DHH	X		Y						—	—	—	—	—	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
DHH	GW-004	TB Well H-2			X		N											NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
	GW-004	TB Well H-2		DHH	X		Y						—	—	—	—	—	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
351073	GW-005	TB Well H-3		1200	X		(N)											NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
351074	GW-005	TB Well H-3		"	X		(Y)						—	—	—	—	—	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
NOT DONE*	Duplicate	Duplicate		NOT * DONE	X		N						—	—	—	—	—	NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
"	Duplicate	Duplicate	"	"	X		~~Y~~						—	—	—	—	—	**Dissolved:** Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn

Comments:

-USE LOW LEVEL DETECTION METHODS
SAMPLES DUE BACK TO LAB NO LATER THAN 2PM

-See attachments for details

* See Field Log

RELINQUISHED BY:	DATE: 5-7-09	RECEIVED BY:	DATE:
	TIME: 1403		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:
RECEIVED FOR LAB BY: KOSCI		TEMP AT ARRIVAL: 3.4 °C ONICE	
DATE: 5-7-09	TIME: 14:00	REPORT DATE:	

315 CHESTNUT STREET * P.O. BOX 1142
VIRGINIA, MINNESOTA 55792
218-741-4290 * FAX 218-741-4291

Chain of Custody Record

Page: 2 of 2

COC#: 949606

CLIENT NAME, ADDRESS, PHONE#:	REPORT TO:
PolyMet Mining Inc. - Tailings Basin	Bruce Trebnick
SAMPLER:	PERMIT REQ.: Yes
PROJECT: MPCA Sampling	MONTH: May-09
PROJ. NO: 7158.08H	COLLECTION:

LOG-IN	SAMPLE #	DESCRIPTION	DATE	TIME	MATRIX LIQ	MATRIX SOL	Filtered	TYPE & # CONTAINERS: General - 500 ml plastic	Metals - 500 ml HNO3 (total)	Metals - 500 ml HNO3 (dissolved)	Low Level Mercury Glass Bottles		pH Field	Specific Conductance Field	Temperature Field	DO Field	eH Field	ANALYSIS:
351075	Field Blank	Field Blank	5-7-09	1230	X		N						—	—	—	—	—	NO2+NO3, NH3, Surfactants, GRO, DRO, Pyrene, VOCs, Amines, Sulfide
351076	Field Blank	Field Blank	"	1	X		Y						—	—	—	—	—	Dissolved: Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn
351077	Trip Blank	Trip Blank	"	0600									—	—	—	—	—	VOCs, GRO

Comments:

-USE LOW LEVEL DETECTION METHODS
-See attachments for all sampling and analysis details

SAMPLES DUE BACK TO LAB NO LATER THAN 2PM

RELINQUISHED BY:	DATE: 5-7-09 TIME: 1400	RECEIVED BY:	DATE: TIME:
RELINQUISHED BY:	DATE: TIME:	RECEIVED BY:	DATE: TIME:
RECEIVED FOR LAB BY:		TEMP AT ARRIVAL: 3.4 °C ON ICE	
DATE: 5-7-09	TIME: 14:00	REPORT DATE:	

Sample Receiving Checklist 4.07

(non criminal Chain of Custody)

Samples require client direction, discrepancies noted below: COC# 949606

- o No COC Documentation supplied
- o Incomplete COC Documentation
- o Sample Containers listed on COC do not match
- o Sample Containers listed on COC are compromised
- o Sample Temp is over range and cooling preservation is required
- o Signatures and Times for collection and/or transfer are not complete
- o Custody seals requested but not intact
- o Sample parameters exceed hold time
- o Sample volume/mass does not meet minimum requirements (PM to discuss w/analysts)

Attach to COC if available and notify Project Manager

PM Record of client information:

Date:_____

PM Signature:_____

Date: 05/14/09

Control Limits | Sample I.D.: 351017 | QC Pack: 9-051409-1

LCS LIMITS	MS LIMITS	RPD Limits		Units	DF	Lab Blank Conc ug/L		LCS % Rec	Matrix Spike %	MSD (%)	RPD %
70-130	70-130	0-30	Allyl Chloride	ug/L	1.0	<	1.0	94	111	107	3.7
70-130	70-130	0-30	Bromobenzene	ug/L	1.0	<	1.0	92	98	99	0.9
70-130	70-130	0-30	Bromochloromethane	ug/L	1.0	<	1.0	96	109	105	3.4
70-130	70-130	0-30	Bromodichloromethane	ug/L	1.0	<	1.0	97	105	104	1.7
50-150	50-150	0-30	Bromoform	ug/L	1.0	<	1.0	104	113	113	0.1
70-130	70-130	0-30	Bromomethane	ug/L	1.0	<	2.0	96	112	104	6.7
70-130	70-130	0-30	Carbon Tetrachloride	ug/L	1.0	<	1.0	97	113	109	3.3
70-130	70-130	0-30	Chlorobenzene	ug/L	1.0	<	1.0	99	110	108	1.6
50-150	50-150	0-30	Chloroethane	ug/L	1.0	<	1.0	104	125	122	2.7
80-120	70-130	0-30	Chloroform	ug/L	1.0	<	1.0	100	113	110	2.7
50-150	50-150	0-30	Chloromethane	ug/L	1.0	<	1.0	102	120	121	1.0
70-130	70-130	0-30	2-Chlorotoluene	ug/L	1.0	<	1.0	93	100	100	0.1
70-130	70-130	0-30	4-Chlorotoluene	ug/L	1.0	<	1.0	91	99	98	0.9
70-130	70-130	0-30	Dibromochloromethane	ug/L	1.0	<	1.0	97	107	106	1.1
70-130	70-130	0-30	1,2-Dibromo-3-chloropropane	ug/L	1.0	<	2.0	98	108	115	6.1
70-130	70-130	0-30	1,2-Dibromoethane	ug/L	1.0	<	1.0	97	106	109	3.0
70-130	70-130	0-30	Dibromomethane	ug/l	1.0	<	1.0	106	118	118	0.2
70-130	70-130	0-30	1,2-Dichlorobenzene	ug/L	1.0	<	1.0	98	101	101	0.2
70-130	70-130	0-30	1,3-Dichlorobenzene	ug/L	1.0	<	1.0	94	98	96	2.0
70-130	70-130	0-30	1,4-Dichlorobenzene	ug/L	1.0	<	1.0	95	99	98	1.2
50-150	50-150	0-30	Dichlorodifluoromethane	ug/L	1.0	<	2.0	99	123	120	2.1
70-130	70-130	0-30	1,1-Dichloroethane	ug/L	1.0	<	1.0	97	114	111	2.6
70-130	70-130	0-30	1,2-Dichloroethane	ug/L	1.0	<	2.0	100	108	108	0.3
80-120	70-130	0-30	1,1-Dichloroethylene	ug/L	1.0	<	1.0	102	123	117	5.4
70-130	70-130	0-30	Cis-1,2-Dichloroethylene	ug/L	1.0	<	1.0	96	112	108	3.5
70-130	70-130	0-30	Trans-1,2-Dichloroethylene	ug/L	1.0	<	1.0	92	106	104	2.3
50-150	50-150	0-30	Dichlorofluoromethane	ug/L	1.0	<	1.0	108	126	121	4.1
80-120	70-130	0-30	1,2-Dichloropropane	ug/L	1.0	<	1.0	100	112	110	2.0
70-130	70-130	0-30	1,3-Dichloropropane	ug/L	1.0	<	1.0	102	111	111	0.0
70-130	70-130	0-30	2,2-Dichloropropane	ug/L	1.0	<	1.0	90	95	99	4.8
70-130	70-130	0-30	1,1-Dichloropropene	ug/L	1.0	<	1.0	94	111	108	3.4
70-130	70-130	0-30	Cis-1,3-Dichloropropene	ug/L	1.0	<	1.0	90	98	100	1.7
70-130	70-130	0-30	Trans-1,3-Dichloropropene	ug/L	1.0	<	1.0	96	101	106	4.5
70-130	70-130	0-30	Hexachlorobutadiene	ug/L	1.0	<	2.0	94	70	68	3.6
70-130	70-130	0-30	Methylene Chloride	ug/L	1.0	<	1.0	105	114	112	2.1
70-130	70-130	0-30	1,1,1,2-Tetrachloroethane	ug/L	1.0	<	1.0	95	102	102	0.4
70-130	70-130	0-30	1,1,2,2-Tetrachloroethane	ug/L	1.0	<	1.0	104	109	114	3.8
70-130	70-130	0-30	Tetrachloroethylene	ug/L	1.0	<	1.0	79	89	87	2.1
70-130	70-130	0-30	1,2,3-Trichlorobenzene	ug/L	1.0	<	2.0	97	90	91	1.1
70-130	70-130	0-30	1,2,4-Trichlorobenzene	ug/L	1.0	<	2.0	86	82	82	0.4

Date: 05/14/09

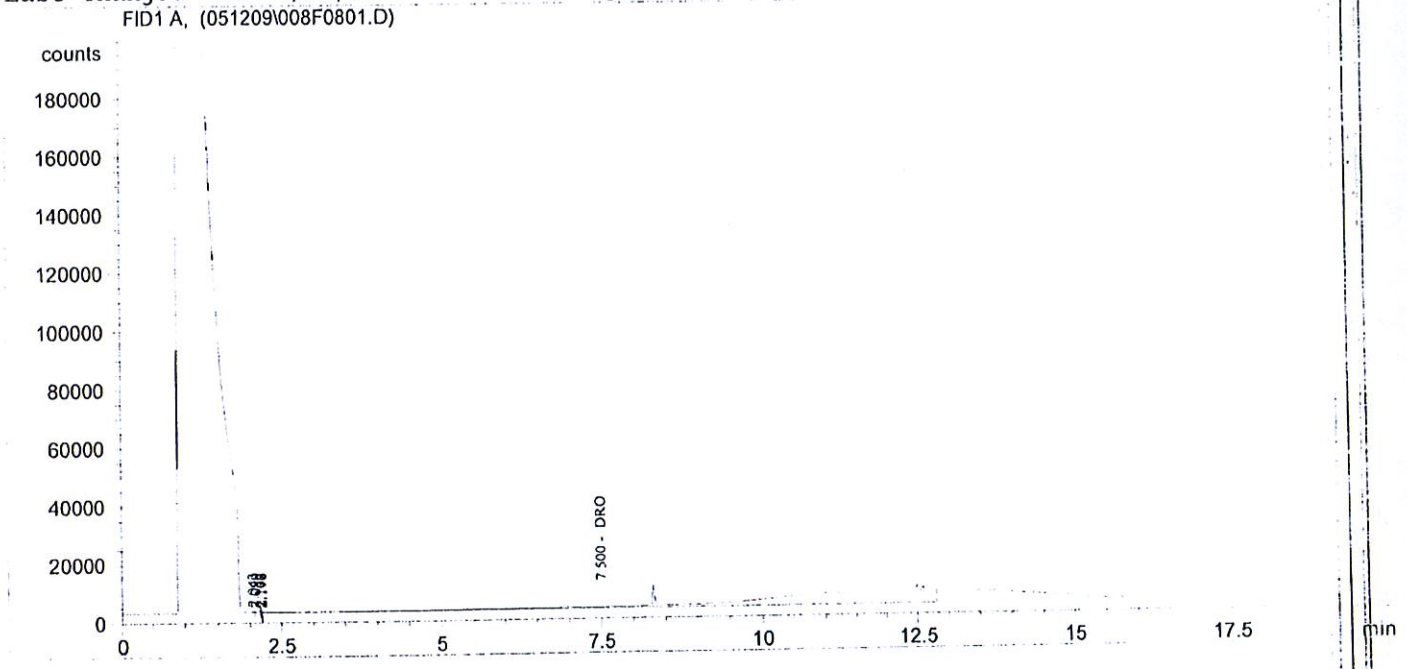
Control Limits | Sample I.D.: 351017 | QC Pack: 9-051409-1

LCS LIMITS	MS LIMITS	RPD Limits		Units	DF	Lab Blank Conc ug/L		LCS % Rec	Matrix Spike %	MSD (%)	RPD %
70-130	70-130	0-30	1,1,1-Trichloroethane	ug/L	1.0	<	1.0	93	106	105	1.0
70-130	70-130	0-30	1,1,2-Trichloroethane	ug/L	1.0	<	1.0	105	115	115	0.2
70-130	70-130	0-30	Trichloroethylene	ug/L	1.0	<	1.0	95	107	104	2.3
50-150	50-150	0-30	Trichlorofluoromethane	ug/L	1.0	<	2.0	102	115	114	1.0
70-130	70-130	0-30	1,2,3-Trichloropropane	ug/L	1.0	<	1.0	103	109	114	4.2
70-130	70-130	0-30	1,1,2-Trichlorotrifluoroethane	ug/L	1.0	<	1.0	100	117	111	4.9
80-120	50-150	0-30	Vinyl Chloride	ug/L	1.0	<	1.0	107	131	128	2.4
70-130	70-130	0-30	Acetone	ug/L	1.0	<	20	120	124	130	4.9
70-130	70-130	0-30	Benzene	ug/L	1.0	<	1.0	100	116	113	2.2
70-130	70-130	0-30	n-Butylbenzene	ug/L	1.0	<	1.0	97	92	90	1.9
70-130	70-130	0-30	sec-Butylbenzene	ug/L	1.0	<	1.0	94	92	92	0.4
70-130	70-130	0-30	tert-Butylbenzene	ug/L	1.0	<	1.0	85	86	86	0.8
70-130	70-130	0-30	Isopropylbenzene (Cumene)	ug/L	1.0	<	1.0	84	89	87	2.4
80-120	70-130	0-30	Ethyl Benzene	ug/L	1.0	<	1.0	98	108	107	0.7
70-130	70-130	0-30	Ethyl Ether	ug/L	1.0	<	2.0	106	119	120	0.5
70-130	70-130	0-30	p-Isopropyltoluene	ug/L	1.0	<	1.0	93	91	90	0.9
70-130	70-130	0-30	Methyl Ethyl Ketone	ug/L	1.0	<	10	118	122	134	8.8
70-130	70-130	0-30	Methyl Isobutyl Ketone	ug/L	1.0	<	10	125	134	142	5.8
70-130	70-130	0-30	Methyl tert-butyl ether	ug/L	1.0	<	1.0	94	105	106	1.3
70-130	70-130	0-30	n-Propylbenzene	ug/L	1.0	<	1.0	88	95	96	0.4
70-130	70-130	0-30	Naphthalene	ug/L	1.0	<	2.0	99	95	101	6.0
70-130	70-130	0-30	Styrene	ug/L	1.0	<	1.0	100	109	107	1.6
70-130	70-130	0-30	Tetrahydrofuran	ug/L	1.0	<	5.0	106	114	121	6.1
80-120	70-130	0-30	Toluene	ug/L	1.0	<	1.0	98	111	110	1.0
70-130	70-130	0-30	1,2,4-Trimethylbenzene	ug/L	1.0	<	1.0	92	95	94	0.7
70-130	70-130	0-30	1,3,5-Trimethylbenzene	ug/L	1.0	<	1.0	90	95	95	0.5
70-130	70-130	0-30	m-Xylene & p-Xylene	ug/L	1.0	<	2.0	99	107	106	1.4
70-130	70-130	0-30	o-Xylene	ug/L	1.0	<	1.0	98	108	106	2.0

Data File C:\HPCHEM\5\DATA\051209\008F0801.D

Sample Name: 351073

```
Injection Date  : 5/12/2009 9:45:19 AM          Seq. Line :   8
Sample Name     : 351073                       Location : Vial 8
Acq. Operator   : csd                             Inj :   1
Acq. Instrument : GC-5                      Inj Volume : 1 µl
Acq. Method     : C:\HPCHEM\5\METHODS\!TEST3.M
Last changed    : 4/13/2007 12:23:56 PM
Analysis Method : C:\HPCHEM\5\METHODS\E011509L.M
Last changed    : 4/28/2009 7:40:40 AM by csd
```



External Standard Report

```
Sorted By             :      Signal
Calib. Data Modified  :      4/27/2009 10:00:56 AM
Multiplier            :      1.0000
Dilution              :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

RetTime  Type     Area      Amt/Area     Amount    Grp   Name
 [min]          counts*s                 [ppm]
-------|------|----------|----------|----------|--|------------------
  7.500 HHA+   8.58930e5  2.63493e-7 2.26322e-1      DRO

Totals :                                2.26322e-1

 Results obtained with enhanced integrator!
```

*** End of Report ***