

## **APPENDIX 2.9-B**

### **Air Particulate Sampler Operation And Maintenance Manual**

**HI-Q**

**Environmental  
Products Co.**

7386 Trade Street  
San Diego, California 92121-2422

*Division of La Jolla Scientific Co., Inc.*

Phone: (858) 549-2820  
Fax: (858) 549-9657

# **HVP-4200AFC**

**BRUSHLESS, AUTOMATIC FLOW CONTROL OUTDOOR HI-VOL AIR SAMPLER  
FOR CONTINUOUS USE**



(REV. N.R. 12/05)

## **INTRODUCTION**

This high volume air sampler is housed in an anodized aluminum outdoor shelter. The unit incorporates a three stage centrifugal blower powered by a brushless, variable speed motor. The motor speed is controlled by a programmable logic controller (PLC) that accepts an input from a mass air flow sensor placed in the air flow path downstream of the filter paper. Any changes in the operator's pre-set flow rate due to changes in dust loading, barometric pressure and temperature is detected by the air flow sensor. The PLC compensates for these changes by adjusting the motor speed to maintain that pre-set flow rate.

The HVP-4200AFC is intended for continuous use without the bothersome and expensive brush changes of brushed blower units. The brushless blower is speed controlled rather than incorporating air choke devices such as venturis or orifice plates commonly found in units which run their motor at full speed. The HI-Q brushless blower is light weight and consumes about half the power of other type units.

The standard protocol for most high volume air sampling procedures is 40 SCFM through an 8" x 10" (0.8 micron, glass fiber) filter paper, which is well within the range of the HVP-4200AFC. This unit is supplied with a model CFPH-810 filter paper holder that accepts 8"x10" filter paper. The unit is calibrated for a flow range between 10 and 50 SCFM, allowing the extra pump capacity to maintain a pre-set flow rate within this calibration range during sampling pressure drops across the filter holder. The actual maximum flow is dependent upon the type of filter paper or media and its inherent pressure drop.

Brushless blowers are generally quieter than any other type of blower. This unit has a sound level of less than 50 dBA at 3 feet, when running at full speed.

The HVP-4200AFC includes a 7 day programmable timer that allows the air sampler to be turned ON and OFF at pre-programmed times of the week. The unit can be programmed to turn ON and OFF at five different times in each day of the week.

### **Unpacking the unit**

Unpack unit and inspect for any possible shipping damage. Report any damage IMMEDIATELY to the CARRIER.

The unit is shipped in two or three boxes depending on accessories purchased. The main unit is in one box, and the roof assembly in another.

### **Placement of the unit**

The HVP-4200AFC unit is intended for outdoor use. Normally, the unit is anchored to a concrete pad or used railroad ties imbedded in the ground. There are four rubber shock absorbers for non permanent installation on the leg bottoms. For permanent installation, remove the four rubber foot shock absorbers, and use lag bolts or molly bolts to fasten the unit to the pad.

Install the roof with the bolts provided, and attach the roof restrainer to the cabinet. This restrainer will prevent the roof from falling down on the operators hands when changing the filter paper.

## **SYSTEM DESCRIPTION**

### **Electrical**

The unit is provided with a connection for conduit. Connect the conduit and wire as required by the electrical codes applicable in your area. Unit should be installed on a circuit breaker protected line of at least 15 AMPS. We recommend the services of a licensed electrician.

### **Fuse**

The units face panel has a 12 AMP fuse for the electronics and the motor. The unit is pre-wired for connection to the outlet box inside the unit. The line switch controls the outlet, and the standard power cord of the unit plugs into this outlet.

### **Power Supply**

The unit consists of a 40W, multiple output DC power supply with three outputs: 5V, 12V, and 24V. The PLC is powered by 24V and the mass air flow sensor is powered by 12V.

### **Electronics**

The PLC unit has built-in firmware which is pre-programmed to operate with the air flow sensor; no further adjustment is required. The PLC and air flow sensor are durable enough to operate in harsh environments, yet fragile if physically hit or dropped. The air flow sensor is installed in the air stream downstream of the filter media and positioned for maximum sensitivity.

The motor speed is controlled by a 0-10 VDC signal to the motor from the PLC. Polarity is critical in that crossing + with - could damage the internal blower circuit.

The motor itself has a control pot located in the side of the motor housing. This pot is used at the factory to adjust the maximum speed control voltage to the Hall Effect sensors inside the motor. The pot is adjusted by HI-Q to the minimum voltage necessary to achieve the maximum flow. Further adjustment beyond this setting could supply over voltage to the motor and burn it out.

**Therefore, do not further adjust this pot!**

**Caution!** Do not for any reason open or disassemble the motor. There is nothing to replace, or adjust, or salvage from the inside. There is a PC board and Hall sensor switches which are in adjustment and may be damaged if opened. The bearings are permanently lubricated and cannot be replaced. The parts are sometimes fixed with Lock tight™ compound to prevent movement. If the motor eventually wears out, it will have to be replaced in its entirety.

## OPERATION

Remove the protective cardboard from the 8" x 10" filter holder. Install a sheet of filter paper in the holder. For 0.3 micron filtration, use HI-Q model #FP5211-810 type glass fiber paper, shiny side towards the pump. For 0.8 micron high flow, use our type #2063 glass fiber paper, red stripe facing out. The maximum flow rate of any unit is dependent on the pressure drop of the paper and the size. High pressure drop or small size will reduce the maximum flow. For automatic speed and flow control, you must set the flow to some rate that is less than maximum obtainable. Then, when the flow is reduced by dust loading, the motor will be able to speed up to compensate for the reduced flow. For this reason, the unit should not be set for a flow over 50 SCFM. This is to allow some reserve motor capacity for maintaining that 50 SCFM when dust loading increases the pressure drop across the filter paper.

When the unit ready for operation, turn on the MAIN SWITCH located on the front panel. The screen as shown in figure 1 will be displayed a few seconds after the main switch has been turned ON.



Figure 1. Startup Display

5 seconds later, the screen shown in figure 2 will be displayed.

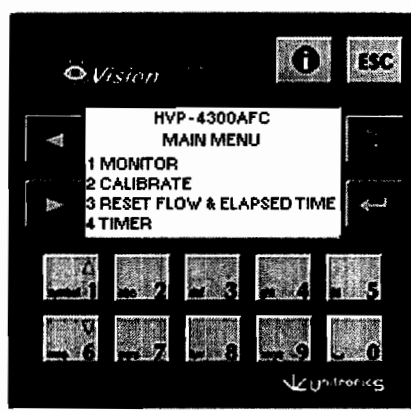


Figure 2. Main Menu

The keypad buttons and the corresponding functions in this menu are:

- 1 Monitor
- 2 Calibration
- 3 Reset Parameters
- 4 Timer

### Parameters screen

Press “1” from the “Main Menu” to enter the Parameters screen as shown in figure 3. The parameters displayed in this screen are:

SET POINT: User pre-set flow rate in SCFM  
FLOW RATE: Instantaneous flow rate in SCFM  
TOTAL FLOW: Total volume of air sampled in SCF  
ELAPSED TIME: Elapsed sample time in Hours and Tenths of Hours

Press “ESC” to return to the main menu.

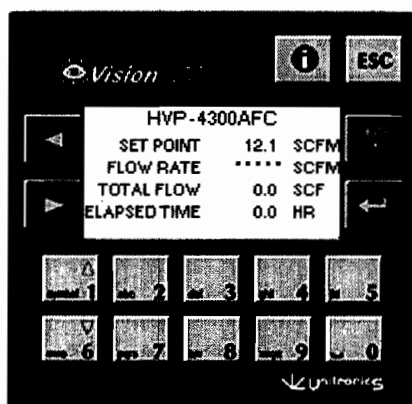


Figure 3. Parameter Screen

### Calibration screen

Press “2” from the “Main Menu” to enter the Calibration Password screen (figure 10). The calibration procedure and screens are described in detail in the next chapter

### Reset Parameters screen

Press “3” from the “Main Menu” to enter the Reset Parameters screen where the totalizer and elapsed timer can be reset to zero. The following screen (figure 4) prompts the user to enter a password. The factory pre-set password for the RESET functions is 250.

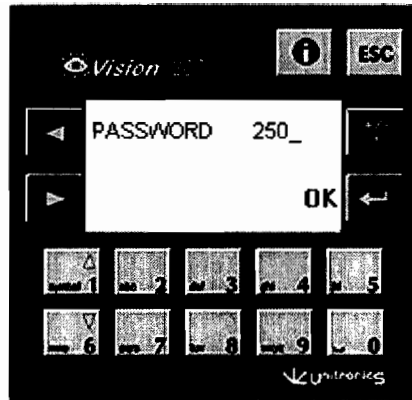


Figure 4. RESET Password Entry

Enter 250 using the keypad and press OK (or ESC to return to Main Menu). Press the RESET button from the following screen (figure 5) to reset the totalizer and elapsed timer to zero (or ESC to return to Main Menu without resetting). Press OK to return to the Main Menu

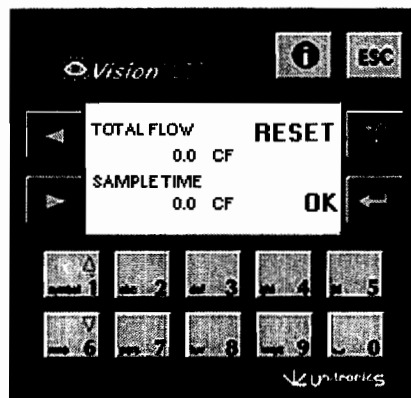


Figure 5. RESET Totalizer and Elapsed Timer

### Timer screen

The timer feature is used to turn the sampler ON and OFF at programmed time of the day and week. For continuous operation of the air sampler, turn the "Blower Switch" to "ON". The timer feature is applied only when the "Blower Switch" is in "TIMER" position. Press "4" from the "Main Menu" to enter the Timer screen as shown in figure 6. Press the corresponding key to select the appropriate day of the week you wish to program or press "ESC" to return to the Main Menu.

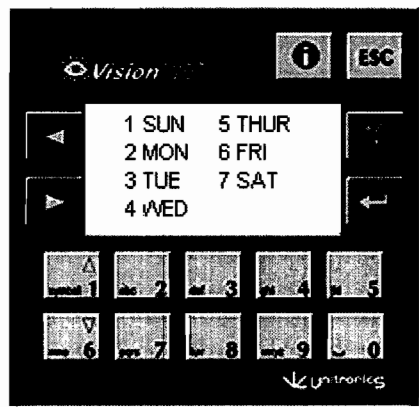


Figure 6. Timer Screen

If “3 TUE” is selected the following screen (figure 7) will be displayed.

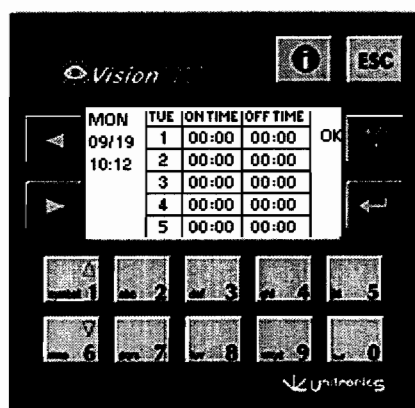


Figure 7. Timer Screen for Tuesday

As shown above in figure 7, the top left hand side of the screen displays the current day (DDD), date (MM/DD) and time (HH:MM). The table shows five runtime (ON/OFF) periods for Tuesday that the sampler can be programmed to be turned ON and OFF. The cursor starts at the first ON time. First enter the start time (“ON”) Hour (HH:) followed by the “ENTER” key then the minutes (:MM) followed by the “ENTER” key. Repeat the steps for programming the desired OFF time. If multiple ON & OFF times are desired, enter them as described above, otherwise continue pressing the “ENTER” key until all times are programmed. You must step through the entire table even if multiple ON/OFF times are not desired. Press “OK” when programming is complete. The timer screen shown (figure 6) will be displayed. Repeat programming features for each of the ON/OFF times for the remaining days of the week.



Turn on the MOTOR SWITCH. The motor will start and settle down to the speed control setting. Press 1 (Up Arrow) or 2 (Down Arrow) to increase or decrease the pre-set flow rate. After setting the desired flow, let the unit run for a few minutes to warm up the motor. Now, close the unit and lock it if required.

### NOTE ON THE LOCK

The locks are all individually keyed. We do not keep a copy of the keys! If you lose the keys, you will have to drill out the lock and replace it.

## CALIBRATION

### Calibration Check Devices

The unit is calibrated before leaving the factory. There is no need to calibrate before use. Protocol requires that all air flow devices should be re-calibrated at least once a year against a traceable standard. Operational calibration verification can be performed once a month if you own a calibration check device.

The validity of the HVP-4200AFC calibration can be checked in the field with a number of types of calibration units.

HI-Q suggests using the HFC-50C or AFC-COMplete-50. The unit fits with an adapter plate (FHA-810CF) to the top of the paper loaded filter holder.

### Calibration Check Procedure

To establish the concept of relationships of the three units of flow volume measurement, it is important to start with the following definition:

CFM (cubic feet per minute) = ACFM (actual cubic feet per minute) = SCFM (standard cubic feet per minute), when all are at following conditions of 29.92 inches of mercury barometric pressure, and 70 degrees F. When the barometric pressure or temperature is different than that 29.92" and 70 degrees F, then corrections must be made to the apparent CFM to give you the SCFM reading needed to adjust the display on the HVP-4200AFC. Once you have the unit calibrated with the corrected SCFM, the mass air flow sensor and PLC will automatically compensate for any changes in temperature and pressure during the sampling process. To state it another way, when you are re-calibrating the unit with a device that does not have automatic compensation for temperature and pressure, like the HFC-50C or laminar flow element, you must determine what the SCFM is from the CFM reading of the curve plot value or direct meter readout value. This, to compensate for the deviation from the ideal 29.92 " Hg and 70 degrees F. Again, if the temperature and pressure is ideal, then CFM = SCFM.

### Example of Checking Calibration

Turn on the unit and set the flow at 40.0 CFM of the CALIBRATOR, not the display of the unit. The apparent flow rate reading is 40 CFM on the calibrator, but the temperature is not 70 degrees, and the pressure is not 29.92". Rather, the temperature is 80 degrees F. and the barometric pressure is 28.70 " Mercury.

First compensate for the barometric pressure. From chart A-31031, look up 28.70". The correction multiplier is: 0.9592.  $40.0 \text{ CFM} \times 0.9592 = 38.36$ . Then look up the correction multiplier for 80 degrees on chart A-32422, which is 0.9674.  $38.36 \times 0.9674 = 37.10 \text{ SCFM}$ .

The calibrator reads 40.0 CFM. The instantaneous flow rate display *should* read the corrected Standard Cubic Feet per Minute of 37.10 SCFM.

If an operator finds the HVP-4200AFC to be out of calibration beyond a correctable means of using correction factors the control panel must be sent back to HI-Q for re-calibration. Re-calibration is done at our factory in San Diego, California and is re-certified against NIST standards.

### Re-calibration

From the Main Menu (figure 2) press "2" to enter into the "Calibration Password" display shown in figure 9. The factory pre-set password for Calibration is 250.



Figure 9. CALIBRATION Password Entry

Enter 250 using the keypad and press OK (or ESC to return to Main Display). When the password is accepted the PLC enters calibration mode (figure 10). To cancel the calibration procedure and retain the previous calibration, press ESC at any stage of the calibration procedure.



Figure 10. Zero Calibration Display

Turn off the blower switch and wait for 30 seconds and press NEXT. The zero point (0 scfm) will be set and the “Calibration Point 1” screen (figure 11) will be displayed.

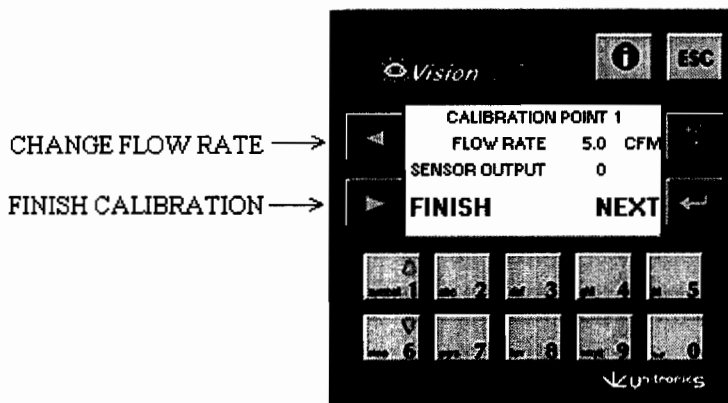


Figure 11. Calibration Point 1

Turn on the blower switch. To change the flow rate display point of the calibration table, press the Left Arrow as indicated in figure 7. The “Change Flow Rate” screen will be displayed, as shown in figure 12. Using the keypad, enter the desired flow rate in SCFM and press OK. The “Calibration Point 1” screen will be updated with the new flow rate value. Press 1 (Up Arrow) or 2 (Down Arrow) to increase or decrease the speed of the blower, thereby changing the flow rate, until the flow rate displayed by the Air Flow Calibrator (AFC-COMplete-50) is equal to the flow rate displayed by the unit and then press NEXT.

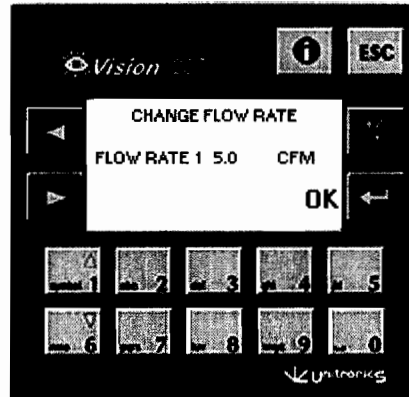


Figure 12. Change Flow Rate 1

Repeat the above steps up to the desired number of calibration points. The maximum allowed number of calibration points is 15. To complete calibration with less than 15 points, press FINISH (Right Arrow) at any stage of calibration, as shown in figure 11. In case of error or doubt, press ESC to restore the previous calibration table and start over again.

To have the unit re-calibrated at HI-Q factory, the operator must simply remove the electrical components using the following steps and send them back to HI-Q:

1. Remove control panel by loosening the 6 screws which hold it in the cabinet.
2. Remove the blower-mass air flow sensor assembly by loosening the 4 "kep-nuts" holding the blower in place and loosening the filter holder collar. Keep the motor mounting plate on the blower.
3. Carefully package and send the above components to HI-Q, with a completed re-calibration purchase order.

Contact our calibration department (858-549-2820) to request re-calibration cost and turn around time.

**NOTE:** Converting the HVP-4200AFC to a 4" diameter paper sampler (HVP-4204AFC) is not easily done in the field without the knowledge of the control technology. If a conversion from, or to, a 4" diameter filter holder is required, please contact the engineering department at HI-Q before proceeding.

### **OPTIONS AVAILABLE**

Contact our engineering department (858-549-2820) to incorporate any of the following features into the HVP-4200AFC unit.

- RS-232/RS-485 communication
- 4-20 mA or 0-10 VDC scaled analog output
- Alarm features
- CDMA/GSM communication

- Remote Access software
- Data Acquisition Software

### **MAINTENANCE**

The Blower and Electronics are all maintenance free and must be factory serviced or replaced if defective.

**HI-Q'S HVP-4200AFC  
SPARE PARTS LIST**

<b>PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>QTY REQ.</b>
HVP42-001	2-STAGE, 115 VAC, 250 WATT BRUSHLESS BLWR	1 EA
HVP42-002	2-STAGE, 230 VAC, 400 WATT BRUSHLESS BLWR	1 EA
HVP42-003	MASS FLOW CONTROLLER	1 EA
HVP42-004	MASS AIR FLOW SENSOR	1 EA
HVP42-005	40W, MULTIPLE OUTPUT POWER SUPPLY	1 EA
HVP42-006	OPTIONAL SERIAL COMMUNICATION CABLE	1 EA
HVP42-007	OPTIONAL 4-20 mA or 0-10 VDC OUTPUT WIRING	1 EA
HVP42-008	8" X 10"FILTER PAPER HOLDER, CFPH-810	1 EA
HVP42-009	FUSE HOLDER	1 EA
HVP42-010		
HVP42-011	FUSE FOR FACE PANEL	1 EA
HVP42-012	4" DIA. THREADED RING	1 EA
HVP42-013	4" DIA. REPLACEMENT SUPPORT SCREEN (N/A)	1 EA
HVP42-014	"O" RING FOR 4" THREADED RING	1 EA
HVP42-015	CONDUIT BOX	1 EA
HVP42-016	WHITE QUIT SWITCH & RECEPTACLES	1 EA
HVP42-017	CONDUIT BOX COVER PLATE	1 EA
HVP42-018	SPRING DOOR LATCH	1 EA
HVP42-019	CAM LOCK AND KEY	1 EA
HVP42-020	LEFT HANDED LOCKING ROOF SUPPORT	1 EA
HVP42-021	6" T-HINGE ROOF MOUNTING	2 EA
HVP42-022	4-1/2" SAFETY HASPS	1 SET
HVP42-023	MOTOR SHOCK MOUNTS	4 EA
HVP42-024	MOTOR SUPPORT GASKET	1 EA
HVP42-025	18/3 3 FT POWER CORD	1 EA
HVP42-026	ANODIZED SHELTER W/O ROOF	1 EA
HVP42-027	GABLED ROOF FOR ANODIZED SHELTER	1 EA
HVP42-028	CONTROL BOARD FACE PANEL	1 EA
HVP42-029	CONTROL BOARD SUPPORT, MOUNTING PANEL	1 EA
HVP42-030	SHELTER FOOT SUPPORT	4 EA
HVP42-031	TOGGLE SWITCH WITH ON/OFF PLATE	1 EA

## **APPENDIX 2.9-C**

### **TLD Analytical Results**

### Table of Contents (Sorted by Sample Location and Date)

Monitoring Period	Date Deployed	Date Collected	Days	Sample Location	Landauer Location ID Number
1	8/15/2007	2/4/2008	173	AMS-01	8
	8/15/2007	2/4/2008	173	AMS-02	2
	8/15/2007	2/4/2008	173	AMS-03	4
	8/15/2007	2/4/2008	173	AMS-04	9
	8/15/2007	2/4/2008	173	AMS-05	6
	8/15/2007	2/4/2008	173	AMS-06	1
	8/15/2007	2/4/2008	173	AMS-07	3
	8/16/2007	2/4/2008	172	AMS-BKG	5
	8/15/2007	2/4/2008	173	AMS-BKG	7
2	2/4/2008	5/17/2008	103	AMS-01	10
	2/4/2008	5/17/2008	103	AMS-01	11
	2/4/2008	5/17/2008	103	AMS-02	12
	2/4/2008	5/17/2008	103	AMS-03	14
	2/4/2008	5/17/2008	103	AMS-04	17
	2/4/2008	5/17/2008	103	AMS-05	13
	2/4/2008	5/17/2008	103	AMS-06	15
	2/4/2008	5/17/2008	103	AMS-07	16
	2/4/2008	5/17/2008	103	AMS-BKG	18
	2/4/2008	5/17/2008	103	AMS-BKG	19
3	5/17/2008	7/17/2008	61	AMS-01	7
	5/17/2008	7/17/2008	61	AMS-01	8
	5/17/2008	7/17/2008	61	AMS-02	2
	5/17/2008	7/17/2008	61	AMS-03	9
	5/17/2008	7/17/2008	61	AMS-04	1
	5/17/2008	7/17/2008	61	AMS-05	26
	5/17/2008	7/17/2008	61	AMS-06	6
	5/17/2008	7/17/2008	61	AMS-07	27
	5/17/2008	7/17/2008	61	AMS-BKG	3
	5/17/2008	7/17/2008	61	AMS-BKG	5



### Table of Contents (Sorted by Landauer Location ID)

Monitoring Period	Date Deployed	Date Collected	Days	Landauer Location ID Number	Sample Location
1	8/15/2007	2/4/2008	173	1	AMS-06
	8/15/2007	2/4/2008	173	2	AMS-02
	8/15/2007	2/4/2008	173	3	AMS-07
	8/15/2007	2/4/2008	173	4	AMS-03
	8/16/2007	2/4/2008	172	5	AMS-BKG
	8/15/2007	2/4/2008	173	6	AMS-05
	8/15/2007	2/4/2008	173	7	AMS-BKG
	8/15/2007	2/4/2008	173	8	AMS-01
	8/15/2007	2/4/2008	173	9	AMS-04
2	2/4/2008	5/17/2008	103	10	AMS-01
	2/4/2008	5/17/2008	103	11	AMS-01
	2/4/2008	5/17/2008	103	12	AMS-02
	2/4/2008	5/17/2008	103	13	AMS-05
	2/4/2008	5/17/2008	103	14	AMS-03
	2/4/2008	5/17/2008	103	15	AMS-06
	2/4/2008	5/17/2008	103	16	AMS-07
	2/4/2008	5/17/2008	103	17	AMS-04
	2/4/2008	5/17/2008	103	18	AMS-BKG
	2/4/2008	5/17/2008	103	19	AMS-BKG
3	5/17/2008	7/17/2008	61	1	AMS-04
	5/17/2008	7/17/2008	61	2	AMS-02
	5/17/2008	7/17/2008	61	3	AMS-BKG
	5/17/2008	7/17/2008	61	5	AMS-BKG
	5/17/2008	7/17/2008	61	6	AMS-06
	5/17/2008	7/17/2008	61	7	AMS-01
	5/17/2008	7/17/2008	61	8	AMS-01
	5/17/2008	7/17/2008	61	9	AMS-03
	5/17/2008	7/17/2008	61	26	AMS-05
	5/17/2008	7/17/2008	61	27	AMS-07

LANDAUER

Landauer, Inc. 2 Science Road Glenwood, Illinois 60425-1586 Telephone: (708) 755-7000 Facsimile: (708) 755-7016

ENVIRONMENTAL / LOW LEVEL DOSIMETRY REPORT

ADDRESS ACCOUNT NO. SERIES CODE  
POWER TECH URANIUM 291406  
ATTN :  
310 SECOND AVE  
EDGEMOUNT, SD 57735

FOR EXPOSURE PERIOD 07/01/2007

NET CUMULATIVE TOTALS (MILLIREMS)									
LOCATION ID NUMBER	IDENTIFIER (CLIENT SUPPLIED)	NOTE CODE	EXPOSURE OF DOSIMETER (MILLIREMS AMBIENT DOSE EQUIVALENT)	CALENDAR QUARTER	YEAR TO DATE	PERMANENT	ADJUST- MENTS	NUMBER OF DOSIMETERS REPORTED	INCEPTION DATE OF PERM. TOTAL
			GROSS						
00000	TRANSIT CONTROL	NC	56.2						
00003		NC	73.7						/ /
00005		NC	57.0						/ /
00006		NC	50.6						/ /
00007		NC	80.6						/ /
00009		NC	62.4						/ /

NOTES (COLUMN 3) : NC Returned Separately From The Deployment Control

Q.C. Release	Process No.	Reported Date	Date Processed	Date Received	Minimum Detectable Dose In This Process, Millirems Ambient Dose Equivalent	ONLY PAGE
LD	GK100A	02/28/2008	02/27/2008	02/15/2008	0.02	1

# LANDAUER

Landauer, Inc. 2 Science Road Glenwood, Illinois 60425-1586 Telephone: (708) 755-7000 Facsimile: (708) 755-7016

## ENVIRONMENTAL / LOW LEVEL DOSIMETRY REPORT

ADDRESS	ACCOUNT NO.	SERIES CODE
POWER TECH URANIUM ATTN : 310 SECOND AVE EDGEMOUNT, SD 57735	291406	

FOR EXPOSURE PERIOD 01/01/2008

### NET CUMULATIVE TOTALS (MILLIREMS)

LOCATION ID NUMBER	IDENTIFIER (CLIENT SUPPLIED)	NOTE CODE	EXPOSURE OF DOSIMETER (MILLIREMS AMBIENT DOSE EQUIVALENT)	CALENDAR QUARTER	YEAR TO DATE	PERMANENT	ADJUST- MENTS	NUMBER OF DOSIMETERS REPORTED	INCEPTION DATE OF PERM. TOTAL
			GROSS						
			NET						
00000	TRANSIT CONTROL		40.1						
000X9	DEPLOY CONTROL		40.4						
00010			37.0	-3.4	-3.4	-3.4		1	/ /
00011			37.3	-3.1	-3.1	-3.1		1	/ /
00013			36.7	-3.6	-3.6	-3.6		1	/ /
00014			38.6	-1.8	-1.8	-1.8		1	/ /
00015			36.9	-3.5	-3.5	-3.5		1	/ /
00016			35.5	-4.8	-4.8	-4.8		1	/ /
00017			36.1	-4.2	-4.2	-4.2		1	/ /
00018			39.2	-1.1	-1.1	-1.1		1	/ /
00019			41.7	1.4	1.4	1.4		1	/ /

Q.C. Release	Process No.	Reported Date	Date Processed	Date Received	Minimum Detectable Dose In This Process, Millirems Ambient Dose Equivalent	ONLY PAGE
am	163001	06/12/2008	06/12/2008	06/11/2008	0.10	1

# LANDAUER

Landauer, Inc. 2 Science Road Glenwood, Illinois 60425-1586 Telephone: (708) 755-7000 Facsimile: (708) 755-7016

## ENVIRONMENTAL / LOW LEVEL DOSIMETRY REPORT

ADDRESS ACCOUNT NO. SERIES CODE  
ENVIRONMENTAL RESTORATION GROUP 291406  
ATTN :  
8809 WASHINGTON ST. NE SUITE 150  
ALBUERQUE, NM 87113

FOR EXPOSURE PERIOD 01/01/2008

				NET CUMULATIVE TOTALS (MILLIREMS)					
LOCATION ID NUMBER	IDENTIFIER (CLIENT SUPPLIED)	NOTE CODE	EXPOSURE OF DOSIMETER (MILLIREMS AMBIENT DOSE EQUIVALENT)	CALENDAR QUARTER	YEAR TO DATE	PERMANENT	ADJUST- MENTS	NUMBER OF DOSIMETERS REPORTED	INCEPTION DATE OF PERM. TOTAL
			GROSS NET						
00001		NC	54.3						/ /
00002		NC	54.0						/ /
00003		NC	56.6						/ /
00005		NC	60.4						/ /
00006		NC	51.1						/ /
00007		NC	59.5						/ /
00008		NC	55.8						/ /

NOTES (COLUMN 3) : NC Returned Separately From The Deployment Control

Q.C. Release	Process No.	Reported Date	Date Processed	Date Received	Minimum Detectable Dose In This Process, Millirems Ambient Dose Equivalent	ONLY PAGE
am	228002	08/20/2008	08/18/2008	08/15/2008	0.10	1

LANDAUER

Landauer, Inc. 2 Science Road Glenwood, Illinois 60425-1586 Telephone: (708) 755-7000 Facsimile: (708) 755-7016

ENVIRONMENTAL / LOW LEVEL DOSIMETRY REPORT

ADDRESS	ACCOUNT NO.	SERIES CODE
ENVIRONMENTAL RESTORATION GROUP	291406	
ATTN :		
8809 WASHINGTON ST. NE SUITE 150		
ALBUERQUE, NM 87113		

FOR EXPOSURE PERIOD 04/01/2008

NET CUMULATIVE TOTALS (MILLIREMS)									
LOCATION ID NUMBER	IDENTIFIER (CLIENT SUPPLIED)	NOTE CODE	EXPOSURE OF DOSIMETER (MILLIREMS AMBIENT DOSE EQUIVALENT)	CALENDAR QUARTER	YEAR TO DATE	PERMANENT	ADJUST- MENTS	NUMBER OF DOSIMETERS REPORTED	INCEPTION DATE OF PERM. TOTAL
			GROSS						
			NET						
00026		NC	36.4						/ /
00027		NC	36.1						/ /

NOTES (COLUMN 3) : NC Returned Separately From The Deployment Control

Q.C. Release	Process No.	Reported Date	Date Processed	Date Received	Minimum Detectable Dose In This Process, Millirems Ambient Dose Equivalent	ONLY PAGE
am	228002	08/20/2008	08/18/2008	08/15/2008	0.10	1

## **APPENDIX 2.9-D**

### **EPA Method 3050B**

## METHOD 3050B

### ACID DIGESTION OF SEDIMENTS, SLUDGES, AND SOILS

#### 1.0 SCOPE AND APPLICATION

1.1 This method has been written to provide two separate digestion procedures, one for the preparation of sediments, sludges, and soil samples for analysis by flame atomic absorption spectrometry (FLAA) or inductively coupled plasma atomic emission spectrometry (ICP-AES) and one for the preparation of sediments, sludges, and soil samples for analysis of samples by Graphite Furnace AA (GFAA) or inductively coupled plasma mass spectrometry (ICP-MS). The extracts from these two procedures are not interchangeable and should only be used with the analytical determinations outlined in this section. Samples prepared by this method may be analyzed by ICP-AES or GFAA for all the listed metals as long as the detection limits are adequate for the required end-use of the data. Alternative determinative techniques may be used if they are scientifically valid and the QC criteria of the method, including those dealing with interferences, can be achieved. Other elements and matrices may be analyzed by this method if performance is demonstrated for the analytes of interest, in the matrices of interest, at the concentration levels of interest (See Section 8.0). The recommended determinative techniques for each element are listed below:

<u>FLAA/ICP-AES</u>		<u>GFAA/ICP-MS</u>
Aluminum	Magnesium	Arsenic
Antimony	Manganese	Beryllium
Barium	Molybdenum	Cadmium
Beryllium	Nickel	Chromium
Cadmium	Potassium	Cobalt
Calcium	Silver	Iron
Chromium	Sodium	Lead
Cobalt	Thallium	Molybdenum
Copper	Vanadium	Selenium
Iron	Zinc	Thallium
Lead		
Vanadium		

1.2 This method is not a total digestion technique for most samples. It is a very strong acid digestion that will dissolve almost all elements that could become "environmentally available." By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment. If absolute total digestion is required use Method 3052.

#### 2.0 SUMMARY OF METHOD

2.1 For the digestion of samples, a representative 1-2 gram (wet weight) or 1 gram (dry weight) sample is digested with repeated additions of nitric acid (HNO<sub>3</sub>) and hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>).

2.2 For GFAA or ICP-MS analysis, the resultant digestate is reduced in volume while heating and then diluted to a final volume of 100 mL.

2.3 For ICP-AES or FLAA analyses, hydrochloric acid (HCl) is added to the initial digestate and the sample is refluxed. In an optional step to increase the solubility of some metals (see Section 7.3.1: NOTE), this digestate is filtered and the filter paper and residues are rinsed, first

with hot HCl and then hot reagent water. Filter paper and residue are returned to the digestion flask, refluxed with additional HCl and then filtered again. The digestate is then diluted to a final volume of 100 mL.

2.4 If required, a separate sample aliquot shall be dried for a total percent solids determination.

### 3.0 INTERFERENCES

3.1 Sludge samples can contain diverse matrix types, each of which may present its own analytical challenge. Spiked samples and any relevant standard reference material should be processed in accordance with the quality control requirements given in Sec. 8.0 to aid in determining whether Method 3050B is applicable to a given waste.

### 4.0 APPARATUS AND MATERIALS

4.1 Digestion Vessels - 250-mL.

4.2 Vapor recovery device (e.g., ribbed watch glasses, appropriate refluxing device, appropriate solvent handling system).

4.3 Drying ovens - able to maintain  $30^{\circ}\text{C} \pm 4^{\circ}\text{C}$ .

4.4 Temperature measurement device capable of measuring to at least  $125^{\circ}\text{C}$  with suitable precision and accuracy (e.g., thermometer, IR sensor, thermocouple, thermister, etc.)

4.5 Filter paper - Whatman No. 41 or equivalent.

4.6 Centrifuge and centrifuge tubes.

4.7 Analytical balance - capable of accurate weighings to 0.01 g.

4.8 Heating source - Adjustable and able to maintain a temperature of  $90\text{--}95^{\circ}\text{C}$ . (e.g., hot plate, block digester, microwave, etc.)

4.9 Funnel or equivalent.

4.10 Graduated cylinder or equivalent volume measuring device.

4.11 Volumetric Flasks - 100-mL.

### 5.0 REAGENTS

5.1 Reagent grade chemicals shall be used in all tests. Unless otherwise indicated, it is intended that all reagents shall conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society, where such specifications are available. Other grades may be used, provided it is first ascertained that the reagent is of sufficiently high purity to permit its use without lessening the accuracy of the determination. If the purity of a reagent is questionable, analyze the reagent to determine the level of impurities. The reagent blank must be less than the MDL in order to be used.



5.2 Reagent Water. Reagent water will be interference free. All references to water in the method refer to reagent water unless otherwise specified. Refer to Chapter One for a definition of reagent water.

5.3 Nitric acid (concentrated),  $\text{HNO}_3$ . Acid should be analyzed to determine level of impurities. If method blank is < MDL, the acid can be used.

5.4 Hydrochloric acid (concentrated),  $\text{HCl}$ . Acid should be analyzed to determine level of impurities. If method blank is < MDL, the acid can be used.

5.5 Hydrogen peroxide (30%),  $\text{H}_2\text{O}_2$ . Oxidant should be analyzed to determine level of impurities. If method blank is < MDL, the peroxide can be used.

## 6.0 SAMPLE COLLECTION, PRESERVATION, AND HANDLING

6.1 All samples must have been collected using a sampling plan that addresses the considerations discussed in Chapter Nine of this manual.

6.2 All sample containers must be demonstrated to be free of contamination at or below the reporting limit. Plastic and glass containers are both suitable. See Chapter Three, Section 3.1.3, for further information.

6.3 Nonaqueous samples should be refrigerated upon receipt and analyzed as soon as possible.

6.4 It can be difficult to obtain a representative sample with wet or damp materials. Wet samples may be dried, crushed, and ground to reduce subsample variability as long as drying does not affect the extraction of the analytes of interest in the sample.

## 7.0 PROCEDURE

7.1 Mix the sample thoroughly to achieve homogeneity and sieve, if appropriate and necessary, using a USS #10 sieve. All equipment used for homogenization should be cleaned according to the guidance in Sec. 6.0 to minimize the potential of cross-contamination. For each digestion procedure, weigh to the nearest 0.01 g and transfer a 1-2 g sample (wet weight) or 1 g sample (dry weight) to a digestion vessel. For samples with high liquid content, a larger sample size may be used as long as digestion is completed.

**NOTE:** All steps requiring the use of acids should be conducted under a fume hood by properly trained personnel using appropriate laboratory safety equipment. The use of an acid vapor scrubber system for waste minimization is encouraged.

7.2 For the digestion of samples for analysis by GFAA or ICP-MS, add 10 mL of 1:1  $\text{HNO}_3$ , mix the slurry, and cover with a watch glass or vapor recovery device. Heat the sample to  $95^\circ\text{C} \pm 5^\circ\text{C}$  and reflux for 10 to 15 minutes without boiling. Allow the sample to cool, add 5 mL of concentrated  $\text{HNO}_3$ , replace the cover, and reflux for 30 minutes. If brown fumes are generated, indicating oxidation of the sample by  $\text{HNO}_3$ , repeat this step (addition of 5 mL of conc.  $\text{HNO}_3$ ) over and over until no brown fumes are given off by the sample indicating the complete reaction with  $\text{HNO}_3$ . Using a ribbed watch glass or vapor recovery system, either allow the solution to evaporate to approximately 5 mL without boiling or heat at  $95^\circ\text{C} \pm 5^\circ\text{C}$  without boiling for two hours. Maintain a covering of solution over the bottom of the vessel at all times.

**NOTE:** Alternatively, for direct energy coupling devices, such as a microwave, digest samples for analysis by GFAA or ICP-MS by adding 10 mL of 1:1 HNO<sub>3</sub>, mixing the slurry and then covering with a vapor recovery device. Heat the sample to 95°C ± 5°C and reflux for 5 minutes at 95°C ± 5°C without boiling. Allow the sample to cool for 5 minutes, add 5 mL of concentrated HNO<sub>3</sub>, heat the sample to 95°C ± 5°C and reflux for 5 minutes at 95°C ± 5°C. If brown fumes are generated, indicating oxidation of the sample by HNO<sub>3</sub>, repeat this step (addition of 5 mL concentrated HNO<sub>3</sub>) until no brown fumes are given off by the sample indicating the complete reaction with HNO<sub>3</sub>. Using a vapor recovery system, heat the sample to 95°C ± 5°C and reflux for 10 minutes at 95°C ± 5°C without boiling.

7.2.1 After the step in Section 7.2 has been completed and the sample has cooled, add 2 mL of water and 3 mL of 30% H<sub>2</sub>O<sub>2</sub>. Cover the vessel with a watch glass or vapor recovery device and return the covered vessel to the heat source for warming and to start the peroxide reaction. Care must be taken to ensure that losses do not occur due to excessively vigorous effervescence. Heat until effervescence subsides and cool the vessel.

**NOTE:** Alternatively, for direct energy coupled devices: After the Sec. 7.2 "NOTE" step has been completed and the sample has cooled for 5 minutes, add slowly 10 mL of 30% H<sub>2</sub>O<sub>2</sub>. Care must be taken to ensure that losses do not occur due to excessive vigorous effervescence. Go to Section 7.2.3.

7.2.2 Continue to add 30% H<sub>2</sub>O<sub>2</sub> in 1-mL aliquots with warming until the effervescence is minimal or until the general sample appearance is unchanged.

**NOTE:** Do not add more than a total of 10 mL 30% H<sub>2</sub>O<sub>2</sub>.

7.2.3 Cover the sample with a ribbed watch glass or vapor recovery device and continue heating the acid-peroxide digestate until the volume has been reduced to approximately 5 mL or heat at 95°C ± 5°C without boiling for two hours. Maintain a covering of solution over the bottom of the vessel at all times.

**NOTE:** Alternatively, for direct energy coupled devices: Heat the acid-peroxide digestate to 95°C ± 5°C in 6 minutes and remain at 95°C ± 5°C without boiling for 10 minutes.

7.2.4 After cooling, dilute to 100 mL with water. Particulates in the digestate should then be removed by filtration, by centrifugation, or by allowing the sample to settle. The sample is now ready for analysis by GFAA or ICP-MS.

7.2.4.1 Filtration - Filter through Whatman No. 41 filter paper (or equivalent).

7.2.4.2 Centrifugation - Centrifugation at 2,000-3,000 rpm for 10 minutes is usually sufficient to clear the supernatant.

7.2.4.3 The diluted digestate solution contains approximately 5% (v/v) HNO<sub>3</sub>. For analysis, withdraw aliquots of appropriate volume and add any required reagent or matrix modifier.

7.3 For the analysis of samples for FLAA or ICP-AES, add 10 mL conc. HCl to the sample digest from 7.2.3 and cover with a watch glass or vapor recovery device. Place the sample on/in the heating source and reflux at 95°C ± 5°C for 15 minutes.

**NOTE:** Alternatively, for direct energy coupling devices, such as a microwave, digest samples for analysis by FLAA and ICP-AES by adding 5 mL HCl and 10 mL H<sub>2</sub>O to the sample digest from 7.2.3 and heat the sample to 95°C ± 5°C, Reflux at 95°C ± 5°C without boiling for 5 minutes.

7.4 Filter the digestate through Whatman No. 41 filter paper (or equivalent) and collect filtrate in a 100-mL volumetric flask. Make to volume and analyze by FLAA or ICP-AES.

**NOTE:** Section 7.5 may be used to improve the solubilities and recoveries of antimony, barium, lead, and silver when necessary. These steps are optional and are not required on a routine basis.

7.5 Add 2.5 mL conc. HNO<sub>3</sub> and 10 mL conc. HCl to a 1-2 g sample (wet weight) or 1 g sample (dry weight) and cover with a watchglass or vapor recovery device. Place the sample on/in the heating source and reflux for 15 minutes.

7.5.1 Filter the digestate through Whatman No. 41 filter paper (or equivalent) and collect filtrate in a 100-mL volumetric flask. Wash the filter paper, while still in the funnel, with no more than 5 mL of hot (~95°C) HCl, then with 20 mL of hot (~95°C) reagent water. Collect washings in the same 100-mL volumetric flask.

7.5.2 Remove the filter and residue from the funnel, and place them back in the vessel. Add 5 mL of conc. HCl, place the vessel back on the heating source, and heat at 95°C ± 5°C until the filter paper dissolves. Remove the vessel from the heating source and wash the cover and sides with reagent water. Filter the residue and collect the filtrate in the same 100-mL volumetric flask. Allow filtrate to cool, then dilute to volume.

**NOTE:** High concentrations of metal salts with temperature-sensitive solubilities can result in the formation of precipitates upon cooling of primary and/or secondary filtrates. If precipitation occurs in the flask upon cooling, do not dilute to volume.

7.5.3 If a precipitate forms on the bottom of a flask, add up to 10 mL of concentrated HCl to dissolve the precipitate. After precipitate is dissolved, dilute to volume with reagent water. Analyze by FLAA or ICP-AES.

## 7.6 Calculations

7.6.1 The concentrations determined are to be reported on the basis of the actual weight of the sample. If a dry weight analysis is desired, then the percent solids of the sample must also be provided.

7.6.2 If percent solids is desired, a separate determination of percent solids must be performed on a homogeneous aliquot of the sample.

## 8.0 QUALITY CONTROL

8.1 All quality control measures described in Chapter One should be followed.

8.2 For each batch of samples processed, a method blank should be carried throughout the entire sample preparation and analytical process according to the frequency described in Chapter One. These blanks will be useful in determining if samples are being contaminated. Refer to Chapter One for the proper protocol when analyzing method blanks.

8.3 Spiked duplicate samples should be processed on a routine basis and whenever a new sample matrix is being analyzed. Spiked duplicate samples will be used to determine precision and bias. The criteria of the determinative method will dictate frequency, but 5% (one per batch) is recommended or whenever a new sample matrix is being analyzed. Refer to Chapter One for the proper protocol when analyzing spiked replicates.

8.4 Limitations for the FLAA and ICP-AES optional digestion procedure. Analysts should be aware that the upper linear range for silver, barium, lead, and antimony may be exceeded with some samples. If there is a reasonable possibility that this range may be exceeded, or if a sample's analytical result exceeds this upper limit, a smaller sample size should be taken through the entire procedure and re-analyzed to determine if the linear range has been exceeded. The approximate linear upper ranges for a 2 gram sample size:

Ag	2,000 mg/kg
As	1,000,000 mg/kg
Ba	2,500 mg/kg
Be	1,000,000 mg/kg
Cd	1,000,000 mg/kg
Co	1,000,000 mg/kg
Cr	1,000,000 mg/kg
Cu	1,000,000 mg/kg
Mo	1,000,000 mg/kg
Ni	1,000,000 mg/kg
Pb	200,000 mg/kg
Sb	200,000 mg/kg
Se	1,000,000 mg/kg
Tl	1,000,000 mg/kg
V	1,000,000 mg/kg
Zn	1,000,000 mg/kg

NOTE: These ranges will vary with sample matrix, molecular form, and size.

## 9.0 METHOD PERFORMANCE

9.1 In a single laboratory, the recoveries of the three matrices presented in Table 2 were obtained using the digestion procedure outlined for samples prior to analysis by FLAA and ICP-AES. The spiked samples were analyzed in duplicate. Tables 3-5 represents results of analysis of NIST Standard Reference Materials that were obtained using both atmospheric pressure microwave digestion techniques and hot-plate digestion procedures.

## 10.0 REFERENCES

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3. Edgell, K.; USEPA Method Study 37 - SW-846 Method 3050 Acid Digestion of Sediments, Sludges, and Soils. EPA Contract No. 68-03-3254, November 1988.

4. Kimbrough, David E., and Wakakuwa, Janice R. Acid Digestion for Sediments, Sludges, Soils, and Solid Wastes. A Proposed Alternative to EPA SW 846 Method 3050, Environmental Science and Technology, Vol. 23, Page 898, July 1989.
5. Kimbrough, David E., and Wakakuwa, Janice R. Report of an Interlaboratory Study Comparing EPA SW 846 Method 3050 and an Alternative Method from the California Department of Health Services, Fifth Annual Waste Testing and Quality Assurance Symposium, Volume I, July 1989. Reprinted in Solid Waste Testing and Quality Assurance: Third Volume, ASTM STP 1075, Page 231, C.E. Tatsch, Ed., American Society for Testing and Materials, Philadelphia, 1991.
6. Kimbrough, David E., and Wakakuwa, Janice R. A Study of the Linear Ranges of Several Acid Digestion Procedures, Environmental Science and Technology, Vol. 26, Page 173, January 1992. Presented Sixth Annual Waste Testing and Quality Assurance Symposium, July 1990.
7. Kimbrough, David E., and Wakakuwa, Janice R. A Study of the Linear Ranges of Several Acid Digestion Procedures, Sixth Annual Waste Testing and Quality Assurance Symposium, Reprinted in Solid Waste Testing and Quality Assurance: Fourth Volume, ASTM STP 1076, Ed., American Society for Testing and Materials, Philadelphia, 1992.
8. NIST published leachable concentrations. Found in addendum to certificate of analysis for SRMs 2709, 2710, 2711 - August 23, 1993.
9. Kingston, H.M. Haswell, S.J. ed., Microwave Enhanced Chemistry, Professional Reference Book Series, American Chemical Society, Washington, D.C., Chapter 3, 1997.

TABLE 1  
STANDARD RECOVERY (%) COMPARISON FOR  
METHODS 3050A AND 3050B<sup>a</sup>

Analyte	METHOD 3050A <sup>a</sup>	METHOD 3050B w/option <sup>a</sup>
Ag	9.5	98
As	86	102
Ba	97	103
Be	96	102
Cd	101	99
Co	99	105
Cr	98	94
Cu	87	94
Mo	97	96
Ni	98	92
Pb	97	95
Sb	87	88
Se	94	91
Tl	96	96
V	93	103
Zn	99	95

<sup>a</sup> All values are percent recovery. Samples: 4 mL of 100 mg/mL multistandard; n = 3.

TABLE 2  
PERCENT RECOVERY COMPARISON FOR METHODS 3050A AND 3050B

Analyte	Percent Recovery <sup>a,c</sup>							
	<u>Sample 4435</u>		<u>Sample 4766</u>		<u>Sample HJ</u>		<u>Average</u>	
	<u>3050A</u>	<u>3050B</u>	<u>3050A</u>	<u>3050B</u>	<u>3050A</u>	<u>3050B</u>	<u>3050A</u>	<u>3050B</u>
Ag	9.8	103	15	89	56	93	27	95
As	70	102	80	95	83	102	77	100
Ba	85	94	78	95	b	b	81	94
Be	94	102	108	98	99	94	99	97
Cd	92	88	91	95	95	97	93	94
Co	90	94	87	95	89	93	89	94
Cr	90	95	89	94	72	101	83	97
Cu	81	88	85	87	70	106	77	94
Mo	79	92	83	98	87	103	83	98
Ni	88	93	93	100	87	101	92	98
Pb	82	92	80	91	77	91	81	91
Sb	28	84	23	77	46	76	32	79
Se	84	89	81	96	99	96	85	94
Tl	88	87	69	95	66	67	74	83
V	84	97	86	96	90	88	87	93
Zn	96	106	78	75	b	b	87	99

a - Samples: 4 mL of 100 mg/mL multi-standard in 2 g of sample. Each value is percent recovery and is the average of duplicate spikes.

b - Unable to accurately quantitate due to high background values.

c - Method 3050B using optional section.

Table 3  
Results of Analysis of Nist Standard Reference Material 2704  
"River Sediment" Using Method 3050B ( $\mu\text{g/g} \pm \text{SD}$ )

Element	Atm. Pressure Microwave Assisted Method with Power Control	Atm. Pressure Microwave Assisted Method with Temperature Control (gas-bulb)	Atm. Pressure Microwave Assisted Method with Temperature Control (IR-sensor)	Hot-Plate	NIST Certified Values for Total Digestion ( $\mu\text{g/g} \pm 95\% \text{ CI}$ )
Cu	101 $\pm$ 7	89 $\pm$ 1	98 $\pm$ 1.4	100 $\pm$ 2	98.6 $\pm$ 5.0
Pb	160 $\pm$ 2	145 $\pm$ 6	145 $\pm$ 7	146 $\pm$ 1	161 $\pm$ 17
Zn	427 $\pm$ 2	411 $\pm$ 3	405 $\pm$ 14	427 $\pm$ 5	438 $\pm$ 12
Cd	NA	3.5 $\pm$ 0.66	3.7 $\pm$ 0.9	NA	3.45 $\pm$ 0.22
Cr	82 $\pm$ 3	79 $\pm$ 2	85 $\pm$ 4	89 $\pm$ 1	135 $\pm$ 5
Ni	42 $\pm$ 1	36 $\pm$ 1	38 $\pm$ 4	44 $\pm$ 2	44.1 $\pm$ 3.0

NA - Not Available

Table 4  
Results of Analysis of NIST Standard Reference Material 2710  
"Montana Soil (Highly Elevated Trace Element Concentrations)" Using Method 3050B  
( $\mu\text{g/g} \pm \text{SD}$ )

Element	Atm. Pressure Microwave Assisted Method with Power Control	Atm. Pressure Microwave Assisted Method with Temperature Control (gas-bulb)	Atm. Pressure Microwave Assisted Method with Temperature Control (IR-sensor)	Hot-Plate	NIST Leachable Concentrations Using Method 3050	NIST Certified Values for Total Digestion ( $\mu\text{g/g} \pm 95\% \text{ CI}$ )
Cu	2640 $\pm$ 60	2790 $\pm$ 41	2480 $\pm$ 33	2910 $\pm$ 59	2700	2950 $\pm$ 130
Pb	5640 $\pm$ 117	5430 $\pm$ 72	5170 $\pm$ 34	5720 $\pm$ 280	5100	5532 $\pm$ 80
Zn	6410 $\pm$ 74	5810 $\pm$ 34	6130 $\pm$ 27	6230 $\pm$ 115	5900	6952 $\pm$ 91
Cd	NA	20.3 $\pm$ 1.4	20.2 $\pm$ 0.4	NA	20	21.8 $\pm$ 0.2
Cr	20 $\pm$ 1.6	19 $\pm$ 2	18 $\pm$ 2.4	23 $\pm$ 0.5	19	39*
Ni	7.8 $\pm$ 0.29	10 $\pm$ 1	9.1 $\pm$ 1.1	7 $\pm$ 0.44	10.1	14.3 $\pm$ 1.0

NA - Not Available

\* Non-certified values, for information only.



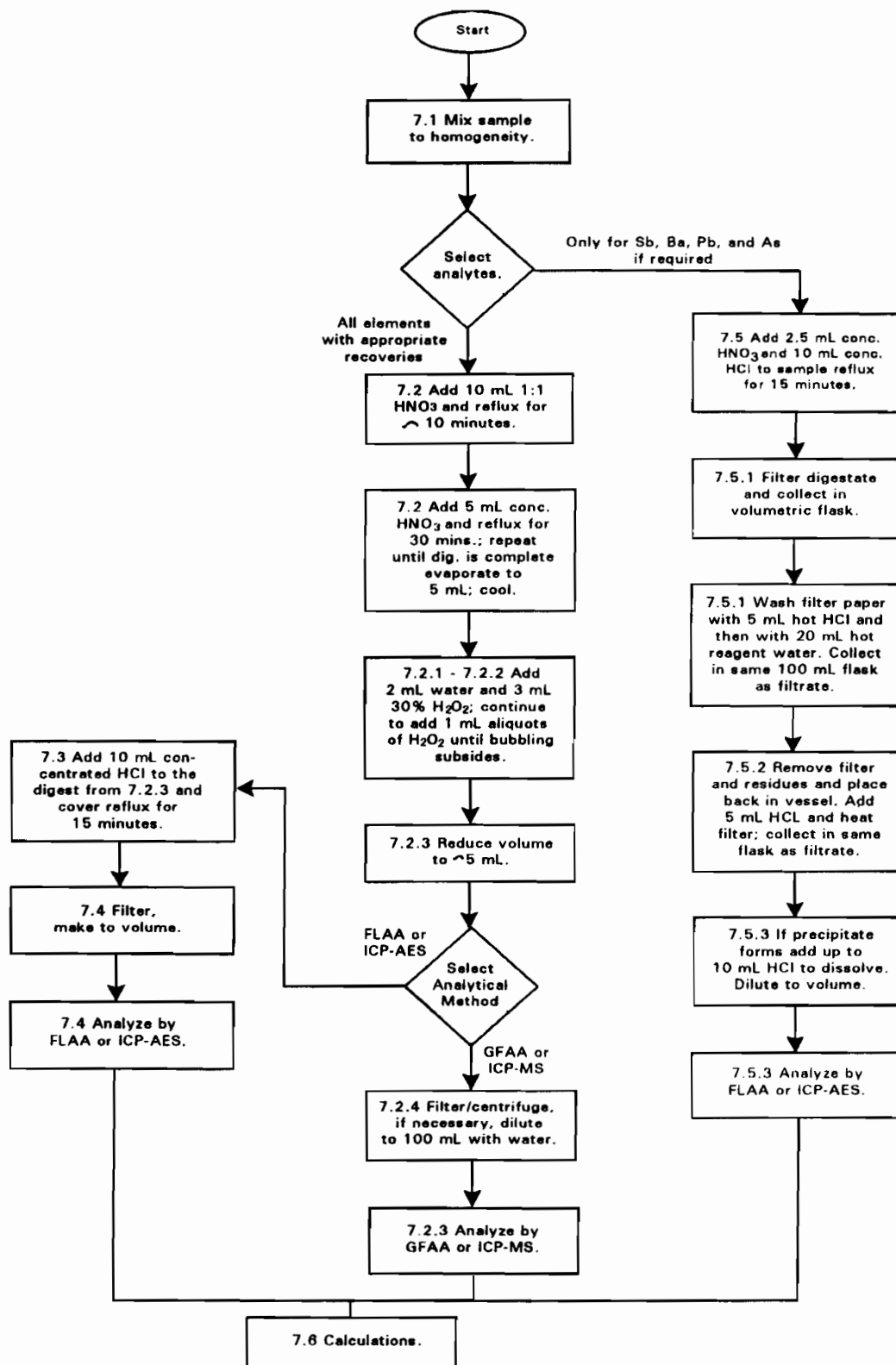
Table 5  
Results of Analysis of NIST Standard Reference Material 2711  
"Montana Soil (Moderately Elevated Trace Element Concentrations)" Using Method 3050B  
( $\mu\text{g/g} \pm \text{SD}$ )

Element	Atm. Pressure Microwave Assisted Method with Power Control	Atm. Pressure Microwave Assisted Method with Temperature Control (gas-bulb)	Atm. Pressure Microwave Assisted Method with Temperature Control (IR-sensor)	Hot-Plate	NIST Leachable Concentrations Using Method 3050	NIST Certified Values for Total Digestion ( $\mu\text{g/g} \pm 95\% \text{ CI}$ )
Cu	107 $\pm$ 4.6	98 $\pm$ 5	98 $\pm$ 3.8	111 $\pm$ 6.4	100	114 $\pm$ 2
Pb	1240 $\pm$ 68	1130 $\pm$ 20	1120 $\pm$ 29	1240 $\pm$ 38	1100	1162 $\pm$ 31
Zn	330 $\pm$ 17	312 $\pm$ 2	307 $\pm$ 12	340 $\pm$ 13	310	350.4 $\pm$ 4.8
Cd	NA	39.6 $\pm$ 3.9	40.9 $\pm$ 1.9	NA	40	41.7 $\pm$ 0.25
Cr	22 $\pm$ 0.35	21 $\pm$ 1	15 $\pm$ 1.1	23 $\pm$ 0.9	20	47*
Ni	15 $\pm$ 0.2	17 $\pm$ 2	15 $\pm$ 1.6	16 $\pm$ 0.4	16	20.6 $\pm$ 1.1

NA - Not Available

\* Non-certified values, for information only.

**METHOD 3050B**  
**ACID DIGESTION OF SEDIMENTS, SLUDGES, AND SOILS**



## **APPENDIX 2.9-E**

### **EPA Method 909**

1860

# Determination of Lead-210 in Drinking Water

Method 909.0

Richard J. Velten

and

Betty J. Jacobs

Environmental Monitoring and Support Laboratory

U. S. Environmental Protection Agency

Cincinnati, Ohio 45268

March 1982

U.S. Environmental Protection Agency  
REGION I LIBRARY  
2100-B JFK Federal Building  
Boston, MA 02203

## Determination of Lead-210 in Drinking Water

### Method 909.0

#### 1. Scope and Application

1.1. Lead-210 is not regulated by the National Interim Primary Drinking Water Regulations (NIPDWR). However, based upon its maximum permissible concentration (MPC) published in NBS Handbook 69, the maximum concentration level (MCL) calculated by applying the formula in the NIPDWR would be 1 pCi/L or less, depending upon the choice of critical organ.

1.2 The sensitivity of the method as defined in the NIPDWR is approximately 0.7 pCi/L for a one liter sample size using liquid scintillation counting and 0.2 pCi/L using a low background beta counter.

#### 2. Summary of Method

2.1 Lead carrier is added and concentrated by precipitation as the chromate. It is further purified from its bismuth-210 daughter by selected dissolution of lead sulfide from a 1.5N hydrochloric acid solution. Lead is finally converted to the carbonate and the lead-210 concentration calculated by either counting the lead-210 beta emission by liquid scintillation technique or counting the ingrown bismuth-210 daughter activity by low background end window counting.

#### 3. Sample Handling and Preservation

3.1 If the sample cannot be analyzed within 24 hours, it is recommended

that the sample be preserved using nitric acid to a concentration of 0.01N (pH 2).

#### 4. Interferences

- 4.1 Lead-214 will not interfere as the time delay from lead separation and counting (10 half lives) allows for its total decay.
- 4.2 Lead-212 can interfere with the lead-210 determination and cause a positively biased result. However, a 2 to 3 day storage at the end of Step 8.14 will allow for sufficient decay.

#### 5. Apparatus

- 5.1 Liquid scintillation counter or low background beta counter
- 5.2 Millipore 300 mL ground glass filtering assembly
- 5.3 Membrane filter (PVC), e.g., Gelman 64515
- 5.4 Centrifuge
- 5.5 40 mL cone bottom centrifuge tubes
- 5.6 2.8 cm fiber glass filters
- 5.7 Convection oven.

#### 6. Reagents

- 6.1 Acetic acid, glacial
- 6.2 Ammonium carbonate, 1.5M. Dissolve 144 g ammonium carbonate in 300 mL of water and dilute to 500 mL.
- 6.3 Ammonium hydroxide, 6M. Transfer 400 mL of concentrated ammonium hydroxide (30%) to 500 mL water and dilute to 1000 mL with water.
- 6.4 Barium carrier, 5 mg  $\text{Ba}^{++}$ /mL. Dissolve 4.4713 g of  $\text{BaCl}_2 \cdot 2\text{H}_2\text{O}$  in water and dilute to 500 mL.
- 6.5 Bismuth carrier, 5 mg  $\text{Bi}^{+++}$ /mL. Dissolve 5.8026 g of  $\text{Bi}(\text{NO}_3)_3 \cdot 5\text{H}_2\text{O}$  in 1 M  $\text{HNO}_3$  and dilute to 500 mL with 1 M  $\text{HNO}_3$ .

6.6 Hexanoic acid, practical.

6.7 Hydrochloric acid, 12 M.

6 M - Transfer 500 mL of concentrated acid to 400 mL of water and dilute to 1000 mL with water.

1.5 M - Transfer 125 mL of concentrated acid to 700 mL of water and dilute to 1000 mL with water.

6.8 Hydrogen sulfide gas, lecture bottle.

6.9 Lead carrier, 10 mg  $\text{Pb}^{++}$ /mL. Dissolve 4 grams  $\text{Pb}(\text{NO}_3)_2$  in 250 mL of 0.1 M  $\text{HNO}_3$ .

6.10 Scintillation solution. Commercially prepared universal liquid scintillation cocktail for aqueous and non-aqueous samples.

6.11 Sodium chromate, 1.5M. Dissolve 175 g of sodium chromate tetrahydrate in 350 mL water and dilute to 500 mL with water.

6.12 Sodium nitrite, 1 M. Dissolve 6.9 g of sodium nitrite in 70 mL water and dilute to 100 mL with water.

6.13 Toluene, reagent grade.

6.14 Water/ethanol wash solution, 1:1. Mix 200 mL of ethanol with 200 mL of water.

## 7. Calibration and standardization

### 7.1 Lead carrier solution

7.1.1 Transfer 10 mL of the lead carrier solution to a 150 mL beaker and dilute to 75 mL.

7.1.2 Add 1-2 drops of methyl orange indicator and neutralize by the dropwise addition of 6M  $\text{NH}_4\text{OH}$ .

7.1.3 Reacidify with 2 mL of glacial acetic acid and heat to near boiling.

7.1.4 Slowly bubble  $\text{H}_2\text{S}$  gas into the solution for 3-4 minutes.

- 7.1.5 Remove  $\text{H}_2\text{S}$  source and heat the solution to just boiling.  
Cool.
- 7.1.6 Filter through a tared fritted glass filtering funnel of fine porosity.
- 7.1.7 Wash several times with 10 mL portion of water.
- 7.1.8 Dry at  $105-110^\circ\text{C}$ . Cool and weigh.
- 7.2 Counter Efficiency
  - 7.2.1 Transfer 1 mL each of the lead and bismuth carrier to a 40 mL cone bottom centrifuge tube.
  - 7.2.2 Add an aliquot of the lead-210 standard tracer solution approximating 1000 dpm.
  - 7.2.3 Dilute to 20 mL and add 1-2 drops of methyl orange.
  - 7.2.4 Neutralize by the dropwise addition of  $6\text{M}$   $\text{NH}_4\text{OH}$ .
  - 7.2.5 Reacidify with 2 mL of glacial acetic acid.
  - 7.2.6 Heat to near boiling in a hot water bath and slowly bubble  $\text{H}_2\text{S}$  gas into the solution for 2-3 minutes.
  - 7.2.7 Remove  $\text{H}_2\text{S}$  source and continue boiling for 2-3 minutes.  
Remove from bath and cool.
  - 7.2.8 Centrifuge and discard supernate.
  - 7.2.9 Add 20 mL  $1.5\text{M}$   $\text{HCl}$  and heat to boiling in a water bath with intermittent stirring, breaking up all large sulfide lumps.
  - 7.2.10 Cool and filter through a 2.8 cm glass fiber filter, saving the filtrate and noting the time of filtration.
  - 7.2.11 Neutralize filtrate by adding 5-6 mL of  $6\text{M}$   $\text{NH}_4\text{OH}$  using pH paper to verify.
  - 7.2.12 Reacidify by adding 2 mL of glacial acetic acid.



- 7.2.13 Heat to near boiling in a water bath and slowly bubble  $\text{H}_2\text{S}$  gas into the solution for 2-3 minutes.
- 7.2.14 Remove  $\text{H}_2\text{S}$  source and continue heating for 2-3 minutes. Cool.
- 7.2.15 Centrifuge and discard the supernate.
- 7.2.16 Add 3 mL 6M  $\text{HCl}$  and heat in a water bath to dissolve the sulfides.
- 7.2.17 Add 0.5 mL of 1M  $\text{NaNO}_2$  to oxidize excess sulfide ions. Heat until effervescence ceases and dilute to 20 mL with water.
- 7.2.18 Filter through a 2.8 cm glass fiber filter, saving the filtrate.
- 7.2.19 Dropwise add 6M  $\text{NH}_4\text{OH}$  until a pearlescent precipitate persists. Then add 5 mL 1.5M ammonium carbonate solution.
- 7.2.20 Heat in a hot water bath with stirring until the excess ammonium carbonate begins to decompose ( $60^\circ\text{C}$ ).
- 7.2.21 Cool and centrifuge, discarding the supernate.
- 7.2.22 Add 20 mL 1:1 water/ethanol wash solution breaking up the precipitate with a glass rod.
- 7.2.23 Filter through a tared 2.8 cm glass fiber filter, washing the tube and precipitate several times with 10 mL volume of the wash solution.
- 7.2.24 Dry filter at  $105-110^\circ\text{C}$ . Cool and weigh.
- 7.3 Liquid Scintillation Counting
- 7.3.1 Place the weighed filter at the bottom of a glass scintillation vial with the precipitate facing upwards.

- 7.3.2 Add 0.5 mL each of glacial acetic acid and water. Evaporate to dryness in an oven at 120°C.
- 7.3.3 Cool and add 0.25 mL hexanoic acid wetting the filter completely. Add 3 mL of toluene and swirl occasionally over a period of 30 minutes to solubilize the lead hexanoate.
- 7.3.4 Add 10 mL of the scintillation solution, mix thoroughly and place in a liquid scintillation counter.
- 7.3.5 After 30 minutes, determine the beta spectrum of the lead-210 emissions.
- 7.3.6 Set the beta window to include about 95% of the beta emissions.
- 7.3.7 Count the standard over a period of two weeks at this window setting, noting the time of each count.
- 7.4 Low Background Beta Counter
  - 7.4.1 Transfer the filter from step 7.2.24 to a planchet conforming to your standard counting geometry. (It would be desirable to cover the filter to prevent loss of precipitate).
  - 7.4.2 Count the standard over a period of two weeks noting the time of each count.

## 8. Procedure

- 8.1 Acidify a 1-liter volume of a tap water sample with 25 mLs of glacial acetic acid.
- 8.2 Add 10 mgs of lead carrier and 5 mgs of the holdback carriers Bi and Ba. (Five mgs of these additional holdback carriers, Fe, Co, Ni, Ce, Mn, Sr, Zn, and Cu may be added when needed.)
- 8.3 With constant stirring, add 20 mLs of 0.5M sodium chromate.

- 8.4 Heat to 70<sup>0</sup> C on a hot plate with stirring until the precipitate is fully developed.
- 8.5 Remove from hot plate and cool in a cold water bath.
- 8.6 Filter with vacuum through a 47 mm 0.45 micron membrane filter.
- 8.7 Wash precipitate thoroughly with small quantities of distilled water.
- 8.8 Transfer the filter to a 40 mL cone bottom centrifuge tube and dropwise add 1 mL of conc. HCl contacting the precipitate and heat in a boiling water bath to reduce the chromate and dissolve the precipitate. Dilute to 20 mL with water.
- 8.9 Remove filter and wash with 10 mL water, adding the wash to the centrifuge tube.
- 8.10 Add sufficient 6M ammonium hydroxide to neutralize the acid.
- 8.11 Add 2 mL glacial acetic acid and place centrifuge tube in a boiling water bath for 2-3 minutes.
- 8.12 Carefully bubble a slight stream of hydrogen sulfide gas into the solution for 2-3 minutes to completely precipitate the lead.
- 8.13 Remove the hydrogen sulfide source and continue boiling for 5 minutes.
- 8.14 Remove from the water bath, cool, and centrifuge, discarding the supernate.
- 8.15 Add 20 mL 1.5N HCl to selectively dissolve PbS, heating in a boiling water bath. (Precipitate is nearly completely solubilized).
- 8.16 Filter through a 2.8 cm glass fiber filter to remove the Bi<sub>2</sub>S<sub>3</sub> precipitate, collecting the filtrate in a clean 40 mL centrifuge tube. (Note time as initial Pb-210 separation.)
- 8.17 Neutralize by the addition of 5-6 mL 6M NH<sub>4</sub>OH. Add 2 mL glacial

acetic acid and reprecipitate the PbS using  $H_2S$  gas, heating in a boiling water bath.

8.18 Cool, centrifuge and discard supernate.

8.19 Add 3 mL 6M HCl to dissolve the sulfides and heat in a boiling water bath. Add 0.5 mL 1M sodium nitrite and heat in a hot water bath until effervescence ceases. Remove from water bath and dilute to 20 mL with water.

8.20 Filter through a fiber glass filter to remove any precipitated sulfur or other insolubles into a clean 40 mL cone bottom centrifuge tube. Wash with 10 mL water.

8.21 Add sufficient 6M ammonium hydroxide to neutralize the acid.

8.22 Add 5 mL of 1.5M ammonium carbonate.

8.23 Heat in a boiling water bath for 3 minutes, remove and cool.

8.24 Centrifuge and discard the supernate.

8.25 Wash precipitate with 15 mL of 1:1 water:ethanol solution.

8.26 Filter through a tared 2.8 cm fiber glass filter and rinse with 10 mL 1:1 water/ethanol solution.

8.27 Dry at  $105^{\circ}C$ , cool and weigh to determine lead carrier recovery.  
(If liquid scintillation counting is to be used, continue at step 8.28. If Low Background Beta counting is to be used, continue at step 8.33).

8.28 Place filter at the bottom of scintillation vial with the precipitate facing upwards.

8.29 Add 0.5 mL glacial acetic acid and 0.5 mL water and take to dryness in a  $120^{\circ}C$  oven.

8.30 Cool and add 0.25 mL of hexanoic acid and 3 mL toluene. Mix and let stand for 20 minutes with occasional mixing.

- 8.31 Add 10 mL of scintillation solution. Mix thoroughly and place sample into the liquid scintillation counter.
- 8.32 Using the predetermined window setting for counting only the lead-210 beta emissions, count for sufficient time to meet the method detection limit.
- 8.33 Place the filter on a planchet conforming to your standard geometry. (It would be desirable to cover the filter to prevent loss of precipitate during storage.)
- 8.34 Store for about 2 weeks to allow sufficient Bi-210 ingrowth.
- 8.35 Place in the counter and count for sufficient time to meet the method detection limit and note time of count.

## 9. Calculation

### 9.1 Lead standardization

$$\text{Lead, mg/mL} = \frac{\text{mg PbS} \times 0.86599}{10}$$

### 9.2 Liquid scintillation counter

#### 9.2.1 Bismuth-210 crosstalk (Z)

9.2.1.1 Determine the bismuth ingrowth factors,  $(1 - e^{-\lambda t})$  where t equals the time difference from time of separation (step 7.2.10) to time of counting for the various count times.

9.2.1.2 Plot the observed count rates as the ordinate against the ingrowth factors.

9.2.1.3 By linear least squares analysis, solve for the intercept, A, and slope, B. (The intercept is the count rate due to the lead-210 emission and the slope is the count rate due to the amount of the

for the various count times where  $t$  is the time difference between time of separation and time of count.

9.3.1.2 Plot the observed count rates as the ordinate against the ingrowth factors.

9.3.1.3 By linear least square analysis solve for the intercept  $A$  and slope  $B$ . (The intercept  $A$  represents the count rate due to lead-210 and the slope  $B$  represents the count rate of bismuth-210 at equilibrium.)

9.3.1.4 Efficiency determination

Lead-210 efficiency,  $E_1 = A/\text{dpm recovered}$

Bismuth-210 efficiency,  $E_2 = B/\text{dpm recovered}$

Total efficiency =  $E_1 + E_2 (1 - e^{-\lambda t})$

9.3.2 Concentration

$$\text{Lead-210 concentration pCi/L} = \frac{G - B}{V \times (E_1 + E_2(1 - e^{-\lambda t})) \times R \times 2.22}$$

where:

$G$  = gross count rate in lead-210 window

$B$  = background count rate

$V$  = volume of sample, liter

$E_1$  = Lead-210 efficiency

$E_2$  = Bismuth-210 efficiency

$(1 - e^{-\lambda t})$  = Bismuth-210 ingrowth factor

$R$  = chemical recovery

2.22 = constant (dpm/pCi)

## 10. Precision and Accuracy

### 10.1 Liquid scintillation counting

#### 10.1.1 Accuracy

10.1.1.1 Four samples at lead-210 concentrations ranging from 0 to 41 pCi/L were analyzed. A plot and linear least square solution of pCi/L found versus pCi/L added showed that the intercept was not different from zero and that the slope showed a +1% bias.

10.1.1.2 Seven samples were also analyzed at a single concentration level (7.72 pCi/L). The average of the seven determinations was 7.96 pCi/L. This showed a +3% bias.

#### 10.1.2 Precision

10.1.2.1 Based upon the seven replicate values at 7.72 pCi/L, the relative standard deviation was found to be  $\pm 8\%$ .

### 10.2 Low background beta counting

#### 10.2.1 Accuracy

10.2.1.1 Eight samples were analyzed at a single concentration level of 7.72 pCi/l. The average concentration found was 7.85 pCi/l. This shows as +2% bias.

#### 10.2. Precision


10.2.2.1 Based upon the eight replicate values at 7.72 pCi/l, the relative standard deviation was calculated to be  $\pm 5\%$ .

## **APPENDIX 2.9-F**

### **Performance Evaluation for Analyzing Uranium in Soil Using EPA Method 6020A**



# PERFORMANCE EVALUATION

First Choice for Quality | 

Quarterly Study

**LPTP08-S3**

30-Jul-2008 through 12-Sep-2008

**RT1014**

RTC Labcode

**WY00002**

US EPA Labcode

Energy Labs  
Jim Yocum  
PO Box 3258  
Casper WY 82602

Thank you for participating in study LPTP08-S3. Additional information about this study may be found online at [www.rt-corp.co](http://www.rt-corp.co). If you have any questions or comments about this study please contact me.

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**This report may contain data that are not covered by the A2LA accreditation.**

Sincerely,



Christopher Rucinski  
Quality Director

2931 Soldier Springs Road  
Laramie, WY 82070  
(307) 742-5452  
[www.rt-corp.com](http://www.rt-corp.com)





## Trace Metals (continued)

Analysis

EPA 6020 (1994)

Mass Spectrometry - Inductively Coupled Plasma

(continued)

Method Number 10156000

Technology Code: ICP-MS

	ResultUnits	Accept / Warn	Z	Evaluation
Aluminum, Al <sup>1, 4</sup> 1000 / 001 - Lot 013545	12600mg/Kg	1370 to 29600	0.15	Acceptable
Antimony, Sb <sup>1, 4</sup> 1005 / 001 - Lot 013545	41.8mg/Kg	0.00 to 170 0.00 to 134	-0.59	Acceptable
Arsenic, As <sup>1, 4</sup> 1010 / 001 - Lot 013545	136mg/Kg	92.4 to 171 105 to 158	0.31	Acceptable
Barium, Ba <sup>1, 4</sup> 1015 / 001 - Lot 013545	562mg/Kg	366 to 617 408 to 575	1.67	Acceptable
Beryllium, Be <sup>1, 4</sup> 1020 / 001 - Lot 013545	203mg/Kg	163 to 267 180 to 250	-0.69	Acceptable
Boron, B <sup>4, 5</sup> 1025 / 001 - Lot 013545	157mg/Kg	90.3 to 188	1.10	Acceptable
Cadmium, Cd <sup>1, 4</sup> 1030 / 001 - Lot 013545	61.2mg/Kg	41.4 to 71.9 46.5 to 66.8	0.91	Acceptable
Chromium, Cr (total) <sup>1, 4</sup> 1040 / 001 - Lot 013545	334mg/Kg	214 to 388 243 to 359	1.14	Acceptable
Cobalt, Co <sup>1, 4</sup> 1050 / 001 - Lot 013545	124mg/Kg	80.5 to 136 89.7 to 127	1.73	Acceptable
Copper, Cu <sup>1, 4</sup> 1055 / 001 - Lot 013545	65.7mg/Kg	44.4 to 77.7 50.0 to 72.1	0.83	Acceptable
Lead, Pb <sup>1, 4</sup> 1075 / 001 - Lot 013545	355mg/Kg	238 to 389 263 to 364	1.63	Acceptable
Manganese, Mn <sup>1, 4</sup> 1090 / 001 - Lot 013545	727mg/Kg	324 to 984	0.66	Acceptable
Molybdenum, Mo <sup>1, 4</sup> 1100 / 001 - Lot 013545	75.5mg/Kg	45.8 to 89.2 52.9 to 89.2	1.17	Acceptable
Nickel, Ni <sup>1, 4</sup> 1105 / 001 - Lot 013545	220mg/Kg	147 to 252 165 to 234	1.21	Acceptable
Selenium, Se <sup>1, 4</sup> 1140 / 001 - Lot 013545	312mg/Kg	212 to 397 243 to 366	0.26	Acceptable
Silver, Ag <sup>1, 4</sup> 1150 / 001 - Lot 013545	100mg/Kg	54.7 to 108 63.5 to 98.9	2.13	Acceptable
Strontium, Sr <sup>4</sup> 1160 / 001 - Lot 013545	139mg/Kg	14.1 to 234	0.41	Acceptable
Thallium, Tl <sup>1, 4</sup> 1165 / 001 - Lot 013545	88.5mg/Kg	46.6 to 96.3 54.9 to 88.0	2.07	Acceptable
Tin, Sn <sup>1, 4</sup> 1175 / 001 - Lot 013545	123mg/Kg	52.4 to 162	0.87	Acceptable
Titanium, Ti <sup>4</sup> 1180 / 001 - Lot 013545	262mg/Kg	100 to 466	-0.27	Acceptable
Vanadium, V <sup>1, 4</sup> 1185 / 001 - Lot 013545	348mg/Kg	239 to 388 264 to 363	1.37	Acceptable

## Trace Metals (continued)

(continued)

Method Number 10156000  
Technology Code: ICP-MS

Analysis

EPA 6020 (1994)

Mass Spectrometry - Inductively Coupled Plasma

	Result Units	Accept /Warn	Z	Evaluation
Zinc, Zn <sup>1,4</sup> 1190 / 001 - Lot 013545	257 mg/Kg	179 to 326 203 to 301	0.20	<b>Acceptable</b>
Uranium, U <sup>4</sup> 3035 / 071 - Lot 013547	204 mg/Kg	138 to 256 158 to 236	0.36	<b>Acceptable</b>

## **APPENDIX 2.9-G**

### **Testing Method used for Ra-226 Soil Sample Analysis**

## RESPONSE TO TR\_RAIS FROM ERG

**From:** Dave Blaida [dblaida@energylab.com] **Sent:** Monday, July 26, 2010 8:59 AM **To:** Mike Schierman **Subject:** RE:

Mike,

My responses below.

Gross gamma is placed in our reports as a "placeholder", in short a way to show all the gammas when summed together. Since no other gammas were analyzed except bismuth 214/radium 226 the gross gamma radium 226 and the gross gamma would be identical on the report. Hopefully this will explain your concerns. If any further questions feel free to contact me.

Regards,

Dave Blaida

307.995.3207 direct

-----Original Message----- **From:** Mike Schierman [mailto:MikeSchierman@ergoffice.com] **Sent:** Sunday, July 25, 2010 16:46 **To:** dblaida@energylab.com **Subject:** FW:

David,

Please see the email I sent to Linda Larson of the Rapid City office. I received an out of office message stating she will be gone until August 6th. I was hoping you could help me prior to that.

Thanks

*Mike Schierman, CHP*

*Senior Health Physicist*

**ERG**

Environmental Restoration Group, Inc.

8809 Washington St. NE

Suite 150

Albuquerque, NM 87113

phone: (505) 298-4224

fax: (505) 797-1404

check us out at: <http://www.ERGoffice.com>

-----Original Message----- **From:** Mike Schierman **Sent:** Sunday, July 25, 2010 4:42 PM **To:**

'llarson@energylab.com' **Subject:**

Hi Linda,

We have received comments from the NRC regarding data collected at the Dewey-Burdock.

Some of these involved chemical methods used by ELI and I have been able to respond to most of them. One I cannot respond is below. Could you please have the folks in Casper address this comment. We want to get all responses completed by the end of the month. Attached is the data specific to the question.

“Laboratory analytical reports for Ra-226 soil sample analyses are located in Appendix 2.9-A of the TR. It is not clear what type of gamma analysis was performed on the soil samples to determine the Ra-226 concentration.[Dave Blaida] EPA 901.1 is reference method. Closed can gamma analysis per a three(3) inch can filled with about 150-200 grams of soil. Soil is dried, ground, split. canned and taped. For example, the testing method for sample R07100004-003 (SMA-B03) is annotated as “Gross Gamma” on the Analytical Summary Report, but the results are listed as “Ra-226 Gamma” on the Laboratory Analytical Report.[Dave Blaida] The results are listed as radium 226 gamma which is ascertained by measuring the 609 kev peak of bismuth 214. Far and away the best photo peak to use since it's branching ratio(relative strength) is higher than any other pertinent energies. The radium 226 photo peak cannot be used due to it's overlap with the uranium 235 photo peak. Lead 214 has two(2) quantifiable energies at 295 and 352 kev that are used by some but bismuth 214 is cleaner with less background issues relating to Compton scatter. Consistent with Regulatory Guide 4.14, please provide laboratory documentation that specifies the photopeak energies used to determine the Ra-226 activity of the soil samples as reported in the Laboratory Analytical Report.”

Thanks for your help.

***Mike Schierman, CHP***

*Senior Health Physicist*

**ERG**

Environmental Restoration Group, Inc.

8809 Washington St. NE

Suite 150

Albuquerque, NM 87113

phone: (505) 298-4224

fax: (505) 797-1404

check us out at: <http://www.ERGoffice.com>

## **APPENDIX 2.9-H**

### **Sediment Sampling Analytical Results**

SampleID	Sample Date	LabID	Page
BEN01S	06/08	R08060402-008	30
	08/08	R08080356-001	35
BVC01S	06/08	R08060341-002	5
	08/08	R08080356-012	46
BVC04S	06/08	R08060341-004	7
	08/08	R08080356-014	48
CHR01S	06/08	R08060341-003	6
	08/08	R08080356-013	47
CHR05S	06/08	R08060341-001	4
	08/08	R08080356-011	45
PSC01S	06/08	R08060341-005	8
	08/08	R08080356-010	44
PSC02S	06/08	R08060341-007	10
	08/08	R08080356-019	53
SUB01S	06/08	R08060358-001	15
	08/08	R08080356-018	52
SUB02S	06/08	R08060358-002	16
	08/08	R08080356-017	51
SUB03S	06/08	R08060358-003	17
	08/08	R08080356-008	42
SUB04S	06/08	R08060341-006	9
	08/08	R08080356-009	43
SUB05S	06/08	R08060358-004	18
	08/08	R08080356-007	41
SUB06S	06/08	R08060402-003	25
	08/08	R08080356-006	40
SUB07S	06/08	R08060402-004	26
	08/08	R08080356-005	39
SUB08S	06/08	R08060402-001	23
	08/08	R08080356-016	50
SUB09S	06/08	R08060402-002	24
	08/08	R08080356-015	49
SUB10S	06/08	R08060402-007	29
	08/08	R08080356-003	37
SUB11S	06/08	R08060402-005	27
	08/08	R08080356-004	38
UNT01S	06/08	R08060402-006	28
	08/08	R08080356-002	36





**ENERGY LABORATORIES, INC.** • 2821 Plant Street • Rapid City, SD 57702 • [www.energylab.com](http://www.energylab.com)  
Toll Free 888.672.1225 • Voice 605.342.1225 • Fax 605.342.1397 • [rapid\\_city@energylab.com](mailto:rapid_city@energylab.com)

## ANALYTICAL SUMMARY REPORT

August 28, 2008

Cory Foreman  
RESPEC Inc  
3824 Jet Dr  
Rapid City, SD 57701-

Workorder No.: R08060341      Quote ID: R279

Project Name: Edgemont (Soils/Air filters)

Energy Laboratories Inc. received the following 7 samples from RESPEC Inc on 6/18/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
R08060341-001	DewBurd CHR05S	06/17/08 10:40	06/18/08	Sediment	Metals by ICP/ICPMS, Total Digestion, Total Metals For Radio Chemistry Lead 210 Radium 226 Thorium, Isotopic
R08060341-002	Dew Burd BVC01S	06/17/08 11:00	06/18/08	Sediment	Same As Above
R08060341-003	DewBurd CHR01S	06/17/08 11:35	06/18/08	Sediment	Same As Above
R08060341-004	DewBurd BVC04S	06/17/08 12:17	06/18/08	Sediment	Same As Above
R08060341-005	DewBurd PSC01S	06/17/08 12:50	06/18/08	Sediment	Same As Above
R08060341-006	DewBurd SUB04S	06/17/08 14:10	06/18/08	Sediment	Same As Above
R08060341-007	DewBurd PSC02S	06/17/08 15:30	06/18/08	Sediment	Same As Above

As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By:

Linda Larson

Rapid City - Project Manager



## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060341-001  
**Client Sample ID:** DewBurd CHR05S

**Report Date:** 08/28/08  
**Collection Date:** 06/17/08 10:40  
**Date Received:** 06/18/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	1.7	pCi/g-dry	U			1	E909.0M	07/15/08 08:30/eli-c
Lead 210 precision (±)	2.0	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Lead 210 MDC	3.3	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Radium 226	2.1	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 precision (±)	0.2	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Thorium 230	1.9	pCi/g-dry		0.1		1	E907.0	07/14/08 21:06/eli-c
Thorium 230 precision (±)	0.4	pCi/g-dry				1	E907.0	07/14/08 21:06/eli-c
TOTAL METALS ANALYSES								
Uranium	6.2	mg/kg-dry		0.50		10	SW6020	07/07/08 22:23/eli-c
Uranium, Activity	4.2	pCi/g-dry		0.34		10	SW6020	07/07/08 22:23/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060341-002  
**Client Sample ID:** Dew Burd BVC01S

**Report Date:** 08/28/08  
**Collection Date:** 06/17/08 11:00  
**Date Received:** 06/18/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	0.5	pCi/g-dry	U			1	E909.0M	07/15/08 08:30/eli-c
Lead 210 precision (±)	2.0	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Lead 210 MDC	3.3	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Radium 226	1.3	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 precision (±)	0.2	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Thorium 230	0.8	pCi/g-dry		0.1		1	E907.0	07/16/08 09:00/eli-c
Thorium 230 precision (±)	0.2	pCi/g-dry				1	E907.0	07/16/08 09:00/eli-c
TOTAL METALS ANALYSES								
Uranium	2.0	mg/kg-dry		0.50		10	SW6020	07/07/08 22:37/eli-c
Uranium, Activity	1.4	pCi/g-dry		0.34		10	SW6020	07/07/08 22:37/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060341-003  
**Client Sample ID:** DewBurd CHR01S

**Report Date:** 08/28/08  
**Collection Date:** 06/17/08 11:35  
**Date Received:** 06/18/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
<b>RADIONUCLIDES - TOTAL</b>								
Lead 210	0.2	pCi/g-dry	U			1	E909.0M	07/15/08 08:30/eli-c
Lead 210 precision (±)	2.0	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Lead 210 MDC	3.3	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Radium 226	1.0	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 precision (±)	0.2	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Thorium 230	0.6	pCi/g-dry		0.1		1	E907.0	07/14/08 21:06/eli-c
Thorium 230 precision (±)	0.2	pCi/g-dry				1	E907.0	07/14/08 21:06/eli-c
<b>TOTAL METALS ANALYSES</b>								
Uranium	1.7	mg/kg-dry		0.50		10	SW6020	07/07/08 22:43/eli-c
Uranium, Activity	1.2	pCi/g-dry		0.34		10	SW6020	07/07/08 22:43/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060341-004  
**Client Sample ID:** DewBurd BVC04S

**Report Date:** 08/28/08  
**Collection Date:** 06/17/08 12:17  
**Date Received:** 06/18/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/	DF	Method	Analysis Date / By
					QCL			
RADIONUCLIDES - TOTAL								
Lead 210	1.9	pCi/g-dry	U			1	E909.0M	07/15/08 08:30/eli-c
Lead 210 precision (±)	2.1	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Lead 210 MDC	3.4	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Radium 226	1.5	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 precision (±)	0.2	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Thorium 230	0.7	pCi/g-dry		0.1		1	E907.0	07/14/08 21:06/eli-c
Thorium 230 precision (±)	0.2	pCi/g-dry				1	E907.0	07/14/08 21:06/eli-c
TOTAL METALS ANALYSES								
Uranium	2.0	mg/kg-dry		0.50		10	SW6020	07/07/08 22:50/eli-c
Uranium, Activity	1.3	pCi/g-dry		0.34		10	SW6020	07/07/08 22:50/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060341-005  
**Client Sample ID:** DewBurd PSC01S

**Report Date:** 08/28/08  
**Collection Date:** 06/17/08 12:50  
**Date Received:** 06/18/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/	DF	Method	Analysis Date / By
					QCL			
RADIONUCLIDES - TOTAL								
Lead 210	4.7	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Lead 210 precision (±)	2.1	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Lead 210 MDC	3.3	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Radium 226	2.9	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 precision (±)	0.3	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Thorium 230	2.0	pCi/g-dry		0.1		1	E907.0	07/14/08 21:06/eli-c
Thorium 230 precision (±)	0.5	pCi/g-dry				1	E907.0	07/14/08 21:06/eli-c
TOTAL METALS ANALYSES								
Uranium	3.9	mg/kg-dry		0.50		10	SW6020	07/07/08 22:57/eli-c
Uranium, Activity	2.6	pCi/q-dry		0.34		10	SW6020	07/07/08 22:57/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060341-006  
**Client Sample ID:** DewBurd SUB04S

**Report Date:** 08/28/08  
**Collection Date:** 06/17/08 14:10  
**Date Received:** 06/18/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
<b>RADIONUCLIDES - TOTAL</b>								
Lead 210	1.2	pCi/g-dry	U			1	E909.0M	07/15/08 08:30/eli-c
Lead 210 precision (±)	2.0	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Lead 210 MDC	3.3	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Radium 226	2.5	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 precision (±)	0.2	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Thorium 230	0.9	pCi/g-dry		0.1		1	E907.0	07/14/08 21:06/eli-c
Thorium 230 precision (±)	0.2	pCi/g-dry				1	E907.0	07/14/08 21:06/eli-c
<b>TOTAL METALS ANALYSES</b>								
Uranium	6.5	mg/kg-dry		0.50		10	SW6020	07/07/08 23:03/eli-c
Uranium, Activity	4.4	pCi/g-dry		0.34		10	SW6020	07/07/08 23:03/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060341-007  
**Client Sample ID:** DewBurd PSC02S

**Report Date:** 08/28/08  
**Collection Date:** 06/17/08 15:30  
**Date Received:** 06/18/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	1.2	pCi/g-dry	U			1	E909.0M	07/15/08 08:30/eli-c
Lead 210 precision (±)	2.0	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Lead 210 MDC	3.3	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Radium 226	0.6	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Thorium 230	0.4	pCi/g-dry		0.1		1	E907.0	07/14/08 21:06/eli-c
Thorium 230 precision (±)	0.1	pCi/g-dry				1	E907.0	07/14/08 21:06/eli-c
TOTAL METALS ANALYSES								
Uranium	1.1	mg/kg-dry		0.50		10	SW6020	07/07/08 23:31/eli-c
Uranium, Activity	0.76	pCi/g-dry		0.34		10	SW6020	07/07/08 23:31/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## QA/QC Summary Report

Client: RESPEC Inc  
Project: Edgemont (Soils/Air filters)

Report Date: 08/28/08  
Work Order: R08060341

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0							Batch: C_18954		
Sample ID: C08061146-004AMS	Sample Matrix Spike				Run: SUB-C104563			07/16/08 15:36	
Radium 226	7.7	pCi/g-dry		100	70	130			
Sample ID: C08061146-004AMSD	Sample Matrix Spike Duplicate				Run: SUB-C104563			07/16/08 15:36	
Radium 226	8.7	pCi/g-dry		125	70	130	12	20.9	
Sample ID: LCS-18954	Laboratory Control Sample				Run: SUB-C104563			07/16/08 15:36	
Radium 226	0.017	pCi/g-dry		117	70	130			
Sample ID: MB-18954	Method Blank				Run: SUB-C104563			07/16/08 15:36	
Radium 226	-0.002	pCi/g-dry							U
Method: E907.0							Batch: C_R104773		
Sample ID: C08061133-004AMS	Sample Matrix Spike				Run: SUB-C104773			07/14/08 21:06	
Thorium 230	7.06	pCi/g-dry	0.10	101	70	130			
Sample ID: C08061133-004AMSD	Sample Matrix Spike Duplicate				Run: SUB-C104773			07/14/08 21:06	
Thorium 230	8.02	pCi/g-dry	0.10	124	70	130	13	30	
Sample ID: LCS-18954	Laboratory Control Sample				Run: SUB-C104773			07/15/08 12:58	
Thorium 230	0.0531	pCi/g-dry	0.10	119	70	130			
Sample ID: MB-18954	Method Blank				Run: SUB-C104773			07/15/08 12:58	
Thorium 230	0.0003	pCi/g-dry							U
Method: E909.0M							Batch: C_18954		
Sample ID: R08060341-006A	Sample Matrix Spike				Run: SUB-C105490			07/15/08 08:30	
Lead 210	47.2	pCi/g-dry		81	70	130			
Sample ID: R08060341-006A	Sample Matrix Spike Duplicate				Run: SUB-C105490			07/15/08 08:30	
Lead 210	40.6	pCi/g-dry		70	70	130	15	30	
Sample ID: MB-R105490	Method Blank				Run: SUB-C105490			07/15/08 08:30	
Lead 210	0.002	pCi/g-dry							U
Sample ID: LCS-R105490	Laboratory Control Sample				Run: SUB-C105490			07/15/08 08:30	
Lead 210	0.111	pCi/g-dry		93	70	130			

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



## QA/QC Summary Report

Client: RESPEC Inc  
Project: Edgemont (Soils/Air filters)

Report Date: 08/28/08  
Work Order: R08060341

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020									Batch: C_18973
Sample ID: MB-18973	Method Blank								07/07/08 22:10
Uranium	2E-05	mg/kg-dry	1E-06						
Sample ID: LCS3-18973	Laboratory Control Sample								07/07/08 22:16
Uranium	1.8	mg/kg-dry	1.5	105	87.9	127			
Sample ID: C08061115-013AMS3	Sample Matrix Spike								07/08/08 01:25
Uranium	26	mg/kg-dry	0.50	104	75	125			
Sample ID: C08061115-013AMSD3	Sample Matrix Spike Duplicate								07/08/08 01:32
Uranium	27	mg/kg-dry	0.50	110	75	125	5.3	20	

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# Chain of Custody and Analytical Request Record

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Toll Free 888.672.1225 • Voice 605.342.1225 • Fax 605.342.1397 • rapid\_city@energylab.com

Company Name: <b>RESI</b>		Project Name, PWS, Permit, Etc. <b>Lower Tail Dewey Burdock</b>		Sample Origin State: <input type="checkbox"/> Yes <input type="checkbox"/> No	EPA/State Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>
Report Mail Address:		Contact Name: <b>Donna Taylor Dewey Burdock</b>		Email: <b>Donna.Taylor@res.com</b>	Sampler: (Please Print) <b>Eric Kank</b>
Invoice Address:		Invoice Contact & Phone:		Purchase Order:	Quote/Bottle Order:
Special Report/Formats - ELL must be notified prior to sample submittal for the following: <input type="checkbox"/> DW <input type="checkbox"/> A2LA <input type="checkbox"/> EDD/EDT (Electronic Data) <input type="checkbox"/> GSA <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> Format: <input type="checkbox"/> LEVEL IV <input type="checkbox"/> NELAC <input type="checkbox"/> State: <input type="checkbox"/> Other: <input type="checkbox"/>					
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date	Collection Time	MATRIX	ANALYSIS REQUESTED
1 Dew Burd C4R05 S		6/17/08	10:40	S	<b>RESI</b> <b>all sediment samples</b> <b>SEE ATTACHED</b> <b>Normal Turnaround (TAT)</b> <b>RUSH</b> Contact ELL prior to RUSH sample submittal for changes and scheduling - See Instruction Page Comments: all sediment samples Shipped by: <input type="checkbox"/> Cooler Req: <input type="checkbox"/> Receipt Temp: <b>4.2 °C</b> On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal: <input type="checkbox"/> Y <input type="checkbox"/> N Intact: <input type="checkbox"/> Y <input type="checkbox"/> N Signature: <input type="checkbox"/> Y <input type="checkbox"/> N
2 Dew Burd BVC01 S		6/17/08	11:00	S	
3 Dew Burd C4R01 S		6/17/08	11:35	S	
4 Dew Burd BVC 04 S		6/17/08	12:17	S	
5 Dew Burd PSC01 S		6/17/08	12:50	S	
6 Dew Burd Sub04 S		6/17/08	14:10	S	
7 Dew Burd PSC02 S		6/17/08	15:50	S	
8					
9					
10					
Custody Record Must be Signed		Relinquished by (print): <b>Eric Kank</b> Date/Time: <b>6/17/08 06:00</b> Signature: <b>[Signature]</b>		Received by (print): <b>Donna Taylor</b> Date/Time: <b>6/18/08 8:30</b> Signature: <b>[Signature]</b>	

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at [www.energylab.com](http://www.energylab.com) for additional information, downloadable fee schedule, forms, and links.



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Toll Free 888.672.1225 • Voice 605.342.1225 • Fax 605.342.1397 • rapid\_city@energylab.com

## ANALYTICAL SUMMARY REPORT

August 28, 2008

Cory Foreman  
RESPEC Inc  
3824 Jet Dr  
Rapid City, SD 57701-

Workorder No.: R08060358      Quote ID: R279

Project Name: Edgemont (Soils/Air filters)

Energy Laboratories Inc. received the following 4 samples from RESPEC Inc on 6/19/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
R08060358-001	DewBurd SUB01S	06/18/08 12:05	06/19/08	Sediment	Metals by ICP/ICPMS, Total Digestion, Total Metals For Radio Chemistry Lead 210 Radium 226 Thorium, Isotopic
R08060358-002	DewBurd SUB02S	06/18/08 13:15	06/19/08	Sediment	Same As Above
R08060358-003	DewBurd SUB03S	06/18/08 14:10	06/19/08	Sediment	Same As Above
R08060358-004	DewBurd SUB05S	06/18/08 15:15	06/19/08	Sediment	Same As Above

As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By:

Linda Larson

Rapid City - Project Manager



## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060358-001  
**Client Sample ID:** DewBurd SUB01S

**Report Date:** 08/28/08  
**Collection Date:** 06/18/08 12:05  
**Date Received:** 06/19/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	0.5	pCi/g-dry	U			1	E909.0M	07/15/08 08:30/eli-c
Lead 210 precision (±)	2.0	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Lead 210 MDC	3.4	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Radium 226	1.2	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 precision (±)	0.2	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Thorium 230	0.7	pCi/g-dry		0.1		1	E907.0	07/14/08 21:06/eli-c
Thorium 230 precision (±)	0.2	pCi/g-dry				1	E907.0	07/14/08 21:06/eli-c
TOTAL METALS ANALYSES								
Uranium	2.2	mg/kg-dry		0.50		10	SW6020	07/19/08 08:23/eli-c
Uranium, Activity	1.5	pCi/g-dry		0.34		10	SW6020	07/19/08 08:23/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060358-002  
**Client Sample ID:** DewBurd SUB02S

**Report Date:** 08/28/08  
**Collection Date:** 06/18/08 13:15  
**Date Received:** 06/19/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/	DF	Method	Analysis Date / By
					QCL			
RADIONUCLIDES - TOTAL								
Lead 210	2.8	pCi/g-dry	U			1	E909.0M	07/15/08 08:30/eli-c
Lead 210 precision (±)	2.1	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Lead 210 MDC	3.3	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Radium 226	3.9	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 precision (±)	0.3	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/16/08 13:33/eli-c
Thorium 230	2.9	pCi/g-dry		0.1		1	E907.0	07/14/08 21:06/eli-c
Thorium 230 precision (±)	0.7	pCi/g-dry				1	E907.0	07/14/08 21:06/eli-c
TOTAL METALS ANALYSES								
Uranium	18	mg/kg-dry		0.50		10	SW6020	07/19/08 08:36/eli-c
Uranium, Activity	12	pCi/g-dry		0.34		10	SW6020	07/19/08 08:36/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060358-003  
**Client Sample ID:** DewBurd SUB03S

**Report Date:** 08/28/08  
**Collection Date:** 06/18/08 14:10  
**Date Received:** 06/19/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	3.9	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Lead 210 precision (±)	2.1	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Lead 210 MDC	3.3	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Radium 226	4.1	pCi/g-dry				1	E903.0	07/16/08 15:36/eli-c
Radium 226 precision (±)	0.3	pCi/g-dry				1	E903.0	07/16/08 15:36/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/16/08 15:36/eli-c
Thorium 230	2.1	pCi/g-dry		0.1		1	E907.0	07/14/08 21:06/eli-c
Thorium 230 precision (±)	0.6	pCi/g-dry				1	E907.0	07/14/08 21:06/eli-c
TOTAL METALS ANALYSES								
Uranium	7.2	mg/kg-dry		0.50		10	SW6020	07/19/08 08:43/eli-c
Uranium, Activity	4.8	pCi/g-dry		0.34		10	SW6020	07/19/08 08:43/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060358-004  
**Client Sample ID:** DewBurd SUB05S

**Report Date:** 08/28/08  
**Collection Date:** 06/18/08 15:15  
**Date Received:** 06/19/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	4.2	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Lead 210 precision (±)	2.1	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Lead 210 MDC	3.3	pCi/g-dry				1	E909.0M	07/15/08 08:30/eli-c
Radium 226	4.2	pCi/g-dry				1	E903.0	07/16/08 15:36/eli-c
Radium 226 precision (±)	0.3	pCi/g-dry				1	E903.0	07/16/08 15:36/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/16/08 15:36/eli-c
Thorium 230	2.4	pCi/g-dry		0.1		1	E907.0	07/14/08 21:06/eli-c
Thorium 230 precision (±)	0.5	pCi/g-dry				1	E907.0	07/14/08 21:06/eli-c
TOTAL METALS ANALYSES								
Uranium	8.5	mg/kg-dry		0.50		10	SW6020	07/19/08 09:17/eli-c
Uranium, Activity	5.7	pCi/g-dry		0.34		10	SW6020	07/19/08 09:17/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## QA/QC Summary Report

Client: RESPEC Inc  
Project: Edgemont (Soils/Air filters)

Report Date: 08/28/08  
Work Order: R08060358

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0							Batch: C_18954		
Sample ID: C08061146-004AMS	Sample Matrix Spike				Run: SUB-C104563			07/16/08 15:36	
Radium 226	7.7	pCi/g-dry		100	70	130			
Sample ID: C08061146-004AMSD	Sample Matrix Spike Duplicate				Run: SUB-C104563			07/16/08 15:36	
Radium 226	8.7	pCi/g-dry		125	70	130	12	20.9	
Sample ID: LCS-18954	Laboratory Control Sample				Run: SUB-C104563			07/16/08 15:36	
Radium 226	0.017	pCi/g-dry		117	70	130			
Sample ID: MB-18954	Method Blank				Run: SUB-C104563			07/16/08 15:36	
Radium 226	-0.002	pCi/g-dry							U
Method: E907.0							Batch: C_R104773		
Sample ID: C08061133-004AMS	Sample Matrix Spike				Run: SUB-C104773			07/14/08 21:06	
Thorium 230	7.06	pCi/g-dry	0.10	101	70	130			
Sample ID: C08061133-004AMSD	Sample Matrix Spike Duplicate				Run: SUB-C104773			07/14/08 21:06	
Thorium 230	8.02	pCi/g-dry	0.10	124	70	130	13	30	
Sample ID: LCS-18954	Laboratory Control Sample				Run: SUB-C104773			07/15/08 12:58	
Thorium 230	0.0531	pCi/g-dry	0.10	119	70	130			
Sample ID: MB-18954	Method Blank				Run: SUB-C104773			07/15/08 12:58	
Thorium 230	0.0003	pCi/g-dry							U
Method: E909.0M							Batch: C_18954		
Sample ID: R08060341-006A	Sample Matrix Spike				Run: SUB-C105490			07/15/08 08:30	
Lead 210	47.2	pCi/g-dry		81	70	130			
Sample ID: R08060341-006A	Sample Matrix Spike Duplicate				Run: SUB-C105490			07/15/08 08:30	
Lead 210	40.6	pCi/g-dry		70	70	130	15	30	
Sample ID: MB-R105490	Method Blank				Run: SUB-C105490			07/15/08 08:30	
Lead 210	0.002	pCi/g-dry							U
Sample ID: LCS-R105490	Laboratory Control Sample				Run: SUB-C105490			07/15/08 08:30	
Lead 210	0.111	pCi/g-dry		93	70	130			

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



## QA/QC Summary Report

Client: RESPEC Inc

Report Date: 08/28/08

Project: Edgemont (Soils/Air filters)

Work Order: R08060358

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020									Batch: C_18974
Sample ID: MB-18974	Method Blank								07/08/08 15:05
Uranium	5E-06	mg/kg-dry	1E-06						
Sample ID: LCS3-18974	Laboratory Control Sample								07/08/08 15:11
Uranium	1.7	mg/kg-dry	0.50	99	87.9	127			
Sample ID: C08061115-022A MS3	Sample Matrix Spike								07/19/08 09:58
Uranium	31	mg/kg-dry	0.50	119	75	125			
Sample ID: C08061115-022A MSD3	Sample Matrix Spike Duplicate								07/19/08 10:04
Uranium	26	mg/kg-dry	0.50	118	75	125	17	20	

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# Chain of Custody and Analytical Request Record

Page 1 of 1

Company Name:

RESER

Report Mail Address:

Invoice Address:

Project Name, PWS, Permit, Etc.  
Pawnee Deer Creek

Contact Name:

Cory Foreman cforeman@energy.com

Sample Origin  
State:

EPA/State Compliance:  
Yes ☐ No ☐

Sampler: (Please Print)  
Eric Kantz

Invoice Contact & Phone:

Purchase Order:

Quote/Bottle Order:

Special Report/Formats - ELI must be notified prior to sample submittal for the following:

☐ DW ☐ A2LA  
☐ GSA ☐ EDD/EDT (Electronic Data)  
☐ POTW/WWTP ☐ Format:  
☐ State: ☐ LEVEL IV  
☐ Other: ☐ NELAC

Number of Containers  
Sample Type: A W S V B O  
Air Water Soils/Solids  
Vegetation Bioassay Other

As per Note

## ANALYSIS REQUESTED

SEE ATTACHED

Normal Turnaround (TAT)

RUSH

Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page

Comments:

All sediment

Recept Temp  
3.9 °C

On Ice:  
Yes ☒ No ☐

Custody Seal  
Intact Y N  
Signature Y N

Match

LABORATORY USE ONLY

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ENERGY LABORATORIES, INC. • 2821 Plant Street • Rapid City, SD 57702 • www.energylab.com  
Toll Free 888.672.1225 • Voice 605.342.1225 • Fax 605.342.1397 • rapid\_city@energylab.com

## ANALYTICAL SUMMARY REPORT

August 28, 2008

Cory Foreman

RESPEC Inc

3824 Jet Dr

Rapid City, SD 57701-

Workorder No.: R08060402

Quote ID: R279

Project Name: Edgemont (Soils/Air filters)

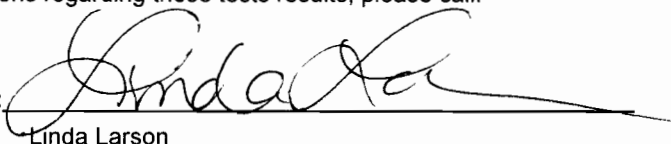
Energy Laboratories Inc. received the following 8 samples from RESPEC Inc on 6/24/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
R08060402-001	DewBurd SUB08S	06/23/08 12:25	06/24/08	Sediment	Metals by ICP/ICPMS, Total Digestion, Total Metals For Radio Chemistry Lead 210 Radium 226 Thorium, Isotopic
R08060402-002	DewBurd SUB09S	06/23/08 12:55	06/24/08	Sediment	Same As Above
R08060402-003	DewBurd SUB06S	06/23/08 13:50	06/24/08	Sediment	Same As Above
R08060402-004	DewBurd SUB07S	06/23/08 14:35	06/24/08	Sediment	Same As Above
R08060402-005	DewBurd SUB11S	06/23/08 15:15	06/24/08	Sediment	Same As Above
R08060402-006	DewBurd UNT01S	06/23/08 16:00	06/24/08	Sediment	Same As Above
R08060402-007	DewBurd SUB10S	06/23/08 16:30	06/24/08	Sediment	Same As Above
R08060402-008	DewBurd BEN01S	06/23/08 17:30	06/24/08	Sediment	Same As Above

As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By:



Linda Larson

Rapid City - Project Manager



## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060402-001  
**Client Sample ID:** DewBurd SUB08S

**Report Date:** 08/28/08  
**Collection Date:** 06/23/08 12:25  
**Date Received:** 06/24/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/	DF	Method	Analysis Date / By
					QCL			
RADIONUCLIDES - TOTAL								
Lead 210	0.6	pCi/g-dry	U			1	E909.0M	07/16/08 09:30/eli-c
Lead 210 precision (±)	2.1	pCi/g-dry				1	E909.0M	07/16/08 09:30/eli-c
Lead 210 MDC	3.4	pCi/g-dry				1	E909.0M	07/16/08 09:30/eli-c
Radium 226	0.6	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Thorium 230	0.4	pCi/g-dry		0.1		1	E907.0	07/15/08 13:01/eli-c
Thorium 230 precision (±)	0.1	pCi/g-dry				1	E907.0	07/15/08 13:01/eli-c
TOTAL METALS ANALYSES								
Uranium	1.2	mg/kg-dry		0.50		10	SW6020	07/14/08 09:43/eli-c
Uranium, Activity	0.80	pCi/g-dry		0.34		10	SW6020	07/14/08 09:43/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060402-002  
**Client Sample ID:** DewBurd SUB09S

**Report Date:** 08/28/08  
**Collection Date:** 06/23/08 12:55  
**Date Received:** 06/24/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		DF	Method	Analysis Date / By
					QCL	DF			
RADIONUCLIDES - TOTAL									
Lead 210	1.5	pCi/g-dry	U				1	E909.0M	07/16/08 09:30/eli-c
Lead 210 precision (±)	2.0	pCi/g-dry					1	E909.0M	07/16/08 09:30/eli-c
Lead 210 MDC	3.3	pCi/g-dry					1	E909.0M	07/16/08 09:30/eli-c
Radium 226	1.0	pCi/g-dry					1	E903.0	07/21/08 14:30/eli-c
Radium 226 precision (±)	0.2	pCi/g-dry					1	E903.0	07/21/08 14:30/eli-c
Radium 226 MDC	0.1	pCi/g-dry					1	E903.0	07/21/08 14:30/eli-c
Thorium 230	0.7	pCi/g-dry		0.1			1	E907.0	07/15/08 13:01/eli-c
Thorium 230 precision (±)	0.2	pCi/g-dry					1	E907.0	07/15/08 13:01/eli-c
TOTAL METALS ANALYSES									
Uranium	2.4	mg/kg-dry		0.50			10	SW6020	07/14/08 09:51/eli-c
Uranium, Activity	1.6	pCi/g-dry		0.34			10	SW6020	07/14/08 09:51/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060402-003  
**Client Sample ID:** DewBurd SUB06S

**Report Date:** 08/28/08  
**Collection Date:** 06/23/08 13:50  
**Date Received:** 06/24/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/	DF	Method	Analysis Date / By
					QCL			
RADIONUCLIDES - TOTAL								
Lead 210	9.6	pCi/g-dry				1	E909.0M	07/16/08 09:30/eli-c
Lead 210 precision (±)	2.2	pCi/g-dry				1	E909.0M	07/16/08 09:30/eli-c
Lead 210 MDC	3.4	pCi/g-dry				1	E909.0M	07/16/08 09:30/eli-c
Radium 226	8.6	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Radium 226 precision (±)	0.4	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Thorium 230	7.8	pCi/g-dry		0.1		1	E907.0	07/15/08 13:01/eli-c
Thorium 230 precision (±)	1.6	pCi/g-dry				1	E907.0	07/15/08 13:01/eli-c
TOTAL METALS ANALYSES								
Uranium	37	mg/kg-dry		0.50		10	SW6020	07/14/08 09:55/eli-c
Uranium, Activity	25	pCi/g-dry		0.34		10	SW6020	07/14/08 09:55/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060402-004  
**Client Sample ID:** DewBurd SUB07S

**Report Date:** 08/28/08  
**Collection Date:** 06/23/08 14:35  
**Date Received:** 06/24/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	0.6	pCi/g-dry	U			1	E909.0M	07/16/08 09:30/eli-c
Lead 210 precision (±)	2.0	pCi/g-dry				1	E909.0M	07/16/08 09:30/eli-c
Lead 210 MDC	3.3	pCi/g-dry				1	E909.0M	07/16/08 09:30/eli-c
Radium 226	0.7	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Thorium 230	0.5	pCi/g-dry		0.1		1	E907.0	07/21/08 21:23/eli-c
Thorium 230 precision (±)	0.2	pCi/g-dry				1	E907.0	07/21/08 21:23/eli-c
TOTAL METALS ANALYSES								
Uranium	1.7	mg/kg-dry		0.50		10	SW6020	07/14/08 09:59/eli-c
Uranium, Activity	1.1	pCi/g-dry		0.34		10	SW6020	07/14/08 09:59/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060402-005  
**Client Sample ID:** DewBurd SUB11S

**Report Date:** 08/28/08  
**Collection Date:** 06/23/08 15:15  
**Date Received:** 06/24/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	2.1	pCi/g-dry	U			1	E909.0M	07/16/08 09:30/eli-c
Lead 210 precision (±)	2.1	pCi/g-dry				1	E909.0M	07/16/08 09:30/eli-c
Lead 210 MDC	3.4	pCi/g-dry				1	E909.0M	07/16/08 09:30/eli-c
Radium 226	0.8	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Thorium 230	0.5	pCi/g-dry		0.1		1	E907.0	07/15/08 13:01/eli-c
Thorium 230 precision (±)	0.2	pCi/g-dry				1	E907.0	07/15/08 13:01/eli-c
TOTAL METALS ANALYSES								
Uranium	2.7	mg/kg-dry		0.50		10	SW6020	07/14/08 10:04/eli-c
Uranium, Activity	1.8	pCi/g-dry		0.34		10	SW6020	07/14/08 10:04/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## LABORATORY ANALYTICAL REPORT

Client: RESPEC Inc  
Project: Edgemont (Soils/Air filters)  
Lab ID: R08060402-006  
Client Sample ID: DewBurd UNT01S

Report Date: 08/28/08  
Collection Date: 06/23/08 16:00  
Date Received: 06/24/08  
Matrix: SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	2.2	pCi/g-dry	U			1	E909.0M	07/16/08 09:30/eli-c
Lead 210 precision (±)	2.1	pCi/g-dry				1	E909.0M	07/16/08 09:30/eli-c
Lead 210 MDC	3.4	pCi/g-dry				1	E909.0M	07/16/08 09:30/eli-c
Radium 226	0.8	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Thorium 230	0.5	pCi/g-dry		0.1		1	E907.0	07/16/08 11:48/eli-c
Thorium 230 precision (±)	0.2	pCi/g-dry				1	E907.0	07/16/08 11:48/eli-c
TOTAL METALS ANALYSES								
Uranium	2.0	mg/kg-dry		0.50		10	SW6020	07/14/08 10:08/eli-c
Uranium, Activity	1.4	pCi/g-dry		0.34		10	SW6020	07/14/08 10:08/eli-c

Report Definitions: RL - Analyte reporting limit.  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060402-007  
**Client Sample ID:** DewBurd SUB10S

**Report Date:** 08/28/08  
**Collection Date:** 06/23/08 16:30  
**Date Received:** 06/24/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	1.5	pCi/g-dry	U			1	E909.0M	07/16/08 09:30/eli-c
Lead 210 precision (±)	2.1	pCi/g-dry				1	E909.0M	07/16/08 09:30/eli-c
Lead 210 MDC	3.4	pCi/g-dry				1	E909.0M	07/16/08 09:30/eli-c
Radium 226	0.8	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Thorium 230	0.7	pCi/g-dry		0.1		1	E907.0	07/15/08 13:01/eli-c
Thorium 230 precision (±)	0.3	pCi/g-dry				1	E907.0	07/15/08 13:01/eli-c
TOTAL METALS ANALYSES								
Uranium	1.5	mg/kg-dry		0.50		10	SW6020	07/14/08 10:12/eli-c
Uranium, Activity	1.0	pCi/g-dry		0.34		10	SW6020	07/14/08 10:12/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08060402-008  
**Client Sample ID:** DewBurd BEN01S

**Report Date:** 08/28/08  
**Collection Date:** 06/23/08 17:30  
**Date Received:** 06/24/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/	DF	Method	Analysis Date / By
					QCL			
RADIONUCLIDES - TOTAL								
Lead 210	2.3	pCi/g-dry	U			1	E909.0M	07/16/08 09:30/eli-c
Lead 210 precision (±)	2.1	pCi/g-dry				1	E909.0M	07/16/08 09:30/eli-c
Lead 210 MDC	3.4	pCi/g-dry				1	E909.0M	07/16/08 09:30/eli-c
Radium 226	0.6	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	07/21/08 14:30/eli-c
Thorium 230	0.6	pCi/g-dry		0.1		1	E907.0	07/15/08 13:01/eli-c
Thorium 230 precision (±)	0.2	pCi/g-dry				1	E907.0	07/15/08 13:01/eli-c
TOTAL METALS ANALYSES								
Uranium	1.8	mg/kg-dry		0.50		10	SW6020	07/14/08 10:28/eli-c
Uranium, Activity	1.2	pCi/g-dry		0.34		10	SW6020	07/14/08 10:28/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## QA/QC Summary Report

Client: RESPEC Inc  
Project: Edgemont (Soils/Air filters)

Report Date: 08/28/08  
Work Order: R08060402

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0							Batch: C_R104615		
Sample ID: LCS-18998	Laboratory Control Sample				Run: SUB-C104615			07/21/08 14:30	
Radium 226	0.016	pCi/g-dry		111	70	130			
Sample ID: MB-18998	Method Blank				Run: SUB-C104615			07/21/08 16:28	
Radium 226	-0.002	pCi/g-dry						U	
Sample ID: C08061348-003AMS	Sample Matrix Spike				Run: SUB-C104615			07/21/08 16:28	
Radium 226	10	pCi/g-dry		99	70	130			
Sample ID: C08061348-003AMSD	Sample Matrix Spike Duplicate				Run: SUB-C104615			07/21/08 16:28	
Radium 226	10	pCi/g-dry		101	70	130	1.6	22	
Method: E907.0							Batch: C_18998		
Sample ID: C08061293-016CMS	Sample Matrix Spike				Run: SUB-C104873			07/15/08 19:31	
Thorium 230	6.15	pCi/g-dry	0.10	89	70	130			
Sample ID: C08061293-016CMSD	Sample Matrix Spike Duplicate				Run: SUB-C104873			07/15/08 19:31	
Thorium 230	6.71	pCi/g-dry	0.10	113	70	130	8.8	30	
Sample ID: LCS-18998	Laboratory Control Sample				Run: SUB-C104873			07/15/08 19:31	
Thorium 230	0.0576	pCi/g-dry	0.10	118	70	130			
Sample ID: MB-18998	Method Blank				Run: SUB-C104873			07/15/08 19:31	
Thorium 230	0.0007	pCi/g-dry						U	
Method: E907.0							Batch: C_R104911		
Sample ID: C08061293-042CMS	Sample Matrix Spike				Run: SUB-C104911			07/21/08 21:23	
Thorium 230	4.10	pCi/g-dry	0.10	106	70	130			
Sample ID: C08061293-042CMSD	Sample Matrix Spike Duplicate				Run: SUB-C104911			07/21/08 21:23	
Thorium 230	3.62	pCi/g-dry	0.10	88	70	130	13	30	
Sample ID: LCS-19053	Laboratory Control Sample				Run: SUB-C104911			07/21/08 21:23	
Thorium 230	0.0546	pCi/g-dry	0.10	114	70	130			
Sample ID: MB-19053	Method Blank				Run: SUB-C104911			07/21/08 21:23	
Thorium 230	0.0006	pCi/g-dry						U	

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



## QA/QC Summary Report

Client: RESPEC Inc  
Project: Edgemont (Soils/Air filters)

Report Date: 08/28/08  
Work Order: R08060402

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0M							Batch: C_R105493		
Sample ID: C08061062-003AMS	Sample Matrix Spike				Run: SUB-C105493			07/16/08 09:30	
Lead 210	0.0010	uCi/kg		82	70	130			
Sample ID: C08061062-003AMSD	Sample Matrix Spike Duplicate				Run: SUB-C105493			07/16/08 09:30	
Lead 210	0.0012	uCi/kg		96	70	130	14	30	
Sample ID: MB-R105493	Method Blank				Run: SUB-C105493			07/16/08 09:30	
Lead 210	0.002	pCi/g-dry							U
Sample ID: LCS-R105493	Laboratory Control Sample				Run: SUB-C105493			07/16/08 09:30	
Lead 210	0.113	pCi/g-dry		94	70	130			
Method: SW6020							Batch: C_18986		
Sample ID: MB-18986	Method Blank				Run: SUB-C104200			07/14/08 09:22	
Uranium	2E-05	mg/kg-dry	1E-06						
Sample ID: LCS3-18986	Laboratory Control Sample				Run: SUB-C104200			07/14/08 09:39	
Uranium	1.7	mg/kg-dry	0.50	99	87.9	127			
Sample ID: C08061293-016BMS3	Sample Matrix Spike				Run: SUB-C104200			07/14/08 11:37	
Uranium	30	mg/kg-dry	0.50	101	75	125			
Sample ID: C08061293-016BMSD3	Sample Matrix Spike Duplicate				Run: SUB-C104200			07/14/08 11:41	
Uranium	33	mg/kg-dry	0.50	111	75	125	6.7	20	

### Qualifiers:

RL - Analyte reporting limit.

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ENERGY LABORATORIES, INC. • 2821 Plant Street • Rapid City, SD 57702 • www.energylab.com  
Toll Free 888.672.1225 • Voice 605.342.1225 • Fax 605.342.1397 • rapid\_city@energylab.com



# Chain of Custody and Analytical Request Record

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PLEASE PRINT - Provide as much information as possible.

Company Name: <b>RES REC</b>		Project Name, PWS, Permit, Etc.: <b>Powdered Dew Burdock</b>		Sample Origin: <b>SD</b>	EPA/State Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>		
Report Mail Address:		Contact Name: <b>Cory Foreman</b>		State: <b>SD</b>	Sampler: (Please Print) <b>Eric Kantz</b>		
Invoice Address:		Phone/Fax:		Email:			
Special Report/Formats - EI must be notified prior to sample submittal for the following:		Invoice Contact & Phone:		Purchase Order:	Quote/Bottle Order:		
<input type="checkbox"/> DW <input type="checkbox"/> A2LA <input type="checkbox"/> GSA <input type="checkbox"/> EDD/EDT (Electronic Data) <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> Format: <input type="checkbox"/> State: <input type="checkbox"/> LEVEL IV <input type="checkbox"/> Other: <input type="checkbox"/> NELAC		Number of Containers: <b>4</b> Sample Type: <b>AWSVBO</b> Air Water Soils/Solids Vegetation Bioassay Other		Contact EI prior to RUSH sample submittal for charges and scheduling - See Instruction Page			
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date	Collection Time	MATRIX	ANALYSIS REQUESTED		
1 Dew Burd Sub 08s		6/23/08	12:25	S	SEE ATTACHED Normal Turnaround (TAT) <b>RUSH</b> Comments: <b>411 Sediment</b>		
2 Dew Burd Sub 09s		6/23/08	12:55	S			
3 Dew Burd Sub 06s		6/23/08	13:50	S			
4 Dew Burd Sub 07s		6/23/08	14:35	S			
5 Dew Burd Sub 11s		6/23/08	15:15	S			
6 Dew Burd Sub 10s		6/23/08	16:00	S			
7 Dew Burd Sub 10s		6/23/08	16:30	S			
8 Dew Burd Sub 10s		6/23/08	17:30	S			
9							
10							
Custody Record MUST be Signed		Requisitioned by (print): <b>Eric Kantz</b>	Date/Time: <b>6/24/08 0545</b>	Signature: <b>[Signature]</b>	Received by (print): <b>J. Houtman</b>	Date/Time: <b>6/24/08 800</b>	Signature: <b>[Signature]</b>
Sample Disposal: Return to Client:		Lab Disposal:		Received by Laboratory:	Date/Time:	Signature:	

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at [www.energylab.com](http://www.energylab.com) for additional information, downloadable fee schedule, forms, and links.



## ANALYTICAL SUMMARY REPORT

October 23, 2008

Cory Foreman  
RESPEC Inc  
3824 Jet Dr  
Rapid City, SD 57701-

Workorder No.: R08080356 Quote ID: R279

Project Name: Edgemont (Soils/Air filters)

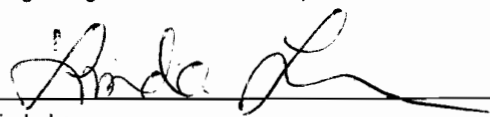
Energy Laboratories Inc. received the following 19 samples from RESPEC Inc on 8/21/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
R08080356-001	DewBurd BEN01S	08/21/08 9:02	08/21/08	Sediment	Metals by ICP/ICPMS, Total Digestion, Total Metals For Radio Chemistry Lead 210 Radium 226 Thorium, Isotopic
R08080356-002	DewBurd UNT01S	08/21/08 9:23	08/21/08	Sediment	Same As Above
R08080356-003	DewBurd SUB10S	08/21/08 9:38	08/21/08	Sediment	Same As Above
R08080356-004	DewBurd SUB11S	08/21/08 9:56	08/21/08	Sediment	Same As Above
R08080356-005	DewBurd SUB07S	08/21/08 10:09	08/21/08	Sediment	Same As Above
R08080356-006	DewBurd SUB06S	08/21/08 10:36	08/21/08	Sediment	Same As Above
R08080356-007	DewBurd SUB05S	08/21/08 10:46	08/21/08	Sediment	Same As Above
R08080356-008	DewBurd SUB03S	08/21/08 10:56	08/21/08	Sediment	Same As Above
R08080356-009	DewBurd SUB04S	08/21/08 11:09	08/21/08	Sediment	Same As Above
R08080356-010	DewBurd PSC01S	08/21/08 11:24	08/21/08	Sediment	Same As Above
R08080356-011	DewBurd CHR05S	08/21/08 13:13	08/21/08	Sediment	Same As Above
R08080356-012	DewBurd BVC01S	08/21/08 13:36	08/21/08	Sediment	Same As Above
R08080356-013	DewBurd CHR01S	08/21/08 13:52	08/21/08	Sediment	Same As Above
R08080356-014	DewBurd BVC04S	08/21/08 14:23	08/21/08	Sediment	Same As Above
R08080356-015	DewBurd SUB09S	08/21/08 15:01	08/21/08	Sediment	Same As Above
R08080356-016	DewBurd SUB08S	08/21/08 15:12	08/21/08	Sediment	Same As Above
R08080356-017	DewBurd SUB02S	08/21/08 15:31	08/21/08	Sediment	Same As Above
R08080356-018	DewBurd SUB01S	08/21/08 15:55	08/21/08	Sediment	Same As Above
R08080356-019	DewBurd PSC02S	08/21/08 16:16	08/21/08	Sediment	Same As Above

As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By: \_\_\_\_\_

  
Linda Larson  
Rapid City - Project Manager





## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-001  
**Client Sample ID:** DewBurd BEN01S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 09:02  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - TOTAL								
Lead 210	2.0	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	0.6	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Radium 226 MDC	0.08	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Thorium 230	0.5	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.02	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	2.4	mg/kg-dry		0.50		10	SW6020	09/07/08 02:16/eli-c
Uranium, Activity	1.6	pCi/g-dry		0.34		10	SW6020	09/07/08 02:16/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-002  
**Client Sample ID:** DewBurd UNT01S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 09:23  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	1.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	0.7	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Radium 226 MDC	0.09	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Thorium 230	1.0	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.03	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	2.5	mg/kg-dry		0.50		10	SW6020	09/07/08 02:27/eli-c
Uranium, Activity	1.7	pCi/g-dry		0.34		10	SW6020	09/07/08 02:27/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-003  
**Client Sample ID:** DewBurd SUB10S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 09:38  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/	DF	Method	Analysis Date / By
					QCL			
RADIONUCLIDES - TOTAL								
Lead 210	0.9	pCi/g-dry	U			1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	0.6	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Radium 226 MDC	0.09	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Thorium 230	0.7	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.03	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	2.1	mg/kg-dry		0.50		10	SW6020	09/07/08 02:32/eli-c
Uranium, Activity	1.4	pCi/g-dry		0.34		10	SW6020	09/07/08 02:32/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-004  
**Client Sample ID:** DewBurd SUB11S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 09:56  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		DF	Method	Analysis Date / By
					QCL	DF			
RADIONUCLIDES - TOTAL									
Lead 210	1.5	pCi/g-dry					1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.7	pCi/g-dry					1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry					1	E909.0M	10/10/08 09:17/eli-c
Radium 226	0.6	pCi/g-dry					1	E903.0	09/22/08 16:06/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry					1	E903.0	09/22/08 16:06/eli-c
Radium 226 MDC	0.08	pCi/g-dry					1	E903.0	09/22/08 16:06/eli-c
Thorium 230	0.8	pCi/g-dry		0.1			1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.03	pCi/g-dry					1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES									
Uranium	1.8	mg/kg-dry		0.50			10	SW6020	09/07/08 02:37/eli-c
Uranium, Activity	1.2	pCi/g-dry		0.34			10	SW6020	09/07/08 02:37/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-005  
**Client Sample ID:** DewBurd SUB07S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 10:09  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	1.9	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	0.4	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Radium 226 MDC	0.1	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Thorium 230	0.9	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.03	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	2.2	mg/kg-dry		0.50		10	SW6020	09/07/08 02:43/eli-c
Uranium, Activity	1.5	pCi/q-dry		0.34		10	SW6020	09/07/08 02:43/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-006  
**Client Sample ID:** DewBurd SUB06S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 10:36  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	4.0	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	5.2	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Radium 226 precision (±)	0.3	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Radium 226 MDC	0.09	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Thorium 230	5.9	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.07	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	32	mg/kg-dry		0.50		10	SW6020	09/07/08 02:48/eli-c
Uranium, Activity	22	pCi/g-dry		0.34		10	SW6020	09/07/08 02:48/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-007  
**Client Sample ID:** DewBurd SUB05S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 10:46  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	2.8	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	3.0	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Radium 226 precision (±)	0.2	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Radium 226 MDC	0.09	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Thorium 230	2.3	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.04	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	6.0	mg/kg-dry		0.50		10	SW6020	09/07/08 03:15/eli-c
Uranium, Activity	4.0	pCi/g-dry		0.34		10	SW6020	09/07/08 03:15/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-008  
**Client Sample ID:** DewBurd SUB03S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 10:56  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	3.2	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	1.1	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Radium 226 precision (±)	0.2	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Radium 226 MDC	0.09	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Thorium 230	1.9	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.04	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	4.2	mg/kg-dry		0.50		10	SW6020	09/07/08 03:20/eli-c
Uranium, Activity	2.8	pCi/g-dry		0.34		10	SW6020	09/07/08 03:20/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-009  
**Client Sample ID:** DewBurd SUB04S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 11:09  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/	DF	Method	Analysis Date / By
					QCL			
RADIONUCLIDES - TOTAL								
Lead 210	2.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	0.7	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Radium 226 MDC	0.09	pCi/g-dry				1	E903.0	09/22/08 16:06/eli-c
Thorium 230	1.8	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.04	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	5.1	mg/kg-dry		0.50		10	SW6020	09/07/08 03:25/eli-c
Uranium, Activity	3.4	pCi/g-dry		0.34		10	SW6020	09/07/08 03:25/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-010  
**Client Sample ID:** DewBurd PSC01S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 11:24  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	4.0	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	1.8	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 precision (±)	0.2	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 MDC	0.08	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Thorium 230	4.1	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.06	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	6.5	mg/kg-dry		0.50		10	SW6020	09/07/08 03:30/eli-c
Uranium, Activity	4.4	pCi/g-dry		0.34		10	SW6020	09/07/08 03:30/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-011  
**Client Sample ID:** DewBurd CHR05S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 13:13  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	1.3	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	0.6	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 MDC	0.09	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Thorium 230	0.5	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.02	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	1.2	mg/kg-dry		0.50		10	SW6020	09/07/08 03:36/eli-c
Uranium, Activity	0.85	pCi/g-dry		0.34		10	SW6020	09/07/08 03:36/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-012  
**Client Sample ID:** DewBurd BVC01S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 13:36  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	2.6	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	0.6	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 MDC	0.09	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Thorium 230	1.2	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.03	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	2.0	mg/kg-dry		0.50		10	SW6020	09/07/08 03:41/eli-c
Uranium, Activity	1.3	pCi/g-dry		0.34		10	SW6020	09/07/08 03:41/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-013  
**Client Sample ID:** DewBurd CHR01S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 13:52  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - TOTAL								
Lead 210	1.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.6	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	0.9	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 MDC	0.09	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Thorium 230	1.4	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.03	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	2.7	mg/kg-dry		0.50		10	SW6020	09/07/08 03:46/eli-c
Uranium, Activity	1.8	pCi/g-dry		0.34		10	SW6020	09/07/08 03:46/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-014  
**Client Sample ID:** DewBurd BVC04S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 14:23  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/	DF	Method	Analysis Date / By
					QCL			
RADIONUCLIDES - TOTAL								
Lead 210	1.8	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	1	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 MDC	0.09	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Thorium 230	1	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.03	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	2.0	mg/kg-dry		0.50		10	SW6020	09/07/08 03:51/eli-c
Uranium, Activity	1.3	pCi/g-dry		0.34		10	SW6020	09/07/08 03:51/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-015  
**Client Sample ID:** DewBurd SUB09S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 15:01  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - TOTAL								
Lead 210	1.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	0.6	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 MDC	0.09	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Thorium 230	0.9	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.03	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	2.3	mg/kg-dry		0.50		10	SW6020	09/07/08 03:57/eli-c
Uranium, Activity	1.6	pCi/g-dry		0.34		10	SW6020	09/07/08 03:57/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-016  
**Client Sample ID:** DewBurd SUB08S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 15:12  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	1.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	0.4	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 MDC	0.09	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Thorium 230	0.8	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.02	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	1.9	mg/kg-dry		0.50		10	SW6020	09/07/08 04:23/eli-c
Uranium, Activity	1.3	pCi/g-dry		0.34		10	SW6020	09/07/08 04:23/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-017  
**Client Sample ID:** DewBurd SUB02S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 15:31  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	3.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	1.3	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 precision (±)	0.2	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 MDC	0.09	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Thorium 230	6.8	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.07	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	19	mg/kg-dry		0.50		10	SW6020	09/07/08 04:29/eli-c
Uranium, Activity	13	pCi/g-dry		0.34		10	SW6020	09/07/08 04:29/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

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

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-018  
**Client Sample ID:** DewBurd SUB01S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 15:55  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/	DF	Method	Analysis Date / By
					QCL			
RADIONUCLIDES - TOTAL								
Lead 210	1	pCi/g-dry	U			1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.7	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	1.1	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 MDC	0.09	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Thorium 230	1	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.03	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	3.3	mg/kg-dry		0.50		10	SW6020	09/07/08 04:34/eli-c
Uranium, Activity	2.2	pCi/g-dry		0.34		10	SW6020	09/07/08 04:34/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## LABORATORY ANALYTICAL REPORT

**Client:** RESPEC Inc  
**Project:** Edgemont (Soils/Air filters)  
**Lab ID:** R08080356-019  
**Client Sample ID:** DewBurd PSC02S

**Report Date:** 10/23/08  
**Collection Date:** 08/21/08 16:16  
**Date Received:** 08/21/08  
**Matrix:** SEDIMENT

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
RADIONUCLIDES - TOTAL								
Lead 210	0.4	pCi/g-dry	U			1	E909.0M	10/10/08 09:17/eli-c
Lead 210 precision (±)	0.6	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Lead 210 MDC	1.1	pCi/g-dry				1	E909.0M	10/10/08 09:17/eli-c
Radium 226	0.4	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 precision (±)	0.1	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Radium 226 MDC	0.09	pCi/g-dry				1	E903.0	09/22/08 17:42/eli-c
Thorium 230	0.4	pCi/g-dry		0.1		1	E907.0	09/26/08 14:00/eli-c
Thorium 230 precision (±)	0.02	pCi/g-dry				1	E907.0	09/26/08 14:00/eli-c
TOTAL METALS ANALYSES								
Uranium	1.0	mg/kg-dry		0.50		10	SW6020	09/07/08 04:39/eli-c
Uranium, Activity	0.71	pCi/g-dry		0.34		10	SW6020	09/07/08 04:39/eli-c

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

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## QA/QC Summary Report

Client: RESPEC Inc  
Project: Edgemont (Soils/Air filters)

Report Date: 10/23/08  
Work Order: R08080356

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0							Batch: C_19745		
Sample ID: R08080356-019A	Sample Matrix Spike				Run: SUB-C108008		09/22/08 19:17		
Radium 226	4.3	pCi/g-dry	103		70	130			
Sample ID: R08080356-019A	Sample Matrix Spike Duplicate				Run: SUB-C108008		09/22/08 19:17		
Radium 226	4.6	pCi/g-dry	111		70	130	8.1	23.1	
Sample ID: LCS-19745	Laboratory Control Sample				Run: SUB-C108008		09/22/08 19:17		
Radium 226	0.016	pCi/g-dry	112		70	130			
Sample ID: MB-19745	Method Blank				Run: SUB-C108008		09/22/08 19:17		
Radium 226	-0.001	pCi/g-dry							U
Method: E907.0							Batch: C_19745		
Sample ID: R08080356-019A	Sample Matrix Spike				Run: SUB-C109045		09/26/08 14:00		
Thorium 230	2.14	pCi/g-dry	0.10	153	70	130			S
- Spike response is outside of the acceptance range for this analysis. Since the LCS and the RPD for the MS MSD pair are acceptable, the response is considered to be matrix related. The batch is approved.									
Sample ID: R08080356-019A	Sample Matrix Spike Duplicate				Run: SUB-C109045		09/26/08 14:00		
Thorium 230	1.85	pCi/g-dry	0.10	128	70	130	15	30	
Sample ID: LCS-19745	Laboratory Control Sample				Run: SUB-C109045		09/26/08 14:00		
Thorium 230	0.0285	pCi/g-dry	0.10	123	70	130			
Sample ID: MB-19745	Method Blank				Run: SUB-C109045		09/26/08 14:00		
Thorium 230	-0.001	pCi/g-dry							U
Method: E909.0M							Batch: C_19745		
Sample ID: R08080356-019A	Sample Matrix Spike				Run: SUB-C109410		10/10/08 09:17		
Lead 210	27.8	pCi/g-dry	102		70	130			
Sample ID: R08080356-019A	Sample Matrix Spike Duplicate				Run: SUB-C109410		10/10/08 09:17		
Lead 210	21.8	pCi/g-dry	74		70	130	24	30	
Sample ID: MB-19745	Method Blank				Run: SUB-C109410		10/10/08 09:17		
Lead 210	ND	pCi/g-dry							U
Sample ID: LCS-19745	Laboratory Control Sample				Run: SUB-C109410		10/10/08 09:17		
Lead 210	0.116	pCi/g-dry	100		70	130			

### Qualifiers:

RL - Analyte reporting limit.

S - Spike recovery outside of advisory limits.

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



## QA/QC Summary Report

Client: RESPEC Inc  
Project: Edgemont (Soils/Air filters)

Report Date: 10/23/08  
Work Order: R08080356

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020									Batch: C_19668
Sample ID: MB-19668	Method Blank								09/07/08 02:06
Uranium	0.004	mg/kg-dry	4E-05						
Sample ID: LCS1-19668	Laboratory Control Sample								09/07/08 02:11
Uranium	110	mg/kg-dry	0.50	111	91	133			
Sample ID: R08080356-019A	Sample Matrix Spike								09/07/08 04:44
Uranium	20	mg/kg-dry	0.50	124	75	125			
Sample ID: R08080356-019A	Sample Matrix Spike Duplicate								09/07/08 04:50
Uranium	18	mg/kg-dry	0.50	129	75	125	11	20	S

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



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# Chain of Custody and Analytical Request Record

Page 1 of 2

PLEASE PRINT - Provide as much information as possible.

Company Name: <b>RESPEC</b>		Project Name, PWS, Permit, Etc. <b>Powerbel Denny Budak</b>		Sample Origin State:	EPA/State Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>
Report Mail Address:		Contact Name: <b>Powerbel Denny Budak</b>		Email:	Sampler: (Please Print) <b>Eric Krantz</b>
Invoice Address:		Phone/Fax:		Purchase Order:	
Special Report/Formats - ELI must be notified prior to sample submittal for the following:		Invoice Contact & Phone:		Quote/Bottle Order:	
<input type="checkbox"/> DW <input type="checkbox"/> GSA <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> State: <input type="checkbox"/> Other:		<input type="checkbox"/> A2LA <input type="checkbox"/> EDD/EDT (Electronic Data) Format: <input type="checkbox"/> LEVEL IV <input type="checkbox"/> NELAC		Number of Containers Sample Type: A W S V B O Air Water Soils/Solids Vegetation Bioassay Other	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date	Collection Time	ANALYSIS REQUESTED	
1. Dewburd BENOIS		8/21	0902	SEE ATTACHED	
2. Dewburd BENOIS		8/21	0923	Normal Turnaround (TAT)	
3. Dewburd BENOIS		8/21	0938	R U S H	
4. Dewburd Sub 11s		8/21	0956	Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page	
5. Dewburd Sub 07s		8/21	1009	Comments: <b>All sediments</b>	
6. Dewburd Sub 06s		8/21	1036	Shipped by: Cooler Req: Receipt Temp: <b>19.6 °C</b> On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
7. Dewburd Sub 05s		8/21	1046	Custody Seal: Y N Intact: Y N Signature: Y N Match: Y N	
8. Dewburd Sub 03s		8/21	1056	Dewburd TR Sub 10 Sub 11 Sub 07 Dewburd P1T below Denny met station basic 41s	
9. Dewburd Sub 04s		8/21	1109	Dewburd P1T below Denny met station basic 41s	
10. Dewburd PSC01s		8/21	1124	Dewburd P1T below Denny met station basic 41s	
Custody Record		Relinquished by (print): <b>Eric Krantz</b>		Received by (print): <b>Steve Fainland</b>	
Signed		Date/Time: <b>8/21/09 11:45</b>		Date/Time: <b>8-21-08 1845</b>	
Sample Disposal:		Return to Client:		Signature:	

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at [www.energylab.com](http://www.energylab.com) for additional information, downloadable fee schedule, forms, and links.



## Chain of Custody and Analytical Request Record

Page 2 of 2

PLEASE PRINT - Provide as much information as possible.

Company Name: <b>ESPEC</b>		Project Name, PWS, Permit, Etc. <b>PowerTech, Dew Burdock</b>		Sample Origin State:	EPA/State Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>
Report Mail Address:		Contact Name: <b>Cory Foreman</b>		Phone/Fax:	Sampler: (Please Print) <b>Eric Korte</b>
Invoice Address:		Invoice Contact & Phone:		Purchase Order:	Quote/Bottle Order:
Special Report/Formats - ELL must be notified prior to sample submittal for the following:					
<div><input type="checkbox"/> DW <input type="checkbox"/> GSA <input type="checkbox"/> POTW/WWT <input type="checkbox"/> State: _____ <input type="checkbox"/> Other: _____</div> <div><input type="checkbox"/> A2LA <input type="checkbox"/> EDD/EDT (Electronic Data) <input type="checkbox"/> Format: _____ <input type="checkbox"/> LEVEL IV <input type="checkbox"/> NELAC</div>					
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date	Collection Time	MATRIX	Number of Containers Sample Type: A W S V B O Air Water Soils/Solids Vegetation Bioassay Other
1 Dew Burdock HR 055		8/21	13:13	S	
2 Dew Burdock BVC 015		8/21	13:36	S	
3 Dew Burdock CH 015		8/21	13:52	S	
4 Dew Burdock BVC 045		8/21	14:23	S	
5 Dew Burdock Sub 095		8/21	15:01	S	
6 Dew Burdock Sub 085		8/21	15:12	S	
7 Dew Burdock Sub 025		8/21	15:34	S	
8 Dew Burdock Sub 015		8/21	15:55	S	
9 Dew Burdock PSC 025		8/21	16:16	S	
10					
Custody Record <b>ESPEC</b>		Requisitioned by (print): <b>ESPEC</b>	Date/TIME <b>8/21/08 1845</b>	Signature: <b>[Signature]</b>	Received by (print): <b>Eric Korte</b>
Signed		Sample Disposal:	Return to Client:	Lab Disposal:	Received by Laboratory:

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at [www.energylab.com](http://www.energylab.com) for additional information, downloadable fee schedule, forms, and links.

## **APPENDIX 2.9-I**

### **Radionuclide Concentrations in Surface Water**



Analyte			Gross Alpha			Lead 210 - Dissolved		
Maximum Contaminant Level (40 CFR 141.66)			15 pCi/L			none		
Measurement		Sampling Method and Preservation	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Site	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Sub01 - stock pond, quarterly sampling interval								
	9/27/2007 0:00	no sample collected						
	11/12/2007 0:00	no sample collected						
	3/24/2008 12:45	R08030252-003	grab, ice	2.4	0.9	1.1	NM	
	6/18/2008 12:00	R08060347-001	grab, ice	16.2	2	1.7	0.7	5 8.4
Sub02 - Triangle Mine Pit, quarterly sampling interval								
	9/27/2007 18:45	R07090389-002	grab, ice	82.8	4.5	1	<1	1
	11/12/2007 12:50	R07110147-001	grab, ice	132	5	1	<1	1
	2/10/2008 17:00	R08020083-003	grab, ice	131	5.3	1	NM	
	6/18/2008 13:10	R08060347-002	grab, ice	201	18.2	12.5	-0.9	5 8.4
Sub03 - mine dam, quarterly sampling interval								
	9/27/2007 0:00	no sample collected						
	11/12/2007 14:50	R07110147-003	grab, ice	16.6	1.1	1	<1	1
	2/10/2008 and 3/24/2008	no sample collected						
	6/18/2008 14:15	R08060347-004	grab, ice	19.9	2.8	2.6	-3	4.9 8.4
Sub04 - stock pond, quarterly sampling interval								
	9/27/2007 0:00	no sample collected						
	11/12/2007 13:50	R07110147-002	grab, ice	13.6	1.7	1	<1	1
	2/10/2008 and 3/24/2008	no sample collected						
	6/17/2008 14:00	R08060316-001	grab, ice	3	1.3	1.8	-2.1	5 8.4
Sub05 - mine dam, quarterly sampling interval								
	9/27/2007 0:00	no sample collected						
	11/12/2007 0:00	no sample collected						
	2/10/2008 and 3/24/2008	no sample collected						
	6/18/2008 0:00	no sample collected						
Sub06 - Darrow Mine Pit Northwest, quarterly sampling interval								
	9/27/2007 18:10	R07090389-003	grab, ice	3070	33.5	1	<1	1
	11/27/2007 9:36	R07110302-002	grab, ice	6780	47	1	<1	1
	2/10/2008 16:10	R08020083-002	grab, ice	8750	43.6	1	NM	
	6/23/2008 13:45	R08060403-003	grab, ice	3570	82.4	16.6	-0.6	5.3 9
Sub07 - stock dam, quarterly sampling interval								
	9/27/2007 18:45	R07090389-001	grab, ice	5.3	0.7	1	<1	1
	11/12/2007 16:45	R07110147-004	grab, ice	5.1	0.7	1	<1	1
	3/24/2008 11:55	R08030252-002	grab, ice	1.9	0.9	1.2	NM	
	6/23/2008 14:30	R08060403-004	grab, ice	5.8	1.1	1.2	-1.4	5.3 9
Sub08 - stock pond, quarterly sampling interval								
	9/26/2007 18:40	R07090368-003	grab, ice	<1		1	<1	1
	11/27/2007 8:35	R07110302-001	grab, ice	4.8	2.5	1	4.6	1
	2/10/2008 15:10	R08020083-001	grab, ice	12.2	3.3	1	NM	
	6/23/2008 12:20	R08060403-001	grab, ice	14.1	4.1	5.1	1.9	5.4 9
Sub09 - stock pond, quarterly sampling interval								
	9/27/2007 0:00	no sample collected						
	11/12/2007 0:00	no sample collected						
	3/24/2008 16:25	R08030252-004	grab, ice	1.2	0.8	1.1	NM	
	6/23/2008 12:50	R08060403-002	grab, ice	15.9	2	1.7	-0.9	5.1 8.6
Sub10 - stock pond, quarterly sampling interval								
	9/27/2007 0:00	no sample collected						
	11/12/2007 0:00	no sample collected						
	3/24/2008 17:10	R08030252-004	grab, ice	9	4.8	6.7	NM	
	6/23/2008 16:25	R08060403-002	grab, ice	16.3	2	1.6	0.1	5.5 9.1
Sub11 - stock pond, quarterly sampling interval								
	9/27/2007 17:15	R07090389-004	grab, ice	2.9	0.7	1	<1	1
	11/27/2007 10:08	R07110302-003	grab, ice	2.0	0.6	1	<1	1
	3/24/2008 11:10	R08030252-001	grab, ice	1.4	0.7	0.9	NM	
	6/23/2008 15:10	R08060403-005	grab, ice	9.4	1.3	1.2	3.2	5.5 9.2
Sub24 - stock pond, sampled once								
	2/12/2008 9:45	R08020131-002	grab, ice	10.2	4.3	1	NM	
BVC01 - Beaver Creek downstream, monthly sampling interval								
	7/24/2007 14:20	R07070382-001	grab, ice	5.9	0.9	1	NM	
	8/20/2007 17:07	R07080273-001	grab, ice	7.1	1.2	1	NM	
	9/26/2007 12:16	R07090368-002	grab, ice	6.6	1.2	1	<1	1
	10/17/2007 14:45	R07100295-003	grab, ice	12	2.5	1	<1	1
	11/19/2007 11:30	R07110229-002	grab, ice	65.8	6.6	1	4.6	1.7 1
	12/11/2007 12:20	R07120148-002	grab, ice	27.9	2.8	1	11	1.7 1
	1/11/2008 11:15	R08010124-002	grab, ice	12.6	1.9	1	<1	1
	2/12/2008 0:00	no sample collected	frozen solid					
	3/9/2008 15:15	R08030091-005	grab, ice	17.4	11.6	17.2	NM	
	4/14/2008 18:43	R08040178-004	grab, ice	15.1	9.6	13.9	NM	
	5/26/2008 14:00	R08050356-002	grab, ice	18.2	4	4.5	-1	5.7 9.6
	6/17/2008 11:05	R08060315-002	grab, ice	8.9	10.9	17.1	NM	

Analyte		Lead 210 - Suspended			Polonium 210 - Dissolved			Polonium 210 - Suspended			
Maximum Contaminant Level (40 CFR 141.66)		none			none			none			
Measurement		Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC	
Site	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	
Sub01 - stock pond, quarterly sampling interval											
	9/27/2007 0:00	no sample collected									
	11/12/2007 0:00	no sample collected									
	3/24/2008 12:45	R08030252-003	NM			NM		NM			
	6/18/2008 12:00	R08060347-001	-2.1	8.6	14.6	0.1	0.4	1	1.3	0.78	1
Sub02 - Triangle Mine Pit, quarterly sampling interval											
	9/27/2007 18:45	R07090389-002	<1		1	<1		1	<1		1
	11/12/2007 12:50	R07110147-001	<1		1	1.8	1.4	1	<1		1
	2/10/2008 17:00	R08020083-003	NM			NM			NM		
	6/18/2008 13:10	R08060347-002	-0.5	8.7	14.6	-0.2	0.4	1	0.3	0.31	1
Sub03 - mine dam, quarterly sampling interval											
	9/27/2007 0:00	no sample collected									
	11/12/2007 14:50	R07110147-003	<1		1	<1		1	<1		1
	2/10/2008 and 3/24/2008	no sample collected									
	6/18/2008 14:15	R08060347-004	-0.8	8.7	14.6	0	0.3	1	0.5	0.4	1
Sub04 - stock pond, quarterly sampling interval											
	9/27/2007 0:00	no sample collected									
	11/12/2007 13:50	R07110147-002	<1		1	2.2	1.5	1	<1		1
	2/10/2008 and 3/24/2008	no sample collected									
	6/17/2008 14:00	R08060316-001	6.7	11.9	19.8	0.2	0.5	1	0.2	0.37	1
Sub05 - mine dam, quarterly sampling interval											
	9/27/2007 0:00	no sample collected									
	11/12/2007 0:00	no sample collected									
	2/10/2008 and 3/24/2008	no sample collected									
	6/18/2008 0:00	no sample collected									
Sub06 - Darrow Mine Pit Northwest, quarterly sampling interval											
	9/27/2007 18:10	R07090389-003	<1		1	<1		1	4.5	3.9	1
	11/27/2007 9:36	R07110302-002	<1		1	1.7	1.6	1	1.4	1.3	1
	2/10/2008 16:10	R08020083-002	NM			NM			NM		
	6/23/2008 13:45	R08060403-003	3.7	4.4	7.4	0.3	0.6	1	0.4	0.4	1
Sub07 - stock dam, quarterly sampling interval											
	9/27/2007 18:45	R07090389-001	<1.3		1.3	<1		1	<1.3		1.3
	11/12/2007 16:45	R07110147-004	<1		1	1.8	1.5	1	<1		1
	3/24/2008 11:55	R08030252-002	NM			NM			NM		
	6/23/2008 14:30	R08060403-004	0.6	4.4	7.4	0.4	0.5	1	0.9	0.55	1
Sub08 - stock pond, quarterly sampling interval											
	9/26/2007 18:40	R07090368-003	<1		1	<1		1	<1		1
	11/27/2007 8:35	R07110302-001	<1		1	<1		1	2.3	1.5	1
	2/10/2008 15:10	R08020083-001	NM			NM			NM		
	6/23/2008 12:20	R08060403-001	3.4	4.4	7.4	0	0.3	1	0.2	0.31	1
Sub09 - stock pond, quarterly sampling interval											
	9/27/2007 0:00	no sample collected									
	11/12/2007 0:00	no sample collected									
	3/24/2008 16:25	R08030252-004	NM			NM			NM		
	6/23/2008 12:50	R08060403-002	4.5	4.5	7.4	0	0.4	1	0.9	0.59	1
Sub10 - stock pond, quarterly sampling interval											
	9/27/2007 0:00	no sample collected									
	11/12/2007 0:00	no sample collected									
	3/24/2008 17:10	R08030252-004	NM			NM			NM		
	6/23/2008 16:25	R08060403-002	5.2	4.5	7.4	0	0.7	1	1.1	0.71	1
Sub11 - stock pond, quarterly sampling interval											
	9/27/2007 17:15	R07090389-004	8.2	4.4	2	<1		1	<2		2
	11/27/2007 10:08	R07110302-003	<1		1	<1		1	1.8	1.3	1
	3/24/2008 11:10	R08030252-001	NM			NM			NM		
	6/23/2008 15:10	R08060403-005	5	4.5	7.4	-0.2	0.5	1	1.1	0.67	1
Sub24 - stock pond, sampled once											
	2/12/2008 9:45	R08020131-002	NM			NM			NM		
BVC01 - Beaver Creek downstream, monthly sampling interval											
	7/24/2007 14:20	R07070382-001	NM			NM			NM		
	8/20/2007 17:07	R07080273-001	NM			NM			NM		
	9/26/2007 12:16	R07090368-002	<1		1	<1		1	<1		1
	10/17/2007 14:45	R07100295-003	<1		1	2.6	1.6	1	<1		1
	11/19/2007 11:30	R07110229-002	<1		1	1.9	1.4	1	2.5	1.5	1
	12/11/2007 12:20	R07120148-002	3	0.86	1	1	1	1	1.6	1.3	1
	1/11/2008 11:15	R08010124-002	<1		1	<1		1	1.4	1.1	1
	2/12/2008 0:00	no sample collected									
	3/9/2008 15:15	R08030091-005	NM			NM			NM		
	4/14/2008 18:43	R08040178-004	NM			NM			NM		
	5/26/2008 14:00	R08050356-002	15.3	42.4	70.7	0.3	0.9	1	3	3.3	1
	6/17/2008 11:05	R08060315-002	NM			NM			NM		

Analyte		Radium 226 - Dissolved			Radium 226 - Suspended			Thorium 230 - Dissolved		
Maximum Contaminant Level (40 CFR 141.66)		5 pCi/L			5 pCi/L			none		
Measurement		Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Site	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Sub01 - stock pond, quarterly sampling interval										
	9/27/2007 0:00	no sample collected								
	11/12/2007 0:00	no sample collected								
	3/24/2008 12:45	R08030252-003	0.2	0.2	0.2	1	0.5	0.6	0.2	0.2
	6/18/2008 12:00	R08060347-001	0.5	0.2	0.2	-0.2	0.2	0.4	0	0.1
Sub02 - Triangle Mine Pit, quarterly sampling interval										
	9/27/2007 18:45	R07090389-002	0.6	0.6	0.2	<0.2		0.2	<0.2	0.2
	11/12/2007 12:50	R07110147-001	0.6	0.3	0.2	<0.2		0.2	<0.2	0.2
	2/10/2008 17:00	R08020083-003	0.4	0.1	0.2	<0.2		0.2	0.4	0.03
	6/18/2008 13:10	R08060347-002	0.6	0.1	0.1	-0.5	0.2	0.5	0.1	0.3
Sub03 - mine dam, quarterly sampling interval										
	9/27/2007 0:00	no sample collected								
	11/12/2007 14:50	R07110147-003	4.5	0.7	0.2	<0.2		0.2	<0.2	0.2
	2/10/2008 and 3/24/2008	no sample collected								
	6/18/2008 14:15	R08060347-004	2.6	0.3	0.1	-0.09	0.3	0.6	0	0.1
Sub04 - stock pond, quarterly sampling interval										
	9/27/2007 0:00	no sample collected								
	11/12/2007 13:50	R07110147-002	3.4	0.6	0.2	<0.2		0.2	0.9	0.5
	2/10/2008 and 3/24/2008	no sample collected								
	6/17/2008 14:00	R08060316-001	3.1	0.3	0.1	-0.4	0.2	0.5	0	0.1
Sub05 - mine dam, quarterly sampling interval										
	9/27/2007 0:00	no sample collected								
	11/12/2007 0:00	no sample collected								
	2/10/2008 and 3/24/2008	no sample collected								
	6/18/2008 0:00	no sample collected								
Sub06 - Darrow Mine Pit Northwest, quarterly sampling interval										
	9/27/2007 18:10	R07090389-003	4.3	1.5	0.2	<0.2		0.2	23.8	4.6
	11/27/2007 9:36	R07110302-002	2.0	0.5	0.2	<0.2		0.2	27.8	9.7
	2/10/2008 16:10	R08020083-002	2.2	0.3	0.2	1	0.6	0.2	25.2	0.3
	6/23/2008 13:45	R08060403-003	2.2	0.3	0.2	-0.2	0.2	0.4	6.3	2
Sub07 - stock dam, quarterly sampling interval										
	9/27/2007 18:45	R07090389-001	0.8	0.6	0.2	<0.3		0.3	0.8	0.7
	11/12/2007 16:45	R07110147-004	0.7	0.3	0.2	<0.2		0.2	<0.2	0.2
	3/24/2008 11:55	R08030252-002	0.4	0.2	0.2	0.5	0.5	0.7	0.1	0.1
	6/23/2008 14:30	R08060403-004	-0.02	0.1	0.2	-0.4	0.2	0.4	0	0.05
Sub08 - stock pond, quarterly sampling interval										
	9/26/2007 18:40	R07090368-003	<0.2		0.2	<0.2		0.2	<0.2	0.2
	11/27/2007 8:35	R07110302-001	0.5	0.3	0.2	<0.2		0.2	<0.2	0.2
	2/10/2008 15:10	R08020083-001	<0.2		0.2	1.2	0.7	0.2	<0.2	0.2
	6/23/2008 12:20	R08060403-001	-0.1	0.1	0.2	-0.4	0.2	0.5	0	0.1
Sub09 - stock pond, quarterly sampling interval										
	9/27/2007 0:00	no sample collected								
	11/12/2007 0:00	no sample collected								
	3/24/2008 16:25	R08030252-004	0.03	0.1	0.2	0.5	0.5	0.7	0	0.1
	6/23/2008 12:50	R08060403-002	0.1	0.1	0.2	-0.06	0.2	0.4	0	0.09
Sub10 - stock pond, quarterly sampling interval										
	9/27/2007 0:00	no sample collected								
	11/12/2007 0:00	no sample collected								
	3/24/2008 17:10	R08030252-004	0.1	0.1	0.2	1.1	0.6	0.6	0.1	0.1
	6/23/2008 16:25	R08060403-002	0.2	0.2	0.2	0.6	0.3	0.4	0.1	0.1
Sub11 - stock pond, quarterly sampling interval										
	9/27/2007 17:15	R07090389-004	0.7	0.6	0.2	<0.4		0.4	1.6	1.1
	11/27/2007 10:08	R07110302-003	<0.2		0.2	<0.2		0.2	<0.2	0.2
	3/24/2008 11:10	R08030252-001	0.1	0.1	0.2	0.8	0.5	0.7	0.2	0.2
	6/23/2008 15:10	R08060403-005	-0.1	0.1	0.2	-0.4	0.2	0.5	0	0.08
Sub24 - stock pond, sampled once										
	2/12/2008 9:45	R08020131-002	0.8	0.2	0.2	<0.2		0.2	<0.2	0.2
BVC01 - Beaver Creek downstream, monthly sampling interval										
	7/24/2007 14:20	R07070382-001	NM			NM			NM	
	8/20/2007 17:07	R07080273-001	NM			NM			NM	
	9/26/2007 12:16	R07090368-002	<0.2		0.2	<0.2		0.2	<0.2	0.2
	10/17/2007 14:45	R07100295-003	0.3	0.2	0.2	<0.2		0.2	<0.2	0.2
	11/19/2007 11:30	R07110229-002	<0.2		0.2	<0.2		0.2	<0.2	0.2
	12/11/2007 12:20	R07120148-002	<0.2		0.2	0.4	0.4	0.2	<0.2	0.2
	1/11/2008 11:15	R08010124-002	<0.2		0.2	<0.2		0.2	<0.2	0.2
	2/12/2008 0:00	no sample collected								
	3/9/2008 15:15	R08030091-005	-0.02	0.1	0.2	-0.7	0.5	1.2	0	0.2
	4/14/2008 18:43	R08040178-004	0.1	0.1	0.2	0	0.5	0.8	0.3	0.3
	5/26/2008 14:00	R08050356-002	2	0.4	0.3	3.1	1.6	2	0	0.1
	6/17/2008 11:05	R08060315-002	-0.02	0.06	0.1	-0.9	0.5	1.1	0.1	0.2

Analyte		Thorium 230 - Suspended			Uranium - Dissolved		Uranium - Suspended		Uranium - Total	
Maximum Contaminant Level (40 CFR 141.66)		none			0.030 mg/L		0.030 mg/L		0.030 mg/L	
Measurement		Result	Precision +/-	RL/MDC	Result	RL	Result	RL	Result	RL
Site	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sub01 - stock pond, quarterly sampling interval										
	9/27/2007 0:00	no sample collected								
	11/12/2007 0:00	no sample collected								
	3/24/2008 12:45	R08030252-003	0.2	0.3	0.2	<0.0003	0.0003	0.0006	0.0003	0.0011 0.0003
	6/18/2008 12:00	R08060347-001	0.4	0.3	0.2	0.0003	0.0003	0.0007	0.0003	0.002 0.0003
Sub02 - Triangle Mine Pit, quarterly sampling interval										
	9/27/2007 18:45	R07090389-002	<0.2		0.2	0.164	0.0003	<0.0003	0.0003	0.168 0.0003
	11/12/2007 12:50	R07110147-001	0.7	0.4	0.2	0.171	0.0003	<0.0003	0.0003	0.162 0.0003
	2/10/2008 17:00	R08020083-003	0.4	0.3	0.2	0.177	0.0003	<0.0003	0.0003	0.168 0.0005
	6/18/2008 13:10	R08060347-002	0.3	0.2	0.2	0.174	0.0003	<0.0003	0.0003	0.19 0.0003
Sub03 - mine dam, quarterly sampling interval										
	9/27/2007 0:00	no sample collected								
	11/12/2007 14:50	R07110147-003	1.3	0.7	0.2	0.0014	0.0003	0.0008	0.0003	0.0014 0.0003
	2/10/2008 and 3/24/2008	no sample collected								
	6/18/2008 14:15	R08060347-004	0.4	0.3	0.2	0.0023	0.0003	0.0004	0.0003	0.0031 0.0003
Sub04 - stock pond, quarterly sampling interval										
	9/27/2007 0:00	no sample collected								
	11/12/2007 13:50	R07110147-002	0.5	0.4	0.2	0.0021	0.0003	0.0014	0.0003	0.0024 0.0003
	2/10/2008 and 3/24/2008	no sample collected								
	6/17/2008 14:00	R08060316-001	0.2	0.2	0.2	0.0006	0.0003	<0.0003	0.0003	0.0007 0.0003
Sub05 - mine dam, quarterly sampling interval										
	9/27/2007 0:00	no sample collected								
	11/12/2007 0:00	no sample collected								
	2/10/2008 and 3/24/2008	no sample collected								
	6/18/2008 0:00	no sample collected								
Sub06 - Darrow Mine Pit Northwest, quarterly sampling interval										
	9/27/2007 18:10	R07090389-003	<0.2		0.2	5.29	0.0003	0.0013	0.0003	7.38 0.001
	11/27/2007 9:36	R07110302-002	1	0.6	0.2	5.84	0.0003	0.0013	0.0003	5.83 0.0003
	2/10/2008 16:10	R08020083-002	<0.2		0.2	7.84	0.0003	0.0019	0.0003	6.73 0.0005
	6/23/2008 13:45	R08060403-003	0.2	0.2	0.2	3.22	0.0003	0.0015	0.0003	3.61 0.0003
Sub07 - stock dam, quarterly sampling interval										
	9/27/2007 18:45	R07090389-001	<0.3		0.3	0.0011	0.0003	<0.0003	0.0003	0.0013 0.0003
	11/12/2007 16:45	R07110147-004	0.9	0.5	0.2	0.0004	0.0003	<0.0003	0.0003	0.0004 0.0003
	3/24/2008 11:55	R08030252-002	0	0.2	0.2	<0.0003	0.0003	<0.0003	0.0003	0.0003 0.0003
	6/23/2008 14:30	R08060403-004	0.2	0.1	0.2	0.0024	0.0003	<0.0003	0.0003	0.0006 0.0003
Sub08 - stock pond, quarterly sampling interval										
	9/26/2007 18:40	R07090368-003	<0.2		0.2	0.0017	0.0003	<0.0003	0.0003	0.0017 0.0003
	11/27/2007 8:35	R07110302-001	<0.2		0.2	0.0028	0.0003	0.001	0.0003	0.002 0.0003
	2/10/2008 15:10	R08020083-001	<0.2		0.2	0.0025	0.0003	<0.0003	0.0003	0.0023 0.0005
	6/23/2008 12:20	R08060403-001	0	0.2	0.2	0.0026	0.0003	<0.0003	0.0003	0.0016 0.0003
Sub09 - stock pond, quarterly sampling interval										
	9/27/2007 0:00	no sample collected								
	11/12/2007 0:00	no sample collected								
	3/24/2008 16:25	R08030252-004	0.5	0.4	0.2	0.0005	0.0003	0.0003	0.0003	0.0008 0.0003
	6/23/2008 12:50	R08060403-002	0.4	0.2	0.2	0.0056	0.0003	0.001	0.0003	0.0023 0.0003
Sub10 - stock pond, quarterly sampling interval										
	9/27/2007 0:00	no sample collected								
	11/12/2007 0:00	no sample collected								
	3/24/2008 17:10	R08030252-004	0.5	0.4	0.2	0.0027	0.0003	0.0007	0.0003	0.0033 0.0003
	6/23/2008 16:25	R08060403-002	0.3	0.2	0.2	0.0005	0.0003	0.0008	0.0003	0.0022 0.0003
Sub11 - stock pond, quarterly sampling interval										
	9/27/2007 17:15	R07090389-004	<0.4		0.4	0.0336	0.0004	0.0004	0.0003	0.0004 0.0003
	11/27/2007 10:08	R07110302-003	3.0	0.8	0.2	0.0009	0.0003	0.0017	0.0003	0.0016 0.0003
	3/24/2008 11:10	R08030252-001	0	0.3	0.2	<0.0003	0.0003	0.0003	0.0003	<0.0003 0.0003
	6/23/2008 15:10	R08060403-005	0.1	0.2	0.2	<0.0003	0.0003	<0.0003	0.0003	0.0008 0.0003
Sub24 - stock pond, sampled once										
	2/12/2008 9:45	R08020131-002	1.4	0.05	0.2	0.0004	0.0003	<0.0003	0.0003	<0.0003 0.0004
BVC01 - Beaver Creek downstream, monthly sampling interval										
	7/24/2007 14:20	R07070382-001	NM			NM	NM	<0.0003	0.0003	0.004 0.0003
	8/20/2007 17:07	R07080273-001	NM			NM	NM	<0.0003	0.0003	0.0046 0.0003
	9/26/2007 12:16	R07090368-002	<0.2		0.2	0.0075	0.0003	<0.0003	0.0003	0.0076 0.0003
	10/17/2007 14:45	R07100295-003	0.7	0.4	0.2	0.0097	0.0003	<0.0003	0.0003	0.0097 0.0003
	11/19/2007 11:30	R07110229-002	<0.2		0.2	0.0182	0.0003	<0.0003	0.0003	0.018 0.0003
	12/11/2007 12:20	R07120148-002	<0.2		0.2	0.0124	0.0003	<0.0003	0.0003	0.0142 0.0003
	1/11/2008 11:15	R08010124-002	<0.2		0.2	0.0134	0.0003	<0.0003	0.0003	0.0139 0.0003
	2/12/2008 0:00	no sample collected								
	3/9/2008 15:15	R08030091-005	0.4	0.3	0.2	0.0269	0.0003	0.0009	0.0003	0.0262 0.0003
	4/14/2008 18:43	R08040178-004	0.8	0.4	-5	0.0125	0.0003	<0.0003	0.0003	0.0127 0.0003
	5/26/2008 14:00	R08050356-002	3.4	1.1	0.2	0.002	0.0003	0.0031	0.0003	0.0109 0.0003
	6/17/2008 11:05	R08060315-002	0.2	0.3	0.2	0.0092	0.0003	<0.0003	0.0003	0.0113 0.0003

Analyte			Gross Alpha			Lead 210 - Dissolved		
Maximum Contaminant Level (40 CFR 141.66)			15 pCi/L			none		
Measurement		Sampling Method and	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Site	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
BVC04 - Beaver Creek upstream, monthly sampling interval								
	7/24/2007 15:30	R07070382-002	grab, ice	11.4	2.1	1	NM	
	8/20/2007 16:08	R07080273-002	grab, ice	7	1.3	1	NM	
	9/28/2007 8:16	R07100001-001	grab, ice	2.3	4.9	1	<1	1
	10/17/2007 12:15	R07100295-001	grab, ice	26.6	5.4	1	<1	1
	11/19/2007 12:30	R07110229-003	grab, ice	34.7	11	1	<1	1
	12/11/2007 10:00	R07120148-001	grab, ice	17.1	2.4	1	26	2.6
	1/11/2008 13:00	R08010124-003	grab, ice	13.9	2.6	1	2.2	1
	2/12/2008 0:00	no sample collected	frozen solid					
	3/9/2008 11:05	R08030091-002	grab, ice	6.7	5.4	8.2	NM	
	4/14/2008 14:55	R08040178-003	grab, ice	23.4	14.2	20.4	NM	
	5/26/2008 16:30	R08050356-004	grab, ice	12.5	2.7	3.1	0.9	5.8
	6/17/2008 12:20	R08060315-004	grab, ice	3.9	9.1	14.8	NM	
CHR01 - Cheyenne River upstream, monthly sampling interval								
	7/31/2007 14:35	R07080019-001	grab, ice	16.9	4.6	1	NM	
	9/5/2007 17:25	R07090098-001	grab, ice	15.9	5	1	NM	
	9/26/2007 12:01	R07090368-001	grab, ice	33.8	6.1	1	<1	1
	10/17/2007 14:00	R07100295-002	grab, ice	34.2	5.7	1	3.2	0.8
	11/19/2007 9:45	R07110229-001	grab, ice	27	5.3	1	<1	1
	12/11/2007 0:00	no sample collected	frozen solid					
	1/11/2008 0:00	no sample collected	frozen solid					
	2/12/2008 0:00	no sample collected	dry					
	3/9/2008 14:15	R08030091-004	grab, ice	5.1	4	6	NM	
	4/16/2008 15:30	R08040220-001	grab, ice	5.7	14.8	24.4	NM	
	5/26/2008 14:45	R08050356-003	grab, ice	29.1	3	2.3	0.5	5.7
	6/17/2008 11:38	R08060315-003	grab, ice	35.3	8.5	9.5	NM	
CHR05 - Cheyenne River downstream, monthly sampling interval								
	7/31/2007 15:10	R07080019-002	grab, ice	16.7	4.8	1	NM	
	9/5/2007 18:20	R07090098-003	grab, ice	9.7	4.6	1	NM	
	9/26/2007 15:30	R07090368-004	grab, ice	25.6	5.8	1	<1	1
	10/17/2007 16:00	R07100295-004	grab, ice	23.2	5.3	1	6.6	1.1
	11/19/2007 15:00	R07110229-004	grab, ice	16.8	5	1	<1	1
	12/11/2007 13:50	R07120148-004	grab, ice	24.9	2.8	1	5.9	1.3
	1/11/2008 8:30	R08010124-001	grab, ice	19.3	2.8	1	<1	1
	2/12/2008 9:20	R08020131-001	grab, ice	15.7	3.4	1	NM	
	3/9/2008 9:00	R08030091-001	grab, ice	4	3.7	5.7	NM	
	4/14/2008 11:00	R08040178-001	grab, ice	19.8	10	13.8	NM	
	5/26/2008 13:00	R08050356-001	grab, ice	29.8	3.6	3	0.7	5.8
	6/17/2008 10:20	R08060315-001	grab, ice	29.9	9.6	11.9	NM	
PSC01 - Pass Creek downstream, monthly sampling interval								
	7/19/2007 10:45	R07070315-001	passive sampler, ice	8.8	1.2	1	NM	
	August 2007 through June 2008	no samples collected	dry					
	7/18/2008 12:40	R08070340-001	passive sampler, ice	6.5	6.9	10.7	2.2	4.5
PSC02 - Pass Creek upstream, monthly sampling interval								
	7/19/2007 11:30	R07070315-002	passive sampler, ice	1.9	0.7	1	NM	
	August 2007 through June 2008	no samples collected	dry					
	7/18/2008 14:25	R08070340-002	passive sampler, ice	4.2	5.7	9	1.7	4.5
UNT01 - Unnamed Tributary, monthly sampling interval								
	July 2007 through June 2008	no samples collected	dry					
	7/18/2008 0:00	R08070342-001	passive sampler, ice	6.1	1.4	1.6	NM	
BEN01 - Bennett Canyon, monthly sampling interval								
	July 2007 through June 2008	no samples collected	dry					

Analyte			Lead 210 - Suspended			Polonium 210 - Dissolved			Polonium 210 - Suspended		
Maximum Contaminant Level (40 CFR 141.66)			none			none			none		
Measurement			Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Site	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
BVC04 - Beaver Creek upstream, monthly sampling interval											
	7/24/2007 15:30	R07070382-002	NM			NM			NM		
	8/20/2007 16:08	R07080273-002	NM			NM			NM		
	9/28/2007 8:16	R07100001-001	<2		2	<1		1	<2		2
	10/17/2007 12:15	R07100295-001	<1		1	3	1.7	1	<1		1
	11/19/2007 12:30	R07110229-003	<1		1	1.3	1.2	1	1.7	1.2	1
	12/11/2007 10:00	R07120148-001	8.6	1.3	1	<1		1	2.9	1.6	1
	1/11/2008 13:00	R08010124-003	<1		1	1.8	1.2	1	<1		1
	2/12/2008 0:00	no sample collected									
	3/9/2008 11:05	R08030091-002	NM			NM			NM		
	4/14/2008 14:55	R08040178-003	NM			NM			NM		
	5/26/2008 16:30	R08050356-004	-30	41.5	70.7	0.1	1	1	3.7	2.9	1
	6/17/2008 12:20	R08060315-004	NM			NM			NM		
CHR01 - Cheyenne River upstream, monthly sampling interval											
	7/31/2007 14:35	R07080019-001	NM			NM			NM		
	9/5/2007 17:25	R07090098-001	NM			NM			NM		
	9/26/2007 12:01	R07090368-001	<1		1	<1		1	<1		1
	10/17/2007 14:00	R07100295-002	<1		1	1.6	1.2	1	<1		1
	11/19/2007 9:45	R07110229-001	<1		1	1.7	1.4	1	2.3	1.3	1
	12/11/2007 0:00	no sample collected									
	1/11/2008 0:00	no sample collected									
	2/12/2008 0:00	no sample collected									
	3/9/2008 14:15	R08030091-004	NM			NM			NM		
	4/16/2008 15:30	R08040220-001	NM			NM			NM		
	5/26/2008 14:45	R08050356-003	4.4	42.2	70.7	0.5	1.3	1	4.1	3.2	1
	6/17/2008 11:38	R08060315-003	NM			NM			NM		
CHR05 - Cheyenne River downstream, monthly sampling interval											
	7/31/2007 15:10	R07080019-002	NM			NM			NM		
	9/5/2007 18:20	R07090098-003	NM			NM			NM		
	9/26/2007 15:30	R07090368-004	<1		1	<1		1	<1		1
	10/17/2007 16:00	R07100295-004	3	1.2	1	<1		1	<1		1
	11/19/2007 15:00	R07110229-004	<1		1	1.5	1.2	1	1.3	1.1	1
	12/11/2007 13:50	R07120148-004	<1		1	2.4	1.4	1	<1		1
	1/11/2008 8:30	R08010124-001	22	3.6	1	<1		1	<1		1
	2/12/2008 9:20	R08020131-001	NM			NM			NM		
	3/9/2008 9:00	R08030091-001	NM			NM			NM		
	4/14/2008 11:00	R08040178-001	NM			NM			NM		
	5/26/2008 13:00	R08050356-001	11.2	10.7	17.7	-0.3	0.5	1	3.8	1.7	1
	6/17/2008 10:20	R08060315-001	NM			NM			NM		
PSC01 - Pass Creek downstream, monthly sampling interval											
	7/19/2007 10:45	R07070315-001	NM			NM			NM		
	August 2007 through June 2008	no samples collected									
	7/18/2008 12:40	R08070340-001	0.9	7	11.8	0.7	0.7	1	0.3	0.33	1
PSC02 - Pass Creek upstream, monthly sampling interval											
	7/19/2007 11:30	R07070315-002	NM			NM			NM		
	August 2007 through June 2008	no samples collected									
	7/18/2008 14:25	R08070340-002	-0.8	7	11.8	0.2	0.5	1	0.3	0.31	1
UNT01 - Unnamed Tributary, monthly sampling interval											
	July 2007 through June 2008	no samples collected									
	7/18/2008 0:00	R08070342-001	NM			NM			NM		
BEN01 - Bennett Canyon, monthly sampling interval											
	Julv 2007 though June 2008	no samples collected									

Analyte		Radium 226 - Dissolved			Radium 226 - Suspended			Thorium 230 - Dissolved		
Maximum Contaminant Level (40 CFR 141.66)		5 pCi/L			5 pCi/L			none		
Measurement		Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Site	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
BVC04 - Beaver Creek upstream, monthly sampling interval										
	7/24/2007 15:30	R07070382-002	NM			NM		NM		
	8/20/2007 16:08	R07080273-002	NM			NM		NM		
	9/28/2007 8:16	R07100001-001	<0.2	0.2		<0.9	0.9	1.7	1.5	0.2
	10/17/2007 12:15	R07100295-001	0.5	0.2	0.2	<0.2	0.2	<0.2		0.2
	11/19/2007 12:30	R07110229-003	<0.2	0.2		0.8	0.4	0.2	<0.2	0.2
	12/11/2007 10:00	R07120148-001	<0.2	0.2		0.3	0.3	0.2	<0.2	0.2
	1/11/2008 13:00	R08010124-003	<0.2	0.2		<0.2	0.2	<0.2		0.2
	2/12/2008 0:00	no sample collected								
	3/9/2008 11:05	R08030091-002	0.08	0.1	0.2	2.5	2	2.8	0.2	0.2
	4/14/2008 14:55	R08040178-003	0.1	0.1	0.2	0.2	0.5	0.8	0.1	0.2
	5/26/2008 16:30	R08050356-004	-0.06	0.2	0.3	2.2	1.6	2.2	0	0.2
	6/17/2008 12:20	R08060315-004	0.1	0.1	0.1	-0.7	0.4	0.9	0	0.1
CHR01 - Cheyenne River upstream, monthly sampling interval										
	7/31/2007 14:35	R07080019-001	NM			NM		NM		
	9/5/2007 17:25	R07090098-001	NM			NM		NM		
	9/26/2007 12:01	R07090368-001	<0.2	0.2		<0.2	0.2	<0.2		0.2
	10/17/2007 14:00	R07100295-002	0.5	0.3	0.2	<0.2	0.2	<0.2		0.2
	11/19/2007 9:45	R07110229-001	<0.2	0.2		0.6	0.4	0.2	<0.2	0.2
	12/11/2007 0:00	no sample collected								
	1/11/2008 0:00	no sample collected								
	2/12/2008 0:00	no sample collected								
	3/9/2008 14:15	R08030091-004	0.2	0.1	0.2	1.2	0.9	1.3	0.1	0.1
	4/16/2008 15:30	R08040220-001	0.3	0.1	0.1	-0.1	0.5	0.9	0.3	0.3
	5/26/2008 14:45	R08050356-003	0.06	0.2	0.3	4	1.8	2.2	0.1	0.1
	6/17/2008 11:38	R08060315-003	0.2	0.1	0.2	-0.9	0.4	1.1	0	0.1
CHR05 - Cheyenne River downstream, monthly sampling interval										
	7/31/2007 15:10	R07080019-002	NM			NM		NM		
	9/5/2007 18:20	R07090098-003	NM			NM		NM		
	9/26/2007 15:30	R07090368-004	<0.2	0.2		<0.2	0.2	<0.2		0.2
	10/17/2007 16:00	R07100295-004	<0.2	0.2		<0.2	0.2	<0.2		0.2
	11/19/2007 15:00	R07110229-004	<0.2	0.2		<0.2	0.2	<0.2		0.2
	12/11/2007 13:50	R07120148-004	<0.2	0.2		<0.2	0.2	<0.2		0.2
	1/11/2008 8:30	R08010124-001	<0.2	0.2		<0.2	0.2	<0.2		0.2
	2/12/2008 9:20	R08020131-001	<0.2	0.2		<0.2	0.2	0.2	0.03	0.2
	3/9/2008 9:00	R08030091-001	0.07	0.1	0.2	1.8	1	1.3	0.1	0.1
	4/14/2008 11:00	R08040178-001	0.1	0.1	0.2	0.3	0.5	0.8	0	0.2
	5/26/2008 13:00	R08050356-001	1.4	0.4	0.3	3.8	0.6	0.4	0.1	0.1
	6/17/2008 10:20	R08060315-001	0.2	0.1	0.1	-0.7	0.5	1.1	0	0.2
PSC01 - Pass Creek downstream, monthly sampling interval										
	7/19/2007 10:45	R07070315-001	NM			NM		NM		
	August 2007 through June 2008	no samples collected								
	7/18/2008 12:40	R08070340-001	0.1	0.1	0.2	0.1	0.3	0.5	0	0.04
PSC02 - Pass Creek upstream, monthly sampling interval										
	7/19/2007 11:30	R07070315-002	NM			NM		NM		
	August 2007 through June 2008	no samples collected								
	7/18/2008 14:25	R08070340-002	-0.04	0.1	0.2	-0.2	0.3	0.6	0	0.05
UNT01 - Unnamed Tributary, monthly sampling interval										
	July 2007 through June 2008	no samples collected								
	7/18/2008 0:00	R08070342-001	0.2	0.3	0.4	0.03	0.3	0.5	0	0.1
BEN01 - Bennett Canyon, monthly sampling interval										
	July 2007 through June 2008	no samples collected								

Analyte		Thorium 230 - Suspended			Uranium - Dissolved		Uranium - Suspended		Uranium - Total	
Maximum Contaminant Level (40 CFR 141.66)		none			0.030 mg/L		0.030 mg/L		0.030 mg/L	
Measurement		Result	Precision +/-	RL/MDC	Result	RL	Result	RL	Result	RL
Site	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L
BVC04 - Beaver Creek upstream, monthly sampling interval										
	7/24/2007 15:30	R07070382-002	NM			NM	NM	0.0006	0.0003	0.0073
	8/20/2007 16:08	R07080273-002	NM			NM	NM	<0.0003	0.0003	0.003
	9/28/2007 8:16	R07100001-001	<2		2	0.014	0.0003	<0.0003	0.0003	0.0137
	10/17/2007 12:15	R07100295-001	<0.2		0.2	0.023	0.0003	<0.0003	0.0003	0.0239
	11/19/2007 12:30	R07110229-003	<0.2		0.2	0.0189	0.0003	<0.0003	0.0003	0.0177
	12/11/2007 10:00	R07120148-001	<0.2		0.2	0.0114	0.0003	<0.0003	0.0003	0.0135
	1/11/2008 13:00	R08010124-003	<0.2		0.2	0.0141	0.0003	<0.0003	0.0003	0.0144
	2/12/2008 0:00	no sample collected								
	3/9/2008 11:05	R08030091-002	0.3	0.4	0.2	0.0056	0.0003	0.0014	0.0003	0.0061
	4/14/2008 14:55	R08040178-003	0.1	0.3	-5	0.0165	0.0003	<0.0003	0.0003	0.0169
	5/26/2008 16:30	R08050356-004	2.1	1.1	0.2	0.0017	0.0003	0.0021	0.0003	0.0069
	6/17/2008 12:20	R08060315-004	0.3	0.3	0.2	0.0078	0.0003	<0.0003	0.0003	0.0097
CHR01 - Cheyenne River upstream, monthly sampling interval										
	7/31/2007 14:35	R07080019-001	NM			NM	NM	<0.0003	0.0003	0.0223
	9/5/2007 17:25	R07090098-001	NM			NM	NM	0.0012	0.0003	0.0142
	9/26/2007 12:01	R07090368-001	<0.2		0.2	0.0149	0.0003	<0.0003	0.0003	0.015
	10/17/2007 14:00	R07100295-002	0.9	0.5	0.2	0.0308	0.0003	<0.0003	0.0003	0.032
	11/19/2007 9:45	R07110229-001	3.8	1	0.2	0.031	0.0003	0.0006	0.0003	0.0316
	12/11/2007 0:00	no sample collected								
	1/11/2008 0:00	no sample collected								
	2/12/2008 0:00	no sample collected								
	3/9/2008 14:15	R08030091-004	0.8	0.5	0.2	0.0034	0.0003	0.002	0.0003	0.0043
	4/16/2008 15:30	R08040220-001	0.2	0.3	-5	0.0324	0.0003	0.0006	0.0003	0.0365
	5/26/2008 14:45	R08050356-003	2	1.2	0.2	0.0024	0.0003	0.0038	0.0003	0.0119
	6/17/2008 11:38	R08060315-003	0	0.3	0.2	0.0177	0.0003	<0.0003	0.0003	0.0214
CHR05 - Cheyenne River downstream, monthly sampling interval										
	7/31/2007 15:10	R07080019-002	NM			NM	NM	<0.0003	0.0003	0.011
	9/5/2007 18:20	R07090098-003	NM			NM	NM	0.0003	0.0003	0.0136
	9/26/2007 15:30	R07090368-004	<0.2		0.2	0.0346	0.0003	<0.0003	0.0003	0.0348
	10/17/2007 16:00	R07100295-004	0.6	0.4	0.2	0.0368	0.0003	<0.0003	0.0003	0.0378
	11/19/2007 15:00	R07110229-004	<0.2		0.2	0.0151	0.0003	<0.0003	0.0003	0.0143
	12/11/2007 13:50	R07120148-004	<0.2		0.2	0.0125	0.0003	0.0004	0.0003	0.0152
	1/11/2008 8:30	R08010124-001	<0.2		0.2	0.015	0.0003	<0.0003	0.0003	0.0158
	2/12/2008 9:20	R08020131-001	0.3	0.3	0.2	0.0143	0.0003	<0.0003	0.0003	0.0136
	3/9/2008 9:00	R08030091-001	1.4	0.6	0.2	0.0039	0.0003	0.0036	0.0003	0.0043
	4/14/2008 11:00	R08040178-001	0.1	0.2	-5	0.0134	0.0003	0.0005	0.0003	0.0141
	5/26/2008 13:00	R08050356-001	2.2	0.4	0.2	0.0028	0.0003	0.0067	0.0003	0.0122
	6/17/2008 10:20	R08060315-001	-0.1	0.2	0.2	0.0139	0.0003	<0.0003	0.0003	0.0173
PSC01 - Pass Creek downstream, monthly sampling interval										
	7/19/2007 10:45	R07070315-001	NM			NM	NM	0.0004	0.0003	0.01
	August 2007 through June 2008	no samples collected								
	7/18/2008 12:40	R08070340-001	0.5	0.2	0.2	0.005	0.0003	0.0005	0.0003	0.0252
PSC02 - Pass Creek upstream, monthly sampling interval										
	7/19/2007 11:30	R07070315-002	NM			NM	NM	0.0005	0.0003	0.0012
	August 2007 through June 2008	no samples collected								
	7/18/2008 14:25	R08070340-002	0.2	0.2	0.2	0.0007	0.0003	0.0009	0.0003	0.0057
UNT01 - Unnamed Tributary, monthly sampling interval										
	July 2007 through June 2008	no samples collected								
	7/18/2008 0:00	R08070342-001	0	0.1	0.2	<0.0003	0.0003	<0.0003	0.0003	0.0009
BEN01 - Bennett Canyon, monthly sampling interval										
	July 2007 through June 2008	no samples collected								

ELI - Energy Laboratories, Inc.

NM - not measured

Exceeds Primary Drinking Water Regs 40 CFR 141.66 Maximum Contaminant Level



## **APPENDIX 2.9-J**

### **Radionuclide Concentrations in Groundwater**



**POWERTECH (USA) INC.**

Analyte				Gross Alpha			Lead 210 - Dissolved		
Maximum Contaminant Level (40 CFR 141.66)				15 pCi/L			none		
Measurement		Water Level	Sampling Method and Preservation	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ELI Lab ID	ft AMSL	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Alluvium Upgradient									
676 - Monitor Well, Screened Interval 3642.4 to 3652.4 ft AMSL									
	9/28/2007 13:46	R07100002-005	3644.26	peristaltic pump, ice	37.1	2.5	1	<1	1
	11/27/2007 12:20	R07110303-002	3644.03	peristaltic pump, ice	31.9	2.3	1	<1	1
	2/5/2008 16:57	R08020052-007	3643.9	peristaltic pump, ice	95.5	4.5	1	4.1	1
	4/29/2008 12:27	R08040364-001	3643.8	peristaltic pump, ice	51.6	9.1	8.5	-0.9	14.3
679 - Monitor Well, Screened Interval 3680.3 to 3690.3 ft AMSL									
	9/28/2007 15:04	R07100002-006	3685.52	disposable bailer, ice	19.9	2.2	1	<1	1
	11/14/2007 13:45	R07110184-003	3685.45	disposable bailer, ice	13.3	1.9	1	9.1	1.7
	2/3/2008 16:25	R08020006-001	3685.42	disposable bailer, ice	18.4	2.3	1	<1	1
	5/18/2008 18:00	R08050229-002	3685.28	disposable bailer, ice	22.4	6.3	7.5	4.5	10.7
Alluvium Downgradient									
675 - Monitor Well, Screened Interval 3479.3 to 3489.3 ft AMSL									
	9/28/2007 10:49	R07100002-002	3482.12	peristaltic pump, ice	18.8	5.5	1	<1	1
	11/27/2007 17:34	R07110303-007	3482.31	peristaltic pump, ice	18.3	5.3	1	6	1.5
	2/5/2008 12:05	R08020052-002	3482.93	peristaltic pump, ice	29.3	9.2	1	<1	1
	4/29/2008 17:47	R08040364-004	3482.88	peristaltic pump, ice	55.2	15.9	18.4	0	14.5
677 - Monitor Well, Screened Interval 3558.3 to 3568.3 ft AMSL									
	9/28/2007 12:26	R07100002-004	3560.78	peristaltic pump, ice	41	9.5	1	<1	1
	11/27/2007 15:20	R07110303-004	3561.18	peristaltic pump, ice	38.7	5.4	1	1.1	0.5
	2/5/2008 13:39	R08020052-003	3562.2	peristaltic pump, ice	129	26.8	27.6	2.1	0.7
	4/29/2008 15:14	R08040364-003	3562.67	peristaltic pump, ice	43.1	23.4	32.5	0	14.5
678 - Monitor Well, Screened Interval 3579.3 to 3589.3 ft AMSL									
	9/28/2007 16:22	R07100002-007	3581.2	peristaltic pump, ice	23.2	5.7	1	<1	1
	11/27/2007 13:40	R07110303-003	3582.08	peristaltic pump, ice	18.9	5.3	1	4	0.9
	2/5/2008 15:39	R08020052-005	3582.49	peristaltic pump, ice	41.5	9.6	1	3.3	0.9
	4/29/2008 13:41	R08040364-002	3582.92	peristaltic pump, ice	54.7	15.8	18.4	-1.2	23.9



**POWERTECH (USA) INC.**

Analyte			Lead 210 - Suspended			Polonium 210 - Dissolved			Polonium 210 - Suspended		
Maximum Contaminant Level (40 CFR 141.66)			none			none			none		
Measurement			Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Alluvium Upgradient											
676 - Monitor Well, Screened Interval 3642.4 to 3652.4 ft AMSL											
	9/28/2007 13:46	R07100002-005	<1		1	<1		1	<1		1
	11/27/2007 12:20	R07110303-002	<1		1	1.2	1.1	1	<1		1
	2/5/2008 16:57	R08020052-007	3.8	1.1	1	2.9	1.6	1	2.2	0.96	1
	4/29/2008 12:27	R08040364-001	-6.7	12.9	1	1.1	1	1	0.1	0.31	1
679 - Monitor Well, Screened Interval 3680.3 to 3690.3 ft AMSL											
	9/28/2007 15:04	R07100002-006	<1		1	1.1	1	1	<1		1
	11/14/2007 13:45	R07110184-003	<1		1	2.3	1.5	1	<1		1
	2/3/2008 16:25	R08020006-001	<1		1	<1		1	<1		1
	5/18/2008 18:00	R08050229-002	-9.8	20.8	35.2	-0.1	0.1	1	-0.3	1.7	1
Alluvium Downgradient											
675 - Monitor Well, Screened Interval 3479.3 to 3489.3 ft AMSL											
	9/28/2007 10:49	R07100002-002	14	4.4	1	<1		1	<1		1
	11/27/2007 17:34	R07110303-007	<1		1	<1		1	2	0.89	1
	2/5/2008 12:05	R08020052-002	<1		1	2.1	1.3	1	<1		1
	4/29/2008 17:47	R08040364-004	-19.2	12.7	1	0.6	0.8	1	0.3	0.38	1
677 - Monitor Well, Screened Interval 3558.3 to 3568.3 ft AMSL											
	9/28/2007 12:26	R07100002-004	<1		1	<1		1	<1		1
	11/27/2007 15:20	R07110303-004	<1		1	<1		1	2.5	0.93	1
	2/5/2008 13:39	R08020052-003	<1		1	2.2	1.3	1	<1		1
	4/29/2008 15:14	R08040364-003	-2.3	13	1	0.4	0.7	1	-0.2	0.024	1
678 - Monitor Well, Screened Interval 3579.3 to 3589.3 ft AMSL											
	9/28/2007 16:22	R07100002-007	<1		1	<1		1	<1		1
	11/27/2007 13:40	R07110303-003	<1		1	<1		1	1.3	0.69	1
	2/5/2008 15:39	R08020052-005	<1		1	2.4	1.5	1	<1		1
	4/29/2008 13:41	R08040364-002	-1.5	13	1	1.3	1.1	1	0	0.17	1



**POWERTECH (USA) INC.**

Analyte			Radium 226 - Dissolved			Radium 226 - Suspended			Radon		
Maximum Contaminant Level (40 CFR 141.66)			5 pCi/L			5 pCi/L			none		
Measurement			Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Alluvium Upgradient											
676 - Monitor Well, Screened Interval 3642.4 to 3652.4 ft AMSL											
	9/28/2007 13:46	R07100002-005	<0.2		0.2	<0.2		0.2	NM		
	11/27/2007 12:20	R07110303-002	<0.2		0.2	<0.2		0.2	453	60.5	100
	2/5/2008 16:57	R08020052-007	<0.2		0.2	11.4	2.2	0.2	686	104	100
	4/29/2008 12:27	R08040364-001	NM			NM			755	96.4	100
679 - Monitor Well, Screened Interval 3680.3 to 3690.3 ft AMSL											
	9/28/2007 15:04	R07100002-006	<0.2		0.2	2.5	1.2	0.2	NM		
	11/14/2007 13:45	R07110184-003	<0.2		0.2	NM			819	51.2	100
	2/3/2008 16:25	R08020006-001	0.9	0.4	0.2	9	2	0.2	2170	137	100
	5/18/2008 18:00	R08050229-002	3.7	0.4	-5000	0.2	1.1	1.8	1250	91.2	100
Alluvium Downgradient											
675 - Monitor Well, Screened Interval 3479.3 to 3489.3 ft AMSL											
	9/28/2007 10:49	R07100002-002	<0.2		0.2	2.3	1.2	0.2	NM		
	11/27/2007 17:34	R07110303-007	0.5	0.3	0.2	1.7	0.6	0.2	712	61.6	100
	2/5/2008 12:05	R08020052-002	<0.2		0.2	<0.2		0.2	783	109	100
	4/29/2008 17:47	R08040364-004	NM			0.7	0.3	0.3	960	95.5	100
677 - Monitor Well, Screened Interval 3558.3 to 3568.3 ft AMSL											
	9/28/2007 12:26	R07100002-004	0.9	0.3	0.2	<0.2		0.2	NM		
	11/27/2007 15:20	R07110303-004	<0.2		0.2	2.7	0.6	0.2	892	64.6	100
	2/5/2008 13:39	R08020052-003	<0.2		0.2	<0.2		0.2	808	108	100
	4/29/2008 15:14	R08040364-003	NM			0.3	0.2	0.3	1250	101	100
678 - Monitor Well, Screened Interval 3579.3 to 3589.3 ft AMSL											
	9/28/2007 16:22	R07100002-007	<0.2		0.2	<0.2		0.2	NM		
	11/27/2007 13:40	R07110303-003	<0.2		0.2	0.7	0.3	0.2	391	59.2	100
	2/5/2008 15:39	R08020052-005	<0.2		0.2	<0.2		0.2	487	103	100
	4/29/2008 13:41	R08040364-002	NM			0.7	0.3	0.3	687	94.7	100



**POWERTECH (USA) INC.**

Analyte			Thorium 230 - Dissolved			Thorium 230 - Suspended		
Maximum Contaminant Level (40 CFR 141.66)			none			none		
Measurement			Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Alluvium Upgradient								
676 - Monitor Well, Screened Interval 3642.4 to 3652.4 ft AMSL								
	9/28/2007 13:46	R07100002-005	<0.2		0.2	<0.2		0.2
	11/27/2007 12:20	R07110303-002	<0.2		0.2	<0.2		0.2
	2/5/2008 16:57	R08020052-007	<0.2		0.2	4.2	1.1	0.2
	4/29/2008 12:27	R08040364-001	0	0.1	0.2	0	0.1	0.2
679 - Monitor Well, Screened Interval 3680.3 to 3690.3 ft AMSL								
	9/28/2007 15:04	R07100002-006	<0.2		0.2	1.9	1.3	0.2
	11/14/2007 13:45	R07110184-003	<0.2		0.2	0.3	0.1	0.2
	2/3/2008 16:25	R08020006-001	<0.2		0.2	0.4	0.1	0.2
	5/18/2008 18:00	R08050229-002	0	0.1	0.2	1.4	0.9	0.2
Alluvium Downgradient								
675 - Monitor Well, Screened Interval 3479.3 to 3489.3 ft AMSL								
	9/28/2007 10:49	R07100002-002	<0.2		0.2	<0.2		0.2
	11/27/2007 17:34	R07110303-007	<0.2		0.2	1.3	0.4	0.2
	2/5/2008 12:05	R08020052-002	<0.2		0.2	<0.2		0.2
	4/29/2008 17:47	R08040364-004	0	0.3	0.2	0	0.1	0.2
677 - Monitor Well, Screened Interval 3558.3 to 3568.3 ft AMSL								
	9/28/2007 12:26	R07100002-004	<0.2		0.2	<0.2		0.2
	11/27/2007 15:20	R07110303-004	<0.2		0.2	2.2	0.5	0.2
	2/5/2008 13:39	R08020052-003	<0.2		0.2	0.3	0.01	0.2
	4/29/2008 15:14	R08040364-003	0	0.2	0.2	0.1	0.2	0.2
678 - Monitor Well, Screened Interval 3579.3 to 3589.3 ft AMSL								
	9/28/2007 16:22	R07100002-007	<0.2		0.2	<0.2		0.2
	11/27/2007 13:40	R07110303-003	<0.2		0.2	<0.2		0.2
	2/5/2008 15:39	R08020052-005	0.3	0.02	0.2	<0.2		0.2
	4/29/2008 13:41	R08040364-002	0.2	0.3	0.2	0.1	0.1	0.2



**POWERTECH (USA) INC.**

Analyte			Uranium - Dissolved		Uranium - Suspended		Uranium - Total	
Maximum Contaminant Level (40 CFR 141.66)			0.030 mg/L		0.030 mg/L		0.030 mg/L	
Measurement			Result	RL	Result	RL	Result	RL
Hydro ID	Date & Time Collected	ELI Lab ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Alluvium Upgradient								
676 - Monitor Well, Screened Interval 3642.4 to 3652.4 ft AMSL								
	9/28/2007 13:46	R07100002-005	0.0494	0.0003	0.0096	0.0003	NM	NM
	11/27/2007 12:20	R07110303-002	0.0548	0.0003	0.0011	0.0003	NM	NM
	2/5/2008 16:57	R08020052-007	0.0586	0.0003	0.0702	0.0003	0.0687	0.0003
	4/29/2008 12:27	R08040364-001	0.0557	0.0003	<0.0003	0.0003	0.0591	0.0003
679 - Monitor Well, Screened Interval 3680.3 to 3690.3 ft AMSL								
	9/28/2007 15:04	R07100002-006	0.0157	0.0003	0.011	0.0003	NM	NM
	11/14/2007 13:45	R07110184-003	0.0144	0.0003	0.0008	0.0003	NM	NM
	2/3/2008 16:25	R08020006-001	0.0139	0.0003	0.0007	0.0003	0.0154	0.0003
	5/18/2008 18:00	R08050229-002	0.0112	0.0003	0.0012	0.0003	0.0164	0.0003
Alluvium Downgradient								
675 - Monitor Well, Screened Interval 3479.3 to 3489.3 ft AMSL								
	9/28/2007 10:49	R07100002-002	0.0372	0.0003	0.0013	0.0003	NM	NM
	11/27/2007 17:34	R07110303-007	0.0307	0.0003	0.003	0.0003	NM	NM
	2/5/2008 12:05	R08020052-002	0.0387	0.0003	0.0005	0.0003	0.0387	0.0003
	4/29/2008 17:47	R08040364-004	0.0493	0.0003	<0.0003	0.0003	0.0502	0.0003
677 - Monitor Well, Screened Interval 3558.3 to 3568.3 ft AMSL								
	9/28/2007 12:26	R07100002-004	0.0218	0.0003	0.027	0.0003	NM	NM
	11/27/2007 15:20	R07110303-004	0.0443	0.0003	0.0049	0.0003	NM	NM
	2/5/2008 13:39	R08020052-003	0.0402	0.0003	<0.0003	0.0003	0.0414	0.0003
	4/29/2008 15:14	R08040364-003	0.045	0.0003	<0.0003	0.0003	0.0471	0.0003
678 - Monitor Well, Screened Interval 3579.3 to 3589.3 ft AMSL								
	9/28/2007 16:22	R07100002-007	0.0352	0.0003	0.0032	0.0003	NM	NM
	11/27/2007 13:40	R07110303-003	0.0349	0.0003	0.0008	0.0003	NM	NM
	2/5/2008 15:39	R08020052-005	0.0368	0.0003	<0.0003	0.0003	0.0379	0.0003
	4/29/2008 13:41	R08040364-002	0.0355	0.0003	<0.0003	0.0003	0.0387	0.0003

ELI - Energy Laboratories, Inc.

NM - not measured

Exceeds National Primary Drinking Water Regulations,  
40 CFR 141.66 Maximum Contaminant Level



**POWERTECH (USA) INC.**

Analyte				Gross Alpha			Lead 210 - Dissolved		
Maximum Contaminant Level (40 CFR 141.66)				15 pCi/L			none		
Measurement		Water Level	Sampling Method and Preservation	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ft AMSL		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Fall River Upgradient									
628 - Stock Well, Screened Interval		Pending Confirmation							
	9/28/2007 9:23	R07100002-001	3695.16	dedicated pump, ice	29.9	2.1	1	<1	1
	11/14/2007 10:59	R07110184-001	3694.3	dedicated pump, ice	83.9	2.8	1	<1	1
	2/20/2008 18:30	R08020220-005	3695.51	dedicated pump, ice	64.5	5.8	4	14	2.5
	5/29/2008 15:02	R08050419-004	3695.31	dedicated pump, ice	39	4.8	4.1	0.1	3.5
631 - Stock Well, Screened Interval		3665.37 to 3715.37 ft AMSL							
	9/26/2007 16:40	R07090384-004	3715.46	dedicated pump, ice	51	3.2	1	<1	1
	11/14/2007 15:20	R07110184-004	3715.52	dedicated pump, ice	46.5	2.4	1	<1	
	2/20/2008 13:55	R08020220-003	3715.35	dedicated pump, ice	162	12.2	7	6.1	1.8
	5/19/2008 11:06	R08050251-001	3713.31	dedicated pump, ice	60.7	7.9	6.5	0.5	9.6
698 - Monitor Well, Screened Interval		3509.25 to 3534.25 ft AMSL							
	3/30/2008 14:04	R08030315-002	3679.79	dedicated pump, ice	1750	41.2	8.4	-14	3.1
	4/22/2008 11:30	R08040287-004	3679.75	dedicated pump, ice	2110	46.5	8.3	-3.5	11.8
	5/28/2008 12:35	R08050406-001	3679.45	dedicated pump, ice	1210	33.2	6.1	5.5	5
	6/24/2008 11:55	R08060427-001	3679.65	dedicated pump, ice	1790	40.7	8	-1.7	6.7
	7/14/2008 18:43	R08070244-010	3679.64	dedicated pump, ice	1790	39.6	7.6	-0.4	5.5
	8/19/2008 17:35	R08080301-003	3679.66	dedicated pump, ice	1560	39.4	8	3.1	6.4
	9/22/2008 13:05	R08090314-003	3679.71	dedicated pump, ice	36.3	4.3	3.1	2.2	5.4
	10/20/2008 13:52	R08100295-004	3679.5	dedicated pump, ice	1330	34.2	6.5	6.8	3.8
	11/18/2008 12:00	R08110211-008	3679.52	dedicated pump, ice	1680	40.3	8.9	1.4	2.6
	12/17/2008 13:00	R08120255-005	3679.65	dedicated pump, ice	1570	37.7	6.7	4.7	2.5
	1/20/2009 14:07	R09010301-009	3679.43	dedicated pump, ice	1960	40.9	7.4	0.1	2.5
	2/24/2009 12:10	R09020293-004	3679.57	dedicated pump, ice	1270	35.4	9.5	1.5	1.6
706 - Monitor Well, Screened Interval		3510.32 to 3540.32 ft AMSL							
	1/18/2010 0:00	R10010180-002	NM	dedicated pump, ice	39.7	6.7	7.4	1.1	1.7
	2/22/2010 0:00	R10020266-002	NM	dedicated pump, ice	37.9	5.9	6.1	-0.1	0.8
	3/15/2010 0:00	R10030205-003	NM	dedicated pump, ice	11.2	3.8	5.1	0.7	1.7
	4/21/2010 0:00	R10040303-002	NM	dedicated pump, ice	56.3	7.1	6.2	-2	1.6
	5/17/2010 0:00	R10050253-002	NM	dedicated pump, ice	40.1	6.3	6.7	2.2	1.7
	6/22/2010 0:00	R10060444-002	NM	dedicated pump, ice	34	7.2	8.8	0.7	1.4
	7/27/2010 0:00	R10070459-001	3725.27	dedicated pump, ice	31.6	6.2	7.3	-1	1.4
	8/23/2010 0:00	R10080398-002	3724.82	dedicated pump, ice	21.9	4.9	5.8	-0.7	1
	9/28/2010 0:00	R10090519-002	NM	dedicated pump, ice	20.5	5.2	6.9	1.5	1.2
	10/25/2010 0:00	R10100355-002	3725.8	dedicated pump, ice	19.3	5.5	7.4	0.1	0.9
	11/15/2010 0:00	R10110179-001	3725.29	dedicated pump, ice	24.5	6	7.7	-0.08	0.8
	12/14/2010 0:00	R10110179-003	3725.19	dedicated pump, ice	18.2	5	6.6	-0.8	0.8
Fall River Near									
681 - Monitor Well, Screened Interval		3030.31 to 3045.31 ft AMSL							
	1/30/2008 15:40	R08010296-002	NM	flowing artesian, ice	656	4.7	1	46	4.1
	3/30/2008 17:50	R08030315-008	NM	flowing artesian, ice	2170	30.8	3.8	0	3.3
	4/21/2008 20:06	R08040250-006	NM	flowing artesian, ice	1400	23.2	3.1	49.9	9
	5/12/2008 12:45	R08050143-001	3644.6	flowing artesian, ice	2220	32.1	4.5	40.5	10.2
	5/18/2008 11:18	R08050229-001	NM	flowing artesian, ice	1220	21.9	3.2	38.2	12.7
	6/25/2008 17:30	R08060452-003	3642.8	flowing artesian, ice	1390	23.2	3.5	42.2	7.4
	7/1/2008 16:54	R08070035-005	3641.84	flowing artesian, ice	1180	23	4.1	30	5.1
	7/14/2008 17:04	R08070244-009	3639.75	flowing artesian, ice	2170	30.3	3.7	26.3	5.9
	8/19/2008 19:08	R08080301-004	3640.69	flowing artesian, ice	1430	25.9	3.8	32.2	6.8
	9/23/2008 13:55	R08090356-002	3639.68	flowing artesian, ice	1180	24.8	4.8	28.3	5.8
	10/20/2008 15:00	R08100295-009	3637.37	flowing artesian, ice	1440	24.5	3.1	22.6	4
	11/18/2008 13:55	R08110211-012	3641.29	flowing artesian, ice	1850	29.4	4.3	29	5.6
	12/17/2008 10:48	R08120255-002	3641.75	flowing artesian, ice	1560	26.2	3.3	10.7	2.5
	1/20/2009 12:50	R09010301-007	3641.29	flowing artesian, ice	1210	21.8	3.4	11.5	2.7
	2/24/2009 16:18	R09020293-011	3654.67	flowing artesian, ice	1460	26.4	4.7	37.6	3.6
688 - Monitor Well, Screened Interval		3446.36 to 3456.36 ft AMSL							
	4/2/2008 18:07	R08040058-001	-196.64	dedicated pump, ice	2.9	1.9	2.8	0	0.6
	4/22/2008 13:26	R08040287-002	3662.18	dedicated pump, ice	10.1	2.8	3.3	-2.7	11.8
	6/10/2008 16:37	R08060210-002	3669.37	dedicated pump, ice	17.3	2.7	2.6	-0.5	3.5
	6/30/2008 18:39	R08070005-002	3661.97	dedicated pump, ice	13.2	2.8	3.1	-0.1	4.7
	7/7/2008 18:49	R08070115-006	NM	dedicated pump, ice	29.8	4.1	3.4	-0.4	4.7
	7/28/2008 15:45	R08070471-001	3662.64	dedicated pump, ice	3.9	2	2.8	-6	7.3
	8/20/2008 10:07	R08080332-001	3662.56	dedicated pump, ice	11.8	3	3.4	3.8	6.4
	9/30/2008 8:30	R08100014-001	3662.46	dedicated pump, ice	4.9	2.5	3.5	-0.1	2.5
	10/20/2008 12:15	R08100295-005	3662.52	dedicated pump, ice	10.2	2.5	2.8	1.1	3.7
	11/18/2008 10:00	R08110211-004	3662.5	dedicated pump, ice	15	3.3	3.8	1.1	2.6
	12/22/2008 9:45	R08120281-001	3663.79	dedicated pump, ice	1.9	2.5	3.9	1	2.4
	1/20/2009 15:35	R09010301-012	3662.66	dedicated pump, ice	25.6	3.6	3.2	1	2.5
	2/24/2009 13:23	R09020293-006	3662.79	dedicated pump, ice	28.7	4.3	4.2	-1	3.2



**POWERTECH (USA) INC.**

Analyte			Lead 210 - Suspended			Polonium 210 - Dissolved			Polonium 210 - Suspended		
Maximum Contaminant Level (40 CFR 141.66)			none			none			none		
Measurement			Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Fall River Upgradient											
628 - Stock Well, Screened Interval Pending Confirmation											
	9/28/2007 9:23	R07100002-001	<1		1	<1		1	6.4	4.7	1
	11/14/2007 10:59	R07110184-001	<1		1	2.7	1.7	1	<1		1
	2/20/2008 18:30	R08020220-005	1.2	0.54	1	1.3	1.1	1	<1		1
	5/29/2008 15:02	R08050419-004	0.5	10.5	17.7	-0.5	0.2	1	0.1	0.26	1
631 - Stock Well, Screened Interval 3665.37 to 3715.37 ft AMSL											
	9/26/2007 16:40	R07090384-004	<1		1	<1		1	<1		1
	11/14/2007 15:20	R07110184-004	<1		1	3.5	2	1	<1		1
	2/20/2008 13:55	R08020220-003	7.5	1.4	1	<1		1	<1		1
	5/19/2008 11:06	R08050251-001	-1.4	5.2	8.8	0.2	0.5	1	0.1	0.4	1
698 - Monitor Well, Screened Interval 3509.25 to 3534.25 ft AMSL											
	3/30/2008 14:04	R08030315-002	0	0.7	1	1	0.8	1	1.2	0.74	1
	4/22/2008 11:30	R08040287-004	0	1.5	1	1.4	1	1	-0.2	0.48	1
	5/28/2008 12:35	R08050406-001	2.6	10.6	17.7	0.2	0.8	1	1.4	1	1
	6/24/2008 11:55	R08060427-001	7.4	4.5	7.4	1.1	1	1	1.2	0.78	1
	7/14/2008 18:43	R08070244-010	-0.7	7	11.8	1.6	1.3	1	1.5	0.77	1
	8/19/2008 17:35	R08080301-003	1.1	10.6	17.8	0.4	0.6	1	0.5	0.48	1
	9/22/2008 13:05	R08090314-003	0.5	4.7	7.8	0	0.55	1	0.059	0.5	
	10/20/2008 13:52	R08100295-004	4.7	4.1	6.8	0.3	0.42	1	1	0.68	1
	11/18/2008 12:00	R08110211-008	4.4	5.5	9	0.3	0.4	1	1.6	0.98	
	12/17/2008 13:00	R08120255-005	3.2	6.3	10.4	0.3	0.35	1	1	0.81	1
	1/20/2009 14:07	R09010301-009	0.9	4.8	8	0.42	0.51	0.68	2	0.96	0.59
	2/24/2009 12:10	R09020293-004	4.5	3.4	5.7	0.4	0.45	0.51	0.78	0.62	0.61
706 - Monitor Well, Screened Interval 3510.32 to 3540.32 ft AMSL											
	1/18/2010 0:00	R10010180-002	2.6	4.3	7.1	0.074	0.6	1.4	0.12	0.94	2.1
	2/22/2010 0:00	R10020266-002	0.3	1.6	2.8	0.23	0.39	0.64	-0.096	0.26	0.73
	3/15/2010 0:00	R10030205-003	0.7	1.7	2.9	0	0.17	0.42	0.061	0.18	0.34
	4/21/2010 0:00	R10040303-002	0.7	3.1	5.2	-0.003	0.24	0.6	0.14	0.29	0.48
	5/17/2010 0:00	R10050253-002	-1	3.6	6.1	-0.06	0.39	1.1	0.061	0.37	0.8
	6/22/2010 0:00	R10060444-002	0.05	3.4	5.7	-0.042	0.22	0.6	-0.047	0.31	0.85
	7/27/2010 0:00	R10070459-001	-2	2.5	4.2	0.062	0.29	0.62	0	0.2	0.48
	8/23/2010 0:00	R10080398-002	-0.02	0.8	1.3	-0.04	0.28	0.77	0.068	0.27	0.54
	9/28/2010 0:00	R10090519-002	-0.6	0.9	1.5	-0.075	0.5	1.4	-0.005	0.086	0.22
	10/25/2010 0:00	R10100355-002	1.5	1.9	3.1	-0.012	0.21	0.54	0.081	0.27	0.51
	11/15/2010 0:00	R10110179-001	2.5	2	3.3	-0.011	0.2	0.53	-0.032	0.25	0.66
	12/14/2010 0:00	R10110179-003	0.3	1.5	2.5	0.096	0.32	0.62	0	0.27	0.66
Fall River Near											
681 - Monitor Well, Screened Interval 3030.31 to 3045.31 ft AMSL											
	1/30/2008 15:40	R08010296-002	1.7	0.69	1	2.6	1.5	1	1.6	0.86	1
	3/30/2008 17:50	R08030315-008	16.8	1.8	1	0.6	0.8	1	1.2	0.57	1
	4/21/2008 20:06	R08040250-006	16.7	2.2	1	3.5	1.7	1	0	0.31	1
	5/12/2008 12:45	R08050143-001	20.8	9.4	15.1	1.6	1.2	1	2.4	1.1	1
	5/18/2008 11:18	R08050229-001	20.2	5.6	8.8	1.2	1.1	1	3.2	1.3	1
	6/25/2008 17:30	R08060452-003	6.2	4.5	7.4	0.7	1	1	1.4	0.81	1
	7/1/2008 16:54	R08070035-005	5.3	6	9.9	0.7	0.8	1	1.5	0.71	1
	7/14/2008 17:04	R08070244-009	3.7	12.8	21.4	3.1	1.8	1	0.9	0.56	1
	8/19/2008 19:08	R08080301-004	-1	10.6	17.8	3.7	1.9	1	0.6	0.43	1
	9/23/2008 13:55	R08090356-002	4.9	4.7	7.8	0.8	1.3	1	0.88	0.63	
	10/20/2008 15:00	R08100295-009	18	4.3	6.8	5.1	1.8	1	1.5	0.8	1
	11/18/2008 13:55	R08110211-012	10.8	5.6	9	2.9	1.2	1	2.2	0.88	
	12/17/2008 10:48	R08120255-002	24.2	6.6	10.4	4.8	1.5	1	9.2	2.4	1
	1/20/2009 12:50	R09010301-007	2.2	4.8	8	3.8	1.4	0.75	1.7	0.88	0.65
	2/24/2009 16:18	R09020293-011	25.9	3.7	5.7	0.28	0.35	0.46	2.3	1.1	0.62
688 - Monitor Well, Screened Interval 3446.36 to 3456.36 ft AMSL											
	4/2/2008 18:07	R08040058-001	-0.4	0.5	1	1	0.8	1	1	0.64	1
	4/22/2008 13:26	R08040287-002	-0.1	0.5	1	1.9	1.4	1	0.4	0.43	1
	6/10/2008 16:37	R08060210-002	4.8	6.4	10.6	0	0.5	1	0.2	0.31	1
	6/30/2008 18:39	R08070005-002	-2.3	6	10.1	0	0.4	1	0.3	0.38	1
	7/7/2008 18:49	R08070115-006	-6	12.7	21.4	0.9	0.88	1	0.1	0.29	1
	7/28/2008 15:45	R08070471-001	-0.6	7.1	11.9	0.2	0.7	1	0	0.36	1
	8/20/2008 10:07	R08080332-001	-6	10.5	17.8	0	0.4	1	-0.1	0.31	1
	9/30/2008 8:30	R08100014-001	1.2	5.2	8.6	0.2	0.36	1	0.15	0.36	
	10/20/2008 12:15	R08100295-005	-3	4	6.8	0	0.24	1	0	0.14	1
	11/18/2008 10:00	R08110211-004	-5	5.3	9	0	0.22	1	-0.061	0.24	
	12/22/2008 9:45	R08120281-001	0.1	6.2	10.4	0	0.17	1	0	0.25	1
	1/20/2009 15:35	R09010301-012	3.2	4.8	8	-0.009	0.28	0.71	-0.005	0.17	0.43
	2/24/2009 13:23	R09020293-006	-0.9	3.4	5.7	0.45	0.41	0.43	-0.054	0.26	0.73





**POWERTECH (USA) INC.**

Analyte		Radium 226 - Dissolved			Radium 226 - Suspended			Radon		
Maximum Contaminant Level (40 CFR 141.66)		5 pCi/L			5 pCi/L			none		
Measurement		Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Fall River Upgradient										
628 - Stock Well, Screened Interval Pending Confirmation										
	9/28/2007 9:23	R07100002-001	7.4	0.9	0.2	<0.2	0.2	NM		
	11/14/2007 10:59	R07110184-001	20.7	1.4	0.2	NM		2740	70.4	100
	2/20/2008 18:30	R08020220-005	9	0.6	0.1	1.7	0.8	4360	78.4	100
	5/29/2008 15:02	R08050419-004	6.1	0.5	-5000	-0.3	0.3	5040	144	100
631 - Stock Well, Screened Interval 3665.37 to 3715.37 ft AMSL										
	9/26/2007 16:40	R07090384-004	12.9	3.7	0.2	2.3	1.6	NM		
	11/14/2007 15:20	R07110184-004	9.5	0.9	0.2	NM		4220	80	100
	2/20/2008 13:55	R08020220-003	19.4	0.8	0.1	<0.9	0.9	3920	77	100
	5/19/2008 11:06	R08050251-001	22.1	1	-5000	-0.3	0.2	4430	112	100
698 - Monitor Well, Screened Interval 3509.25 to 3534.25 ft AMSL										
	3/30/2008 14:04	R08030315-002	387	13.8	1	15.3	1.2	32200	266	100
	4/22/2008 11:30	R08040287-004	370	3.2	0.1	6.4	0.7	25800	193	100
	5/28/2008 12:35	R08050406-001	413	3.7	-5000	14	1.3	25600	164	100
	6/24/2008 11:55	R08060427-001	429	4.4	-5000	11.6	1.1	40700	418	100
	7/14/2008 18:43	R08070244-010	423	6	-5000	6.3	0.8	27900	198	100
	8/19/2008 17:35	R08080301-003	372	4.1	-5000	1.7	0.5	38200	342	100
	9/22/2008 13:05	R08090314-003	410	4.4	-5000	0.2	0.2	29500	196	100
	10/20/2008 13:52	R08100295-004	347	3.5	-5000	7.4	0.9	38200	278	100
	11/18/2008 12:00	R08110211-008	403	3.6	0.2	9	0.9	37400	303	100
	12/17/2008 13:00	R08120255-005	363	3.1	0.1	4.7	0.7	37600	230	100
	1/20/2009 14:07	R09010301-009	386	3.8	-5000	7.3	0.8	32100	235	100
	2/24/2009 12:10	R09020293-004	355	3.1	-5000	11	0.9	38400	279	100
706 - Monitor Well, Screened Interval 3510.32 to 3540.32 ft AMSL										
	1/18/2010 0:00	R10010180-002	2.7	0.3	0.2	-0.2	0.04	0.08	270	100
	2/22/2010 0:00	R10020266-002	2.3	0.3	0.2	0.07	0.07	0.1	313	100
	3/15/2010 0:00	R10030205-003	2.9	0.3	0.1	0.2	0.08	0.08	319	100
	4/21/2010 0:00	R10040303-002	4.3	0.4	0.2	0.03	0.08	0.1	303	100
	5/17/2010 0:00	R10050253-002	1.9	0.3	0.2	0.6	0.3	0.3	303	100
	6/22/2010 0:00	R10060444-002	2.5	0.3	0.2	-0.2	0.1	0.3	338	100
	7/27/2010 0:00	R10070459-001	2.6	0.3	0.2	-0.1	0.08	0.2	373	100
	8/23/2010 0:00	R10080398-002	2.7	0.3	0.09	-0.1	0.2	0.3	342	100
	9/28/2010 0:00	R10090519-002	2	0.3	0.1	-0.02	0.03	0.05	300	100
	10/25/2010 0:00	R10100355-002	2.2	0.3	0.2	0.2	0.1	0.1	254	100
	11/15/2010 0:00	R10110179-001	2.4	0.2	0.06	0.1	0.08	0.1	683	100
	12/14/2010 0:00	R10110179-003	2.5	0.3	0.1	-0.1	0.2	0.4	241	100
Fall River Near										
681 - Monitor Well, Screened Interval 3030.31 to 3045.31 ft AMSL										
	1/30/2008 15:40	R08010296-002	421	6.8	0.2	9.9	2.4	0.2	462000	1190
	3/30/2008 17:50	R08030315-008	414	14.8	1.1	3.5	0.6	0.4	254000	711
	4/21/2008 20:06	R08040250-006	377	3.4	0.1	0.2	0.3	0.5	253000	623
	5/12/2008 12:45	R08050143-001	407	3.7	-5000	1.8	0.5	0.5	246	107
	5/18/2008 11:18	R08050229-001	423	15.1	-5000	1.6	0.5	0.4	462000	1020
	6/25/2008 17:30	R08060452-003	434	5.5	-5000	0.7	0.4	0.5	389000	953
	7/1/2008 16:54	R08070035-005	357	3.9	-5000	1.3	0.3	0.3	281000	609
	7/14/2008 17:04	R08070244-009	418	4.3	-5000	0.6	0.4	0.6	244000	575
	8/19/2008 19:08	R08080301-004	362	4.2	-5000	0.8	0.4	0.6	318000	944
	9/23/2008 13:55	R08090356-002	445	4.1	-5000	0.9	0.3	0.4	304000	704
	10/20/2008 15:00	R08100295-009	356	3.5	-5000	1.3	0.4	0.5	344000	809
	11/18/2008 13:55	R08110211-012	398	3.7	0.2	0.08	0.3	0.4	335000	872
	12/17/2008 10:48	R08120255-002	291	2.9	0.2	1.5	0.5	0.5	2200	73
	1/20/2009 12:50	R09010301-007	258	3.6	-5000	1.1	0.4	0.5	133000	469
	2/24/2009 16:18	R09020293-011	336	3	-5000	1.3	0.4	0.3	389000	851
688 - Monitor Well, Screened Interval 3446.36 to 3456.36 ft AMSL										
	4/2/2008 18:07	R08040058-001	0.3	0.1	0.2	0.9	0.2	0.1	608	89.1
	4/22/2008 13:26	R08040287-002	1.2	0.2	0.1	0.02	0.3	0.5	307	51.1
	6/10/2008 16:37	R08060210-002	2.5	0.5	-5000	-0.3	0.1	0.4	749	105
	6/30/2008 18:39	R08070005-002	0.6	0.2	-5000	-0.3	0.2	0.4	426	91.9
	7/7/2008 18:49	R08070115-006	6.7	0.5	-5000	-0.3	0.2	0.5	227	50.3
	7/28/2008 15:45	R08070471-001	0.6	0.2	0.3	-0.4	0.2	0.6	1160	127
	8/20/2008 10:07	R08080332-001	1.7	0.4	-5000	-0.3	0.2	0.5	449	90.9
	9/30/2008 8:30	R08100014-001	0.6	0.2	-5000	0.09	0.3	0.4	535	219
	10/20/2008 12:15	R08100295-005	1.6	0.3	-5000	-0.3	0.2	0.5	184	69.2
	11/18/2008 10:00	R08110211-004	2.7	0.3	0.2	0.2	0.3	0.4	162	81.3
	12/22/2008 9:45	R08120281-001	0.7	0.2	0.2	0.1	0.3	0.5	81.1	41.5
	1/20/2009 15:35	R09010301-012	3.8	0.4	-5000	0.1	0.3	0.5	152	57.4
	2/24/2009 13:23	R09020293-006	7.9	0.5	-5000	0.2	0.2	0.3	218	67.9



**POWERTECH (USA) INC.**

Analyte			Thorium 230 - Dissolved			Thorium 230 - Suspended		
Maximum Contaminant Level (40 CFR 141.66)			none			none		
Measurement			Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Fall River Upgradient								
628 - Stock Well, Screened Interval Pending Confirmation								
	9/28/2007 9:23	R07100002-001	<0.2		0.2	<0.2		0.2
	11/14/2007 10:59	R07110184-001	<0.2		0.2	0.3	0.1	0.2
	2/20/2008 18:30	R08020220-005	<0.2		0.2	<0.2		0.2
	5/29/2008 15:02	R08050419-004	0	0.09	0.2	0.1	0.1	0.2
631 - Stock Well, Screened Interval 3665.37 to 3715.37 ft AMSL								
	9/26/2007 16:40	R07090384-004	<0.2		0.2	<0.2		0.2
	11/14/2007 15:20	R07110184-004	<0.2		0.2	<0.2		0.2
	2/20/2008 13:55	R08020220-003	<0.2		0.2	0.6	0.3	0.2
	5/19/2008 11:06	R08050251-001	0.1	0.1	0.2	0	0.1	0.2
698 - Monitor Well, Screened Interval 3509.25 to 3534.25 ft AMSL								
	3/30/2008 14:04	R08030315-002	0	0.1	0.2	0.4	0.2	0.2
	4/22/2008 11:30	R08040287-004	0	0.1	0.2	0.2	0.2	0.2
	5/28/2008 12:35	R08050406-001	0	0.1	0.2	0.7	0.3	0.2
	6/24/2008 11:55	R08060427-001	0	0.07	0.2	0.7	0.3	0.2
	7/14/2008 18:43	R08070244-010	0.1	0.09	0.2	0.9	0.4	0.2
	8/19/2008 17:35	R08080301-003	0	0.1	0.2	0.5	0.3	0.2
	9/22/2008 13:05	R08090314-003	<0.2	0.3	0.2	0	0.05	0.2
	10/20/2008 13:52	R08100295-004	0	0.08	0.2	0.2	0.05	0.2
	11/18/2008 12:00	R08110211-008	0.1	0.1	0.2	0.2	0.07	0.2
	12/17/2008 13:00	R08120255-005	0.1	0.2	0.2	0.2	0.3	0.2
	1/20/2009 14:07	R09010301-009	0.1	0.2	0.2	1.9	0.6	0.2
	2/24/2009 12:10	R09020293-004	0.03	0.2	0.3	1	0.5	0.4
706 - Monitor Well, Screened Interval 3510.32 to 3540.32 ft AMSL								
	1/18/2010 0:00	R10010180-002	0.01	0.06	0.1	0.06	0.1	-500
	2/22/2010 0:00	R10020266-002	-0.01	0.08	0.2	-0.07	0.06	-500
	3/15/2010 0:00	R10030205-003	-0.01	0.06	0.1	-0.001	0.05	-500
	4/21/2010 0:00	R10040303-002	0.004	0.05	0.1	0.1	0.1	-500
	5/17/2010 0:00	R10050253-002	0.006	0.07	0.1	-0.1	0.2	-500
	6/22/2010 0:00	R10060444-002	0.8	0.3	0.1	-0.2	0.2	-500
	7/27/2010 0:00	R10070459-001	0.04	0.09	0.2	-0.2	0.08	-500
	8/23/2010 0:00	R10080398-002	-0.02	0.1	0.2	-0.03	0.1	0.2
	9/28/2010 0:00	R10090519-002	0.008	0.06	0.1	0.05	0.07	0.08
	10/25/2010 0:00	R10100355-002	0.001	0.06	0.1	-0.1	0.2	0.3
	11/15/2010 0:00	R10110179-001	0.03	0.06	0.1	-0.2	0.1	0.2
	12/14/2010 0:00	R10110179-003	0.04	0.07	0.1	-0.1	0.1	0.2
Fall River Near								
681 - Monitor Well, Screened Interval 3030.31 to 3045.31 ft AMSL								
	1/30/2008 15:40	R08010296-002	<0.2		0.2	<0.2		0.2
	3/30/2008 17:50	R08030315-008	0.3	0.2	0.2	0.2	0.2	0.2
	4/21/2008 20:06	R08040250-006	0	0.1	0.2	0.2	0.2	0.2
	5/12/2008 12:45	R08050143-001	0	0.1	0.2	0.7	0.3	0.2
	5/18/2008 11:18	R08050229-001	0.1	0.1	0.2	0.1	0.2	0.2
	6/25/2008 17:30	R08060452-003	0	0.05	0.2	0	0.2	0.2
	7/1/2008 16:54	R08070035-005	0	0.05	0.2	-0.1	0.2	0.2
	7/14/2008 17:04	R08070244-009	0.1	0.07	0.2	0.1	0.2	0.2
	8/19/2008 19:08	R08080301-004	0	0.09	0.2	0	0.2	0.2
	9/23/2008 13:55	R08090356-002	0	0.09	0.2	0.1	0.05	0.2
	10/20/2008 15:00	R08100295-009	0.1	0.08	0.2	-0.2	0.02	0.2
	11/18/2008 13:55	R08110211-012	0.1	0.1	0.2	0	0.05	0.2
	12/17/2008 10:48	R08120255-002	0.1	0.1	0.2	-0.1	0.1	0.2
	1/20/2009 12:50	R09010301-007	0.1	0.1	0.2	0.1	0.2	0.2
	2/24/2009 16:18	R09020293-011	-0.001	0.05	0.1	0.1	0.2	0.3
688 - Monitor Well, Screened Interval 3446.36 to 3456.36 ft AMSL								
	4/2/2008 18:07	R08040058-001	0	0.1	0.2	0.7	0.3	0.2
	4/22/2008 13:26	R08040287-002	0	0.1	0.2	15.9	1.4	0.2
	6/10/2008 16:37	R08060210-002	0	0.06	0.2	0.1	0.1	0.2
	6/30/2008 18:39	R08070005-002	0	0.05	0.2	0	0.2	0.2
	7/7/2008 18:49	R08070115-006	0	0.05	0.2	0.1	0.2	0.2
	7/28/2008 15:45	R08070471-001	0.1	0.1	0.2	0.2	0.3	0.2
	8/20/2008 10:07	R08080332-001	0	0.1	0.2	0	0.1	0.2
	9/30/2008 8:30	R08100014-001	-0.1	0.3	0.2	-0.1	0.05	0.2
	10/20/2008 12:15	R08100295-005	0	0.1	0.2	0	0.05	0.2
	11/18/2008 10:00	R08110211-004	0	0.2	0.2	-0.2	0.05	0.2
	12/22/2008 9:45	R08120281-001	0	0.1	0.2	0.1	0.2	0.2
	1/20/2009 15:35	R09010301-012	0.1	0.09	0.2	-0.1	0.2	0.2
	2/24/2009 13:23	R09020293-006	0.03	0.08	0.2	0.1	0.3	0.4



**POWERTECH (USA) INC.**

Analyte		Uranium - Dissolved		Uranium - Suspended		Uranium - Total	
Maximum Contaminant Level (40 CFR 141.66)		0.030 mg/L		0.030 mg/L		0.030 mg/L	
Measurement		Result	RL	Result	RL	Result	RL
Hydro ID	Date & Time Collected	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Fall River Upgradient							
628 - Stock Well, Screened Interval Pending Confirmation							
	9/28/2007 9:23	R07100002-001	0.0017 0.0003	<0.0003 0.0003		NM	NM
	11/14/2007 10:59	R07110184-001	0.0034 0.0003	<0.0003 0.0003		NM	NM
	2/20/2008 18:30	R08020220-005	0.003 0.0003	<0.0003 0.0003		0.0031	0.0003
	5/29/2008 15:02	R08050419-004	0.0027 0.0003	<0.0003 0.0003		0.0029	0.0003
631 - Stock Well, Screened Interval 3665.37 to 3715.37 ft AMSL							
	9/26/2007 16:40	R07090384-004	0.0027 0.0003	<0.0003 0.0003		0.003	0.0003
	11/14/2007 15:20	R07110184-004	0.0029 0.0003	<0.0003 0.0003		NM	NM
	2/20/2008 13:55	R08020220-003	0.0027 0.0003	<0.0003 0.0003		0.0026	0.0003
	5/19/2008 11:06	R08050251-001	0.0026 0.0003	<0.0003 0.0003		0.0028	0.0003
698 - Monitor Well, Screened Interval 3509.25 to 3534.25 ft AMSL							
	3/30/2008 14:04	R08030315-002	0.109 0.0003	0.0024 0.0003		0.123	0.0003
	4/22/2008 11:30	R08040287-004	0.11 0.0003	0.0006 0.0003		0.119	0.0003
	5/28/2008 12:35	R08050406-001	0.101 0.0003	0.0038 0.0003		0.116	0.0003
	6/24/2008 11:55	R08060427-001	0.104 0.0003	0.0043 0.0003		0.113	0.0003
	7/14/2008 18:43	R08070244-010	0.119 0.0003	0.0055 0.0003		0.116	0.0003
	8/19/2008 17:35	R08080301-003	0.113 0.0003	0.0023 0.0003		0.101	0.0005
	9/22/2008 13:05	R08090314-003	0.103 0.0003	0.0006 0.0003		0.102	0.0005
	10/20/2008 13:52	R08100295-004	0.103 0.0003	0.0036 0.0003		0.132	0.0003
	11/18/2008 12:00	R08110211-008	0.106 0.0003	0.0042 0.0003		0.103	0.0003
	12/17/2008 13:00	R08120255-005	0.0998 0.0003	0.0028 0.0009		0.112	0.0003
	1/20/2009 14:07	R09010301-009	0.1 0.0003	0.0021 0.0003		0.108	0.0003
	2/24/2009 12:10	R09020293-004	0.108 0.0003	0.005 0.0003		0.113	0.0003
706 - Monitor Well, Screened Interval 3510.32 to 3540.32 ft AMSL							
	1/18/2010 0:00	R10010180-002	0.0089 0.0003	<0.0003 0.0003		0.0087	0.0003
	2/22/2010 0:00	R10020266-002	0.0079 0.0003	0.0011 0.0003		0.008	0.0003
	3/15/2010 0:00	R10030205-003	0.0078 0.0003	<0.0003 0.0003		0.0088	0.0003
	4/21/2010 0:00	R10040303-002	0.0084 0.0003	<0.0003 0.0003		0.0083	0.0003
	5/17/2010 0:00	R10050253-002	0.0086 0.0003	<0.0003 0.0003		0.0088	0.0003
	6/22/2010 0:00	R10060444-002	0.0087 0.0003	<0.0003 0.0003		0.0081	0.0003
	7/27/2010 0:00	R10070459-001	0.0069 0.0003	<0.0003 0.0003		0.008	0.0003
	8/23/2010 0:00	R10080398-002	0.0087 0.0003	<0.0003 0.0003		0.0083	0.0003
	9/28/2010 0:00	R10090519-002	0.0081 0.0003	<0.0003 0.0003		0.0085	0.0003
	10/25/2010 0:00	R10100355-002	0.0086 0.0003	<0.0003 0.0003		0.0089	0.0003
	11/15/2010 0:00	R10110179-001	0.0082 0.0003	<0.0003 0.0003		0.0098	0.0003
	12/14/2010 0:00	R10110179-003	0.0083 0.0003	<0.0003 0.0003		0.0084	0.0003
Fall River Near							
681 - Monitor Well, Screened Interval 3030.31 to 3045.31 ft AMSL							
	1/30/2008 15:40	R08010296-002	0.0117 0.0003	0.001 0.0003		NM	NM
	3/30/2008 17:50	R08030315-008	0.0092 0.0003	<0.0003 0.0003		0.0099	0.0003
	4/21/2008 20:06	R08040250-006	0.0098 0.0003	<0.0003 0.0003		0.0102	0.0003
	5/12/2008 12:45	R08050143-001	0.0095 0.0003	<0.0003 0.0003		0.0104	0.0003
	5/18/2008 11:18	R08050229-001	0.0096 0.0003	<0.0003 0.0003		0.0108	0.0003
	6/25/2008 17:30	R08060452-003	0.0097 0.0003	<0.0003 0.0003		0.0102	0.0003
	7/1/2008 16:54	R08070035-005	0.0094 0.0003	<0.0003 0.0003		0.0092	0.0003
	7/14/2008 17:04	R08070244-009	0.0097 0.0003	<0.0003 0.0003		0.0104	0.0003
	8/19/2008 19:08	R08080301-004	0.01 0.0003	<0.0003 0.0003		0.0037	0.0003
	9/23/2008 13:55	R08090356-002	0.0093 0.0003	<0.0003 0.0003		0.0098	0.0003
	10/20/2008 15:00	R08100295-009	0.0094 0.0003	<0.0003 0.0003		0.0102	0.0003
	11/18/2008 13:55	R08110211-012	0.0098 0.0003	<0.0003 0.0003		0.0087	0.0003
	12/17/2008 10:48	R08120255-002	0.0083 0.0003	<0.0009 0.0009		0.0077	0.0003
	1/20/2009 12:50	R09010301-007	0.0081 0.0003	<0.0003 0.0003		0.0084	0.0003
	2/24/2009 16:18	R09020293-011	0.0092 0.0003	<0.0003 0.0003		0.0086	0.0003
688 - Monitor Well, Screened Interval 3446.36 to 3456.36 ft AMSL							
	4/2/2008 18:07	R08040058-001	<0.0003 0.0003	<0.0008 0.0008		<0.0003	0.0003
	4/22/2008 13:26	R08040287-002	<0.0003 0.0003	0.0147 0.0003		<0.0003	0.0003
	6/10/2008 16:37	R08060210-002	<0.0003 0.0003	<0.0003 0.0003		<0.0003	0.0003
	6/30/2008 18:39	R08070005-002	<0.0003 0.0003	<0.0003 0.0003		<0.0003	0.0003
	7/7/2008 18:49	R08070115-006	<0.0003 0.0003	<0.0003 0.0003		<0.0003	0.0003
	7/28/2008 15:45	R08070471-001	<0.0003 0.0003	<0.0003 0.0003		<0.0003	0.0003
	8/20/2008 10:07	R08080332-001	<0.0003 0.0003	<0.0003 0.0003		<0.0003	0.0003
	9/30/2008 8:30	R08100014-001	<0.0003 0.0003	<0.0003 0.0003		<0.0003	0.0003
	10/20/2008 12:15	R08100295-005	<0.0003 0.0003	<0.0003 0.0003		<0.0003	0.0003
	11/18/2008 10:00	R08110211-004	<0.0003 0.0003	<0.0003 0.0003		<0.0003	0.0003
	12/22/2008 9:45	R08120281-001	<0.0003 0.0003	<0.0009 0.0009		<0.0003	0.0003
	1/20/2009 15:35	R09010301-012	<0.0003 0.0003	<0.0003 0.0003		<0.0003	0.0003
	2/24/2009 13:23	R09020293-006	<0.0003 0.0003	<0.0003 0.0003		0.0005	0.0003



**POWERTECH (USA) INC.**

Analyte					Gross Alpha			Lead 210 - Dissolved		
Maximum Contaminant Level (40 CFR 141.66)					15 pCi/L			none		
Measurement			Water Level	Sampling Method and Preservation	Result	Precision +/- RL/MDC		Result	Precision +/- RL/MDC	
Hydro ID	Date & Time Collected	ELI Lab ID	ft AMSL		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
695 - Monitor Well, Screened Interval 3091.12 to 3106.12 ft AMSL										
	3/31/2008 16:31	R08040002-003	3630.99	flowing artesian, ice	52.2	5.4	4	-12.4	2	1
	4/22/2008 12:46	R08040287-001	3627.55	flowing artesian, ice	29.4	4.2	3.7	-1.8	11.9	1
	5/21/2008 14:45	R08050321-003	3627.15	flowing artesian, ice	25.6	3.6	3	3.1	18	30
	6/24/2008 17:30	R08060427-004	3627.93	flowing artesian, ice	39.7	4.8	4	0.7	6.8	11.4
	7/14/2008 13:42	R08070244-003	3628.83	flowing artesian, ice	28.2	4.2	3.9	-2	5.5	9.2
	8/20/2008 14:20	R08080332-005	3629.12	flowing artesian, ice	21.6	4	3.9	-1	6.3	10.7
	9/23/2008 11:00	R08090356-007	3629.49	flowing artesian, ice	44	9.2	10.2	0.1	5.3	9
	10/21/2008 9:10	R08100295-012	3628.48	flowing artesian, ice	27.8	3.9	3.1	-0.4	3.7	6.1
	11/18/2008 13:25	R08110211-009	3629.52	flowing artesian, ice	19.2	4	4.4	0.3	2.6	4.4
	12/17/2008 15:10	R08120255-010	3626.4	flowing artesian, ice	26.8	4	3.4	3.4	4.8	8
	1/20/2009 12:15	R09010301-005	3629.4	flowing artesian, ice	35.8	4.3	3.6	1.5	2.5	4.2
	2/24/2009 16:56	R09020293-013	3629.4	flowing artesian, ice	18.7	4.1	4.7	0.9	1.6	2.7
Fall River Downgradient										
7 - Domestic Well, Screened Interval Pending Confirmation										
	10/3/2006 11:12	R06100076-004	NM	tap, ice	17	0.8	1	NM		
	9/28/2007 17:28	R07100002-009	NM	tap, ice	4.4	1.2	1	<1		1
	11/12/2007 8:20	R07110146-002	NM	tap, ice	7.2	1.1	1	<1		1
	2/20/2008 8:45	R08020220-002	NM	tap, ice	15.5	3.6	4	24	3.2	1
	5/29/2008 11:10	R08050419-002	NM	tap, ice	3.3	2.8	4.2	0.5	3.5	5.9
8 - Domestic Well, Screened Interval 3312 to 3384 ft AMSL										
	9/26/2007 14:33	R07090384-003	3558.6	spigot, ice	5	1	1	<1		1
	11/27/2007 16:30	R07110303-005	NM	spigot, ice	8.7	1.1	1	4	0.9	1
	2/5/2008 10:20	R08020052-001	NM	spigot, ice	5.4	1.6	1	3	0.8	1
	5/29/2008 11:41	R08050419-003	NM	spigot, ice	3.2	2.6	4	0.8	3.5	5.9
18 - Domestic Well, Screened Interval Pending Confirmation										
	10/3/2006 10:07	R06100076-001	NM	flowing artesian, ice	37	1	1	NM		
	9/26/2007 10:39	R07090384-001	NM	flowing artesian, ice	15.7	1.3	1	<1		1
	11/12/2007 10:15	R07110146-004	NM	flowing artesian, ice	18.9	1.3	1	4.6	1.1	1
	2/12/2008 11:08	R08020130-003	NM	flowing artesian, ice	31.7	1.4	1	<1		1
	5/30/2008 11:12	R08050427-001	NM	flowing artesian, ice	27.5	4.2	4	-1	4.9	8.2
694 - Monitor Well, Screened Interval 3208.69 to 3223.69 ft AMSL										
	3/30/2008 10:11	R08030315-001	3646.77	flowing artesian, ice	8.8	3.2	4.1	-9.8	2.6	1
	4/21/2008 12:24	R08040250-001	NM	flowing artesian, ice	19.2	3.4	3.4	0	8.3	1
	5/21/2008 15:54	R08050321-004	3646.39	flowing artesian, ice	10.6	2.8	3.2	-2.3	17.2	29
	6/24/2008 15:16	R08060427-003	3647.11	flowing artesian, ice	23.7	4	3.9	-0.1	6.8	11.4
	7/14/2008 15:30	R08070244-005	3646.93	flowing artesian, ice	15.1	3.3	3.7	1.1	5.5	9.2
	8/20/2008 15:45	R08080332-007	3647.37	flowing artesian, ice	12.5	3.4	4	0	6.4	10.7
	9/23/2008 10:00	R08090356-005	3646.73	flowing artesian, ice	7.4	3.6	5.1	-2	5.3	9
	10/21/2008 8:25	R08100295-013	3646.73	flowing artesian, ice	9.1	2.8	3.3	-1	3.6	6.1
	11/18/2008 9:00	R08110211-003	3646.72	flowing artesian, ice	9.2	3.3	4.4	-0.1	2.6	4.4
	12/17/2008 15:45	R08120255-011	3647.65	flowing artesian, ice	9.3	2.8	3.3	2.2	2.4	4
	1/20/2009 17:00	R09010301-014	3638.19	flowing artesian, ice	25.9	3.9	3.7	-0.9	2.5	4.2
	2/24/2009 17:15	R09020293-014	3647.88	flowing artesian, ice	8.3	3.5	4.9	1.3	1.6	2.7



**POWERTECH (USA) INC.**

Analyte			Lead 210 - Suspended			Polonium 210 - Dissolved			Polonium 210 - Suspended		
Maximum Contaminant Level (40 CFR 141.66)			none			none			none		
Measurement			Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
695 - Monitor Well, Screened Interval 3091.12 to 3106.12 ft AMSL											
	3/31/2008 16:31	R08040002-003	0		1	1.1	1.1	1	0.6	0.5	1
	4/22/2008 12:46	R08040287-001	-2.1	0.9	1	1.6	1.2	1	0.4	0.38	1
	5/21/2008 14:45	R08050321-003	-0.7	5.2	8.8	-0.3	0.1	1	-0.2	0.24	1
	6/24/2008 17:30	R08060427-004	2.9	4.4	7.4	0.1	0.4	1	0	0.17	1
	7/14/2008 13:42	R08070244-003	-5	12.7	21.4	-0.1	0.49	1	0.2	0.35	1
	8/20/2008 14:20	R08080332-005	-6	10.5	17.8	-0.2	0.4	1	0.1	0.31	1
	9/23/2008 11:00	R08090356-007	-2	5.5	9.2	0.2	0.84	1	0.066	0.45	
	10/21/2008 9:10	R08100295-012	-1	4	6.8	0	0.25	1	0	0.22	1
	11/18/2008 13:25	R08110211-009	-0.9	5.4	9	0	0.19	1	0.058	0.28	
	12/17/2008 15:10	R08120255-010	5.9	6.3	10.4	0	0.13	1	0.2	0.38	1
	1/20/2009 12:15	R09010301-005	6.6	5.2	8.5	0.051	0.33	0.74	0.13	0.29	0.51
	2/24/2009 16:56	R09020293-013	0.1	3.4	5.7	0.16	0.4	0.74	0.25	0.48	0.83
Fall River Downgradient											
7 - Domestic Well, Screened Interval Pending Confirmation											
	10/3/2006 11:12	R06100076-004	NM			NM			NM		
	9/28/2007 17:28	R07100002-009	<1		1	<1		1	<1		1
	11/12/2007 8:20	R07110146-002	<1		1	2.1	1.7	1	<1		1
	2/20/2008 8:45	R08020220-002	<1		1	<1		1	<1		1
	5/29/2008 11:10	R08050419-002	-7.4	10.4	17.7	0	0.6	1	-0.1	0.31	1
8 - Domestic Well, Screened Interval 3312 to 3384 ft AMSL											
	9/26/2007 14:33	R07090384-003	<1		1	<1		1	<1		1
	11/27/2007 16:30	R07110303-005	<1		1	<1		1	<1		1
	2/5/2008 10:20	R08020052-001	1.9	0.91	1	1.6	1.2	1	<1		1
	5/29/2008 11:41	R08050419-003	4.9	10.6	17.7	-0.2	0.1	1	-0.1	0.33	1
18 - Domestic Well, Screened Interval Pending Confirmation											
	10/3/2006 10:07	R06100076-001	NM			NM			NM		
	9/26/2007 10:39	R07090384-001	<1		1	<1		1	6	4.4	1
	11/12/2007 10:15	R07110146-004	<1		1	<1		1	<1		1
	2/12/2008 11:08	R08020130-003	<1		1	2.2	1.8	1	<1		1
	5/30/2008 11:12	R08050427-001	29.6	5.7	8.7	0	0.7	1	1.7	0.93	1
694 - Monitor Well, Screened Interval 3208.69 to 3223.69 ft AMSL											
	3/30/2008 10:11	R08030315-001	0	0.9	1	1.8	1.3	1	0.9	0.71	1
	4/21/2008 12:24	R08040250-001	0	0.9	1	1.4	1.1	1	0.2	0.38	1
	5/21/2008 15:54	R08050321-004	1.4	5.2	8.8	0.6	0.9	1	-0.1	0.24	1
	6/24/2008 15:16	R08060427-003	4.8	4.5	7.4	0	0.7	1	0	0.19	1
	7/14/2008 15:30	R08070244-005	0.2	12.8	21.4	0.4	0.61	1	0	0.51	1
	8/20/2008 15:45	R08080332-007	-7	10.5	17.8	0	0.8	1	0	0.26	1
	9/23/2008 10:00	R08090356-005	-1	5.5	9.2	0.2	0.76	1	0.17	0.46	
	10/21/2008 8:25	R08100295-013	-2	4	6.8	0.1	0.29	1	0	0.17	1
	11/18/2008 9:00	R08110211-003	-4	5.3	9	0	0.28	1	-0.04	0.2	
	12/17/2008 15:45	R08120255-011	1.7	6.3	10.4	0	0.2	1	0.4	0.46	1
	1/20/2009 17:00	R09010301-014	-1	4.8	8	0.045	0.26	0.58	0.056	0.28	0.59
	2/24/2009 17:15	R09020293-014	-0.2	3.4	5.7	-0.031	0.19	0.52	0.31	0.38	0.5



**POWERTECH (USA) INC.**

Analyte			Radium 226 - Dissolved			Radium 226 - Suspended			Radon		
Maximum Contaminant Level (40 CFR 141.66)			5 pCi/L			5 pCi/L			none		
Measurement			Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
695 - Monitor Well, Screened Interval 3091.12 to 3106.12 ft AMSL											
	3/31/2008 16:31	R08040002-003	6.3	0.4	0.1	0.6	0.2	0.2	1400	76.5	100
	4/22/2008 12:46	R08040287-001	5	0.4	0.1	-0.4	0.2	0.5	1400	64	100
	5/21/2008 14:45	R08050321-003	3.7	0.4	-5000	-0.2	0.2	0.5	2090	155	100
	6/24/2008 17:30	R08060427-004	5.2	0.5	-5000	-0.1	0.2	0.5	2120	154	100
	7/14/2008 13:42	R08070244-003	4.7	0.5	-5000	-0.4	0.2	0.6	1490	65	100
	8/20/2008 14:20	R08080332-005	3.9	0.5	-5000	-0.005	0.3	0.5	1950	107	100
	9/23/2008 11:00	R08090356-007	10.4	0.7	-5000	0.9	0.3	0.4	357	62.3	100
	10/21/2008 9:10	R08100295-012	4	0.4	-5000	-0.3	0.3	0.5	1860	79.1	100
	11/18/2008 13:25	R08110211-009	4.8	0.4	0.2	-0.2	0.2	0.4	2020	102	100
	12/17/2008 15:10	R08120255-010	4.8	0.4	0.2	-0.4	0.2	0.5	1880	68.3	100
	1/20/2009 12:15	R09010301-005	4.5	0.5	-5000	-0.1	0.2	0.5	1840	78.9	100
	2/24/2009 16:56	R09020293-013	4.7	0.4	-5000	-0.1	0.2	0.3	1600	83.2	100
Fall River Downgradient											
7 - Domestic Well, Screened Interval Pending Confirmation											
	10/3/2006 11:12	R06100076-004	2.6	0.6	0.2	NM			NM		
	9/28/2007 17:28	R07100002-009	0.6	0.2	0.2	<0.2		0.2	NM		
	11/12/2007 8:20	R07110146-002	1.1	0.4	0.2	<0.2		0.2	206	65	100
	2/20/2008 8:45	R08020220-002	0.7	0.2	0.1	<0.9		0.9	242	44.2	100
	5/29/2008 11:10	R08050419-002	0.9	0.2	-5000	-0.3	0.2	0.5	451	98.8	100
8 - Domestic Well, Screened Interval 3312 to 3384 ft AMSL											
	9/26/2007 14:33	R07090384-003	<0.2		0.2	3.5	0.8	0.2	NM		
	11/27/2007 16:30	R07110303-005	2.7	0.5	0.2	<0.2		0.2	123	54.5	100
	2/5/2008 10:20	R08020052-001	1.5	0.4	0.2	2.8	1.4	0.2	329	104	100
	5/29/2008 11:41	R08050419-003	1.2	0.2	-5000	-0.4	0.2	0.5	514	99.3	100
18 - Domestic Well, Screened Interval Pending Confirmation											
	10/3/2006 10:07	R06100076-001	5.8	1.2	0.2	NM			762	69.3	100
	9/26/2007 10:39	R07090384-001	<0.2		0.2	4	0.8	0.2	NM		
	11/12/2007 10:15	R07110146-004	3.2	0.6	0.2	<0.2		0.2	945	73.2	100
	2/12/2008 11:08	R08020130-003	3.2	0.4	0.2	1.1	0.6	0.2	1220	126	100
	5/30/2008 11:12	R08050427-001	2.6	0.3	-5000	1.1	0.4	0.4	1210	92.1	100
694 - Monitor Well, Screened Interval 3208.69 to 3223.69 ft AMSL											
	3/30/2008 10:11	R08030315-001	1.6	0.3	0.2	1	0.4	0.3	313	79.4	100
	4/21/2008 12:24	R08040250-001	4.2	0.4	0.1	-0.4	0.2	0.5	251	60.4	100
	5/21/2008 15:54	R08050321-004	1.9	0.3	-5000	-0.2	0.2	0.5	619	135	100
	6/24/2008 15:16	R08060427-003	2.2	0.4	-5000	-0.3	0.2	0.4	611	137	100
	7/14/2008 15:30	R08070244-005	2.3	0.5	-5000	-0.4	0.2	0.6	245	49.4	100
	8/20/2008 15:45	R08080332-007	1.8	0.4	-5000	-0.1	0.3	0.6	401	86.8	100
	9/23/2008 10:00	R08090356-005	1.7	0.3	-5000	-0.04	0.2	0.4	296	61.9	100
	10/21/2008 8:25	R08100295-013	1.4	0.2	-5000	-0.4	0.2	0.5	281	60.8	100
	11/18/2008 9:00	R08110211-003	1.7	0.3	0.2	-0.4	0.2	0.4	331	82.4	100
	12/17/2008 15:45	R08120255-011	1.5	0.2	0.2	-0.3	0.2	0.5	215	49.3	100
	1/20/2009 17:00	R09010301-014	1.7	0.3	-5000	-0.2	0.2	0.4	270	58.4	100
	2/24/2009 17:15	R09020293-014	2.2	0.2	-5000	-0.1	0.2	0.3	235	66.3	100

**POWERTECH (USA) INC.**

Analyte			Thorium 230 - Dissolved			Thorium 230 - Suspended		
Maximum Contaminant Level (40 CFR 141.66)			none			none		
Measurement			Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
695 - Monitor Well, Screened Interval 3091.12 to 3106.12 ft AMSL								
	3/31/2008 16:31	R08040002-003	0	0.1	0.2	0.1	0.1	0.2
	4/22/2008 12:46	R08040287-001	0	0.1	0.2	0.3	0.2	0.2
	5/21/2008 14:45	R08050321-003	0	0.1	0.2	0	0.1	0.2
	6/24/2008 17:30	R08060427-004	0	0.1	0.2	0	0.1	0.2
	7/14/2008 13:42	R08070244-003	0	0.09	0.2	0	0.2	0.2
	8/20/2008 14:20	R08080332-005	0	0.09	0.2	0	0.09	0.2
	9/23/2008 11:00	R08090356-007	0.1	0.2	0.2	0.5	0.07	0.2
	10/21/2008 9:10	R08100295-012	0.1	0.1	0.2	0	0.05	0.2
	11/18/2008 13:25	R08110211-009	0.2	0.1	0.2	0.1	0.07	0.2
	12/17/2008 15:10	R08120255-010	0.1	0.2	0.2	-0.1	0.2	0.2
	1/20/2009 12:15	R09010301-005	0	0.08	0.2	0	0.2	0.2
	2/24/2009 16:56	R09020293-013	-0.02	0.07	0.2	0.02	0.2	0.3
Fall River Downgradient								
7 - Domestic Well, Screened Interval Pending Confirmation								
	10/3/2006 11:12	R06100076-004	NM			NM		
	9/28/2007 17:28	R07100002-009	<0.2		0.2	<0.2		0.2
	11/12/2007 8:20	R07110146-002	<0.2		0.2	<0.2		0.2
	2/20/2008 8:45	R08020220-002	<0.2		0.2	0.2	0.2	0.2
	5/29/2008 11:10	R08050419-002	0	0.08	0.2	0.2	0.3	0.2
8 - Domestic Well, Screened Interval 3312 to 3384 ft AMSL								
	9/26/2007 14:33	R07090384-003	<0.2		0.2	<0.2		0.2
	11/27/2007 16:30	R07110303-005	<0.2		0.2	<0.2		0.2
	2/5/2008 10:20	R08020052-001	<0.2		0.2	<0.2		0.2
	5/29/2008 11:41	R08050419-003	0.1	0.07	0.2	0	0.1	0.2
18 - Domestic Well, Screened Interval Pending Confirmation								
	10/3/2006 10:07	R06100076-001	NM			NM		
	9/26/2007 10:39	R07090384-001	<0.2		0.2	<0.2		0.2
	11/12/2007 10:15	R07110146-004	<0.2		0.2	<0.2		0.2
	2/12/2008 11:08	R08020130-003	0.2	0.03	0.2	<0.2		0.2
	5/30/2008 11:12	R08050427-001	0	0.1	0.2	0.1	0.2	0.2
694 - Monitor Well, Screened Interval 3208.69 to 3223.69 ft AMSL								
	3/30/2008 10:11	R08030315-001	0.2	0.1	0.2	0.1	0.2	0.2
	4/21/2008 12:24	R08040250-001	0	0.1	0.2	0	0.1	0.2
	5/21/2008 15:54	R08050321-004	0	0.1	0.2	0.3	0.3	0.2
	6/24/2008 15:16	R08060427-003	0.1	0.1	0.2	0	0.2	0.2
	7/14/2008 15:30	R08070244-005	0	0.1	0.2	0	0.2	0.2
	8/20/2008 15:45	R08080332-007	0	0.07	0.2	0	0.2	0.2
	9/23/2008 10:00	R08090356-005	0.1	0.09	0.2	0	0.05	0.2
	10/21/2008 8:25	R08100295-013	0	0.1	0.2	0	0.05	0.2
	11/18/2008 9:00	R08110211-003	0.1	0.2	0.2	0	0.05	0.2
	12/17/2008 15:45	R08120255-011	0	0.2	0.2	0.1	0.2	0.2
	1/20/2009 17:00	R09010301-014	0	0.09	0.2	-0.1	0.2	0.2
	2/24/2009 17:15	R09020293-014	0.05	0.07	0.1	-0.09	0.2	0.4



**POWERTECH (USA) INC.**

Analyte			Uranium - Dissolved		Uranium - Suspended		Uranium - Total	
Maximum Contaminant Level (40 CFR 141.66)			0.030 mg/L		0.030 mg/L		0.030 mg/L	
Measurement			Result RL		Result RL		Result RL	
Hydro ID	Date & Time Collected	ELI Lab ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
695 - Monitor Well, Screened Interval 3091.12 to 3106.12 ft AMSL								
	3/31/2008 16:31	R08040002-003	0.003	0.0003	<0.0003	0.0003	0.0031	0.0003
	4/22/2008 12:46	R08040287-001	0.0029	0.0003	<0.0003	0.0003	0.0032	0.0003
	5/21/2008 14:45	R08050321-003	0.0029	0.0003	<0.0003	0.0003	0.0029	0.0003
	6/24/2008 17:30	R08060427-004	0.0027	0.0003	<0.0003	0.0003	0.0027	0.0003
	7/14/2008 13:42	R08070244-003	0.0028	0.0003	<0.0003	0.0003	0.0031	0.0003
	8/20/2008 14:20	R08080332-005	0.0026	0.0003	<0.0003	0.0003	0.0026	0.0003
	9/23/2008 11:00	R08090356-007	0.0059	0.0003	<0.0003	0.0008	0.0085	0.0003
	10/21/2008 9:10	R08100295-012	0.003	0.0003	<0.0003	0.0003	0.003	0.0003
	11/18/2008 13:25	R08110211-009	0.0029	0.0003	<0.0003	0.0003	0.0026	0.0003
	12/17/2008 15:10	R08120255-010	0.0026	0.0003	<0.0009	0.0009	0.0026	0.0003
	1/20/2009 12:15	R09010301-005	0.0031	0.0003	<0.0003	0.0003	0.0031	0.0003
	2/24/2009 16:56	R09020293-013	0.0028	0.0003	<0.0003	0.0003	0.0027	0.0003
Fall River Downgradient								
7 - Domestic Well, Screened Interval Pending Confirmation								
	10/3/2006 11:12	R06100076-004	<0.001	0.001	NM	NM	NM	NM
	9/28/2007 17:28	R07100002-009	<0.0003	0.0003	<0.0003	0.0003	NM	NM
	11/12/2007 8:20	R07110146-002	<0.0003	0.0003	<0.0003	0.0003	NM	NM
	2/20/2008 8:45	R08020220-002	<0.0003	0.0003	<0.0003	0.0003	<0.0003	0.0003
	5/29/2008 11:10	R08050419-002	<0.0003	0.0003	<0.0003	0.0003	<0.0003	0.0003
8 - Domestic Well, Screened Interval 3312 to 3384 ft AMSL								
	9/26/2007 14:33	R07090384-003	<0.0003	0.0003	<0.0003	0.0003	<0.0003	0.0003
	11/27/2007 16:30	R07110303-005	0.0003	0.0003	<0.0003	0.0003	NM	NM
	2/5/2008 10:20	R08020052-001	<0.0003	0.0003	<0.0003	0.0003	<0.0003	0.0003
	5/29/2008 11:41	R08050419-003	<0.0003	0.0003	<0.0003	0.0003	<0.0003	0.0003
18 - Domestic Well, Screened Interval Pending Confirmation								
	10/3/2006 10:07	R06100076-001	0.007	0.001	NM	NM	NM	NM
	9/26/2007 10:39	R07090384-001	0.0061	0.0003	0.0017	0.0003	NM	NM
	11/12/2007 10:15	R07110146-004	0.0066	0.0003	<0.0003	0.0003	NM	NM
	2/12/2008 11:08	R08020130-003	0.0066	0.0003	<0.0003	0.0003	0.0062	0.0005
	5/30/2008 11:12	R08050427-001	0.0059	0.0003	<0.0003	0.0003	0.0062	0.0003
694 - Monitor Well, Screened Interval 3208.69 to 3223.69 ft AMSL								
	3/30/2008 10:11	R08030315-001	0.0005	0.0003	<0.0003	0.0003	0.0006	0.0003
	4/21/2008 12:24	R08040250-001	0.0005	0.0003	<0.0003	0.0003	0.0006	0.0003
	5/21/2008 15:54	R08050321-004	0.0006	0.0003	<0.0003	0.0003	0.0006	0.0003
	6/24/2008 15:16	R08060427-003	0.0006	0.0003	<0.0003	0.0003	0.0006	0.0003
	7/14/2008 15:30	R08070244-005	0.0007	0.0003	<0.0003	0.0003	0.0005	0.0003
	8/20/2008 15:45	R08080332-007	0.0005	0.0003	<0.0003	0.0003	0.0005	0.0003
	9/23/2008 10:00	R08090356-005	0.0005	0.0003	<0.0003	0.0003	0.0006	0.0003
	10/21/2008 8:25	R08100295-013	0.0006	0.0003	<0.0003	0.0003	0.0006	0.0003
	11/18/2008 9:00	R08110211-003	0.0006	0.0003	<0.0003	0.0003	0.0005	0.0003
	12/17/2008 15:45	R08120255-011	0.0005	0.0003	<0.0009	0.0009	0.0005	0.0003
	1/20/2009 17:00	R09010301-014	0.0006	0.0003	<0.0003	0.0003	0.0006	0.0003
	2/24/2009 17:15	R09020293-014	0.0005	0.0003	<0.0003	0.0003	0.0005	0.0003

ELI - Energy Laboratories, Inc.

NM - not measured

Exceeds National Primary Drinking Water Regulations,  
40 CFR 141.66 Maximum Contaminant Level

Data have been requested from ELI for inclusion in revised TR





**POWERTECH (USA) INC.**

Analyte				Gross Alpha			Lead 210 - Dissolved		
Maximum Contaminant Level (40 CFR 141.66)				15 pCi/L			none		
Measurement		Water Level	Sampling Method and Preservation	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ELI Lab ID	ft AMSL	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Chilson Upgradient									
16 - Domestic Well, Screened Interval Pending Confirmation									
	10/3/2006 12:00	R06100076-006	NM	dedicated pump, ice	110	1.5	1	NM	
	9/27/2007 19:18	R07090385-002	NM	dedicated pump, ice	62.7	2.1	1	<1	1
	11/12/2007 16:05	R07110146-010	NM	dedicated pump, ice	12.2	1	1	2.2	0.7
	3/30/2008 15:19	R08030315-004	NM	dedicated pump, ice	85.7	5.9	3.2	-27	4.1
	6/30/2008 13:45	R08070005-001	NM	dedicated pump, ice	28.3	3.5	2.9	2	4.7
615 - Monitor Well, Screened Interval 2941 to 3029 ft AMSL									
	4/1/2008 14:34	R08040028-001	3690.49	dedicated pump, ice	18.2	3	3	-2.5	0.8
	4/21/2008 16:16	R08040250-004	3690.45	dedicated pump, ice	15.1	2.6	2.5	0	8.2
	5/28/2008 19:20	R08050406-005	3689.93	dedicated pump, ice	15.3	2.5	2.1	3.8	4.9
	6/25/2008 13:55	R08060452-002	3689.52	dedicated pump, ice	38.3	3.8	2.8	1.1	6.8
	7/14/2008 11:50	R08070244-002	3689.15	dedicated pump, ice	15.3	2.8	2.8	-0.8	5.5
	8/20/2008 13:26	R08080332-004	3689.2	dedicated pump, ice	17.3	3	2.9	4.6	6.4
	9/22/2008 16:30	R08090314-005	3689.03	dedicated pump, ice	21.5	3.1	2.5	-1	5.3
	10/20/2008 16:20	R08100295-010	3688.87	dedicated pump, ice	20.9	2.9	2.4	-1	3.6
	11/18/2008 15:00	R08110211-013	3688.98	dedicated pump, ice	13.9	2.9	3.2	-0.2	2.6
	12/17/2008 11:27	R08120255-013	3689.38	dedicated pump, ice	21.7	3	2.4	2.2	2.4
	1/20/2009 11:10	R09010301-004	3689.48	dedicated pump, ice	21.1	3	2.7	1.2	2.5
	2/24/2009 15:45	R09020293-009	3689.88	dedicated pump, ice	14.8	3.1	3.6	0.9	1.6
619 - Stock Well, Screened Interval Pending Confirmation									
	9/27/2007 17:45	R07090385-001	3679.13	dedicated pump, ice	367	5.7	1	<1	1
	11/12/2007 14:25	R07110146-008	3679.19	dedicated pump, ice	341	4.8	1	<1	1
	3/24/2008 15:40	R08030253-002	NM	dedicated pump, ice	438	19.4	6.7	19	2.3
	6/17/2008 18:10	R08060335-001	NM	dedicated pump, ice	398	19.5	8.8	-1.1	5
622 - Monitor Well, Screened Interval 2974.91 to 3040.91 ft AMSL									
	4/1/2008 14:56	R08040028-003	3710.27	dedicated pump, ice	15	3.2	3.5	-3.5	1.1
	4/21/2008 15:28	R08040250-003	3710.69	dedicated pump, ice	22.6	3.5	3.2	-4.1	8.1
	5/28/2008 18:26	R08050406-004	3710.49	dedicated pump, ice	32.6	4	2.8	1.2	4.9
	6/25/2008 12:05	R08060452-001	3710.31	dedicated pump, ice	36.4	4.3	3.6	-2	6.7
	7/14/2008 12:35	R08070244-001	3710.46	dedicated pump, ice	31.2	4.2	3.6	2.6	5.5
	8/20/2008 12:59	R08080332-003	3710.18	dedicated pump, ice	27.7	4.2	3.8	0.1	6.4
	9/22/2008 16:00	R08090314-004	3710.13	dedicated pump, ice	1470	37.3	7	-1	5.3
	10/20/2008 15:42	R08100295-006	3709.91	dedicated pump, ice	29.3	3.9	3.1	3.2	7.4
	11/18/2008 14:30	R08110211-014	3709.78	dedicated pump, ice	32.6	4.6	4.2	-2	5.2
	12/17/2008 14:20	R08120255-008	3709.99	dedicated pump, ice	6.8	2.4	3	2.5	2.4
	1/20/2009 10:51	R09010301-002	3709.91	dedicated pump, ice	36.4	4.3	3.5	0.3	2.5
	2/24/2009 15:31	R09020293-008	3710.15	dedicated pump, ice	44.3	5.3	4.6	0.7	1.6
650 - Stock Well, Screened Interval Pending Confirmation									
	9/28/2007 19:00	R07100002-010	3682.37	dedicated pump, ice	13.1	1.6	1	<1	1
	11/12/2007 15:30	R07110146-009	3682.37	dedicated pump, ice	5.6	1.5	1	1.4	0.6
	3/24/2008 9:00	R08030253-001	3681.94	dedicated pump, ice	2.9	2.5	3.9	24	2.6
	5/30/2008 16:30	R08050427-004	3682.02	dedicated pump, ice	2.1	2.9	4.6	1.5	4.9
705 - Monitor Well, Screened Interval 3368.42 to 3398.42 ft AMSL									
	1/18/2010 0:00	R10010180-001	NM	dedicated pump, ice	3	2.9	4.6	0.3	1.7
	2/22/2010 0:00	R10020266-001	NM	dedicated pump, ice	1.1	2.3	3.8	-0.1	0.8
	3/15/2010 0:00	R10030205-001	NM	dedicated pump, ice	8.6	3.8	5.4	2	1.7
	4/21/2010 0:00	R10040303-001	NM	dedicated pump, ice	7.5	3.3	4.6	-2	1.6
	5/17/2010 0:00	R10050253-001	NM	dedicated pump, ice	3.9	3.3	5.2	0.02	1.7
	6/22/2010 0:00	R10060444-001	NM	dedicated pump, ice	6.2	4.7	7.1	0.8	1.4
	7/27/2010 0:00	R10070459-002	3709.57	dedicated pump, ice	6.7	4	6.1	0.4	1.4
	8/23/2010 0:00	R10080398-001	3709.55	dedicated pump, ice	8.9	3.4	4.7	0.01	1
	9/28/2010 0:00	R10090519-001	NM	dedicated pump, ice	-3	3.2	5.6	1.8	1.2
	10/25/2010 0:00	R10100355-001	3710.03	dedicated pump, ice	-0.6	3.5	6	-0.5	0.9
	11/15/2010 0:00	R10110179-002	3709.71	dedicated pump, ice	0.7	3.6	6	1	1
	12/14/2010 0:00	R10120179-001	3709.77	dedicated pump, ice	-0.3	3.3	5.6	-0.2	0.8
3026 - Monitor Well, Screened Interval 3624.48 to 3654.48 ft AMSL									
	3/30/2008 18:45	R08030315-009	3681.69	dedicated pump, ice	47.6	8.9	9.2	<1	2.1
	4/22/2008 14:30	R08040287-003	3681.57	dedicated pump, ice	43.8	8.4	8.6	0	11.9
	5/28/2008 15:15	R08050406-003	3681.53	dedicated pump, ice	92.4	10.5	6.9	-0.7	4.9
	6/24/2008 20:06	R08060427-006	3681.65	dedicated pump, ice	116	12.8	9.9	-5.3	6.7
	7/13/2008 15:28	R08070220-001	3681.58	dedicated pump, ice	80.1	11.8	10.4	3.1	5.6
	8/19/2008 16:25	R08080301-001	3681.43	dedicated pump, ice	77.5	11.6	10.4	2.1	6.4
	9/23/2008 11:25	R08090356-008	3681.58	dedicated pump, ice	15.9	7	9.6	1.5	5.4
	10/20/2008 13:15	R08100295-007	3681.63	dedicated pump, ice	36	6.8	6.6	-1	3.6
	11/18/2008 11:19	R08110211-007	3681.65	dedicated pump, ice	19.7	6.9	9.1	-2	2.6
	12/17/2008 12:46	R08120255-004	3682.3	dedicated pump, ice	23.9	6.1	6.8	2.3	4.8
	1/20/2009 14:25	R09010301-010	3682.33	dedicated pump, ice	51.6	7.8	7.3	-0.9	2.5
	2/24/2009 11:35	R09020293-003	3682.3	dedicated pump, ice	15.4	6.6	9.2	0.4	1.6
Chilson Near									
13 - Domestic Well, Screened Interval 3045 to 3090 ft AMSL									
	10/3/2006 11:36	R06100076-005	NM	flowing artesian, ice	12	0.7	1	NM	
	9/27/2007 15:45	R07090385-005	> 30 psi	flowing artesian, ice	8.9	1.2	1	<1	1
	11/12/2007 12:15	R07110146-007	NM	flowing artesian, ice	7.5	1	1	<1	1
	2/20/2008 14:41	R08020220-004	NM	flowing artesian, ice	19.5	3.4	3	4.7	1.6
	5/19/2008 12:20	R08050251-002	NM	flowing artesian, ice	4.2	2.2	3	4.1	9.6



**POWERTECH (USA) INC.**

Analyte		Lead 210 - Suspended			Polonium 210 - Dissolved			Polonium 210 - Suspended		
Maximum Contaminant Level (40 CFR 141.66)		none			none			none		
Measurement		Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Chilson Upgradient										
16 - Domestic Well, Screened Interval Pending Confirmation										
	10/3/2006 12:00	R06100076-006	NM		NM			NM		
	9/27/2007 19:18	R07090385-002	<1	1	<1	1		<1	1	
	11/12/2007 16:05	R07110146-010	1.2	0.22	1	<1	1	<1	1	
	3/30/2008 15:19	R08030315-004	0	1	1	0.2	0.6	1	0.8	0.57
	6/30/2008 13:45	R08070005-001	-0.4	6.3	10.6	0	0.5	1	0	0.21
615 - Monitor Well, Screened Interval 2941 to 3029 ft AMSL										
	4/1/2008 14:34	R08040028-001	27.1	2.1	1	0.6	1	1	0.4	0.4
	4/21/2008 16:16	R08040250-004	-3.2	1	1	0.9	0.9	1	0.4	0.52
	5/28/2008 19:20	R08050406-005	1.5	10.5	17.7	-0.1	0.6	1	0	0.43
	6/25/2008 13:55	R08060452-002	3.5	4.4	7.4	0.5	0.7	1	0	0.21
	7/14/2008 11:50	R08070244-002	-2	12.7	21.4	0	0.45	1	0	0.26
	8/20/2008 13:26	R08080332-004	-6	10.5	17.8	0	0.1	1	0	0.31
	9/22/2008 16:30	R08090314-005	-0.2	4.7	7.8	0.9	1.2	1	-0.04	0.2
	10/20/2008 16:20	R08100295-010	-3	4	6.8	0.1	0.25	1	0	0.22
	11/18/2008 15:00	R08110211-013	0.5	5.4	9	0.1	0.24	1	0.097	0.28
	12/17/2008 11:27	R08120255-013	1.1	6.2	10.4	0	0.18	1	0.1	0.38
	1/20/2009 11:10	R09010301-004	5.8	5.2	8.5	-0.027	0.2	0.54	0.14	0.32
	2/24/2009 15:45	R09020293-009	0.5	3.4	5.7	0.14	0.27	0.46	0.15	0.29
619 - Stock Well, Screened Interval Pending Confirmation										
	9/27/2007 17:45	R07090385-001	<1	1	<1	1		<1	1	
	11/12/2007 14:25	R07110146-008	<1	1	<1	1		<1	1	
	3/24/2008 15:40	R08030253-002	11	1.5	1	1.9	1.4	1	0.1	0.29
	6/17/2008 18:10	R08060335-001	2	10.9	18.2	-0.1	0.5	1	0.4	0.4
622 - Monitor Well, Screened Interval 2974.91 to 3040.91 ft AMSL										
	4/1/2008 14:56	R08040028-003	0	1.1	1	0.8	0.9	1	0	0.1
	4/21/2008 15:28	R08040250-003	0	0.6	1	1.1	1	1	2.8	1.7
	5/28/2008 18:26	R08050406-004	-0.9	10.5	17.7	-0.3	0.7	1	2.5	1.3
	6/25/2008 12:05	R08060452-001	3.5	4.4	7.4	0.2	0.6	1	1	0.74
	7/14/2008 12:35	R08070244-001	-1	12.7	21.4	0.4	0.56	1	2.8	1.2
	8/20/2008 12:59	R08080332-003	-4	10.5	17.8	0.3	0.7	1	0.2	0.29
	9/22/2008 16:00	R08090314-004	0.2	4.7	7.8	-0.1	0.44	1	0.39	0.47
	10/20/2008 15:42	R08100295-006	-1	4	6.8	0	0.22	1	0.3	0.41
	11/18/2008 14:30	R08110211-014	0	5.4	9	0.1	0.24	1	0.24	0.42
	12/17/2008 14:20	R08120255-008	3.1	6.3	10.4	0	0.13	1	0	0.24
	1/20/2009 10:51	R09010301-002	8.1	5.2	8.5	0.063	0.32	0.69	0.77	0.56
	2/24/2009 15:31	R09020293-008	0.1	3.4	5.7	0.16	0.29	0.46	0.3	0.36
650 - Stock Well, Screened Interval Pending Confirmation										
	9/28/2007 19:00	R07100002-010	<1	1	<1	1		<1	1	
	11/12/2007 15:30	R07110146-009	<1	1	<1	1		<1	1	
	3/24/2008 9:00	R08030253-001	12	1.5	1	0.4	0.7	1	1.2	0.63
	5/30/2008 16:30	R08050427-004	6.2	5.3	8.7	-0.2	0.5	1	0.2	0.4
705 - Monitor Well, Screened Interval 3368.42 to 3398.42 ft AMSL										
	1/18/2010 0:00	R10010180-001	1.9	4.3	7.1	0.05	0.22	0.44	-0.056	0.44
	2/22/2010 0:00	R10020266-001	0.2	1.6	2.7	0.05	0.19	0.38	0.069	0.26
	3/15/2010 0:00	R10030205-001	0.06	1.7	2.9	-0.02	0.21	0.56	-0.013	0.099
	4/21/2010 0:00	R10040303-001	-0.1	3.1	5.2	-0.039	0.2	0.56	0.18	0.6
	5/17/2010 0:00	R10050253-001	-0.3	3.6	6.1	-0.06	0.4	1.1	0.077	0.31
	6/22/2010 0:00	R10060444-001	2.7	3.4	5.7	0.11	0.29	0.54	-0.036	0.24
	7/27/2010 0:00	R10070459-002	-1	2.5	4.2	0.076	0.3	0.61	-0.1	0.34
	8/23/2010 0:00	R10080398-001	-0.08	0.8	1.3	0.088	0.29	0.56	0.069	0.27
	9/28/2010 0:00	R10090519-001	-0.07	0.9	1.5	-0.024	0.2	0.53	-0.004	0.075
	10/25/2010 0:00	R10100355-001	0.7	1.9	3.2	-0.035	0.26	0.71	-0.013	0.24
	11/15/2010 0:00	R10110179-002	1.3	2	3.3	-0.012	0.2	0.52	0.078	0.31
	12/14/2010 0:00	R10120179-001	0.6	1.7	2.8	0.1	0.34	0.66	0	0.25
3026 - Monitor Well, Screened Interval 3624.48 to 3654.48 ft AMSL										
	3/30/2008 18:45	R08030315-009	-3	0.8	1	0.4	0.8	1	1.9	0.88
	4/22/2008 14:30	R08040287-003	-8.2	1.5	1	0.2	0.7	1	0	0.31
	5/28/2008 15:15	R08050406-003	4	10.6	17.7	0	0.8	1	-0.1	0.29
	6/24/2008 20:06	R08060427-006	6.9	4.5	7.4	0.2	0.6	1	0.2	0.36
	7/13/2008 15:28	R08070220-001	-10	12.6	21.4	0.2	0.46	1	0.1	0.28
	8/19/2008 16:25	R08080301-001	-5	10.5	17.8	0.2	0.6	1	0	0.19
	9/23/2008 11:25	R08090356-008	4.4	5.6	9.2	0	1	1	0	0.35
	10/20/2008 13:15	R08100295-007	-3	4	6.8	0	0.2	1	0.2	0.33
	11/18/2008 11:19	R08110211-007	-2	5.3	9	0	0.16	1	-0.031	0.23
	12/17/2008 12:46	R08120255-004	4	6.3	10.4	0.2	0.34	1	0	0.31
	1/20/2009 14:25	R09010301-010	-0.5	4.8	8	0.053	0.34	0.75	-0.058	0.27
	2/24/2009 11:35	R09020293-003	2.9	3.4	5.7	0.14	0.35	0.65	0.098	0.34
Chilson Near										
13 - Domestic Well, Screened Interval 3045 to 3090 ft AMSL										
	10/3/2006 11:36	R06100076-005	NM		NM			NM		
	9/27/2007 15:45	R07090385-005	<1	1	<1	1		5.2	4.6	1
	11/12/2007 12:15	R07110146-007	<1	1	2.6	1.8	1	<1	1	
	2/20/2008 14:41	R08020220-004	<1	1	1.1	0.9	1	<1	1	
	5/19/2008 12:20	R08050251-002	-0.2	5.2	8.8	-0.6	0.1	1	0	0.26



**POWERTECH (USA) INC.**

Analyte	Radium 226 - Dissolved					Radium 226 - Suspended			Radon		
Maximum Contaminant Level (40 CFR 141.66)	5 pCi/L					5 pCi/L			none		
Measurement	Result Precision +/- RL/MDC					Result Precision +/- RL/MDC			Result Precision +/- RL/MDC		
Hydro ID Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Chilson Upgradient											
16 - Domestic Well, Screened Interval Pending Confirmation											
10/3/2006 12:00	R06100076-006	33.6	2.5	0.2		NM			39000	252	100
9/27/2007 19:18	R07090385-002	26.2	1.9	0.2		<0.2	0.2		NM		
11/12/2007 16:05	R07110146-010	8.1	0.9	0.2		<0.2	0.2		1090	72.1	100
3/30/2008 15:19	R08030315-004	15.3	0.8	0.2		1.4	0.4	0.3	28200	249	100
6/30/2008 13:45	R08070005-001	6.4	0.5	-5000		-0.3	0.2	0.4	3150	128	100
615 - Monitor Well, Screened Interval 2941 to 3029 ft AMSL											
4/1/2008 14:34	R08040028-001	1.8	0.2	0.1		0.3	0.1	0.1	1490	67.5	100
4/21/2008 16:16	R08040250-004	2	0.3	0.1		-0.2	0.2	0.5	1180	70.1	100
5/28/2008 19:20	R08050406-005	2	0.3	-5000		0.2	0.3	0.6	1070	45.9	100
6/25/2008 13:55	R08060452-002	7.2	0.7	-5000		-0.4	0.2	0.5	1830	105	100
7/14/2008 11:50	R08070244-002	1.2	0.3	-5000		-0.4	0.2	0.6	1420	65	100
8/20/2008 13:26	R08080332-004	1.8	0.4	-5000		-0.4	0.2	0.5	1880	106	100
9/22/2008 16:30	R08090314-005	2	0.3	-5000		-0.06	0.2	0.4	1500	59.7	100
10/20/2008 16:20	R08100295-010	2.7	0.3	-5000		-0.1	0.3	0.5	1890	87.8	100
11/18/2008 15:00	R08110211-013	1.9	0.3	0.2		0.04	0.3	0.4	1800	99.1	100
12/17/2008 11:27	R08120255-013	2.1	0.3	0.2		-0.3	0.2	0.5	1710	68.2	100
1/20/2009 11:10	R09010301-004	1.8	0.3	-5000		-0.2	0.3	0.5	1630	77.2	100
2/24/2009 15:45	R09020293-009	2.3	0.3	-5000		0.06	0.2	0.3	1590	83.6	100
619 - Stock Well, Screened Interval Pending Confirmation											
9/27/2007 17:45	R07090385-001	120	3.9	0.2		<0.2	0.2		NM		
11/12/2007 14:25	R07110146-008	100	3.6	0.2		3.5	0.3	0.2	2990	91.9	100
3/24/2008 15:40	R08030253-002	99.7	1.7	-5000		11.4	1.1	0.3	5580	140	100
6/17/2008 18:10	R08060335-001	110	1.8	-5000		8.8	1	0.6	5770	118	100
622 - Monitor Well, Screened Interval 2974.91 to 3040.91 ft AMSL											
4/1/2008 14:56	R08040028-003	2.3	0.2	0.1		0.7	0.2	0.1	501	56.4	100
4/21/2008 15:28	R08040250-003	2.7	0.3	0.1		0.9	0.4	0.5	1090	69.4	100
5/28/2008 18:26	R08050406-004	3.2	0.3	-5000		1	0.5	0.6	804	43.3	100
6/25/2008 12:05	R08060452-001	4.1	0.5	-5000		-0.2	0.2	0.5	1950	107	100
7/14/2008 12:35	R08070244-001	2.9	0.4	-5000		-0.4	0.3	0.6	824	57.9	100
8/20/2008 12:59	R08080332-003	4.4	0.6	-5000		-0.2	0.2	0.5	1370	101	100
9/22/2008 16:00	R08090314-004	3	0.4	-5000		-0.2	0.2	0.4	992	54.5	100
10/20/2008 15:42	R08100295-006	2.7	0.3	-5000		-0.2	0.3	0.5	1360	82.1	100
11/18/2008 14:30	R08110211-014	2.9	0.3	0.2		-0.1	0.2	0.4	1280	93.3	100
12/17/2008 14:20	R08120255-008	1.3	0.2	0.2		0.8	0.4	0.5	50.2	47.5	100
1/20/2009 10:51	R09010301-002	2.9	0.4	-5000		0.2	0.3	0.5	1180	72.3	100
2/24/2009 15:31	R09020293-008	7.9	0.5	-5000		0.5	0.3	0.3	1360	81.2	100
650 - Stock Well, Screened Interval Pending Confirmation											
9/28/2007 19:00	R07100002-010	2.7	0.5	0.2		0.6	0.8	0.2	NM		
11/12/2007 15:30	R07110146-009	2.4	0.5	0.2		<0.2	0.2		134	60.8	100
3/24/2008 9:00	R08030253-001	1.4	0.2	-5000		0.7	0.3	0.4	202	88.2	100
5/30/2008 16:30	R08050427-004	1.2	0.2	-5000		-0.02	0.2	0.4	254	77	100
705 - Monitor Well, Screened Interval 3368.42 to 3398.42 ft AMSL											
1/18/2010 0:00	R10010180-001	0.6	0.2	0.2		-0.2	0.03	0.08	206		100
2/22/2010 0:00	R10020266-001	0.8	0.2	0.2		0.03	0.07	0.1	<100		100
3/15/2010 0:00	R10030205-001	2.1	0.3	0.1		0.2	0.09	0.08	260		100
4/21/2010 0:00	R10040303-001	1.8	0.3	0.2		-0.01	0.07	0.1	<100		100
5/17/2010 0:00	R10050253-001	1.6	0.3	0.2		0.3	0.2	0.3	157		100
6/22/2010 0:00	R10060444-001	1.8	0.3	0.2		-0.3	0.2	0.4	243		100
7/27/2010 0:00	R10070459-002	1.8	0.3	0.2		-0.1	0.08	0.2	247		100
8/23/2010 0:00	R10080398-001	1.8	0.2	0.09		-0.2	0.1	0.3	238		100
9/28/2010 0:00	R10090519-001	1.8	0.3	0.2		-0.06	0.03	0.07	232		100
10/25/2010 0:00	R10100355-001	2.4	0.4	0.2		0.1	0.09	0.1	202		100
11/15/2010 0:00	R10110179-002	2	0.2	0.06		0.2	0.1	0.1	532		100
12/14/2010 0:00	R10120179-001	1.9	0.3	0.2		-0.2	0.1	0.3	269		100
3026 - Monitor Well, Screened Interval 3624.48 to 3654.48 ft AMSL											
3/30/2008 18:45	R08030315-009	3.6	0.4	0.2		3.3	0.6	0.3	440	76.3	100
4/22/2008 14:30	R08040287-003	2.8	0.3	0.1		0.1	0.3	0.4	304	50.7	100
5/28/2008 15:15	R08050406-003	9.6	0.6	-5000		1.2	0.4	0.5	213	37	100
6/24/2008 20:06	R08060427-006	4.7	0.4	-5000		-0.1	0.2	0.4	950	137	100
7/13/2008 15:28	R08070220-001	10.1	0.7	-5000		-0.2	0.3	0.6	560	63	100
8/19/2008 16:25	R08080301-001	9.5	0.7	-5000		-0.3	0.3	0.5	836	109	100
9/23/2008 11:25	R08090356-008	5.9	0.5	-5000		-0.06	0.2	0.4	1820	79.3	100
10/20/2008 13:15	R08100295-007	3.5	0.4	-5000		-0.8	0.4	1	254	69.7	100
11/18/2008 11:19	R08110211-007	3.9	0.4	0.2		0.8	0.4	0.4	505	85.3	100
12/17/2008 12:46	R08120255-004	2.7	0.3	0.2		0.2	0.3	0.4	355	52.2	100
1/20/2009 14:25	R09010301-010	3.5	0.4	-5000		0.6	0.4	0.5	295	59.9	100
2/24/2009 11:35	R09020293-003	2.9	0.3	-5000		0.1	0.2	0.3	484	72.4	100
Chilson Near											
13 - Domestic Well, Screened Interval 3045 to 3090 ft AMSL											
10/3/2006 11:36	R06100076-005	<20		20		NM			335	63.2	100
9/27/2007 15:45	R07090385-005	1.8	0.5	0.2		<0.2	0.2		NM		
11/12/2007 12:15	R07110146-007	1.6	0.4	0.2		<0.2	0.2		305	64.5	100
2/20/2008 14:41	R08020220-004	1.1	0.2	0.1		1.6	0.8	0.9	258	42.6	100
5/19/2008 12:20	R08050251-002	1.6	0.3	-5000		0.01	0.3	0.4	412	70.5	100



**POWERTECH (USA) INC.**

Analyte		Thorium 230 - Dissolved			Thorium 230 - Suspended		
Maximum Contaminant Level (40 CFR 141.66)		none			none		
Measurement		Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Chilson Upgradient							
16 - Domestic Well, Screened Interval Pending Confirmation							
	10/3/2006 12:00	R06100076-006	NM		NM		
	9/27/2007 19:18	R07090385-002	0.3	0.2	0.2	<0.2	0.2
	11/12/2007 16:05	R07110146-010	<0.2		0.2	<0.2	0.2
	3/30/2008 15:19	R08030315-004	0.2	0.2	0.2	0.1	0.1
	6/30/2008 13:45	R08070005-001	0	0.09	0.2	0	0.2
615 - Monitor Well, Screened Interval 2941 to 3029 ft AMSL							
	4/1/2008 14:34	R08040028-001	0.2	0.1	0.2	0.9	0.3
	4/21/2008 16:16	R08040250-004	0	0.1	0.2	0.1	0.1
	5/28/2008 19:20	R08050406-005	0	0.1	0.2	0.1	0.1
	6/25/2008 13:55	R08060452-002	0	0.05	0.2	0.1	0.2
	7/14/2008 11:50	R08070244-002	0	0.1	0.2	0.1	0.1
	8/20/2008 13:26	R08080332-004	0.1	0.1	0.2	0.2	0.2
	9/22/2008 16:30	R08090314-005	<0.2	0.1	0.2	0.7	0.07
	10/20/2008 16:20	R08100295-010	0.1	0.07	0.2	-0.2	0.05
	11/18/2008 15:00	R08110211-013	0.1	0.09	0.2	-0.2	0.05
	12/17/2008 11:27	R08120255-013	0.3	0.3	0.2	-0.1	0.2
	1/20/2009 11:10	R09010301-004	0	0.04	0.2	0.1	0.2
	2/24/2009 15:45	R09020293-009	-0.002	0.06	0.1	0.07	0.2
619 - Stock Well, Screened Interval Pending Confirmation							
	9/27/2007 17:45	R07090385-001	0.5	0.3	0.2	<0.2	0.2
	11/12/2007 14:25	R07110146-008	<0.2		0.2	0.09	0.2
	3/24/2008 15:40	R08030253-002	0	0.1	0.2	0.2	0.2
	6/17/2008 18:10	R08060335-001	0	0.1	0.2	0	0.1
622 - Monitor Well, Screened Interval 2974.91 to 3040.91 ft AMSL							
	4/1/2008 14:56	R08040028-003	0.1	0.1	0.2	0.2	0.1
	4/21/2008 15:28	R08040250-003	0	0.1	0.2	0.1	0.1
	5/28/2008 18:26	R08050406-004	0	0.1	0.2	0.1	0.1
	6/25/2008 12:05	R08060452-001	0	0.03	0.2	0	0.2
	7/14/2008 12:35	R08070244-001	0	0.04	0.2	0	0.08
	8/20/2008 12:59	R08080332-003	0	0.1	0.2	-0.1	0.2
	9/22/2008 16:00	R08090314-004	<0.2	0.1	0.2	-0.1	0.05
	10/20/2008 15:42	R08100295-006	0.1	0.1	0.2	0	0.05
	11/18/2008 14:30	R08110211-014	0.1	0.1	0.2	0.1	0.05
	12/17/2008 14:20	R08120255-008	0.1	0.2	0.2	-0.2	0.3
	1/20/2009 10:51	R09010301-002	0	0.1	0.2	0.1	0.3
	2/24/2009 15:31	R09020293-008	-0.01	0.08	0.2	-0.09	0.2
650 - Stock Well, Screened Interval Pending Confirmation							
	9/28/2007 19:00	R07100002-010	<0.2		0.2	<0.2	0.2
	11/12/2007 15:30	R07110146-009	<0.2		0.2	<0.2	0.2
	3/24/2008 9:00	R08030253-001	0.4	0.2	0.2	0.8	0.3
	5/30/2008 16:30	R08050427-004	0	0.1	0.2	0.2	0.2
705 - Monitor Well, Screened Interval 3368.42 to 3398.42 ft AMSL							
	1/18/2010 0:00	R10010180-001	0.02	0.07	0.1	-0.1	0.09
	2/22/2010 0:00	R10020266-001	0.01	0.08	0.2	-0.07	0.05
	3/15/2010 0:00	R10030205-001	0.002	0.09	0.2	-0.08	0.04
	4/21/2010 0:00	R10040303-001	0.1	0.1	0.2	-0.1	0.1
	5/17/2010 0:00	R10050253-001	0.03	0.06	0.1	-0.4	0.2
	6/22/2010 0:00	R10060444-001	1.2	0.3	0.2	-0.4	0.3
	7/27/2010 0:00	R10070459-002	0.04	0.06	0.09	0.2	0.2
	8/23/2010 0:00	R10080398-001	0.09	0.1	0.2	-0.03	0.1
	9/28/2010 0:00	R10090519-001	0.04	0.07	0.1	0.03	0.07
	10/25/2010 0:00	R10100355-001	0.02	0.06	0.1	-0.3	0.2
	11/15/2010 0:00	R10110179-002	-0.03	0.06	0.2	-0.2	0.1
	12/14/2010 0:00	R10120179-001	0.05	0.07	0.1	-0.2	0.08
3026 - Monitor Well, Screened Interval 3624.48 to 3654.48 ft AMSL							
	3/30/2008 18:45	R08030315-009	0	0.1	0.2	1	0.4
	4/22/2008 14:30	R08040287-003	0.1	0.1	0.2	0.3	0.2
	5/28/2008 15:15	R08050406-003	0.1	0.1	0.2	0.2	0.1
	6/24/2008 20:06	R08060427-006	0	0.1	0.2	0	0.2
	7/13/2008 15:28	R08070220-001	0.1	0.2	0.2	0	0.1
	8/19/2008 16:25	R08080301-001	0	0.08	0.2	0	0.2
	9/23/2008 11:25	R08090356-008	0	0.04	0.2	0.3	0.07
	10/20/2008 13:15	R08100295-007	0.1	0.1	0.2	-0.1	0.05
	11/18/2008 11:19	R08110211-007	0	0.1	0.2	-0.1	0.05
	12/17/2008 12:46	R08120255-004	0.1	0.2	0.2	0.1	0.2
	1/20/2009 14:25	R09010301-010	0	0.1	0.2	-0.1	0.3
	2/24/2009 11:35	R09020293-003	-0.03	0.1	0.3	-0.07	0.2
Chilson Near							
13 - Domestic Well, Screened Interval 3045 to 3090 ft AMSL							
	10/3/2006 11:36	R06100076-005	NM			NM	
	9/27/2007 15:45	R07090385-005	0.4	0.3	0.2	<0.2	0.2
	11/12/2007 12:15	R07110146-007	<0.2		0.2	<0.2	0.2
	2/20/2008 14:41	R08020220-004	<0.2		0.2	0.4	0.3
	5/19/2008 12:20	R08050251-002	0	0.1	0.2	0.2	0.3



**POWERTECH (USA) INC.**

Analyte		Uranium - Dissolved		Uranium - Suspended		Uranium - Total	
Maximum Contaminant Level (40 CFR 141.66)		0.030 mg/L		0.030 mg/L		0.030 mg/L	
Measurement		Result RL		Result RL		Result RL	
Hydro ID	Date & Time Collected	ELI Lab ID	mg/L	mg/L	mg/L	mg/L	mg/L
Chilson Upgradient							
16 - Domestic Well, Screened Interval Pending Confirmation							
	10/3/2006 12:00	R06100076-006	0.002	0.001	NM	NM	NM
	9/27/2007 19:18	R07090385-002	0.0021	0.0003	<0.0003	0.0003	NM
	11/12/2007 16:05	R07110146-010	0.0007	0.0003	<0.0003	0.0003	NM
	3/30/2008 15:19	R08030315-004	0.0007	0.0003	<0.0003	0.0003	0.0007
	6/30/2008 13:45	R08070005-001	<0.0003	0.0003	<0.0003	0.0003	<0.0003
615 - Monitor Well, Screened Interval 2941 to 3029 ft AMSL							
	4/1/2008 14:34	R08040028-001	0.0026	0.0003	<0.0003	0.0003	0.0026
	4/21/2008 16:16	R08040250-004	0.0025	0.0003	<0.0003	0.0003	0.0025
	5/28/2008 19:20	R08050406-005	0.0024	0.0003	<0.0003	0.0003	0.0025
	6/25/2008 13:55	R08060452-002	0.0024	0.0003	<0.0003	0.0003	0.0023
	7/14/2008 11:50	R08070244-002	0.0025	0.0003	<0.0003	0.0003	0.0025
	8/20/2008 13:26	R08080332-004	0.0023	0.0003	<0.0003	0.0003	0.0023
	9/22/2008 16:30	R08090314-005	0.0026	0.0003	<0.0003	0.0003	0.0023
	10/20/2008 16:20	R08100295-010	0.0023	0.0003	0.0032	0.0003	0.0026
	11/18/2008 15:00	R08110211-013	0.0026	0.0003	<0.0003	0.0003	0.0022
	12/17/2008 11:27	R08120255-013	0.0023	0.0003	<0.0009	0.0009	0.0023
	1/20/2009 11:10	R09010301-004	0.0027	0.0003	<0.0003	0.0003	0.0026
	2/24/2009 15:45	R09020293-009	0.0025	0.0003	<0.0003	0.0003	0.0024
619 - Stock Well, Screened Interval Pending Confirmation							
	9/27/2007 17:45	R07090385-001	0.002	0.0003	<0.0003	0.0003	NM
	11/12/2007 14:25	R07110146-008	0.0015	0.0003	<0.0003	0.0003	NM
	3/24/2008 15:40	R08030253-002	0.0015	0.0003	<0.0003	0.0003	0.0018
	6/17/2008 18:10	R08060335-001	0.0016	0.0003	<0.0003	0.0003	0.0018
622 - Monitor Well, Screened Interval 2974.91 to 3040.91 ft AMSL							
	4/1/2008 14:56	R08040028-003	<0.0003	0.0003	<0.0003	0.0003	<0.0003
	4/21/2008 15:28	R08040250-003	0.0054	0.0003	0.0008	0.0003	0.0065
	5/28/2008 18:26	R08050406-004	0.0056	0.0003	0.0005	0.0003	0.0068
	6/25/2008 12:05	R08060452-001	0.0051	0.0003	<0.0003	0.0003	0.0059
	7/14/2008 12:35	R08070244-001	0.0052	0.0003	<0.0003	0.0003	0.0054
	8/20/2008 12:59	R08080332-003	0.005	0.0003	<0.0003	0.0003	0.005
	9/22/2008 16:00	R08090314-004	0.0055	0.0003	<0.0003	0.0003	0.005
	10/20/2008 15:42	R08100295-006	0.0052	0.0003	0.0004	0.0003	0.0059
	11/18/2008 14:30	R08110211-014	0.0055	0.0003	<0.0003	0.0003	0.0051
	12/17/2008 14:20	R08120255-008	<0.0003	0.0003	<0.0009	0.0009	<0.0003
	1/20/2009 10:51	R09010301-002	0.0029	0.0003	0.0003	0.0003	0.0056
	2/24/2009 15:31	R09020293-008	0.0053	0.0003	<0.0003	0.0003	0.0051
650 - Stock Well, Screened Interval Pending Confirmation							
	9/28/2007 19:00	R07100002-010	0.0019	0.0003	0.0014	0.0003	NM
	11/12/2007 15:30	R07110146-009	<0.0003	0.0003	<0.0003	0.0003	NM
	3/24/2008 9:00	R08030253-001	<0.0003	0.0003	0.0033	0.0003	0.0004
	5/30/2008 16:30	R08050427-004	<0.0003	0.0003	<0.0003	0.0003	<0.0003
705 - Monitor Well, Screened Interval 3368.42 to 3398.42 ft AMSL							
	1/18/2010 0:00	R10010180-001	<0.0003	0.0003	<0.0003	0.0003	<0.0003
	2/22/2010 0:00	R10020266-001	<0.0003	0.0003	0.0015	0.0003	<0.0003
	3/15/2010 0:00	R10030205-001	<0.0003	0.0003	<0.0003	0.0003	<0.0003
	4/21/2010 0:00	R10040303-001	<0.0003	0.0003	<0.0003	0.0003	<0.0003
	5/17/2010 0:00	R10050253-001	<0.0003	0.0003	<0.0003	0.0003	<0.0003
	6/22/2010 0:00	R10060444-001	<0.0003	0.0003	<0.0003	0.0003	<0.0003
	7/27/2010 0:00	R10070459-002	0.0007	0.0003	<0.0003	0.0003	<0.0003
	8/23/2010 0:00	R10080398-001	<0.0003	0.0003	<0.0003	0.0003	<0.0003
	9/28/2010 0:00	R10090519-001	<0.0003	0.0003	<0.0003	0.0003	<0.0003
	10/25/2010 0:00	R10100355-001	<0.0003	0.0003	<0.0003	0.0003	<0.0003
	11/15/2010 0:00	R10110179-002	<0.0003	0.0003	<0.0003	0.0003	0.0003
	12/14/2010 0:00	R10120179-001	<0.0003	0.0003	<0.0003	0.0003	<0.0003
3026 - Monitor Well, Screened Interval 3624.48 to 3654.48 ft AMSL							
	3/30/2008 18:45	R08030315-009	0.0151	0.0003	0.004	0.0003	0.0097
	4/22/2008 14:30	R08040287-003	0.015	0.0003	0.001	0.0003	0.0196
	5/28/2008 15:15	R08050406-003	0.0281	0.0003	0.0013	0.0003	0.0322
	6/24/2008 20:06	R08060427-006	0.0183	0.0003	0.0015	0.0003	0.0216
	7/13/2008 15:28	R08070220-001	0.0128	0.0003	<0.0003	0.0003	0.0151
	8/19/2008 16:25	R08080301-001	0.0106	0.0003	<0.0003	0.0003	0.0105
	9/23/2008 11:25	R08090356-008	0.0027	0.0003	<0.0003	0.0003	0.0029
	10/20/2008 13:15	R08100295-007	0.0045	0.0003	<0.0003	0.0003	0.0055
	11/18/2008 11:19	R08110211-007	0.0048	0.0003	<0.0003	0.0003	0.0044
	12/17/2008 12:46	R08120255-004	0.0045	0.0003	<0.0009	0.0009	0.0047
	1/20/2009 14:25	R09010301-010	0.0039	0.0003	0.0003	0.0003	0.0047
	2/24/2009 11:35	R09020293-003	0.0022	0.0003	<0.0003	0.0003	0.0025
Chilson Near							
13 - Domestic Well, Screened Interval 3045 to 3090 ft AMSL							
	10/3/2006 11:36	R06100076-005	<0.001	0.001	NM	NM	NM
	9/27/2007 15:45	R07090385-005	<0.0003	0.0003	<0.0003	0.0003	NM
	11/12/2007 12:15	R07110146-007	<0.0003	0.0003	<0.0003	0.0003	NM
	2/20/2008 14:41	R08020220-004	<0.0003	0.0003	<0.0003	0.0003	<0.0003
	5/19/2008 12:20	R08050251-002	<0.0003	0.0003	<0.0003	0.0003	<0.0003



**POWERTECH (USA) INC.**

Analyte				Gross Alpha			Lead 210 - Dissolved			
Maximum Contaminant Level (40 CFR 141.66)				15 pCi/L			none			
Measurement			Water Level	Sampling Method and Preservation	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ELI Lab ID	ft AMSL		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
680 - Monitor Well, Screened Interval 3265.94 to 3275.94 ft AMSL										
	1/30/2008 13:50	R08010296-001	3662.94	dedicated pump, ice	4090	19.7	1	17	2.5	1
	3/31/2008 15:15	R08040002-002	3662.59	dedicated pump, ice	6440	79.7	8.6	0	2.1	1
	4/21/2008 21:21	R08040250-007	3661.14	dedicated pump, ice	4270	62.3	7.4	32	8.7	1
	5/13/2008 16:06	R08050199-001	NM	dedicated pump, ice	6500	83.7	10.6	37.7	10.2	16
	5/21/2008 12:50	R08050321-002	NM	dedicated pump, ice	4500	64.8	6.9	61.8	22.9	35.7
	6/10/2008 10:50	R08060210-001	3660.82	dedicated pump, ice	4370	60.4	7.8	15.7	3.8	5.9
	7/7/2008 13:29	R08070115-002	NM	dedicated pump, ice	4280	68.1	8.8	26.5	5.1	7.9
	8/20/2008 10:23	R08080332-002	3661.92	dedicated pump, ice	4330	67.6	8.5	15.2	6.6	10.7
	9/22/2008 11:18	R08090314-001	3661.02	dedicated pump, ice	5470	73.7	7.4	14.3	5.6	9
	10/20/2008 12:05	R08100295-002	3660.84	dedicated pump, ice	4200	63	7	18.2	3.9	6.1
	11/18/2008 10:25	R08110211-005	3662.03	dedicated pump, ice	4410	69.5	10.2	9.3	2.7	4.4
	12/17/2008 13:50	R08120255-007	3661.24	dedicated pump, ice	5140	71.3	7.4	6.4	2.5	4
	1/20/2009 15:25	R09010301-011	3661.09	dedicated pump, ice	6730	79	8.1	5.4	2.6	4.2
	2/24/2009 13:35	R09020293-007	3661.24	dedicated pump, ice	5140	73.7	10.4	10.6	1.7	2.7
689 - Monitor Well, Screened Interval 2899.69 to 2914.69 ft AMSL										
	3/30/2008 17:25	R08030315-007	NM	flowing artesian, ice	64.3	5.1	3	-31	4.4	1
	4/21/2008 19:50	R08040250-005	NM	flowing artesian, ice	25.5	3.2	2.6	-2.4	8.1	1
	5/28/2008 22:25	R08050406-006	NM	flowing artesian, ice	34.9	3.6	2.2	6.3	5	8.2
	6/25/2008 18:18	R08060452-004	3685.48	flowing artesian, ice	36.5	3.7	2.8	-6.5	6.7	11.4
	7/1/2008 16:17	R08070035-006	3685.31	flowing artesian, ice	33.4	3.9	3.2	1.1	4.7	7.9
	7/14/2008 16:50	R08070244-008	3681.48	flowing artesian, ice	36	3.9	3	-0.4	5.5	9.2
	8/19/2008 19:18	R08080301-005	3681.68	flowing artesian, ice	36.4	4	3	2.1	6.4	10.7
	9/23/2008 13:43	R08090356-001	3681.52	flowing artesian, ice	30.9	4.2	3.8	3.8	5.4	9
	10/20/2008 14:46	R08100295-008	3680.55	flowing artesian, ice	40	3.9	2.5	-0.3	3.7	6.1
	11/18/2008 14:02	R08110211-011	3681.01	flowing artesian, ice	37.9	4.1	3.2	-1	2.6	4.4
	12/17/2008 11:02	R08120255-003	3680.32	flowing artesian, ice	54.6	4.8	2.8	1.7	2.4	4
	1/20/2009 13:05	R09010301-008	3682.86	flowing artesian, ice	52.8	4.4	2.8	-0.4	2.5	4.2
	2/24/2009 16:04	R09020293-010	3682.63	flowing artesian, ice	23.9	3.7	3.7	0.5	1.6	2.7
Chilson Downgradient										
2 - Domestic Well, Screened Interval 2905 to 2989 ft AMSL										
	9/26/2007 12:46	R07090384-002	NM	flowing artesian, ice	1.4	1	1	<1		1
	11/12/2007 9:25	R07110146-003	NM	flowing artesian, ice	8.7	1.1	1	<1		1
	2/12/2008 10:21	R08020130-001	NM	flowing artesian, ice	6.7	1.2	1	<1		1
	5/30/2008 15:21	R08050427-003	NM	flowing artesian, ice	8.2	3.3	4.4	3.1	4.9	8.2
42 - Domestic Well, Screened Interval Pending Confirmation										
	10/3/2006 10:18	R06100076-002	NM	flowing artesian, ice	560	3.2	1	NM		
	9/28/2007 11:34	R07100002-003	NM	flowing artesian, ice	371	5.4	1	<1		1
	11/12/2007 11:20	R07110146-006	NM	flowing artesian, ice	375	4.5	1	21	2.3	1
	2/5/2008 14:10	R08020052-004	NM	flowing artesian, ice	526	5.9	1	15	1.7	1
	5/30/2008 11:55	R08050427-002	NM	flowing artesian, ice	558	15.4	3.9	17.8	5.2	8.2
696 - Monitor Well, Screened Interval 3012.91 to 3027.91 ft AMSL										
	3/31/2008 13:41	R08040002-001	NM	flowing artesian, ice	3.9	2.6	3.9	-11.2	1.9	1
	4/22/2008 16:58	R08040287-007	NM	flowing artesian, ice	5.2	2.7	3.8	-4.9	11.8	1
	5/21/2008 11:55	R08050321-001	NM	flowing artesian, ice	14.3	3	3.1	-2.7	17.7	29.8
	6/24/2008 15:08	R08060427-002	NM	flowing artesian, ice	23.9	4	4	-5.3	6.7	11.4
	7/14/2008 15:10	R08070244-004	NM	flowing artesian, ice	4	2.6	3.8	-3	5.5	9.2
	8/20/2008 15:10	R08080332-006	NM	flowing artesian, ice	7.1	2.9	3.9	3.4	6.4	10.7
	9/23/2008 9:35	R08090356-006	3637.86	flowing artesian, ice	5.9	3.4	5	-1	5.3	9
	10/21/2008 8:45	R08100295-014	3637.17	flowing artesian, ice	9.8	2.8	3.3	-1	3.6	6.1
	11/18/2008 8:45	R08110211-002	3637.63	flowing artesian, ice	6.9	3.2	4.4	0	2.6	4.4
	12/17/2008 16:05	R08120255-012	3625.87	flowing artesian, ice	8.2	2.8	3.4	3.2	2.4	4
	1/20/2009 16:55	R09010301-013	3647.09	flowing artesian, ice	20.2	3.6	3.6	0.4	2.5	4.2
	2/24/2009 17:31	R09020293-015	3637.19	flowing artesian, ice	4.3	3.2	4.8	-0.3	1.6	2.7
697 - Monitor Well, Screened Interval 2918.3 to 2933.3 ft AMSL										
	3/30/2008 16:36	R08030315-006	3676.59	flowing artesian, ice	6.1	2.6	3.5	-23	3.8	1
	4/22/2008 16:02	R08040287-005	3677.29	flowing artesian, ice	8.4	2.7	3.3	-0.7	11.9	1
	5/21/2008 16:44	R08050321-005	3677.05	flowing artesian, ice	4.1	2	2.7	-4.3	16.7	28.2
	6/24/2008 18:20	R08060427-005	3678.25	flowing artesian, ice	11.9	2.8	3.2	0.5	6.8	11.4
	7/14/2008 15:52	R08070244-006	3678.11	flowing artesian, ice	6.9	2.4	3.1	-2	5.5	9.2
	8/20/2008 17:10	R08080332-008	3678.03	flowing artesian, ice	5.3	2.6	3.5	-2	6.3	10.7
	9/23/2008 11:45	R08090356-004	3677.27	flowing artesian, ice	6.3	3.1	4.4	-2	5.3	9
	10/21/2008 9:45	R08100295-011	3677.04	flowing artesian, ice	7.3	2.4	2.9	-2	3.6	6.1
	11/18/2008 13:35	R08110211-010	3677.04	flowing artesian, ice	12.7	3.2	3.9	-0.8	2.6	4.4
	12/17/2008 14:45	R08120255-009	3676.11	flowing artesian, ice	7.7	2.5	2.9	1.6	2.4	4
	1/20/2009 12:35	R09010301-006	3704.72	flowing artesian, ice	21.7	3.4	3.3	0.6	2.5	4.2
	2/24/2009 16:45	R09020293-012	3677.27	flowing artesian, ice	18.2	3.8	4.3	1	1.6	2.7
7002 - Monitor Well, Screened Interval Pending Confirmation										
	9/28/2007 17:48	R07100002-008	NM	flowing artesian, ice	45.6	2.3	1	<1		1
	11/12/2007 8:10	R07110146-001	NM	flowing artesian, ice	39.8	2.1	1	<1		1
	2/20/2008 8:30	R08020220-001	NM	flowing artesian, ice	91.4	9.6	7	13	2.4	1
	5/29/2008 10:44	R08050419-001	NM	flowing artesian, ice	29.5	6.5	7.4	-0.6	3.5	5.9





**POWERTECH (USA) INC.**

Analyte		Lead 210 - Suspended			Polonium 210 - Dissolved			Polonium 210 - Suspended		
Maximum Contaminant Level (40 CFR 141.66)		none			none			none		
Measurement		Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
680 - Monitor Well, Screened Interval 265.94 to 3275.94 ft AMSL										
	1/30/2008 13:50	R08010296-001	<1		1	1.7	1	1	<1	1
	3/31/2008 15:15	R08040002-002	-2		1	1.5	1.1	1	0.5	0.5
	4/21/2008 21:21	R08040250-007	-1	0.7	1	0.5	0.8	1	0.3	0.4
	5/13/2008 16:06	R08050199-001	20.3	36.4	60.5	2	1.5	1	9.1	4.9
	5/21/2008 12:50	R08050321-002	6.8	5.3	8.8	1.5	1.5	1	1.1	0.86
	6/10/2008 10:50	R08060210-001	12	6.5	10.6	0.4	0.7	1	1.3	0.57
	7/7/2008 13:29	R08070115-002	1.2	12.8	21.4	0.2	0.97	1	1.7	1.1
	8/20/2008 10:23	R08080332-002	-4	10.5	17.8	0.6	1	1	1	0.62
	9/22/2008 11:18	R08090314-001	4.5	4.7	7.8	0.2	0.89	1	0.54	0.56
	10/20/2008 12:05	R08100295-002	4.1	4.1	6.8	0.3	0.31	1	1.4	0.8
	11/18/2008 10:25	R08110211-005	-0.5	5.4	9	1	0.63	1	0.88	0.66
	12/17/2008 13:50	R08120255-007	5.9	6.3	10.4	0.7	0.49	1	2.8	1.2
	1/20/2009 15:25	R09010301-011	6.2	4.8	8	0.53	0.48	0.51	2	0.94
	2/24/2009 13:35	R09020293-007	4.1	3.4	5.7	0.069	0.23	0.45	0.64	0.53
689 - Monitor Well, Screened Interval 2899.69 to 2914.69 ft AMSL										
	3/30/2008 17:25	R08030315-007	0	0.5	1	1.1	1.1	1	0.6	0.45
	4/21/2008 19:50	R08040250-005	-0.3	0.5	1	0.7	0.8	1	0.6	0.71
	5/28/2008 22:25	R08050406-006	-2	10.5	17.7	-0.4	0.1	1	0.2	0.43
	6/25/2008 18:18	R08060452-004	1	4.4	7.4	0	0.4	1	0.1	0.24
	7/1/2008 16:17	R08070035-006	-3.9	5.8	9.9	0.3	0.7	1	-0.1	0.45
	7/14/2008 16:50	R08070244-008	-0.1	12.8	21.4	0.1	1.2	1	0	0.28
	8/19/2008 19:18	R08080301-005	-9	10.4	17.8	0.6	0.7	1	0.1	0.19
	9/23/2008 13:43	R08090356-001	0.2	4.7	7.8	0	1.2	1	0.16	0.35
	10/20/2008 14:46	R08100295-008	-0.2	4.1	6.8	0.1	0.26	1	0.1	0.31
	11/18/2008 14:02	R08110211-011	-0.6	5.4	9	0.2	0.31	1	-0.039	0.2
	12/17/2008 11:02	R08120255-003	1.4	6.2	10.4	0	0.2	1	0.3	0.49
	1/20/2009 13:05	R09010301-008	-6	4.7	8	-0.031	0.22	0.62	0.025	0.3
	2/24/2009 16:04	R09020293-010	-2	3.4	5.7	0.44	0.65	1	0.35	0.43
Chilson Downgradient										
2 - Domestic Well, Screened Interval 2905 to 2989 ft AMSL										
	9/26/2007 12:46	R07090384-002	<1		1	<1		1	<1	1
	11/12/2007 9:25	R07110146-003	<1		1	2	1.6	1	<1	1
	2/12/2008 10:21	R08020130-001	<1		1	2.1	2	1	<1	1
	5/30/2008 15:21	R08050427-003	1.4	5.2	8.7	0.1	0.9	1	0	0.31
42 - Domestic Well, Screened Interval Pending Confirmation										
	10/3/2006 10:18	R06100076-002	NM			NM			NM	
	9/28/2007 11:34	R07100002-003	57	7.7	1	<1		1	13	6.5
	11/12/2007 11:20	R07110146-006	<1		1	<1		1	1.1	0.34
	2/5/2008 14:10	R08020052-004	17	2	1	5.5	2.1	1	2	0.98
	5/30/2008 11:55	R08050427-002	14	5.4	8.7	1.6	1.4	1	0.3	0.5
696 - Monitor Well, Screened Interval 3012.91 to 3027.91 ft AMSL										
	3/31/2008 13:41	R08040002-001	0		1	0.6	0.7	1	0.5	0.4
	4/22/2008 16:58	R08040287-007	0	1.5	1	0.9	1.1	1	0.6	0.55
	5/21/2008 11:55	R08050321-001	2.1	5.3	8.8	-0.2	0.4	1	0	0.24
	6/24/2008 15:08	R08060427-002	5.6	4.5	7.4	0.2	0.6	1	0.5	0.5
	7/14/2008 15:10	R08070244-004	1.1	12.8	21.4	-0.1	0.43	1	0	0.17
	8/20/2008 15:10	R08080332-006	0.2	10.6	17.8	-0.3	0.1	1	0.1	0.36
	9/23/2008 9:35	R08090356-006	-0.9	5.5	9.2	0	0.89	1	-0.062	0.25
	10/21/2008 8:45	R08100295-014	-0.7	4	6.8	0.1	0.24	1	0	0.24
	11/18/2008 8:45	R08110211-002	-6	5.3	9	0.2	0.33	1	-0.11	0.33
	12/17/2008 16:05	R08120255-012	0.5	6.2	10.4	0	0.14	1	0	0.21
	1/20/2009 16:55	R09010301-013	-4	4.7	8	0	0.23	0.61	-0.035	0.18
	2/24/2009 17:31	R09020293-015	0.8	3.4	5.7	-0.094	0.25	0.72	0.045	0.36
697 - Monitor Well, Screened Interval 2918.3 to 2933.3 ft AMSL										
	3/30/2008 16:36	R08030315-006	-2.8	0.8	1	1.1	1.2	1	0.9	0.57
	4/22/2008 16:02	R08040287-005	0	1.2	1	0	0.4	1	0	0.24
	5/21/2008 16:44	R08050321-005	0	5.2	8.8	0	0.4	1	1.2	0.81
	6/24/2008 18:20	R08060427-005	2.9	4.4	7.4	-0.1	0.5	1	0	0.26
	7/14/2008 15:52	R08070244-006	3.6	12.8	21.4	-0.4	0.69	1	0.4	0.43
	8/20/2008 17:10	R08080332-008	-10	10.4	17.8	0.4	0.7	1	-0.2	0.26
	9/23/2008 11:45	R08090356-004	-1	4.6	7.8	-0.5	0.74	1	0.027	0.27
	10/21/2008 9:45	R08100295-011	-2	4	6.8	0.1	0.35	1	0.1	0.27
	11/18/2008 13:35	R08110211-010	-0.6	5.4	9	0	0.24	1	-0.004	0.2
	12/17/2008 14:45	R08120255-009	2.8	6.3	10.4	0.2	0.26	1	0.2	0.38
	1/20/2009 12:35	R09010301-006	2.9	5.1	8.5	-0.027	0.2	0.54	-0.01	0.18
	2/24/2009 16:45	R09020293-012	-2	3.4	5.7	0.034	0.28	0.62	-0.019	0.21
7002 - Monitor Well, Screened Interval Pending Confirmation										
	9/28/2007 17:48	R07100002-008	<1		1	1.3	1.2	1	<1	1
	11/12/2007 8:10	R07110146-001	<1		1	4.1	2.6	1	<1	1
	2/20/2008 8:30	R08020220-001	7.9	1.4	1	<1		1	<1	1
	5/29/2008 10:44	R08050419-001	-1.1	10.5	17.7	0.1	0.4	1	0.2	0.43



**POWERTECH (USA) INC.**

Analyte		Radium 226 - Dissolved			Radium 226 - Suspended			Radon			
Maximum Contaminant Level (40 CFR 141.66)		5 pCi/L			5 pCi/L			none			
Measurement		Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC	
Hydro ID	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	
680 - Monitor Well, Screened Interval 3265.94 to 3275.94 ft AMSL											
	1/30/2008 13:50	R08010296-001	1180	10.6	0.2	12.7	2.7	0.2	143000	670	100
	3/31/2008 15:15	R08040002-002	1150	4.9	0.1	1.9	0.3	0.1	71800	351	100
	4/21/2008 21:21	R08040250-007	1230	5.8	0.1	1.6	0.5	0.5	81000	371	100
	5/13/2008 16:06	R08050199-001	1430	6.6	-5000	13.2	2.3	1.7	151000	699	100
	5/21/2008 12:50	R08050321-002	1240	6.1	-5000	1	0.4	0.4	359000	1160	100
	6/10/2008 10:50	R08060210-001	1410	10.9	-5000	4.4	0.6	0.3	91700	525	100
	7/7/2008 13:29	R08070115-002	1280	6.7	-5000	5	0.9	0.6	72000	325	100
	8/20/2008 10:23	R08080332-002	1270	45.6	-5000	2.1	0.5	0.5	112000	530	100
	9/22/2008 11:18	R08090314-001	1440	8.2	-5000	5.1	0.7	0.4	72700	305	100
	10/20/2008 12:05	R08100295-002	1190	6.2	-5000	6.9	0.9	0.5	74300	385	100
	11/18/2008 10:25	R08110211-005	1430	6.7	0.2	1.7	0.4	0.4	86200	453	100
	12/17/2008 13:50	R08120255-007	1110	5.5	0.2	13.1	1.1	0.5	62200	293	100
	1/20/2009 15:25	R09010301-011	1360	7.5	-5000	13.3	1.1	0.5	48000	283	100
	2/24/2009 13:35	R09020293-007	1330	6.1	-5000	6.4	0.7	0.3	56800	334	100
689 - Monitor Well, Screened Interval 2899.69 to 2914.69 ft AMSL											
	3/30/2008 17:25	R08030315-007	7.9	0.5	0.2	2	0.5	0.3	1950	94.4	100
	4/21/2008 19:50	R08040250-005	4.2	0.4	0.1	0.02	0.3	0.4	1540	72.3	100
	5/28/2008 22:25	R08050406-006	5.7	0.5	-5000	0.5	0.4	0.5	1390	48.3	100
	6/25/2008 18:18	R08060452-004	5.5	0.6	-5000	-0.05	0.3	0.5	2520	109	100
	7/1/2008 16:17	R08070035-006	7.7	0.6	-5000	0.9	0.3	0.2	1820	66.7	100
	7/14/2008 16:50	R08070244-008	6.1	0.6	-5000	-0.4	0.2	0.6	1670	65.8	100
	8/19/2008 19:18	R08080301-005	4.4	0.5	-5000	-0.4	0.2	0.6	2520	127	100
	9/23/2008 13:43	R08090356-001	7.5	0.6	-5000	0.2	0.2	0.3	1520	74.9	100
	10/20/2008 14:46	R08100295-008	6.4	0.5	-5000	-0.4	0.2	0.5	2410	94	100
	11/18/2008 14:02	R08110211-011	6.6	0.5	0.2	-0.04	0.2	0.4	2580	108	100
	12/17/2008 11:02	R08120255-003	6.2	0.5	0.2	0.4	0.3	0.5	1130	62.1	100
	1/20/2009 13:05	R09010301-008	6.1	0.5	-5000	-0.4	0.2	0.5	1850	78.7	100
	2/24/2009 16:04	R09020293-010	5.4	0.4	-5000	-0.2	0.1	0.3	1810	86	100
Chilson Downgradient											
2 - Domestic Well, Screened Interval 2905 to 2989 ft AMSL											
	9/26/2007 12:46	R07090384-002	<0.2		0.2	2.2	0.6	0.2	NM		
	11/12/2007 9:25	R07110146-003	1.3	0.4	0.2	<0.2		0.2	674	70.4	100
	2/12/2008 10:21	R08020130-001	1.1	0.2	0.2	<0.2		0.2	792	122	100
	5/30/2008 15:21	R08050427-003	2.1	0.3	-5000	0.2	0.3	0.4	727	83.8	100
42 - Domestic Well, Screened Interval Pending Confirmation											
	10/3/2006 10:18	R06100076-002	87.6	3.1	0.2	NM			197000	581	100
	9/28/2007 11:34	R07100002-003	96.5	3.2	0.2	<0.2		0.2	NM		
	11/12/2007 11:20	R07110146-006	102	3.6	0.2	<0.2		0.2	132000	474	100
	2/5/2008 14:10	R08020052-004	100	3.6	0.2	5.1	1.6	0.2	175000	705	100
	5/30/2008 11:55	R08050427-002	100	2	-5000	-0.3	0.2	0.4	219000	691	100
696 - Monitor Well, Screened Interval 3012.91 to 3027.91 ft AMSL											
	3/31/2008 13:41	R08040002-001	1	0.2	0.1	0.6	0.2	0.2	190	63.4	100
	4/22/2008 16:58	R08040287-007	0.5	0.1	0.1	-0.2	0.2	0.4	185	48.3	100
	5/21/2008 11:55	R08050321-001	1.8	0.3	-5000	-0.1	0.2	0.5	497	138	100
	6/24/2008 15:08	R08060427-002	3.3	0.4	-5000	-0.4	0.2	0.5	517	136	100
	7/14/2008 15:10	R08070244-004	0.4	0.2	-5000	-0.4	0.2	0.6	228	49.3	100
	8/20/2008 15:10	R08080332-006	1.3	0.3	-5000	-0.1	0.3	0.5	343	86.3	100
	9/23/2008 9:35	R08090356-006	1.5	0.3	-5000	-0.2	0.2	0.4	214	61	100
	10/21/2008 8:45	R08100295-014	0.8	0.2	-5000	-0.3	0.3	0.5	260	60.4	100
	11/18/2008 8:45	R08110211-002	0.8	0.2	0.2	-0.3	0.2	0.4	222	82.9	100
	12/17/2008 16:05	R08120255-012	0.8	0.2	0.2	-0.1	0.2	0.5	182	48.8	100
	1/20/2009 16:55	R09010301-013	1	0.2	-5000	-0.4	0.2	0.5	250	58.2	100
	2/24/2009 17:31	R09020293-015	1.3	0.2	-5000	-0.2	0.1	0.3	234	66.2	100
697 - Monitor Well, Screened Interval 2918.3 to 2933.3 ft AMSL											
	3/30/2008 16:36	R08030315-006	1.5	0.3	0.2	0.6	0.3	0.3	323	76	100
	4/22/2008 16:02	R08040287-005	1.7	0.2	0.1	-0.1	0.2	0.3	284	49.9	100
	5/21/2008 16:44	R08050321-005	1.1	0.2	-5000	3.8	0.7	0.5	570	134	100
	6/24/2008 18:20	R08060427-005	0.8	0.2	-5000	-0.4	0.2	0.4	413	132	100
	7/14/2008 15:52	R08070244-006	0.9	0.2	-5000	-0.1	0.3	0.6	295	50	100
	8/20/2008 17:10	R08080332-008	1.2	0.3	-5000	-0.4	0.2	0.5	367	85.4	100
	9/23/2008 11:45	R08090356-004	1	0.2	-5000	0.2	0.3	0.4	313	61.3	100
	10/21/2008 9:45	R08100295-011	0.6	0.2	-5000	0.05	0.3	0.5	319	60.7	100
	11/18/2008 13:35	R08110211-010	1.7	0.3	0.2	-0.4	0.2	0.4	412	82.7	100
	12/17/2008 14:45	R08120255-009	1.2	0.2	0.2	-0.07	0.3	0.5	200	49.5	100
	1/20/2009 12:35	R09010301-006	0.9	0.2	-5000	-0.2	0.2	0.4	299	60.7	100
	2/24/2009 16:45	R09020293-012	5.6	0.4	-5000	-0.2	0.1	0.3	236	66.5	100
7002 - Monitor Well, Screened Interval Pending Confirmation											
	9/28/2007 17:48	R07100002-008	8.5	0.9	0.2	<0.2		0.2	NM		
	11/12/2007 8:10	R07110146-001	8.1	0.9	0.2	<0.2		0.2	938	74.1	100
	2/20/2008 8:30	R08020220-001	8.8	0.6	0.1	<0.9		0.9	752	50.6	100
	5/29/2008 10:44	R08050419-001	8	0.5	-5000	0	0.3	0.6	1270	109	100





**POWERTECH (USA) INC.**

Analyte			Thorium 230 - Dissolved			Thorium 230 - Suspended		
Maximum Contaminant Level (40 CFR 141.66)			none			none		
Measurement			Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
680 - Monitor Well, Screened Interval 265.94 to 3275.94 ft AMSL								
	1/30/2008 13:50	R08010296-001	<0.2		0.2	0.3	0.2	0.2
	3/31/2008 15:15	R08040002-002	0.2	0.2	0.2	0.2	0.2	0.2
	4/21/2008 21:21	R08040250-007	0.3	0.2	0.2	0.3	0.2	0.2
	5/13/2008 16:06	R08050199-001	0.1	0.1	0.2	0.4	0.9	0.2
	5/21/2008 12:50	R08050321-002	0.1	0.1	0.2	0	0.2	0.2
	6/10/2008 10:50	R08060210-001	0	0.04	0.2	0.1	0.1	0.2
	7/7/2008 13:29	R08070115-002	0	0.1	0.2	0.1	0.2	0.2
	8/20/2008 10:23	R08080332-002	0.2	0.2	0.2	0.2	0.2	0.2
	9/22/2008 11:18	R08090314-001	<0.2	0.2	0.2	0	0.05	0.2
	10/20/2008 12:05	R08100295-002	0	0.1	0.2	-0.1	0.05	0.2
	11/18/2008 10:25	R08110211-005	0.1	0.1	0.2	0.1	0.05	0.2
	12/17/2008 13:50	R08120255-007	0	0.1	0.2	-0.3	0.2	0.2
	1/20/2009 15:25	R09010301-011	0	0.1	0.2	-0.2	0.2	0.2
	2/24/2009 13:35	R09020293-007	-0.009	0.1	0.2	0.03	0.2	0.3
689 - Monitor Well, Screened Interval 2899.69 to 2914.69 ft AMSL								
	3/30/2008 17:25	R08030315-007	0.2	0.1	0.2	0.2	0.3	0.2
	4/21/2008 19:50	R08040250-005	0.1	0.1	0.2	0.3	0.2	0.2
	5/28/2008 22:25	R08050406-006	0	0.1	0.2	0.4	0.3	0.2
	6/25/2008 18:18	R08060452-004	0	0.1	0.2	0.4	0.2	0.2
	7/1/2008 16:17	R08070035-006	-0.1	0.1	0.2	0.1	0.2	0.2
	7/14/2008 16:50	R08070244-008	0	0.05	0.2	0.2	0.2	0.2
	8/19/2008 19:18	R08080301-005	0.1	0.09	0.2	0.2	0.2	0.2
	9/23/2008 13:43	R08090356-001	0	0.09	0.2	0.2	0.05	0.2
	10/20/2008 14:46	R08100295-008	0.1	0.1	0.2	-0.2	0.02	0.2
	11/18/2008 14:02	R08110211-011	0.2	0.2	0.2	-0.2	0.05	0.2
	12/17/2008 11:02	R08120255-003	0	0.1	0.2	0.1	0.2	0.2
	1/20/2009 13:05	R09010301-008	0	0.09	0.2	-0.2	0.2	0.2
	2/24/2009 16:04	R09020293-010	-0.001	0.07	0.2	0.2	0.3	0.3
Chilson Downgradient								
2 - Domestic Well, Screened Interval 2905 to 2989 ft AMSL								
	9/26/2007 12:46	R07090384-002	<0.2		0.2	<0.2		0.2
	11/12/2007 9:25	R07110146-003	<0.2		0.2	<0.2		0.2
	2/12/2008 10:21	R08020130-001	<0.2		0.2	<0.2		0.2
	5/30/2008 15:21	R08050427-003	0	0.1	0.2	0.1	0.2	0.2
42 - Domestic Well, Screened Interval Pending Confirmation								
	10/3/2006 10:18	R06100076-002	NM			NM		
	9/28/2007 11:34	R07100002-003	<0.2		0.2	<0.2		0.2
	11/12/2007 11:20	R07110146-006	0.5	0.3	0.2	0.2	0.09	0.2
	2/5/2008 14:10	R08020052-004	<0.2		0.2	<0.2		0.2
	5/30/2008 11:55	R08050427-002	0.1	0.1	0.2	0	0.2	0.2
696 - Monitor Well, Screened Interval 3012.91 to 3027.91 ft AMSL								
	3/31/2008 13:41	R08040002-001	0	0.1	0.2	0.2	0.2	0.2
	4/22/2008 16:58	R08040287-007	0	0.1	0.2	0.2	0.2	0.2
	5/21/2008 11:55	R08050321-001	0	0.1	0.2	0.1	0.2	0.2
	6/24/2008 15:08	R08060427-002	0	0.1	0.2	0	0.06	0.2
	7/14/2008 15:10	R08070244-004	0	0.1	0.2	0	0.2	0.2
	8/20/2008 15:10	R08080332-006	0	0.06	0.2	0	0.08	0.2
	9/23/2008 9:35	R08090356-006	0	0.08	0.2	-0.1	0.05	0.2
	10/21/2008 8:45	R08100295-014	0	0.1	0.2	-0.3	0.05	0.2
	11/18/2008 8:45	R08110211-002	0.2	0.2	0.2	0	0.05	0.2
	12/17/2008 16:05	R08120255-012	0.1	0.2	0.2	-0.2	0.2	0.2
	1/20/2009 16:55	R09010301-013	0.1	0.1	0.2	-0.1	0.2	0.2
	2/24/2009 17:31	R09020293-015	0.2	0.1	0.1	-0.04	0.2	0.3
697 - Monitor Well, Screened Interval 2918.3 to 2933.3 ft AMSL								
	3/30/2008 16:36	R08030315-006	0.4	0.2	0.2	0.1	0.1	0.2
	4/22/2008 16:02	R08040287-005	0	0.1	0.2	0.1	0.2	0.2
	5/21/2008 16:44	R08050321-005	0	0.1	0.2	0.3	0.2	0.2
	6/24/2008 18:20	R08060427-005	0	0.1	0.2	0.2	0.2	0.2
	7/14/2008 15:52	R08070244-006	0	0.08	0.2	0	0.2	0.2
	8/20/2008 17:10	R08080332-008	0.1	0.08	0.2	0	0.2	0.2
	9/23/2008 11:45	R08090356-004	0	0.08	0.2	-0.1	0.05	0.2
	10/21/2008 9:45	R08100295-011	0	0.08	0.2	-0.1	0.05	0.2
	11/18/2008 13:35	R08110211-010	0	0.1	0.2	0.1	0.05	0.2
	12/17/2008 14:45	R08120255-009	0.1	0.2	0.2	-0.2	0.2	0.2
	1/20/2009 12:35	R09010301-006	0	0.08	0.2	-0.2	0.2	0.2
	2/24/2009 16:45	R09020293-012	-0.03	0.05	0.1	0.05	0.2	0.3
7002 - Monitor Well, Screened Interval Pending Confirmation								
	9/28/2007 17:48	R07100002-008	<0.2		0.2	<0.2		0.2
	11/12/2007 8:10	R07110146-001	<0.2		0.2	<0.2		0.2
	2/20/2008 8:30	R08020220-001	<0.2		0.2	<0.2		0.2
	5/29/2008 10:44	R08050419-001	0.1	0.1	0.2	0	0.1	0.2



**POWERTECH (USA) INC.**

Analyte		Uranium - Dissolved		Uranium - Suspended		Uranium - Total	
Maximum Contaminant Level (40 CFR 141.66)		0.030 mg/L		0.030 mg/L		0.030 mg/L	
Measurement		Result RL		Result RL		Result RL	
Hydro ID	Date & Time Collected	ELI Lab ID	mg/L	mg/L	mg/L	mg/L	mg/L
680 - Monitor Well, Screened Interval 3265.94 to 3275.94 ft AMSL							
	1/30/2008 13:50	R08010296-001	0.172	0.0003	0.0008	0.0003	NM NM
	3/31/2008 15:15	R08040002-002	0.0569	0.0003	<0.0003	0.0003	0.0541 0.0003
	4/21/2008 21:21	R08040250-007	0.0303	0.0003	<0.0003	0.0003	0.0291 0.0003
	5/13/2008 16:06	R08050199-001	0.0213	0.0003	0.0004	0.0003	0.0238 0.0003
	5/21/2008 12:50	R08050321-002	0.026	0.0003	<0.0003	0.0003	0.0273 0.0003
	6/10/2008 10:50	R08060210-001	0.0227	0.0003	<0.0003	0.0003	0.0244 0.0003
	7/7/2008 13:29	R08070115-002	0.0186	0.0003	<0.0003	0.0003	0.0208 0.0003
	8/20/2008 10:23	R08080332-002	0.0188	0.0003	<0.0003	0.0003	0.018 0.0005
	9/22/2008 11:18	R08090314-001	0.0191	0.0003	<0.0003	0.0003	0.0177 0.0005
	10/20/2008 12:05	R08100295-002	0.0176	0.0003	<0.0003	0.0003	0.021 0.0003
	11/18/2008 10:25	R08110211-005	0.0196	0.0003	<0.0003	0.0003	0.0174 0.0003
	12/17/2008 13:50	R08120255-007	0.0199	0.0003	<0.0009	0.0009	0.0203 0.0003
	1/20/2009 15:25	R09010301-011	0.0205	0.0003	<0.0003	0.0003	0.022 0.0003
	2/24/2009 13:35	R09020293-007	0.0185	0.0003	<0.0003	0.0003	0.0206 0.0003
689 - Monitor Well, Screened Interval 2899.69 to 2914.69 ft AMSL							
	3/30/2008 17:25	R08030315-007	0.0032	0.0003	0.0005	0.0003	0.0041 0.0003
	4/21/2008 19:50	R08040250-005	0.0037	0.0003	<0.0003	0.0003	0.004 0.0003
	5/28/2008 22:25	R08050406-006	0.0043	0.0003	0.0004	0.0003	0.0117 0.0003
	6/25/2008 18:18	R08060452-004	0.0034	0.0003	0.0005	0.0003	0.006 0.0003
	7/1/2008 16:17	R08070035-006	0.0032	0.0003	<0.0003	0.0003	0.0073 0.0003
	7/14/2008 16:50	R08070244-008	0.0034	0.0003	<0.0003	0.0003	0.0041 0.0003
	8/19/2008 19:18	R08080301-005	0.0034	0.0003	<0.0003	0.0003	0.0034 0.0005
	9/23/2008 13:43	R08090356-001	0.003	0.0003	<0.0003	0.0003	0.003 0.0005
	10/20/2008 14:46	R08100295-008	0.0031	0.0003	<0.0003	0.0003	0.0035 0.0003
	11/18/2008 14:02	R08110211-011	0.0033	0.0003	<0.0003	0.0003	0.0031 0.0003
	12/17/2008 11:02	R08120255-003	0.005	0.0003	0.0011	0.0009	0.006 0.0003
	1/20/2009 13:05	R09010301-008	0.0035	0.0003	<0.0003	0.0003	0.0036 0.0003
	2/24/2009 16:04	R09020293-010	0.003	0.0003	<0.0003	0.0003	0.0032 0.0003
Chilson Downgradient							
2 - Domestic Well, Screened Interval 2905 to 2989 ft AMSL							
	9/26/2007 12:46	R07090384-002	<0.0003	0.0003	0.0003	0.0003	0.0004 0.0003
	11/12/2007 9:25	R07110146-003	<0.0003	0.0003	<0.0003	0.0003	NM NM
	2/12/2008 10:21	R08020130-001	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	5/30/2008 15:21	R08050427-003	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
42 - Domestic Well, Screened Interval Pending Confirmation							
	10/3/2006 10:18	R06100076-002	0.04	0.001	NM	NM	NM NM
	9/28/2007 11:34	R07100002-003	0.015	0.0003	0.0029	0.0003	NM NM
	11/12/2007 11:20	R07110146-006	0.0324	0.0003	<0.0003	0.0003	NM NM
	2/5/2008 14:10	R08020052-004	0.0194	0.0003	<0.0003	0.0003	0.0198 0.0003
	5/30/2008 11:55	R08050427-002	0.0142	0.0003	<0.0003	0.0003	0.0149 0.0003
696 - Monitor Well, Screened Interval 3012.91 to 3027.91 ft AMSL							
	3/31/2008 13:41	R08040002-001	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	4/22/2008 16:58	R08040287-007	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	5/21/2008 11:55	R08050321-001	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	6/24/2008 15:08	R08060427-002	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	7/14/2008 15:10	R08070244-004	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	8/20/2008 15:10	R08080332-006	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	9/23/2008 9:35	R08090356-006	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	10/21/2008 8:45	R08100295-014	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	11/18/2008 8:45	R08110211-002	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	12/17/2008 16:05	R08120255-012	<0.0003	0.0003	<0.0009	0.0009	<0.0003 0.0003
	1/20/2009 16:55	R09010301-013	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	2/24/2009 17:31	R09020293-015	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
697 - Monitor Well, Screened Interval 2918.3 to 2933.3 ft AMSL							
	3/30/2008 16:36	R08030315-006	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	4/22/2008 16:02	R08040287-005	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	5/21/2008 16:44	R08050321-005	<0.0003	0.0003	0.0007	0.0003	<0.0003 0.0003
	6/24/2008 18:20	R08060427-005	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	7/14/2008 15:52	R08070244-006	<0.0003	0.0003	<0.0003	0.0003	0.0003 0.0003
	8/20/2008 17:10	R08080332-008	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	9/23/2008 11:45	R08090356-004	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	10/21/2008 9:45	R08100295-011	<0.0003	0.0003	0.0006	0.0003	<0.0003 0.0003
	11/18/2008 13:35	R08110211-010	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	12/17/2008 14:45	R08120255-009	<0.0003	0.0003	<0.0009	0.0009	<0.0003 0.0003
	1/20/2009 12:35	R09010301-006	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
	2/24/2009 16:45	R09020293-012	<0.0003	0.0003	<0.0003	0.0003	<0.0003 0.0003
7002 - Monitor Well, Screened Interval Pending Confirmation							
	9/28/2007 17:48	R07100002-008	0.0007	0.0003	<0.0003	0.0003	NM NM
	11/12/2007 8:10	R07110146-001	0.0006	0.0003	<0.0003	0.0003	NM NM
	2/20/2008 8:30	R08020220-001	0.0006	0.0003	<0.0003	0.0003	0.0005 0.0003
	5/29/2008 10:44	R08050419-001	0.0005	0.0003	<0.0003	0.0003	0.0006 0.0003

ELI - Energy Laboratories, Inc.

NM - not measured

Exceeds National Primary Drinking Water Regulations,  
40 CFR 141.66 Maximum Contaminant Level

Data have been requested from ELI for inclusion in revised TR



**POWERTECH (USA) INC.**

Analyte					Gross Alpha			Lead 210 - Dissolved		
Maximum Contaminant Level (40 CFR 141.66)					15 pCi/L			none		
Measurement			Water Level	Sampling Method and Preservation	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ELI Lab ID	ft AMSL		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Unkpapa Upgradient										
703 - Domestic Well, Screened Interval 3355 to 3405 ft AMSL										
1/20/2009 15:05		R09010302-001	NM	dedicated pump, ice	42.6	6	5.4	1	2.5	4.2
Unkpapa Near										
690 - Monitor Well, Screened Interval 3069 to 3079 ft AMSL										
7/7/2008 18:10		R08070115-005	NM	flowing artesian, ice	4.8	3.6	5.4	1.8	4.7	7.9
693 - Monitor Well, Screened Interval 2695 to 2715 ft AMSL										
7/1/2008 19:39		R08070035-001	NM	flowing artesian, ice	2.8	3.8	6	1.3	4.7	7.9
Unkpapa Downgradient										
704 - Domestic Well, Screened Interval 2645 to 2685 ft AMSL										
9/23/2008 12:30		R08090356-003	NM	flowing artesian, ice	-3	4	7.4	1.1	5.4	9



**POWERTECH (USA) INC.**

Analyte			Lead 210 - Suspended			Polonium 210 - Dissolved			Polonium 210 - Suspended		
Maximum Contaminant Level (40 CFR 141.66)			none			none			none		
Measurement			Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Unkpapa Upgradient											
703 - Domestic Well, Screened Interval 3355 to 3405 ft AMSL											
	1/20/2009 15:05	R09010302-001	1.1	4.8	8	-0.015	0.19	0.53	0.047	0.27	0.58
Unkpapa Near											
690 - Monitor Well, Screened Interval 3069 to 3079 ft AMSL											
	7/7/2008 18:10	R08070115-005	-5.7	12.7	21.4	0.7	1.1	1	0.1	0.31	1
693 - Monitor Well, Screened Interval 2695 to 2715 ft AMSL											
	7/1/2008 19:39	R08070035-001	-1.3	5.9	9.9	0.3	0.6	1	0	0.29	1
Unkpapa Downgradient											
704 - Domestic Well, Screened Interval 2645 to 2685 ft AMSL											
	9/23/2008 12:30	R08090356-003	-3	4.6	7.8	0.3	0.8	1	-0.015	0.21	



**POWERTECH (USA) INC.**

Analyte			Radium 226 - Dissolved			Radium 226 - Suspended			Radon		
Maximum Contaminant Level (40 CFR 141.66)			5 pCi/L			5 pCi/L			none		
Measurement			Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Unkpapa Upgradient											
703 - Domestic Well, Screened Interval 3355 to 3405 ft AMSL											
	1/20/2009 15:05	R09010302-001	0.4	0.2	-5000	-0.4	0.2	0.5	153	57.7	100
Unkpapa Near											
690 - Monitor Well, Screened Interval 3069 to 3079 ft AMSL											
	7/7/2008 18:10	R08070115-005	0.2	0.1	-5000	-0.3	0.2	0.5	194	50	100
693 - Monitor Well, Screened Interval 2695 to 2715 ft AMSL											
	7/1/2008 19:39	R08070035-001	0.6	0.2	-5000	0.2	0.2	0.3	424	49.7	100
Unkpapa Downgradient											
704 - Domestic Well, Screened Interval 2645 to 2685 ft AMSL											
	9/23/2008 12:30	R08090356-003	0.04	0.1	-5000	-0.2	0.1	0.4	188	59.3	100



**POWERTECH (USA) INC.**

Analyte			Thorium 230 - Dissolved			Thorium 230 - Suspended		
Maximum Contaminant Level (40 CFR 141.66)			none			none		
Measurement			Result	Precision +/-	RL/MDC	Result	Precision +/-	RL/MDC
Hydro ID	Date & Time Collected	ELI Lab ID	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Unkpapa Upgradient								
703 - Domestic Well, Screened Interval 3355 to 3405 ft AMSL								
	1/20/2009 15:05	R09010302-001	0.1	0.09	0.2	-0.2	0.2	0.2
Unkpapa Near								
690 - Monitor Well, Screened Interval 3069 to 3079 ft AMSL								
	7/7/2008 18:10	R08070115-005	0	0.1	0.2	0	0.2	0.2
693 - Monitor Well, Screened Interval 2695 to 2715 ft AMSL								
	7/1/2008 19:39	R08070035-001	0	0.05	0.2	0	0.2	0.2
Unkpapa Downgradient								
704 - Domestic Well, Screened Interval 2645 to 2685 ft AMSL								
	9/23/2008 12:30	R08090356-003	0	0.1	0.2	0.3	0.05	0.2



**POWERTECH (USA) INC.**

Analyte			Uranium - Dissolved		Uranium - Suspended		Uranium - Total	
Maximum Contaminant Level (40 CFR 141.66)			0.030 mg/L		0.030 mg/L		0.030 mg/L	
Measurement			Result RL		Result RL		Result RL	
Hydro ID	Date & Time Collected	ELI Lab ID	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Unkpapa Upgradient								
703 - Domestic Well, Screened Interval 3355 to 3405 ft AMSL								
	1/20/2009 15:05	R09010302-001	0.0003	0.0003	<0.0003	0.0003	<0.0003	0.0003
Unkpapa Near								
690 - Monitor Well, Screened Interval 3069 to 3079 ft AMSL								
	7/7/2008 18:10	R08070115-005	<0.0003	0.0003	<0.0003	0.0003	<0.0003	0.0003
693 - Monitor Well, Screened Interval 2695 to 2715 ft AMSL								
	7/1/2008 19:39	R08070035-001	<0.0003	0.0003	<0.0003	0.0003	<0.0003	0.0003
Unkpapa Downgradient								
704 - Domestic Well, Screened Interval 2645 to 2685 ft AMSL								
	9/23/2008 12:30	R08090356-003	<0.0003	0.0003	<0.0003	0.0003	<0.0003	0.0003

ELI - Energy Laboratories, Inc.

NM - not measured

Exceeds National Primary Drinking Water Regulations,  
40 CFR 141.66 Maximum Contaminant Level

Data have been requested from ELI for inclusion in revised TR

## **APPENDIX 2.9-K**

### **Radionuclide Concentrations in Sediment**





Analyte			Lead 210			Radium 226			Thorium 230			Uranium	
Measurement			Result	Precision +/-	MDC	Result	Precision +/-	MDC	Result	Precision +/-	MDC	Result	RL
Site	Date & Time Collected	ELI Lab ID	pCi/g-dry	pCi/g-dry	pCi/g-dry	pCi/g-dry	pCi/g-dry	pCi/g-dry	pCi/g-dry	pCi/g-dry	pCi/g-dry	mg/kg-dry	mg/kg-dry
Sub01S - stock pond													
	6/18/2008 12:05	R08060358-001	0.5	2	3.4	1.2	0.2	0.1	0.7	0.2	0.1	2.2	0.5
	8/21/2008 15:55	R08080356-018	1	0.7	1.1	1.1	0.1	0.09	1	0.03	0.1	3.3	0.5
Sub02S - Triangle Mine Pit													
	6/18/2008 13:15	R08060358-002	2.8	2.1	3.3	3.9	0.3	0.1	2.9	0.7	0.1	18	0.5
	8/21/2008 15:31	R08080356-017	3.1	0.7	1.1	1.3	0.2	0.09	6.8	0.07	0.1	19	0.5
Sub03S - mine dam													
	6/18/2008 14:10	R08060358-003	3.9	2.1	3.3	4.1	0.3	0.1	2.1	0.6	0.1	7.2	0.5
	8/21/2008 10:56	R08080356-008	3.2	0.7	1.1	1.1	0.2	0.09	1.9	0.04	0.1	4.2	0.5
Sub04S - stock pond													
	6/17/2008 14:10	R08060341-006	1.2	2	3.3	2.5	0.2	0.1	0.9	0.2	0.1	6.5	0.5
	8/21/2008 11:09	R08080356-009	2.1	0.7	1.1	0.7	0.1	0.09	1.8	0.04	0.1	5.1	0.5
Sub05S - mine dam													
	6/18/2008 15:15	R08060358-004	4.2	2.1	3.3	4.2	0.3	0.1	2.4	0.5	0.1	8.5	0.5
	8/21/2008 10:46	R08080356-007	2.8	0.7	1.1	3	0.2	0.09	2.3	0.04	0.1	6	0.5
Sub06S - Darrow Mine Pit Northwest													
	6/23/2008 13:50	R08060402-003	9.6	2.2	3.4	8.6	0.4	0.1	7.8	1.6	0.1	37	0.5
	8/21/2008 10:36	R08080356-006	4	0.7	1.1	5.2	0.3	0.09	5.9	0.07	0.1	32	0.5
Sub07S - stock dam													
	6/23/2008 14:35	R08060402-004	0.6	2	3.3	0.7	0.1	0.1	0.5	0.2	0.1	1.7	0.5
	8/21/2008 10:09	R08080356-005	1.9	0.7	1.1	0.4	0.1	0.1	0.9	0.03	0.1	2.2	0.5
Sub08S - stock pond													
	6/23/2008 12:25	R08060402-001	0.6	2.1	3.4	0.6	0.1	0.1	0.4	0.1	0.1	1.2	0.5
	8/21/2008 15:12	R08080356-016	1.7	0.7	1.1	0.4	0.1	0.09	0.8	0.02	0.1	1.9	0.5
Sub09S - stock pond													
	6/23/2008 12:55	R08060402-002	1.5	2	3.3	1	0.2	0.1	0.7	0.2	0.1	2.4	0.5
	8/21/2008 15:01	R08080356-015	1.7	0.7	1.1	0.6	0.1	0.09	0.9	0.03	0.1	2.3	0.5
Sub10S - stock pond													
	6/23/2008 16:30	R08060402-007	1.5	2.1	3.4	0.8	0.1	0.1	0.7	0.3	0.1	1.5	0.5
	8/21/2008 9:38	R08080356-003	0.9	0.7	1.1	0.6	0.1	0.09	0.7	0.03	0.1	2.1	0.5
Sub11S - stock pond													
	6/23/2008 15:15	R08060402-005	2.1	2.1	3.4	0.8	0.1	0.1	0.5	0.2	0.1	2.7	0.5
	8/21/2008 9:56	R08080356-004	1.5	0.7	1.1	0.6	0.1	0.08	0.8	0.03	0.1	1.8	0.5
BVC01S - Beaver Creek downstream													
	6/17/2008 11:00	R08060341-002	0.5	2	3.3	1.3	0.2	0.1	0.8	0.2	0.1	2	0.5
	8/21/2008 13:36	R08080356-012	2.6	0.7	1.1	0.6	0.1	0.09	1.2	0.03	0.1	2	0.5
BVC04S - Beaver Creek upstream													
	6/17/2008 12:17	R08060341-004	1.9	2.1	3.4	1.5	0.2	0.1	0.7	0.2	0.1	2	0.5
	8/21/2008 14:23	R08080356-014	1.8	0.7	1.1	1	0.1	0.09	1	0.03	0.1	2	0.5
CHR01S - Cheyenne River upstream													
	6/17/2008 11:35	R08060341-003	0.2	2	3.3	1	0.2	0.1	0.6	0.2	0.1	1.7	0.5
	8/21/2008 13:52	R08080356-013	1.7	0.6	1.1	0.9	0.1	0.09	1.4	0.03	0.1	2.7	0.5
CHR05S - Cheyenne River downstream													
	6/17/2008 10:40	R08060341-001	1.7	2	3.3	2.1	0.2	0.1	1.9	0.4	0.1	6.2	0.5
	8/21/2008 13:13	R08080356-011	1.3	0.7	1.1	0.6	0.1	0.09	0.5	0.02	0.1	1.2	0.5
PSC01S - Pass Creek downstream													
	6/17/2008 12:50	R08060341-005	4.7	2.1	3.3	2.9	0.3	0.1	2	0.5	0.1	3.9	0.5
	8/21/2008 11:24	R08080356-010	4	0.7	1.1	1.8	0.2	0.08	4.1	0.06	0.1	6.5	0.5
PSC02S - Pass Creek upstream													
	6/17/2008 15:30	R08060341-007	1.2	2	3.3	0.6	0.1	0.1	0.4	0.1	0.1	1.1	0.5
	8/21/2008 16:16	R08080356-019	0.4	0.6	1.1	0.4	0.1	0.09	0.4	0.02	0.1	1	0.5
UNT01S - Unnamed Tributary													
	6/23/2008 16:00	R08060402-006	2.2	2.1	3.4	0.8	0.1	0.1	0.5	0.2	0.1	2	0.5
	8/21/2008 9:23	R08080356-002	1.7	0.7	1.1	0.7	0.1	0.09	1	0.03	0.1	2.5	0.5
BEN01S - Bennett Canyon													
	6/23/2008 17:30	R08060402-008	2.3	2.1	3.4	0.6	0.1	0.1	0.6	0.2	0.1	1.8	0.5
	8/21/2008 9:02	R08080356-001	2	0.7	1.1	0.6	0.1	0.08	0.5	0.02	0.1	2.4	0.5

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