MISCELLANEOUS

During 2012 mill staff and contractors worked on removal and disposal of unnecessary facilities at the Canon City Licensed Site.

TRACKING OF RADIOACTIVE MATERIALS

Ores and Materials received from January to December 2012

• Western Slope Ore (uranium-vanadium) – None

Ores and Materials processed from January to December 2012

- Western Slope Ore (uranium-vanadium) None
- Uranium-Zirconium (U-Zr) Ore None

Ore and Materials Inventory as of December 31, 2012

- Uranium-Zirconium (U-Zr) Ore Approximately fifteen thousand (15,000) tons stored on the new ore pad west of the old catalyst processing building (demonstration plant).
- Western Slope Ore (uranium-vanadium) Approximately three thousand seven hundred eighty (3,780) tons of SM-18, JD-6, JD-8, and JD-9 ore were stored on ore stockpile #2. Approximately 2,300 tons of western slope ore was shipped to Energy Fuels White Mesa Mill in Blanding, Utah

Finished Product Inventory as of December 31, 2012

• None

Material shipped off site from January to December 2012

- Yellowcake Concentrate None
- Vanadium Concentrate None

The Maintenance Shop and Laboratory are being retained to support reclamation and environmental monitoring. A brief summary of facility removal and disposal activities follows:

DEMOLITION SUMMARY

2012 Demolition Activities Summary and Schedule				
Acid Tanks January - April				
Lime Building	March - May			
Catalyst Plant cooling tower	May			
Electrical substations	May			
Old Mill lab	May			
Underground utilities and concrete vaults	June - July			

TRAINING

The Training Records Documentation and Tracking (TRDT) Program documents and tracks the required training in the areas of Radiation Protection, Health and Safety, QA, RWP, MSHA training or certification, Weekly Foreman Safety Meeting/Training Sessions, respirator certification, and any additional special training or certification. The TRDT Program is designed to allow review of any individual's training records at any time and was maintained in a Microsoft® Excel Workbook, "*Cotter Employee Training Worksheet 2012*", by the Radiation Safety Clerk (RSC). The Lab Manager maintains the Laboratory Personnel (Task Specific) Training and Qualification files in his office in the Analytical Laboratory. The CCMF employee and contractor training records documentation is complete through the end of 2012.

The TRDT Program remains dynamic and is being expanded and revised as additional documentation requirements are determined and pragmatic issues are addressed.

Actual training session and training certification records are filed in the 2012 RADIATION SAFETY - Training file; the 2012 INDUSTRIAL SAFETY - Training file; or the 2012 CONTRACTORS - Training file.

The *Employee Training* - 2012 Table (Table 8-1) shown below provides a breakdown of all training completed during 2012. Training was provided to employees, contractors, vendors, and others.

Type of Training	Cotter Personnel		OTHER (C vendors, con	Contractors, sultants, etc.)
	Number of	Number of	Number of	Number of
	Sessions	Hours	Sessions	Hours
Radiation Safety – New Hires	2	6.7	1	4.5
Radiation Safety – Rehires				
Radiation Safety - Quarterly	4	2.2	2	1
Radiation Safety - Briefing			3	2.25
Authorized User Training				
RSO Annual Refresher				
RSO Nuke Gauge School				
MSHA				
MSHA – New Miner	1	6.7		
Emergency Response	1	0.5		
RWP	1	2	2	2/Various
Respirator Training				
*Operational Safety Meetings including Industrial and Radiation Safety	Weekly - 52	No recorded		
Other Training (Miscellaneous)	5	7.25	1	2
TOTAL	66		9	
TOTAL SESSIONS	75			

Table 8-1 Employee Training 2012

*Instructors included Utility, Operations, and Maintenance Foremen

Radiation Safety

All employees who work the entire calendar year are required to meet the ninety (90) minute annual training requirement for Radiation Safety. All current Cotter employees met the ninety (90) minute training requirement according to LC 16.3.

Quarterly Radiation Safety training in 2012 included:

- 1st quarter: Fukashima Update.
- 2nd quarter: Environmental Air Sampling Observation, Urinalysis Rationale, Community Safety Status, CT Scan Concerns.
- 3rd quarter: Part 10 of Colorado Regulation Codes.
- 4th quarter: Emergency Notification, Trash Disposal Policy.

Industrial Health and Safety

Task safety training for employees and contractors was provided for specific projects. All employees received thirty (30) minutes of Emergency Response training.

Twelve employees received four (4) hours of First Aid/CPR-AED training. Twelve employees received two (2) hours of Asbestos Awareness training.

Demolition Planning

A significant number of planning and training sessions were held with both Cotter and Contractor personnel to establish criteria for demolition and ensure that personnel were apprised of the requirements. In addition, numerous "tailgate meetings" were held to detail daily activities. Some of these sessions were not formally documented.

SITE ADJACENT SOILS/PATHWAY MANAGEMENT (RAP Sections 24 and 29)

The silt fences located in Section 15, east of the mill site, were inspected and maintained as specified in RAP Section 29. Inspections were conducted on a weekly basis and following a rainfall of quarter inch (1/4") or more as measured at Cotter Milling Facility's onsite weather station.

Routine inspection of the silt fences were conducted in 2012 as required. Several rain activated checks were required. Damage and deterioration are noted during inspections and minor repairs are performed as needed.

Sediment and/or soil samples collected as required by RAP Section 29 are listed below:

Silt fence soils were collected in 2012. Silt fence soil sample analytical results for 2012 include data available for natural uranium and natural thorium decay chain radionuclides as well as molybdenum. All results are generally within historical range. Thorium-230 and Radium-226 results from soil samples taken at the nearby AS-210 Shadow Hills Estate site (see Section 4) are

similar to the RAP silt fence samples. A report of the findings entitled Radiological Survey *and Dose Assessment Report for Cotter Property near Air Particulate Monitoring station AS-210* was submitted March 2011. CDPHE provided a review and comments in May 2011. Resolution of this item is planned in concert with soils cleanup criteria for site decommissioning.

					Background
	Golf	Silt Fence	Silt Fence	Background	Range
Date	Course	A (North)	B (South)	Range Soil	Sediment
04/20/94		5.2	13.0	3.2	3.1
02/24/95	10.8	2.9	8.1	3.2	3.1
2/20/96	2.8	3.4	14.8	3.2	3.1
2/18/96	12.1	4.1	12.7	3.2	3.1
02/25/98	13.1	4.8	15.4	3.2	3.1
02/08/99	11.1	7.8	16.8	3.2	3.1
03/24/00	7.7	5.2	11.1	3.2	3.1
04/09/01	8.3	9.1	9.6	3.2	3.1
04/04/02	9.6	7.2	11.6	3.2	3.1
04/11/03	15.0	8.2	8.9	3.2	3.1
04/15/04	11.0	4.7	11.0	3.2	3.1
04/06/05	14.8	1.8	12.6	3.2	3.1
04/07/06	14.0	5.7	13.2	3.2	3.1
4/5/2007	19.0	1.6	12.9	3.2	3.1
5/6/2008	12.6	4.6	11.0	3.2	3.1
4/22/2009	7.8	8.6	10.0	3.2	3.1
6/10/2010	14.7	7.5	10.7	3.2	3.1
4/25/2011	13.0	2.0	2.0	3.2	3.1
4/30/2012	8.6	7.6	9.8	3.2	3.1

Table 8-2 ²³⁰Th Silt Fence pCi/G

Figure 8-1 ²³⁰Th Silt Fence pCi/G



	Golf	Silt Fence	Silt Fence	Background	Background Range
Date	Course	A (North)	B (South)	Range Soil	Sediment
4/11/2003	1.3	0.7	0.8		
4/15/2004	0.7	0.7	0.6		
4/6/2005	1.0	0.4	0.8		
4/7/2006	1.2	0.8	0.9		
4/5/2007	1.2	0.2	0.8		
5/6/2008	1.1	0.4	0.9		
4/22/2009	1.3	0.6	1.0		
6/10/2010	1.0	0.6	0.7		
4/25/2011	1.0	0.5	1.0		
4/30/2012	0.9	0.9	1.0		

Table 8-3²³²Th Silt Fence





Date	Golf Course	Silt Fence A (North)	Silt Fence B (South)	Background Range Soil	Background Range Sediment
4/7/2006	1.1	0.8	0.8	Kunge bon	Seument
4/5/2007	1.2	0.3	0.9		
5/6/2008	1.0	0.5	1.0		
4/22/2009	1.2	0.6	1.1		
6/10/2010	1.4	0.5	0.9		
4/25/2011	1.1	0.4	1.0		
4/30/2012	0.8	0.9	0.9		

Table 8-4²²⁸Th Silt Fence

Figure 8-3 ²²⁸Th Silt Fence



					Background
	Golf	Silt Fence	Silt Fence	Background	Range
Date	Course	A (North)	B (South)	Range Soil	Sediment
04/20/94	0000000	2.4	5.8	1.9	1.9
02/24/95	2.3	1.9	3.7	1.9	1.9
2/20/96	1.6	2.0	7.0	1.9	1.9
2/18/96	6.9	1.8	6.1	1.9	1.9
02/25/98	2.9	2.1	7.0	1.9	1.9
02/08/99	2.5	3.1	6.4	1.9	1.9
03/24/00	1.9	2.5	5.6	1.9	1.9
04/09/01	2.3	3.9	4.5	1.9	1.9
04/04/02	2.1	3.3	4.8	1.9	1.9
04/11/03	2.7	3.1	4.1	1.9	1.9
04/15/04	3.1	2.8	6.8	1.9	1.9
04/06/05	3.1	1.3	6.8	1.9	1.9
04/07/06	2.5	2.3	4.7	1.9	1.9
4/5/2007	2.9	1.2	5.4	1.9	1.9
5/6/2008	2.0	2.2	4.5	1.9	1.9
4/22/2009	1.8	3.1	4.7	1.9	1.9
6/10/2010	2.3	2.2	3.6	1.9	1.9
4/25/2011	2.2	0.8	3.6	1.9	1.9
4/30/2012	1.7	2.9	3.7	1.9	1.9

Table 8-5²²⁶Ra Silt Fence

Figure 8-4 ²²⁶Ra Silt Fence



Dete	Golf	Silt Fence	Silt Fence	Background	Background Range
Date	Course	A (North)	B (South)	Range Soll	Sealment
4/7/2006	8.2	6.2	7.8		
4/7/2007	8.6	3.9	7.0		
5/6/2008	1.2	0.5	0.9		
4/22/2009	0.9	0.6	1.0		
6/10/2010	1.0	0.5	0.4		
4/25/2011	0.9	0.5	0.8		
4/30/2012	1.0	1.1	1.0		

Table 8-6²²⁴Ra Silt Fence

Figure 8-5 ²²⁴Ra Silt Fence



	Golf Course	Silt Fence A (North)	Silt Fence B (South)	Background Range Soil	Background Range Sediment
4/7/2006	4.6	3.9	6.1	1.8	1.8
4/5/2007	3.7	0.7	5	1.8	1.8
5/6/2008	3.1	1.3	3.8	1.8	1.8
4/22/2009	2.4	3.4	4.3	1.8	1.8
6/10/2010	3.2	2.6	3.4	1.8	1.8
4/25/2011	4.0	1.5	5.1	1.8	1.8
4/30/2012	2.5	3.8	3.8	1.8	1.8

Table 8-7 ²¹⁰Pb S<u>ilt Fence</u>

Figure 8-6 ²¹⁰Pb Silt Fence



ing/kg						
					Background	
	Golf	Silt Fence	Silt Fence	Background	Range	
	Course	A (North)	B (South)	Range Soil	Sediment	
04/20/94		3.9	4.6	2.5	2.3	
02/24/95	4.9	3.5	4.6	2.5	2.3	
2/20/96	1.9	2.3	3.1	2.5	2.3	
2/18/96	7.0	2.0	5.0	2.5	2.3	
02/25/98	1.9	1.7	1.6	2.5	2.3	
02/08/99	5.4	1.9	2.2	2.5	2.3	
03/24/00	3.0	2.0	2.0	2.5	2.3	
04/09/01	2.0	1.3	1.5	2.5	2.3	
04/04/02	1.7	3.9	2.7	2.5	2.3	
04/11/03	5.5	4.4	5.0	2.5	2.3	
04/15/04	10.0	1.5	3.3	2.5	2.3	
04/06/05	2.7	0.5	4.1	2.5	2.3	
04/07/06	6.0	2.8	4.6	2.5	2.3	
4/5/2007	2.5	<2.4	<2.4	2.5	2.3	
5/6/2008	4.3	3.4	4.6	2.5	2.3	
4/22/2009	2.4	2.4	1.1	2.5	2.3	
6/10/2010	3.8	2.7	4.8	2.5	2.3	
4/25/2011	3.8	1.1	5.1	2.5	2.3	
4/30/2012	2.6	2.6	3.8	2.5	2.3	

Table 8-8 Molybdenum Silt Fence





<u>EPHEMERAL STREAMS</u> (RAP Section 27)

No additional remediation work is required or has been performed in the ephemeral streams.

PERENNIAL STREAMS (RAP Section 28)

No remediation work is required or has been performed in the perennial streams.

HAZARD REDUCTION

A hazard reduction process was initiated during 2006 to achieve stand down conditions following cessation of operations. This process was continued in 2012. Demolition preparation as noted was conducted by Cotter staff to present the buildings to the demolition contractor with a low hazard level.