

**KINROSS**

**FORT KNOX MINE  
KINROSS GOLD CORPORATION**



**WASTE MANAGEMENT PERMIT #2006-DB0043  
ANNUAL REPORT  
FOURTH QUARTER 2007**

CERTIFIED MAIL – RETURN RECEIPT REQUESTED 7002 2410 0003 2868 7857

February 28, 2008

Mr. Tim Pilon  
State of Alaska  
Department of Environmental Conservation  
610 University Avenue  
Fairbanks, Alaska 99709-3643

**RE: Waste Management Permit # 2006-DB0043, Annual Report 1/1/07-12/31/07**

Dear Mr. Pilon:

Fairbanks Gold Mining, Inc. (FGMI) submits this Annual 2007 report for the Waste Management Permit # 2006-DB0043, prepared in conformance with the requirements in Section 1.8 of the permit. The report contains the analytical results from compliance monitoring, an evaluation of the interceptor well system and a summary of the spills during 2007. The monitoring data has been collected and this report has been completed in accordance with the requirements of Waste Management Permit # 2006-DB0043.

There were no significant weather or seismic events recognized as potentially compromising the dam integrity. The dam is functioning properly based on piezometric measurements, pond water elevations and daily inspection reports of the pumping facilities. Nothing unusual has been observed prior to or since the seep was recognized. Monitoring results for groundwater and surface water downstream of the tailing dam do not show any evidence of the presence of water from the tailing impoundment.

### **Compliance Monitoring and Sample Results of Analysis**

Attachment “A” contains the Fort Knox Mine Compliance Monitoring Data Report for process solutions, groundwater, surface water, and acid base accounting for tailing solids. Graphs have been included in Attachment “B” for interceptor wells, monitoring wells, tailing decant, tailing seepage major ion chemistry. Previous compliance and baseline sample data for the previous four (4) quarters are included for tracking purposes. The MW-7 duplicate sample for IML Lab collected on October 1, 2007, had a Wad Cyanide result of 0.007 mg/L but the corresponding

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result for Total Cyanide was non-detect. The primary sample collected for ACZ Lab for MW-7 on October 1, 2007, showed non-detect for both the Wad and Total Cyanide. Therefore the result obtained by IML of 0.007 mg/L cannot be confirmed as an exceedance as there was no Total Cyanide confirmation.

Mill operations personnel continued monitoring of the tailing discharge for pH and Weak Acid Dissociable (WAD) cyanide levels. A composite sample for each 12-hour shift is collected and the samples are analyzed daily by FGMI laboratory personnel using the Perstorp Cyanide Analyzer to determine the WAD cyanide concentration. The pH is determined using a pH meter. Table 1 contains a summary of the tailing discharge pH range (minimum, maximum, median, and average) for the period October 1, 2007, through December 31, 2007.

**TABLE 1  
Tailing Discharge pH Levels**

	Minimum	Maximum	Median	Average
<b>October</b>	8.18	10.94	8.94	8.97
<b>November</b>	7.28	9.11	8.69	8.64
<b>December</b>	8.21	10.96	8.89	8.90

Tailing discharge WAD cyanide levels (parts per million) recorded for the period October 1, 2007, through December 31, 2007, have been included in Table 2.

**TABLE 2  
Tailing Discharge WAD Cyanide parts per million (ppm)**

	Minimum	Maximum	Median	Average
<b>October</b>	4.54	13.26	7.5	8.19
<b>November</b>	1.38	11.36	5.79	5.98
<b>December</b>	5.68	15.24	8.71	8.90

All FGMI process records and daily logs for the cyanide detoxification circuit are available for inspection.

At the request of ADEC, FGMI collects monthly samples of seepage from the tailing impoundment, and they are analyzed for As, Sb, Se and Pb. The results of that sampling are provided in Attachment "C" with a graph of the data.

Water quality in compliance monitoring wells (MW-5, MW-6, MW-7, and MW-8) does not show any evidence of seepage water from the tailing impoundment. Monthly results of analysis indicate the tailing impoundment continues to operate as a zero discharge facility.

### **Seepage Sampling Schedule**

The following sampling schedules have been completed with approval from ADEC to decrease number of sampling points and/or frequency as follows:

December 27, 2006 to January 2, 2007: Labs used during this period Analytica & FGMI

<b>Frequency</b>	<b>Analysis</b>	<b>Sample Locations</b>
Daily	WAD CN Total CN and TSS	Sites 401, 501, 601, 801
Weekly	Profile I SW	Sites 401, 501, 601, 801

January 3, 2007, to March 23, 2007: Labs used during this period ACZ, Analytica, IML, and FGMI

<b>Frequency</b>	<b>Analysis</b>	<b>Sample Locations</b>
Daily	WAD CN Total CN and TSS	Sites 401, 501, 601, 801, Upper & Lower Wetlands, Pond C, Pond D, Freshwater, MW-1,3, 5-7, IW-1-11
Weekly	Profile I SW	Sites 401, 501, 601, 801, Upper & Lower Wetlands, Pond C, Pond D, Freshwater
Weekly	Profile II GW	MW-5 - 8, IW-1 - 7

March 24, 2007 to May 25, 2007: Labs used during this period ACZ, Analytica

<b>Frequency</b>	<b>Analysis</b>	<b>Sample Locations</b>
Daily	WAD CN Total CN and TSS	Sites 401, 501, 801
Weekly	Profile I SW	Sites 401, 501, 601, 801, Upper & Lower Wetlands, Freshwater
Weekly	Profile II GW	MW-5 - 8, IW-1 - 11

May 28, 2007, to June 28, 2007: Labs used during this period ACZ, Analytica

<b>Frequency</b>	<b>Analysis</b>	<b>Sample Locations</b>
Daily	WAD CN Total CN and TSS	Site 401
Weekly	Profile I SW	Site 501, Upper & Lower Wetlands, Freshwater
Weekly	Profile II GW	Site 401, MW-5 - 8, IW-1 - 11

June 29, 2007, to August 31, 2007: Labs used during this period ACZ, Analytica

<b>Frequency</b>	<b>Analysis</b>	<b>Sample Locations</b>
Weekly	Profile I SW	Site 501, Upper & Lower Wetlands, Freshwater
Weekly	Profile II GW	Site 401, MW-5 - 8, IW-1 - 11

September 1, 2007, to present: Labs used during this period ACZ, Analytica

<b>Frequency</b>	<b>Analysis</b>	<b>Sample Locations</b>
Monthly	Profile I SW	Site 501, Upper & Lower Wetlands, Freshwater
Monthly	Profile II GW	Site 401, MW-5 - 8, IW-1 - 11

## **Interceptor and Monitoring Wells**

All interceptor wells were pumped continuously throughout the fourth quarter. This is to ensure a hydraulic break is maintained below the TSF in the Fish Creek Valley and that the impoundment continues to operate as a zero discharge facility.

The interceptor well system (IW-1, IW-2, IW-3, IW-4, IW-5, IW-6, IW-7, IW-8, IW-11, MW-1, MW-3, & Site 401) continued to perform successfully during the fourth quarter maintaining a cone of depression across the Fish Creek Valley down gradient of the tailing impoundment (Attachment "D"). Both depth to water measurements and water chemistry indicate the tailing impoundment is operating as a zero discharge facility.

Depth to ground water and flow measurements will continue to be taken on a daily basis in the interceptor wells and pumping monitoring wells using the automatic monitoring system and electronic data collection. Monthly water quality sampling will continue for the pumping wells until FGMI gets approval from ADEC for reduction in sampling. Depth to ground water measurements have been taken in the non-pumping monitoring wells and piezometers on a weekly basis. Evaluation of the system is on-going to ensure the hydraulic break is maintained, and adjustments will be made as needed.

Table 3 shows the depth of the wells, depth to the pump, current depth to water, and pumping rate for the interceptor wells and the monitoring wells. Table 4 contains construction information and depth to water measurements for the piezometers.

**TABLE 3**  
**Interceptor and Monitor Well Measurements and Change from the Second Quarter 2007**

	Depth of Well	Depth to Pump	Depth to Water 9/30/07	Depth to Water 11/23/07	Change From 3rd Quarter	Pumping Rate *
IW-1	320-ft.	283-ft.	259.9-ft	260.2-ft	-0.3-ft	30 gpm
IW-2	310-ft.	250-ft.	N/A	N/A	N/A	14gpm
IW-3	310-ft.	283-ft.	247.2-ft	218.2-ft	29.3-ft	22 gpm
IW-4	330-ft.	295-ft.	204.7-ft	189.5-ft	15.2-ft	10 gpm
IW-5	380-ft.	320-ft.	188.6-ft	179.0-ft	9.6-ft	100 gpm
IW-6	380-ft.	294-ft.	253.1ft	247.9-ft	5.2-ft	23 gpm
IW-7	197-ft	160-ft	69.80-ft	64.2-ft	5.6-ft	21 gpm
IW-8	184-ft	172-ft	48.6-ft	47.1-ft	1.5-ft	60 gpm
IW-11	296-ft	275-ft	228.1-ft	229.5-ft	-1.4-ft	17 gpm
MW-1	305-ft.	232-ft.	253.5-ft	253.7-ft	-0.2-ft	14 gpm
MW-3	296-ft.	253-ft.	111.6-ft	108.1-ft	3.5-ft	6 gpm
SITE 401	35-ft	25-ft	15.4-ft	12.5-ft	2.9-ft	8 gpm
SITE 801	25-ft	None	Dry	Dry	N/A	N/A
MW-2	279-ft.	N/A	201.6-ft	191.6-ft	10.0-ft	N/A
MW-4	310-ft.	N/A	29.9-ft	27.1-ft	2.8-ft	N/A
MW-5	120-ft.	N/A	33.6-ft	32.6-ft	1.0-ft	N/A
MW-6	150-ft.	N/A	58.8-ft	58.4-ft	0.4-ft	N/A
MW-7	135-ft.	N/A	13.5-ft	12.8-ft	0.5-ft	N/A
MW-8	156-ft	0.0-ft	0.0-ft	3.0-ft	-3.0-ft	N/A

- Depth to water measurements and pumping rates in the pumping wells were taken on 12/23/07.

**TABLE 4**  
**Piezometer Measurements and Change from the Third Quarter 2007**

	Depth	Angle	Vertical Depth	Depth to Water *	Vertical D. to Water 12/23/07	Vertical D. to Water 09/30/07	Change
<b>PZ-1</b>	420-ft.	60°	363.7-ft.	n/a	Tube Frozen	148.1-ft	n/a
<b>PZ-2</b>	450-ft.	60°	389.7-ft.	n/a	Tube Frozen	138.6-ft	n/a
<b>PZ-3</b>	445-ft.	60°	385.4-ft.	16.4	22.4-ft.	19.4-ft	3.0-ft
<b>PZ-4</b>	550-ft.	60°	477.1-ft.	56.9-ft	54.9-ft	50.9-ft	4.0-ft
<b>PZ-5</b>	450-ft.	60°	389.7-ft.	154.0-ft	245.8-ft.	199.9-ft	45.9-ft
<b>PZ-6</b>	150-ft.	60°	129.9-ft.	88.3	136.5-ft	112.4-ft	24.1-ft
<b>PZ-7</b>	200-ft.	60°	173.5-ft.	n/a	Tube Frozen	62.4-ft	n/a
<b>IW-9</b>	197-ft	-	-	-	152.9	152.2-ft	-0.7-ft
<b>IW-10</b>	257-ft	-	-	-	81.4	80.9-ft	-0.5-ft
<b>KPPZ1</b>	138-ft	-	-	-	122.1	121.7-ft	-0.4-ft
<b>KPPZ2</b>	118-ft	-	-	-	Frozen	111.3-ft	n/a
<b>KPPZ3</b>	129-ft	-	-	-	118.1	117.5-ft	-0.6-ft
<b>KPPZ4</b>	115-ft	-	-	-	108.4	108.3-ft	-0.1-ft
<b>KPPZ5</b>	127-ft	-	-	-	109.4	108.8-ft	-0.6-ft
<b>KPPZ6</b>	113-ft	-	-	-	103.6	103.2-ft	-0.4-ft

\* Depth to water measurements taken from 12/23/07.

### **Petroleum, Hazardous Substances, and Process Solution Spills**

During the fourth quarter 2007 Fort Knox had 8 petroleum spills for a total of 44 petroleum spills for the year. The spills were reported to the ADEC in accordance with discharge notification and reporting requirements, and there was no contamination of surface or groundwater. The Fort Knox Mine Spill Reporting Log, containing a list of the year to date spills, has been included in Attachment E for your review.

### **ANNUAL REVIEW OF POST ACTIVITIES FOR 2007 AND PLANNED ACTIVITIES FOR 2008**

#### **Seepage Below Tailings Impoundment Dam**

In December 2006, seepage flow was observed in the vicinity of the south abutment of the tailing embankment. Analysis of the seep water indicated that the seepage could be from the tailing impoundment. A daily water sampling program was initiated as part of the investigation of the potential source. The seep has been surveyed and documented photographically. Recent and historic monitoring data including piezometer data, tailings pond elevations, and operational seepage pumping rates were examined for any unusual trends. The monitoring data is consistent with recent measurement during 2007 and historic seasonal trends measured in previous years. From the time the seep was discovered through the date of this report, extensive sampling has indicated that all seepage has been contained within FGMI's seepage containment system.

Down-gradient groundwater and surface water sampling points continue to be free from cyanide. All water within the seepage reclaim area of the TSF dam is collected and pumped back to the TSF storage in accordance with the approved design of the tailings dam.

### **New Piezometers Installed on Top of TSF Dam May 2007**

During May 2007, six piezometers were installed into the upper right (South) abutment of the Fort Knox Tailing Storage Facility dam. The piezometers are identified as KPPZ1 through KPPZ6. Refer to the letter in Attachment "F" prepared by Knight Piesold Consulting Engineers for Fort Knox Tailing Storage Facility summary of measured water levels in standpipe piezometers and a description of the construction of the new piezometers.

### **Interceptor Drainage Trench**

On March 20, 2007, construction of the interceptor drain from Site 501 to lower structure began. Knight Piesold engineers designed the interception drain to collect subsurface groundwater preventing the groundwater to discharge at the surface in the seepage reclaim area below the tailings storage facility (TSF). On April 11, 2007, interceptor drain was completed from Site 501 to the lower structure and the water is reporting to the seepage pump house.

On June 12, 2007, construction began on the Upper Trench and was completed July 12, 2007. The upper portion of the trench connects into the lower portion. The trench is designed to collect subsurface seepage and prevent it from seeping out at ground surface. The trench collects the captured water and the water reports to the seepage reclaim building. The trench is currently collecting approximately 5 gpm which is drained to the seepage reclaim building.

### **Pit Lake Evaluation**

Analytical samples were collected from the third and fourth quarter 2007 from the dewatering wells located in and around the existing pit. An update has been prepared by Water Management Consultants to evaluate the short- and long-term pit lake quality. Refer to the Technical Memo in Attachment "G".

### **Seepage Sampling Schedule for 2007**

Refer to the Seepage Sampling Schedule on page 3 of this report to review the decrease in sampling frequency and sample points during 2007.

Sampling schedule goals for 2008 will be to resume quarterly sampling. FGMI will request a reduction in sampling from the current monthly sampling of compliance points to quarterly sampling of all sample locations as required under Permit #2006-DB0043.



## **Interceptor Well System**

Interceptor wells IW-1, IW-3, MW-1, and MW-3, were mechanically and chemically cleaned during the fourth quarter of 2007. A program will be initiated in the spring of 2008 to video all of the interceptor wells to identify if any of the wells are in need of repair or cleaning.

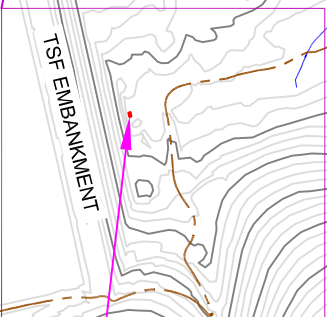
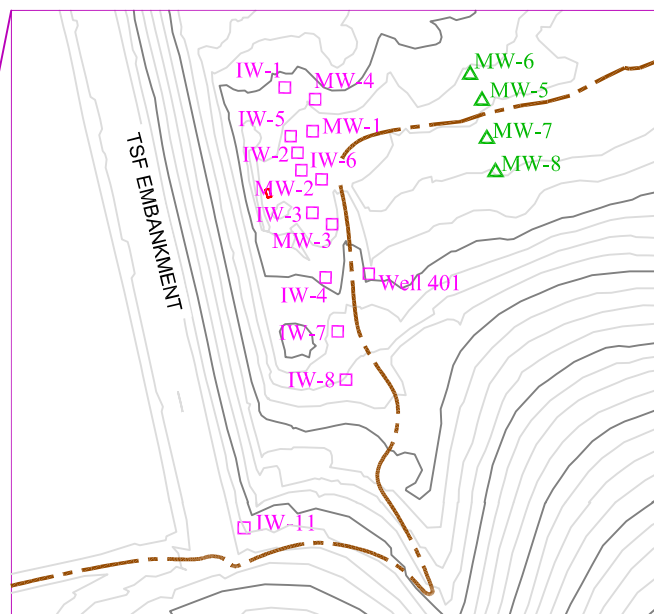
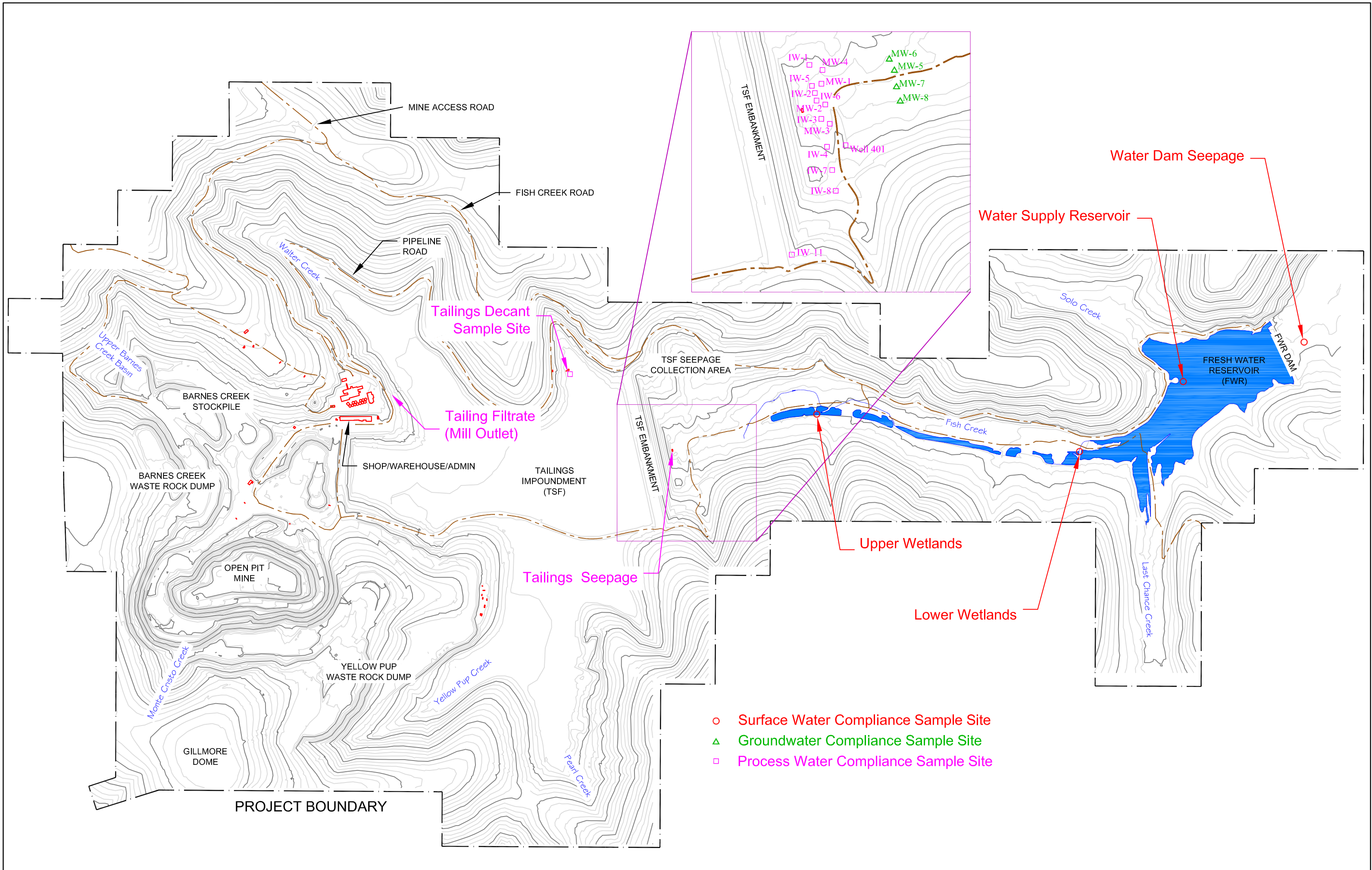
If you have any questions or require additional information, please call me at (907) 488-4653 Ext 2700.

Respectfully,

Ben Farnham  
Senior Environmental Engineer

xc: (by PDF file)

Jim Vohden, ADNR  
Brent Martellaro, ADNR  
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Mike Franger, MHTLO  
Cindi Godsey, EPA  
Alvin Ott, ADNR-OHM&P  
Larry Radford, FGMI



Water Dam Seepage

Water Supply Reservoir

Tailings Decant Sample Site

Tailing Filtrate (Mill Outlet)

TSF SEEPAGE COLLECTION AREA

Upper Wetlands

Lower Wetlands

Tailings Seepage

- Surface Water Compliance Sample Site
- ▲ Groundwater Compliance Sample Site
- Process Water Compliance Sample Site

PROJECT BOUNDARY

# **ATTACHMENT A**

## **Compliance Monitoring Data Report**

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# FORT KNOX MINE 2007 COMPLIANCE SAMPLING DATA

FAIRBANKS GOLD MINING, INC.  
FORT KNOX MINE



## **FORT KNOX MINE COMPLIANCE SAMPLING DATABASE**

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This document comprises a hard copy of the Fort Knox Mine compliance sampling results for the fourth quarter of 2007. The previous four (4) quarters of compliance and baseline sample data are also included for tracking purposes. The objective of this monitoring program is to document and track local surface and groundwater conditions and characterize overburden, waste, and ore rock for acid rock drainage potential, as specified in Solid Waste Disposal Permit 0031-BA008 at the Fort Knox Mine.

The data is divided into the following sections:

- Major ion chemistry
- Minor ion chemistry
- Trace ion chemistry
- Acid rock drainage characterization
- WAD Cyanide seepage data
- Notes:

# COMPLIANCE SURFACE WATER PROCESS WATER QUALITY DATA

FAIRBANKS GOLD MINING, INC.  
FORT KNOX MINE



**Process Surface Water - Major Ion Chemistry**

Site	Date		Bic Alk	Tot Alk	Ca	Cl	Ca Hard	Mg Hard	Mg	Lab pH	K	Si	Na	SS	Lab Cond.	SO4	Temp. (C)	TDS	TSS	Tur
501	06/18/2007		33	33	42.4	27			21.7	7.9	4.1		50.4	<0.1	638	170		400	318	246
501	06/25/2007		39	39	42.6	24			21.1	7.8	4.5		49.6	<0.1	622	160		400	86	14.8
501	07/02/2007		36	36	38	24			19.8	7.9	3.3		48.9	<0.1	620	160		380	<5	0.5
501	07/09/2007		37	37	36.8	24			19	7.8	4.1		50.5	<0.1	606	<10		380	94	31.9
501	07/16/2007		38	38	35.7	23			18.1	7.7	3.3	11.9	47.9	<0.1	607	160		420	<5	0.6
501	07/24/2007		38	38	39.4	26	96	79	19.3	7.5	3.6	11.8	51.7	<0.1	619	150		430	<5	0.6
501	07/31/2007		37	37	36.4	26	91	76	18.2	7.6	3.5	13.1	49		588	150		400	<5	0.6
501	08/08/2007		39	39	38.7	27	97	93	22	7.6	6.4	69.2	48.8	0.2	615	140		340	468	258
501	08/22/2007		38	38	34.3	26	90	74	18.1	7.8	3.3	12.2	46.9	<0.1	604	142		410	<5	0.2
501	09/04/2007		36	36	38.2	25	97	80	19	7.6	4	13	50.7	<0.5	612	172		410	<5	0.3
501	10/01/2007		31	31	40.6	32	102	88	21.5	7.6	3.3	13.1	50.1	<0.1	645	161		410	<5	0.4
501	11/07/2007			30	38.1		95	85	20.6	7.7					624	134		380	24	5.4
Tailing Decant	10/30/2006		49.2	49.2	63.6	27.6	158.8092	15	3.73	8.41	13	9.8	91.1	<0.1	753	211		526	48	39
Tailing Decant	01/31/2007		46	50	71.6	54	178.7852	23.0496	5.4	8.5	15.1		91		866	270		680	46	33.1
Tailing Decant	05/07/2007		64	64	64	31			7.6	8.1	9.7	13.4	63.7	<0.1	741	190	3.9	440	<5	6.4
Tailing Decant	09/04/2007		55	59	54.8	30	137	14	3.4	8.4	16.4	28.7	75.9	<0.1	746	174	5.6	420	56	51.8
Tailing Decant	11/27/2007		67	67	49.6	26	124	22	5.4	7.9	9.8	9.8	54.1		620	127	1.5	430	36	35.7
TAILING FILTRATE	10/24/2006		5.52	31.3	51.1	28.5	127.5967	4.36296	1.06	9.2	14.6	7.73	101	<0.1	765	200		545	29.6	37.3
TAILING FILTRATE	05/31/2007		24	26	49.7	55			0.8	8.6	19.5	29.9	93.4	<0.1	709	190	20.7	500	26	45.9
TAILING FILTRATE	09/10/2007		4	54	39.1	60	101	3	0.8	9.5	40.4	93.2	120	<0.1	799	174	21	500	476	916
TAILING FILTRATE	12/05/2007		28	39	39.2	51	98	7	1.6	8.8	24.1	58.6	88.3	<0.1	663	143	21	410	214	321
Tailings Seepage	10/16/2006	Dup	90.2	90.2	90.4	20.3	226	79	19.1	6.93	6.14	6.14	51.9	<0.1	687	245		581	1.6	0.757
Tailings Seepage	10/16/2006		89.3	89.3	94.7	20.3	236.4659	81.9084	19.9	7	6.54	6.53	52.4	<0.1	704	245		575	<1	<0.5
Tailings Seepage	03/14/2007		92	92	92.1	31	211.7456	76.5576	18.6	7.8	6		49.3	<0.1	896	240	3	550	<5	<0.1
Tailings Seepage	05/30/2007		82	82	86.4	28			17.9	7.6	6.4	13.7	52.1	<0.1	769	240	8	560	<5	0.1
Tailings Seepage	07/17/2007		85	85	81.7	25	206	70	16.9	7.7	6.2	12.7	49.1	<0.1	807	220		550	<5	0.4
Tailings Seepage	10/31/2007		81	81	80.6	28	202	67	16	7.9	5.7	12.2	45.8	<0.1	793	190	6.8	510	<5	0.1

## Process Surface Water - Minor Ion Chemistry

Site	Date		NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
501	06/18/2007		<0.05	0.0014	0.362	0.1	5.29	0.212	13.3	<0.01	0.24	0.1	0.048
501	06/25/2007		<0.05	0.0018	0.84	0.1	6.28	0.333	12.1	<0.01	0.03	0.1	0.052
501	07/02/2007		<0.05	0.0009	0.262	0.2	0.11	0.074	11.8	<0.01	0.01	0.1	0.081
501	07/09/2007		<0.05	0.0014	0.238	0.1	2.87	0.125	12.7	<0.01	0.03	0.2	0.037
501	07/16/2007		<0.05	0.0008	0.212	0.2	0.07	0.05	12.7	<0.01	<0.01	0.2	0.053
501	07/24/2007		<0.05	0.0009	0.201	0.2	0.09	0.047	13.6	<0.01	0.02	<0.1	0.043
501	07/31/2007		<0.05	0.0009	0.199	0.2	0.26	0.05	12.9	<0.01	0.01	0.2	0.058
501	08/08/2007		<0.05	0.0036	0.182	0.1	19.4	0.498	12.4	<0.01	0.25	<0.1	0.03
501	08/15/2007				0.181								0.03
501	08/22/2007		<0.05	0.0007	0.157	0.1	0.09	0.039	11.3	<0.01	<0.01	0.5	0.033
501	09/04/2007		<0.1	<0.005	0.093	0.1	0.06	0.033	14.6	<0.01	<0.05	<1	0.032
501	10/01/2007		<0.5	0.001	0.173		1.04	0.137	13.9		<0.01		0.04
501	11/07/2007		<0.05		0.276	0.1							0.056
Tailing Decant	10/30/2006		5.6	0.0201	0.76	<1	0.373	<0.05	10.2			<5.3	0.312
Tailing Decant	01/31/2007		3.92	0.029	5.7	0.4	1.11	0.102		0.9			
Tailing Decant	05/07/2007		2.4	0.008	1.49	0.2	0.16	0.173	8.92	0.38	0.02	<0.09	1.39
Tailing Decant	09/04/2007		4.76	0.392	0.21	0.5	0.63	0.048	10.9	1.58	0.03		0.067
Tailing Decant	11/27/2007		2.08	0.0389	0.369	0.4	0.17	0.112	11.3		0.06	<0.1	0.059
TAILING FILTRATE	10/24/2006		5.88	0.0205	12.8	<1	0.91	<0.05	10.4			<5	10.8
TAILING FILTRATE	05/31/2007		5.44	0.0407	7	0.6	0.7	0.006	11	0.38	0.06	0.2	6.7
TAILING FILTRATE	09/10/2007		7.85	0.16	12.1	1.1	2.27	0.03	13.7	1.83	0.17	<0.1	10.5
TAILING FILTRATE	12/05/2007		4.56	0.0355	15	0.7	1.5	0.01	11	1.25	0.07	<0.1	11.3
Tailings Seepage	10/16/2006	Dup	0.808	<0.001	0.082	<1	0.14	0.635	6.91			<5.3	0.0168
Tailings Seepage	10/16/2006		0.824	<0.001	0.09	<1	0.175	0.614	7.08			<5.3	0.0176
Tailings Seepage	03/14/2007		0.83	<0.0005	0.187	<0.1	0.14	0.673	8.7	0.11	<0.01	<0.09	0.054
Tailings Seepage	05/30/2007		0.79	<0.0005	0.178	<0.1	0.13	0.618	8.81	0.09	<0.01	0.15	0.041
Tailings Seepage	07/17/2007		0.43	<0.0005	0.107	0.1	0.08	0.453	9.3	0.07	0.02	0.1	0.024
Tailings Seepage	10/31/2007		0.39	0.0005	<0.005	0.1	0.09	0.394	10	0.09	0.02	<0.09	0.025



## Process Surface Water - Trace Ion Chemistry

Site	Date		Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
501	06/18/2007		0.0081	0.047	<0.04	<0.0001	<0.01	<0.01	0.0036	<0.0002	<0.01	0.0032	<0.01	0.02
501	06/25/2007		0.0123	0.042	<0.04	<0.0001	<0.01	<0.01	0.0055	<0.001	0.01	0.0031	<0.01	0.03
501	07/02/2007		0.0181	0.013	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0029	0.01	0.02
501	07/09/2007		0.0159	0.026	<0.04	<0.0001	<0.01	<0.01	0.0023	<0.0002	0.01	0.0028	<0.01	0.02
501	07/16/2007		0.0164	0.013	<0.04	<0.0001	<0.01	<0.01	0.0001	0.0004	<0.01	0.0026	<0.01	0.02
501	07/24/2007		0.0171	0.018	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0025	<0.01	0.02
501	07/31/2007		0.0161	0.015	<0.04	<0.0001	<0.01	<0.01	0.0003	<0.0002	<0.01	0.0022	<0.01	0.03
501	08/08/2007		0.0125	0.118	<0.04	0.0001	0.02	0.02	0.0099	<0.0002	0.03	0.0026	<0.01	0.07
501	08/22/2007		0.0176	0.014	<0.04	<0.0001	<0.01	<0.01	0.0001	<0.0002	<0.01	0.003	<0.01	0.02
501	09/04/2007		0.0159	0.013	<0.02	<0.0005	<0.005	<0.01	<0.002	<0.0002	0.006	<0.005	<0.01	0.02
501	10/01/2007		0.029	0.015	<0.04	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	0.002	<0.01	0.02
Tailing Decant	10/30/2006		0.0438	0.0403	<0.03	<0.002	<0.05	<0.1	<0.02	<0.0002		<0.05	<0.1	<0.1
Tailing Decant	01/31/2007		0.051	0.136	<0.01	72.7	<0.01	0.07	0.0014	<0.0002	0.03	0.0041	<0.01	0.02
Tailing Decant	05/07/2007		0.054	0.019	<0.1	0.0002	<0.01	0.14	0.0003	<0.0002	0.02	0.0033	<0.01	<0.01
Tailing Decant	09/04/2007		0.45	0.101	<0.04	<0.0001	<0.01	0.08	0.0034	<0.0004	0.02	0.0034	<0.01	0.01
Tailing Decant	11/27/2007		0.096	0.016	<0.04	<0.0001	<0.01	0.03	0.0002	<0.0002	<0.01	0.0022	<0.01	<0.01
TAILING FILTRATE	10/24/2006		0.0412	0.0268	<0.03	<0.002	<0.05	0.128	<0.02	0.000454		<0.05	<0.1	<0.1
TAILING FILTRATE	05/31/2007		0.078	0.087	<0.1	<0.0001	<0.01	11.3	0.003	<0.0002	<0.01	0.0275	<0.01	<0.01
TAILING FILTRATE	09/10/2007		0.145	0.802	<0.04	0.0001	<0.01	0.27	0.0176	<0.0002	0.03	0.005	<0.01	0.11
TAILING FILTRATE	12/05/2007		0.051	0.468	<0.08	0.0001	<0.02	0.08	0.0067	0.0002	<0.02	0.0021	<0.02	0.14
Tailings Seepage	10/16/2006	Dup	0.0389	0.0189	<0.003	<0.0002	<0.005	<0.01	<0.002	0.000291		<0.005	<0.01	<0.01
Tailings Seepage	10/16/2006		0.0391	0.0199	<0.003	<0.0002	<0.005	<0.01	<0.002	0.000413		<0.005	<0.01	<0.01
Tailings Seepage	03/14/2007		0.043	0.021	<0.1	<0.0001	<0.01	<0.01	0.0001	<0.0002	0.01	0.0016	<0.01	<0.01
Tailings Seepage	05/30/2007		0.098	0.016	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.003	<0.01	<0.01
Tailings Seepage	07/17/2007		0.053	0.009	0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0015	<0.01	<0.01
Tailings Seepage	10/31/2007		0.047	0.016	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0016	0.01	<0.01

# COMPLIANCE SURFACE WATER NON-PROCESS WATER QUALITY DATA

FAIRBANKS GOLD MINING, INC.  
FORT KNOX MINE



### Non-Process Surface Water - Major Ion Chemistry

Site	Date	Bic Alk	Tot Alk	Ca	Cl	Ca Hard	Mg Hard	Mg	Lab pH	K	Si	Na	SS	Lab Cond.	SO4	Temp. (C)	TDS	TSS	Tur
Lower Wetlands	10/24/2006	106	106	31.3	<2.5	78.1561	29.59404	7.19	7.7	1.31	5.25	4.62	<0.1	209	11.2		138	3.2	7.24
Lower Wetlands	03/21/2007	115	115	38.3	1	95.6351	32.1048	7.4	7.9	1.4		5.7	<0.1	291	10		180	8	13
Lower Wetlands	05/07/2007	73	73	23.8	<1			5	7.9	1.4	7.3	3.3	<0.1	175	20	5.8	90	<5	4.1
Lower Wetlands	06/25/2007	66	66	21.6	2			4.7	8.1	1		3.3	<0.1	152	<10		90	6	3
Lower Wetlands	07/02/2007	79	79	24.8	<1			5.9	8.1	1.1		3.7	<0.1	182	<10		120	<5	2.4
Lower Wetlands	07/09/2007	76	76	23.7	2			5.2	8.1	1.2		3.8	<0.1	169	10		110	6	1.4
Lower Wetlands	07/16/2007	81	81	25.9	1			5.7	8.2	1.3	7.5	4.9	<0.1	183	<10		120	<5	0.9
Lower Wetlands	07/24/2007	88	88	27.9	<1	69	25	6	8.2	1.4	6.9	4.1	<0.1	193	<10		130	<5	1.4
Lower Wetlands	08/01/2007	87	89	29	1	74	25	6.2	8.4	1.2	6.5	4	<0.1	197	10		130	16	1.5
Lower Wetlands	08/08/2007	91	91	28.2	<1	71	25	6.2	8	1.3	7.8	4.1	<0.1	202	10		110	<5	4.4
Lower Wetlands	08/15/2007	94	94	26.2	<1	66	23	5.5	8.1	1.1	7.9	4.6	<0.1	200	9		120	<5	1.7
Lower Wetlands	08/22/2007	84	84	26	<1	64	23	5.5	8.3	1.1	9.1	3.7	<0.1	186	8		130	<5	2.6
Lower Wetlands	09/04/2007	96	101	31.5	<1	80	26	6.9	7.8	1	7.8	4.2	<0.5	211	10		140	<5	2.1
Lower Wetlands	10/03/2007	94	91	27.7	<1	72	25	6.2	8.2	1	4.7	4.3	<0.5	196	9		130	<5	2.7
Lower Wetlands	11/07/2007	121	121	38.8	<1	97	35	8.4	8	1.8	7.8	5	<0.1	275	15	1.1	170	26	15.5
Lower Wetlands	12/04/2007	129	129	42.6	1	101	37	9.1	7.7	1.7	7.2	5.7	<0.1	284	16		170	<5	12.8
RINSE	11/28/2006	7.6	7.6	1.31	<2.5	3.27107	1.514688	0.368	6.98	<1	<0.5	<3	<0.1	13.2	<3.8		43.8	<1	<0.5
RINSE	03/21/2007	16	16	4.6	<1	12.2353	5.3508	1.2	7.5	0.4		0.7	<0.1	40	<10		10	<5	<0.1
Upper Wetlands	10/24/2006	129	129	35.7	<2.5	89.1429	30.74652	7.47	7.28	1.27	6.71	8.45	<0.13	239	7.82		155	8	10.9
Upper Wetlands	01/30/2007	180	180	49.2	3	126.5979	39.102	9	7.3	1.4		11.1	<0.1	352	20		250	24	37.7
Upper Wetlands	05/07/2007	107	107	29.1	1			5.5	7.2	2.1	9.1	7.5	<0.1	211	<10	6.8	150	6	18.5
Upper Wetlands	06/25/2007	81	81	25.9	2			5.1	8.1	0.9		5.9	0.2	180	<10		130	8	6
Upper Wetlands	07/02/2007	88	88	25.2	1			5.5	8.1	0.8		5.9	<0.1	188	<10		120	<5	6
Upper Wetlands	07/16/2007	95	95	27.4	1			5.4	8.1	0.9	7.5	6.8	<0.1	197	<10		130	<5	4.5
Upper Wetlands	07/24/2007	98	98	28.4	1	71	25	5.8	8	1.2	6.9	6.8	<0.1	203	<10		140	<5	3.9
Upper Wetlands	07/31/2007	99	99	25.7	<1	72	27	6.6	8.2	0.8	7.2	6.6	<0.1	195	<10		130	<5	2.3
Upper Wetlands	08/08/2007	103	103	27.8	<1	70	26	6.4	8.2	0.8	7.7	6.9	<0.1	214	3		100	<5	3.6
Upper Wetlands	08/15/2007	95	95	25.9	<1	66	25	5.9	8	1	7.6	6.2	<0.1	199	2		120	<5	4.5
Upper Wetlands	08/22/2007	99	99	26.8	<1	68	25	6.1	8.1	1.6	8.4	6.2	<0.1	206	3		140	<5	3
Upper Wetlands	09/04/2007	118	121	32.1	<1	86	29	6.1	7.9	1	7.2	6.6	<0.5	239	4		150	6	4.7
Upper Wetlands	10/03/2007	127	128	34.9	<1	90	30	7.3	7.9	2	5	8	<0.5	250	4		140	<5	7.3
Upper Wetlands	11/07/2007	148	148	42.8	<1	107	35	8.4	7.7	2	6.5	9	<0.1	305	6	1.3	180	<5	15.4
Upper Wetlands	12/04/2007	172	172	49.7	2	122	43	10.5	7.4	2.5	11.1	11.4	<0.1	350	5		240	78	40.6
Water Dam Seepage	05/07/2007	190	190	27.4	1			6.9	7	1.7	13.6	6.2	<0.1	214	10	4	160	<5	2.9
Water Dam Seepage	08/29/2007	84	84	26.1	<1	65	25	6.1	7.8	1.6	13.8	5.2	<0.1	197	<1		130	<5	5.5
Water Dam Seepage	11/27/2007	90	90	26.8	1	67	28	6.7	7.4	1.6	12.1	6.9		209	15	3.8	160	<5	1.8
Water Reservoir	10/30/2006	50	50	17.2	<2.5	42.9484	17.98692	4.37	7.23	<1	3.21	<3	<0.1	120	9.58		78.8	1.6	6.04
Water Reservoir	03/21/2007	64	64	22.2	2	55.4334	23.0496	5.6	7.7	1.3		4.5	<0.1	178	<10		100	<5	1.8
Water Reservoir	05/07/2007	128	128	21.1	<1			5.5	7	1.3	10.9	3.7	<0.1	156	10	6	120	<5	2.5
Water Reservoir	05/21/2007	50	50	16.6	<1			4.2	7.8	0.9	10.3	2.7	<0.1	140	<10		90	<5	2.7
Water Reservoir	06/18/2007	53	53	17.4	1			4.5	8.1	1.3		2.9	<0.1	137	<10		80	<5	0.7
Water Reservoir	07/02/2007	51	51	17.3	1			4.7	8	1		2.8	<0.1	134	10		80	<5	0.9
Water Reservoir	07/09/2007	52	52	16.7	2			4.3	8.1	1		2.8	<0.1	134	160		90	<5	1.3
Water Reservoir	07/16/2007	53	53	17.7	1			4.6	8.1	1.1	7.3	2.9	<0.1	138	<10		100	<5	0.5
Water Reservoir	07/24/2007	54	54	18.5	<1	45	19	4.5	8	1.1	6.8	2.9	<0.1	140	10		100	<5	1.1

### Non-Process Surface Water - Major Ion Chemistry

Site	Date		Bic Alk	Tot Alk	Ca	Cl	Ca Hard	Mg Hard	Mg	Lab pH	K	Si	Na	SS	Lab Cond.	SO4	Temp. (C)	TDS	TSS	Tur
Water Reservoir	08/07/2007		52	52	17.8	<1	45	19	4.3	8.1	1.4	6.9	2.7	<0.1	136	13		80	10	1.9
Water Reservoir	08/14/2007		51	51	18	<1	45	20	4.4	8.1	1	7.3	2.8	<0.1	137	13		90	<5	0.9
Water Reservoir	08/21/2007		52	52	16.8	<1	43	18	4.4	8.1	1	7.3	2.7	<0.1	138	13		100	<5	0.7
Water Reservoir	08/29/2007		60	60	18.2	<1	52	21	5	7.6	1	10.6	2.8	<0.1	151	<1		110	<5	14.8
Water Reservoir	09/04/2007		54	54	18.2	1	46	18	4.4	7.9	1	7.9	3	<0.1	142	<1		70	6	1.4
Water Reservoir	10/03/2007		57	57	18.1	<1	45	19	4.6	8.1	0.6	8.5	2.8	<0.1	146	14		100	<5	6.7
Water Reservoir	11/07/2007		54	54	18.9	<1	47	20	4.8	7.8	1.1	9.3	2.9	<0.1	146	14	7.6	110	<5	3.7
Water Reservoir	11/07/2007		57	57	21.8	<1	54	22	5.4	8	1	5.9	3.1	4.2	157	13		100	104	62.2
Water Reservoir	12/04/2007		63	63	21.3	1	53	24	5.8	7.7	1.3	5.3	3.5	<0.1	164	17		110	<5	1.8

## Non-Process Surface Water - Minor Ion Chemistry

Site	Date	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
Lower Wetlands	10/24/2006	0.0955	<0.01	<0.004	<1	1.13	0.24	<1			<5	<0.004
Lower Wetlands	03/21/2007	<0.05	0.0034	<0.005	0.2	3.07	0.785	0.05	<0.01	0.05	<0.1	<0.005
Lower Wetlands	05/07/2007	<0.05	0.001	<0.005	<0.1	0.86	0.197	<0.02	<0.01	0.03	<0.09	<0.005
Lower Wetlands	06/25/2007	<0.05	0.0017	0.29	<0.1	1	0.075	0.04	<0.01	0.05		<0.005
Lower Wetlands	06/25/2007			0.007								
Lower Wetlands	07/02/2007	<0.05	0.0018	<0.005	0.1	0.86	0.072	<0.02	<0.01	0.04	<0.1	<0.005
Lower Wetlands	07/09/2007	<0.05	0.0016	<0.005	<0.1	0.79	0.06	<0.02	<0.01	0.01	0.1	<0.005
Lower Wetlands	07/16/2007	<0.05	0.0019	<0.005	0.1	0.85	0.054	0.13	<0.01	<0.01	0.4	<0.005
Lower Wetlands	07/24/2007	<0.05	0.0017	<0.005	0.1	0.66	0.037	<0.02	<0.01	0.06	<0.1	<0.005
Lower Wetlands	08/01/2007	<0.05	0.0017	<0.005	0.1	0.53	0.026	0.16	<0.01	<0.01	<0.1	<0.005
Lower Wetlands	08/08/2007	<0.05	0.0021	0.005	<0.1	1	0.097	<0.02	<0.01	0.03	0.2	0.01
Lower Wetlands	08/15/2007	0.32	0.0016	<0.005	<0.1	0.77	0.054	<0.02	<0.01	0.02	<0.1	<0.005
Lower Wetlands	08/22/2007	<0.05	0.0022	<0.005	0.1	1	0.08	<0.02	<0.01	0.03	<0.1	<0.005
Lower Wetlands	09/04/2007	<0.1	0.0017	<0.005	0.1	0.67	0.047	0.49	<0.01	<0.05	0.1	<0.005
Lower Wetlands	10/03/2007	<0.1	<0.005	<0.005	0.1	0.96	0.042	0.02		<0.05	<5	<0.005
Lower Wetlands	11/07/2007	0.12	0.0024	<0.005	0.1	3.57	0.707	0.1	<0.01	0.06	<0.09	<0.005
Lower Wetlands	12/04/2007	0.1	0.002	<0.005	0.1	2.08	0.632	0.04	<0.01	0.03	<0.1	<0.005
RINSE	11/28/2006	<0.05	<0.001	0.0146	<1	<0.05	<0.005	<1			<5.3	<0.004
RINSE	03/21/2007	<0.05	<0.0005	<0.005	<0.1	<0.02	<0.005	0.05	<0.01	<0.01	0.1	<0.005
Upper Wetlands	10/24/2006	0.0557	<0.01	<0.004	<1	3.48	0.473	<1			<5	<0.004
Upper Wetlands	01/30/2007	0.53	0.0094	<0.005	0.2	16.4	1.09	0.05	<0.01	0.14		<0.005
Upper Wetlands	05/07/2007	<0.05	0.0031	<0.005	<0.1	5.44	0.656	<0.02	<0.01	0.08	<0.09	<0.005
Upper Wetlands	06/25/2007	<0.05	0.0037	0.006	<0.1	4.02	0.12	0.02	<0.01	0.08	0.2	<0.005
Upper Wetlands	07/02/2007	<0.05	0.0048	<0.005	0.1	3.83	0.144	<0.02	<0.01	0.05	0.1	<0.005
Upper Wetlands	07/16/2007	<0.05	0.0038	<0.005	0.1	3.32	0.118	0.05	<0.01	0.02	0.3	<0.005
Upper Wetlands	07/24/2007	<0.05	0.0028	<0.005	0.1	2.31	0.109	<0.02	<0.01	0.05	0.1	<0.005
Upper Wetlands	07/31/2007	<0.05	0.0022	<0.005	0.1	1.2	0.036	0.04	<0.01	0.04	0.1	<0.005
Upper Wetlands	08/08/2007	<0.05	0.002	<0.005	0.1	1.21	0.099	<0.02	<0.01	0.02	0.1	<0.005
Upper Wetlands	08/15/2007	0.35	0.0018	<0.005	<0.1	1.36	0.086	<0.02	<0.01	0.03	0.6	<0.005
Upper Wetlands	08/22/2007	<0.05	0.0021	<0.005	0.1	1.75	0.194	<0.02	<0.01	0.04	0.6	<0.005
Upper Wetlands	09/04/2007	<0.1	<0.005	<0.005	<0.1	1.46	0.128	0.29	<0.01	<0.05	<1	<0.005

## Non-Process Surface Water - Minor Ion Chemistry

Site	Date		NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
Upper Wetlands	10/03/2007		<0.1	<0.005	0.196	0.2	1.95	0.239	0.02		<0.05	<5	<0.005
Upper Wetlands	11/07/2007		0.1	0.0027	<0.005	<0.1	4.75	1.61	0.03	<0.01	0.05	0.1	<0.005
Upper Wetlands	12/04/2007		0.22	0.0098	<0.005	0.2	19.1	2.3	<0.02	0.01	0.15	0.6	<0.005
Water Dam Seepage	05/07/2007		<0.05	0.0033	<0.005	0.3	3.51	1.27	<0.02	<0.01	0.05	<0.1	<0.005
Water Dam Seepage	08/29/2007		<0.05	0.0029	<0.005	0.4	2.51	1.07	<0.02	<0.01	0.03	<0.09	<0.005
Water Dam Seepage	11/27/2007		0.06	0.0028	<0.005	0.5	2.64	1.26	<0.02		<0.01	<0.1	<0.005
Water Reservoir	10/30/2006		<0.05	<0.01	<0.004	<1	1.19	0.147	<1			<5.3	<0.004
Water Reservoir	03/21/2007		<0.05	0.0008	<0.005	0.1	0.92	0.184	0.18	<0.01	0.03	0.2	<0.005
Water Reservoir	05/07/2007		<0.05	0.0009	<0.005	<0.1	0.96	0.247	0.12	<0.01	0.02	<0.09	<0.005
Water Reservoir	05/21/2007		<0.05	0.001	<0.005	0.1	0.92	0.198	0.03	<0.01	0.02	<0.1	<0.005
Water Reservoir	06/18/2007		<0.05	0.001	<0.005	<0.1	0.48	0.008	<0.02	<0.01	<0.01	0.13	<0.005
Water Reservoir	07/02/2007		<0.05	0.001	<0.005	0.1	0.42	0.022	<0.02	<0.01	0.02	0.1	<0.005
Water Reservoir	07/09/2007		<0.05	0.0008	<0.005	<0.1	0.41	0.014	<0.02	<0.01	0.01	0.2	<0.005
Water Reservoir	07/16/2007		<0.05	0.001	<0.005	0.1	0.36	0.019	0.02	<0.01	<0.01	0.2	<0.005
Water Reservoir	07/24/2007		<0.05	0.001	<0.005	0.1	0.36	0.014	<0.02	<0.01	0.02	0.1	<0.005
Water Reservoir	08/07/2007		<0.05	0.0009	<0.005	<0.1	0.34	0.043	<0.02	<0.01	<0.01	0.1	<0.005
Water Reservoir	08/14/2007		0.31	0.0009	0.007	<0.1	0.3	0.032	<0.02	<0.01	0.01	<0.1	<0.005
Water Reservoir	08/21/2007		<0.05	0.0017	<0.005	<0.1	0.32	0.04	<0.02	<0.01	0.01	<0.1	<0.005
Water Reservoir	08/29/2007		<0.05	0.0028	<0.005	<0.1	3.89	0.689	<0.02	<0.01	0.05	<0.1	<0.005
Water Reservoir	09/04/2007		<0.05	0.0011	<0.005	<0.1	0.41	0.047	<0.02	<0.01	0.01		<0.005
Water Reservoir	10/03/2007		<0.05	0.0011	<0.005	<0.1	0.89	0.203	0.02		<0.01	<0.1	<0.005
Water Reservoir	11/07/2007		<0.05	0.0009	<0.005	<0.1	0.86	0.184	0.04		0.01	<0.1	<0.005
Water Reservoir	11/07/2007		0.06	0.0034	<0.005	<0.1	4.01	0.58	0.05	<0.01	0.1	0.1	<0.005
Water Reservoir	12/04/2007		<0.05	0.0009	<0.005	<0.1	0.73	0.207	0.05	<0.01	0.02	<0.09	<0.005

## Non-Process Surface Water - Trace Ion Chemistry

Site	Date		Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
Lower Wetlands	10/24/2006		<0.005	0.0263	<0.03	<0.002	<0.05	<0.1	<0.02	<0.0002		<0.05	<0.1	<0.1
Lower Wetlands	03/21/2007		<0.0004	0.033	<0.1	<0.0001	0.02	<0.01	0.0003	<0.0002	<0.01	0.0002	<0.01	<0.01
Lower Wetlands	05/07/2007		<0.0004	0.021	<0.1	<0.0001	<0.01	<0.01	0.0001	<0.0002	<0.01	0.0002	<0.01	<0.01
Lower Wetlands	06/25/2007		<0.0004	0.027	<0.04	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	<0.0001	<0.01	<0.01
Lower Wetlands	07/02/2007		<0.0004	0.025	<0.04	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	<0.0001	<0.01	<0.01
Lower Wetlands	07/09/2007		<0.008	0.028	<0.04	<0.0001	<0.01	<0.01	0.004	<0.0002	<0.01	<0.002	<0.01	<0.01
Lower Wetlands	07/16/2007		<0.0004	0.056	<0.04	<0.0001	<0.01	<0.01	<0.0001	0.0003	<0.01	<0.0001	<0.01	<0.01
Lower Wetlands	07/24/2007		<0.0004	0.033	<0.04	<0.0001	<0.01	<0.01	0.0003	<0.0002	<0.01	<0.0001	<0.01	<0.01
Lower Wetlands	08/01/2007		<0.0004	0.028	<0.04	<0.0001	<0.01	<0.01	0.0001	<0.0002	<0.01	0.0001	<0.01	<0.01
Lower Wetlands	08/08/2007		<0.0004	0.029	<0.04	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	<0.0001	<0.01	<0.01
Lower Wetlands	08/15/2007		<0.0004	0.028	<0.04	<0.0001	<0.01	<0.01	0.0001	<0.0002	<0.01	0.0001	<0.01	<0.01
Lower Wetlands	08/22/2007		<0.0004	0.029	<0.04	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	0.0003	<0.01	<0.01
Lower Wetlands	09/04/2007		<0.0004	0.028	<0.04	<0.0005	<0.01	<0.01	<0.0001	<0.0002	<0.005	<0.005	<0.01	<0.01
Lower Wetlands	10/03/2007		<0.0013	0.024	<0.02	<0.0005	<0.005	<0.01	<0.002	<0.0002	<0.005	<0.005	<0.01	<0.01
Lower Wetlands	11/07/2007		<0.0004	0.046	<0.04	<0.0001	<0.01	<0.01	0.0003	<0.0002	<0.01	0.0001	<0.01	<0.01
Lower Wetlands	12/04/2007		<0.0004	0.039	<0.04	<0.0001	<0.01	<0.01	0.0001	<0.0002	<0.01	0.0001	<0.01	<0.01
RINSE	11/28/2006		<0.0005	0.00112	<0.003	<0.0002	<0.005	<0.01	<0.002	<0.0002		<0.005	<0.01	0.0119
RINSE	03/21/2007		<0.0004	0.004	<0.1	<0.0001	<0.01	<0.01	0.0001	<0.0002	<0.01	<0.0001	<0.01	0.07
Upper Wetlands	10/24/2006		<0.005	0.0371	<0.03	<0.002	<0.05	<0.1	<0.02	0.000443		<0.05	<0.1	<0.1
Upper Wetlands	01/30/2007		<0.0004	0.06	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
Upper Wetlands	05/07/2007		<0.0004	0.032	<0.1	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	0.0002	<0.01	<0.01
Upper Wetlands	06/25/2007		<0.0004	0.036	<0.04	<0.0001	<0.01	<0.01	0.0005	<0.0002	<0.01	<0.0001	<0.01	<0.01
Upper Wetlands	07/02/2007		<0.0004	0.037	<0.04	<0.0001	<0.01	<0.01	0.0004	<0.0002	<0.01	<0.0001	<0.01	<0.01
Upper Wetlands	07/16/2007		<0.0004	0.036	<0.04	<0.0001	<0.01	<0.01	0.0003	0.0004	<0.01	<0.0001	<0.01	<0.01
Upper Wetlands	07/24/2007		<0.0004	0.038	<0.04	<0.0001	<0.01	<0.01	0.0008	<0.0002	<0.01	<0.0001	<0.01	0.01
Upper Wetlands	07/31/2007		<0.0004	0.029	<0.04	<0.0001	<0.01	<0.01	0.0002	<0.001	<0.01	<0.0001	0.01	<0.01
Upper Wetlands	08/08/2007		<0.0004	0.028	0.04	<0.0001	<0.01	<0.01	0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
Upper Wetlands	08/15/2007		<0.0004	0.03	<0.04	<0.0001	<0.01	<0.01	0.0006	<0.0002	<0.01	0.0002	<0.01	<0.01
Upper Wetlands	08/22/2007		<0.0004	0.036	<0.04	<0.0001	<0.01	<0.01	0.0026	<0.0002	<0.01	0.0003	<0.01	<0.01
Upper Wetlands	09/04/2007		<0.0013	0.034	<0.02	<0.0005	<0.005	<0.01	0.0002	<0.0002	<0.005	<0.005	<0.01	<0.01
Upper Wetlands	10/03/2007		<0.0013	0.032	<0.02	<0.0005	<0.005	<0.01	<0.002	<0.0002	<0.005	<0.005	<0.01	0.02
Upper Wetlands	11/07/2007		<0.0004	0.073	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0001	<0.01	0.01
Upper Wetlands	12/04/2007		<0.0004	0.094	<0.04	<0.0001	<0.01	<0.01	0.0005	<0.0002	<0.01	0.0001	<0.01	<0.01

## Non-Process Surface Water - Trace Ion Chemistry

Site	Date		Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
Water Dam Seepage	05/07/2007		<0.0004	0.01	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0001	<0.01	<0.01
Water Dam Seepage	08/29/2007		<0.0004	0.008	<0.04	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	0.0001	<0.01	<0.01
Water Dam Seepage	11/27/2007		<0.0004	0.006	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
Water Reservoir	10/30/2006		<0.005	0.0163	<0.03	<0.002	<0.05	<0.1	<0.02	<0.0002		<0.05	<0.1	<0.1
Water Reservoir	03/21/2007		<0.0004	0.023	<0.1	<0.0001	<0.01	0.02	0.0002	<0.0002	<0.01	0.0001	<0.01	0.01
Water Reservoir	05/07/2007		<0.0004	0.021	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0003	<0.01	0.02
Water Reservoir	05/21/2007		<0.0004	0.015	<0.1	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	<0.0001	<0.01	<0.01
Water Reservoir	06/18/2007		<0.0004	0.016	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
Water Reservoir	07/02/2007		<0.0004	0.011	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
Water Reservoir	07/09/2007		<0.0004	0.016	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
Water Reservoir	07/16/2007		<0.0004	0.015	<0.04	<0.0001	<0.01	<0.01	0.0002	0.0002	<0.01	<0.0001	<0.01	<0.01
Water Reservoir	07/24/2007		<0.0004	0.023	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
Water Reservoir	08/07/2007		<0.0004	0.018	0.04	0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	<0.0001	<0.01	0.02
Water Reservoir	08/14/2007		<0.0004	0.018	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0006	<0.01	<0.01
Water Reservoir	08/21/2007		<0.0004	0.016	<0.04	<0.0001	<0.01	<0.01	<0.0001	0.0003	<0.01	<0.0001	<0.01	<0.01
Water Reservoir	08/29/2007		<0.0004	0.024	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
Water Reservoir	09/04/2007		<0.0004	0.017	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
Water Reservoir	10/03/2007		<0.0004	0.022	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
Water Reservoir	11/07/2007		<0.0004	0.019	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
Water Reservoir	11/07/2007		<0.0004	0.044	<0.08	<0.0001	<0.02	<0.02	0.0005	<0.0002	<0.02	0.0001	<0.02	<0.02
Water Reservoir	12/04/2007		<0.0004	0.023	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01



# COMPLIANCE GROUNDWATER PROCESS WATER QUALITY DATA

FAIRBANKS GOLD MINING, INC.  
FORT KNOX MINE



Process Ground Water - Major Ion Chemistry

Site	Date	Bic Alk	Tot Alk	Ca	Cl	Ca Hard	Mg Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	S	Temp. (C)	TDS	TSS	Tur
401	04/11/2007		56	49.1	15			12.1	7.2	1.7	11.6	7.5	462	90	0.04	4	270	16	
401	04/18/2007		63	49.1	13			12.1	7.4	1.9	11.3	7	368	70	<0.02		220	<5	10.5
401	06/11/2007		43	5.6	8			1.4	7.3	<0.3	1.3	1.1	261	50	<0.02		160	<5	3.1
401	06/25/2007		49	43.4	10			10.7	7.1	1.6	11.9	4.7	319	60	0.02		210	<5	2.2
401	07/04/2007		49	42.7	10			9.8	7.5	1.2	11.1	5	321	70	<0.02		200	<5	2.2
401	07/09/2007		52	45.1	10			10.2	7.2	1.6	11.6	5.7	326	70	<0.02		210	<5	2.4
401	07/16/2007		53	43.8	10			10.6	7.2	1.3	11.7	4.7	335	70	<0.02		230	<5	1.9
401	07/24/2007		52	50	13	120	48	12	7.2	1.9	11.5	6.4	379	80	<0.02		230	<5	1.7
401	07/31/2007		52	44.5	12	109	44	10.7	7.2	1.8	10.8	4.9	342	70	<0.02		220	<5	1.7
401	08/08/2007		52	43.1	12	104	42	10.4	7.3	1.5	10.9	4.9	339	60	<0.02		160	<5	3
401	08/15/2007		49	39.7	10	95	39	9.8	7.4	1.3	11.1	4.8	319	58	<0.02		190	<5	12.6
401	08/22/2007		54	38.5	10	91	37	9.6	7.6	1.2	11.6	4.2	316	56	<0.02		210	<5	1.5
401	09/04/2007		53	38.8	9	99	39	9.6	7.6	1.3	<0.4	4.4	316	60	<0.02		190	<5	1.1
401	10/03/2007		56	40	7	96	38	9.7	7.4	1.2	5.3	4.3	307	54	<0.5		180	<5	0.9
IW-1	10/18/2006	161	161	85.7	6.12	214	65	15.8	7.87	4.52	6.37	8.38	463	93.2	<0.05	<16.1	374	<1	
IW-1	02/15/2007		186	77.6	5	209.748	55.9776		8.2	4.1	14.6	7.5	512	80	<0.02		320	<5	
IW-1	04/11/2007		182	80	6			14.1	8.2	3.7	14.3	7.5	605	90	<0.02		340	<5	
IW-1	04/18/2007		203	83	6			14.5	8.2	4.2	14.5	7.6	516	80	<0.02	4.2	310	<5	0.1
IW-1	06/06/2007		182	49.5	13			11.7	8.2	1.6	11.8	5.1	513	80	<0.02		330	<5	<0.1
IW-1	06/13/2007		174	83.9	6			14.8	8.1	4.3	14.8	7.9	918	90	0.06		340	<5	1
IW-1	06/27/2007		182	83.6	6			15	8.2	4	15.7	7.9	546	80	<0.02		340	<5	<0.1
IW-1	07/11/2007		182	84.7	6			15	8.2	4.2	15.4	8.1	528	90	<0.02		370	<5	0.3
IW-1	07/18/2007		184	82.8	6			14.6	8.2	4.1	14	7.8	539	80	<0.02		350	<5	5.8
IW-1	07/23/2007		185	86.6	7	210	60	15	8.2	4.6	14.6	9.4	547	90	<0.02		330	<5	<0.1
IW-1	07/30/2007	182	182		6	210	61		8.2				579	70			320	<5	<0.1
IW-1	08/06/2007		179	79.6	7	206	59	14.3	8.2	4.1	15	7.7	528	70	<0.02		350	<5	0.4
IW-1	08/13/2007		176	83.4	6	205	58	14.5	8.2	4.1	15	7.6	540	79	<0.02		320	<5	0.1
IW-1	08/20/2007		181	82.6	7	210	59	14.5	8.2	4	14.7	7.7	533	79	<0.02		350	<5	<0.1
IW-1	09/03/2007		184	82.5	6	201	58	14.4	8.2	4.1	15	7.7	550	84	0.04		320	<5	<0.1
IW-1	10/03/2007		187	84.3	7	210	60	15.1	8.4	4.2	15.2	8	554	82	<0.02		330	<5	0.2
IW-1	11/05/2007		184	83.8		208	60	14.9	8.2	4.3		8.1	557	82	<0.02		340	<5	0.3
IW-11	04/24/2007		71	30.2	4			7.4	8.3	1.2	7.2	4	234	30	<0.02		130	822	725
IW-11	05/21/2007	44	44		17				7.8				445	100			270	<5	2.1
IW-11	05/30/2007		43	54.3	19			17.2	7.8	1.3	10.9	7.6	466	110	<0.02		300	<5	1.4
IW-11	06/18/2007		36	45.1	13			9.9	7.8	1.2	10.7	6.1	362	80	<0.02		240	<5	0.2
IW-11	06/27/2007		49	65.1	19			18.7	7.8	1.3	11.4	9.5	510	130	0.02		320	<5	0.6
IW-11	07/09/2007		47	59.4	19			17.5	7.8	1.3	12.7	9.9	512	130	<0.02		330	<5	1
IW-11	07/16/2007		49	63.8	19			18	7.7	1.5	12.5	10.8	523	130	0.02		350	<5	0.9
IW-11	07/25/2007		49	61.7	22	150	70	16.7	7.6	1.5	11.9	11.3	534	120	<0.02		320	<5	2.4
IW-11	08/01/2007		47	62.8	22	155	73	17.6	7.7	1.4	12.3	11.3	512	130	<0.02		320	6	3.3
IW-11	08/13/2007		47	59.5	22	156	72	17	7.8	1.3	12.9	11.4	529	124	<0.02		320	<5	1.6
IW-11	08/20/2007		49	62.1	19	145	68	17.6	7.8	1.4	12.7	12	513	118	<0.02	6.1	330	<5	0.7
IW-11	09/03/2007		50	60.2	19	145	68	17.3	7.8	1.2	13.2	12.8	541	131	0.02		310	<5	1.7
IW-11	10/01/2007		51	61.7		155	74	17.7	7.8	1.4	13.6	14	530	129	<0.02		330	<5	0.4
IW-11	11/06/2007		30	37.7		93	81	19.1	7.8	3	12.2	47.4	625	132	<0.02	8.1	380	<5	<0.1

Process Ground Water - Major Ion Chemistry

Site	Date	Bic Alk	Tot Alk	Ca	Cl	Ca Hard	Mg Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	S	Temp. (C)	TDS	TSS	Tur
IW-2	02/15/2007		203	139	23	374.55	84.378		7.9	3.4	20.7	31.4	943	280	<0.02		670	<5	
IW-2	04/11/2007		208	147	24			21.8	8	3.7	20.6	33.5	856	280	<0.02		680	<5	
IW-2	04/18/2007		233	152	24			22.5	7.9	3.9	20.9	34.2	942	270	<0.02	5.3	660	<5	1.4
IW-2	06/06/2007		6190	52	13			12	12.6	2	13	5	26100	80	<0.02		6490	248	21.3
IW-2	06/13/2007		184	145	24			21.8	8.3	3.6	20.4	35.3	516	270	<0.02		650	<5	0.4
IW-2	06/27/2007		190	147	24			22.3	8	3.7	22.1	37.4	969	270	0.03		650	<5	1
IW-2	07/11/2007		187	143	24			21.3	8.1	3.9	20.8	36.3	928	270	<0.02		690	<5	1.4
IW-2	07/18/2007		188	138	23			20.7	8	3.5	19	34.2	938	250	<0.02		680	<5	2
IW-2	07/23/2007		187	137	24	348	86	20.3	8	3.7	18.8	34.4	952	270	<0.02		620	<5	0.7
IW-2	07/30/2007	186	186		25	350	86		8.1				1010	260			640	<5	1.9
IW-2	08/06/2007		182	133	26	345	83	20.3	8	3.7	20.3	35.3	910	240	<0.02		660	<5	1.1
IW-2	08/13/2007		178	139	26	348	84	20.5	7.9	3.6	20.2	35	930	250	<0.02		630	<5	1
IW-2	08/20/2007		178	136	26	333	82	20.2	8.1	3.7	18.1	34.6	926	240	<0.02		670	<5	0.6
IW-2	09/03/2007		182	135	23	335	82	20	8.1	3.6	19.8	34.9	946	190	0.02		620	<5	0.9
IW-2	10/03/2007		184	132	26	348	83	19.9	8.3	3.6	19.8	34.2	947	250	<0.02		610	<5	1.2
IW-2	11/05/2007		180	131		328	81	20.1	8.1	3.7	19.7	36	938	260	<0.02		620	<5	1.3
IW-2	12/03/2007		187	128		318	79	19.3	8	3.8		34.5	908	250	<0.02		620	<5	1.1
IW-3	10/19/2006	117	117	84.7	6.01	211.4959	43.6296	10.6	7.66	1.78	7.87	33.6	499	151	<0.05	<15.9	415	1.6	
IW-3	02/15/2007		130	74.9	10	198.7612	37.044		8.1	1.8	16.7	29	582	150	<0.02		370	<5	0.7
IW-3	04/11/2007		116	82.2	13			9.4	8.2	1.4	15.1	32	693	160	<0.02		400	<5	
IW-3	04/18/2007															3.1			
IW-3	06/06/2007		115	117	22			12.6	8.2	1.4	12.9	33.9	760	250	<0.02		540	<5	0.7
IW-3	06/13/2007		113	117	22			12.8	8.1	1.4	12.5	33	755	240	<0.02		540	<5	0.5
IW-3	06/27/2007		112	108	20			12	8.1	1.2	13.5	31.6	770	220	<0.02		490	<5	5.3
IW-3	07/11/2007		112	111	20			12.1	8.1	1.5	13	32.7	740	230	<0.02		520	<5	0.5
IW-3	07/18/2007		113	108	20			11.9	8	1.2	12	31.3	745	220	<0.02		540	<5	2.2
IW-3	07/23/2007		114	108	20	278	49	11.6	8.1	1.3	12	31.2	766	230	<0.02		490	<5	0.4
IW-3	07/30/2007	103	103		15	202	38		8.2				668	170			390	<5	0.3
IW-3	08/06/2007		100	76.2	15	204	38	9	8.1	1.6	15.4	33.4	591	150	<0.02		390	<5	0.2
IW-3	08/13/2007		108	107	22	265	47	11.6	8.1	1.3	12.7	30.7	745	210	<0.02		480	<5	0.5
IW-3	08/20/2007		108	106	22	263	46	11.5	8.1	1.4	12	30.8	720	210	<0.02		500	<5	0.3
IW-3	09/03/2007		112	103	19	258	46	11.3	8.1	1.3	12.6	30.7	741	170	<0.02		460	<5	0.5
IW-3	10/03/2007		114	109	22	260	46	12.1	8.3	1.4	13.1	33.3	750	210	<0.02		480	<5	0.6
IW-3	12/03/2007		186	81.9		206	60	14.4	8.2	4.2		7.9	546	80	<0.02		340	<5	<0.1
IW-4	11/01/2006	175	175	59.7	<2.5	149.0709	13.00656	3.16	7.94	1.21	8.45	55.6	462	94.9	<0.05	<15.8	351	1.6	
IW-4	02/15/2007		145	51.8	3	140.0817	11.5248	2.6	8.2	1.1	22.6	50.3	494	100	<0.02		320	<5	0.5
IW-4	04/11/2007		168	89	3			5.5	8.2	1.4	17.8	47.7	759	170	<0.02		440	<5	
IW-4	04/18/2007		178	93.9	3			5.7	8.2	2	18.5	50.5	659	180	<0.02	4.7	440	<5	0.6
IW-4	06/13/2007		149	85.1	5			5.2	8.2	1.9	16.9	48.1	620	160	<0.02		410	<5	0.5
IW-4	06/20/2007		146	84.1	1			5.3	8.1	1.8	17	48.4	648	160	<0.02		420	<5	0.4
IW-4	06/27/2007		145	88.2	5			5.5	8.1	1.8	19.5	53.4	649	170	<0.02		410	<5	0.3
IW-4	07/11/2007		149	83	4			5.1	8	1.8	18	48.3	618	150	<0.02		410	58	5.6
IW-4	07/18/2007		151	79.2	4			4.8	8.1	1.7	16.1	44.6	618	150	<0.02		400	<5	0.7
IW-4	07/23/2007		152	80.1	4	202	20	4.8	8.2	1.7	16.2	45.4	641	150	<0.02		390	<5	1
IW-4	07/30/2007	149	149		5	200	21		8.1				672	150			390	<5	1

Process Ground Water - Major Ion Chemistry

Site	Date	Bic Alk	Tot Alk	Ca	Cl	Ca Hard	Mg Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	S	Temp. (C)	TDS	TSS	Tur
IW-4	08/06/2007		144	75.9	5	201	20	4.8	8.1	1.8	17.3	44.8	593	140	<0.02		400	<5	0.5
IW-4	08/13/2007		142	79.4	5	199	20	4.9	8.1	1.7	17.1	44.9	624	143	<0.02		400	<5	0.3
IW-4	08/20/2007		147	81	5	199	20	5.1	8.1	2	16.9	45.3	611	139	<0.02		410	10	1.6
IW-4	09/03/2007		158	79.9	4	199	21	5.1	8.1	1.5	17.8	44.8	636	163	0.03		380	<5	0.4
IW-4	10/03/2007		161	85.6		212	22	5.5	8.3	1.4		43.8	644	149	<0.02		410	<5	0.4
IW-4	11/05/2007		154	86		222	25	5.9	8.1	2.1	17.7	42.9	658	155	<0.02		430	<5	1.1
IW-5	10/19/2006	121	121	124	21.5	310	90	21.8	7.3	10.9	6.81	50.7	774	299	<0.05	<14.2	670	<1	
IW-5	02/15/2007		125	112	30	292.149	76.146		7.8	9.6	15	47	903	300	<0.02		620	<5	
IW-5	04/11/2007		124	113	31			18.8	7.9	9.3	14.1	47.8	1060	290	<0.02		620	<5	
IW-5	04/18/2007		134	122	31			20.4	8	11.4	14.6	50.5	912	290	<0.02	5.4	630	<5	0.3
IW-5	06/20/2007		125	113	29			19.1	7.9	9.8	13.7	48.2	944	280	<0.02		620	<5	0.5
IW-5	06/27/2007		125	113	28			18.6	7.8	9.6	14.2	47.6	907	280	<0.02		630	<5	0.3
IW-5	07/11/2007		126	111	29			18.6	8	10.1	14.4	49.1	919	270	<0.02		640	<5	1.2
IW-5	07/18/2007		128	111	27			18.5	7.9	10	13.2	48.5	940	280	<0.02		620	<5	0.8
IW-5	07/23/2007		127	110	29			18.1	7.9	9.9	13.4	47.9	923	270	<0.02		580	<5	0.4
IW-5	07/30/2007	125	125		31	283	78		7.9				971	260			590	<5	0.4
IW-5	08/06/2007		123	105	31	283	77	17.9	7.8	9.8	14.3	47.7	853	240	<0.02		590	<5	0.3
IW-5	08/13/2007		122	106	31	250	66	17.7	7.9	9.5	14.8	46	890	250	<0.02		580	<5	0.5
IW-5	08/20/2007		124	110	30	258	72	18.3	7.9	9.5	13.5	47.5	878	250	<0.02		610	<5	0.3
IW-5	09/03/2007		127	106	28	260	71	17.9	8	9.5	14.6	48	908	230	0.03		580	<5	0.4
IW-5	10/03/2007		129	109		275	74	18.4	8.1	9.4		47.9	903	230	<0.02		580	<5	0.4
IW-5	11/05/2007		125	107		263	72	18	8	9.8	14.8	47.9	899	250	<0.02		580	<5	0.4
IW-5	12/03/2007		130	103		260	72	17.1	7.9	9.4		45.8	866	240	<0.02		570	<5	0.5
IW-6	10/30/2006	153	153	142	11.8	354.574	89.3172	21.7	7.2	3.98	9.11	32.8	817	298	<0.05	<15.6	624	1.2	
IW-6	02/15/2007		184	100	12	269.676	60.9168	13.8	7.9	2.9	21.6	27.1	705	170	<0.02		470	<5	
IW-6	04/11/2007		175	98.7	13			13.5	7.9	2.6	20.7	27.7	764	140	<0.02		460	<5	
IW-6	04/18/2007		172	102	14			14.1	8.2	3.5	19.9	28.3	670	170	<0.02	3.4	460	<5	1.8
IW-6	04/25/2007		155	102	15			14.3	7.9	3.4	20.1	31.7	677	180	<0.02		470	<5	0.6
IW-6	06/20/2007		169	106	15			14.8	8	3.1	19	29.6	745	190	<0.02		490	<5	1
IW-6	06/27/2007		170	103	14			14.1	8.1	3.1	20.5	28.3	710	180	<0.02		480	<5	0.5
IW-6	07/11/2007		172	102	14			14.2	8.1	3.2	20.6	29.7	731	170	<0.02		510	<5	1.4
IW-6	07/18/2007		173	106	14			14.8	8	3.2	19.7	29.8	742	180	<0.02		520	<5	0.8
IW-6	07/23/2007		174	101	14			13.4	8.1	2.7	19.9	28.7	729	170	<0.02		440	<5	0.4
IW-6	07/30/2007	171	171		15	258	58		8.1				761	170			460	<5	2.2
IW-6	08/06/2007		166	98	15	247	55	13.7	8	3.2	20.2	29.3	668	150	<0.02		460	<5	0.2
IW-6	08/13/2007		161	100	16	253	57	13.9	8.1	3	21.1	28.7	719	160	<0.02		470	<5	0.4
IW-6	08/20/2007		165	106	17	249	57	14.8	8.1	3	20	29.7	717	171	<0.02		480	<5	0.4
IW-6	09/03/2007		172	101	14	253	57	14.1	8.1	3.2	21.5	29.6	731	150	0.03		470	8	0.7
IW-6	10/03/2007		170	100		268	60	14.1	8.2	3		28.1	744	180	<0.02		480	<5	0.5
IW-6	11/05/2007		160	101		247	57	14.1	8.1	3		29	733	158	<0.02	4.2	480	<5	0.8
IW-6	12/03/2007		164	99.5		249	57	13.9	8	3.1		29.1	710	172	<0.02		480	<5	0.7
IW-7	02/15/2007		97	30.4	1		22.2264	5.1	8	1.3	10.1	3.3	207	<10	<0.02		110	<5	
IW-7	04/18/2007		103	43.8	4			7.2	8.2	1.7	10	3.9	278	30	<0.02		180	<5	0.2
IW-7	04/25/2007		82	42.8	5			7	7.9	1.6	9.7	4.4	277	30	<0.02		170	<5	0.1
IW-7	04/25/2007															1.4			

Process Ground Water - Major Ion Chemistry

Site	Date	Bic Alk	Tot Alk	Ca	Cl	Ca Hard	Mg Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	S	Temp. (C)	TDS	TSS	Tur
IW-7	06/27/2007		86	49.3	7			8.2	8.1	1.4	10.3	3.9	338	50	<0.02		200	<5	0.3
IW-7	07/11/2007		88	50.1	8			8.5	8.1	2	10.5	4.2	349	50	<0.02		220	<5	3.3
IW-7	07/18/2007		89	51.2	8			8.4	7.9	1.7	9.8	4	355	60	<0.02		230	<5	0.1
IW-7	07/23/2007		90	50.6	8			8.1	8	1.5	10	4.2	353	50	<0.02		200	<5	0.2
IW-7	07/30/2007	88	88		9	128	35		7.9				379	50			210	<5	<0.1
IW-7	08/13/2007		89	49.8	9	130	35	8.4	7.9	1.5	10.9	4	350	46	<0.02		210	<5	0.5
IW-7	08/20/2007		91	44	9	136	35	7.6	8	1.3	10.2	3.6	348	50	<0.02		230	<5	0.1
IW-7	09/03/2007		93	51.1	8	125	35	8.8	8	1.7	11.1	4.1	367	50	0.02		200	<5	<0.1
IW-7	10/03/2007		99	56.7		137	37	9.6	8.1	1.5	11	4.2	374	51	<0.02		210	<5	<0.1
IW-7	11/05/2007		92	53.8		134	37	9.2	8	1.6		4.1	376	48	<0.02	5.7	220	<5	0.3
IW-8	04/11/2007		46	48.6	14			10.9	7.8	1.2	11.8	4.9	431	80	<0.02		250	<5	
IW-8	04/25/2007		38	54.3	18	140.5811	51.45	11.9	7.6	1.4	11.3	6	427	100	<0.02	0.9	290	<5	1
IW-8	05/30/2007		33	42.1	13			10.1	7.7	1.4	9.6	5.7	329	70	<0.02		230	<5	0.8
IW-8	06/26/2007		42	51.3	14			11.5	7.6	1.4	12.1	6.8	402	90	<0.02		260	<5	0.5
IW-8	07/09/2007		49	48.9	14			11.3	7.9	1.4	11.9	7	414	90	<0.02		240	<5	0.4
IW-8	07/16/2007		44	54.1	14			12	7.7	1.5	11.8	7.8	407	90	<0.02		280	<5	0.3
IW-8	07/25/2007		44	52.3	17	135	49	10.9	7.6	1.4	10.8	7.8	427	100	<0.02		240	<5	1.2
IW-8	07/30/2007	44	44		17	140	51		7.8				463	90			250	<5	<0.1
IW-8	08/13/2007		43	48	15	119	43	10.7	7.8	1.4	11.8	7.3	388	79	<0.02		230	<5	0.7
IW-8	08/20/2007		43	49.3	15	115	44	10.9	7.8	1.4	11.5	7.7	384	80	<0.02	2.2	260	<5	<0.1
IW-8	09/03/2007		46	48.1	13	120	44	10.8	7.8	1.4	11.9	7.9	402	85	<0.02		230	<5	0.2
IW-8	10/01/2007		46	47.1	14	117	44	10.6	7.7	1.4	12.2	7.9	379	78	<0.02		240	<5	<0.1
IW-8	10/01/2007		49		11				7.4		5.2		375	78	<0.5		250	<5	0.2
IW-8	11/05/2007		44	49.9		118	43	11.2	7.8	1.5		8.8	412	80	<0.02		250	<5	1

## Process Ground Water - Minor Ion Chemistry

Site	Date	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
401	04/11/2007	<0.05	0.0005	0.22	<0.1	1.79	0.164			0.02	0.24	0.047
401	04/18/2007	<0.05	<0.0005	0.108	<0.1	0.87	0.13	5.82	0.03	0.01	<0.1	0.047
401	05/21/2007			0.156								0.056
401	05/31/2007			0.208								0.056
401	06/01/2007			0.175								0.055
401	06/11/2007	<0.05	<0.0005	0.083	0.1	0.03	<0.005	2.28	<0.01	<0.01	<0.1	0.018
401	06/13/2007			0.105								0.031
401	06/20/2007			0.137								0.036
401	06/25/2007	<0.05	0.0005	0.166	<0.1	0.12	0.061	4.8	<0.01	0.02	0.1	0.065
401	06/26/2007			0.16								0.041
401	06/27/2007			0.17								0.042
401	07/04/2007	<0.05	<0.0005	0.148	<0.1	0.2	0.057	5.28	<0.01	0.03	0.1	0.044
401	07/09/2007	<0.05	<0.0005	0.153	<0.1	0.07	0.049	5.14	<0.01	0.02	0.2	0.065
401	07/16/2007	<0.05	0.0007	0.156	<0.1	0.1	0.056	5.2	<0.01	<0.01	0.2	0.056
401	07/24/2007	<0.05	<0.0005	0.174	<0.1	0.07	0.043	6.5	<0.01	0.02	<0.1	0.045
401	07/31/2007	<0.05	<0.0005	0.167	<0.1	0.11	0.042	6.4	<0.01	<0.01	<0.1	0.05
401	08/08/2007	<0.05	<0.0005	0.144	<0.1	0.07	0.037	5.37	<0.01	<0.01	0.1	0.043
401	08/15/2007	0.32	<0.0005	0.174	<0.1	0.09	0.04	4.2	<0.01	<0.01	<0.1	0.04
401	08/22/2007	<0.05	<0.0005	0.127	<0.1	0.06	0.042	4.46	<0.01	0.01	<0.1	0.041
401	09/04/2007	<0.1	<0.0005	0.039	<0.1	<0.02	0.053	5.16	<0.01	<0.05	<1	0.028
401	10/03/2007	<0.1	<0.005	<0.005	<0.1	0.07	0.055	4.45	<0.01	<0.05	<5	<0.005
IW-1	10/18/2006	<0.05	0.00396	0.0162	<1	<0.05	0.0631	<1			<5.3	<0.004
IW-1	02/15/2007	<0.05	0.0033	<0.005	<0.1	<0.02	0.061			<0.01	<0.09	<0.005
IW-1	04/11/2007	<0.05	0.003	<0.005	<0.1	<0.02	0.061			<0.01	0.3	<0.005
IW-1	04/18/2007	<0.05	0.0028	<0.005	<0.1	<0.02	0.059	0.23	0.13	<0.01	<0.1	<0.005
IW-1	06/06/2007	<0.05	<0.0005	<0.005	<0.1	0.1	0.084	6.2	<0.01	<0.01	0.2	<0.005
IW-1	06/13/2007	<0.05	0.0032	<0.005	<0.1	<0.02	0.061	0.25	0.14	<0.01	0.1	<0.005
IW-1	06/27/2007	<0.05	0.0034	<0.005	<0.1	<0.02	0.061	0.27	0.15	<0.01	<0.1	<0.005
IW-1	07/11/2007	<0.05	0.0037	<0.005	<0.1	<0.02	0.063	0.37	0.16	<0.01	0.2	<0.005
IW-1	07/18/2007	<0.05	0.0028	<0.005	<0.1	<0.02	0.056	0.36	0.17	0.03	<0.1	<0.005
IW-1	07/23/2007	<0.05	0.003	<0.005	<0.1	<0.02	0.056	1.02	0.17	0.03	<0.09	<0.01

## Process Ground Water - Minor Ion Chemistry

Site	Date		NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
IW-1	07/30/2007		<0.05		<0.005	<0.1			0.32	0.17	<0.01	0.11	<0.005
IW-1	08/06/2007		<0.05	0.0031	<0.005	<0.1	<0.02	0.063	0.33	0.17	<0.01	<0.09	<0.005
IW-1	08/13/2007		0.31	0.0031	<0.005	<0.1	<0.02	0.06	0.3	0.16	<0.01	<0.1	<0.005
IW-1	08/20/2007		<0.05	0.003	<0.005	<0.1	<0.02	0.055	0.33	0.17	<0.01	<0.1	<0.005
IW-1	09/03/2007		<0.05	0.0033	<0.005	<0.1	<0.02	0.066	0.41	0.17	<0.01	<0.1	0.007
IW-1	10/03/2007		<0.05	0.0036	<0.005	<0.1	<0.02	0.066	0.42	0.18	<0.01	0.1	<0.005
IW-1	11/05/2007		<0.05	0.0032	<0.005		<0.02	0.065	0.36	0.17			0.008
IW-11	04/24/2007		0.16	<0.0005	0.061	<0.1	0.04	0.132	2	0.02	0.27	<0.1	0.023
IW-11	05/21/2007		<0.05		0.368	<0.1			6.94	0.01	<0.01	<0.1	0.147
IW-11	05/30/2007		<0.05	<0.0005	0.414	<0.1	0.13	0.019	9.13	0.03	<0.01	0.1	0.104
IW-11	06/18/2007		<0.05	<0.0005	0.23	<0.1	0.17	0.02	6.56	<0.01	<0.01	<0.1	0.037
IW-11	06/27/2007		<0.05	<0.0005	0.431	<0.1	0.13	0.01	9.41	0.06	0.01	<0.1	0.137
IW-11	07/09/2007		<0.05	<0.0005	0.328	<0.1	0.44	0.014	0.04	<0.01	<0.01	0.2	0.1
IW-11	07/16/2007		<0.05	<0.0005	0.277	<0.1	0.11	0.015	9.23	0.07	<0.01	0.2	0.078
IW-11	07/25/2007		<0.05	<0.0005	0.284	<0.1	0.07	0.013	10.1	0.08	0.02	<0.1	0.07
IW-11	08/01/2007		<0.05	<0.0005	0.258	<0.1	0.08	0.028	9.8	0.07	<0.01	<0.1	0.105
IW-11	08/13/2007		0.32	<0.0005	0.222	<0.1	0.12	0.025	8.97	0.07	<0.01		0.138
IW-11	08/20/2007		<0.05	<0.0005	0.203	<0.1	0.06	0.014	8.9	0.07	<0.01	<0.1	0.076
IW-11	09/03/2007		<0.05	0.0005	0.212	<0.1	0.13	0.019	10.1	0.08	<0.01	<0.1	0.038
IW-11	10/01/2007		<0.05	<0.0005	0.166		0.12	0.017	8.9	0.08		0.1	0.031
IW-11	11/06/2007		<0.5	0.0006	0.246		0.09	0.024	16.4	<0.01			0.031
IW-2	02/15/2007		<0.05	<0.0005	<0.005	<0.1	0.13	0.636				<0.1	<0.005
IW-2	04/11/2007		<0.05	<0.0005	<0.005	<0.1	0.27	0.691			<0.01	0.2	<0.005
IW-2	04/18/2007		<0.05	<0.0005	<0.005	<0.1	0.28	0.718	<0.02	<0.01	<0.01	<0.09	<0.005
IW-2	06/06/2007		<0.05	<0.0005	<0.005	<0.1	0.2	0.06	6	<0.01	0.11	0.2	<0.005
IW-2	06/13/2007		<0.05	0.0006	<0.005	<0.1	<0.02	0.682	<0.02	<0.01	<0.01	<0.1	<0.005
IW-2	06/27/2007		<0.05	<0.0005	0.006	<0.1	0.28	0.703	<0.02	<0.01	0.01	<0.1	<0.005
IW-2	07/11/2007		<0.05	0.0006	<0.005	<0.1	0.29	0.675	<0.02	<0.01	<0.01	0.1	<0.005
IW-2	07/18/2007		<0.05	<0.0005	<0.005	<0.1	0.26	0.643	<0.02	<0.01	0.02	<0.1	<0.005
IW-2	07/23/2007		<0.05	<0.0005	0.006	<0.1	0.22	0.659	<0.02	<0.01	0.02	0.1	<0.005
IW-2	07/30/2007		<0.05		<0.005	<0.1			<0.02	0.03	<0.01	0.14	<0.005

## Process Ground Water - Minor Ion Chemistry

Site	Date		NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
IW-2	08/06/2007		<0.05	<0.0005	0.007	<0.1	0.29	0.648	<0.02	<0.01	<0.01	<0.1	<0.005
IW-2	08/13/2007		0.39	<0.0005	0.011	<0.1	0.27	0.673	<0.02	<0.01	<0.01	<0.1	0.007
IW-2	08/20/2007		<0.05	<0.0005	<0.005	<0.1	0.22	0.564	<0.02	<0.01	0.01		<0.005
IW-2	09/03/2007		<0.05	<0.0005	<0.005	<0.1	0.13	0.643	0.04	<0.01	<0.01	<0.1	<0.005
IW-2	10/03/2007		<0.05	<0.0005	<0.005	<0.1	0.18	0.611	<0.02	<0.01	<0.01	0.1	<0.005
IW-2	11/05/2007		<0.05	<0.0005	<0.005		0.51	0.604	<0.02	<0.01			<0.005
IW-2	12/03/2007		<0.05	<0.0005	<0.005		0.08	0.642	0.16	<0.01			<0.005
IW-3	10/19/2006		<0.05	0.00119	<0.004	<1	0.0585	0.214	<1			<5	0.0048
IW-3	02/15/2007		<0.05	0.0011	<0.005	<0.1	0.04	0.185	<0.02	<0.01	<0.01	<0.09	<0.005
IW-3	04/11/2007		<0.05	0.001	<0.005	0.1	0.07	0.235			<0.01	0.1	<0.005
IW-3	06/06/2007		<0.05	0.0023	<0.005	0.1	<0.02	0.581	<0.02	<0.01	<0.01	0.2	<0.005
IW-3	06/13/2007		<0.05	0.0024	<0.005	<0.1	<0.02	0.541	<0.02	<0.01	<0.01	0.1	<0.005
IW-3	06/27/2007		<0.05	0.0025	<0.005	<0.1	0.2	0.492	<0.02	<0.01	0.04	<0.1	<0.005
IW-3	07/11/2007		<0.05	0.0025	<0.005	0.1	0.04	0.495	0.04	<0.01	<0.01	0.17	<0.005
IW-3	07/18/2007		<0.05	0.0021	<0.005	<0.1	<0.02	0.467	0.03	<0.01	0.02	<0.1	<0.005
IW-3	07/23/2007		<0.05	0.0023	<0.005	<0.1	0.13	0.473	<0.02	<0.01	0.02	<0.1	<0.005
IW-3	07/30/2007		<0.05		<0.005	0.1			<0.02	<0.01	<0.01	0.1	<0.005
IW-3	08/06/2007		<0.05	0.001	<0.005	0.1	<0.02	0.138	<0.02	<0.01	<0.01	<0.1	<0.005
IW-3	08/13/2007		0.32	0.0023	0.011	<0.1	0.1	0.484	0.13	<0.01	<0.01	<0.1	0.017
IW-3	08/20/2007		<0.05	0.0019	<0.005	0.1	<0.02	0.427	0.21	<0.01	0.01	<0.1	<0.005
IW-3	09/03/2007		<0.05	0.0023	<0.005	0.1	0.08	0.448	<0.02	<0.01	<0.01	<0.1	<0.005
IW-3	10/03/2007		<0.05	0.0026	<0.005	<0.1	0.14	0.46	<0.02	<0.01	<0.01	0.1	<0.005
IW-3	12/03/2007		<0.05	0.0032	<0.005		<0.02	0.058	0.32	0.18			<0.005
IW-4	11/01/2006		<0.05	<0.001	<0.004	<1	<0.05	0.132				<5.3	<0.004
IW-4	02/15/2007		<0.05	<0.0005	<0.005	0.5	0.05	0.112	<0.02	<0.01		<0.09	<0.005
IW-4	04/11/2007		<0.05	0.0006	<0.005	0.3	<0.02	0.046			<0.01	0.13	<0.005
IW-4	04/18/2007		<0.05	0.0007	<0.005	0.3	0.19	0.058	0.16	0.01	0.01	<0.09	<0.005
IW-4	06/13/2007		<0.05	0.0009	<0.005	0.2	0.18	0.042	0.25	<0.01	<0.01	0.1	<0.005
IW-4	06/20/2007		<0.05	0.0006	<0.005	0.3	0.22	0.051	0.22	0.01	<0.01	<0.09	<0.005
IW-4	06/27/2007		<0.05	0.0007	<0.005	0.4	0.18	0.048	0.21	0.02	<0.01	<0.1	<0.005
IW-4	07/11/2007		<0.05	0.001	<0.005	0.4	0.18	0.043	0.2	0.01	0.02		<0.005



## Process Ground Water - Minor Ion Chemistry

Site	Date		NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
IW-4	07/18/2007		<0.05	<0.0005	0.013	0.3	0.17	0.041	0.21	0.02	0.02	<0.1	<0.005
IW-4	07/23/2007		<0.05	0.0007	<0.005	0.3	0.16	0.035	0.23	0.01	0.02	<0.1	<0.005
IW-4	07/30/2007		<0.05		<0.005	0.4			0.2	0.02	0.07	0.1	<0.005
IW-4	08/06/2007		<0.05	0.0005	<0.005	0.3	0.15	0.04	0.22	0.02	<0.01	<0.1	<0.005
IW-4	08/13/2007		0.32	0.0006	<0.005	0.3	0.17	0.045	0.2	0.02	<0.01		<0.005
IW-4	08/20/2007		<0.05	0.0005	<0.005	0.4	0.16	0.041	0.19	0.02	0.02	<0.1	<0.005
IW-4	09/03/2007		<0.05	0.0008	<0.005	0.4	0.17	0.047	0.23	0.03	<0.01	<0.1	<0.005
IW-4	10/03/2007		<0.05	0.0005	<0.005		0.17	0.041	0.2	0.02		0.1	<0.005
IW-4	11/05/2007		<0.05	<0.0005	<0.005		4.58	0.089	0.17	0.02			<0.005
IW-5	10/19/2006		0.35	<0.001	0.0128	<1	0.165	0.61	2.82			<5	<0.004
IW-5	02/15/2007		0.31	<0.0005	0.008	<0.1	0.03	0.568				<0.1	<0.005
IW-5	04/11/2007		0.27	0.0006	0.007	<0.1	0.21	0.559			<0.01	0.1	<0.005
IW-5	04/18/2007		0.23	<0.0005	0.014	0.1	0.22	0.587	3.92	0.03	<0.01	<0.1	0.007
IW-5	06/20/2007		0.36	0.0007	0.012	<0.1	0.22	0.581	3.69	0.03	<0.01	<0.1	<0.005
IW-5	06/27/2007		0.25	0.0005	0.018	0.1	0.2	0.591	3.95	0.03	0.02	<0.1	<0.005
IW-5	07/11/2007		0.25	0.0008	0.007	0.1	0.27	0.552	4.12	0.03	<0.01	0.2	<0.005
IW-5	07/18/2007		0.26	0.0119	0.006	<0.1	0.21	0.567	3.9	0.02	<0.01	<0.1	<0.005
IW-5	07/23/2007		0.27	<0.0005	0.012	<0.1	0.19	0.553	4.5	0.02	0.02	<0.1	<0.005
IW-5	07/30/2007		0.14		0.014	<0.1			3.86	0.03	<0.01	0.58	<0.005
IW-5	08/06/2007		0.18	<0.0005	0.009	<0.1	0.16	0.539	4.16	0.02	<0.01	<0.1	0.007
IW-5	08/13/2007		0.62	<0.0005	0.014	<0.1	0.19	0.55	3.64	0.02	<0.01	<0.1	0.006
IW-5	08/20/2007		0.25	<0.0005	0.008	0.1	0.19	0.501	3.8	0.02	0.01	<0.1	<0.005
IW-5	09/03/2007		0.27	0.0006	0.009	0.1	0.21	0.558	3.91	0.03	<0.01	<0.1	<0.005
IW-5	10/03/2007		0.22	<0.0005	0.006		0.22	0.58	3.67	0.02		0.13	<0.005
IW-5	11/05/2007		0.2	<0.0005	<0.005		0.23	0.552	3.96	0.02			<0.005
IW-5	12/03/2007		0.22	0.0006	<0.005		0.16	0.566	3.61	0.02			<0.005
IW-6	10/30/2006		0.0537	<0.001	<0.004	<1	0.361	0.729	<1			<5.3	<0.004
IW-6	02/15/2007		<0.05	0.0005	<0.005	<0.1	0.04	0.52			0.01	<0.09	<0.005
IW-6	04/11/2007		<0.05	0.0006	<0.005	<0.1	0.3	0.504			<0.01	0.2	<0.005
IW-6	04/18/2007		<0.05	<0.0005	<0.005	<0.1	0.29	0.511	0.07	<0.01	<0.01	<0.09	<0.005
IW-6	04/25/2007		<0.05	0.001	<0.005	<0.1	0.32	0.512	0.08	<0.01	<0.01	<0.09	<0.005

## Process Ground Water - Minor Ion Chemistry

Site	Date		NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
IW-6	06/20/2007		0.09	0.0008	<0.005	<0.1	0.4	0.537	0.07	<0.01	<0.01	<0.1	<0.005
IW-6	06/27/2007		<0.05	0.0008	<0.005	<0.1	0.34	0.533	0.06	<0.01	0.03	<0.1	<0.005
IW-6	07/11/2007		<0.05	0.001	<0.005	0.1	0.37	0.514	0.08	<0.01	<0.01	0.2	<0.005
IW-6	07/18/2007		<0.05	<0.0005	<0.005	<0.1	0.34	0.542	0.12	<0.01	<0.01	<0.1	<0.005
IW-6	07/23/2007		<0.05	0.0006	<0.005	<0.1	0.28	0.497	0.1	<0.01	0.02	<0.1	<0.005
IW-6	07/30/2007		<0.05		<0.005	<0.1			0.1	<0.01	<0.01	<0.1	<0.005
IW-6	08/06/2007		<0.05	0.0006	<0.005	<0.1	0.23	0.493	0.12	<0.01	<0.01	<0.1	<0.005
IW-6	08/13/2007		0.35	<0.0005	0.006	<0.1	0.29	0.5	0.11	<0.01	<0.01	<0.1	<0.005
IW-6	08/20/2007		<0.05	<0.0005	<0.005	<0.1	0.32	0.485	0.09	<0.01	0.01	<0.1	<0.005
IW-6	09/03/2007		<0.05	0.0008	<0.005	0.1	0.35	0.507	0.12	<0.01	<0.01	<0.09	<0.005
IW-6	10/03/2007		<0.05	0.0006	<0.005		0.3	0.495	0.07	<0.01		0.1	<0.005
IW-6	11/05/2007		<0.05	0.0007	<0.005		0.27	0.49	0.08	<0.01			<0.005
IW-6	12/03/2007		<0.05	0.0005	<0.005		0.05	0.517	0.08	<0.01			<0.005
IW-7	02/15/2007		<0.05	<0.0005	<0.005	<0.1	<0.02	<0.005				<0.09	<0.005
IW-7	04/18/2007		<0.05	<0.0005	<0.005	<0.1	0.04	<0.005	2.14	<0.01	<0.01	<0.1	0.011
IW-7	04/25/2007		<0.05	<0.0005	0.006	<0.1	0.04	<0.005	2.53	<0.01	<0.01	<0.1	0.009
IW-7	06/27/2007		<0.05	0.0005	0.031	<0.1	0.05	0.015	3.89	<0.01	0.02	<0.1	0.019
IW-7	07/11/2007		<0.05	0.0005	0.026	<0.1	0.04	0.006	3.89	<0.01	<0.01	0.2	0.016
IW-7	07/18/2007		<0.05	<0.0005	0.019	<0.1	0.03	<0.005	3.99	<0.01	0.02	<0.1	0.018
IW-7	07/23/2007		<0.05	<0.0005	0.02	<0.1	0.03	<0.005	3.98	<0.01	0.02	0.35	0.016
IW-7	07/30/2007		<0.05		0.03	<0.1			3.88	<0.01	<0.01	0.3	0.018
IW-7	08/13/2007		0.31	<0.0005	0.018	<0.1	0.03	0.005	3.5	<0.01	<0.01	<0.1	0.025
IW-7	08/20/2007		<0.05	<0.0005	0.037	<0.1	<0.02	<0.005	3.49	<0.01	<0.01	0.2	0.019
IW-7	09/03/2007		<0.05	<0.0005	0.025	<0.1	0.05	<0.005	3.7	<0.01	<0.01	<0.1	0.014
IW-7	10/03/2007		<0.05	<0.0005	0.025		0.05	<0.005	3.6	<0.01		0.1	0.014
IW-7	11/05/2007		<0.05	<0.0005	0.01		0.03	0.009	4.36	<0.01			0.024
IW-8	04/11/2007		<0.05	<0.0005	0.141	<0.1	0.13	0.03			<0.01	0.2	0.032
IW-8	04/25/2007		<0.05	<0.0005	0.246	<0.1	0.15	0.031	8.59	<0.01	<0.01	<0.09	0.07
IW-8	05/30/2007		<0.05	<0.0005	0.197	<0.1	0.19	0.019	6.43	<0.01	<0.01	0.1	0.027
IW-8	06/26/2007		<0.05	<0.0005	0.278	<0.1	0.13	0.014	7.94	<0.01	<0.01	0.1	0.055
IW-8	07/09/2007		<0.05	<0.0005	0.247	<0.1	0.16	0.011	7.88	<0.01	<0.01	0.2	0.07

## Process Ground Water - Minor Ion Chemistry

Site	Date	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
IW-8	07/16/2007	<0.05	<0.0005	0.221	<0.1	0.14	0.013	8.56	<0.01	<0.01	0.3	0.084
IW-8	07/25/2007	<0.05	<0.0005	0.257	<0.1	0.1	<0.005	8.2	<0.01	0.03	<0.09	0.08
IW-8	07/30/2007	<0.05		0.272	<0.1			7.77	<0.01	<0.01	0.2	0.058
IW-8	08/13/2007	0.28	<0.0005	0.213	<0.1	0.11	0.009	6.66	<0.01	<0.01	<0.1	0.151
IW-8	08/20/2007	<0.05	<0.0005	0.202	<0.1	0.1	0.008	6.74	<0.01	<0.01	<0.1	0.05
IW-8	09/03/2007	<0.5	<0.0005	0.194	<0.1	0.11	0.006	7.3	<0.01	<0.01	<0.1	0.032
IW-8	10/01/2007	<0.5	0.0005	0.164	<0.1	0.09	0.006	2.11	<0.01	<0.01	0.1	0.03
IW-8	10/01/2007	<0.1	<0.005	0.019	<0.1	0.08	0.006		<0.05	<0.05	<5	0.013
IW-8	11/05/2007	<0.05	<0.0005	0.17		0.1	0.014	7.58	<0.01			0.024

## Process Ground Water - Trace Ion Chemistry

Site	Date		Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
401	04/11/2007		<0.0004	0.029	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0016	<0.01	<0.01
401	04/18/2007		<0.0004	0.029	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0013	<0.01	<0.01
401	06/11/2007		<0.0004	<0.003	<0.1	<0.0001	<0.01	0.01	<0.0001	<0.0002	<0.01	0.0008	<0.01	0.04
401	06/25/2007		<0.0004	0.022	<0.04	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	0.0011	<0.01	<0.01
401	07/04/2007		<0.0004	0.024	<0.04	<0.0001	<0.01	<0.01	0.0002	0.0003	<0.01	0.001	<0.01	<0.01
401	07/09/2007		<0.0004	0.024	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0011	0.01	<0.01
401	07/16/2007		<0.0004	0.021	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0009	<0.01	<0.01
401	07/24/2007		<0.0004	0.026	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0014	<0.01	<0.01
401	07/31/2007		<0.0004	0.023	<0.04	<0.0001	<0.01	<0.01	0.0001	<0.0002	<0.01	0.0011	<0.01	<0.01
401	08/08/2007		<0.0004	0.022	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0009	<0.01	<0.01
401	08/15/2007		<0.0004	0.022	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0009	<0.01	<0.01
401	08/22/2007		<0.0004	0.019	<0.04	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	0.001	<0.01	<0.01
401	09/04/2007		<0.0004	0.019	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0008	<0.01	<0.01
401	10/03/2007		<0.0013	0.017	<0.02	<0.0005	<0.005	<0.01	<0.002	<0.0002	<0.01	<0.005	<0.01	<0.01
IW-1	10/18/2006		0.00219	0.0346	<0.003	<0.0002	<0.005	0.539	0.0289	0.00124		<0.005	<0.01	0.259
IW-1	02/15/2007		0.0017	0.038	<0.1	<0.0001	<0.01	<0.01	0.0002	<0.0002	0.01	0.0009	<0.01	<0.01
IW-1	04/11/2007		0.0018	0.038	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0006	<0.01	<0.01
IW-1	04/18/2007		0.0016	0.037	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0006	<0.01	<0.01
IW-1	06/06/2007		<0.0004	0.026	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0015	<0.01	<0.01
IW-1	06/13/2007		0.0018	0.035	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0006	<0.01	<0.01
IW-1	06/27/2007		0.002	0.039	<0.04	<0.0001	<0.01	<0.01	0.0003	0.0003	0.01	0.0005	<0.01	<0.01
IW-1	07/11/2007		0.0023	0.035	<0.04	0.0013	<0.01	<0.01	0.0009	<0.0002	<0.01	0.0007	<0.01	<0.01
IW-1	07/18/2007		0.0018	0.035	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0005	<0.01	<0.01
IW-1	07/23/2007		0.002	0.037	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0005	<0.01	<0.01
IW-1	08/06/2007		0.0018	0.037	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0005	<0.01	0.01
IW-1	08/13/2007		0.0021	0.035	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0006	<0.01	<0.01
IW-1	08/20/2007		0.0018	0.036	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0005	<0.01	<0.01
IW-1	09/03/2007		0.0019	0.037	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0005	<0.01	<0.01
IW-1	10/03/2007		0.0025	0.036	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0011	<0.01	<0.01
IW-1	11/05/2007		0.0019	0.039	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0006	<0.01	0.01
IW-11	04/24/2007		0.0024	<0.003	<0.1	<0.0001	<0.01	<0.01	0.0001	<0.0002	<0.01	0.0009	<0.01	0.01
IW-11	05/30/2007		<0.0004	<0.003	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0027	<0.01	<0.01
IW-11	06/18/2007		<0.0004	0.005	<0.04	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	0.0015	<0.01	<0.01

## Process Ground Water - Trace Ion Chemistry

Site	Date		Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
IW-11	06/27/2007		<0.0004	<0.003	<0.04	<0.0001	<0.01	<0.01	0.0003	<0.0002	<0.01	0.0026	<0.01	<0.01
IW-11	07/09/2007		<0.0004	0.004	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.003	<0.01	0.01
IW-11	07/16/2007		<0.0004	<0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0024	<0.01	<0.01
IW-11	07/25/2007		<0.0004	<0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0027	<0.01	<0.01
IW-11	08/01/2007		0.0009	<0.003	<0.04	<0.0002	<0.01	<0.01	<0.0002	<0.0002	<0.01	0.0035	<0.01	0.02
IW-11	08/13/2007		0.0007	<0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0029	<0.01	<0.01
IW-11	08/20/2007		<0.0004	<0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0024	<0.01	<0.01
IW-11	09/03/2007		0.0005	0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0024	<0.01	0.02
IW-11	10/01/2007		0.0008	<0.003	<0.04	<0.0001	<0.01	<0.01	0.0003	<0.0002	<0.01	0.0024	<0.01	<0.01
IW-11	11/06/2007		0.0188	0.012	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0021	<0.01	0.02
IW-2	02/15/2007		0.0006	0.017	<0.1	<0.0001	<0.01	<0.01	0.0002	<0.0002	0.01	0.0002	<0.01	
IW-2	04/11/2007		<0.0004	0.011	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
IW-2	04/18/2007		<0.0004	0.012	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
IW-2	06/06/2007		<0.0004	0.03	<0.5	<0.0001	<0.05	<0.05	<0.0001	<0.0002	<0.05	0.0015	<0.05	0.22
IW-2	06/13/2007		0.0005	0.01	<0.04	<0.0001	<0.01	<0.01	0.0001	0.0003	<0.01	0.0001	<0.01	<0.01
IW-2	06/27/2007		<0.0004	0.012	<0.04	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	<0.0001	<0.01	<0.01
IW-2	07/11/2007		0.0004	0.008	<0.04	0.0005	<0.01	<0.01	0.0003	<0.0002	<0.01	<0.0001	<0.01	<0.01
IW-2	07/18/2007		<0.0004	0.009	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0001	<0.01	<0.01
IW-2	07/23/2007		0.0006	0.014	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
IW-2	08/06/2007		<0.0004	0.012	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
IW-2	08/13/2007		0.0005	0.011	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0001	<0.01	<0.01
IW-2	08/20/2007		0.0004	0.01	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
IW-2	09/03/2007		0.0005	0.011	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
IW-2	10/03/2007		0.0008	0.011	<0.04	<0.0001	<0.01	<0.01	<0.0001	0.0003	<0.01	0.0002	<0.01	<0.01
IW-2	11/05/2007		0.0005	0.011	<0.04	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	0.0002	<0.01	<0.01
IW-2	12/03/2007		0.0006	0.012	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0001	<0.01	<0.01
IW-3	10/19/2006		<0.0005	0.00694	<0.003	<0.0002	<0.005	<0.01	<0.002	<0.0002		<0.005	<0.01	<0.01
IW-3	02/15/2007		<0.0004	0.011	<0.1	<0.0001	<0.01	<0.01	0.0003	<0.0002	0.02	0.0001	<0.01	0.02
IW-3	04/11/2007		<0.0004	0.008	<0.1	<0.0001	<0.01	<0.01	0.0001	<0.0002	0.01	0.0001	<0.01	0.02
IW-3	06/06/2007		<0.0004	0.009	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	0.01	0.01
IW-3	06/13/2007		0.0004	0.006	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	0.01
IW-3	06/27/2007		0.0005	0.009	<0.04	<0.0001	<0.01	<0.01	0.0004	<0.0002	0.02	<0.0001	<0.01	0.05
IW-3	07/11/2007		0.0004	0.008	<0.04	0.0004	<0.01	<0.01	0.0002	<0.0002	<0.01	<0.0001	<0.01	0.01

## Process Ground Water - Trace Ion Chemistry

Site	Date		Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
IW-3	07/18/2007		<0.0004	0.005	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	0.01
IW-3	07/23/2007		0.0005	0.011	0.04	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	<0.0001	<0.01	0.01
IW-3	08/06/2007		<0.0004	0.007	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
IW-3	08/13/2007		0.0007	0.008	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	0.02
IW-3	08/20/2007		0.0006	0.007	<0.04	<0.0001	0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	0.01
IW-3	09/03/2007		0.0004	0.007	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	0.01
IW-3	10/03/2007		0.0007	0.007	<0.04	0.0001	<0.01	<0.01	0.0002	<0.0002	0.01	0.0005	<0.01	0.02
IW-3	12/03/2007		0.0019	0.038	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0006	<0.01	<0.01
IW-4	11/01/2006		<0.0005	0.000694	<0.003	<0.0002	0.0166	<0.01	<0.002	<0.0002		<0.005	<0.01	<0.01
IW-4	02/15/2007		<0.0004	0.004	<0.1	<0.0001	<0.01	<0.01	0.0002	<0.0002		0.0005	<0.01	<0.01
IW-4	04/11/2007		0.0011	0.004	<0.1	0.0002	<0.01	<0.01	0.0001	<0.0002	<0.01	0.0044	<0.01	<0.01
IW-4	04/18/2007		0.0009	0.003	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0039	<0.01	<0.01
IW-4	06/13/2007		0.0007	<0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0034	<0.01	<0.01
IW-4	06/20/2007		0.0009	<0.003	<0.2	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0038	<0.01	<0.01
IW-4	06/27/2007		0.0009	<0.003	<0.04	<0.0001	<0.01	<0.01	0.0004	<0.0002	<0.01	0.0032	<0.01	<0.01
IW-4	07/11/2007		0.0008	<0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0038	<0.01	<0.01
IW-4	07/18/2007		0.0007	<0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	0.0002	<0.01	0.0027	<0.01	<0.01
IW-4	07/23/2007		0.0008	0.01	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0027	<0.01	<0.01
IW-4	08/06/2007		0.0007	0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0025	<0.01	<0.01
IW-4	08/13/2007		0.0008	0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0027	<0.01	<0.01
IW-4	08/20/2007		0.0007	<0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0023	<0.01	<0.01
IW-4	09/03/2007		0.0007	<0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0025	<0.01	<0.01
IW-4	10/03/2007		0.0009	<0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0023	<0.01	<0.01
IW-4	11/05/2007		0.0006	0.006	<0.04	<0.0001	<0.01	<0.01	0.0008	<0.0002	<0.01	0.0028	<0.01	<0.01
IW-5	10/19/2006		0.00665	0.033	<0.003	<0.0002	<0.005	<0.01	<0.002	<0.0002		<0.005	<0.01	<0.01
IW-5	02/15/2007		0.0087	0.037	<0.1	<0.0001	<0.01	<0.01	0.0002	<0.0002		0.0011	<0.01	<0.01
IW-5	04/11/2007		0.009	0.035	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.03	0.0012	<0.01	<0.01
IW-5	04/18/2007		0.008	0.036	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.03	0.001	<0.01	<0.01
IW-5	06/20/2007		0.0092	0.033	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.02	0.0011	<0.01	<0.01
IW-5	06/27/2007		0.0097	0.033	<0.04	<0.0001	<0.01	<0.01	0.0005	<0.0002	0.02	0.0011	<0.01	<0.01
IW-5	07/11/2007		0.0101	0.034	<0.04	<0.0001	<0.01	<0.01	0.0006	<0.0002	0.02	0.0011	<0.01	<0.01
IW-5	07/18/2007		0.0005	0.034	<0.04	<0.0001	<0.01	<0.01	0.0013	<0.0002	<0.01	0.0003	<0.01	<0.01
IW-5	07/23/2007		0.0095	0.038	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.03	0.0009	<0.01	0.01

## Process Ground Water - Trace Ion Chemistry

Site	Date		Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
IW-5	08/06/2007		0.0083	0.031	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.03	0.001	<0.01	<0.01
IW-5	08/13/2007		0.0102	0.031	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.03	0.0011	<0.01	<0.01
IW-5	08/20/2007		0.0088	0.029	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.02	0.0009	<0.01	<0.01
IW-5	09/03/2007		0.0088	0.031	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.03	0.0011	<0.01	<0.01
IW-5	10/03/2007		0.0091	0.03	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0009	<0.01	<0.01
IW-5	11/05/2007		0.0087	0.031	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0011	<0.01	<0.01
IW-5	12/03/2007		0.0094	0.03	<0.04	<0.0001	<0.01	<0.01	0.0002	<0.0002	0.02	0.001	<0.01	<0.01
IW-6	10/30/2006		<0.0005	0.0141	<0.003	<0.0002	0.0212	<0.01	<0.002	<0.0002		<0.005	<0.01	0.0333
IW-6	02/15/2007		0.0005	0.013	<0.1	<0.0001	<0.01	<0.01	0.0002	<0.0002	0.03	0.0001	<0.01	0.05
IW-6	04/11/2007		0.0005	0.007	<0.1	<0.0001	<0.01	<0.01	<0.0001	0.0002	0.02	0.0001	<0.01	<0.01
IW-6	04/18/2007		0.0005	0.008	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.02	0.0001	<0.01	0.01
IW-6	04/25/2007		0.0004	0.007	<0.1	<0.0001	<0.01	<0.01	0.0005	<0.0002	0.02	<0.0001	<0.01	<0.01
IW-6	06/20/2007		0.0006	0.009	<0.2	<0.0001	<0.01	<0.01	0.0001	<0.0002	0.02	<0.0001	<0.01	<0.01
IW-6	06/27/2007		0.0006	0.008	<0.04	<0.0001	<0.01	<0.01	0.0003	0.0002	0.02	<0.0001	<0.01	<0.01
IW-6	07/11/2007		0.0007	0.007	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.01	<0.0001	<0.01	0.01
IW-6	07/18/2007		<0.0004	0.007	0.06	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
IW-6	07/23/2007		0.0006	0.018	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.02	<0.0001	<0.01	<0.01
IW-6	08/06/2007		0.0005	0.007	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.02	<0.0001	<0.01	<0.01
IW-6	08/13/2007		0.0007	0.008	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.01	0.0001	<0.01	<0.01
IW-6	08/20/2007		0.0006	0.008	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.01	<0.0001	<0.01	<0.01
IW-6	09/03/2007		0.0006	0.008	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.01	<0.0001	<0.01	<0.01
IW-6	10/03/2007		0.0006	0.008	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.02	<0.0001	<0.01	<0.01
IW-6	11/05/2007		0.0005	0.008	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
IW-6	12/03/2007		0.0005	0.008	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.01	<0.0001	<0.01	<0.01
IW-7	02/15/2007		<0.0004	0.006	<0.1	<0.0001	<0.01	<0.01	0.0003	<0.0002	<0.01	<0.0001	<0.01	<0.01
IW-7	04/18/2007		<0.0004	0.005	<0.1	<0.0001	<0.01	<0.01	0.0001	<0.0002	<0.01	0.0005	<0.01	<0.01
IW-7	04/25/2007		<0.0004	0.004	<0.1	<0.0001	<0.01	<0.01	0.0006	0.0002	<0.01	0.0005	<0.01	0.01
IW-7	06/27/2007		<0.0004	0.007	<0.04	<0.0001	<0.01	<0.01	0.0004	<0.0002	<0.01	0.0007	<0.01	<0.01
IW-7	07/11/2007		<0.0004	0.007	<0.04	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	0.0007	<0.01	<0.01
IW-7	07/18/2007		<0.0004	0.007	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0003	<0.01	<0.01
IW-7	07/23/2007		<0.0004	0.014	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0007	<0.01	<0.01
IW-7	08/13/2007		<0.0004	0.007	<0.04	<0.0001	<0.01	<0.01	0.0001	<0.0002	<0.01	0.0008	<0.01	<0.01
IW-7	08/20/2007		<0.0004	0.006	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0006	<0.01	<0.01

## Process Ground Water - Trace Ion Chemistry

Site	Date		Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
IW-7	09/03/2007		<0.0004	0.007	<0.04	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	0.0006	<0.01	<0.01
IW-7	10/03/2007		<0.0004	0.007	<0.04	<0.0001	<0.01	<0.01	0.0001	0.0002	<0.01	0.0006	<0.01	0.01
IW-7	11/05/2007		<0.0004	0.008	<0.04	<0.0001	<0.01	<0.01	0.0003	<0.0002	<0.01	0.0005	<0.01	<0.01
IW-8	04/11/2007		<0.0004	0.008	<0.1	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	0.0016	<0.01	<0.01
IW-8	04/25/2007		<0.0004	0.006	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0018	<0.01	<0.01
IW-8	05/30/2007		<0.0004	0.008	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0014	<0.01	<0.01
IW-8	06/26/2007		<0.0004	0.006	<0.04	<0.0001	<0.01	<0.01	0.0004	<0.0002	<0.01	0.0016	<0.01	<0.01
IW-8	07/09/2007		<0.0004	0.006	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0018	<0.01	<0.01
IW-8	07/16/2007		<0.0004	0.005	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0015	<0.01	<0.01
IW-8	07/25/2007		<0.0004	0.006	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0018	<0.01	<0.01
IW-8	08/13/2007		<0.0004	0.006	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0017	<0.01	<0.01
IW-8	08/20/2007		<0.0004	0.005	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0015	<0.01	<0.01
IW-8	09/03/2007		<0.0004	0.005	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0014	<0.01	<0.01
IW-8	10/01/2007		<0.0004	0.004	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0014	<0.01	<0.01
IW-8	10/01/2007		<0.0013	<0.005	<0.02	<0.0005	<0.005	<0.01	<0.002	<0.0002		<0.005	<0.01	<0.01
IW-8	11/05/2007		<0.0004	0.005	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0014	<0.01	0.01



# COMPLIANCE GROUNDWATER NON-PROCESS WATER QUALITY DATA

FAIRBANKS GOLD MINING, INC.  
FORT KNOX MINE



### Non-Process Ground Water - Major Ion Chemistry

Site	Date	Bic Alk	Tot Alk	Ca	Cl	Ca Hard	Mg Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	S	Temp. (C)	TDS	TSS	Tur
MW-1	10/18/2006	351	351	148	7.1	369.556	99	24	7.25	3.79	10.4	20.3	731	100	<0.05	<15.5	595	3.2	
MW-1	03/15/2007		360	139	9	332.101	93.4332	22.2	7.8	3.9	23.2	21	929	100	0.02		1	<5	1.9
MW-1	05/14/2007		247	137	20	357.071	92.61	21.9	7.7	6.4	18.7	30.9	830	200	<0.02	5.7	590	<5	1.1
MW-1	07/17/2007		336	148	13	360	93	23.7	7.9	5.4	20.4	25.4	950	140	0.02	7.1	640	<5	3.2
MW-1	11/05/2007		332	148		360	93	23.7	7.9	5.5		25.7	952	130	0.04		610	<5	5.6
MW-2	10/30/2006	49.7	49.7	186	<2.5	464.442	128	31.2	6.24	3.77	11.9	27.4	1020	549	<0.05	<14.9	850	12	
MW-2	03/14/2007		151	95.1	4	209.4983	58.0356	15	7.6	2.8	25.1	24	709	170	0.08	4.2	440	12	27.5
MW-2	05/14/2007		207	68.1	3	170.2954	46.9224	8.9	7.8	2.1	24.6	22.3	419	40	0.1	6.8	280	120	231
MW-2	08/29/2007		226	73.9	3	183	39	9.4	8.1	2.4	23.7	22.5	507	17	0.07		300	14	35.8
MW-2	08/29/2007															7.9			
MW-2	11/05/2007		208	69.7		172	37	8.9	8.1	2.2		21.7	500	40	0.04		320	<5	22.2
MW-3	11/01/2006	128	128		13.3	269.676	49		7.76				662	235	<0.05		591	12.4	
MW-3	05/14/2007		124	118	22	292.149	51.45	12.8	7.9	1.3	13.3	33.2	710	250	<0.02	3.6	530	<5	0.6
MW-3	09/26/2007		115	104	21	265	48	11.5	8	1.3	13.5	31	716	210	<0.02	5.2	460	<5	0.5
MW-5	11/07/2006	358	358	95.6	<2.5	238.7132	46	11.1	7	1.98	10.9	26.6	522	<3.8	0.07	<15.6	385	2.4	
MW-5	03/14/2007		348	92.7	1	282.161	45.276		7.8	1.8	25.3	25.9	610	<10	0.1		390	<5	
MW-5	04/11/2007		422	126	2			14.7	7.6	1.5	28.3	22	799	<10	0.05		490	6	19.3
MW-5	04/18/2007		425	125	1			14.6	8	2.1	29.1	24.6	693	<10	0.05		440	<5	14.7
MW-5	05/16/2007		357	110	1			12.7	7.9	1.5	27.1	25.2	664	<10	0.08		420	<5	9.6
MW-5	06/20/2007		412	132	2			15.7	7.8	1.8	27	23.9	764	<10	0.06		480	<5	16.5
MW-5	06/26/2007		396	118	2			13.9	7.7	1.7	31.5	23.9	702	<10	0.09		450	16	13
MW-5	07/04/2007		403	122	2			13.4	7.9	1.5	28.7	25	711	<10	0.05		450	<5	13.5
MW-5	07/10/2007		422	124	2			14.5	8	1.8	29.4	23.2	740	<10	0.05		480	12	16.4
MW-5	07/17/2007		408	123	2			14.2	7.7	2.1	27.2	24.4	744	20	0.06	9.9	470	<5	14.5
MW-5	07/25/2007		412	118	1	308	59	13.3	7.8	1.7	27.7	21.6	761	20	0.07		460	6	15.7
MW-5	08/01/2007		401	121	2	310	59	14	7.8	1.6	28.3	22.3	721	<10	<0.02		460	16	26.1
MW-5	08/06/2007		89	49.1	9	132	37	8.6	7.8	1.6	10.7	4	331	45	<0.02		210	<5	<0.1
MW-5	08/07/2007		403	128	2	315	62	14.2	7.8	1.8	28.8	22.5	708	<1	0.07		450	6	25.4
MW-5	08/14/2007		403	126	1	323	61	14.9	7.7	1.6	31.1	21.5	750	6	0.03		470	<5	26.8
MW-5	08/21/2007		397	127	1	290	56	14.7	7.9	1.7	30.9	22.5	709	<1	0.06		450	<5	22.6
MW-5	09/05/2007		405		<1				7.7				704	<1			450	<5	16
MW-5	09/05/2007		397	118	2	303	58	13.9	7.7	1.6	31	23.2	723	1	0.05		430	10	13.2
MW-5	10/01/2007		406	120	<1	288	56	14.2	8.1	1.6	12.5	22.4	689	<1	<0.5		470	<5	19.3
MW-5	11/06/2007		381	115		300	57	13.7	7.9	1.7	30.2	22	725	<1	0.09	4.6	440	<5	18.5
MW-5	12/05/2007		404		<1				7.9		13.7		716	<1	<0.5		440	<5	22.3
MW-6	11/07/2006	520	520	145	<2.5	362.065	107.8392	26.2	7.02	1.91	12.7	19.7	756	12.8	0.083	<16.3	533	48.4	
MW-6	01/31/2007		517	152	2	354.574	117.306		8	2	31.1	20.7	847	10	<0.02		540	<5	3.8
MW-6	04/11/2007		505	145	1			27	7.8	1.6	31.4	20.6	958	10	0.05		530	6	3.5
MW-6	04/18/2007		542	154	<1			28.3	8.1	2.1	32.2	21.3	895	<10	0.05		540	<5	2.7
MW-6	05/16/2007		467	142	1			25.9	8	1.6	30.7	20.4	862	<10	0.05		540	6	2.8
MW-6	06/20/2007		491	148	2			27.3	8	1.9	30.1	21.6	905	<10	0.05		530	<5	2.6
MW-6	06/26/2007		487	141	1			25.4	7.9	1.8	34.7	20	862	10	0.11		520	<5	3.5
MW-6	07/04/2007		495	142	2			24.6	8.1	1.5	31.6	21	857	<10	0.06		520	<5	3
MW-6	07/10/2007		492	142	2			25.2	8.1	1.8	32.3	20.8	863	<10	0.07		540	<5	4.6
MW-6	07/17/2007		490	141	2			25.2	7.9	2	30.3	20.3	892	10	0.06		510	<5	3.9

### Non-Process Ground Water - Major Ion Chemistry

Site	Date	Bic Alk	Tot Alk	Ca	Cl	Ca Hard	Mg Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	S	Temp. (C)	TDS	TSS	Tur
MW-6	07/25/2007		489	136	1	350	103	23.6	7.9	2.1	30.7	19.4	885	10	0.05		500	<5	4.1
MW-6	08/01/2007		472	139	2	355	104	24.4	7.9	1.7	31.3	19.9	852	<10	<0.02		510	6	3.5
MW-6	08/06/2007		44	51.5	17	134	49	11.7	7.7	1.6	11.8	7.8	408	80	<0.02		270	<5	0.3
MW-6	08/07/2007		477	147	2	358	106	25.1	7.9	1.9	32.5	20.4	843	6	0.09		490	<5	13.9
MW-6	08/14/2007		470	139	2	353	101	24.4	7.9	1.7	34	19.5	873	8	0.03		510	<5	4.3
MW-6	08/21/2007		473	145	1	338	97	25.6	8	1.7	33.8	19.9	846	6	0.06		510	<5	2.5
MW-6	09/05/2007		482	140	2	343	98	24.8	7.9	1.7	34.7	20.2	874	<1	0.04		490	<5	3
MW-6	10/01/2007		490	141	<1	343	99	25.1	8	1.7	13.9	20.6	832	6	<0.5		530	<5	4.9
MW-6	11/06/2007		463	138		358	102	24.4	8.1	1.7	34	20	884	5	0.09	3	510	<5	3.6
MW-6	12/05/2007		486		<1				8.1		14.8		846	5	<0.5		540	<5	4.3
MW-7	11/02/2006	79.8	79.8		<2.5	32.9604	3.329844		8.58				187	14.5	<0.05	<15.8	134	<1	
MW-7	01/31/2007		91	14.8	1	34.958	3.2928		8.6	1	14.5	34.9	204	<10	<0.02		150	<5	<0.1
MW-7	04/11/2007		98	15.1	<1			0.9	8.6	1	14.3	34.6	257	10	<0.02		130	<5	<0.1
MW-7	04/26/2007		90	14.5	<1			0.8	8.6	1	14.4	35	227	10	<0.02		150	<5	0.1
MW-7	05/16/2007		96	15.6	<1			0.8	8.5	0.8	14.6	36.4	224	20	<0.02		130	<5	<0.1
MW-7	06/20/2007		98	16.6	<1			1	8.7	1.2	14.1	38.8	241	20	<0.02		160	<5	0.2
MW-7	06/26/2007		98	15.4	1			0.9	8.8	1	15.7	35.3	229	20	0.02		130	<5	0.3
MW-7	07/04/2007		99	16.6	1			0.9	8.7	0.4	14.5	37.6	229	20	<0.02		150	<5	0.3
MW-7	07/10/2007		99	15.5	1			0.9	8.6	1.1	14.7	36.3	228	20	<0.02		100	<5	0.6
MW-7	07/17/2007		102	16.5	1			0.8	8.7	1.3	13.8	36.5	236	20	<0.02		150	<5	<0.1
MW-7	07/25/2007		101	16.2	<1	41	4	0.8	8.7	0.9	13.8	34.8	238	910	<0.02		140	<5	0.4
MW-7	08/02/2007		99	15.5	<1	41	3	0.8	8.7	0.9	14.3	36.7	232	20	<0.02		150	<5	<0.1
MW-7	08/06/2007		40	36.1	26	98	85	18.2	7.7	3.8	12.6	50.6	576	130	<0.02		400	192	263
MW-7	08/07/2007		99	17.1	1	41	4	0.9	8.6	1	14.7	36.2	229	16	<0.02		140	8	0.1
MW-7	08/14/2007		97	15.3	<1	40	4	0.9	8.7	1.1	15.5	34.9	234	17	<0.02		150	<5	<0.1
MW-7	08/22/2007		97	16	<1	38	3	0.9	8.7	1	15.5	34.6	233	17	<0.02		150	<5	<0.1
MW-7	09/05/2007		99		<1				8.3				231	16			160	<5	<0.1
MW-7	09/05/2007		98	15.2	1	42	3	0.9	8.7	1	15.8	35.5	236	<1	<0.02		130	<5	<0.1
MW-7	10/01/2007		101	15.7	<1	39	4	0.9	8.7	1	6.6	36.7	228	15	<0.5		150	<5	0.2
MW-7	11/07/2007		96	15.9		39	4	0.8	8.6	1	14.9	34.5	236	16	<0.02	7	160	<5	1.8
MW-7	12/05/2007		104		<1				8.7		6.8		235	15	<0.5		140	<5	0.1
MW-8	04/16/2007		68	27.4	<1	80.9028	23.8728	4	8	1.1	7	5.8	186	30	0.06		100	228	
MW-8	05/16/2007		66	26.1	<1			3.6	8.3	0.7	8.8	5.3	201	30	<0.02		120	<5	3.4
MW-8	06/11/2007		71	30.4	2			4.1	8.3	1	9.7	6	204	30	<0.02		120	<5	1.2
MW-8	06/26/2007		69	29.2	<1			4	8.2	1.1	11	5.8	208	70	<0.02		120	<5	1.1
MW-8	07/04/2007		70	31	1			4	8.3	0.5	10.4	6.7	205	30	<0.02		120	<5	1.1
MW-8	07/10/2007		70	29	1			4	8.3	1.2	10.3	6	206	30	<0.02		130	6	2
MW-8	07/17/2007		70	32	<1			4.2	8.3	1.5	9.9	6.3	215	30	<0.02	11.4	140	<5	0.9

## Non-Process Ground Water - Minor Ion Chemistry

Site	Date	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
MW-1	10/18/2006	0.0889	<0.001	0.005	<1	1.16	0.586	<1			<5.3	<0.004
MW-1	03/15/2007	<0.05	<0.0005	<0.005	0.3	0.04	0.571	0.76	0.02	<0.01	<0.09	<0.005
MW-1	05/14/2007	0.09	<0.0005	<0.005	<0.1	0.39	0.488	1.36	0.04	<0.01	<0.09	<0.005
MW-1	07/17/2007	0.09	0.0012	<0.005	<0.1	0.39	0.588	1.44	0.03	<0.01	<0.09	<0.005
MW-1	11/05/2007	<0.05	<0.0005	0.116		1.09	0.581	2.08	0.03			<0.005
MW-2	10/30/2006	<0.05	<0.001	<0.0016	<1	9.78	1.53	<1			<5.3	<0.004
MW-2	03/14/2007	<0.05	0.0008	<0.005	<0.1	12.5	0.801	<0.02	0.02	<0.01	<0.1	<0.005
MW-2	05/14/2007	<0.05	0.001	<0.005	0.3	1.45	0.703	<0.02	<0.01	0.15	<0.09	<0.005
MW-2	08/29/2007	<0.05	0.0013	<0.005	<0.1	0.6	0.647	<0.02	<0.01	0.03	<0.09	<0.005
MW-2	11/05/2007	<0.05	0.0015	<0.005		2.65	0.595	<0.02	<0.01			<0.005
MW-3	11/01/2006	<0.05		<0.004	<1			<1			<5.3	<0.004
MW-3	05/14/2007	<0.05	0.0024	<0.005	0.1	0.09	0.529	<0.02	<0.01	<0.01	<0.09	<0.005
MW-3	09/26/2007	<0.05	0.0022	<0.005	0.1	0.1	0.446	<0.02	<0.01	<0.01	0.11	<0.005
MW-5	11/07/2006	0.102		<0.004	<1	4.5	0.978	<1			<5.3	<0.004
MW-5	03/14/2007	0.1	<0.0005	<0.005	0.5	4.62	0.978			0.02	<0.1	<0.005
MW-5	04/11/2007	<0.05	0.0006	<0.005	<0.1	7.92	1.39	<0.02	<0.01	<0.01	0.1	<0.005
MW-5	04/18/2007	<0.05	<0.0005	<0.005	<0.1	7.3	1.38	<0.02	<0.01	0.02	<0.1	<0.005
MW-5	05/16/2007	<0.05	0.0006	<0.005	<0.1	6.03	1.17	<0.02	0.02	0.01	<0.1	<0.005
MW-5	06/20/2007	0.16	0.001	<0.005	<0.1	8.46	1.49	1.39	<0.01	0.03	<0.1	<0.005
MW-5	06/26/2007	0.18	0.0007	<0.005	0.1	7.15	1.32	<0.02	<0.01	0.03	0.1	<0.005
MW-5	07/04/2007	0.1	0.0031	<0.005	<0.1	7.23	0.707	<0.02	<0.01	0.03	0.2	<0.005
MW-5	07/10/2007	0.14	<0.0005	<0.005	<0.1	7.89	1.4	<0.02	<0.01	<0.01	0.2	<0.005
MW-5	07/17/2007	<0.05	<0.003	<0.005	<0.1	7.8	1.38	<0.02	<0.01	0.03	0.2	<0.005
MW-5	07/25/2007	0.08	<0.0005	<0.005	<0.1	7.3	1.3	<0.02	<0.01	0.04	<0.1	<0.005
MW-5	08/01/2007	<0.05	0.0007	<0.005	<0.1	7.69	1.33	<0.02	<0.01	<0.01	0.1	<0.005
MW-5	08/06/2007	<0.05	<0.0005	0.013	<0.1	0.03	0.005	3.87	<0.01	<0.01	<0.1	0.015
MW-5	08/07/2007	<0.05	<0.0005	<0.005	<0.1	7.89	1.34	0.02	0.01	0.02	0.1	<0.005
MW-5	08/14/2007	0.43	<0.0005	0.007	<0.1	8.17	1.43	<0.02	<0.01	0.02	<0.1	0.011
MW-5	08/21/2007	<0.05	0.0006	<0.005	<0.1	7.97	1.37	<0.02	<0.01	0.03	<0.1	<0.005
MW-5	09/05/2007	0.2		<0.005	<0.1					<0.05		<0.005
MW-5	09/05/2007	<0.05	<0.0005	<0.005	<0.1	8.29	1.36	<0.02	<0.01	0.02	0.1	<0.005

## Non-Process Ground Water - Minor Ion Chemistry

Site	Date		NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
MW-5	10/01/2007		0.2	<0.005	<0.005	<0.1	7.81	1.29	<0.02	<0.01	<0.05	<5	<0.005
MW-5	11/06/2007		<0.05	0.0006	<0.005		8.57	1.37	<0.02	<0.01			<0.005
MW-5	12/05/2007		0.1	<0.005	<0.005	<0.1	8.77	1.42			<0.05		<0.005
MW-6	11/07/2006		0.0619	<0.001	<0.004	<1	1.65	0.854	<1			<5.3	<0.004
MW-6	01/31/2007		<0.05	0.0005	<0.005	<0.1	1.09	0.651	0.06	<0.01		<0.1	<0.005
MW-6	04/11/2007		<0.05	<0.0005	<0.005	<0.1	0.71	0.654	<0.02	<0.01	<0.01	0.1	<0.005
MW-6	04/18/2007		<0.05	<0.0005	<0.005	<0.1	0.67	0.676	<0.02	<0.01	<0.01	<0.1	<0.005
MW-6	05/16/2007		<0.05	0.0005	<0.005	<0.1	0.64	0.62	<0.02	<0.01	<0.01	<0.1	<0.005
MW-6	06/20/2007		0.06	0.0005	<0.005	<0.1	0.7	0.711	<0.02	<0.01	<0.01	<0.09	<0.005
MW-6	06/26/2007		0.08	0.0005	<0.005	<0.1	0.65	0.683	<0.02	<0.01	0.01	0.12	<0.005
MW-6	07/04/2007		<0.05	<0.0005	<0.005	<0.1	0.66	0.732	<0.02	<0.01	0.03	0.1	<0.005
MW-6	07/10/2007		<0.05	<0.0005	<0.005	<0.1	0.64	0.689	<0.02	<0.01	<0.01	0.2	<0.005
MW-6	07/17/2007		<0.05	<0.003	<0.005	<0.1	0.62	0.695	<0.02	<0.01	0.03	0.2	<0.005
MW-6	07/25/2007		<0.05	<0.0005	<0.005	<0.1	0.59	0.663	<0.02	<0.01	0.02	<0.1	<0.005
MW-6	08/01/2007		<0.05	<0.0005	<0.005	<0.1	0.61	0.687	<0.02	<0.01	<0.01	0.1	<0.005
MW-6	08/06/2007		<0.05	<0.0005	0.235	<0.1	0.1	0.011	8.63	<0.01	0.01	<0.1	0.091
MW-6	08/07/2007		<0.05	<0.0005	<0.005	<0.1	0.65	0.7	<0.02	<0.01	<0.01	0.1	<0.005
MW-6	08/14/2007		0.33	<0.0005	<0.005	<0.1	0.63	0.711	<0.02	<0.01	<0.01	<0.1	<0.005
MW-6	08/21/2007		<0.05	<0.0005	<0.005	<0.1	0.66	0.701	<0.02	<0.01	0.01	<0.1	<0.005
MW-6	09/05/2007		<0.1		<0.005						<0.05	<1	<0.005
MW-6	09/05/2007		<0.05	<0.0005	<0.005	<0.1	0.7	0.715	<0.02	<0.01	<0.01	0.1	<0.005
MW-6	10/01/2007		<0.1	<0.005	<0.005	<0.1	0.74	0.669	<0.02	<0.01	<0.05	<5	<0.005
MW-6	11/06/2007		<0.05	<0.0005	<0.005		0.72	0.714	<0.02	<0.01			<0.005
MW-6	12/05/2007		<0.1	<0.005	<0.005	<0.1	0.15	0.701			<0.05		<0.005
MW-7	11/02/2006		<0.05		<0.004	<1			<1			<5.3	<0.004
MW-7	01/31/2007		<0.05	0.0015	<0.005	0.8	0.03	0.046	<0.02	<0.01	0.02	<0.1	<0.005
MW-7	04/11/2007		<0.05	0.0015	<0.005	0.7	0.08	0.05	<0.02	<0.01	<0.01	<0.2	<0.005
MW-7	04/26/2007		<0.05	0.0014	<0.005	0.7	0.05	0.044	<0.02	<0.01	0.03	<0.1	<0.005
MW-7	05/16/2007		<0.05	0.0016	<0.005	0.7	<0.02	0.039	<0.02	<0.01	0.01	<0.1	<0.005
MW-7	06/20/2007		0.08	0.0016	<0.005	0.7	<0.02	0.044	<0.02	<0.01	0.01	<0.1	<0.005
MW-7	06/26/2007		0.09	0.0015	<0.005	0.8	<0.02	0.04	<0.02	<0.01	0.04	0.1	<0.005

## Non-Process Ground Water - Minor Ion Chemistry

Site	Date		NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
MW-7	07/04/2007		<0.05	0.0007	<0.005	0.7	0.04	0.047	<0.02	<0.01	0.04	0.1	<0.005
MW-7	07/10/2007		<0.05	0.0007	<0.005	0.7	0.02	0.041	<0.02	<0.01	<0.01	0.2	<0.005
MW-7	07/17/2007		<0.05	0.0014	<0.005	0.8	<0.02	0.037	<0.02	<0.01	0.04	0.2	<0.005
MW-7	07/25/2007		<0.05	0.0012	<0.005	0.8	<0.02	0.035	<0.02	<0.01	0.05	<0.1	<0.005
MW-7	08/02/2007		<0.05	0.0015	<0.005	0.8	<0.02	0.038	<0.02	<0.01	<0.01	<0.1	<0.005
MW-7	08/06/2007		<0.05	0.0012	0.174	0.1	0.13	0.068	13	<0.01	0.14	<0.1	0.04
MW-7	08/07/2007		<0.05	0.0011	<0.005	0.7	<0.02	0.039	<0.02	<0.01	<0.01	0.1	<0.005
MW-7	08/14/2007		0.36	0.0014	<0.005	0.5	<0.02	0.04	<0.02	<0.01	0.02	<0.1	<0.005
MW-7	08/22/2007		<0.05	0.0015	<0.005	0.8	<0.02	0.04	<0.02	<0.01	0.02	<0.1	<0.005
MW-7	09/05/2007		<0.1		<0.005	0.8					<0.05	<1	<0.005
MW-7	09/05/2007		<0.05	0.0011	<0.005	0.8	<0.02	0.04	<0.02	<0.01	0.02	<0.09	<0.005
MW-7	10/01/2007		<0.1	<0.005	<0.005	0.8	<0.05	0.037	<0.02	<0.01	<0.05	<5	0.007
MW-7	11/07/2007		<0.05	0.0011	<0.005		<0.02	0.04	<0.02	<0.01			<0.005
MW-7	12/05/2007		<0.1	<0.005	<0.005	1.2	<0.05	0.03			<0.05		<0.005
MW-8	04/16/2007		<0.05	<0.0005	<0.005	0.2	0.06	0.117			0.1	1.7	<0.005
MW-8	05/16/2007		<0.05	0.0029	<0.005	0.1	0.63	0.131	<0.02	<0.01	<0.01	<0.1	<0.005
MW-8	06/11/2007		<0.05	0.0021	<0.005	0.3	0.06	0.151	0.13	<0.01	<0.01	<0.1	<0.005
MW-8	06/26/2007		0.09	0.0019	<0.005	0.2	<0.02	0.155	<0.02	<0.01	0.01	0.1	<0.005
MW-8	07/04/2007		<0.05	0.0018	<0.005	0.2	0.48	0.164	0.1	<0.01	0.03	0.1	<0.005
MW-8	07/10/2007		<0.05	0.0014	<0.005	0.1	<0.02	0.155	<0.02	<0.01	<0.01	0.3	<0.005
MW-8	07/17/2007		<0.05	0.0025	<0.005	0.1	0.17	0.16	<0.02	<0.01	0.04	0.2	<0.005

## Non-Process Ground Water - Trace Ion Chemistry

Site	Date		Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
MW-1	10/18/2006		0.00153	0.0155	<0.003	<0.0002	<0.005	<0.01	<0.002	<0.0002		<0.005	<0.01	0.0183
MW-1	03/15/2007		0.0022	0.018	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.02	0.0001	<0.01	0.01
MW-1	05/14/2007		0.0055	0.022	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.06	0.0002	<0.01	0.08
MW-1	07/17/2007		<0.0004	0.017	<0.04	<0.0001	<0.01	<0.01	0.0007	<0.0002	0.02	0.0007	<0.01	0.02
MW-1	11/05/2007		0.0042	0.023	<0.04	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	0.0003	<0.01	0.04
MW-2	10/30/2006		<0.0005	0.0175	<0.003	0.000217	0.0206	<0.01	<0.002	<0.0002		<0.005	<0.01	3.02
MW-2	03/14/2007		<0.0004	0.008	<0.1	<0.0001	0.01	<0.01	<0.0001	<0.0002		<0.0001	<0.01	1.54
MW-2	05/14/2007		<0.0004	0.037	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	0.01	<0.0001	<0.01	0.45
MW-2	08/29/2007		<0.0004	0.02	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	0.38
MW-2	11/05/2007		<0.0004	0.015	<0.04	<0.0001	<0.01	<0.01	0.0001	<0.0002	<0.01	<0.0001	<0.01	0.39
MW-3	05/14/2007		0.0005	0.009	<0.1	<0.0001	<0.01	<0.01	0.0003	<0.0002	<0.01	0.0002	<0.01	0.02
MW-3	09/26/2007		<0.0004	0.008	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0003	<0.01	0.02
MW-5	11/07/2006		<0.0005	0.031	<0.003	<0.0002	<0.005	<0.01	<0.002	<0.0002		<0.005	<0.01	
MW-5	03/14/2007		<0.0004	0.029	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0002	<0.01	<0.01
MW-5	04/11/2007		<0.0004	0.048	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0001	<0.01	<0.01
MW-5	04/18/2007		<0.0004	0.043	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0001	<0.01	<0.01
MW-5	05/16/2007		<0.0004	0.034	<0.1	<0.0001	<0.01	<0.01	0.0002	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-5	06/20/2007		<0.0004	0.048	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0001	<0.01	0.02
MW-5	06/26/2007		<0.0004	0.043	<0.04	<0.0001	<0.01	<0.01	0.0003	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-5	07/04/2007		<0.0004	0.023	<0.04	<0.0001	<0.01	<0.02	<0.0001	0.0002	<0.02	0.0001	<0.02	<0.01
MW-5	07/10/2007		<0.0004	0.042	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0002	<0.01	<0.01
MW-5	07/17/2007		<0.002	0.044	<0.04	<0.0005	<0.01	<0.01	<0.0005	<0.0002	<0.01	<0.0005	<0.01	<0.01
MW-5	07/25/2007		<0.0004	0.043	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-5	08/01/2007		<0.0004	0.04	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-5	08/06/2007		<0.0004	0.008	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0006	<0.01	<0.01
MW-5	08/07/2007		<0.0004	0.042	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	0.02	<0.01
MW-5	08/14/2007		<0.0004	0.045	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0002	<0.01	<0.01
MW-5	08/21/2007		<0.0004	0.043	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-5	09/05/2007		<0.0004	0.043	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-5	10/01/2007		<0.0013	0.043	<0.02	<0.0005	<0.005	<0.01	<0.002	<0.0002	<0.01	<0.005	<0.01	<0.01
MW-5	11/06/2007		<0.0004	0.045	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-5	12/05/2007		<0.0013	0.041	<0.02	<0.0005	<0.005	<0.01	<0.002	<0.0002		<0.005	<0.01	<0.01
MW-6	11/07/2006		<0.0005	0.014	<0.003	<0.0002	<0.005	<0.01	<0.002	<0.0002		<0.005	<0.01	<0.01

## Non-Process Ground Water - Trace Ion Chemistry

Site	Date		Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
MW-6	01/31/2007		<0.0004	0.005	<0.1	<0.0001	<0.01	<0.01	0.0003	<0.0002	<0.01	0.0001	<0.01	0.02
MW-6	04/11/2007		<0.0004	0.007	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-6	04/18/2007		<0.0004	0.005	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-6	05/16/2007		<0.0004	0.003	<0.1	<0.0001	<0.01	<0.01	0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-6	06/20/2007		<0.0004	0.004	0.06	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-6	06/26/2007		<0.0004	0.004	<0.04	<0.0001	<0.01	<0.01	0.0003	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-6	07/04/2007		<0.0004	0.025	<0.04	<0.0001	0.01	0.01	0.0002	0.0004	<0.01	0.0006	<0.01	0.03
MW-6	07/10/2007		<0.0004	<0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-6	07/17/2007		<0.002	0.004	<0.04	<0.0005	<0.01	<0.01	<0.0005	<0.0002	<0.01	<0.0005	<0.01	<0.01
MW-6	07/25/2007		<0.0004	<0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-6	08/01/2007		<0.0004	<0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-6	08/06/2007		<0.0004	0.006	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0016	<0.01	<0.01
MW-6	08/07/2007		<0.0004	0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	0.0004	<0.01	<0.0001	<0.01	<0.01
MW-6	08/14/2007		<0.0004	0.004	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	0.0001	<0.01	<0.01
MW-6	08/21/2007		<0.0004	0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-6	09/05/2007		<0.0004	0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-6	10/01/2007		<0.0013	<0.005	<0.02	<0.0005	<0.005	<0.01	<0.002	<0.0002	<0.01	<0.005	<0.01	<0.01
MW-6	11/06/2007		<0.0004	0.004	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-6	12/05/2007		<0.0013	<0.005	<0.02	<0.0005	<0.005	<0.01	<0.002	<0.0002		<0.005	<0.01	<0.01
MW-7	01/31/2007		<0.0004	0.005	<0.1	<0.0001	<0.01	<0.01	0.0001	<0.0002		<0.0001	<0.01	0.02
MW-7	04/11/2007		<0.0004	0.004	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-7	04/26/2007		<0.0004	0.003	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-7	05/16/2007		<0.0004	<0.003	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-7	06/20/2007		<0.0004	0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-7	06/26/2007		<0.0004	0.003	<0.04	<0.0001	<0.01	<0.01	0.0004	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-7	07/04/2007		<0.0004	0.014	<0.04	<0.0001	<0.01	<0.01	<0.0001	0.0003	<0.01	<0.0001	<0.01	0.02
MW-7	07/10/2007		<0.0004	<0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-7	07/17/2007		<0.0004	0.006	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-7	07/25/2007		<0.0004	<0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-7	08/02/2007		<0.0004	<0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-7	08/06/2007		0.0155	0.018	<0.04	<0.0001	<0.01	<0.01	0.0003	0.0005	<0.01	0.0025	<0.01	0.02
MW-7	08/07/2007		<0.0004	0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-7	08/14/2007		<0.0004	0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01



## Non-Process Ground Water - Trace Ion Chemistry

Site	Date		Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
MW-7	08/22/2007		<0.0004	0.004	<0.04	<0.0001	<0.01	<0.01	0.0001	<0.0002	<0.01	0.0002	<0.01	<0.01
MW-7	09/05/2007		<0.0004	0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-7	10/01/2007		<0.0013	<0.005	<0.02	<0.0005	<0.005	<0.01	<0.002	<0.0002	<0.01	<0.005	<0.01	<0.01
MW-7	11/07/2007		<0.0004	0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-7	12/05/2007		<0.0013	<0.005	<0.02	<0.0005	<0.005	<0.01	<0.002	<0.0002		<0.005	<0.01	<0.01
MW-8	04/16/2007		<0.0004	<0.003	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-8	05/16/2007		0.0005	<0.003	<0.1	<0.0001	<0.01	<0.01	0.0005	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-8	06/11/2007		<0.0004	<0.003	<0.1	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-8	06/26/2007		<0.0004	<0.003	<0.04	<0.0001	<0.01	<0.01	0.0004	<0.0002	<0.01	<0.0001	<0.01	<0.01
MW-8	07/04/2007		<0.0004	0.017	<0.04	<0.0001	<0.01	0.01	<0.0001	0.0003	<0.01	<0.0001	<0.01	<0.01
MW-8	07/10/2007		<0.0004	<0.003	<0.04	<0.0001	<0.01	<0.01	0.0001	0.0003	<0.01	<0.0001	<0.01	<0.01
MW-8	07/17/2007		<0.0004	<0.003	<0.04	<0.0001	<0.01	<0.01	<0.0001	<0.0002	<0.01	<0.0001	<0.01	<0.01

# METEORIC WATER MOBILITY DATA

FAIRBANKS GOLD MINING, INC.  
FORT KNOX MINE



**Meteoric Water Mobility - Major Ion Chemistry**

Site	Date		Bic Alk	Tot Alk	Ca	Cl	Ca Hard	Mg Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	TDS	TSS
TAILING SOLIDS	04/17/2007				5.6				0.3		7.4	7.6	111				
TAILING SOLIDS	08/22/2007				3.9				0.2		7	9	140				

### Meteoric Water Mobility - Minor Ion Chemistry

Site	Date		NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
TAILING SOLIDS	04/17/2007			0.0445			0.05	<0.005					
TAILING SOLIDS	08/22/2007			0.0598			<0.02	<0.005					

### Meteoric Water Mobility - Trace Ion Chemistry

Site	Date		Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
TAILING SOLIDS	04/17/2007		0.0151	<0.003	<0.1	<0.0005	0.0007	<0.0005	0.0026	<0.0002	<0.0006	0.0013	<5E-05	<0.01
TAILING SOLIDS	08/22/2007		0.038	<0.003	<0.04	<0.0001	0.0004	0.0011	0.0001	<0.0002	<0.0006	0.0012	<0.0003	<0.01

# ACID ROCK DRAINAGE CHARACTERIZATION DATA

FAIRBANKS GOLD MINING, INC.  
FORT KNOX MINE



# Fort Knox Mine

*\*Static Acid/Base Accounting \*Chemistry Report\**

Site ID	Date	Sample #	Acid Neutralization Potential (ANP) <i>ton/1000 tons</i>	Acid Generation Potential (AGP) <i>ton/1000 tons</i>	ANP / AGP
BARNES CREEK WASTE DUMP	12/22/1998	103	23.0	<0.5	>46
BARNES CREEK WASTE DUMP	12/29/1999	103	36.2	<0.1	>362
COARSE ORE STOCKPILE	12/10/1996	103	13.0	<0.5	>26
COMPOSITE WASTE DUMP	11/21/2000	101	26.2	<0.1	>262
COMPOSITE WASTE DUMP	11/28/2001	104	22.7	2.81	8.1
COMPOSITE WASTE DUMP	11/8/2002	102	32.7	<0.6	>54.5
COMPOSITE WASTE DUMP	11/20/2003	103	7.9	<0.6	>13.2
COMPOSITE WASTE DUMP	10/28/2004	102	26.1	<0.6	>43.5
COMPOSITE WASTE DUMP	10/4/2005	103	46.3	0.6	76
COMPOSITE WASTE DUMP	12/12/2006	101	89.6	89.1	0.50
LOW GRADE STOCKPILE	11/24/1997	103	28.0	<0.5	>56
LOW GRADE STOCKPILE	12/22/1998	102	18.0	<0.5	>36
LOW GRADE STOCKPILE	12/29/1999	104	34.1	<0.1	>341
LOW GRADE STOCKPILE	11/12/2000	102	103	0.1	1030
LOW GRADE STOCKPILE	11/28/2001	102	29.4	1.56	18.8
LOW GRADE STOCKPILE	12/17/2002	101	23.7	<0.6	>39.5
LOW GRADE STOCKPILE	11/20/2003	101	39.0	<0.6	>65
LOW GRADE STOCKPILE	10/6/2004	103	49.8	<0.63	>79.05
LOW GRADE STOCKPILE	10/4/2005	104	70	0.6	115.7

# Fort Knox Mine

*\*Static Acid/Base Accounting \*Chemistry Report\**

Site ID	Date	Sample #	Acid Neutralization Potential (ANP) <i>ton/1000 tons</i>	Acid Generation Potential (AGP) <i>ton/1000 tons</i>	ANP / AGP
LOW GRADE STOCKPILE	12/12/2006	102	108	107	1.0
MELBA/MONTE CRISTO WASTE	12/10/1996	101	19.0	<0.5	>38
TAILING SOLIDS	12/13/1996	103	13.0	<0.5	>26
TAILING SOLIDS	2/28/1997	102	22.0	<0.5	>44
TAILING SOLIDS	5/30/1997	101	18.0	<0.5	>36
TAILING SOLIDS	9/4/1997	105	18.0	<0.5	>36
TAILING SOLIDS	12/2/1997	101	15.15	<0.5	>30
TAILING SOLIDS	2/23/1998	101	36.0	<0.05	>72
TAILING SOLIDS	5/27/1998	103	36.0	<0.5	>72
TAILING SOLIDS	8/27/1998	102	56.0	<0.5	>112
TAILING SOLIDS	11/18/1998	103	64.0	<0.5	>128
TAILING SOLIDS	2/17/1999	102	56.0	<0.5	>112
TAILING SOLIDS	5/25/1999	102	39.0	<0.5	>78
TAILING SOLIDS	8/11/1999	101	46.0	<0.5	>92
TAILING SOLIDS	12/29/1999	102	29.3	<0.1	>293
TAILING SOLIDS	2/16/2000	102	25.8	<0.1	>258
TAILING SOLIDS	5/4/2000	102	23.5	0.1	235
TAILING SOLIDS	8/16/2000	102	29.3	<0.1	>293
TAILING SOLIDS	11/9/2000	102	29.6	0.1	296



# Fort Knox Mine

*\*Static Acid/Base Accounting \*Chemistry Report\**

Site ID	Date	Sample #	Acid Neutralization Potential (ANP) <i>ton/1000 tons</i>	Acid Generation Potential (AGP) <i>ton/1000 tons</i>	ANP / AGP
TAILING SOLIDS	2/7/2001	102	33.2	0.1	332
TAILING SOLIDS	5/10/2001	102	40.1	0.2	201
TAILING SOLIDS	8/23/2001	102	56.1	<0.1	>561
TAILING SOLIDS	11/14/2001	101	53.0	0.31	171
TAILING SOLIDS	2/20/2002	103	51.4	0.31	165.8
TAILING SOLIDS	5/30/2002	101	60.6	<0.6	>101
TAILING SOLIDS	8/12/2002	108	69.8	0.6	116
TAILING SOLIDS	11/8/2002	101	68	1.3	52.3
TAILING SOLIDS	2/11/2003	101	68.5	1.3	52.7
TAILING SOLIDS	5/6/2003	104	77.7	1.6	48.6
TAILING SOLIDS	8/6/2003	104	64.7	1.6	40.4
TAILING SOLIDS	11/4/2003	103	65.5	2.2	29.8
TAILING SOLIDS	2/17/2004	104	73.8	1.9	38.9
TAILING SOLIDS	4/29/2004	101	41.7	0.6	69.5
TAILING SOLIDS	8/3/2004	101	42.7	<0.63	>67.8
TAILING SOLIDS	10/28/2004	101	37.1	0.9	41.2
TAILING SOLIDS	2/2/2005	101	60.0	1.6	37.5
TAILING SOLIDS	5/12/2005	102	46.1	0.9	51.2
TAILING SOLIDS	8/13/2005	101	22.4	0.6	37.3
TAILING SOLIDS	11/30/2005	101	39.2	<0.6	>65.3

# Fort Knox Mine

*\*Static Acid/Base Accounting \*Chemistry Report\**

Site ID	Date	Sample #	Acid Neutralization Potential	Acid Generation Potential	ANP / AGP
			(ANP) <i>ton/1000 tons</i>	(AGP) <i>ton/1000 tons</i>	
TAILING SOLIDS	1/25/2006	103	17.4	<0.6	>29
TAILING SOLIDS	4/27/2006	104	42.5	11.6	3.66
TAILING SOLIDS	7/21/2006	101	43.8	1.3	33.7
TAILING SOLIDS	11/2/2006	102	61.5	1.01	61.1
TAILING SOLIDS	3/1/2007	419	4.7	.01	44
TAILING SOLIDS	8/22/2007	421	51	51	1
TOP SOIL SAMPLE	12/10/1996	102	12.0	<0.5	>24
TOP SOIL SAMPLE	11/24/1997	101	<0.5	<0.5	>1
TOP SOIL SAMPLE	12/22/1998	101	27.0	<0.5	>54
TOP SOIL SAMPLE	12/29/1999	105	6.67	0.31	21.5
TOP SOIL SAMPLE	11/12/2000	103	5.47	0.1	54.7
TOP SOIL SAMPLE	11/28/2001	101	6.85	1.87	3.7
TOP SOIL SAMPLE	12/17/2002	102	4.7	0.9	5.2
TOP SOIL SAMPLE	11/20/2003	102	70.0	<0.6	>116.7
TOP SOIL SAMPLE	10/6/2004	102	3.0	<0.63	>4.76
TOP SOIL SAMPLE	10/4/2005	102	1.7	<0.6	>2.83
TOP SOIL SAMPLE	12/12/2006	103	71.1	71.1	0
WASTE ROCK (DRILL HOLES)	1/18/2006	101	22.6	<0.6	>38
WASTE ROCK (DRILL HOLES)	3/1/2007	420	3.4	.02	1.70

# Fort Knox Mine

*\*Static Acid/Base Accounting \*Chemistry Report\**

<b>Site ID</b>	<b>Date</b>	<b>Sample #</b>	<b>Acid Neutralization Potential (ANP) <i>ton/1000 tons</i></b>	<b>Acid Generation Potential (AGP) <i>ton/1000 tons</i></b>	<b>ANP / AGP</b>
YELLOW PUP WASTE DUMP	11/24/1997	102	<0.5	<0.5	>10

# EXCEEDANCES DATA COMPLIANCE SAMPLING POINTS

FAIRBANKS GOLD MINING, INC.  
FORT KNOX MINE



## Exceedances for Compliance Sampling Points 4th quarter 2007

Facility Name	Site Number	Sample Date	Sample Time	Duplicate Identifier	Parameter Description	Value	Standard	Maximum Standard Value
Fairbanks Gold Mining	Upper Wetlands	12/04/2007	14:30	0	Iron, Total (mg/l)	19.1	Fort Knox	1
Fairbanks Gold Mining	Upper Wetlands	12/05/2007	11:52	0	Iron, Total (mg/l)	17.1	Fort Knox	1
Fairbanks Gold Mining	Upper Wetlands	11/07/2007	14:00	0	Iron, Total (mg/l)	4.75	Fort Knox	1
Fairbanks Gold Mining	Water Reservoir	11/07/2007	15:15	0	Iron, Total (mg/l)	4.01	Fort Knox	1
Fairbanks Gold Mining	Lower Wetlands	11/07/2007	14:45	0	Iron, Total (mg/l)	3.57	Fort Knox	1
Fairbanks Gold Mining	Water Dam Seepage	11/27/2007	10:30	0	Iron, Total (mg/l)	2.64	Fort Knox	1
Fairbanks Gold Mining	Lower Wetlands	12/04/2007	12:30	0	Iron, Total (mg/l)	2.08	Fort Knox	1
Fairbanks Gold Mining	Upper Wetlands	10/03/2007	11:00	0	Iron, Total (mg/l)	1.95	Fort Knox	1
Fairbanks Gold Mining	Lower Wetlands	12/05/2007	11:00	0	Iron, Total (mg/l)	1.92	Fort Knox	1
Fairbanks Gold Mining	MW-5	11/06/2007	10:45	0	Manganese, Dissolved (mg/l)	1.37	Fort Knox	0.05
Fairbanks Gold Mining	MW-5	10/01/2007	10:00	0	Manganese, Dissolved (mg/l)	1.29	Fort Knox	0.05
Fairbanks Gold Mining	MW-5	12/05/2007	15:15	0	Manganese, Dissolved (mg/l)	0.766	Fort Knox	0.05
Fairbanks Gold Mining	MW-6	12/05/2007	13:30	0	Manganese, Dissolved (mg/l)	0.727	Fort Knox	0.05
Fairbanks Gold Mining	MW-6	11/06/2007	12:30	0	Manganese, Dissolved (mg/l)	0.714	Fort Knox	0.05
Fairbanks Gold Mining	MW-6	10/01/2007	11:15	0	Manganese, Dissolved (mg/l)	0.669	Fort Knox	0.05
Fairbanks Gold Mining	Upper Wetlands	12/04/2007	14:30	0	Manganese, Total (mg/l)	2.3	Fort Knox	0.05
Fairbanks Gold Mining	Upper Wetlands	11/07/2007	14:00	0	Manganese, Total (mg/l)	1.61	Fort Knox	0.05
Fairbanks Gold Mining	Upper Wetlands	12/05/2007	11:52	0	Manganese, Total (mg/l)	1.5	Fort Knox	0.05
Fairbanks Gold Mining	Water Dam Seepage	11/27/2007	10:30	0	Manganese, Total (mg/l)	1.26	Fort Knox	0.05
Fairbanks Gold Mining	Lower Wetlands	11/07/2007	14:45	0	Manganese, Total (mg/l)	0.707	Fort Knox	0.05
Fairbanks Gold Mining	Lower Wetlands	12/04/2007	12:30	0	Manganese, Total (mg/l)	0.632	Fort Knox	0.05
Fairbanks Gold Mining	Lower Wetlands	12/05/2007	11:00	0	Manganese, Total (mg/l)	0.624	Fort Knox	0.05
Fairbanks Gold Mining	Water Reservoir	11/07/2007	15:15	0	Manganese, Total (mg/l)	0.58	Fort Knox	0.05
Fairbanks Gold Mining	Upper Wetlands	10/03/2007	11:00	0	Manganese, Total (mg/l)	0.239	Fort Knox	0.05
Fairbanks Gold Mining	Water Reservoir	12/04/2007	11:30	0	Manganese, Total (mg/l)	0.207	Fort Knox	0.05
Fairbanks Gold Mining	Water Reservoir	10/03/2007	12:00	0	Manganese, Total (mg/l)	0.203	Fort Knox	0.05
Fairbanks Gold Mining	Water Reservoir	11/07/2007	12:30	0	Manganese, Total (mg/l)	0.184	Fort Knox	0.05
Fairbanks Gold Mining	MW-7	10/01/2007	13:30	0	pH (Lab-su)	8.7	Fort Knox	6 - 8.5
Fairbanks Gold Mining	MW-7	11/07/2007	11:30	0	pH (Lab-su)	8.6	Fort Knox	6 - 8.5
Fairbanks Gold Mining	MW-7	12/05/2007	11:30	0	pH (Lab-su)	8.6	Fort Knox	6 - 8.5
Fairbanks Gold Mining	MW-6	10/01/2007	11:15	0	Total Dissolved Solids (mg/l)	530	Fort Knox	500
Fairbanks Gold Mining	MW-6	11/06/2007	12:30	0	Total Dissolved Solids (mg/l)	510	Fort Knox	500
Fairbanks Gold Mining	MW-7	10/01/2007	13:30	1 IML Lab	Wad Cyanide (mg/l)	0.007*	Fort Knox	0.0052
Fairbanks Gold Mining	MW-7	10/01/2007	13:30	1 IML Lab	Cyanide, Total (mg/l)	ND	Fort Knox	0.0052
Fairbanks Gold Mining	MW-7	10/01/2007	13:30	0 ACZ Lab	Wad Cyanide (mg/l)	ND	Fort Knox	0.0052
Fairbanks Gold Mining	MW-7	10/01/2007	13:30	0 ACZ Lab	Cyanide, Total (mg/l)	ND	Fort Knox	0.0052

\* One Wad Cyanide exceedance during the 4th quarter 2007 (Duplicate Sample IML Lab) Primary sample for Wad and Total Cyanide from both samples were non-detect

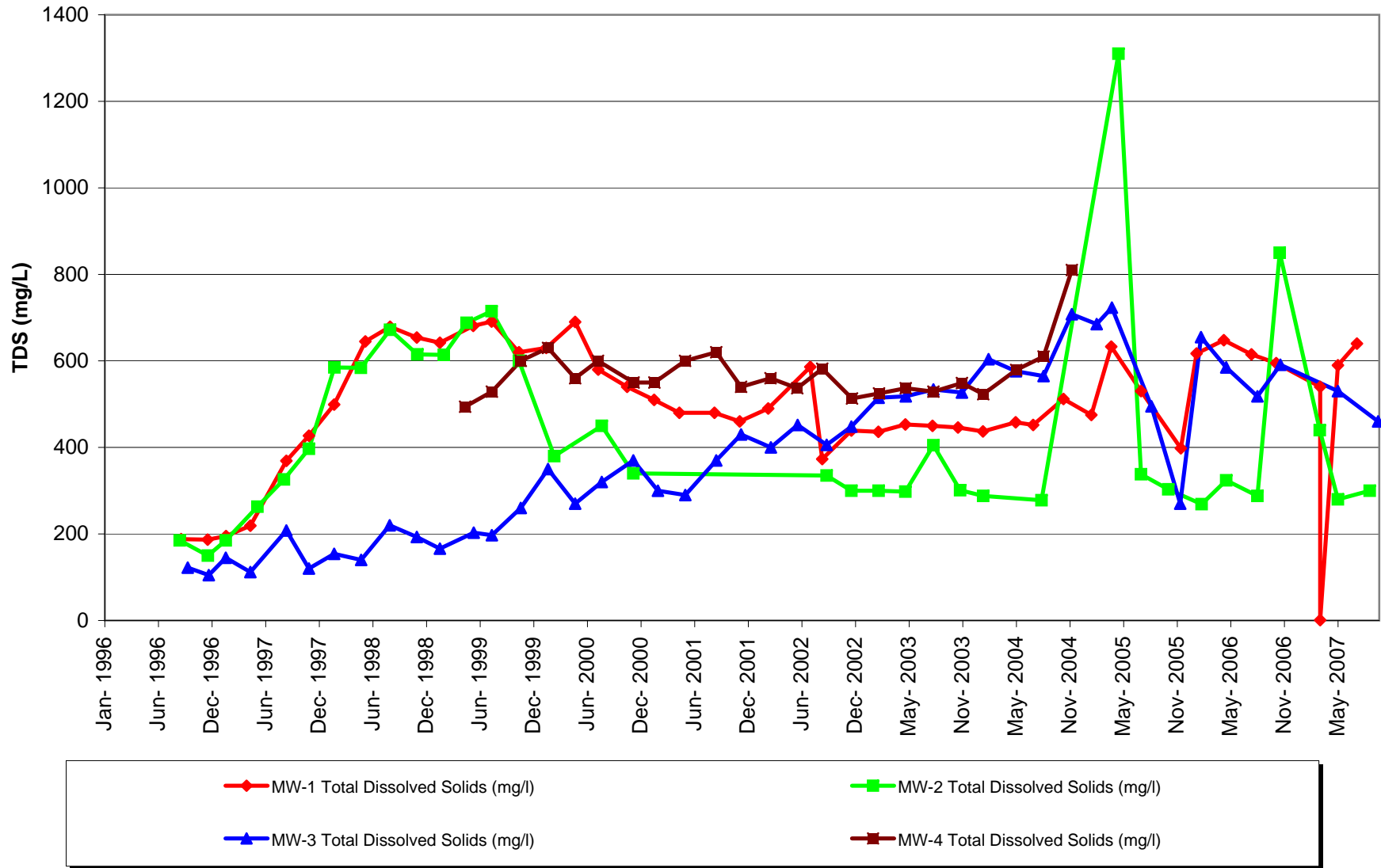
# **ATTACHMENT B**

## **Interceptor and Monitor Well**

### **Water Quality Graphs**

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### FK Monitoring Wells 1 - 4 TDS

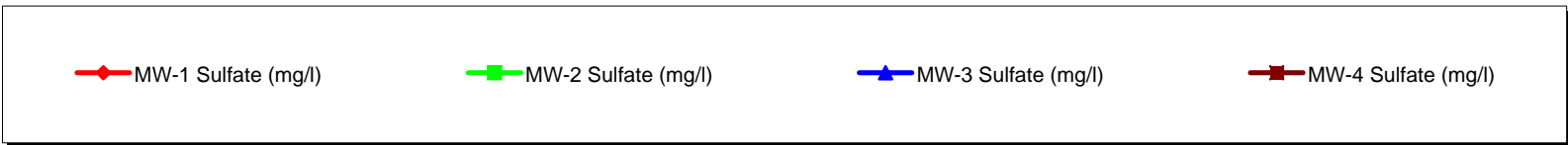
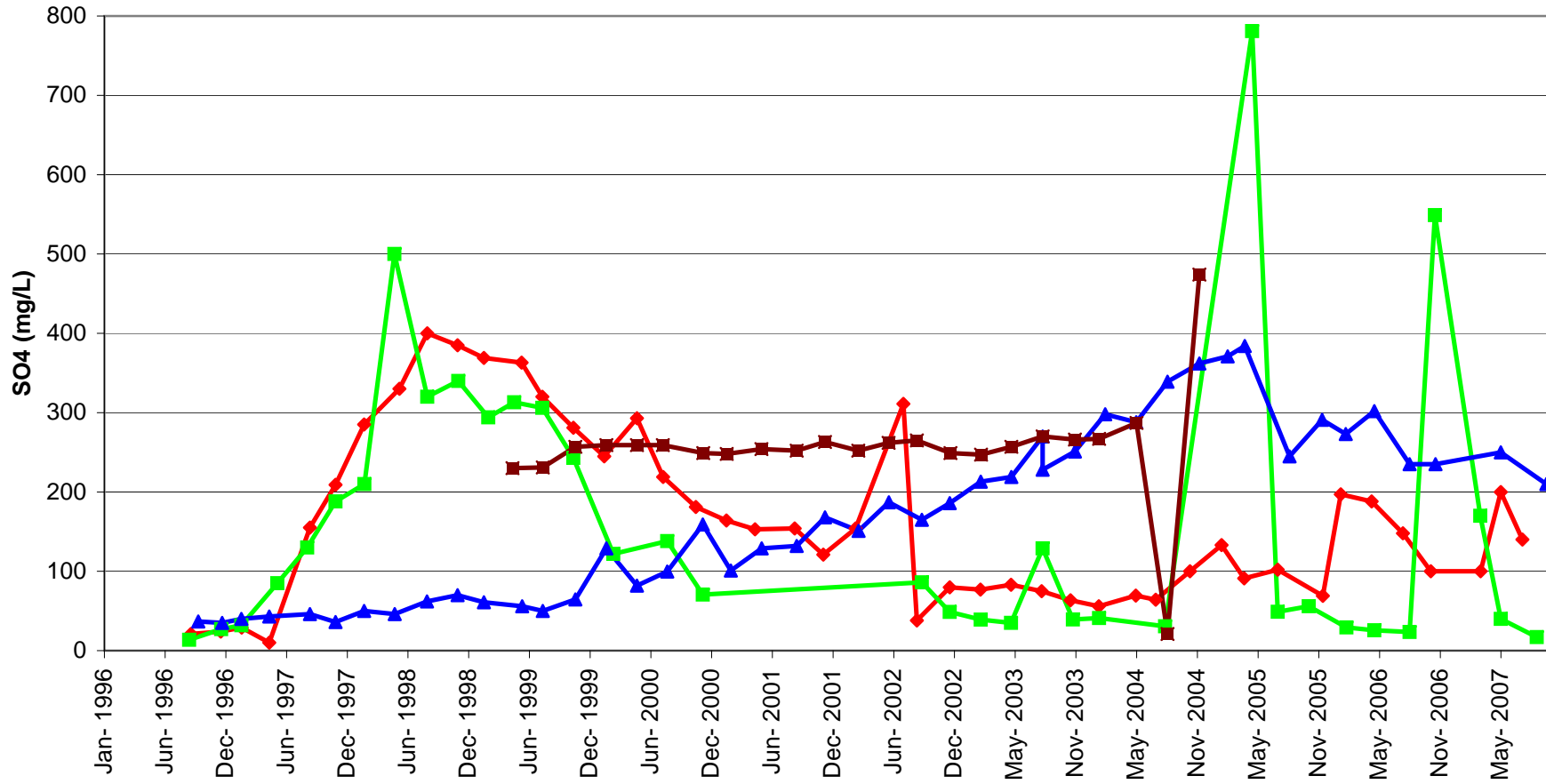


### Fort Knox Monitoring Wells 5 - 8 TDS

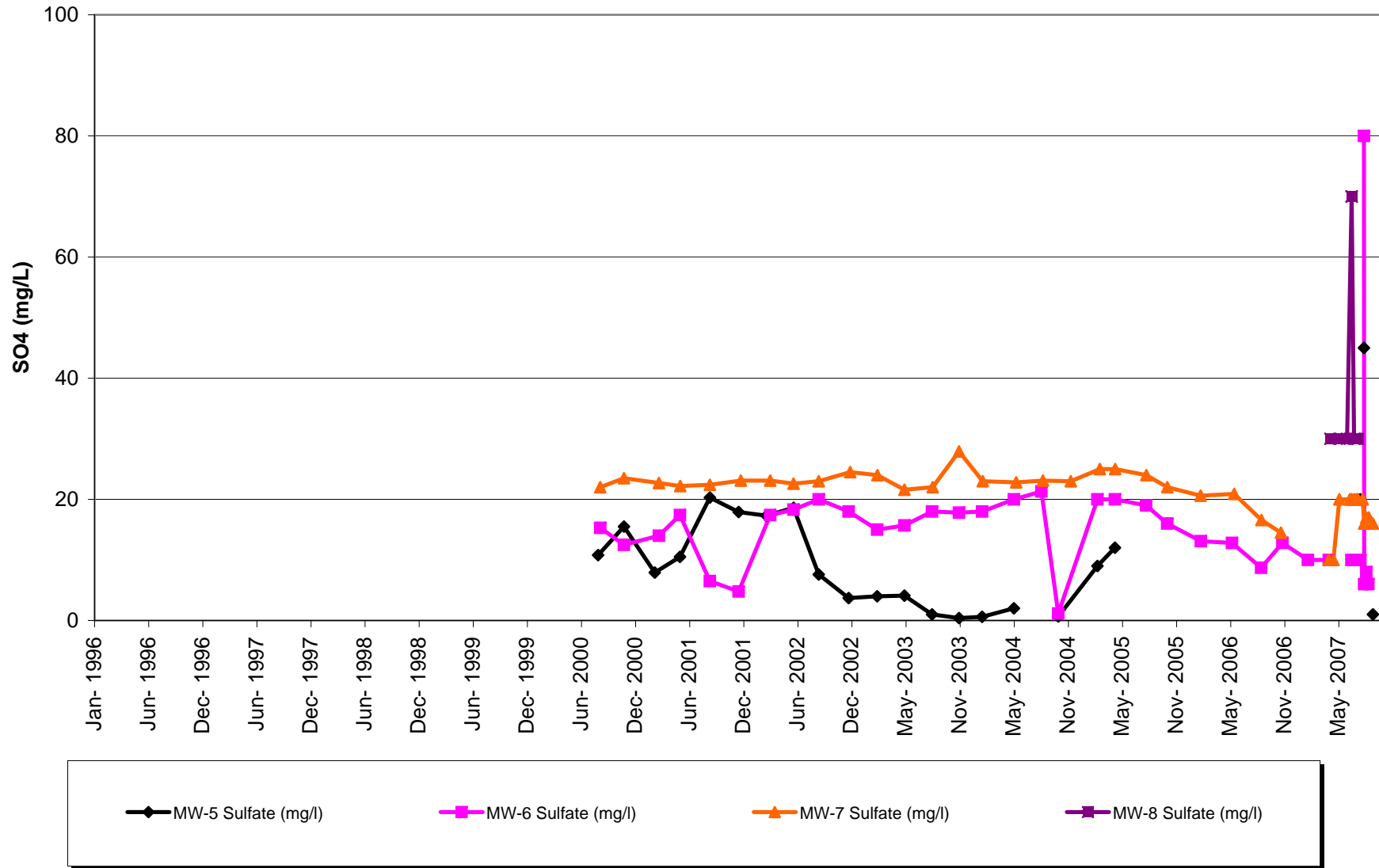




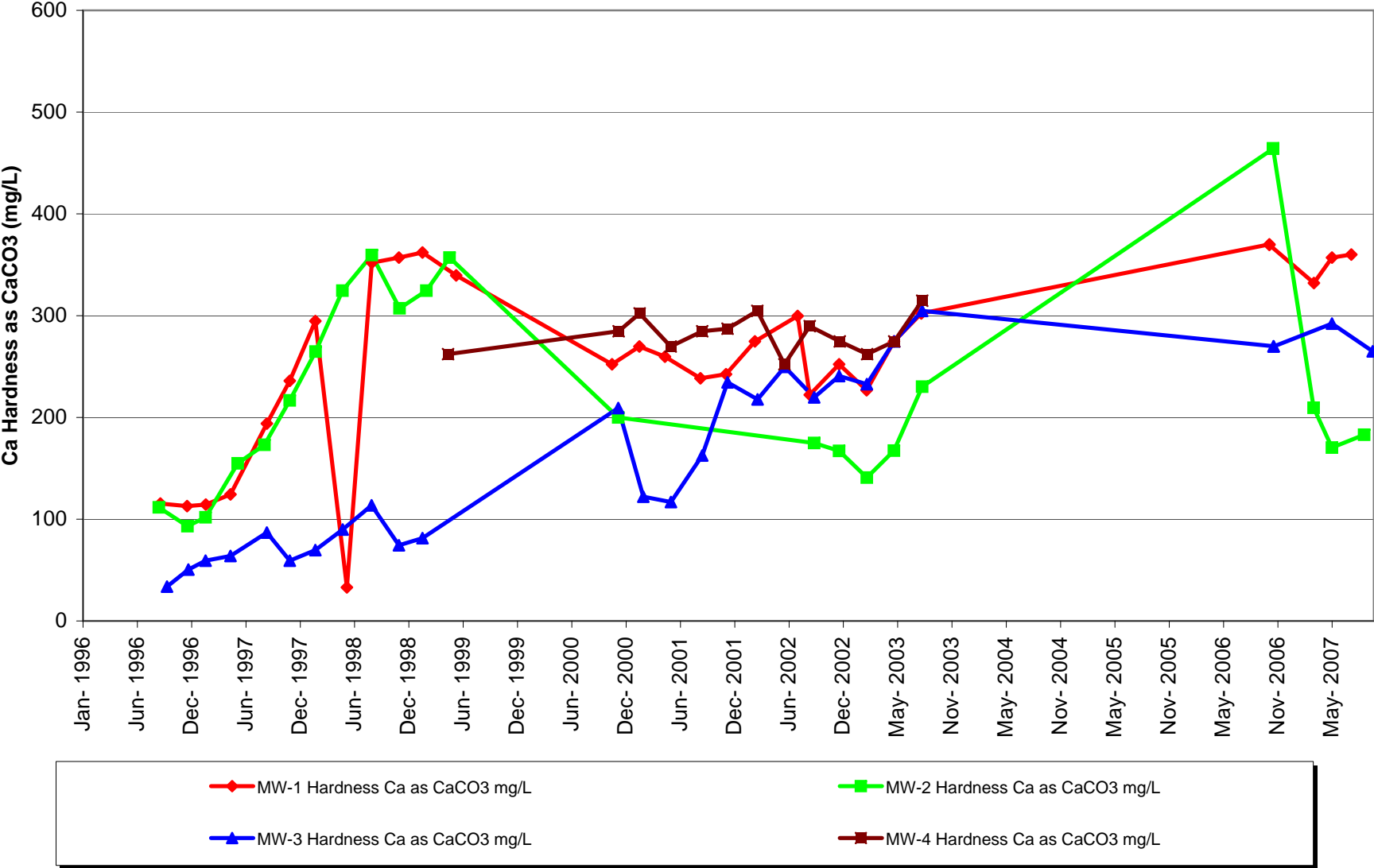
### FK Monitoring Wells 1 - 4 Sulfate



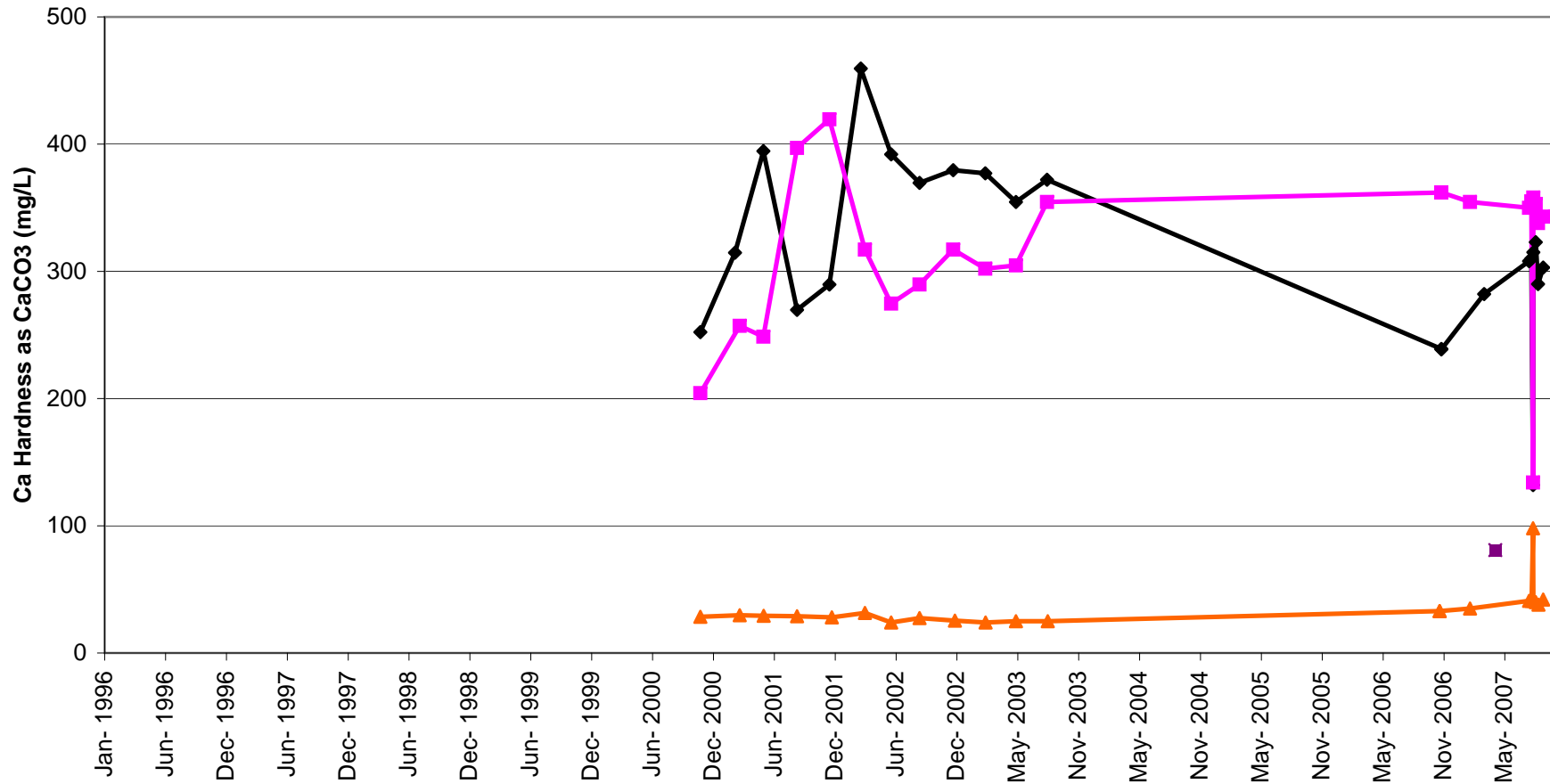
### FK Monitoring Wells 5 - 8 Sulfate



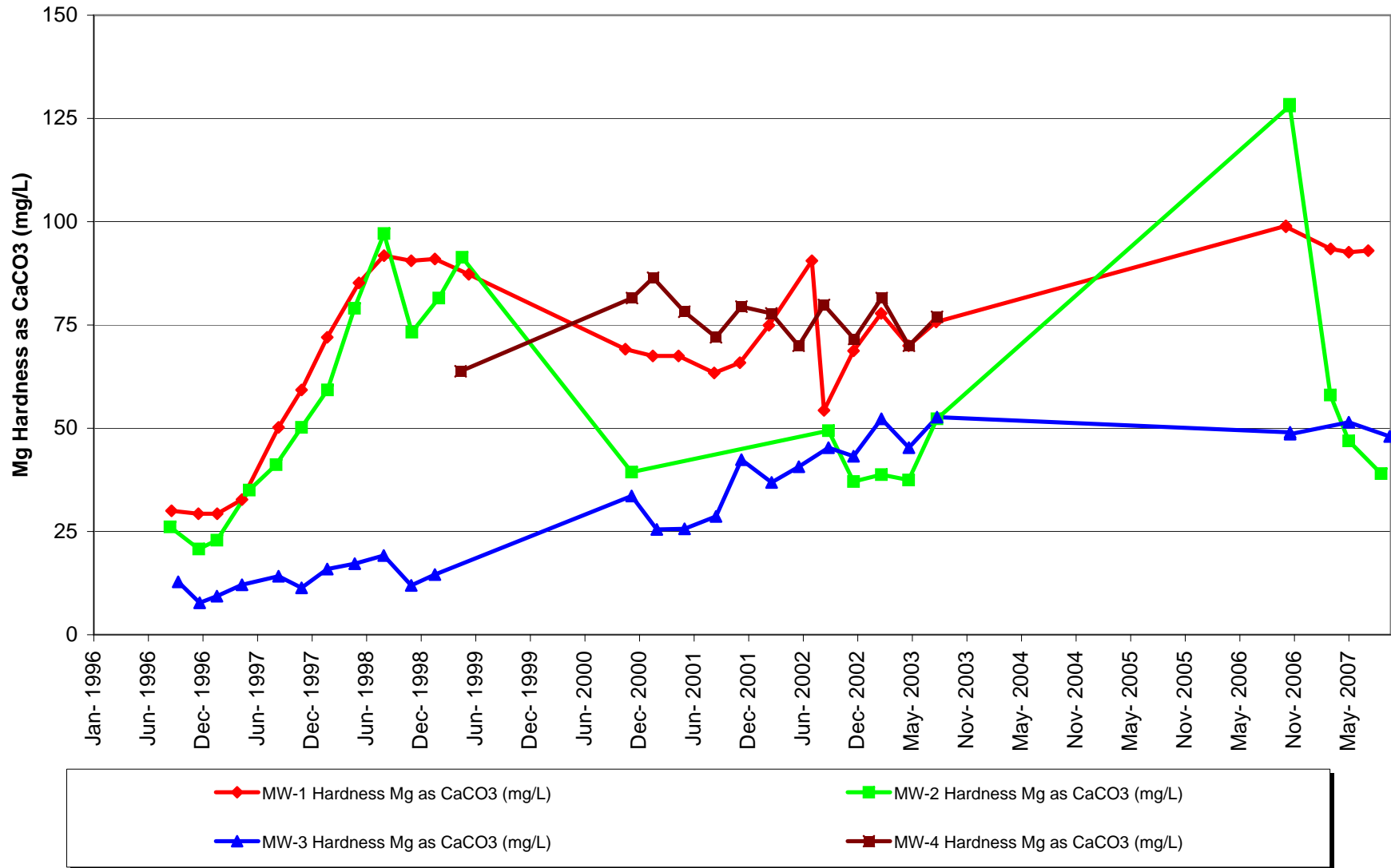
### Fort Knox Monitoring Wells 1 - 4 Ca Hardness



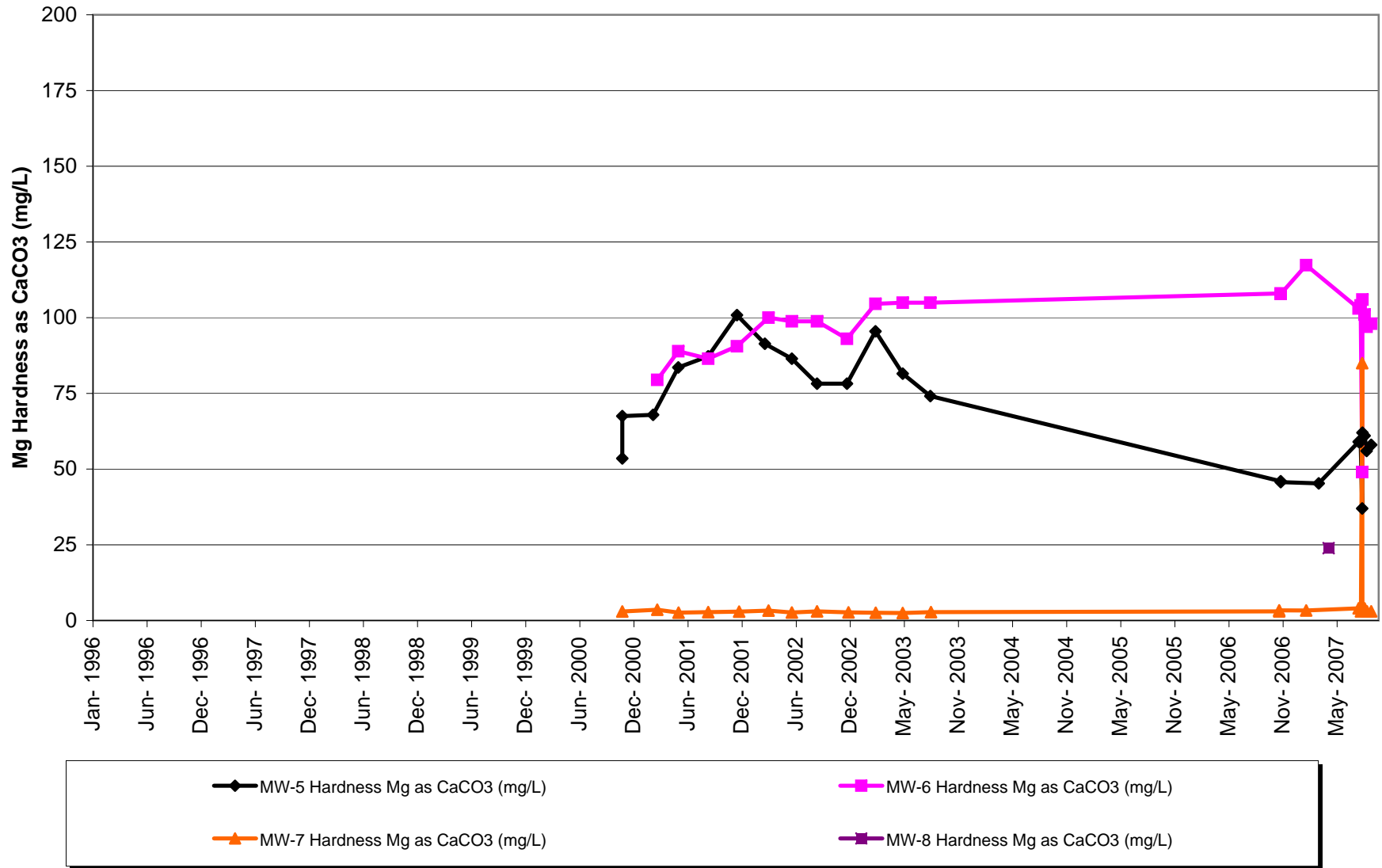
### Fort Knox Monitoring Wells 5 - 8 Ca Hardness



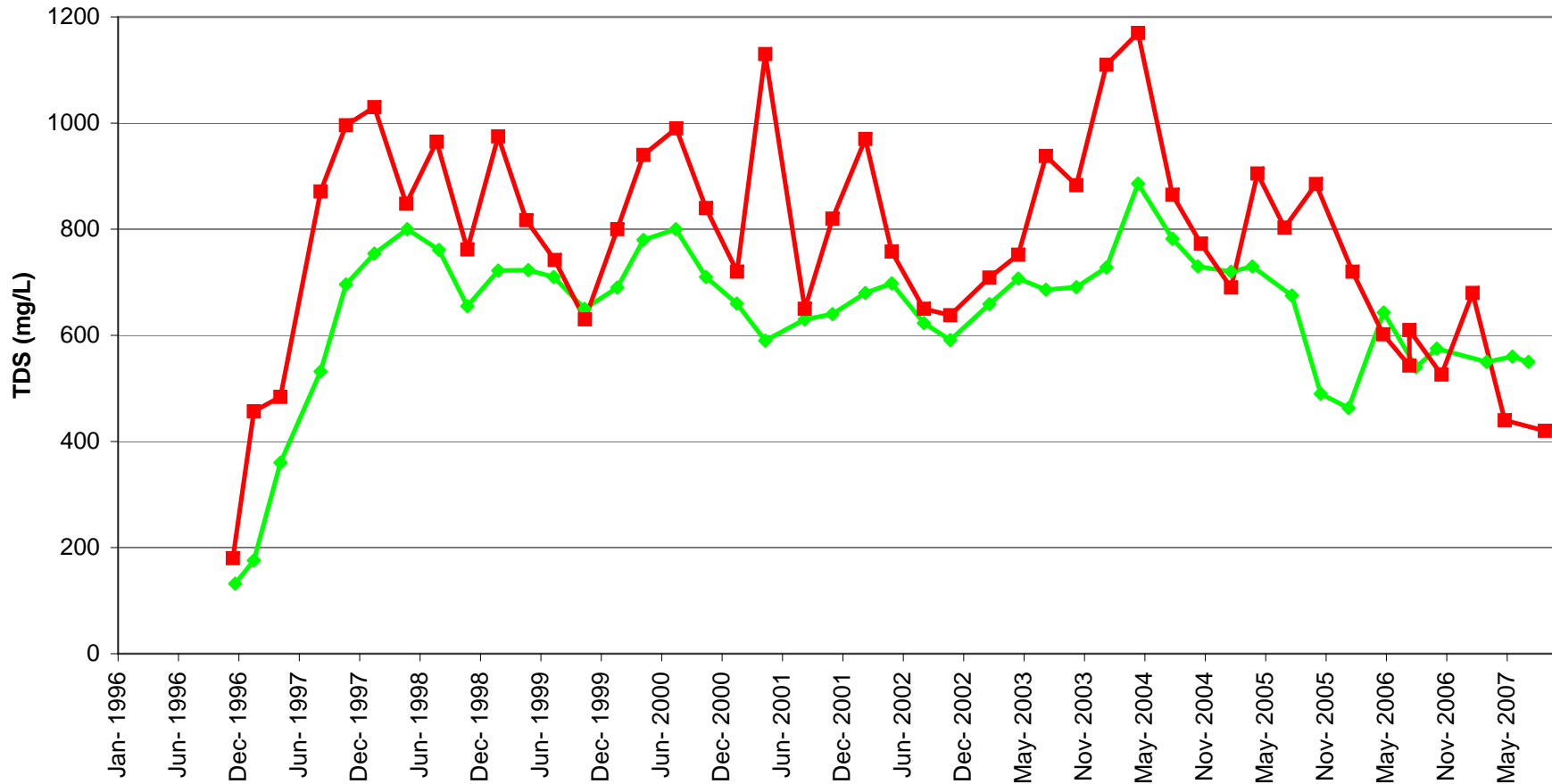
### Fort Knox Monitoring Wells 1 - 4 Mg Hardness



### Fort Knox Monitoring Wells 5 - 8 Mg Hardness



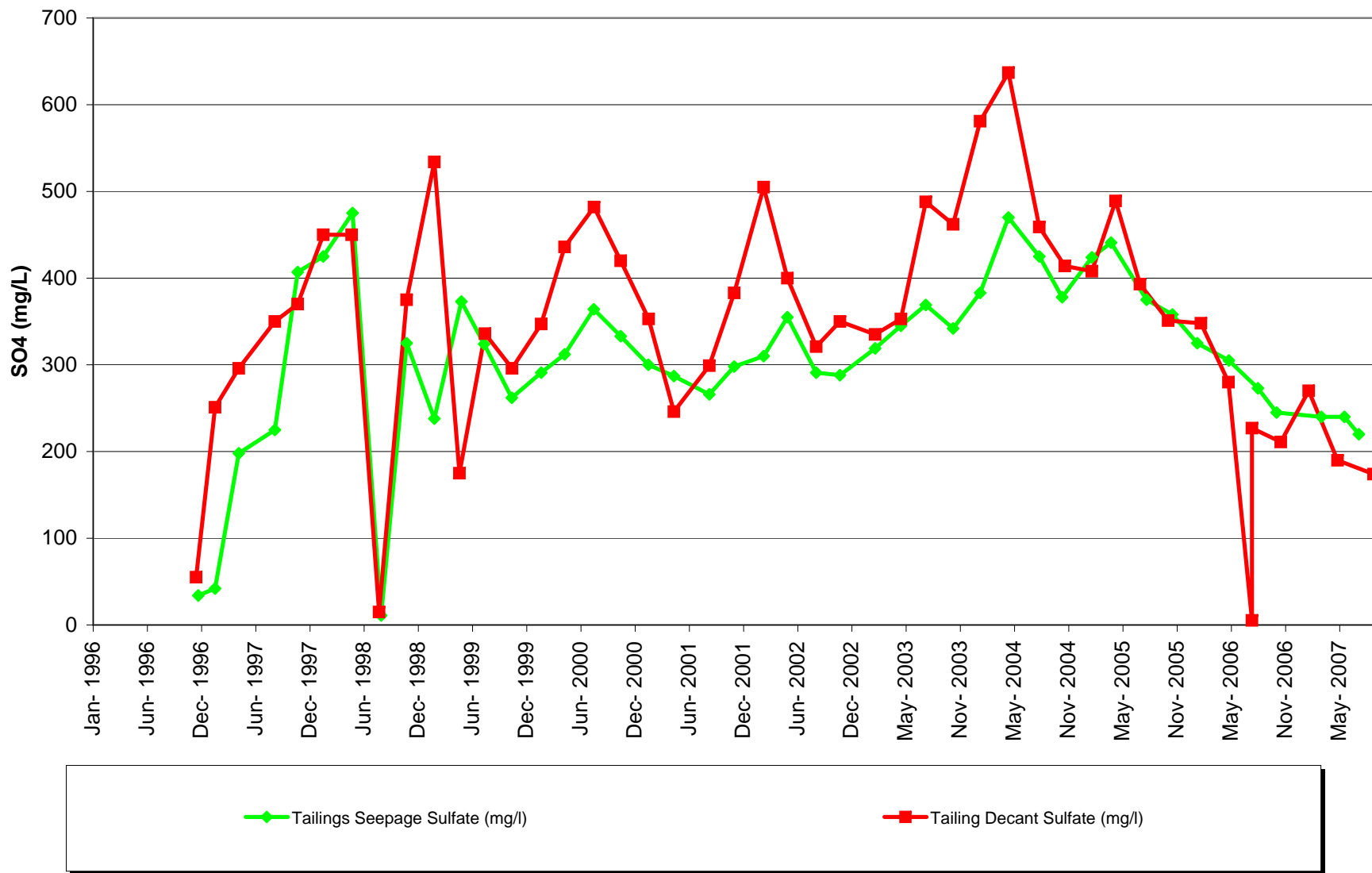
### Fort Knox Tailing Decant/Seepage TDS



◆ Tailings Seepage Total Dissolved Solids (mg/l)

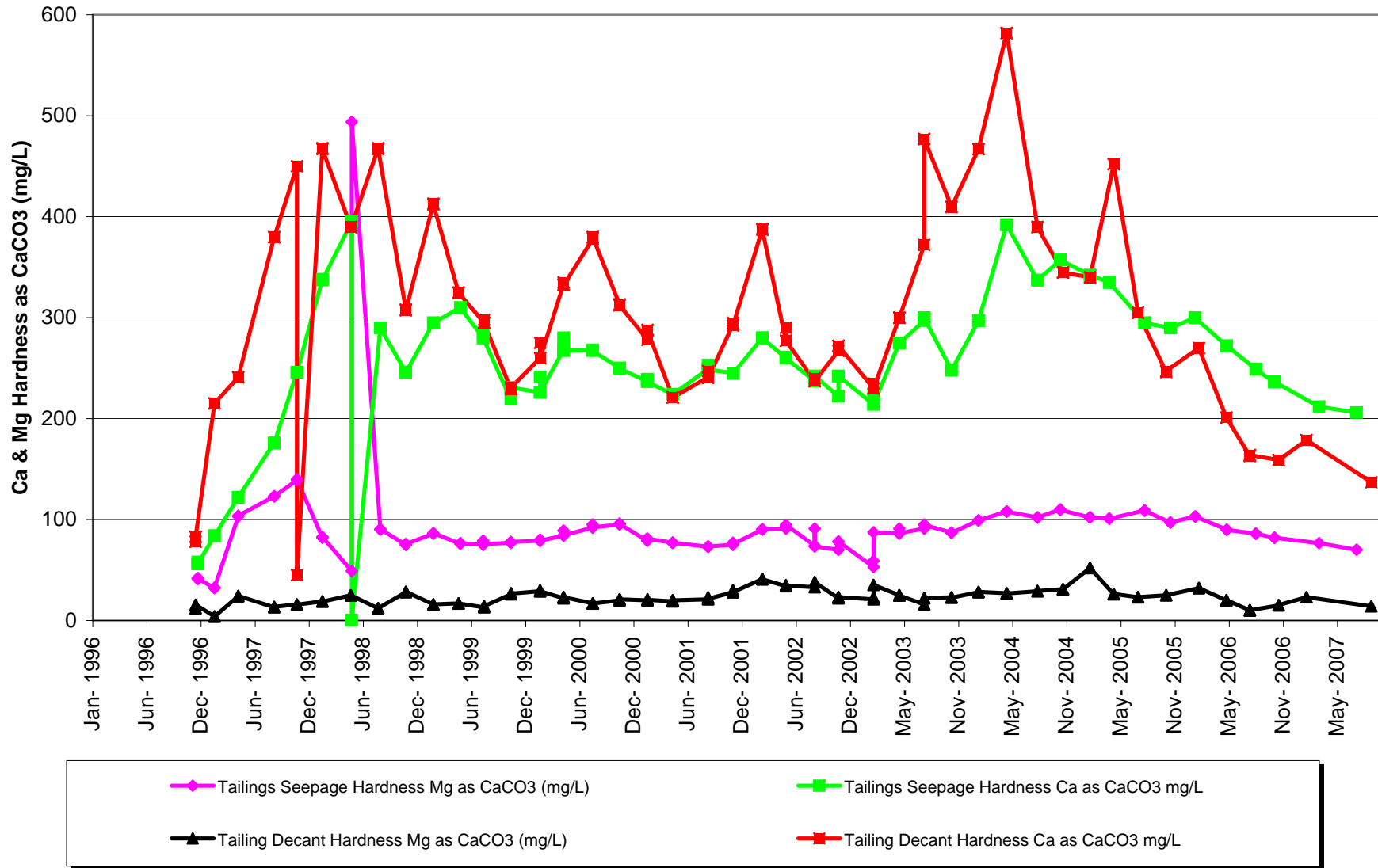
■ Tailing Decant Total Dissolved Solids (mg/l)

### Fort Knox Mine Tailing Decant and Seepage Sulfate

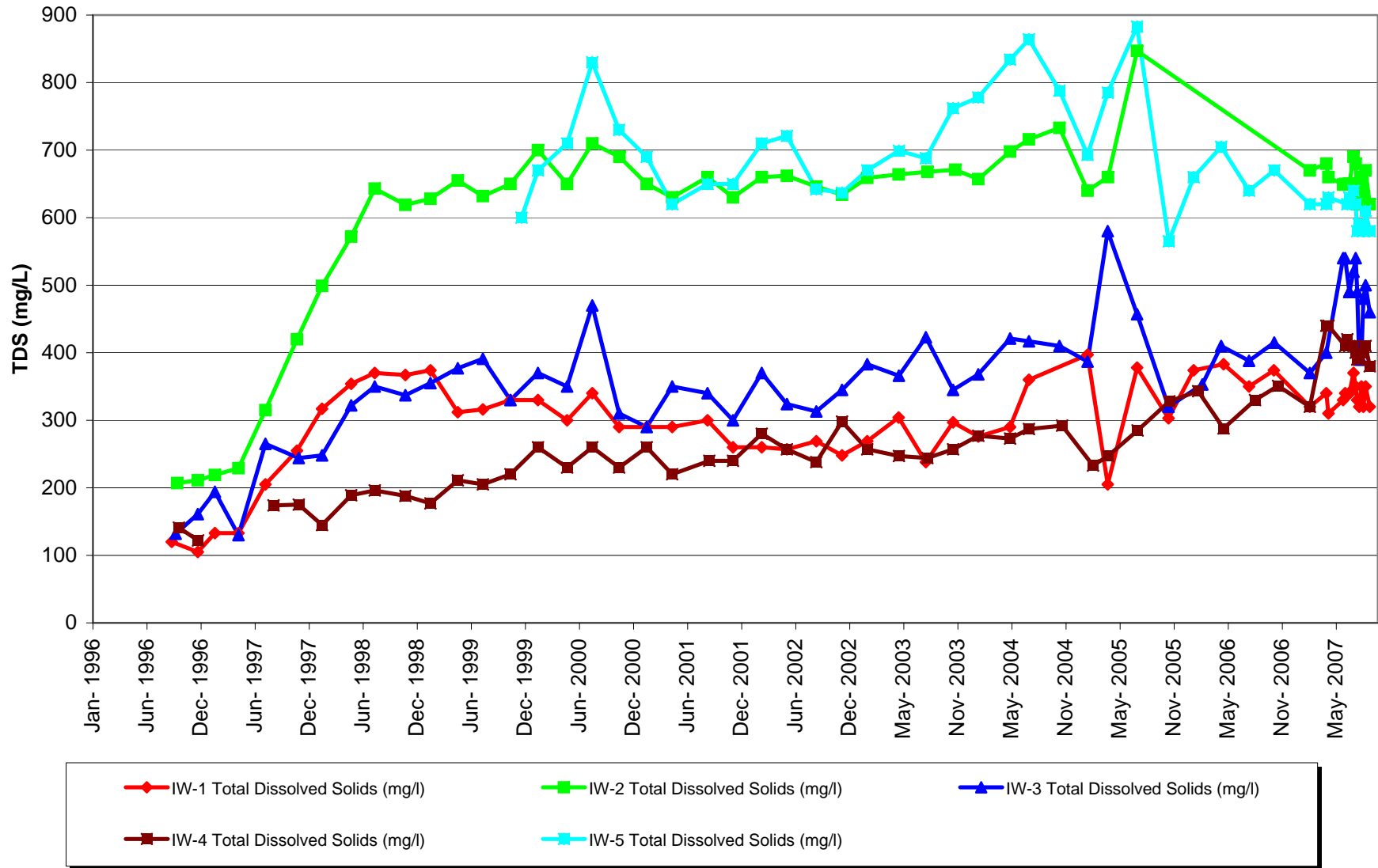




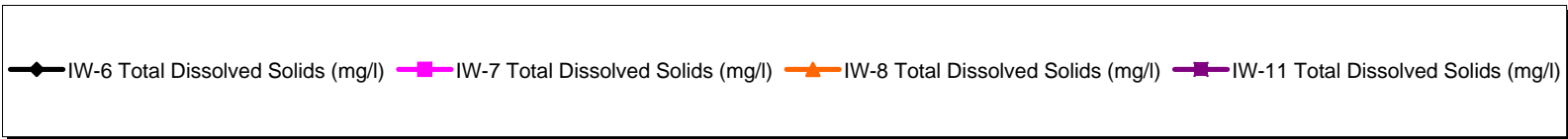
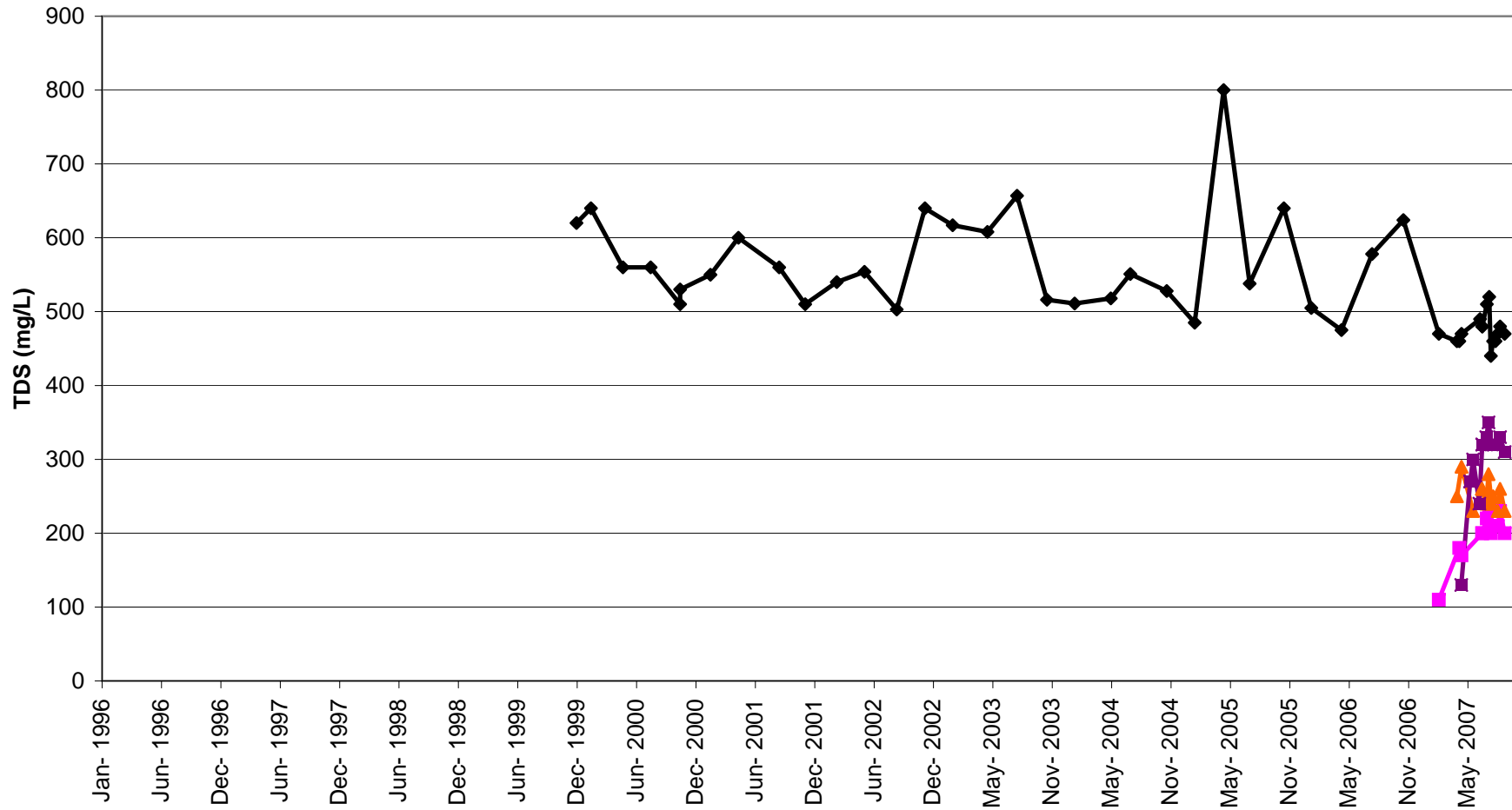
### Fort Knox Decant/Seepage Ca/Mg Hardness



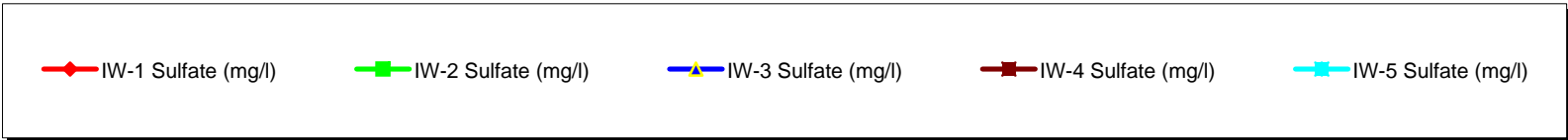
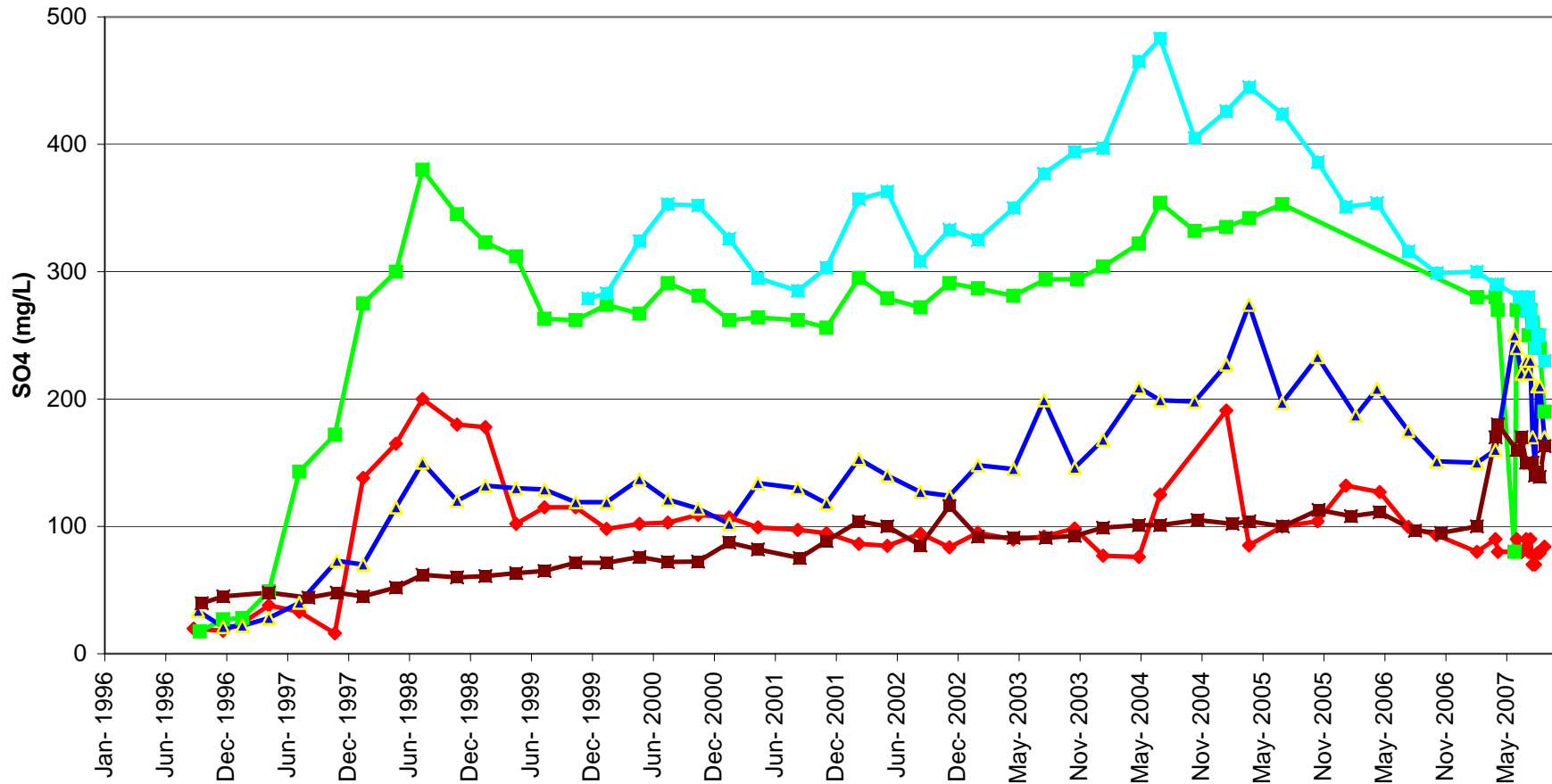
### Fort Knox Interceptor Wells 1 - 5 TDS



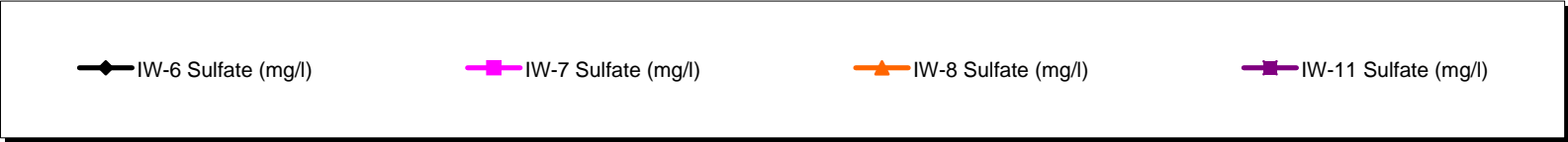
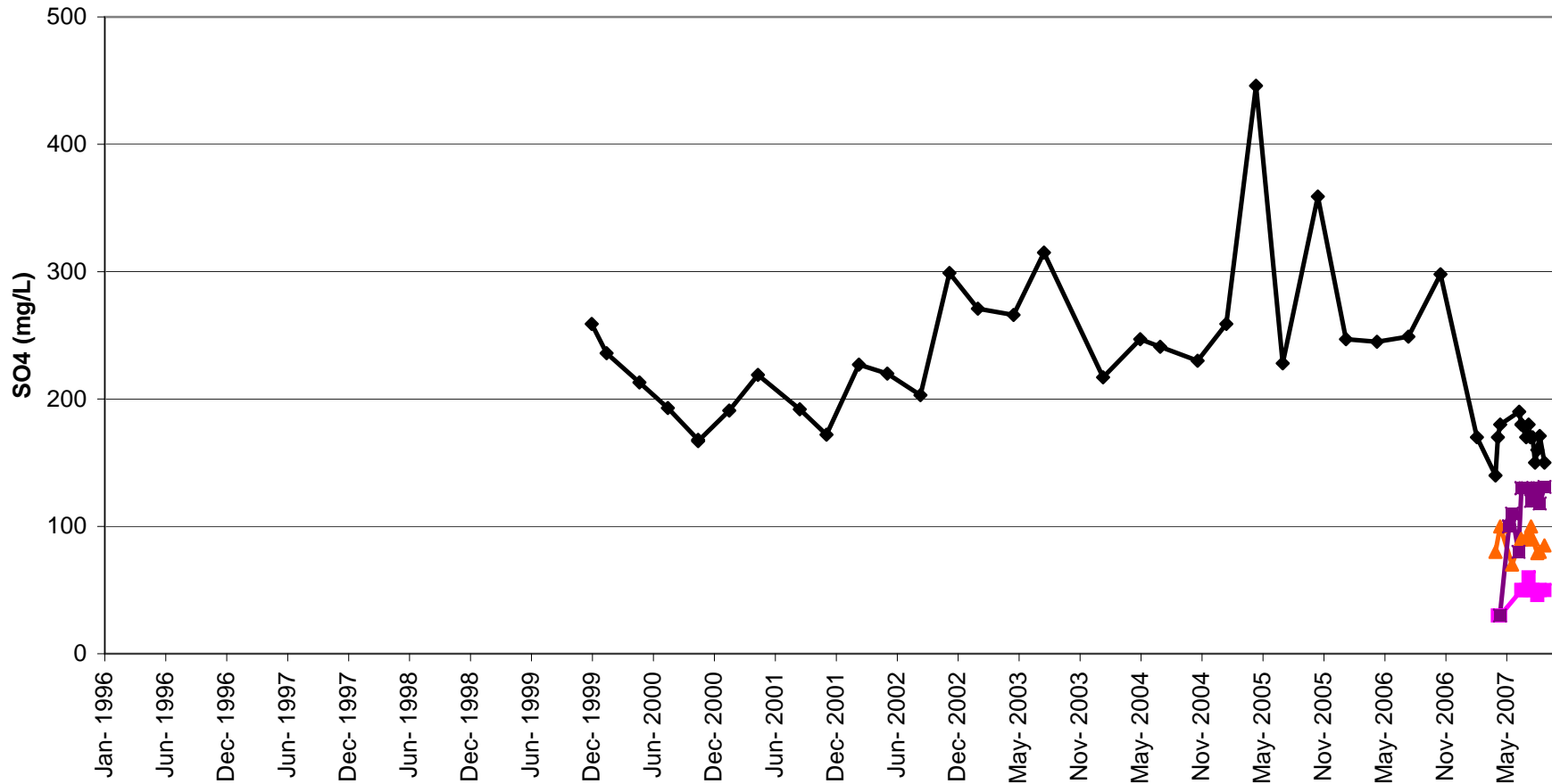
### Fort Knox Interceptor Wells 6 - 11 TDS



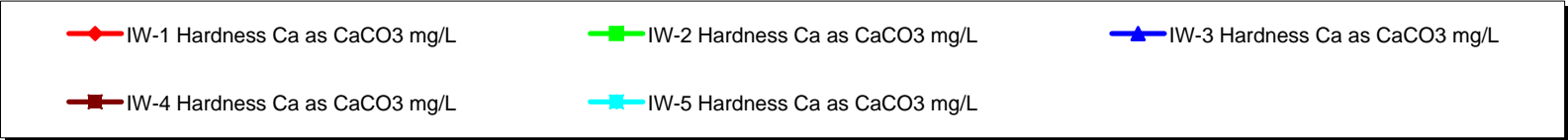
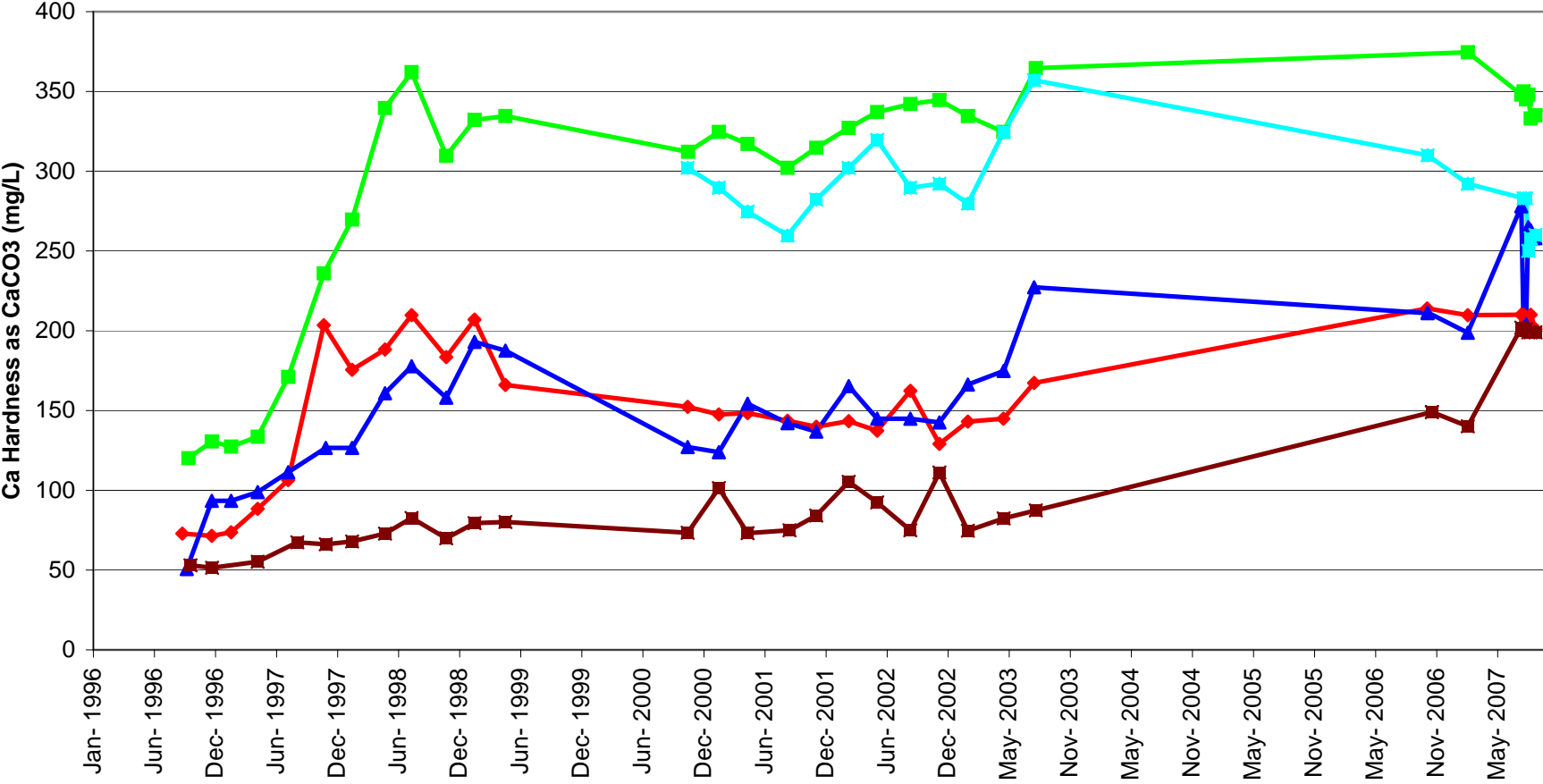
Fort Knox Mine Interceptor Wells IW-1 -5 Sulfate



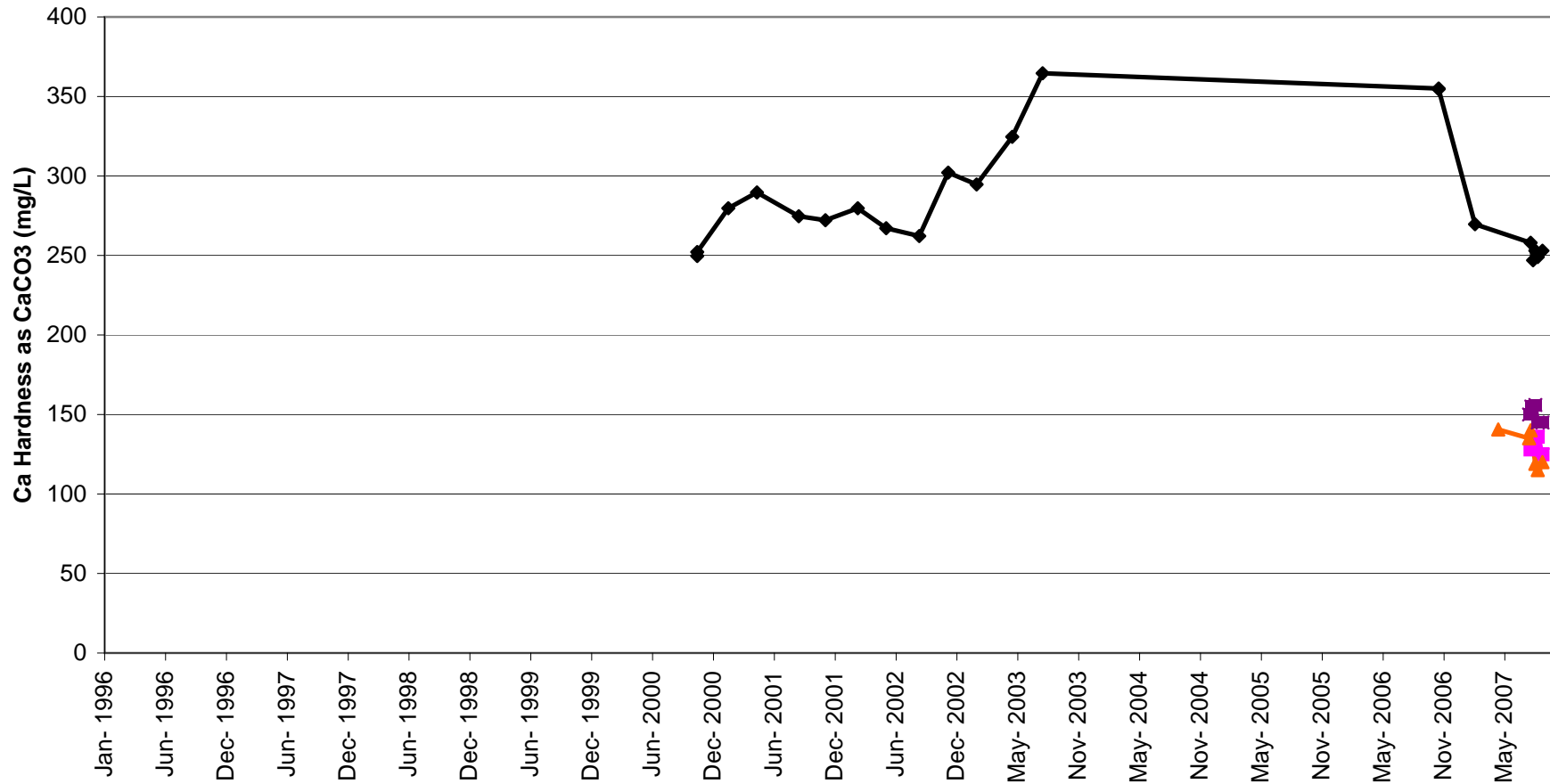
### Fort Knox Mine Interceptor Wells IW-6 - 11 Sulfate



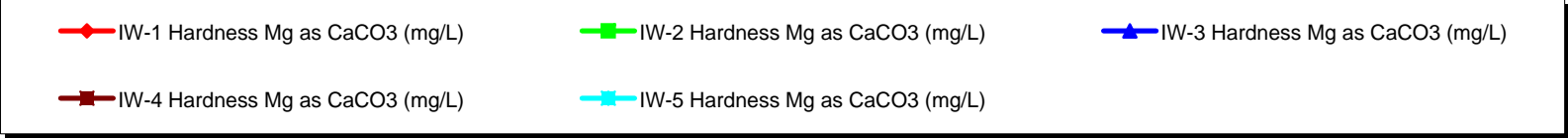
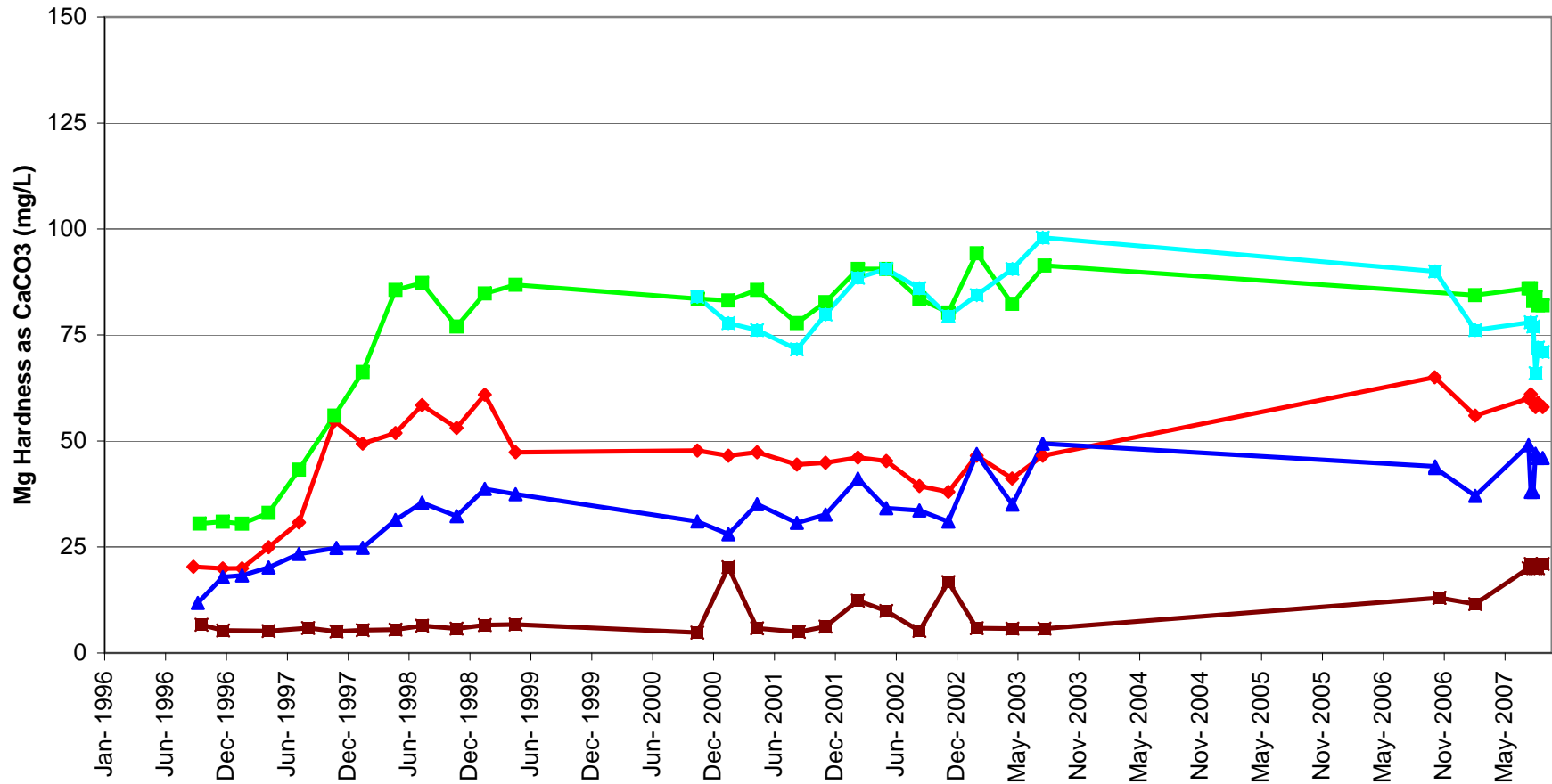
Fort Knox Interceptor Wells 1 - 5 Ca Hardness



### Fort Knox Interceptor Wells 6 - 11 Ca Hardness

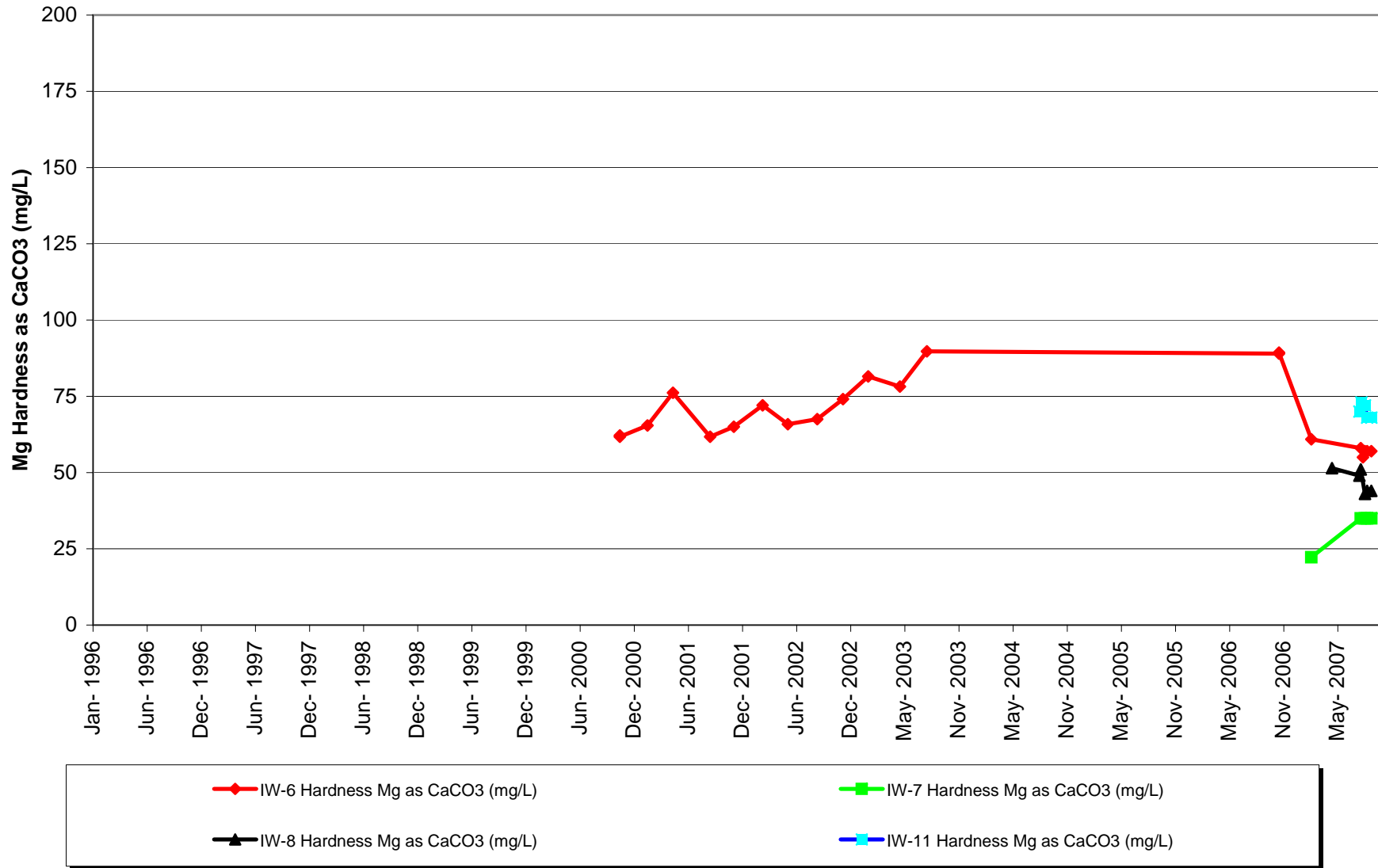


### Fort Knox Interceptor Wells 1 - 5 Mg Hardness





### Fort Knox Interceptor Wells 6 - 11 Mg Hardness

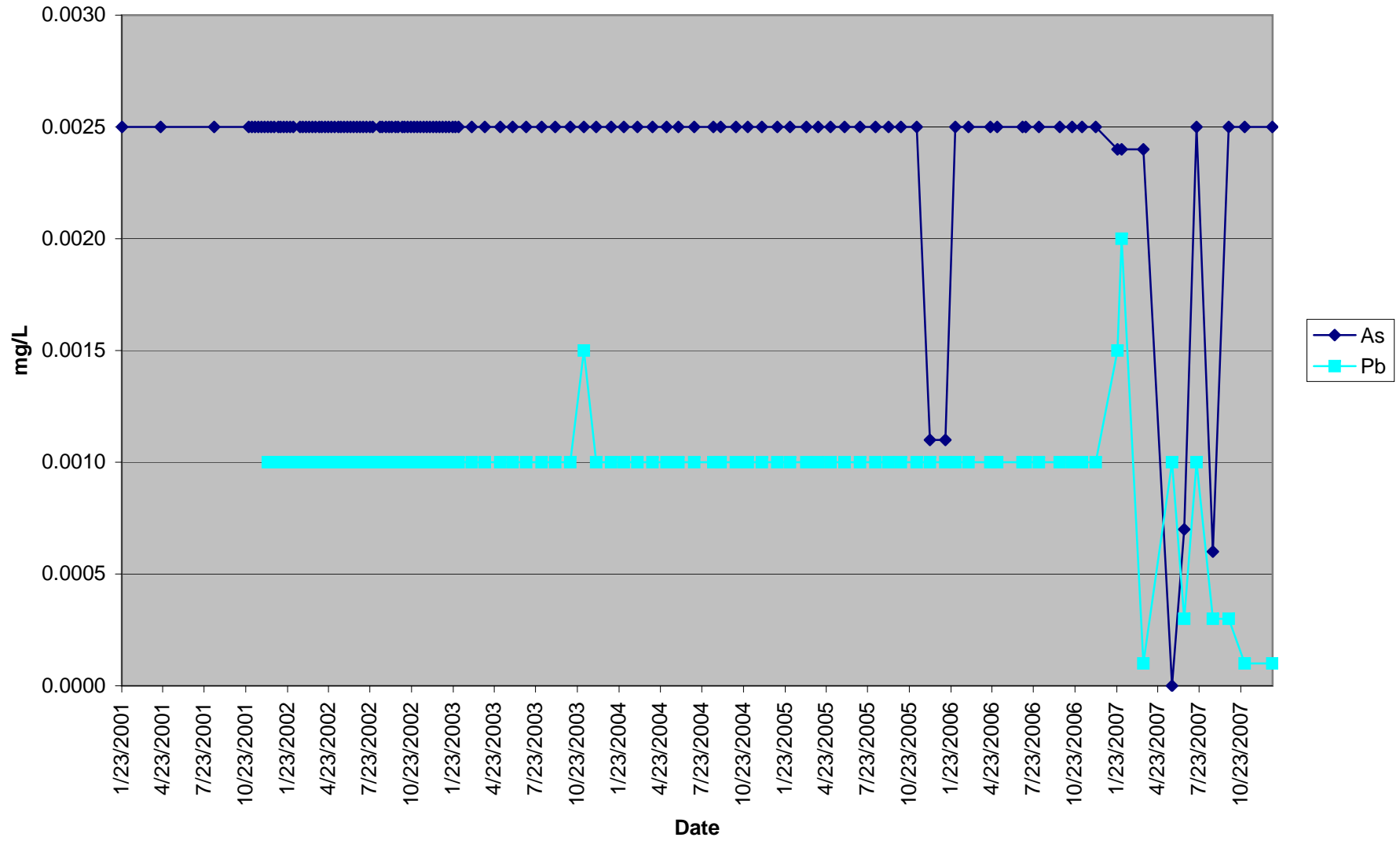


# **ATTACHMENT C**

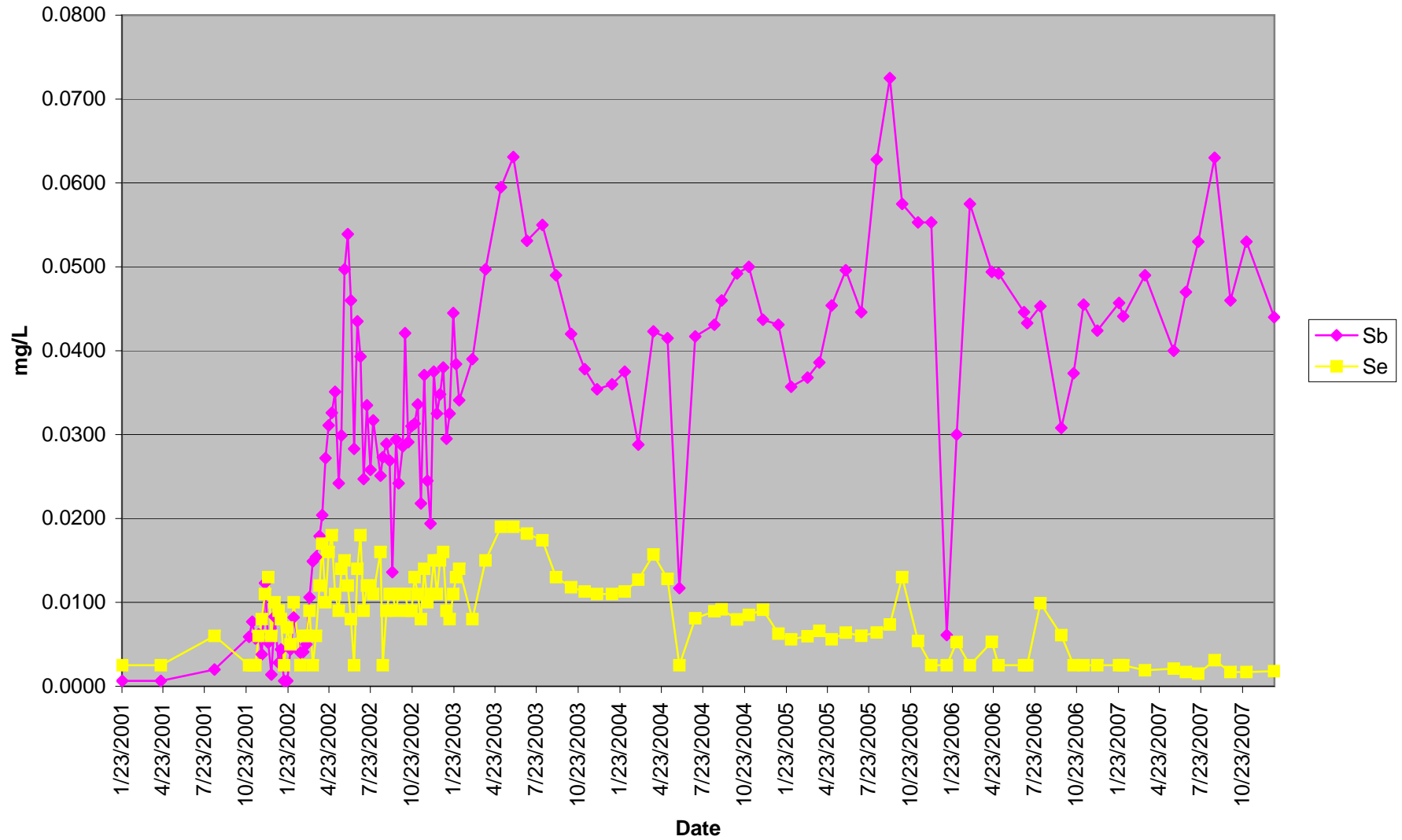
## **Monthly Samples of Tailing Impoundment Seepage**

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### Tailing Seepage Metals Arsenic (As) Lead (Pb)



Tailing Seepage Metals Antimony (Sb) and Selenium (Se)

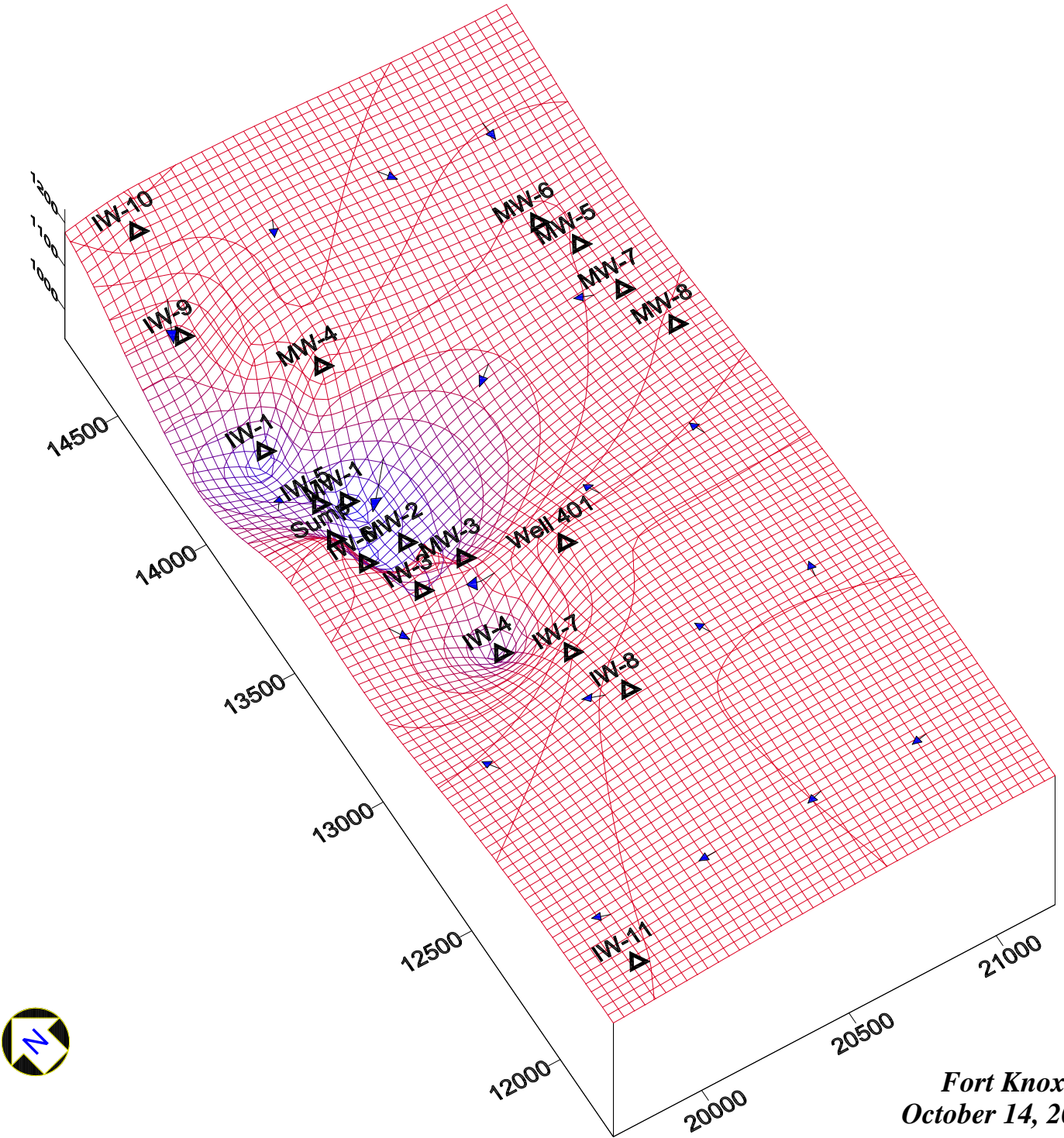
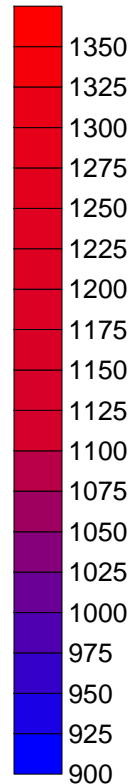


# **ATTACHMENT D**

## **Interceptor and Monitoring Well Groundwater Contour**

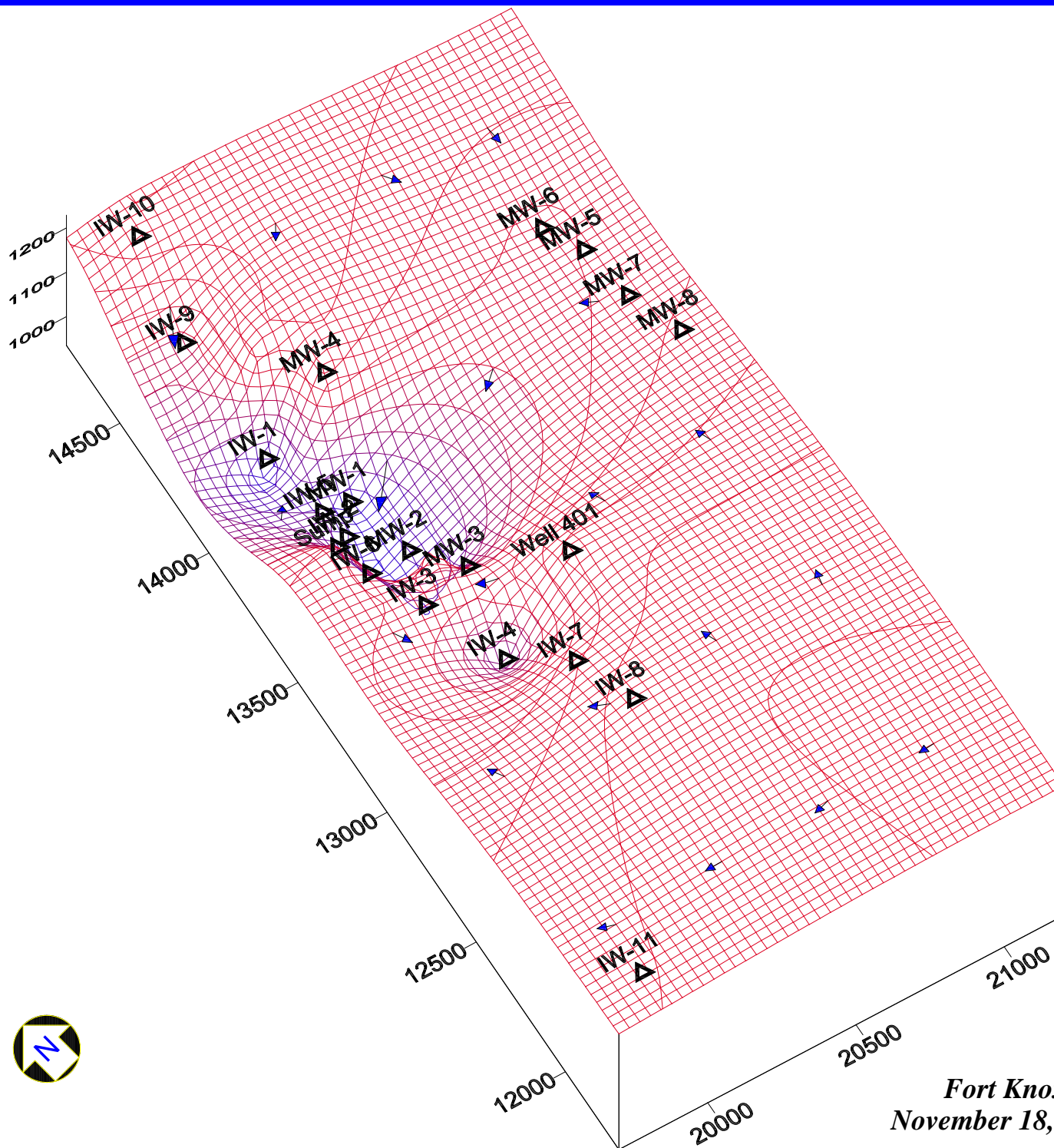
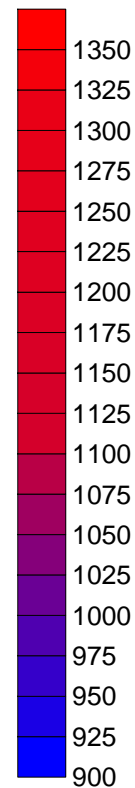
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Elevation In Feet Above MSL



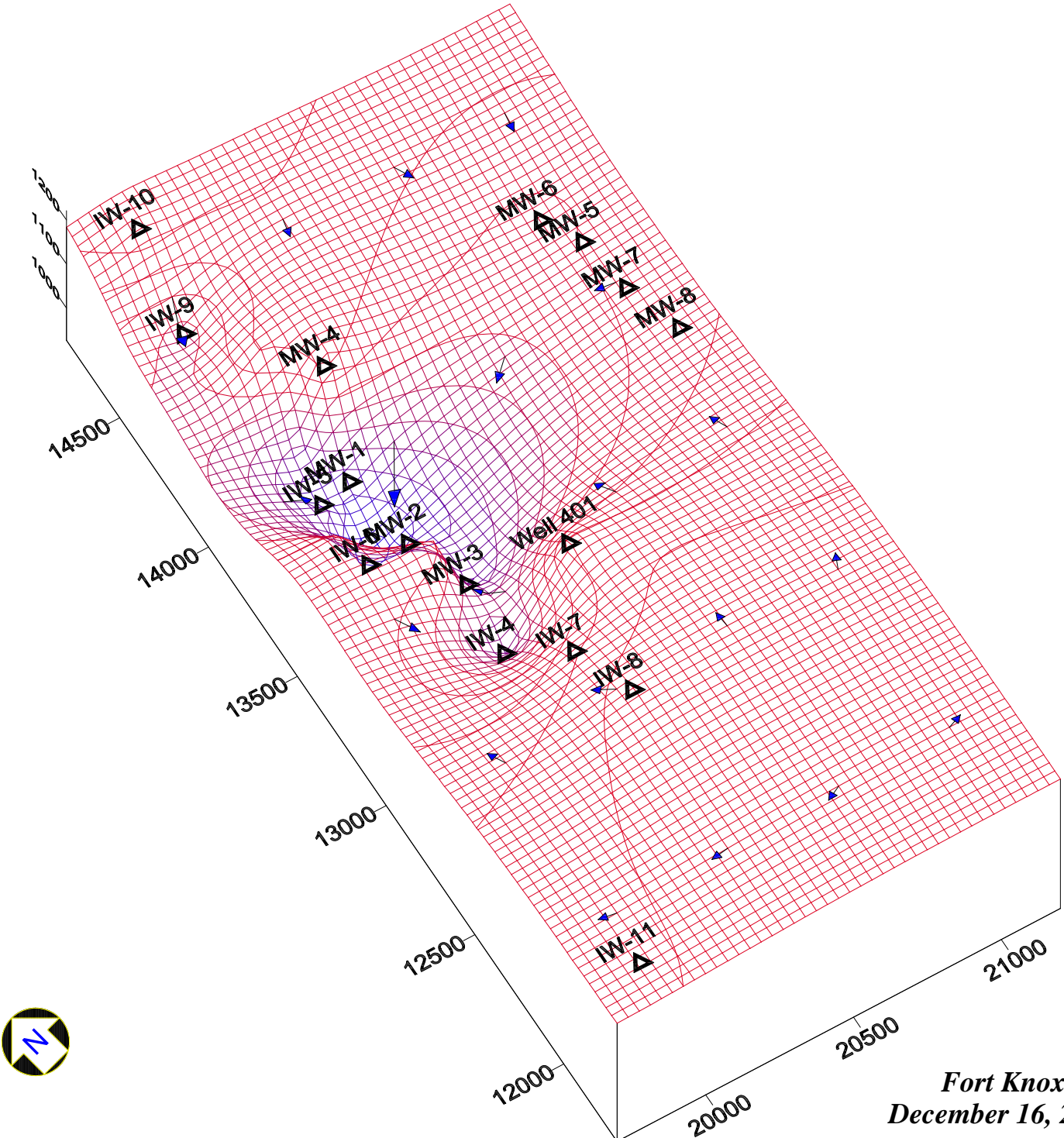
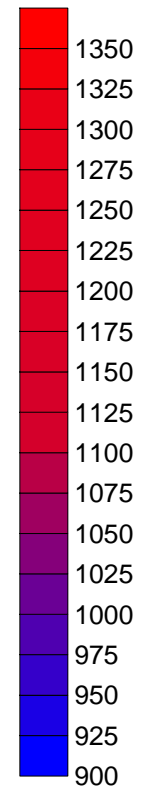
*Fort Knox Mine Interceptor Wells  
October 14, 2007 Groundwater Contours*

Elevation In Feet Above MSL



*Fort Knox Mine Interceptor Wells  
November 18, 2007 Groundwater Contours*

Elevation In Feet Above MSL



*Fort Knox Mine Interceptor Wells  
December 16, 2007 Groundwater Contours*



# **ATTACHMENT E**

## **Spill Reporting Log**

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# Fort Knox Mine Spill Reporting Log 2007

Spill Number	Date	Time	Location	Material	Quantity	Equipment	Cause	Cleanup Measures	Disposal	Agency Notified	Date	Time
07-01-01	1/8/2007	5:20 PM	In front of Bay 9	10W Oil	10 gallons	HT-5	Steering pump O-ring failure	Absorbant Material, Excavate	Absorbs burned, soil to barrel	Amanda Stark-ADEC	1/9/2007	8:46 PM
07-01-02	1/11/2007	7:00PM	Melba Road, Shovel PM Area	AW-46 Hydraulic Oil	15 gallons	SH-3	Overflow of Catch Drum	Absorbant Material, Excavate	Absorbs burned, soil to Fish Creek Dump	ADEC Spill Hotline	1/11/2007	7:38 PM
07-01-03	1/19/2007	9:55 AM	Phase 6 1420 Dig Face	AW-46 Hydraulic Oil	10 gallons	FSH-6	Hole punctured in oil hydraulic tank	Absorbant Material	Absorbs burned in Smart Ash Burner	ADEC - Peggy Wandell	1/19/2007	11:40 AM
07-05-04	1/25/2007	12:30 PM	Bull Rail	Ethylene Glycol	6 gallons	OT-002	Failed lower radiator hose	Absorbant Material	Absorbs burned in Smart Ash Burner	ADEC-Wes Ghormley	1/25/2007	2:48 PM
07-01-05	1/31/2007	9:00 PM	Phase 6	AW-46 Hydraulic Oil	40 gallons	SH-3	Failed shut off valve	Absorbant Material, Excavate	Absorbs burned, soil to Yellow Pup Dump	ADEC- Amanda Stark	2/1/2007	10:39 AM
07-01-06	2/8/2007	9:30AM	Powder Mag	15W40 Oil	9 gallons	Generator 06	Cracked Oil Pan	Absorbant Material, Excavate	Absorbs burned, soil to Fish Creek Dump	ADEC End of Month Report	3/1/2007	8:00 AM
07-03-07	2/15/2007	2:45 PM	Barnes Creek Dump	Diesel Fuel	15 gallons	FLR-10	Loose fuel cap	Absorbant Material	Absorbs burned in Smart Ash Burner	ADEC- Walt Sandel	2/16/2007	8:46 AM
07-01-08	2/25/2007	3:00 PM	1390 Bench	15W40 Oil	15 gallons	SH-6	Hydraulic Cooler change	Absorbant Material, Excavate	Absorbs burned, soil to Barnes Creek Dump	ADEC- Walt Sandel	2/26/2007	8:27 AM
07-03-09	2/27/2007	9:00 AM	Drill Pad, IW-10	Diesel Fuel	9 gallons	Maxi Heater # 01	Overfilling of tank	Absorbant Material, Excavate	Absorbs burned, soil to barrel	ADEC- End of Month Report	3/1/2007	8:00 AM
07-01-10	3/5/2007	2:47 AM	1480 Level in pit	Automatic Transmission Fluid	20 gallons	HT-6	Rock damage to tank	Absorbant Material, Excavate	Absorbs burned, soil to 1660 Waste Dump	ADEC- Peggy Wandell	3/5/2007	9:21 AM
07-01-11	3/5/2007	7:45 AM	Tire Pad	Hydraulic Fluid	3 gallons	MT-10	Hydraulic hose failure	Absorbant Material	Burned in on sight Smart Ash Burner	ADEC-Tom Deruyter	3/6/2007	3:55 PM
07-01-12	3/6/2007	1:45 PM	Tire Pad	Hydraulic Fluid	15 gallons	MT-11	Hydraulic hose failure	Absorbant Material, Excavate	Absorbs burned, soil to barrel	ADEC-Tom Deruyter	3/6/2007	3:55 PM
07-05-13	3/8/2007	10:30 AM	Crusher Road	Ethylene Glycol	33 gallons	HT-1	Coolant hose clamp broke	Absorbant Material, Excavate	Absorbs burned, soil to Barnes Creek Dump	ADEC- Walt Sandel	3/8/2007	11:05 AM
07-03-14	3/13/2007	4:30 AM	Just below tailing dam	Diesel Fuel	4 gallons	Rental heater	Overfilling of tank	Absorbant Material, Excavate	Absorbs burned, soil to barrel	ADEC- Peggy Wandell	3/13/2007	10:45 AM
07-01-15	3/22/2007	4:00PM	1360 Pit	10W Oil	20 gallons	SH-6	Hydraulic hose failure	Absorbant Material, Excavate	Absorbs burned, soil taken to Fish Creek Dump	ADEC- Peggy Wandell	3/23/2007	9:00 AM
07-01-16	3/23/2007	5:00 PM	Haul road behind cold storage	50W Oil	200 gallons	Tote (330 gallons)	Fork lift operator dropped tote while unloading	Absorbant Material, Excavate	Absorbs burned, soil taken to Barnes Creek	ADEC Hotline, Misty	3/23/2007	5:43 PM
07-03-17	3/28/2007	10:55 AM	Discharge from scales to Admin Fuel Island	Diesel Fuel	20 gallons	Alaska Petroleum Truck#14,Pup#04	Internal tank crack	Excavate Soil and Ice	Soil and snow to barrels	ADEC- Walt Sandel	3/28/2007	4:58 PM
07-03-18	4/1/2007	2:00 PM	Drill sight next to Heap Leach Haul Road	Diesel Fuel	3 gallons	Swan Drill Rig	Overfilling of fuel tank	Absorbs laid down, barrel soil	Absorbs burned, barreled soil to OIT	ADEC EOM Report	5/1/2007	8:00 AM
07-03-19	4/10/2007	3:15 PM	MEM Shop- In front of Bay# 6	Diesel Fuel	10 gallons	FT-007	Fuel pump replacement	Absorbs laid down, barrel soil	Absorbs burned, barreled soil to OIT	ADEC- Peggy Wandell	4/10/2007	3:50 PM
07-03-20	4/23/2007	12:00 AM	Tails Realignment Road	Diesel Fuel	2 gallons	Fuel Truck	Overfilling Maxi-heater	Absorbant Material, Excavate	Absorbs burned, soil taken to Barnes Creek	ADEC- Wes Ghormley	4/24/2007	2:33 PM
07-01-21	4/25/2007	9:00 AM	Phase 6	15W40 Oil	1 gallon	FT-6	Evac tank on FT-6 overfilled during PM of SH-5	Absorbs used to clean up oil	Absorbs burned in Smart Ash Burner	ADEC EOM Report	5/1/2007	8:00 AM
07-01-22	5/1/2007	9:30 AM	D&D Tire Pad	50 Weight Gear Oil	40 gallons	HT-34	Planetary bolts were sheared, came apart when tire removed	Absorbs used to clean up oil	Absorbs burned in Smart Ash Burner	ADEC- Walt Sandel	5/2/2007	8:40 AM
07-05-23	5/8/2007	10:30 AM	Powder Mag	Ethylene Glycol	1.5 gallons	P/U 95	Hose failure	Absorbs used to clean up coolant	Absorbs burned in Smart Ash Burner	ADEC- Peggy Wandell	5/9/2007	12:41 PM
07-01-24	5/11/2007	3:00 AM	1450 Dig Face	AW46 Oil	40 gallons	FSH 006	O-ring failure, curl cylinder hard lunc fitting bolt loosened up	Absorbs used to clean up spill, Excavate	Absorbs burned in Smart Ash Burner, soil to waste dump	ADEC-Walt Sandel	5/11/2007	3:00 PM
07-01-25	5/20/2007	9:00 AM	1600 Drill Pattern	Automatic Transmission Fluid	25 gallons	Drill # FDR004	Hose failure	Absorbs used to clean up oil	Absorbs burned in Smart Ash Burner	ADEC-Tom Deruyter	5/21/2006	8:20 AM
07-03-26	5/20/2007	9:30 AM	Across from maintenance shop	Diesel Fuel	6 gallons	Drill # FDR003	Overfilled drills fuel tank	Absorbs laid down, barrel soil	Absorbs burned in Smart Ash Burner, soil to OIT	ADEC-Tom Deruyter	5/21/2006	8:20 AM
07-01-27	5/22/2007	11:48 AM	Southside of Cold Storage	76 Extra Duty Gear Lube	7 gallons	FKL007	Three 5-gallon buckets fell off pallet during transport	Soil was shoveled into drum	Soil will be shipped to OIT	ADEC- Peggy Wandell	5/22/2007	4:25 PM
07-01-28	5/28/2007	4:00 PM	Phase 6, 1300 Level	AW46 Oil	50 gallons	SH-6	Hyraulic Hose Failure	Absorbant Material, Excavate	Absorbs burned, soil to Yellow Pup Dump	Alaska State Trooper Hotline	5/28/2007	6:05 PM
07-01-29	5/30/2007	2:40 PM	Warehouse Cold Storage Building	10W Oil	1 gallon	HT-10	Oil holes not plugged on cyclinder awaiting shipping	Absorbs laid down, barrel soil	Absorbs burned in Smart Ash Burner, soil to OIT	ADEC EOM Report	6/1/2007	8:00 AM
07-01-30	6/8/2007	7:00 AM	Powder Mag	15/40 Oil	3 gallons	PT-7	Leaky oil line	Contaminated soil removed	Soil will be shipped to OIT	ADEC-Walt Sandel	6/8/2007	12:05 PM
07-05-31	6/20/2007	6:25 AM	Employee parking lot	Ethylene Glycol	1 gallon	Personally owned vehicle	Fan blade broke apart, puncturing radiator	Absorbs laid down, barrel soil	Absorbs burned in Smart Ash Burner, soil to OIT	ADEC- Peggy Wandell	6/20/2007	9:09 AM
07-03-32	6/25/2007	1:15 PM	A-Stockpile	Diesel Fuel	9 gallons	Fuel Truck 7	Wiggins Nozzle Failure	Absorbs used to soak up pooled oil	Absorbs burned, soil to Yellow Pup Dump	ADEC- Peggy Wandell	6/26/2007	9:09 AM
07-01-33	7/5/2007	6:00 PM	Access Road	ATF	1 quart	Truck # 68	Transfer case failure	Rags used to soak up pooled oil	Rags burned, soil taken to landfill	ADEC- Ed Meggert	7/6/2007	11:45AM
07-01-34	7/14/2007	5:40 PM	1270 Phase 6	AW46 Oil	50 gallons	SH-3	O-Ring Failure	Absorbant Material, Excavate	Absorbs burned, soil to Yellow Pup Dump	ADEC Spill Hotline- Misty	7/14/2007	7:30 PM
07-03-35	7/19/2007	2:30 PM	1870 Dump (DW-153)	Diesel Fuel	10 gallons	Drilling Water Truck	Fuel line damage due to large material in roadbed	Absorbant Material, Excavate	Absorbs burned, soil to Yellow Pup Dump	ADEC-Wes Ghormaley	7/20/2007	8:30 PM
07-03-36	8/1/2007	5:00 PM	Melba Road & Tails Realignment Road	Diesel Fuel	5 gallons	DR-5	Over filling of equipment, plugged air line	Absorbant Material, Excavate	Absorbs burned, soil to waste dump.	ADEC-Brandy Weintrub	8/3/2007	10:00 AM

# Fort Knox Mine Spill Reporting Log 2007

Spill Number	Date	Time	Location	Material	Quantity	Equipment	Cause	Cleanup Measures	Disposal	Agency Notified	Date	Time
07-01-37	10/9/2007	2:15 PM	Behind Potable Water Bld.	Hydraulic Fluid	2 gallons	Swan Drill T-4	Crack in Hydraulic Hose	Absorbant Material, Excavate	Absorbs burned in Smart Ash Burner, soil to OIT	ADEC- EOM Report	11/1/2007	8:00 AM
07-01-38	10/9/2007	4:30 PM	Behind Potable Water Bld.	Engine Oil 15/40	4 gallons	Fuel Truck 5	Overflow of Evac Tank	Absorbant Material, Excavate	Absorbs burned in Smart Ash Burner, soil to OIT	ADEC- EOM Report	11/1/2007	8:00 AM
07-03-39	10/24/2007	10:30 AM	1270 Bench Phase 6	Diesel Fuel	75 gallons	PT-8	Fuel tank came in contact with rock	Absorbant Material, Excavate	Absorbs burned, soil to waste dump.	ADEC-Brandy Weintrub	10/24/2007	11:50 AM
07-01-40	11/8/2007	2:00 PM	Phase 7 Expansion Area	Hydraulic Fluid	4 gallons	Boart Longyear LF-90	Spill occurred during removal of hydraulic cylinder	Absorbant Material	Absorbs burned in Smart Ash Burner	ADEC- EOM Report	12/1/2007	8:00AM
07-01-41	11/10/2007	2:00 PM	1210 Elevation of Pit	10W Oil	50 gallons	SH-6	Transmission Motor Failure	Absorbant Material, Excavate	Absorbs burned, soil to waste dump.	ADEC- Chris Hampton	11/11/2007	8:15 AM
07-03-42	11/17/2007	5:30 PM	Diversion ditch above West Pit Wall	Diesel Fuel	8 gallons	LP 159- Boart Longyear P/U	Vehicle tipped on it's side after driving in ditch	Snow excavated	Snow deposited in Oil/Water Separator	ADEC- EOM Report	12/1/2007	8:00 AM
07-01-43	12/5/2007	6:30 AM	Phase 6 Floor	AW46 Oil	50 gallons	SH-3	Hydraulic Pump Failure	Absorbant Material, Excavate	Absorbs burned, soil to waste dump.	ADEC-Brandy Weintraud	12/5/2007	4:40 PM
07-03-44	12/10/2007	8:50 PM	Pit 1270 elevation	Diesel Fuel	30 gallons	FT 7	Rock ruptured fuel tank	Absorbant Material	Absorbs burned in Smart Ash Burner	ADEC-Brandy Weintrub	12/12/2007	9:10 AM

Spill Number Key: 1- Oil, 2-Grease, 3-Diesel, 4-Gas, 5-Coolant, 6-Process Solution, 7-Reagent, 8-Blasting Emulsion

# **ATTACHMENT F**

## **Knight Piesold Letter**

---

***Knight Piésold***  
CONSULTING

February 1, 2008

Mr. Ben Farnham  
Senior Environmental Engineer  
Fairbanks Gold Mining, Inc.  
#1 Fort Knox Road  
PO Box 73726  
Fairbanks, Alaska 99707-3726

Re: Fort Knox Tailing Storage Facility Summary of Measured Water Levels in Standpipe  
Piezometers KPPZ1 - KPPZ6

Dear Mr. Farnham:

This letter provides comments on the measured water levels in six standpipe piezometers installed into the upper right (South) abutment of the Fort Knox Tailing Facility dam in 2007. The piezometers, identified as KPPZ1 through KPPZ6, were installed in separate holes drilled from the crest of the dam through the downstream shell random fill zone and into the underlying Fairbanks Schist foundation rock. The piezometers were grouped into three pairs at the locations shown on Figure 1. Each pair contains one piezometer that had its screen completed entirely into the foundation rock and a second that had its screen completed across the fill to foundation interface. The screens for piezometers KPPZ1, 3 and 5 were completed into the foundation while the screens for piezometers KPPZ2, 4 and 6 were completed across the interface. Attachment 1 contains the drill hole and piezometer completion details and logs.

The piezometers were installed in an area where the Fairbanks Schist is substantially fractured and is suspected of allowing some drainage under the core of the dam that is being intercepted by a downstream drain system. This approach is consistent with the design basis for the dam. The piezometers were installed to confirm that such drainage is not associated with any significant pore pressures or head build up at the base of the dam.

FGMI has taken water level measurements in each piezometer on a weekly basis since their installation in May 2007 and these measurements are tabulated on Table 1.

As indicated from the data on Table 1, the water levels measured in the piezometers have remained essentially constant since May 2007, despite an increase in the water pond level against the upstream side of the dam. This indicates that the foundation and downstream fill is well drained, which is in accordance with design and operational expectations. The data on Table 1 also show that the measured water levels in each piezometer are near the fill to foundation interface which indicates that there are no significant pore pressures in upper foundation and no significant head build up in the downstream shell of the dam. This is consistent with the design intent and indicates that in the area of significant fracturing in the upper right abutment the dam and its drainage systems are performing as planned.

***Knight Piésold and Co.***

1580 Lincoln Street, Suite 1000  
Denver, Colorado 80203-1512  
U.S.A.

Telephone (303) 629-8788  
Telefax (303) 629-8789

YOUR REFERENCE DV-101.00009.14

Mr. Ben Farnham  
Fairbanks Gold Mining, Inc.

February 1, 2008

Given the consistency of the readings, we suggest that FGMI enters into discussions with the appropriate regulatory agencies to reduce the frequency of readings from weekly to monthly. This is in accordance with the original plans as outlined in the Knight Piésold report "Fairbanks Gold Mining Inc., Fort Knox Mine, Tailing Storage Facility Dam, Drain System Extension on South Abutment, Report on Design", dated March 8, 2007. Section 4.0 of this report states "Monitoring will also involve initially weekly (for the first four weeks) and then monthly measurements of water levels in, and water quality analyses of samples taken from the standpipe piezometers."

We trust this letter adequately conveys our assessment of the piezometer data and we look forward to providing on-going assistance on the dam.

Sincerely,  
Knight Piésold and Co.



Thomas F. Kerr, P.E.



*Feb. 1 108*

**Figure**





**Table 1**

Fairbanks Gold Mining, Inc.  
Fort Knox Mine  
Tailing Storage Facility  
Upper Right (South) Abutment  
Standpipe Piezometer Water Level Data

KP Well Number	KPPZ1 Standpipe Stickup 3.98'			KPPZ2 Standpipe Stickup 3.92'			KPPZ3 Standpipe Stickup 3.78'			KPPZ4 Standpipe Stickup 3.75'			KPPZ5 Standpipe Stickup 4.10'			KPPZ6 Standpipe Stickup 4.05'							
	Water Level Depth Readings From Top of Standpipe (ft)	Depth to Fill and Foundation Interface From Crest of Dam (ft)	Feet Below Interface (ft)	Water Level Depth Readings From Top of Standpipe (ft)	Depth to Fill and Foundation Interface From Crest of Dam (ft)	Feet Below Interface (ft)	Water Level Depth Readings From Top of Standpipe (ft)	Depth to Fill and Foundation Interface From Crest of Dam (ft)	Feet Below Interface (ft)	Water Level Depth Readings From Top of Standpipe (ft)	Depth to Fill and Foundation Interface From Crest of Dam (ft)	Feet Below Interface (ft)	Water Level Depth Readings From Top of Standpipe (ft)	Depth to Fill and Foundation Interface From Crest of Dam (ft)	Feet Below Interface (ft)	Water Level Depth Readings From Top of Standpipe (ft)	Depth to Fill and Foundation Interface From Crest of Dam (ft)	Feet Below Interface (ft)					
DATE	12/6/2007	122.4	117.0	1.4		111.0	n/a		118.0	109.0	5.2		108.5	108.5	(3.8)		109.5	107.0	(1.6)		103.4	106.5	(7.1)
	12/13/2007	122.2	117.0	1.2		111.0	n/a		117.9	109.0	5.1		108.3	108.5	(4.0)		109.4	107.0	(1.7)		103.5	106.5	(7.1)
	12/21/2007	122.3	117.0	1.3		111.0	n/a		118.0	109.0	5.2		108.5	108.5	(3.8)		109.7	107.0	(1.4)		103.5	106.5	(7.1)
	12/26/2007	122.1	117.0	1.1		111.0	n/a		118.1	109.0	5.3		108.4	108.5	(3.8)		109.4	107.0	(1.7)		103.6	106.5	(7.0)
	11/1/2007	122.2	117.0	1.2	111.5	111.0	(3.4)	118.0	109.0	5.2	108.5	108.5	(3.8)	109.2	107.0	(1.9)	103.4	106.5	(7.1)				
	11/7/2007	122.1	117.0	1.1	111.4	111.0	(3.5)	117.9	109.0	5.1	108.4	108.5	(3.8)	109.3	107.0	(1.8)	103.3	106.5	(7.3)				
	11/15/2007	111.8	117.0	(9.2)	111.4	111.0	(3.5)	117.8	109.0	5.0	108.4	108.5	(3.8)	109.2	107.0	(1.9)	103.4	106.5	(7.1)				
	11/22/2007	122.2	117.0	1.2	111.5	111.0	(3.4)	117.9	109.0	5.1	108.5	108.5	(3.8)	109.4	107.0	(1.7)	103.4	106.5	(7.1)				
	11/29/2007	122.1	117.0	1.1	111.3	111.0	(3.6)	118.1	109.0	5.3	108.4	108.5	(3.8)	109.5	107.0	(1.6)	103.5	106.5	(7.1)				
	10/6/2007	122.1	117.0	1.1	111.5	111.0	(3.4)	117.8	109.0	5.0	108.5	108.5	(3.8)	109.9	107.0	(1.2)	103.3	106.5	(7.3)				
	10/11/2007	121.1	117.0	0.1	111.4	111.0	(3.5)	117.9	109.0	5.1	108.3	108.5	(4.0)	109.1	107.0	(2.0)	103.3	106.5	(7.3)				
	10/18/2007	122.5	117.0	1.5	111.5	111.0	(3.4)	117.9	109.0	5.1	108.5	108.5	(3.8)	109.1	107.0	(2.0)	103.5	106.5	(7.1)				
	10/24/2007	122.2	117.0	1.2	111.4	111.0	(3.5)	117.9	109.0	5.1	108.3	108.5	(4.0)	109.2	107.0	(1.9)	103.3	106.5	(7.3)				
	9/5/2007	121.4	117.0	0.4	111.3	111.0	(3.6)	117.4	109.0	4.6	108.3	108.5	(4.0)	108.8	107.0	(2.3)	103.0	106.5	(7.6)				
	9/12/2007	121.4	117.0	0.4	111.3	111.0	(3.6)	117.3	109.0	4.5	108.2	108.5	(4.1)	108.8	107.0	(2.3)	103.0	106.5	(7.6)				
	9/20/2007	121.9	117.0	0.9	111.9	111.0	(3.0)	117.6	109.0	4.8	108.4	108.5	(3.8)	108.8	107.0	(2.3)	103.2	106.5	(7.4)				
	9/26/2007	121.7	117.0	0.7	111.3	111.0	(3.6)	117.5	109.0	4.7	108.3	108.5	(4.0)	108.8	107.0	(2.3)	103.2	106.5	(7.4)				
	8/1/2007	121.1	117.0	0.1	111.3	111.0	(3.6)	117.6	109.0	4.8	108.5	108.5	(3.8)	109.8	107.0	(1.3)	103.4	106.5	(7.1)				
	8/8/2007	121.1	117.0	0.1	111.2	111.0	(3.7)	117.2	109.0	4.4	108.3	108.5	(4.0)	108.9	107.0	(2.2)	103.2	106.5	(7.4)				
	8/15/2007	121.1	117.0	0.1	111.3	111.0	(3.6)	117.5	109.0	4.7	108.4	108.5	(3.8)	108.9	107.0	(2.2)	103.4	106.5	(7.1)				
	8/22/2007	121.2	117.0	0.2	111.2	111.0	(3.7)	117.3	109.0	4.5	108.6	108.5	(3.7)	108.8	107.0	(2.3)	103.3	106.5	(7.3)				
	8/30/2007	121.5	117.0	0.5	111.4	111.0	(3.5)	117.4	109.0	4.6	108.5	108.5	(3.8)	108.9	107.0	(2.2)	103.4	106.5	(7.1)				
	7/4/2007	121.1	117.0	0.1	111.0	111.0	(3.9)	117.3	109.0	4.5	108.3	108.5	(4.0)	108.8	107.0	(2.3)	103.1	106.5	(7.5)				
	7/11/2007	121.4	117.0	0.4	111.3	111.0	(3.6)	117.4	109.0	4.6	108.7	108.5	(3.6)	108.9	107.0	(2.2)	103.0	106.5	(7.6)				
	7/18/2007	121.1	117.0	0.1	111.5	111.0	(3.4)	117.2	109.0	4.4	108.5	108.5	(3.8)	108.8	107.0	(2.3)	103.3	106.5	(7.3)				
	7/25/2007	121.1	117.0	0.1	111.4	111.0	(3.5)	117.5	109.0	4.7	108.5	108.5	(3.8)	108.8	107.0	(2.3)	103.4	106.5	(7.1)				
	6/6/2007	121.7	117.0	0.7	111.0	111.0	(3.9)	117.9	109.0	5.1	108.2	108.5	(4.1)	109.1	107.0	(2.0)	103.3	106.5	(7.3)				
	6/13/2007	121.5	117.0	0.5	111.1	111.0	(3.8)	117.7	109.0	4.9	108.3	108.5	(4.0)	109.0	107.0	(2.1)	103.2	106.5	(7.4)				
	6/20/2007	121.4	117.0	0.4	111.1	111.0	(3.8)	117.5	109.0	4.7	108.3	108.5	(4.0)	108.9	107.0	(2.2)	103.2	106.5	(7.4)				
	6/27/2007	121.2	117.0	0.2	111.1	111.0	(3.8)	117.4	109.0	4.6	108.4	108.5	(3.8)	108.8	107.0	(2.3)	103.2	106.5	(7.4)				
	5/20/2007	120.3	117.0	(0.7)	111.0	111.0	(3.9)	118.2	109.0	5.4	108.3	108.5	(4.0)	109.1	107.0	(2.0)	103.4	106.5	(7.1)				
	5/29/2007	121.7	117.0	0.7	111.1	111.0	(3.8)	118.1	109.0	5.3	108.3	108.5	(4.0)	109.1	107.0	(2.0)	103.3	106.5	(7.3)				

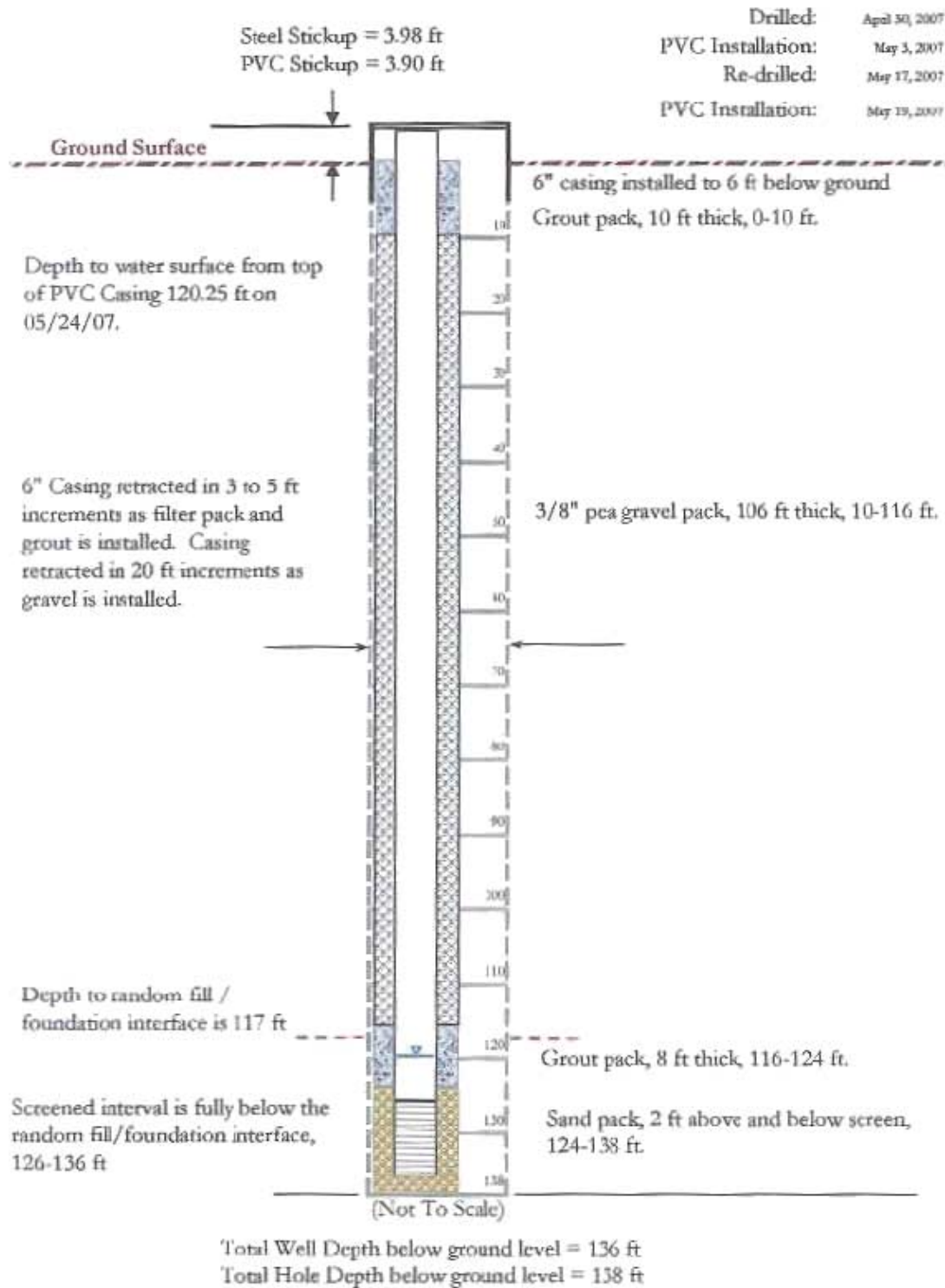
Notes:

- 1) Piezometer water level data provided by FGMI
- 2) The slotted screens for piezometers KPPZ1, KPPZ3, and KPPZ5 are installed completely in the foundation below the dam. The slotted screens for piezometers KPPZ2, KPPZ4, and KPPZ6 are installed across the fill to foundation contact.
- 3) The third column for each piezometer gives the depth of the measured water level below the base of the dam at the fill to foundation interface (parentheses indicates values above the interface).

**Attachment 1**

# Fairbanks Gold Mining Inc

## KPPZ1 Well Diagram -- Foundation



KINROSS GOLD ARCTIC REGION EXPLORATION - FORT KNOX

Sheet 1 of 2

HOLE NO.:		KPP21	Cased T.D.:	138	START DATE:	4/30/2007	COMMENTS:
NORTHING:		11900.419	Open T.D.:	138	COMPL. DATE:	5/19/2007	Drove 6" casing to hold hole open. Retracted casing during well construction.
EASTING:		19603.325	Steel Pickup:	3.98	STEEL HOLE DIA:	6 inch	Geological logged hole to determine interface between random fill of the dam
ELEV.:		1469.721	PVC Pickup:	3.90	PVC HOLE DIA:	2 inch	and the foundation (bedrock). Installed 2" dia PVC.
GEOLOGIST(S):		D. Buthera					
Depth	FROM	TO					
0	0	5	Geology logged from first drilling of hole on May 1-2, 2007				
5	5	10	Hole was redrilled May 17-19, 2007 in same location				
10	10	15					
15	15	20					
20	20	25					
25	25	30					
30	30	35					
35	35	40					
40	40	45					
45	45	50					
50	50	55					
55	55	60	Random Fill				
60	60	65					
65	65	70					
70	70	75					
75	75	80					
80	80	85					
85	85	90					
90	90	95					
95	95	100	Casing joint				

COMMENTS

No samples collected or logged from 0 to 60 ft depth

Mostly Gr, 50-60 ft

Mostly Sch / Cts, 60-70 ft

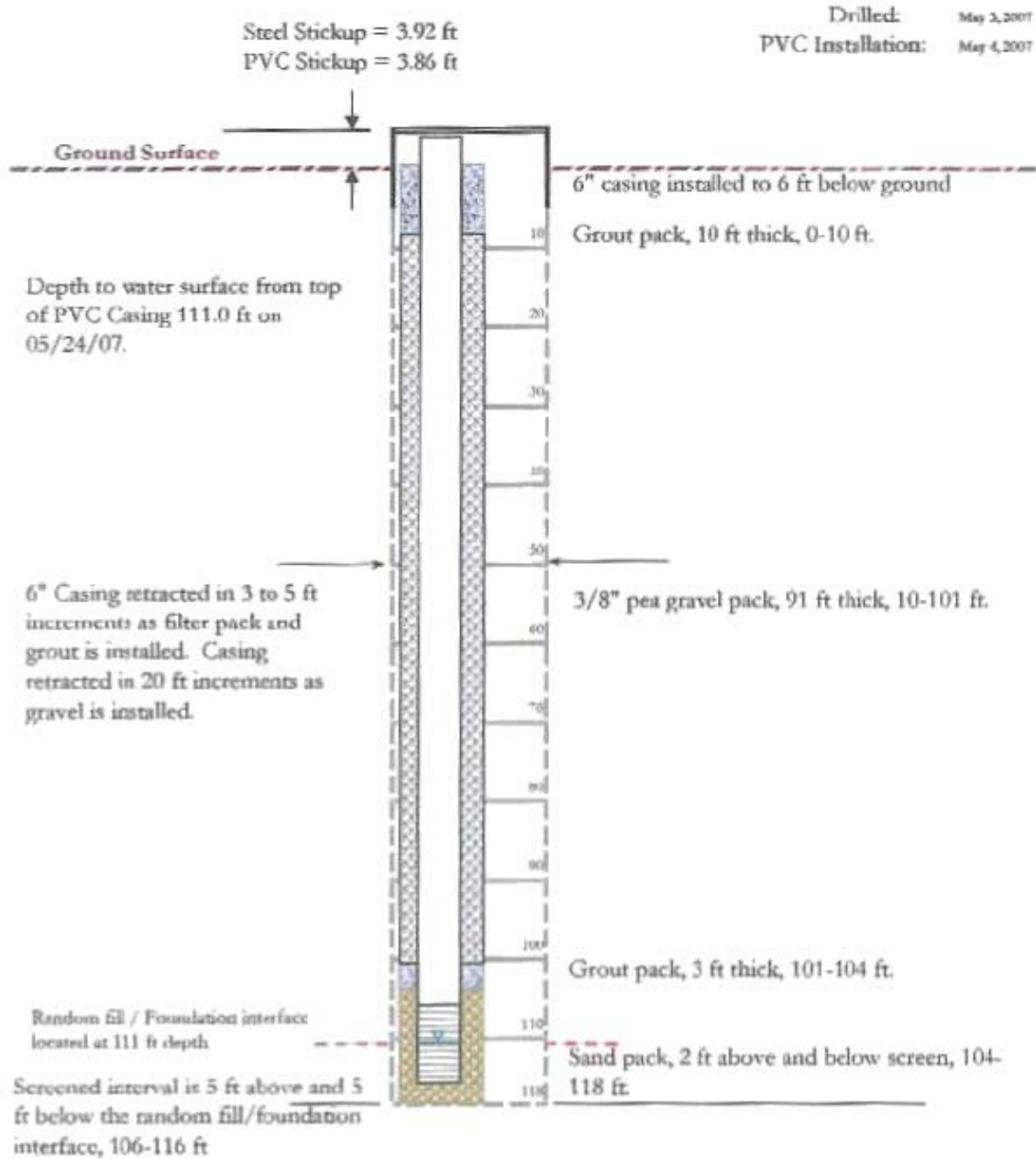
Mostly Gr, 70-80 ft

Mixed Gr + Sch / Cts, 80-90 ft

Mostly Gr, 90-107 ft



**Fairbanks Gold Mining Inc**  
**KPPZ2 Well Diagram -- Random Fill / Foundation Interface**



(Not To Scale)

Total Well Depth below ground level = 116 ft  
Total Hole Depth below ground level = 118 ft

KINROSS GOLD ARCTIC REGION EXPLORATION - FORT KNOX

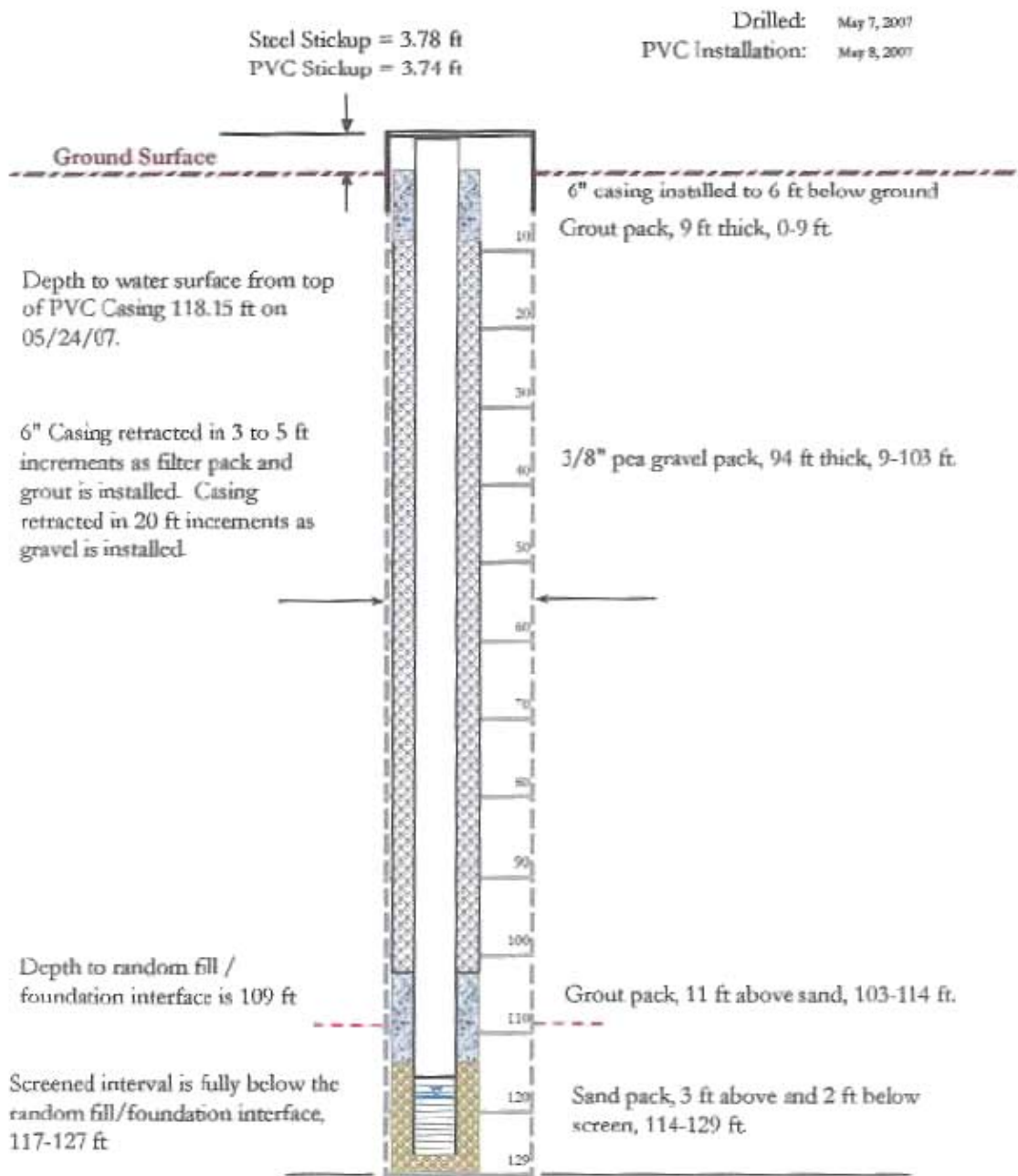
Sheet 1 of 2

HOLE NO.: KPP22		Cased T.D.: 116	START DATE: 5/3/2007	COMMENTS:
NORTHING: 11889.291		Open T.D.: 118	COMPL DATE: 5/4/2007	Drove 6" casing to holt hole open. Retracted casing during well construction. Geologist logged hole to determine interface between random fill of the dam and the foundation (bedrock). Installed 2" dia PVC.
EASTING: 19605.419		Steel Stickup: 3.92	STEEL HOLE DIA: 6 inch	
ELEV.: 1408.953		PVC Stickup: 3.86	PVC HOLE DIA.: 2 inch	
		GEOLOGIST(S): D. Butherus		
Depth	FROM	TO	Random Fill	COMMENTS
0	5			No samples collected or logged from
5	10			0 to 50 ft depth
10	15			--
15	20			--
20	25			--
25	30			--
30	35			--
35	40			--
40	45			--
45	50			--
50	55			Mostly Gr, 50-80 ft
55	60			
60	65			
65	70			
70	75			
75	80			
80	85			Gr, minor Sch, 80-105 ft
85	90			
90	95			
95	100			





# Fairbanks Gold Mining Inc KPPZ3 Well Diagram -- Foundation



(Not To Scale)

Total Well Depth below ground level = 127 ft  
Total Hole Depth below ground level = 129 ft

KINROSS GOLD ARCTIC REGION EXPLORATION - FORT KNOX

Sheet 1 of 2

HOLE NO.: KPP23		Cased I.D.:	127	START DATE:	5/7/2007	COMMENTS:
NORTHING:		11840.415	Open I.D.:	128	COMPL. DATE:	5/8/2007
EASTING:		19815.458	Steel Stockup:	3.78	STEEL HOLE DIA:	6 inch
ELEV.:		1488.888	PVC Stockup:	3.74	PVC HOLE DIA.:	2 inch
					GEOLOGIST (s):	D. Butnerus
Depth						
FROM	TO				Random Fill	COMMENTS
0	5					No samples collected or logged from
5	10					0 to 50 ft depth
10	15					-
15	20					-
20	25					-
25	30					-
30	35					-
35	40					-
40	45					-
45	50					-
50	55					Mostly Gr, 50-60 ft
55	60					↓
60	65					Gr + Sch, 60-65 ft
65	70					Mostly Gr, 65-75 ft
70	75					↓
75	80					Gr + Sch, 75-80 ft
80	85					
85	90					↓
90	95					Gr, 90-105 ft
95	100					↓

Casing joint

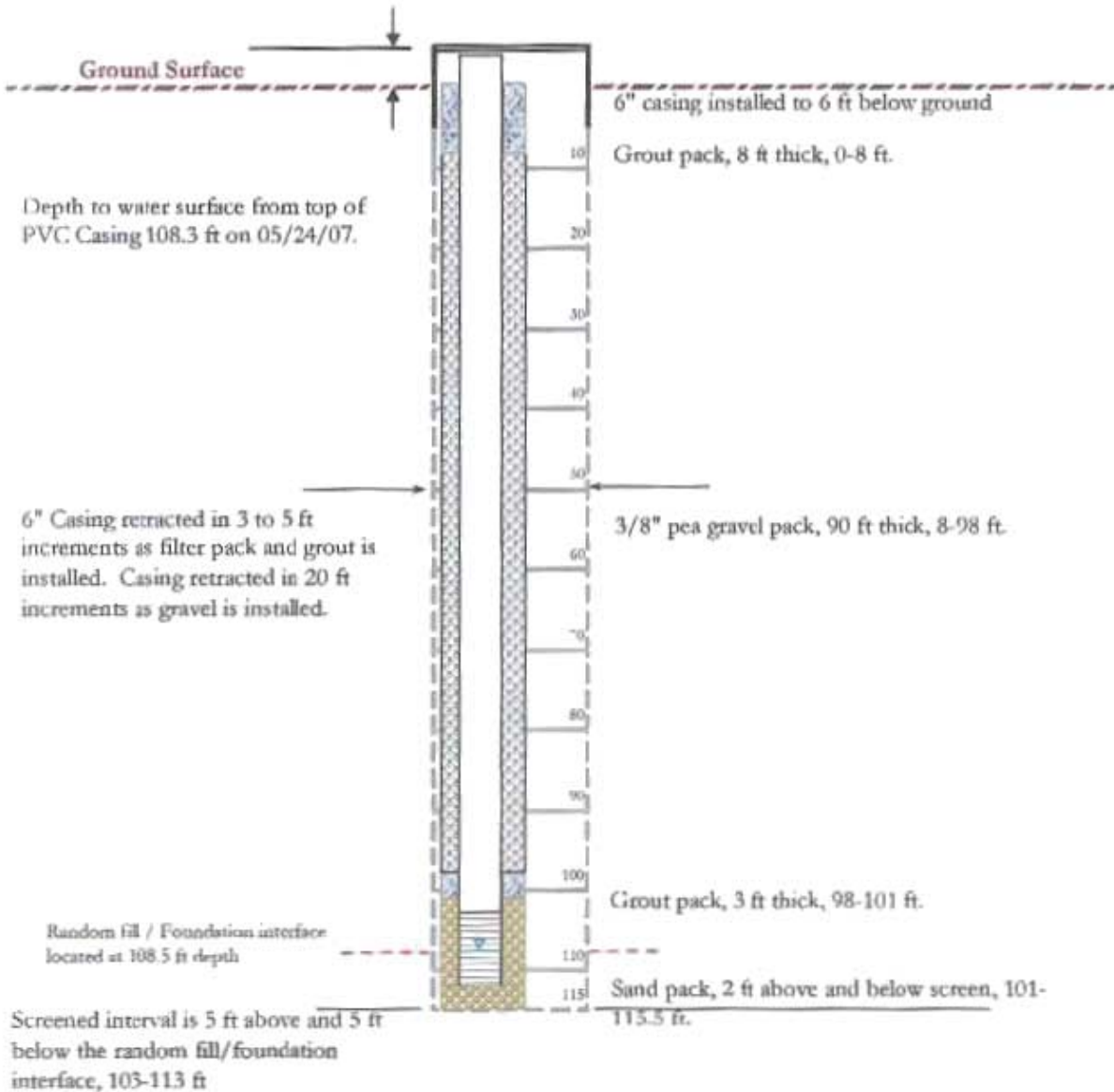
Casing joint



**Fairbanks Gold Mining Inc**  
**KPPZ4 Well Diagram -- Random Fill / Foundation Interface**

Drilled: May 10, 2007  
 PVC Installation: May 10, 2007

Steel Stickup = 3.75 ft  
 PVC Stickup = 3.69 ft



(Not To Scale)

Total Well Depth below ground level = 113 ft  
 Total Hole Depth below ground level = 115.5 ft



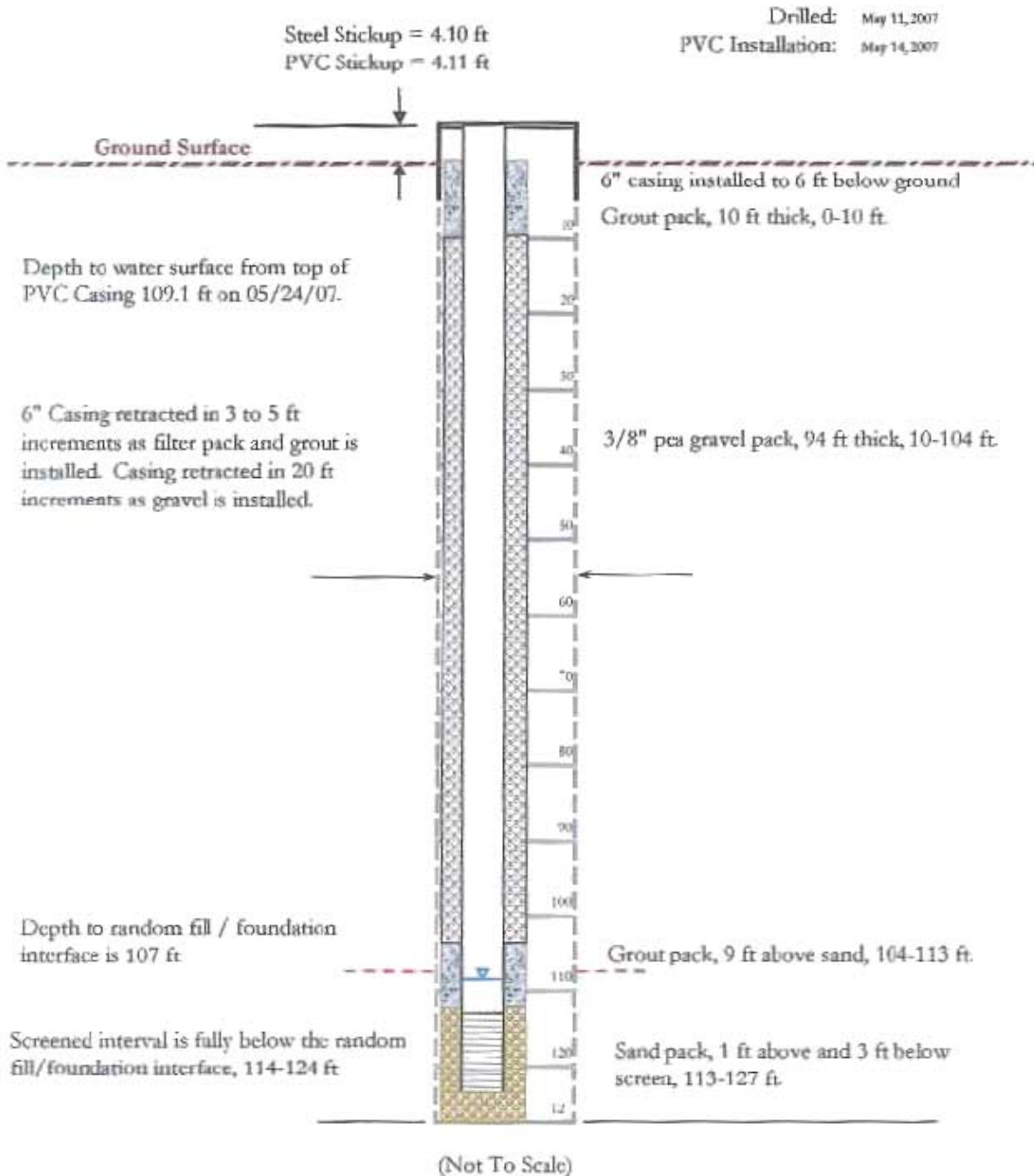
KINROSS GOLD ARCTIC REGION EXPLORATION - FORT KNOX

Sheet 1 of 2

HOLE NO.: KPPZ4		Cased T.D.:	113	START DATE:	5/10/2007	COMMENTS: Drove 6" casing to hold hole open. Retracted casing during well construction Geologist logged hole to determine interface between random fill of the dam and the foundation (bedrock). Installed 2" dia PVC
NORTHING:		Open T.D.:	115.5	COMPL. DATE:	5/10/2007	
EASTING:		Steel Slickup:	3.75	STEEL HOLE DIA:	6 inch	
ELEV.:		PVC Slickup:	3.69	PVC HOLE DIA:	2 inch	
		GEOLOGIST(s):		D. Butherford		
Depth						
FROM	TO					COMMENTS
0	5					No samples collected or logged from
5	10					0 to 50 ft depth
10	15					--
15	20					--
20	25					--
25	30					--
30	35					--
35	40					--
40	45					--
45	50					--
50	55					Gr, 50-60 ft
55	60					↓
60	65					Gr + minor Sch, 60-75 ft
65	70					↓
70	75					↓
75	80					Sch + Gr, 75-85 ft
80	85					↓
85	90					Gr, 85-108.5 ft
90	95					↓
95	100					↓



**Fairbanks Gold Mining Inc**  
**KPPZ5 Well Diagram -- Foundation**



Total Well Depth below ground level = 124 ft  
Total Hole Depth below ground level = 127 ft





KINROSS GOLD ARCTIC REGION EXPLORATION - FORT KNOX

Sheet 1 of 2

Depth		FROM	TO	COMMENTS
FROM	TO			
0	5			No samples collected or logged from 0 to 50 ft depth
5	10			--
10	15			--
15	20			--
20	25			--
25	30			--
30	35			--
35	40			--
40	45			--
45	50			--
50	55			Random Fill
55	60			Mostly Gr, 50-60 ft
60	65			Sch + Gr, 60-85 ft
65	70			
70	75			
75	80			
80	85			Casing joint
85	90			Gr + Sch, 85-90 ft
90	95			Gr, minor Sch, 90-95 ft
95	100			Sch + milky Q, 95-107 ft

HOLE NO.: KPPZ5  
 NORTHING: 11781.341  
 EASTING: 19627.667  
 ELEV.: 1499.322

Cased T.D.: 124  
 Open T.D.: 127  
 Steel Pickup: 4.10  
 PVC Pickup: 4.11

START DATE: 5/11/2007  
 COMPL DATE: 5/14/2007  
 STEEL HOLE DIA: 6 inch  
 PVC HOLE DIA: 2 inch  
 GEOLOGIST(S): D. Buthenus

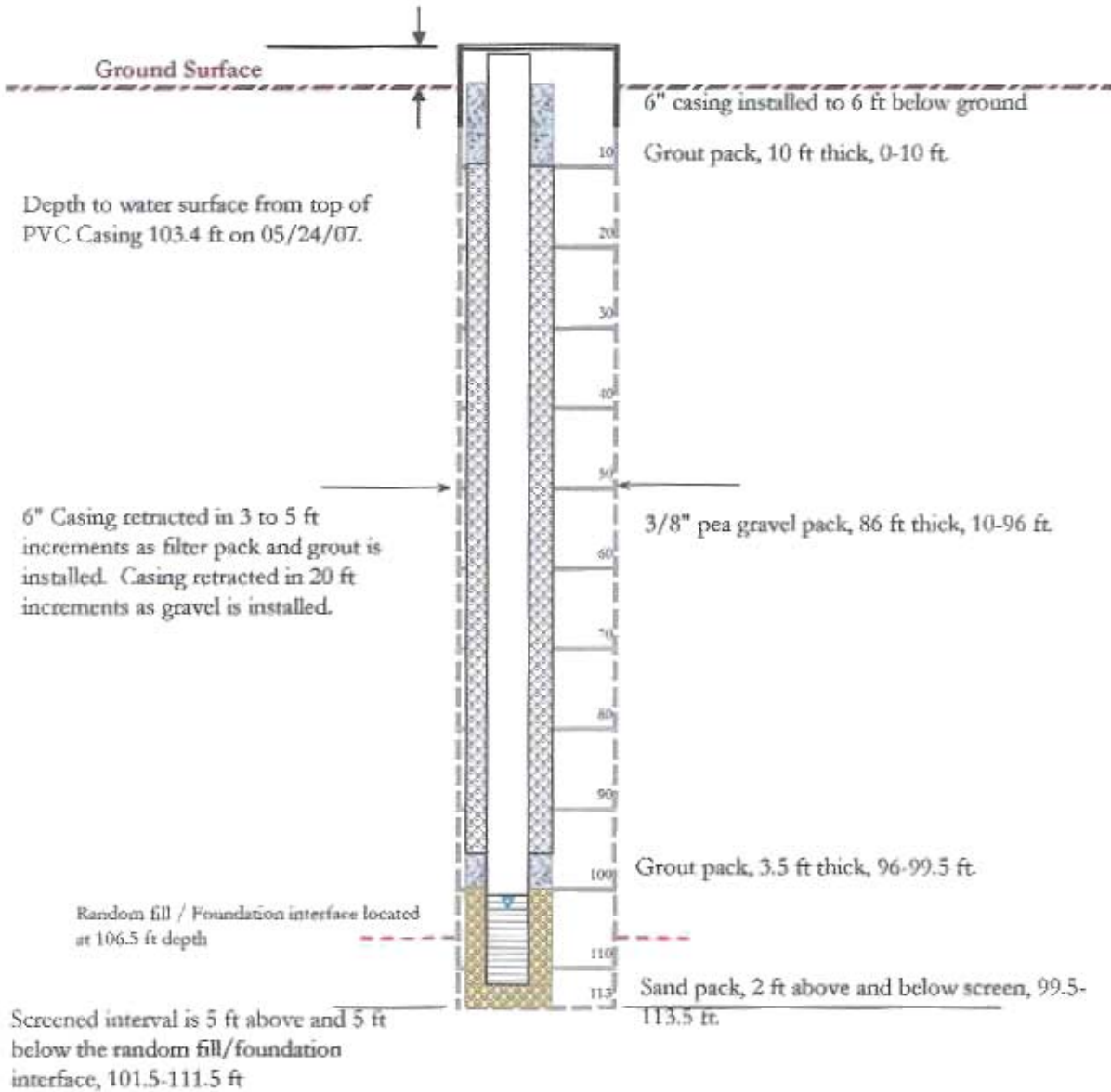
COMMENTS:  
 Drove 6" casing to hold hole open. Retracted casing during well construction. Geologist logged hole to determine interface between random fill of the dam and the foundation (bedrock). Installed 2" dia PVC.



**Fairbanks Gold Mining Inc**  
**KPPZ6 Well Diagram -- Random Fill / Foundation Interface**

Drilled: May 14, 2007  
 PVC Installation: May 16, 2007

Steel Stickup = 4.05 ft  
 PVC Stickup = 3.98 ft



(Not To Scale)

Total Well Depth below ground level = 111.5 ft  
 Total Hole Depth below ground level = 113.5 ft



KINROSS GOLD ARCTIC REGION EXPLORATION - FORT KNOX

Sheet 1 of 2

HOLE NO.: KPP26		Cased T.D.:	111.5	START DATE:	5/14/2007	COMMENTS:
NORTHING:		11771.415	Open T.D.:	113.5	5/16/2007	Drove 6" casing to hold hole open. Retracted casing during well construction. Geologist logged hole to determine interface between random fill of the dam and the foundation (bedrock). Installed 2" dia PVC.
EASTING:		19630.406	Steel Stickup:	4.05	6 inch	
ELEV.:		1499.20	PVC Stickup:	3.98	2 inch	
				GEOLOGIST(s):	D. Butcherus	
Depth						
FROM	TO	Random Fill				
0	5	No samples collected or logged from				
5	10	0 to 50 ft depth				
10	15	--				
15	20	--				
20	25	--				
25	30	--				
30	35	--				
35	40	--				
40	45	--				
45	50	--				
50	55	Gr, 50-60 ft				
55	60	↓				
60	65	Sch, minor Gr, 60-70 ft				
65	70	↓				
70	75	Gr + Sch, 70-85 ft				
75	80	↓				
80	85	Casing joint				
85	90	Gr, minor Sch, 85-95 ft				
90	95	↓				
95	100	Sch, minor Gr, 95-100 ft				



**ATTACHMENT G**  
**Water Management Consultants**  
**Technical Memo Pit Lake Evaluation**

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## **TECHNICAL MEMORANDUM**

**To:** Delbert Parr  
**Company:** Fairbanks Gold Mining, Inc.  
**Project No.:** 2603  
**From:** John Chahbandour  
**Date:** February 27, 2008  
**Subject:** Fort Knox Pit Lake Evaluation  
Updated 2007 groundwater analytical data

1875 LAWRENCE STREET, SUITE 500  
DENVER, COLORADO 80202, USA

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[www.watermc.com](http://www.watermc.com)

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### **1 INTRODUCTION**

This document presents an update to the Fort Knox pit lake evaluation technical memorandum (WMC, December 2006), completed in support of the Reclamation and Closure Plan for the Fort Knox Mine. This update has been prepared to incorporate recent site dewatering well analytical data into the pit lake modeling analysis, prepared to evaluate the short- and long-term pit lake quality following the solution management approach proposed for the Fort Knox Mine.

The Fort Knox Mine is located approximately 15 miles northeast of Fairbanks, Alaska. The site includes several sections in T2N, R2E and T2N, R3E, Fairbanks Meridian near the headwaters of the Fish Creek drainage. The site is located on land owned by the State of Alaska, the Alaska Mental Health Trust, and private parties.

The following sections outline the purpose and objectives of the Pit Lake Evaluation.

#### **1.1 Purpose**

The purpose of the pit lake modeling remains the same as described in the December 2006 memo. This update incorporates the most recent dewatering well data (third and fourth quarter 2007 sampling data) into the pit lake model for prediction of the chemistry of groundwater inflow to the pit following closure.

#### **1.2 Objectives**

The objectives of this update are to:

- present the revised groundwater dataset, and
- predict short- and long-term, post-closure pit lake water quality using the updated dataset.

## 2 PROJECT BACKGROUND

The December 2006 technical memo provides a description of the site climate, topography, hydrology and hydrogeology. That document also includes a summary of the relevant elements of the proposed Fort Knox Mine Reclamation and Closure Plan as they relate to the management of the TSF and pit lake.

The original modeling included a detailed water balance that defined the magnitude and relative proportions of inflows to the pit during the recovery period. Site specific data were utilized to assign water quality to each inflow component. Time steps of 2, 5, 15, 75, and 100 years were used to evaluate water quality over time. The pit volume is based on the current mine plan and a spill point elevation of 1,470 ft amsl. The detailed modeling was based on the following:

- a pumped volume of 5,500 acre-ft over 2 years (represents the anticipated case),
- decant and seepage water quality from July/August 2006,
- decant and seepage water quality remain constant over time (i.e., does not account for steady improvements in quality observed,
- uses dewatering well analytical data to represent the chemistry of groundwater inflow to the pit following closure, and
- relevant geochemical reactions were included (via equilibrium geochemical modeling).

The pit lake water balance results and modeling approach are described in detail in the December 2006 memo. The approach used for this update is identical.

## 3 UPDATED GROUNDWATER DATA

In the December 2006 modeling runs, groundwater quality in the vicinity of the pit was characterized as part of baseline investigations based on samples collected from the dewatering system between 2000 and 2002. For this update, dewatering well data from the third and fourth quarters of 2007 were included in the dataset to estimate the quality of groundwater inflow to the pit. These data are presented in Attachment 1.

Updated groundwater chemistry for the revised modeling was calculated based on the mean composition of the 2007 data. For major ion chemistry arithmetic averages were used, as these data are typically normally distributed. For trace metal chemistry, geometric mean data were used because these datasets are often skewed and a log-normal distribution is more likely to be appropriate to describe the data. By convention, if all analyses for a constituent in a well were non-detect, the concentration for that well was set to zero for calculating arithmetic and geometric means. If only some analyses were non-detect, the mean concentration for that well was calculated by substituting all non-detect values with one-half of the method detection limit for the analysis. The data used to represent groundwater chemistry for the revised modeling are presented in Table 3.1. The values are presented with the December 2006 concentrations for comparison.

## 4 REVISED PIT LAKE MODELING

The geochemical modeling process involves a series of solution mixing, chemical reactions, and mineral surface adsorption modeling to predict the pit lake composition at each selected output time. The process is detailed in the December 2006 memo. Results of the revised modeling are summarized in Table 4.1



and compared to applicable water quality standards. Results from the December 2006 modeling are also presented in Table 4.2 for comparison. As presented in these tables, the predicted concentrations of pit lake water chemistry has changed very little based on the updated groundwater data. The conclusions described in the December 2006 memo are unchanged.

Pit lake water quality results were extracted for Years 2, 5, 15, 75, and 100. Standards for cadmium, chromium, copper, lead, silver and zinc represent hardness-based aquatic standards, which were calculated using a hardness value of 103.7 mg/L as CaCO<sub>3</sub>. Hardness was calculated based on the average calcium and magnesium concentrations in the lower wetland surface water samples collected between February 2000 and November 2005. Any surface water discharges from the TSF will report to this drainage. For comparison the average hardness of the pit lake is predicted to be slightly higher at 143 mg/L as CaCO<sub>3</sub>.

The predicted pH of the pit lake water remains above 7 throughout filling and once discharge begins. The alkalinity values were predicted between 50 and 113 mg/L as CaCO<sub>3</sub>, indicating excess buffering capacity of the pit lake water. During Years 1 through 15, concentrations of total cyanide, antimony, copper, manganese, selenium and silver are predicted to be elevated compared to standards. The main source of these constituents is the tailings decant and seepage waters that are added to the pit lake during the first two years of filling. Copper and silver concentrations are predicted to fall below standards within five years. By Year 75 (approximately 13 years prior to pit lake spillover), concentrations of total cyanide, antimony and selenium are predicted to be below standards. Manganese concentrations are predicted to decrease over time, but remain consistent with background conditions.

## 5 CONCLUSIONS

The results of the updated pit lake modeling indicate the following:

- The most recent chemistry data for the dewatering production is largely consistent with that used in the previous analyses.
- The revised inflow water quality using the 2007 data has not resulted in a significant change from the 2006 model.
- With the exception of manganese, water quality standards can be met with no active management or treatment after 15 years following cessation of dewatering.
- The overall conclusion that water quality standards will be met in the pit lake prior to discharge is still valid and not affected by the new data
- At the time discharge is predicted to occur, water quality will be sufficient to meet applicable standards, again, with the exception of manganese concentrations.
- Pumping decant and seepage water to the pit will have no short- or long-term effects on water quality. Over the short-term, the pit will act as a hydraulic sink with hydraulic gradients toward the pit lake; and over the long-term, the pit lake water will comply with water quality standards.

## REFERENCES

WMC, December 2006. Fort Knox Pit Lake Evaluation, December 28, 2006.

## **TABLES**

**Table 3.1 Comparison of groundwater chemistry data used in revised modeling**

Parameter	DECEMBER 2006 MODELING	FEBRUARY 2008 MODELING
	Groundwater	Groundwater
	Weighted average data from dewatering wells (2002 - 2004 data)	Mean data from dewatering wells (2007 data)
pH (su)	8.0	8.2
Alkalinity as CaCO <sub>3</sub>	78.6	86.2
Ammonia	0.103	0.100
Antimony	0.0019	0.0013
Arsenic	0.014	0.0080
Barium	0.0010	0.0024
Cadmium	0.00015	0.00005
Calcium	35.6	37.5
Chloride	0.52	1.6
Chromium	0	0
Copper	0.0051	0.0056
Cyanide	0	0.0032
Flouride	0.292	0.20
Iron	0.13	0.039
Lead	0.00071	0.00008
Magnesium	6.49	6.55
Manganese	0.045	0.012
Mercury	0.0002	0.00010
Nitrate, as N	0.91	1.27
Nitrite, as N	0.054	0.061
Phosphorus	0.051	0
Potassium	1.1	1.08
Selenium	0.007	0.0004
Silver	0	0.0056
Sodium	9.3	10.5
Sulfate	50.5	46.2
Zinc	0.011	0.012

Groundwater data for February 2008 modeling are revised based on arithmetic (major ion) or geometric (trace metal) mean 2007 dewatering well data.

Groundwater alkalinity and sulfate data are not included in the 2007 data set. Data presented for February 2008 are from December 2006 modeling.

**ATTACHMENT 1**  
**3<sup>RD</sup> AND 4<sup>TH</sup> QUARTER 2007**  
**DEWATERING WELL DATA**

**Fort Knox Mine Dewatering Well Analytical Data  
3rd and 4th Quarters 2007**

Facility Name	Site Number	Sample Date	Duplicate Identifier	Alkalinity, Bicarbonate (mg/l as CaCO3)	Ammonia (mg/l as N)	Antimony, Dissolved (mg/l)	Arsenic, Dissolved (mg/l)	Barium, Dissolved (mg/l)	Bismuth, Dissolved (mg/l as Bi)	Cadmium, Dissolved (mg/l)	Calcium, Dissolved (mg/l)	Chloride, dissolved	Chromium, Dissolved (mg/l)	Copper, Dissolved (mg/l)	Cyanide, Total (mg/l)	Fluoride, Dissolved (mg/l)	Hardness Ca as CaCO3 mg/L	Hardness Mg as CaCO3 (mg/L)	Hardness, Total (mg/l as CaCO3)	Iron, Dissolved (mg/l)	Lead, Dissolved (mg/l)	Magnesium, Dissolved (mg/l)	Manganese, Dissolved (mg/l)	Mercury, Dissolved (mg/l)
Fairbanks Gold Mining	DW05-149A	9/18/2007 9:00:00 AM	0	58	0.84	0.106	0.0158	0.009	<0.04	<0.0001	67.2	19	<0.01	0.02	0.66	0.2	175	41	216	0.21	0.0002	9.8	0.284	<0.0002
Fairbanks Gold Mining	DW05-153	9/18/2007 1:00:00 PM	0	53	<0.05	0.001	0.0029	<0.003	<0.04	<0.0001	33.2	<1	<0.01	<0.01	<0.005	0.1	84	46	129	<0.02	<0.0001	11.3	0.029	<0.0002
Fairbanks Gold Mining	DW04-138	9/18/2007 1:30:00 PM	0	98	0.08	0.0071	0.0095	<0.003	<0.04	<0.0001	44.7	2	<0.01	<0.01	<0.005	<0.1	112	14	126	<0.02	0.0001	3.5	0.045	<0.0002
Fairbanks Gold Mining	DW03-108	9/18/2007 2:00:00 PM	0	99	<0.05	0.0066	0.0507	<0.003	<0.04	<0.0001	41.6	<1	<0.01	<0.01	<0.005	0.5	109	5	115	<0.02	0.0004	1.5	0.019	<0.0002
Fairbanks Gold Mining	DW98-51	9/18/2007 3:30:00 PM	0	69	<0.05	<0.0004	0.0007	<0.003	<0.04	<0.0001	29.5	<1	<0.01	<0.01	0.63	<0.1	77	44	121	<0.02	<0.0001	10.5	<0.005	<0.0002
Fairbanks Gold Mining	DW05-151	9/25/2007 9:15:00 AM	0	69	<0.05	<0.0004	0.0037	0.003	<0.04	<0.0001	56.1	1	<0.01	0.01	<0.005	0.1	145	86	231	0.02	<0.0001	19.6	0.008	<0.0002
Fairbanks Gold Mining	DW04-145	9/25/2007 9:30:00 AM	0	67	<0.05	0.0027	0.0023	0.014	<0.04	<0.0001	50.9	<1	<0.01	0.01	<0.005	0.2	123	68	191	0.02	<0.0001	16.5	0.005	<0.0002
Fairbanks Gold Mining	DW03-112	9/25/2007 10:45:00 AM	0	82	<0.05	0.0005	0.0053	<0.003	<0.04	0.0003	35.5	<1	<0.02	<0.01	<0.005	0.1	90	26	116	0.05	<0.0001	6.2	<0.005	<0.0002
Fairbanks Gold Mining	DW98-40	9/25/2007 11:15:00 AM	0	83	<0.05	0.0058	0.0173	0.004	<0.04	<0.0001	51.4	<1	<0.02	<0.01	<0.005	0.4	132	8	140	0.05	<0.0001	1.8	<0.005	<0.0002
Fairbanks Gold Mining	DW04-148	9/25/2007 12:00:00 PM	0	130	<0.05	0.0062	0.0177	0.004	<0.04	<0.0001	70.1	<1	<0.02	<0.01	<0.005	0.2	182	12	194	0.07	0.0008	2.8	0.02	<0.0002
Fairbanks Gold Mining	DW03-122	9/25/2007 12:15:00 PM	0	79	<0.05	0.0034	0.0337	0.004	<0.04	<0.0001	39.6	<1	<0.02	<0.01	<0.005	0.2	100	17	117	0.05	0.0002	4.1	<0.005	<0.0002
Fairbanks Gold Mining	DW00-79	10/2/2007 12:45:00 PM	0	111	<0.5	0.001	0.0045	<0.003	<0.04	<0.0001	17.7	<1	<0.01	<0.01	<0.005	0.1	48	23	71	0.02	0.0002	5.3	0.013	<0.0002
Fairbanks Gold Mining	DW01-107	10/2/2007 1:00:00 PM	0	123	<0.5	<0.0004	0.0007	<0.003	<0.04	<0.0001	18.4	<1	<0.01	<0.01	<0.005	0.1	46	20	66	<0.02	<0.0001	5.1	0.01	0.0003
Fairbanks Gold Mining	DW05-157	10/2/2007 1:20:00 PM	0	119	<0.05	0.0009	0.0092	<0.003	<0.04	<0.0001	23.4	<1	<0.01	<0.01	<0.005	0.3	59	23	81	<0.02	<0.0001	5.6	0.006	<0.0002
Fairbanks Gold Mining	DW05-160	10/2/2007 1:35:00 PM	0	114	<0.5	<0.0004	0.0116	<0.003	<0.04	<0.0001	19.4	<1	<0.01	<0.01	<0.005	0.3	51	17	68	0.07	<0.0001	4	0.006	<0.0002
Fairbanks Gold Mining	DW07-175	10/2/2007 2:00:00 PM	0	67	<0.5	0.0059	0.0048	<0.003	<0.04	<0.0001	25	<1	<0.01	<0.01	<0.005	<0.1	57	17	75	0.03	<0.0001	4.6	0.029	<0.0002
Fairbanks Gold Mining	DW07-180	12/5/2007 4:00:00 PM	0	56	<0.05	0.0044	0.0264	<0.003	<0.04	<0.0001	35.9	<1	<0.01	<0.01	0.008	0.4	86	5	91	0.06	<0.0001	1.3	0.024	<0.0002
Fairbanks Gold Mining	DW03-117	12/11/2007 8:00:00 AM	0	69	<0.1	0.0019	0.0149	0.015	<0.04	<0.0001	25.7	1	<0.01	<0.01	<0.005	0.2	66	22	88	<0.02	<0.0001	5.3	0.017	<0.0002
Fairbanks Gold Mining	DW98-40	12/11/2007 9:00:00 AM	0	66	<0.05	0.0005	0.0046	0.006	<0.04	<0.0001	39.3	1	<0.01	<0.01	<0.005	0.1	97	54	152	<0.02	<0.0001	13.3	0.007	<0.0002
Fairbanks Gold Mining	DW04-138	12/11/2007 10:30:00 AM	0	67	<0.05	0.0075	0.012	<0.003	<0.04	<0.0001	46	3	<0.01	<0.01	<0.005	0.2	114	15	128	<0.02	0.0001	3.7	0.043	<0.0002
Fairbanks Gold Mining	DW07-175	12/11/2007 10:55:00 AM	0	69	<0.05	0.0045	0.0056	<0.003	<0.04	<0.0001	22.5	1	<0.01	<0.01	<0.005	<0.1	55	21	75	0.06	<0.0001	5.1	0.02	<0.0002
Fairbanks Gold Mining	DW05-153	12/11/2007 11:30:00 AM	0	128	<0.05	0.001	0.0036	<0.003	<0.04	<0.0001	33.9	1	<0.01	<0.01	<0.005	0.2	84	45	129	0.09	0.0002	11.3	0.079	<0.0002
Fairbanks Gold Mining	DW03-122	12/12/2007 8:30:00 AM	0	97	<0.05	0.0032	0.0338	<0.003	<0.04	<0.0001	39.8	1	<0.01	<0.01	<0.005	0.2	104	17	121	<0.02	<0.0001	3.9	<0.005	<0.0002
Fairbanks Gold Mining	DW07-180	12/12/2007 10:00:00 AM	0	98	<0.05	0.0027	0.0261	<0.003	<0.04	<0.0001	33.5	1	<0.01	<0.01	<0.005	0.4	87	5	91	0.03	<0.0001	1.2	0.013	<0.0002

**Fort Knox Mine Dewatering Well Analytical Data  
3rd and 4th Quarters 2007**

Facility Name	Site Number	Sample Date	Duplicate Identifier	Nickel, Dissolved (mg/l)	Nitrate Nitrogen, Dissolved (mg/l as N)	Nitrite Nitrogen, Dissolved (mg/l as N)	pH (Lab-su)	pH, Field, Standard Units	Phosphorus (mg/l as P)	Potassium, Dissolved (mg/l)	Selenium, Dissolved (mg/l)	Silicon Total mg/l	SILICON, DISSOLVED (MG/L AS SI)	Silver, Dissolved (mg/l)	Sodium, Dissolved (mg/l)	Specific Conductance (umhos/cm @ 25C)	Specific Conductance, Field (umhos/cm @ 25C)	Sulfate, dissolved (M/MWT)	Sulfide, Total (mg/l as S)	Temperature, Water (Degrees Centigrade)	Total Dissolved Solids (mg/l)	Total Suspended Solids (mg/l)	Turbidity,lab Nephelometric Turbidity Units, Ntu	Weak Acid Dissociable Cyanide, mg/l	Zinc, Dissolved (mg/l)
Fairbanks Gold Mining	DW05-149A	9/18/2007 9:00:00 AM	0	0.02	10.4	0.35	8.2			4.6	0.0035		13.3	0.01	34.6	609		10	<0.02		360	<5	0.4	0.128	<0.01
Fairbanks Gold Mining	DW05-153	9/18/2007 1:00:00 PM	0	<0.01	0.02	<0.01	8.3			1.1	<0.0001		9.9	0.01	6.8	284		20	<0.02		140	<5	3.7	<0.005	<0.01
Fairbanks Gold Mining	DW04-138	9/18/2007 1:30:00 PM	0	<0.01	0.03	<0.01	8.2			0.9	<0.0001		12.2	0.02	16.5	339		32	<0.02		190	<5	0.8	<0.005	0.03
Fairbanks Gold Mining	DW03-108	9/18/2007 2:00:00 PM	0	<0.01	0.5	0.31	8.3			<0.3	0.0003			<0.01	15.9	295		26	<0.02		170	<5	0.6	<0.005	<0.01
Fairbanks Gold Mining	DW98-51	9/18/2007 3:30:00 PM	0	<0.01	0.28	<0.01	8.3			1.4	0.0003			<0.01	4.4	259		32	<0.02		140	<5	0.7	<0.005	<0.01
Fairbanks Gold Mining	DW05-151	9/25/2007 9:15:00 AM	0	<0.01	0.68	<0.01	8.2			1.6	0.0007		4.7	<0.01	3.8	430		55	<0.02		260	<5	0.4	<0.005	0.03
Fairbanks Gold Mining	DW04-145	9/25/2007 9:30:00 AM	0	<0.01	0.45	<0.01	8.2	7.22		1.8	0.0004		6.2	<0.01	4.7	382	388	56	<0.02	6	230	<5	0.3	<0.005	0.1
Fairbanks Gold Mining	DW03-112	9/25/2007 10:45:00 AM	0	<0.01	0.06	<0.01	8.3	7.14		1.7	0.0003			<0.01	4.3	229	232	70	<0.02	7.1	140	<5	1.6	<0.005	0.08
Fairbanks Gold Mining	DW98-40	9/25/2007 11:15:00 AM	0	<0.01	0.4	<0.01	8.3	7.12		<0.6	0.0003			<0.01	14.1	307	314	66	<0.02	7.8	190	<5	1.3	<0.005	<0.02
Fairbanks Gold Mining	DW04-148	9/25/2007 12:00:00 PM	0	<0.01	7.98	0.69	8.3	7.08		0.7	0.0017			<0.01	20.6	460	466	70	<0.02	8.2	300	<5	0.4	<0.005	<0.02
Fairbanks Gold Mining	DW03-122	9/25/2007 12:15:00 PM	0	<0.01	1.99	<0.01	8.2	7.03		0.6	0.0021			<0.01	11	272	280	119	<0.02	8.7	170	<5	0.3	<0.005	<0.02
Fairbanks Gold Mining	DW00-79	10/2/2007 12:45:00 PM	0	<0.01	1.94	<0.01	8.2			0.6	0.0006			<0.01	2.4	154		106	<0.02		80	24	50.6	<0.005	<0.01
Fairbanks Gold Mining	DW01-107	10/2/2007 1:00:00 PM	0	<0.01	0.75	<0.01	8.2			0.8	0.0004			<0.01	2.9	160		103	<0.02		80	<5	0.1	<0.005	<0.01
Fairbanks Gold Mining	DW05-157	10/2/2007 1:20:00 PM	0	<0.01	0.45	<0.01	8.3			1.2	0.0012			<0.01	6.5	207		30	<0.02		110	<5	0.7	<0.005	<0.01
Fairbanks Gold Mining	DW05-160	10/2/2007 1:35:00 PM	0	<0.01	1.33	<0.01	8.3			0.5	0.0004			<0.01	4.5	165		25	<0.02		90	<5	0.2	<0.005	0.01
Fairbanks Gold Mining	DW07-175	10/2/2007 2:00:00 PM	0	<0.01	0.09	<0.01	8.2			0.8	0.0062			<0.01	5.9	180		31	<0.02		100	<5	9	<0.005	<0.01
Fairbanks Gold Mining	DW07-180	12/5/2007 4:00:00 PM	0	<0.01	<0.02	<0.01	8.2	7.02		0.6	0.0002			<0.01	23.7	282	303	19	<0.02	5.1	180	<5	6.3	0.009	<0.01
Fairbanks Gold Mining	DW03-117	12/11/2007 8:00:00 AM	0	<0.01	0.03	<0.01	8.2			1	0.0003			<0.01	3.9	191		19	<0.02		100	<5	0.2	0.006	0.03
Fairbanks Gold Mining	DW98-40	12/11/2007 9:00:00 AM	0	<0.01	0.4	<0.01	8.2			1.4	0.0004			<0.01	4.9	308		17	<0.02		170	<5	2.2	<0.005	0.01
Fairbanks Gold Mining	DW04-138	12/11/2007 10:30:00 AM	0	<0.01	0.06	<0.01	8.2			1	<0.0001			<0.01	16.4	324		60	<0.02		180	<5	<0.1	<0.005	<0.01
Fairbanks Gold Mining	DW07-175	12/11/2007 10:55:00 AM	0	<0.01	0.21	<0.01	8.2			0.8	0.0058			<0.01	4.7	169		55	<0.02		80	<5	0.7	<0.005	0.04
Fairbanks Gold Mining	DW05-153	12/11/2007 11:30:00 AM	0	<0.01	0.06	<0.01	8.3			1.1	<0.0001			<0.01	6.6	277		37	<0.02		140	<5	1.5	<0.005	0.02
Fairbanks Gold Mining	DW03-122	12/12/2007 8:30:00 AM	0	<0.01	2.14	<0.01	8.2			0.7	0.0026			<0.01	11.7	294		49	<0.02		190	<5	2.6	<0.005	0.01
Fairbanks Gold Mining	DW07-180	12/12/2007 10:00:00 AM	0	<0.01	0.22	<0.01	8.2			0.6	<0.0001			<0.01	21.5	275		32	<0.02		170	<5	1.3	<0.005	0.04