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Remediation & Disposal Report

Prepared for:

**County of Los Alamos Department of Public Utilities
907 Trinity Drive
P.O. Drawer 1030
Los Alamos, NM 87544**

Report Date:
February 9, 2010

SHC Job # H9162

Prepared by:

Southwest Hazard Control Inc.
1953 West Grant Rd.
Tucson, AZ 85745

33510





Southwest HAZARD CONTROL

"Solving Environmental Concerns Efficiently, Effectively & Ethically"

REMEDIATION AND DISPOSAL REPORT

A. Contractor Information:

Contractor Name and Address: Southwest Hazard Control, Inc. (SHC)
1953 West Grant Road
Tucson, AZ 85745

SHC Project Manager: Jeffrey Zenan
SHC Job ID #: H9162
Phone #: 520-622-3607 x132 Fax #: 520-622-3643

B. Client Information:

Client Name and Address: Road Construction Southwest, Inc.
107 Central Park Square #248
Los Alamos, NM 87544

Client Contact: Matt Wagester
Client Project ID #: PO# 1
Phone #: 425-254-9999 x31 Fax #: 425-254-1334

C. Generator Information:

Same as Client? No
Generator Name and Address: County of Los Alamos Department of Public Utilities
901 Trinity Drive
P.O. Drawer 1030
Los Alamos, NM 87544

Generator Contact: Andrew Alarid
Generator Project ID #: Andrew Alarid
Phone #: 505-662-8135 Fax #:

D. Facility Location:

Site Description: Bayo Wastewater Treatment Plant
3500 Pueblo Canyon Road
Los Alamos, NM 87544

Contact Person: Duncan Blumberg (Road Construction Southwest)
Phone #: 480-388-4032 Fax #:

E. On Scene Information:

1. Contractor Personnel On Scene:
 - a. Project Manager: Jeffrey Zenan
 - b. Supervisors: Eric Donaldson
 - c. Technicians: Oscar Vega
Mark Green
 - d. Equipment Operators: Provided by Road Construction Southwest
2. Time of Arrival: NA
3. Date of Arrival: 12/02/2009 (Filter/Seal Removal)
12/03/2009 (Mercury Spill Cleanup)
4. Additional On Scene Personnel: Duncan Blumberg
Vice President/Project Superintendent
Road Construction Southwest, Inc.

James Alarid
Deputy Utilities Manager
County of Los Alamos Department of Public Utilities

G. Pete Padilla
Environmental Compliance Specialist
County of Los Alamos Department of Public Utilities

F. Equipment/Materials Being Used, PPE Involved, and Vehicles:

- Crew Cab Response Trucks
- Level C&D PPE
- Roll-Off Truck & Containers
- Man lift
- Excavator
- Welding/Torch Kit & Saw
- Manifests & Labels
- Jerome Mercury Vapor Analyzer
- Mercury Vacuum
- 1H2 30-gallon
- Towels
- 6mil Plastic Bags
- 20x100 6 mil Poly
- Hand Tools

G. On Site Remedial Actions:

December 2nd 2009

SHC mobilized personnel and equipment and traveled from Tucson, AZ to Los Alamos, NM to remove and dispose of mercury at the former Bayo Wastewater Treatment Plant. The mercury was contained in seals inside of the rotating equipment used in two trickling ponds. The former Bayo Wastewater Treatment Plant was being demolished by Road Construction Southwest, Inc. and *SHC* was contracted to remove the mercury from the seals prior to the demolition of the trickling ponds.

The trickling ponds consisted of rotating equipment that originally had four arms. Effluent would pass from 12" diameter feeder pipes into the rotating equipment and the effluent would be spread out through the arms onto river rock. The river rock was approximately 7ft deep and was contained within a pond with an approximate diameter of 60 feet. The river rock served as the filter media for the pond.

SHC was provided information from the County of Los Alamos Department of Public Utilities that there had been no previous leaks in the seal and that all of the mercury was contained with

the rotating equipment on the filters. An EIMCO Corporation Engineering Materials List and engineering specs for the rotating equipment were provided to *SHC* by County of Los Alamos personnel. The materials list stated that 134lbs of elemental mercury had been used in the seals; however, it was unknown at the time whether or not each seal had 134lbs of mercury or if a total of 134lbs of mercury was used in the filters.

SHC had originally planned to plug the feeder pipe from the top of the vertical column to prevent mercury from falling into the pipe when the rotating equipment was dismantled. Upon arriving at the site, it was observed that a horizontal section of the feeder pipe could be removed. This would leave an opening a couple feet from where the feeder pipe bent vertically to the rotating equipment and would allow *SHC* personnel to remove any mercury that fell into the feeder pipe and would eliminate the difficulties with plugging the pipe. A Road Construction Southwest operator used an excavator and a saw to remove the 20ft section of feeder pipe. The operator and equipment then moved to the adjacent western trickling pond to do the same with the horizontal section of feeder pipe in that trickling pond.

SHC personnel began the mercury removal process on the most eastern filter by laying out 6mil plastic sheeting around the vertical column that supported the rotating equipment. This would serve as a secondary containment around the filter. A 6mil plastic bag was placed on the end of the recently exposed feeder pipe to prevent any mercury from falling onto the ground. Finally, an additional containment and splash guard was erected around the base of the rotating equipment at the top of the vertical support column using a man lift.

Prior to removing the rotating equipment, *SHC* personnel donned level C PPE and tried to drain mercury from a drain listed on the engineering plans; however no mercury would drain from the plug.

Welding/torching equipment was used to remove the bolts securing the rotating equipment to a stationary section of the filter equipment. Using the man lift, *SHC* personnel connected a chain to the top section and central section of the rotating equipment; using the excavator these sections were removed from the top of the vertical support column and were placed within the secondary containment on the ground.

SHC personnel observed that the majority of the mercury was found in the central section of the rotating equipment and in the stationary section still attached to the vertical support column. A mercury vacuum was used to remove the visible mercury from the top section of the rotating equipment and *SHC* personnel decontaminated the equipment using a Tide™ solution. The equipment was monitored for mercury vapors using a Jerome Mercury Vapor Analyzer and was found to have vapor concentrations below the OSHA PEL of 0.1 mg/m³. The equipment was determined to be sufficiently decontaminated for recycling and was placed into the sites scrap metal recycling bin.

The mercury vacuum was used to remove the mercury from inside the central section of rotating equipment and the stationary section. The stationary section was also removed from the central support column and placed within the secondary containment area. Both sections were monitored for mercury vapors and were found to have concentrations considered too high to be recycled. Each piece would require additional decontamination before they could be recycled.

The mercury captured by the mercury vacuum was collected into 16oz glass jars. Eight jars with a total weight of approximately 70lbs (later weighed and revised from the original estimate of 90lbs) were used for the eastern filter. Due to the fact that this was approximately half of the 134lbs listed on the materials list, *SHC* believed that there was a total of 134lbs of mercury placed in the two filters.

Any mercury that had spilt into the feeder pipe during the dismantling process was vacuumed up. Potentially contaminated plastic from the secondary containment and PPE was placed into bags

for disposal.

Upon arriving at the western filter, *SHC* personnel observed several areas of the concrete floor where mercury had been spilt. After some investigation, it was determined that the mercury had spilt from the feeder pipe when the 20ft section of pipe was removed. Close inspection of the feeder pipe still attached to the vertical support column and of the section of feeder pipe on the ground found that there was mercury located under a layer of sludge and ice within the pipes. Due to the amount of mercury on the ground and where the mercury was located, *SHC* determined that the mercury had leaked into the pipe prior to *SHC*'s arrival on the site and prior to Road Construction Southwest's demolition. The fact that the mercury was found underneath a layer of sludge and underneath a layer of ice several feet along the horizontal sections of the feeder pipe supports this determination. Road Construction Southwest, Inc. and the County of Los Alamos were notified of the spill and would come out to the site to observe the site.

The spill area was blocked off while *SHC* personnel began dismantling the rotating equipment on the western filter. Using the same process as before, *SHC* personnel removed the top and central sections of the rotating equipment from the vertical support column. As before, the majority of the visible mercury was found in the stationary section still attached to the support column. The top and central sections were decontaminated and after being monitored and found suitable for recycling, were placed in the scrap metal recycling bin. The mercury vacuum was used to remove the mercury from the stationary section. Unlike the eastern filter, significantly less mercury was removed from the rotating equipment on the western filter.

James Alarid and Pete Padilla, from the County of Los Alamos, arrived at the site to observe the spill area. *SHC* personnel explained to Mr. Alarid and Mr. Padilla that due to the fact *SHC* had been told that there had never been any leaks in the filter equipment, the leak would not have been discovered until later after *SHC* had returned to Tucson if *SHC* had gone through with the original plan of simply plugging the feeder pipe from the top of the support column. The spill would still have occurred later when the feeder pipe was demolished. After observing the spill area and source of the spill, James Alarid approved an additional scope of work to have *SHC* clean up the spill the following day and dispose of the contaminated material that included any river rock that may have been contaminated.

SHC coordinated with Chemical Transportation Inc. (CTI) to bring a 20yd roll-off container to the site. *SHC* personnel would return the following day to clean up the mercury spill. The larger areas of visible mercury on the concrete floor were vacuumed prior to *SHC* leaving the site for the day.

December 3rd 2009

SHC returned to the site to clean up the mercury spill around the western filter. *SHC* personnel donned level C PPE and removed contaminated rock, brick, and dirt from two concrete channels that went around and extended out from the filter. The contaminated material was stockpiled on the concrete until the roll-off container arrived. Mercury was found inside the channel in several areas and potentially contaminated material was removed until there was no further evidence that the leak had spread.

Visible mercury was vacuumed up from the channels and floor of the trickling pond. The area was also swept to move any remaining mercury missed by the vacuum into the stockpile. Due to the freezing temperatures, mercury vapor monitoring was unpractical and was not done.

The 20ft section of feeder pipe that was removed was inspected for additional mercury contamination. After inspection it appeared that only half of the pipe was potentially contaminated. Road Construction Southwest personnel used a saw and cut the pipe in half. Half of the pipe was found to be free of any mercury contamination. *SHC* personnel attempted to decontaminate the other 10ft section of feeder pipe, however, *SHC* found areas that could not be

decontaminated. The contaminated pipe would be placed in the roll-off for disposal.

SHC personnel removed the sludge from inside the section of feeder pipe connected to the vertical support column. After removing a top layer of sludge, *SHC* personnel found a pool of elemental mercury approximately 12" in diameter and ½" deep in the bottom of the vertical section of feeder pipe. An estimated 20-25lbs of mercury was removed from the pipe using the mercury vacuum. This large pool of mercury found under the sludge and ice supports the determination that the leak in the mercury seal occurred prior to demolition and may have in fact been several years old.

A composite sample was collected from the sludge and dirt on the site and would be analyzed for concentrations of total mercury. It should be noted that due to the fact that the majority of the roll-off container consists of rock and metal that could not be sampled; this sample was not a true representative sample of the entire waste stream.

CTI arrived on site with a 20yd roll-off container. The contaminated rock, brick, dirt, and pipe generated from the spill cleanup were placed in the roll-off container. The stationary sections from both filters and the central section from the eastern filter were placed in the roll-off container as contaminated debris along with any PPE and plastic containment used the previous day. Once loaded and covered, the CTI driver moved the roll-off container to an area near the site entrance for storage.

SHC personnel decontaminated the bucket of the excavator used to load the material and packed up supplies to return to Tucson. No remaining evidence of the mercury spill was found and *SHC* recommends that no further remedial actions be taken regarding the incident. An approximate total of 133.5lbs of mercury was collected in jars by the mercury vacuum and was lab packed into a 30-gallon container that would be brought back to *SHC* for disposal at a permitted facility.

December 29th 2009 – January 20th 2010

SHC personnel completed the required application (EPA Form 8700-12) for the County of Los Alamos to obtain an EPA ID number for the former Bayo Wastewater Treatment Plant site. An EPA ID number was required to facilitate the disposal of the 20yd roll-off container of mercury contaminated debris. The EPA ID number issued for the site is NMR000015214.

January 27th 2010

SHC received approval from US Ecology in Beatty, NV to dispose of the 20 yd roll-off container of mercury contaminated debris at their facility.

February 3rd - 4th 2010

CTI transported the 20yd roll-off container of mercury contaminated debris to US Ecology in Beatty, NV for disposal.

Attachment A: Site Photos

Attachment B: EIMCO Corporation Engineering Materials List

Attachment C: Test America Analytical Results

Attachment D: Disposal Documents for Mercury Removed from Trickling Filters

Attachment E: Disposal Documents for Mercury Contaminated Debris

H. Hazardous & Non-Hazardous Materials for Disposal:

HM	Material	Container Type and Size	Qty	LP or Bulk	Description
Yes	Waste Mercury	1H2 30-gallon drum	210 lbs	LP	Mercury removed from two trickling filters
Yes	Mercury Contaminated Debris	20 yd Roll-off Container	5.3 Tons/ 10 Yards	Bulk	Contaminated debris from mercury spill

Disposal Facilities:

Philip Reclamation Services, Houston
4050 Homestead Road
Houston, TX 77028
713-674-2406
EPA ID# TXD074196338

US Ecology Nevada, INC.
P.O. Box 578
Beatty, NV 89003
Highway 95 – 12 mi south of Beatty, NV
1-800-239-3943
EPA ID# NVT330010000

I. Certification Statement:

I certify for Southwest Hazard Control, Inc., under penalty of law that this document and all attachments are, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations.



HazMat Project Manager



Reviewed by

Attachment A

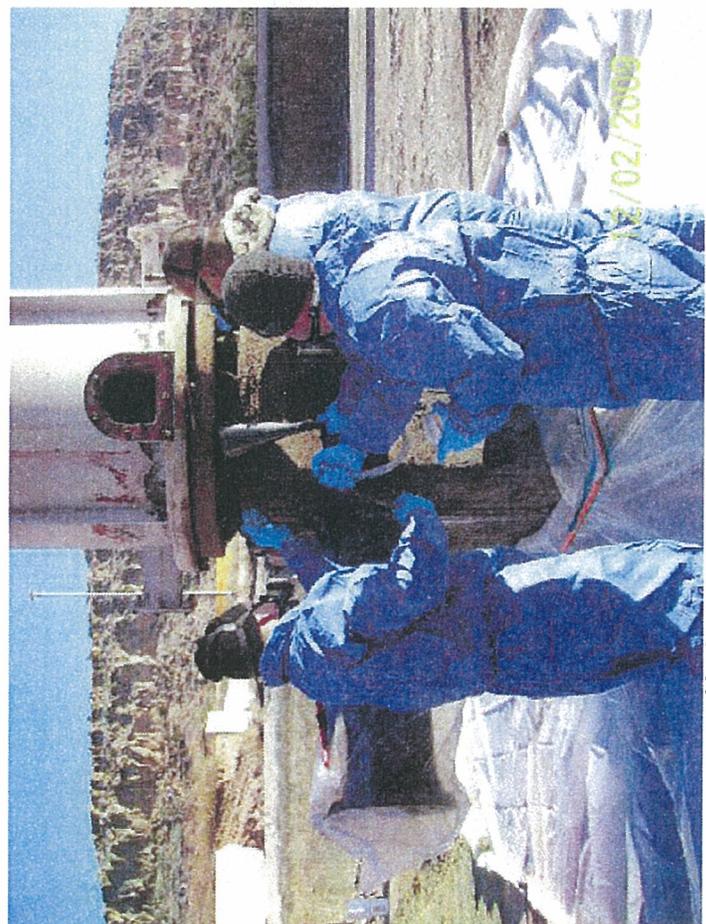
(Site Photos)



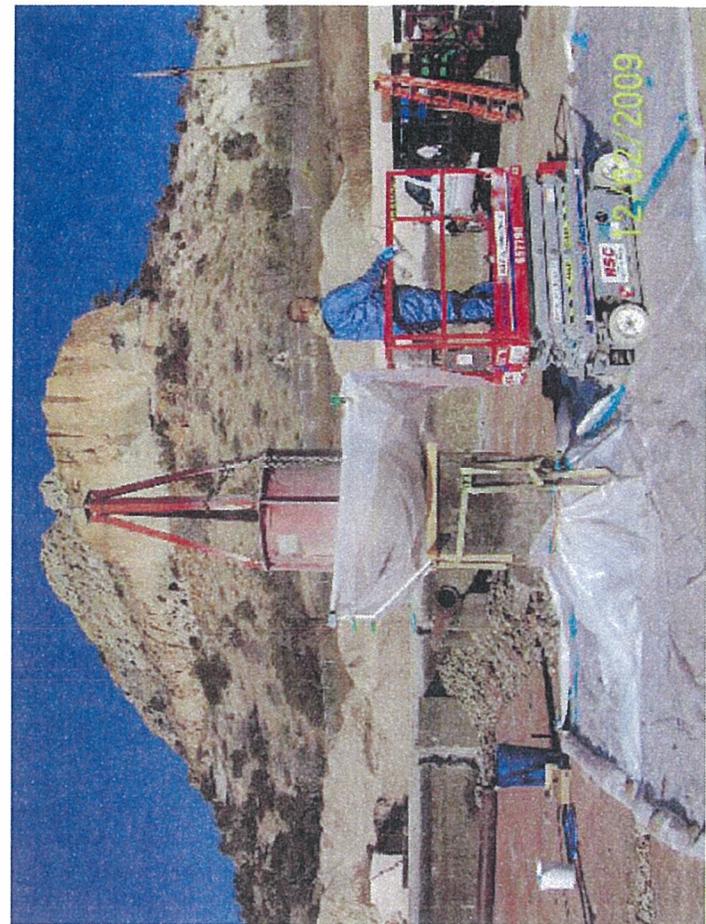
01 - Removing effluent feeder pipe from the eastern filter.jpg
12/02/2009



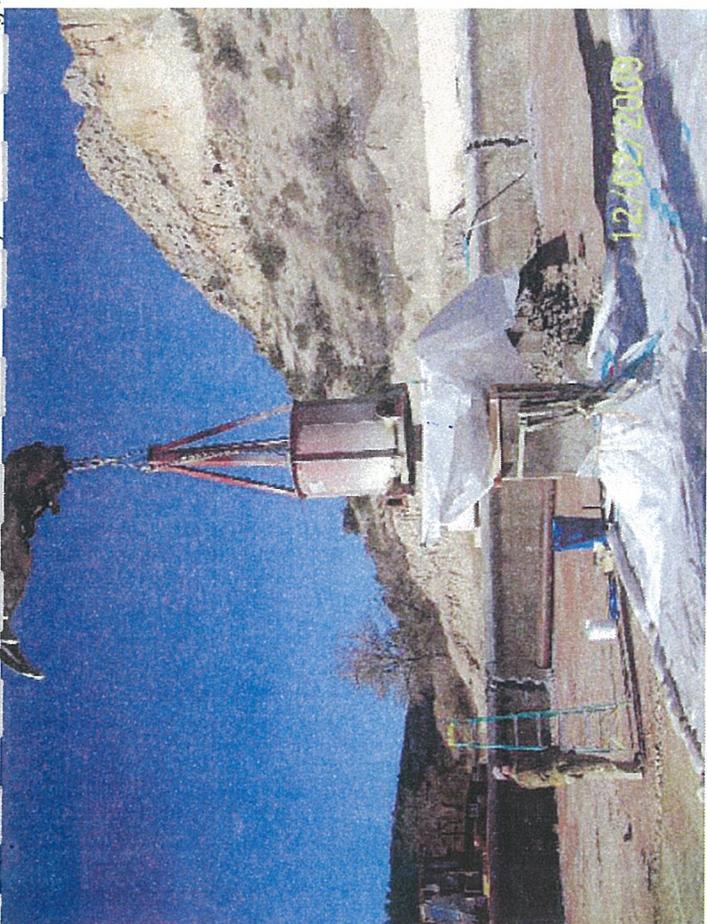
02 - Installing poly cover on floor for containment.jpg
12/02/2009



03 - Attempting to drain mercury from seal.jpg
12/02/2009



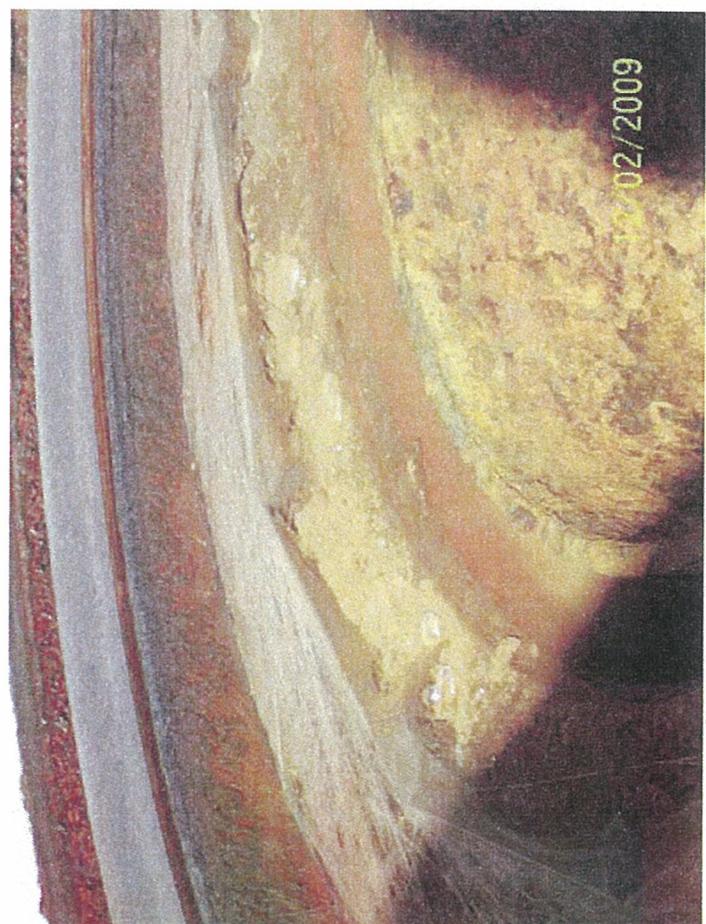
04 - Installing poly shield to catch any potential mercury splash.jpg
12/02/2009



05 - Removing rotating equipment from top of eastern filter.jpg
12/02/2009



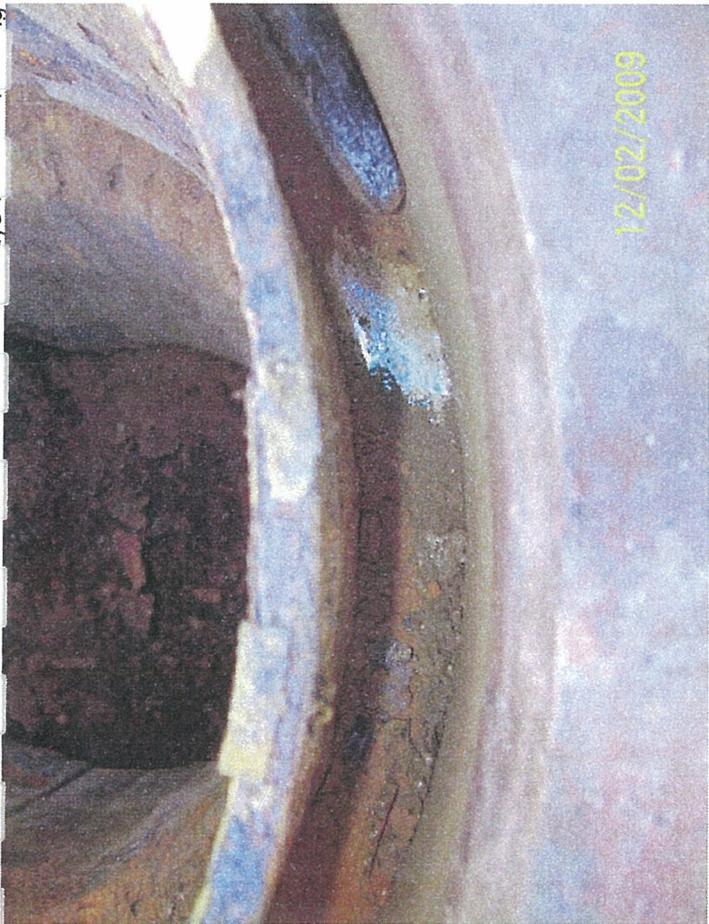
06 - Central section of rotating equipment with mercury seal.jpg
12/02/2009



07 - Mercury on upper portion of central section.jpg
12/02/2009



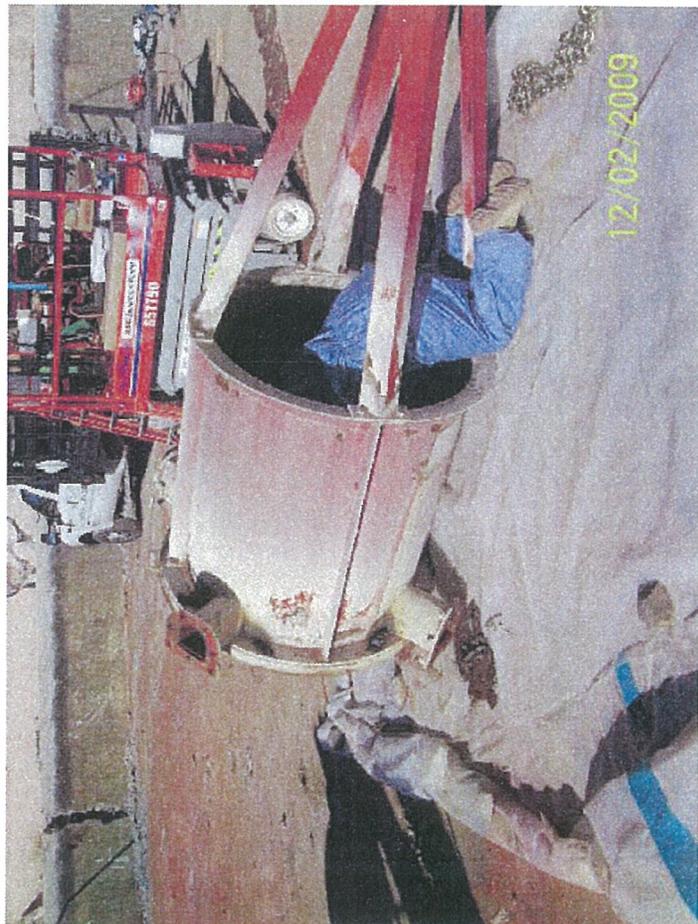
08 - Rotating equipment to be decontaminated and recycled.jpg
12/02/2009



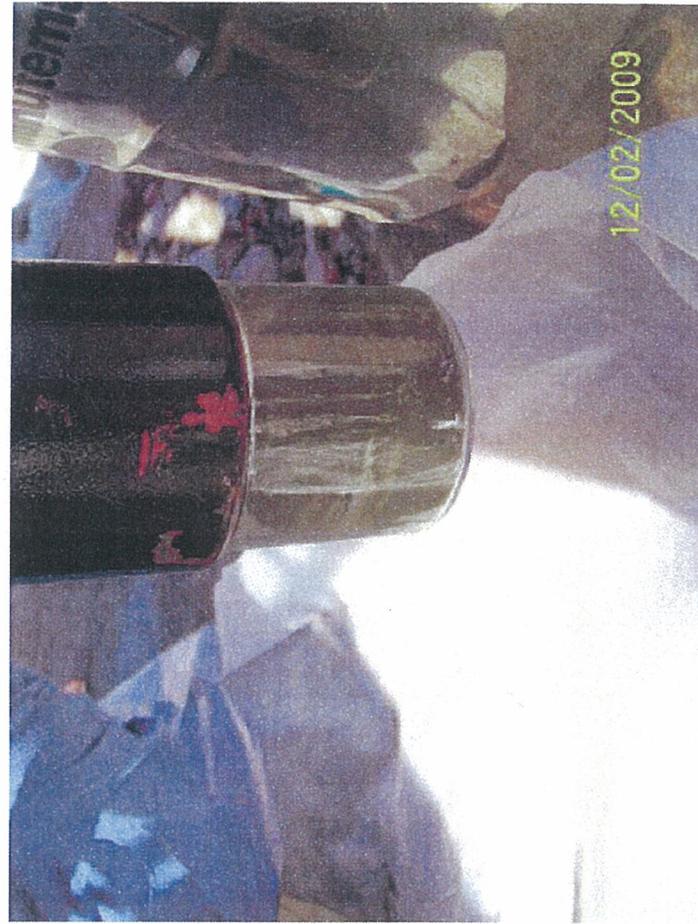
13 - Mercury on the stationary section.jpg
12/02/2009



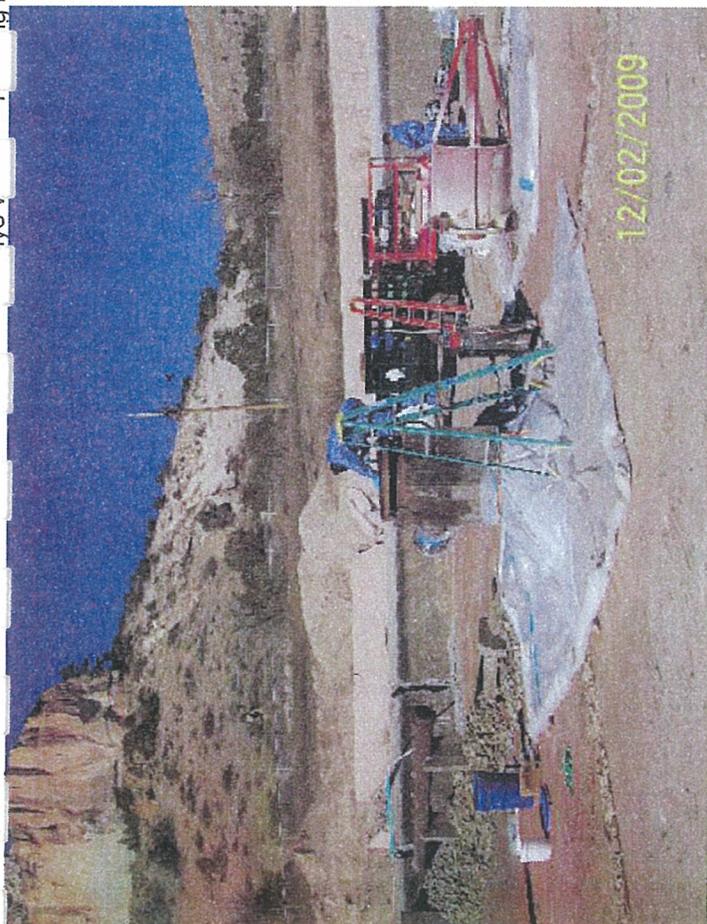
14 - Vacuuming mercury from stationary section.jpg
12/02/2009



15 - Decontaminating rotating equipment.jpg
12/02/2009



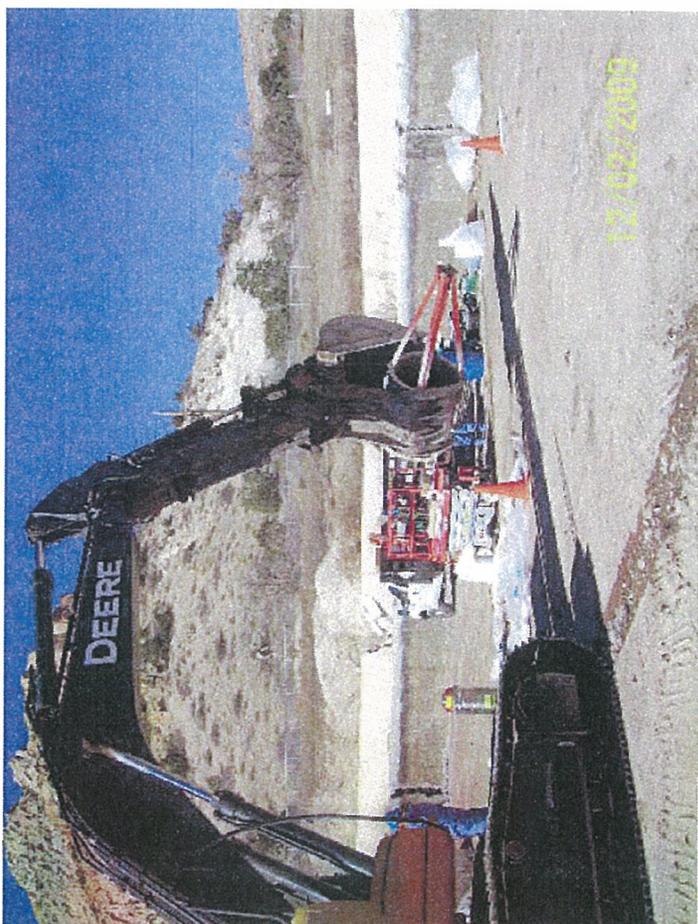
16 - Elemental mercury captured by mercury vacuum.jpg
12/02/2009



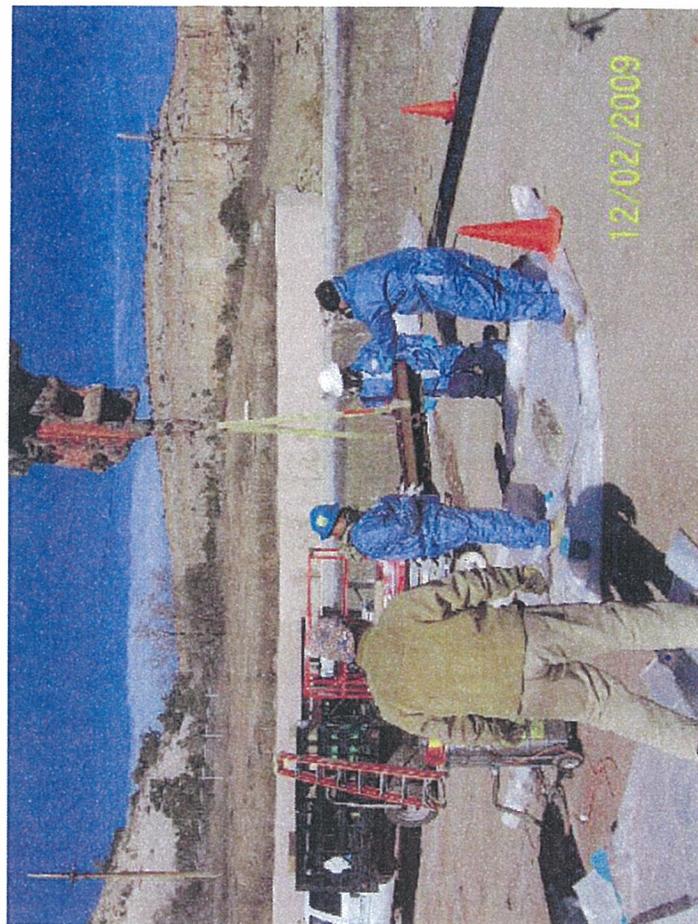
17 - Vacuuming mercury from stationary equipment.jpg
12/02/2009



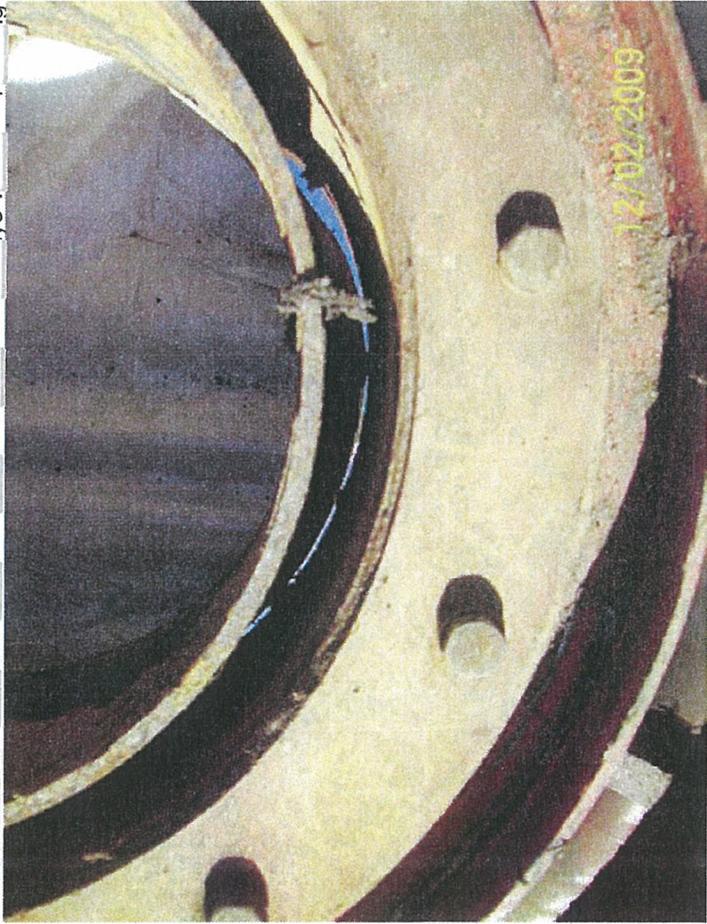
18 - Monitoring rotating equipment to be recycled for mercury vapor.jpg
12/02/2009



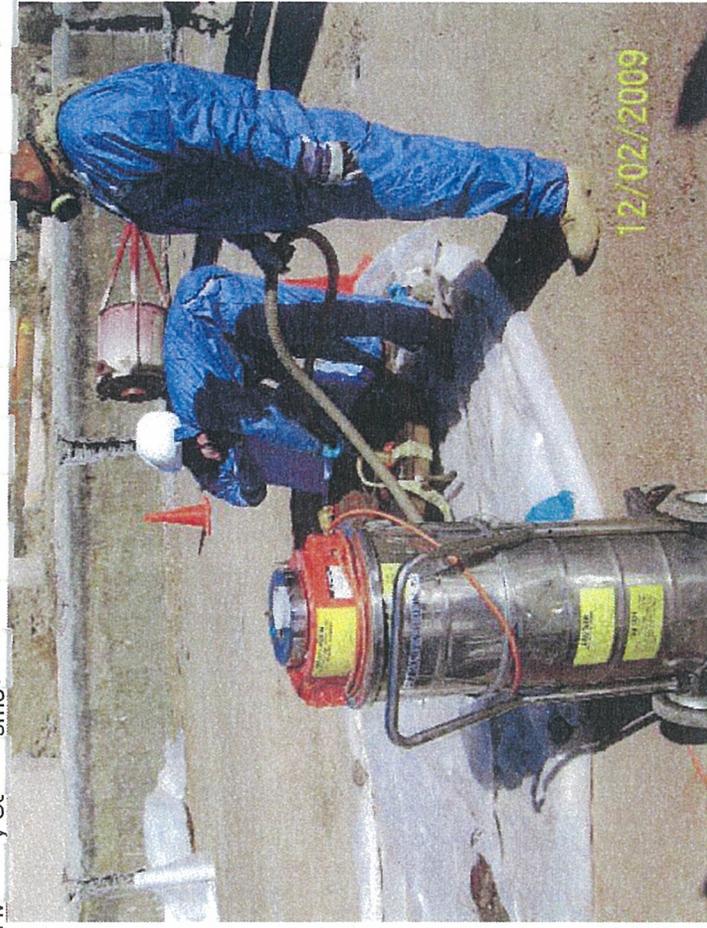
19 - Transporting rotating equipment to scrap metal bin.jpg
12/02/2009



20 - Removing stationary section of the filter.jpg
12/02/2009



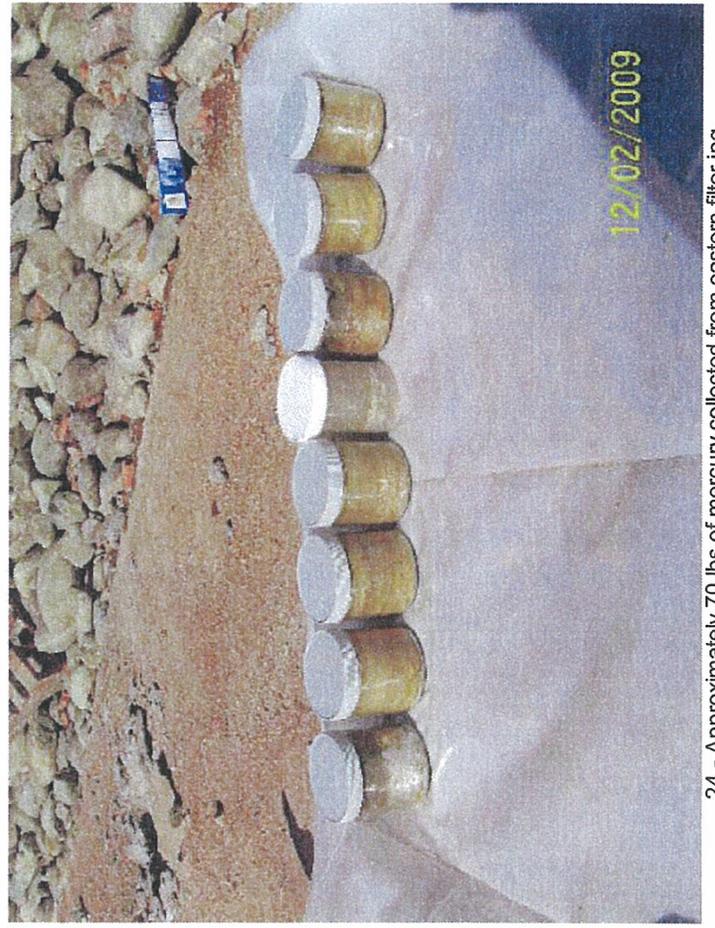
21 - Mercury in the stationary section.jpg
12/02/2009



22 - Vacuuming remaining mercury in stationary section.jpg
12/02/2009



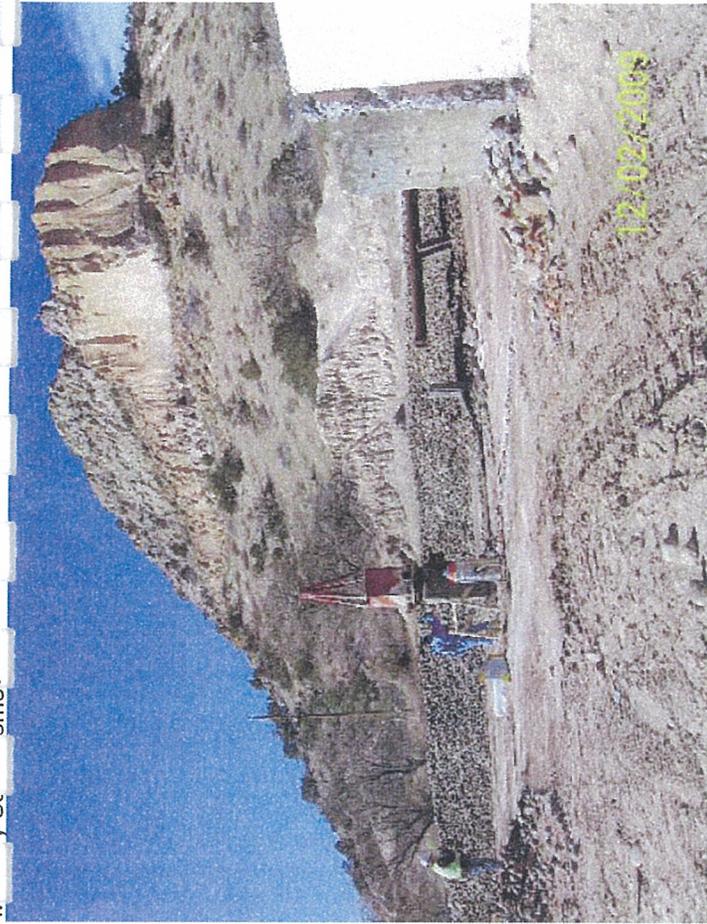
23 - Elemental mercury captured in vacuum.jpg
12/02/2009



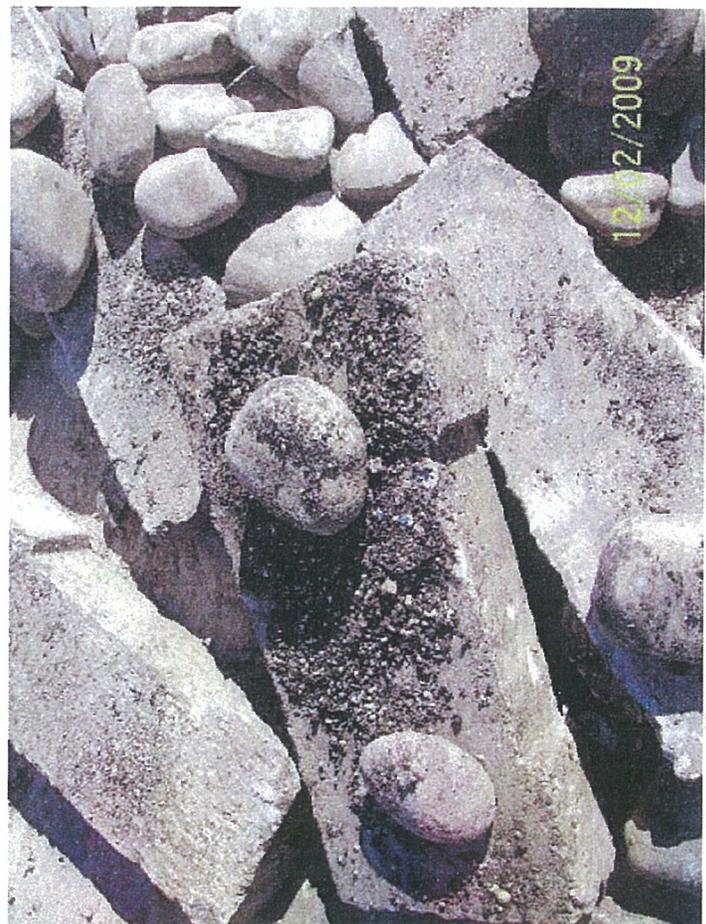
24 - Approximately 70 lbs of mercury collected from eastern filter.jpg
12/02/2009



25 - Removing small beads of mercury from feeder pipe.jpg
12/02/2009



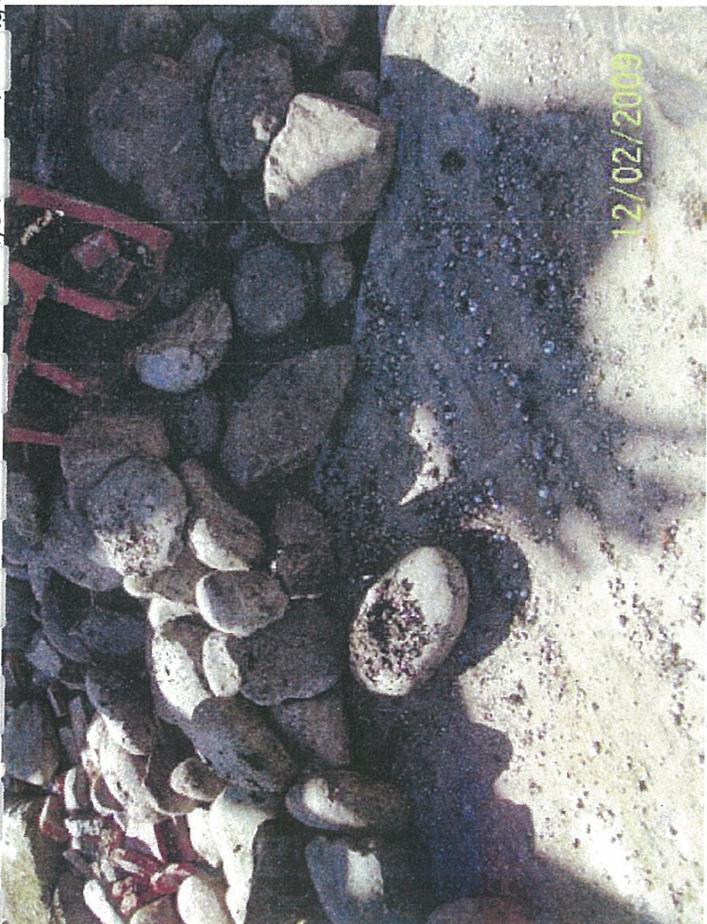
26 - Western filter where mercury spill occurred.jpg
12/02/2009



27 - Spilt mercury on ground around western filter.jpg
12/02/2009



28 - Spilt mercury on ground around western filter.jpg
12/02/2009



29 - Spill mercury on ground around western filter.jpg
12/02/2009



30 - Spill mercury on ground around western filter.jpg
12/02/2009



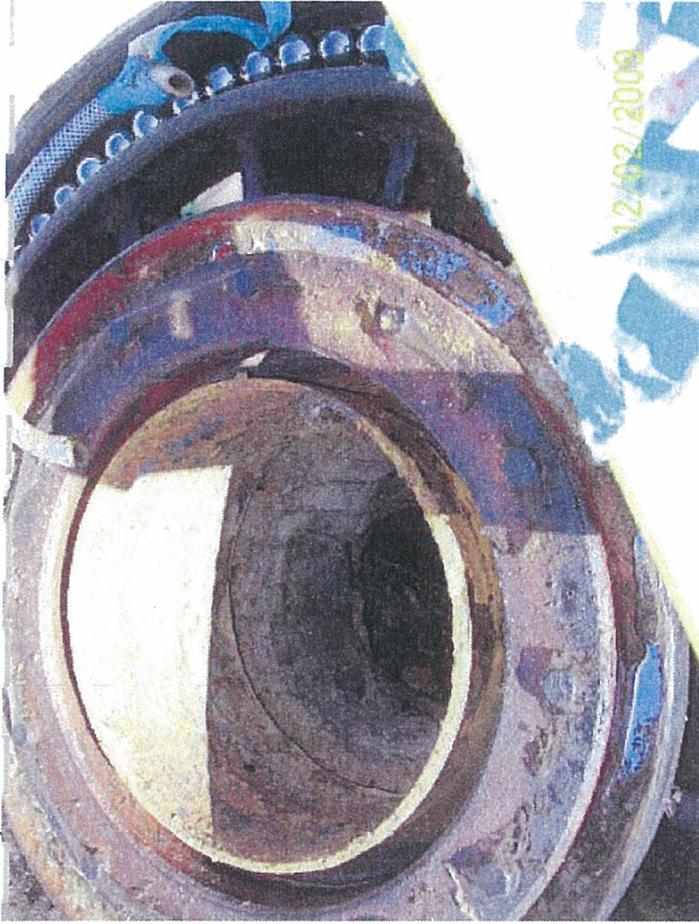
31 - Mercury found under sludge and ice in effluent feeder pipe.jpg
12/02/2009



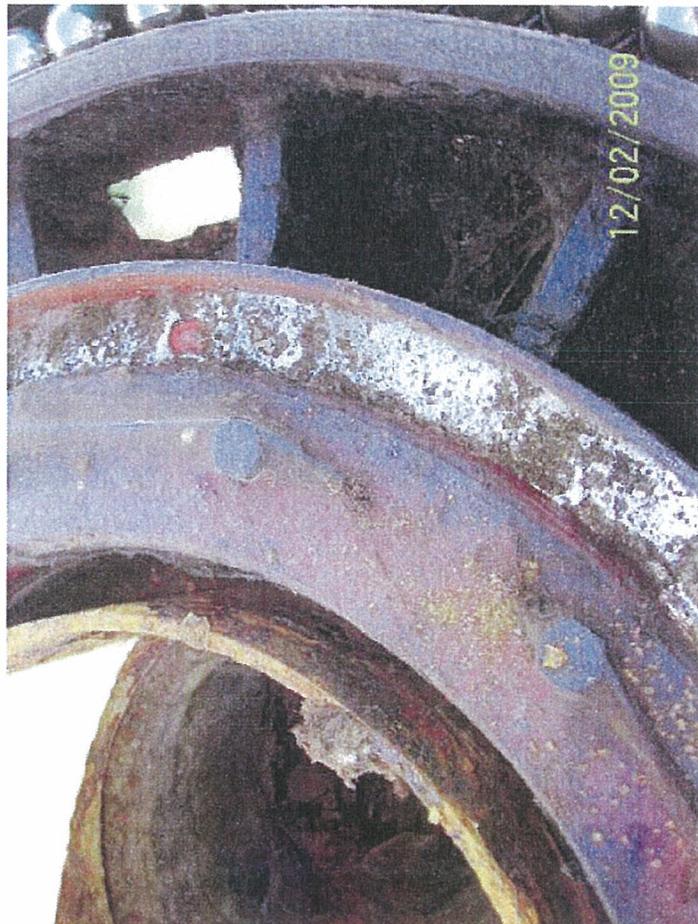
32 - Mercury buried under sludge and ice.jpg
12/02/2009



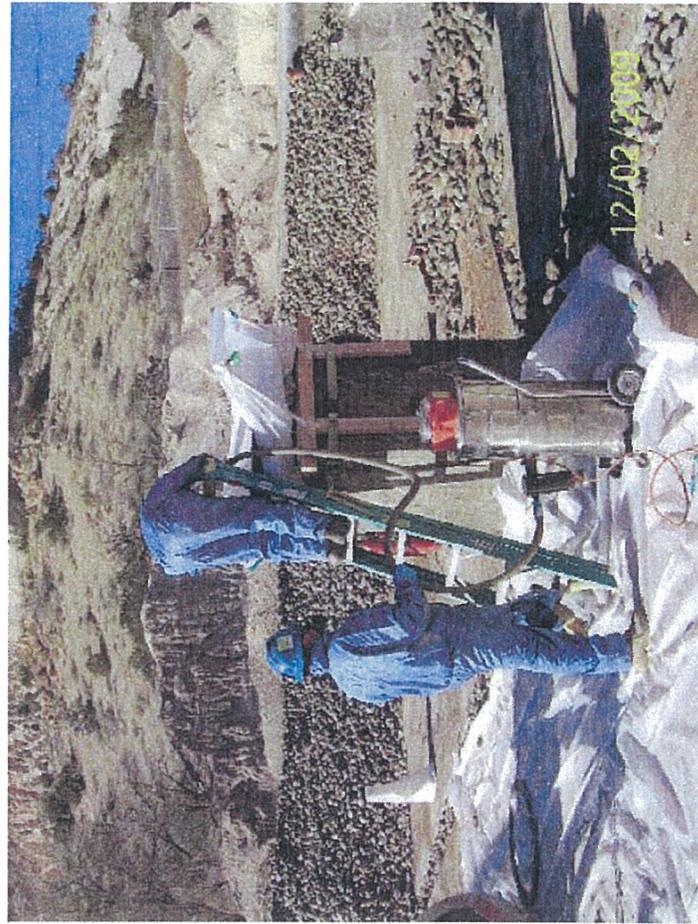
33 - Removing rotating equipment and central section from western filter.jpg
12/02/2009



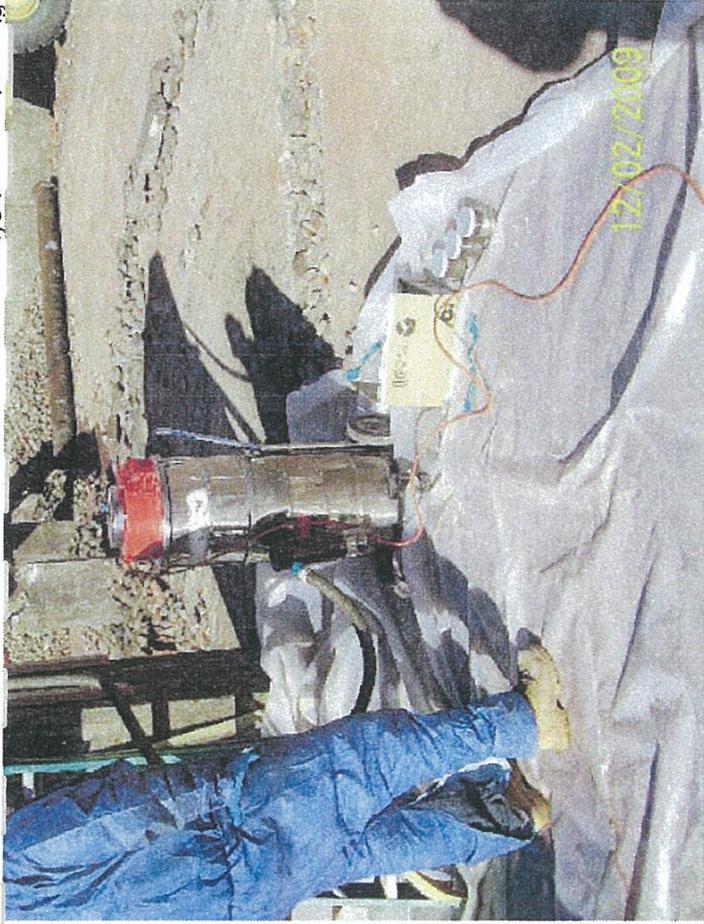
34 - Elemental mercury in stationary section with mercury seal.jpg
12/02/2009



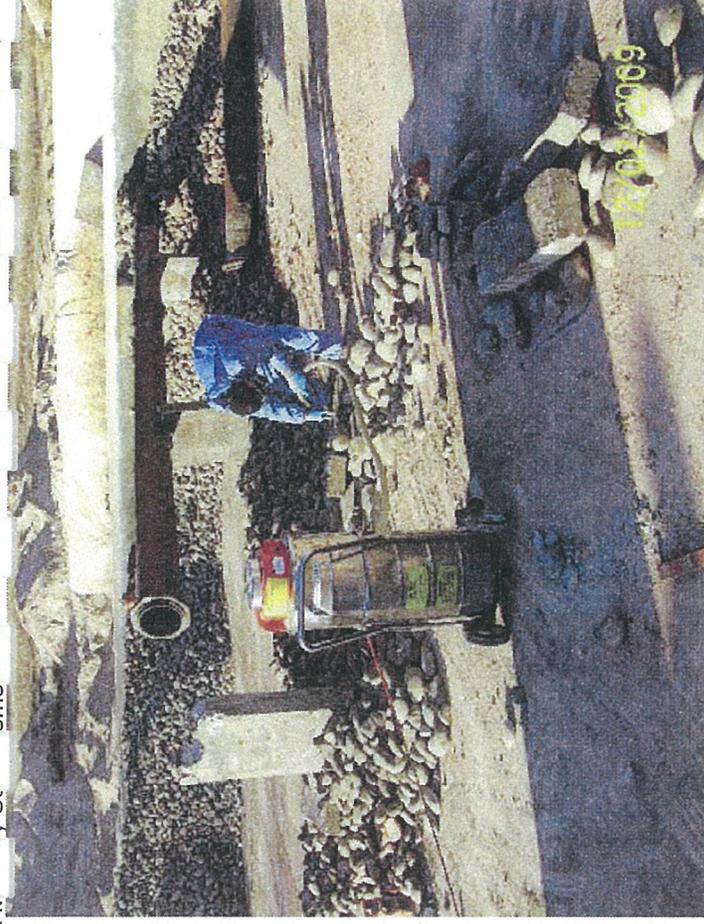
35 - Elemental mercury in stationary section with mercury seal.jpg
12/02/2009



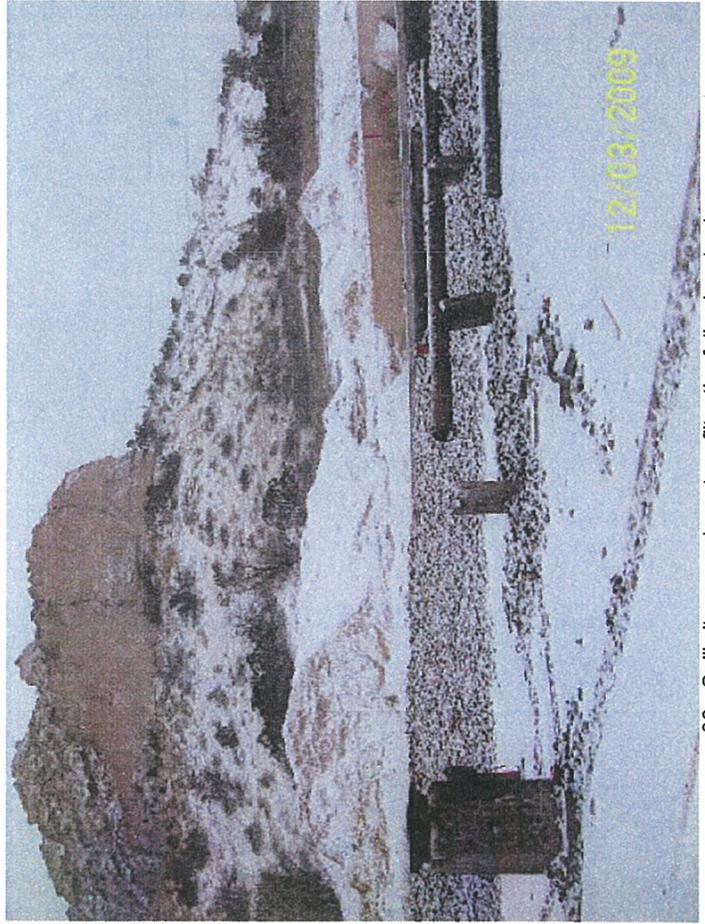
36 - Vacuuming mercury from stationary section.jpg
12/02/2009



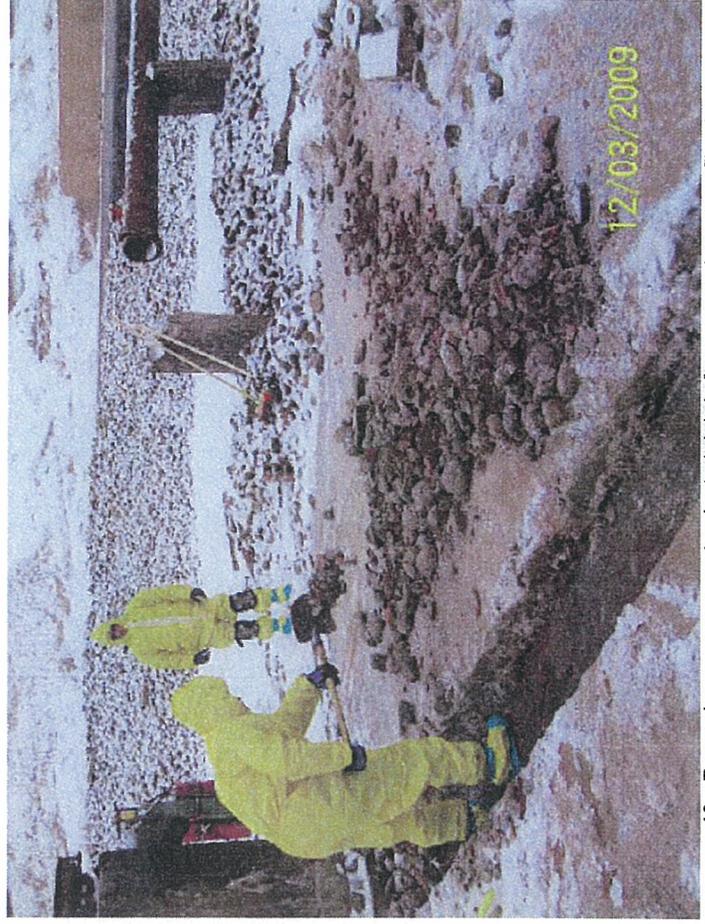
37 - Elemental mercury collected from western filter.jpg
12/02/2009



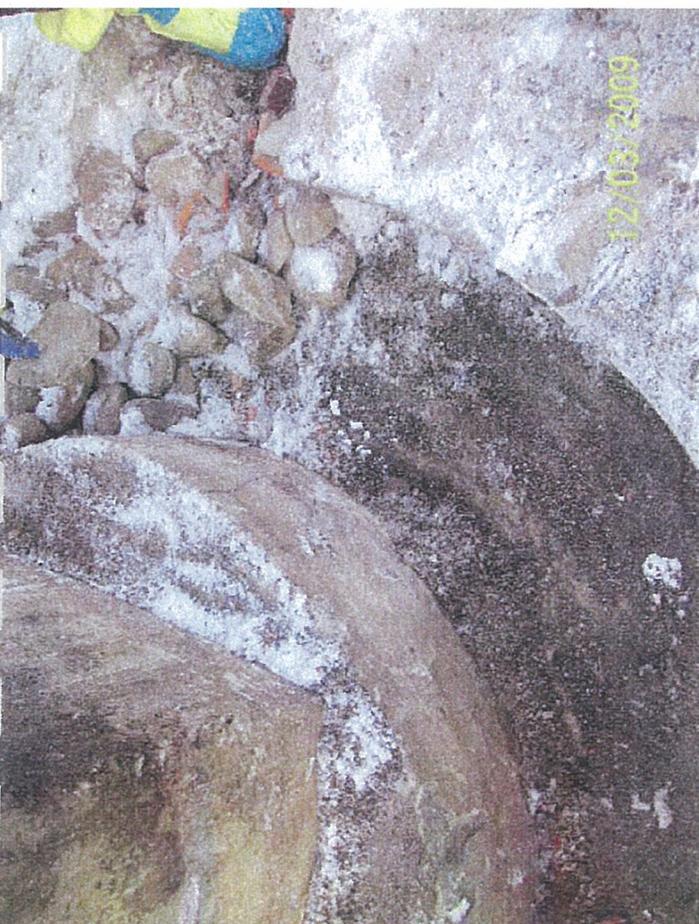
38 - Vacuuming areas with large quantities of spill mercury from filter floor.jpg
12/03/2009



39 - Spill site around western filter the following day.jpg
12/03/2009



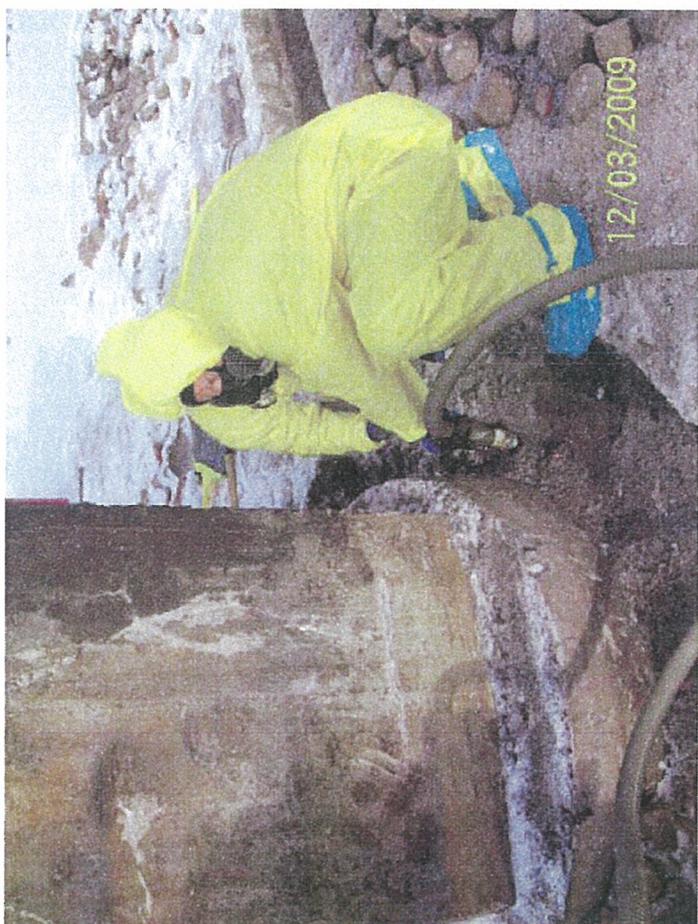
40 - Removing mercury contaminated debris from around western filter.jpg
12/03/2009



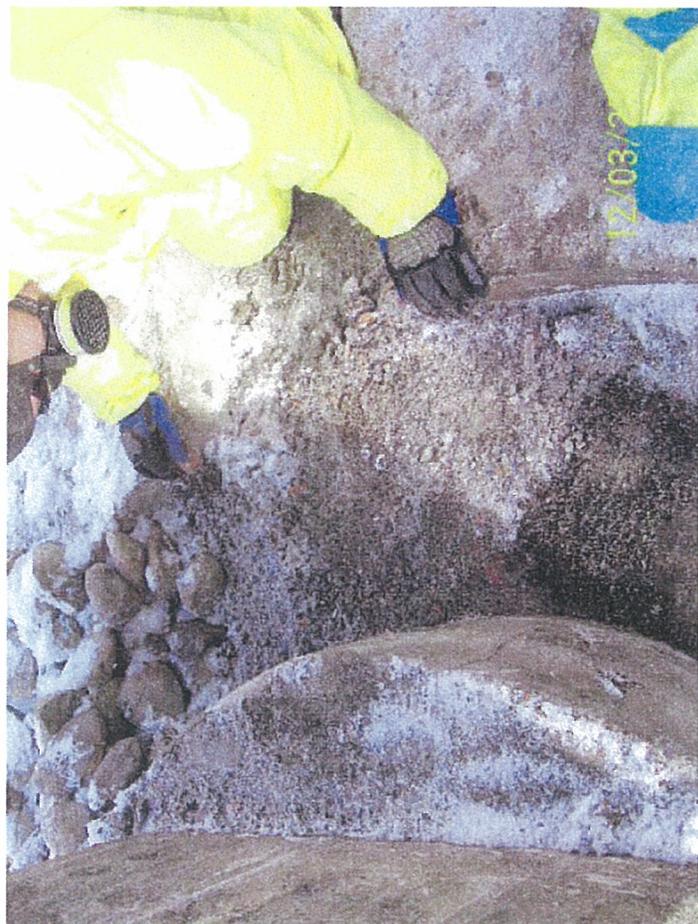
41 - Spill mercury at the base of the filter.jpg
12/03/2009



42 - Spill mercury at the base of the filter.jpg
12/03/2009



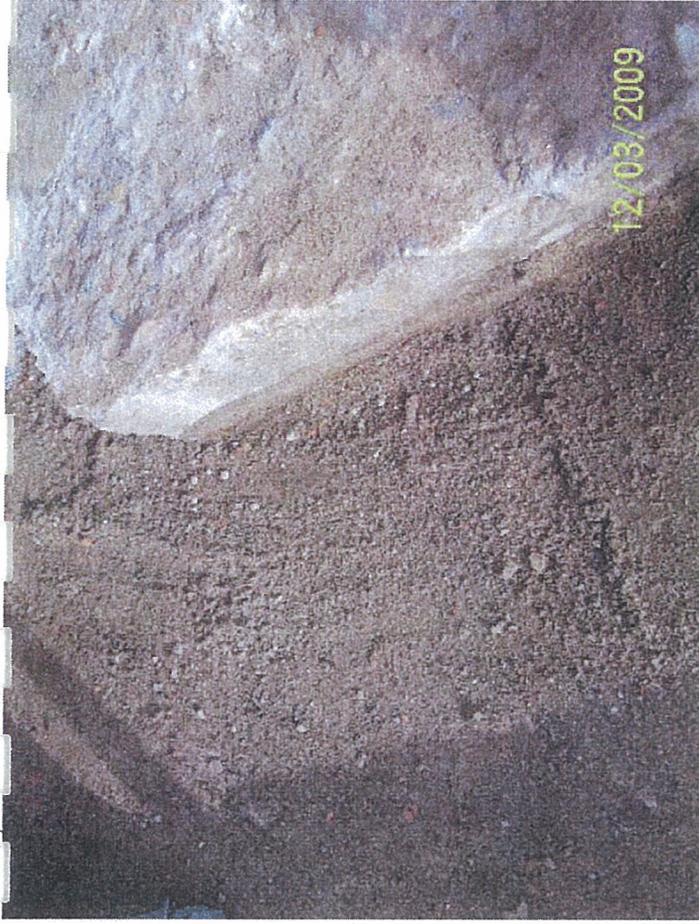
43 - Vacuuming spill mercury from the base of the filter.jpg
12/03/2009



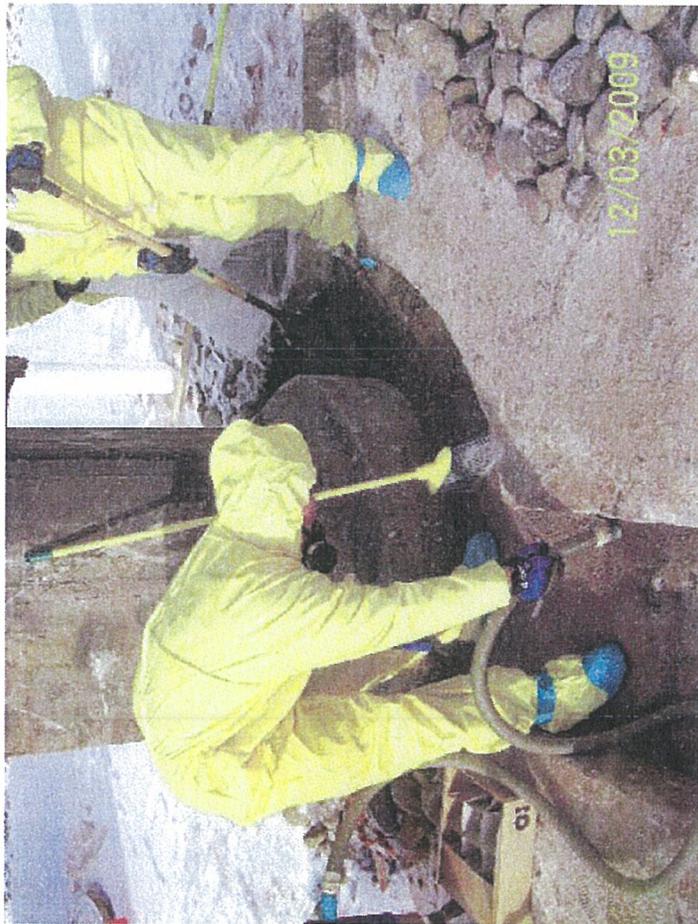
44 - Spill mercury at the base of the filter.jpg
12/03/2009



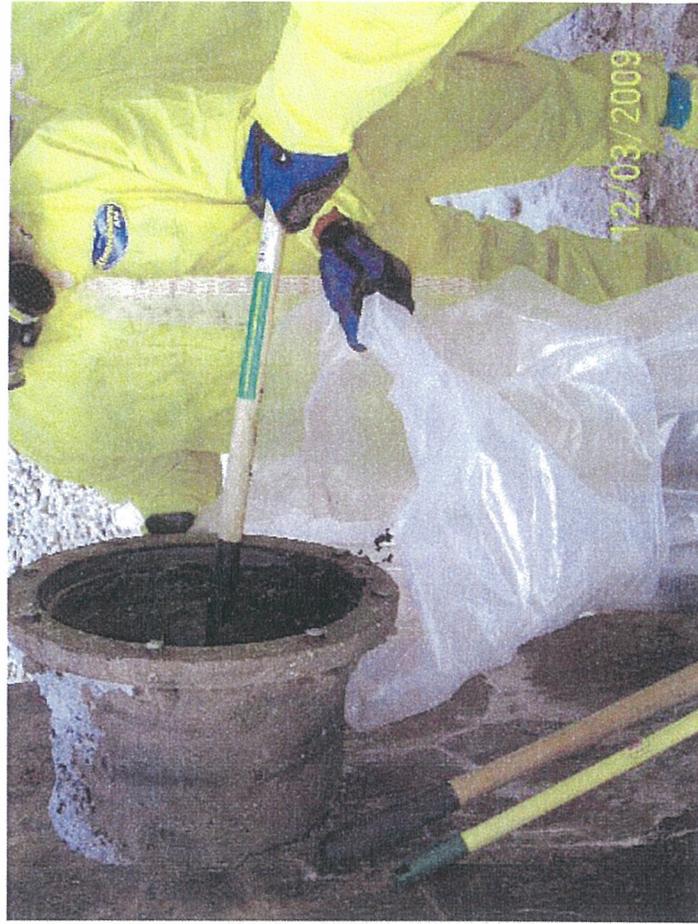
45 - Contaminated and uncontaminated sections of effluent feeder pipe.jpg
12/03/2009



46 - Spilt mercury on the floor around the filter.jpg
12/03/2009



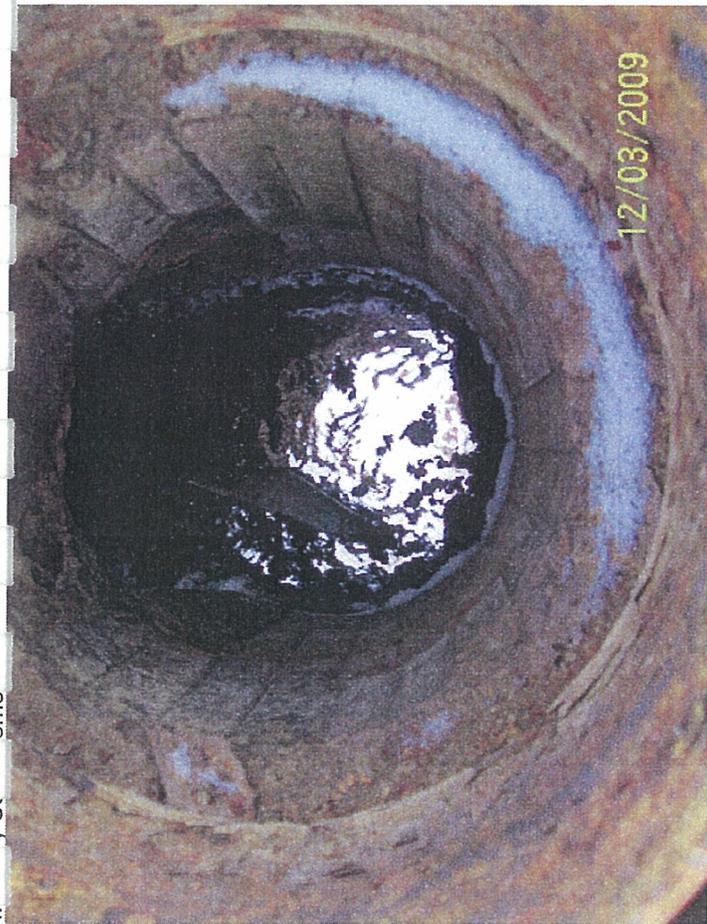
47 - Vacuuming spilt mercury from the base of the filter.jpg
12/03/2009



48 - Removing contaminated sludge from inside the effluent feeder pipe.jpg
12/03/2009



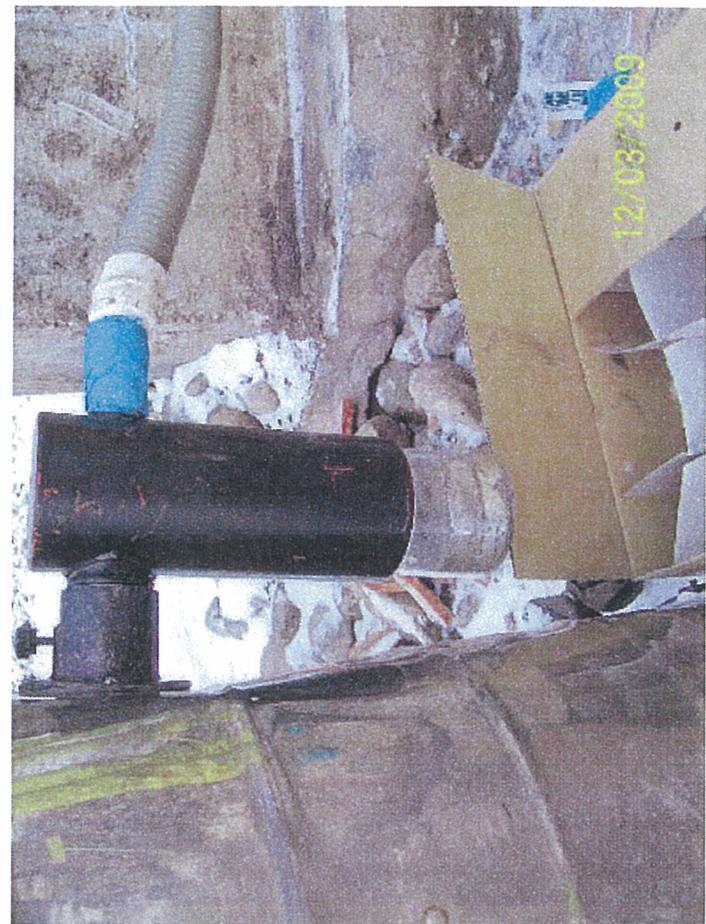
49 - Mercury imbedded in the feeder pipe sludge.jpg
12/03/2009



50 - Pool of elemental mercury that leaked into the feeder pipe of the filter.jpg
12/03/2009



51 - Vacuuming mercury from feeder pipe.jpg
12/03/2009



52 - Elemental mercury captured in vacuum.jpg
12/03/2009



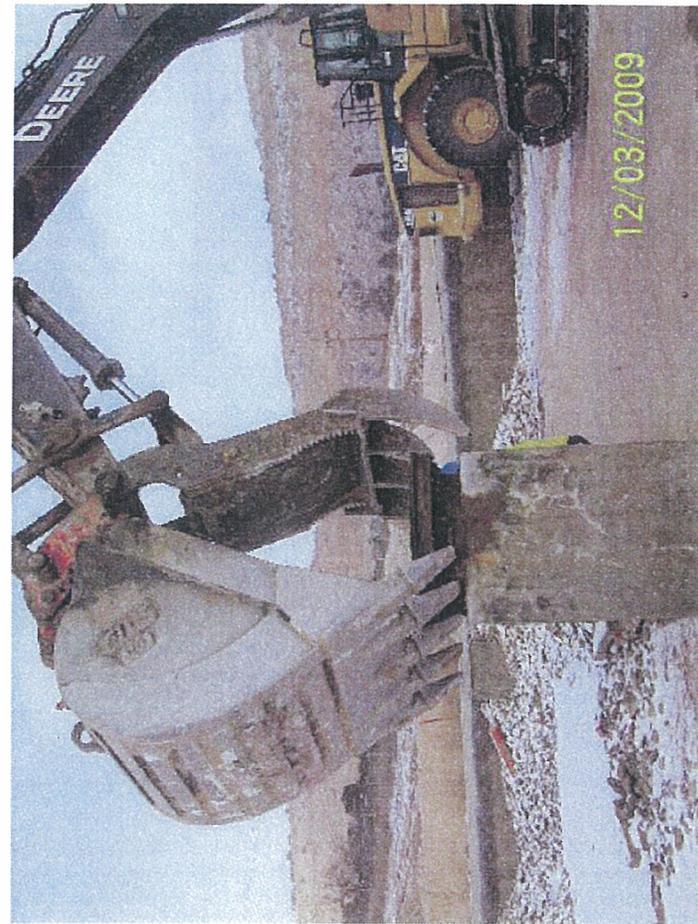
53 - Contaminated sludge removed from feeder pipe.jpg
12/03/2009



54 - Cleaning feeder pipe.jpg
12/03/2009



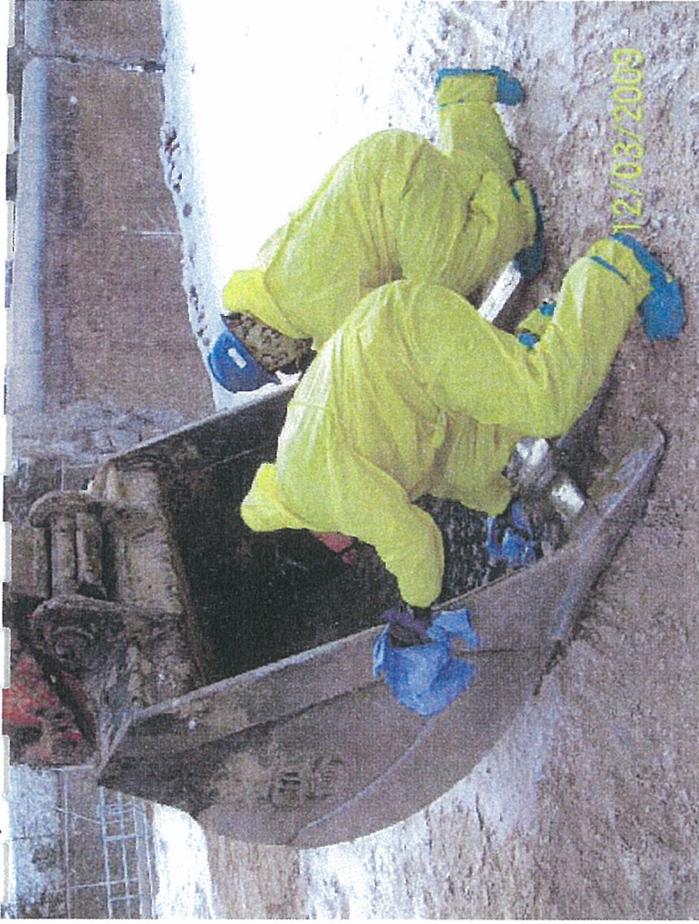
55 - Loading mercury contaminated debris into roll-off container.jpg
12/03/2009



56 - Removing stationary section of filter to be placed in the roll-off.jpg
12/03/2009



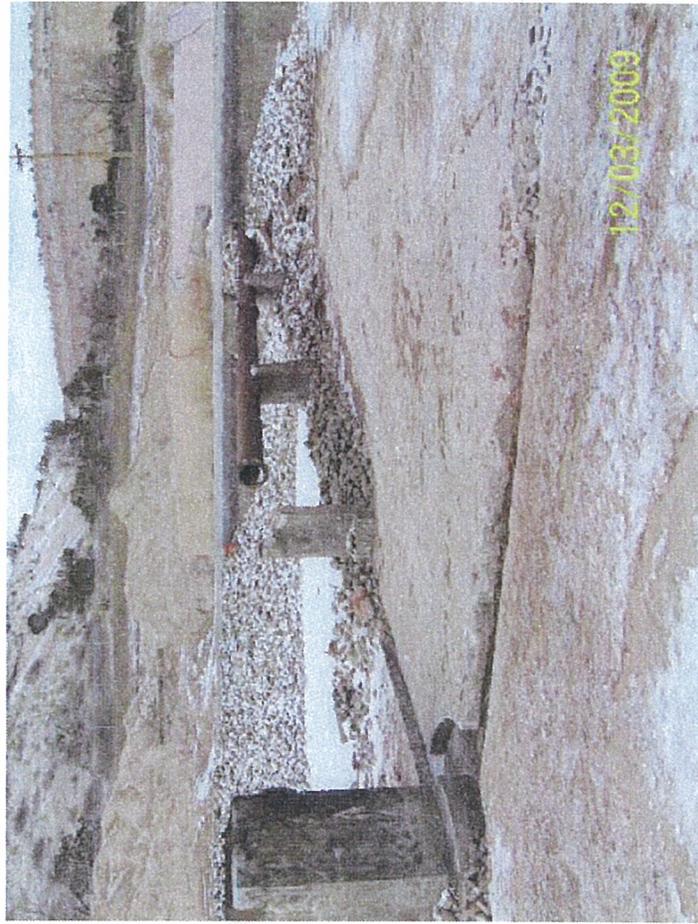
57 - Mercury contaminated debris in the roll-off.jpg
12/03/2009



58 - Decontaminating the excavator bucket.jpg
12/03/2009



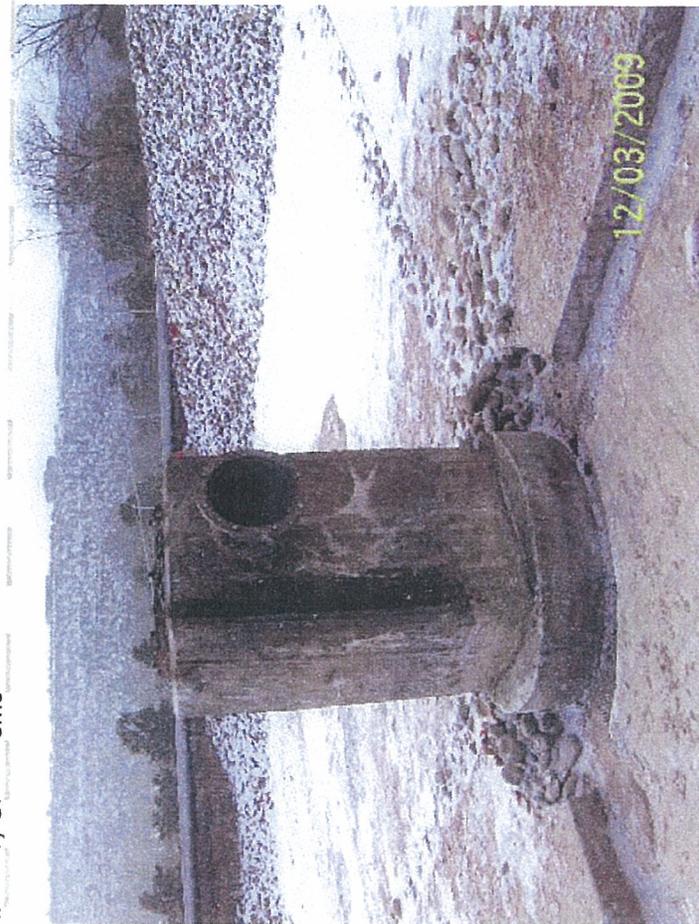
59 - Eastern filter pond with mercury seal removed.jpg
12/03/2009



60 - Western filter pond with mercury seal removed.jpg
12/03/2009



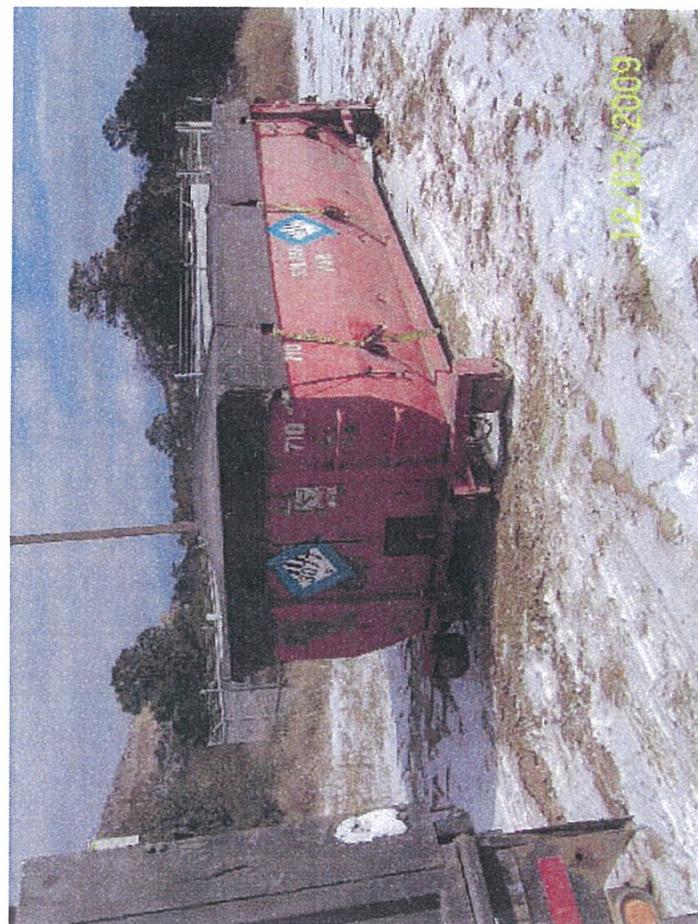
61 -Area where mercury spill occurred.jpg
12/03/2009



62 - Area where mercury spill occurred.jpg
12/03/2009



63 - Contaminated material removed from feeder pipe.jpg
12/03/2009



64 - 20 yd roll-off container with mercury contaminated debris.jpg
12/03/2009

Attachment B

(EIMCO Corporation Engineering Materials List Results)

MATERIAL LIST

QTY	NO. PER MACH.	DESCRIPTION OF PART	P.O. NO.	SHOP ORDER	MAT.	DWG. NO.	PART OR PATT NO.	WT. PER MACH.	REMARKS
	2	OIL GAUGE & DRAIN CONSISTING OF:				80344	80344-A	2	
	-	2, 1/2" - 150# M.I. CAP			M.I.	"	"	-	
38	-	(2) 1/2" - 150# M.I. 90° ELBOW			M.I.	"	"	-	
39	-	(2) 1/2" - 150# M.I. TEE			M.I.	"	"	-	
30	-	(2) 1/2" - SQ. HD. PIPE PLUG			C.I.	"	"	-	
31	-	(2) 1/2" x 1/2" LG. STL NIPPLE			STL	"	"	-	
32	-	(2) 1/2" x 4" LG. STL NIPPLE			STL	"	"	-	
33	-	(2) 1/2" x 4 1/8" LG. STL NIPPLE			STL	"	"	-	
4		134 LBS. MERCURY - VIRGIN SINGLE DISTILLED GRADE	8-17609		-	-	-	-	
2		FELT SEAL - 5/8" SQ. x 8'-3" LG. (BASE)			S.A.E. F13	-	-	.8	
2		FELT SEAL - 5/8" SQ. x 10'-4" LG. (BASE)			S.A.E. F13	-	-	1.	
2		MERCURY DRAIN CONSISTING OF:			-	80853	80853-A	1	
19	-	(2) 3/8" NPT x 4" LG. STD. BLK. NIPPLE			STL	-	-	-	
1	-	(2) 3/8" NPT x 90° - 150# BLK ELBOW			M.I.	-	-	-	
31	-	(2) 3/8" NPT x 6" LG. STD. BLK. NIPPLE			STL	-	-	-	
1	-	(2) 3/8" NPT - 150# BLK. PIPE CAP			M.I.	-	-	-	
33									
30	24	1/2" - 13 N.C. x 1 3/4" LG. HEX. HD. CAP SCREW STATIONARY SEAL / BASE			STL	-	-	-	
36	32	1/2" - 13 N.C. x 1 1/4" LG. HEX. HD. CAP SCREW ROTATING SEAL / TURNTABLE			STL	-	-	-	
3	16	1/2" - 13 N.C. x 1" LG. HEX. HD. CAP SCREW (STEADY PAD-TURNTABLE)			STL	-	-	1.	
9	2	LUBE PLATE N ^o 8-62			BY PED. MTG. BY SHOP				
		ASSEMBLY DWG. NO. 108362							
		CENTER ASSEMBLY DWG. 108348							

MACHINE	DISTRIBUTOR CENTER ASSEMBLY		DATE	8-25-66	ORDER NO.	3249-C	SHEET OF	2
SIZE	18"	TYPE	MERCURY SEAL	BY	RES	DATE	11/30	11/30

Attachment C

(Test America Analytical Results)

LABORATORY REPORT

Prepared For: Southwest Hazard Control - Tucson
1953 W Grant Road
Tucson, AZ 85745
Attention: Jeff Zenan

Project: H9162

Sampled: 12/03/09
Received: 12/08/09
Issued: 12/11/09 08:51

NELAP #01109CA Arizona DHS#AZ0728

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.
This entire report was reviewed and approved for release.*

CASE NARRATIVE

LABORATORY ID

PSL0441-01

CLIENT ID

9162-01

MATRIX

Soil

SAMPLE RECEIPT: Samples were received intact, at 8°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.

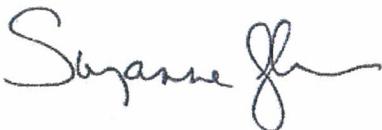
PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: No significant observations were made.

SUBCONTRACTED: No analyses were subcontracted to an outside laboratory.

Reviewed By:



TestAmerica Phoenix

Suzanne Glass
Project Manager

Southwest Hazard Control - Tucson
1953 W Grant Road
Tucson, AZ 85745
Attention: Jeff Zenan

Project ID: H9162

Report Number: PSL0441

Sampled: 12/03/09
Received: 12/08/09

TOTAL METALS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PSL0441-01 (9162-01 - Soil)								
Reporting Units: mg/kg								
Mercury	SW7471A	P9L1033	100	1100	1000	12/10/2009	12/10/2009	D2

TestAmerica Phoenix

Suzanne Glass
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

PSL0441 <Page 2 of 5>

Southwest Hazard Control - Tucson
 1953 W Grant Road
 Tucson, AZ 85745
 Attention: Jeff Zenan

Project ID: H9162
 Report Number: PSL0441

Sampled: 12/03/09
 Received: 12/08/09

METHOD BLANK/QC DATA

TOTAL METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P9L1033 Extracted: 12/10/09										
Blank Analyzed: 12/10/2009 (P9L1033-BLK1)										
Mercury	ND	0.10	mg/kg							
LCS Analyzed: 12/10/2009 (P9L1033-BS1)										
Mercury	1.69	0.10	mg/kg	1.67		101	85-115			
LCS Dup Analyzed: 12/10/2009 (P9L1033-BSD1)										
Mercury	1.71	0.10	mg/kg	1.67		103	85-115	1	20	
Matrix Spike Analyzed: 12/10/2009 (P9L1033-MS1)										
Mercury	118	5.0	mg/kg	1.67	116	71	85-115			M2
Matrix Spike Dup Analyzed: 12/10/2009 (P9L1033-MSD1)										
Mercury	110	5.0	mg/kg	1.67	116	-383	85-115	7	20	M3

TestAmerica Phoenix

Suzanne Glass
 Project Manager

Southwest Hazard Control - Tucson
1953 W Grant Road
Tucson, AZ 85745
Attention: Jeff Zenan

Project ID: H9162

Report Number: PSL0441

Sampled: 12/03/09
Received: 12/08/09

DATA QUALIFIERS AND DEFINITIONS

- D2** Sample required dilution due to high concentration of target analyte.
- M2** Matrix spike recovery was low; the associated blank spike recovery was acceptable.
- M3** The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

TestAmerica Phoenix

Suzanne Glass
Project Manager

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PSL0441 <Page 4 of 5>

Southwest Hazard Control - Tucson
1953 W Grant Road
Tucson, AZ 85745
Attention: Jeff Zenan

Project ID: H9162

Report Number: PSL0441

Sampled: 12/03/09
Received: 12/08/09

Certification Summary

TestAmerica Phoenix

Method	Matrix	Nelac	Arizona
SW7471A	Soil		X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica Phoenix

Suzanne Glass
Project Manager

Attachment D

(Disposal Documents for Mercury Removed from the Trickling Filters)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

1072940 09960

Form Approved, OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CESQG

2. Page 1 of 2

3. Emergency Response Phone: 800-279-5266

4. Manifest Tracking Number: 006640987 JJK

5. Generator's Name and Mailing Address: Bayo Wastewater Treatment Plant, PO Box 1030, Los Alamos, NM 87554 USA

Generator's Site Address (if different than mailing address): 3500 Pueblo Canyon Rd, Los Alamos, NM 87554 USA

Generator's Phone:

6. Transporter 1 Company Name: Southwest Hazard Control

U.S. EPA ID Number: AZR000507162

7. Transporter 2 Company Name: Rho Chem LLC

U.S. EPA ID Number: AZR000502567

8. Designated Facility Name and Site Address: Philip Reclamation Services, 4050 Homestead Rd, Houston, TX 77028 USA

U.S. EPA ID Number: TXD074196338

Facility's Phone: 713-674-2405

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		No.	Type				
X	UN2809, Waste mercury, 8.11 (elemental mercury)	001	DF	210 6.176	P	0009	D002
2.							
3.							
4.							

14. Special Handling Instructions and Additional Information: Line 9b1) ERG# 172

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Jennifer Baca

Signature: Jennifer Baca

Month Day Year: 12 3 09

16. International Shipments: Import to U.S. Export from U.S.

Port of entry/exit: _____

Date leaving U.S.: _____

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Cesar Vega

Signature: Cesar Vega

Month Day Year: 12 23 09

Transporter 2 Printed/Typed Name: DAN O'NEIL

Signature: Dan O'Neil

Month Day Year: 12 17 09

18. Discrepancy:

18a. Discrepancy Indication Space: Quantity Type Residue Partial Rejection Full Rejection

18b. Alternate Facility (or Generator): _____

Manifest Reference Number: _____

U.S. EPA ID Number: _____

18c. Signature of Alternate Facility (or Generator): _____

Month Day Year: _____

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems):

1. H11 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a

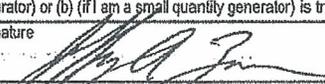
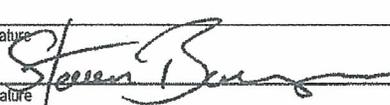
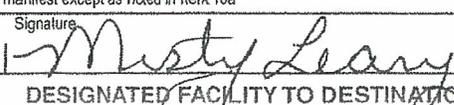
Printed/Typed Name: Harold Garcia

Signature: Harold Garcia

Month Day Year: 12 28 09

Attachment E

(Disposal Documents for Mercury Contaminated Debris)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number NMR000015214	2. Page 1 of	3. Emergency Response Phone 800-279-5265	4. Manifest Tracking Number 006640935 JJK		
5. Generator's Name and Mailing Address County of Los Alamos - Dept. Public Utilities 901 Trinity Drive - P.O. Drawer 1030 Los Alamos, NM 87544 USA			Generator's Site Address (if different than mailing address) 3500 Pueblo Canyon Road Los Alamos, NM 87544 USA				
Generator's Phone: 505-662-8135							
6. Transporter 1 Company Name Chemical Transportation, Inc (El Paso)			U.S. EPA ID Number TXR000033175				
7. Transporter 2 Company Name			U.S. EPA ID Number				
8. Designated Facility Name and Site Address US Ecology Highway 95, 11 miles S of Beatty Beatty, AZ 89003 USA NV			U.S. EPA ID Number NVT330010000				
Facility's Phone: 800-239-5943							
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit WL/Vol.	13. Waste Codes	
		No.	Type				
X	1. NA3077, Hazardous waste solid, n.o.s., 9, III (mercury contaminated debris)	001	CM	20	T	0009	
	2.						
	3.						
	4.						
14. Special Handling Instructions and Additional Information Line 9b1) ERG# 171; US Ecology WS# 070166070-0; CTI Bin# 710							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offeror's Printed/Typed Name Jeremy Zenan for County of Los Alamos			Signature 		Month 1	Day 25	Year 2010
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name Steven Barrera			Signature 		Month 12	Day 3	Year 10
Transporter 2 Printed/Typed Name			Signature		Month	Day	Year
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
18b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number _____							
Facility's Phone: _____							
18c. Signature of Alternate Facility (or Generator)					Month	Day	Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1.	H32	2.		3.		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name Misty Leary			Signature 		Month 10	Day 20	Year 10