



**DEPARTMENT OF ENERGY**  
National Nuclear Security Administration  
Los Alamos Field Office  
Los Alamos, New Mexico 87544



JAN 14 2014

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Tom Blaine, Director  
Environmental Health Division  
New Mexico Environment Department  
P.O. Box 5469  
Santa Fe, NM 87502-5469

Dear Mr. Blaine:

Subject: Transmittal of 3,706 Transuranic Campaign Fiscal Year 2014 First Quarter Status Reports

Please find for your review the attached Los Alamos National Laboratory (LANL) 3,706 Transuranic (TRU) Campaign Status Report and the LANL Water Protection Status Report for the first quarter of Fiscal Year (FY) 2014.

As discussed in the past, maintaining public transparency in the 3,706 TRU Waste Campaign is of the utmost importance to the Department of Energy, Los Alamos Field Office. The attached quarterly status report will be highlighted from a link on the LANL website and available for the public's review by January 15, 2014.

Also attached is a revised Fiscal Year 2013 Fourth Quarter report which has been revised to correct errors or omissions.

The site continues to make outstanding progress removing waste and reducing risk. The Lab has removed a cumulative total of 3,053.9 m<sup>3</sup> of waste as of the end of December 2013, exceeding the FY13 Campaign milestone of 3,008 m<sup>3</sup> by 45.9 m<sup>3</sup>. That equates to 82 percent of the campaign's Material at Risk being removed from the site, representing a significant risk reduction.

The Lab is also pleased to share that of the 473 containers of newly generated waste received in FY12 for disposal, only 14 (3 percent) remain to be shipped and of the 568 containers received in FY13, only 72 (13 percent) remain to be shipped.

We look forward to continued success of this important work for Los Alamos as well as the State of New Mexico. If you have any questions, please contact David Nickless of my staff at (505) 665-6448.

Peter Maggiore  
Assistant Manager  
Environmental Projects Office

Enclosures

cc w/enclosures:

John Kieling

Chief

Hazardous Waste Bureau

New Mexico Environment Department

2905 Rodeo Park Drive East, Building 1

Santa Fe, NM 87505

B. Diamond, NA-GC, HQ/FORS

F. Marcinowski, EM-30, HQ/FORS

A. Harris, EM-31, HQ/Cloverleaf

W. White, OOM, NA-LA

M. Duvall, OOM, NA-LA

T. O'Leary, BA, NA-LA

G. Rael, NSM, NA-LA

D. Rhodes, EPO, NA-LA

B. Pfaff, EPO, NA-LA

L. Bishop, EPO, NA-LA

D. Nickless, EPO, NA-LA

T. Chiri, BA, NA-LA

J. Franco, WIPP, CB

T. Morgan, WIPP, CB

E. Ziemianski, WIPP, GSA-220

F. Sharif, WIPP, GSA-201

J. Mousseau, ADEP, LANS, MS-K778

D. Cox, ADEP, LANS, MS-K778

K. Johns-Hughes, LTP, LANS, MS-J910

Records Center, NA-LA

Official Contract File, NA-LA

EPO-32DN-559-555434

### Processing Highlights

**RANT (Shipping Facility):**

- Completed 63 shipments this Quarter for a cumulative total of 415 shipments to WIPP since the beginning of the Campaign in October 2011.
- Shipped a cumulative total of 76% of the total Material at Risk (MAR) for the Campaign.

**WCRRF (High Activity Drum Line):**

- The repackaging line has performed remediation on 1,119 drum equivalents (DE's) since the beginning of the Campaign.

**Building 375 (Box Line):**

- Throughout the Campaign, Box Line 375 has remediated 587.9 m3 of Legacy TRU Waste.
- Continued 24 hour operations during this quarter.

**Dome 33 (Drum Venting):**

- With completion of the drum venting for this Campaign during the 3rd Quarter of FY13, the LANL portion of the drum venting team was assigned to other 3,706 work.

**Building 412 (Box Line):**

- Throughout the Campaign, Box Line 412 has processed 576.4 m3. Completed re-tooling/start-up for drum processing.

**Dome 231 (Box Line):**

- Throughout the Campaign, Box Line 231 has processed 587.7 m3. Continued 24 hour operations and processing Hazard Category III boxes.

**Central Characterization Project (CCP):**

- Throughout the Campaign, CCP has fully characterized 15,255 containers to the WIPP Waste Acceptance Criteria.
- During the FY13 4th Qtr., the CCP fully characterized 1,101 containers.

*Information Revised:* Corrected to 415 shipments. Inadvertently included 1 shipment to Idaho.

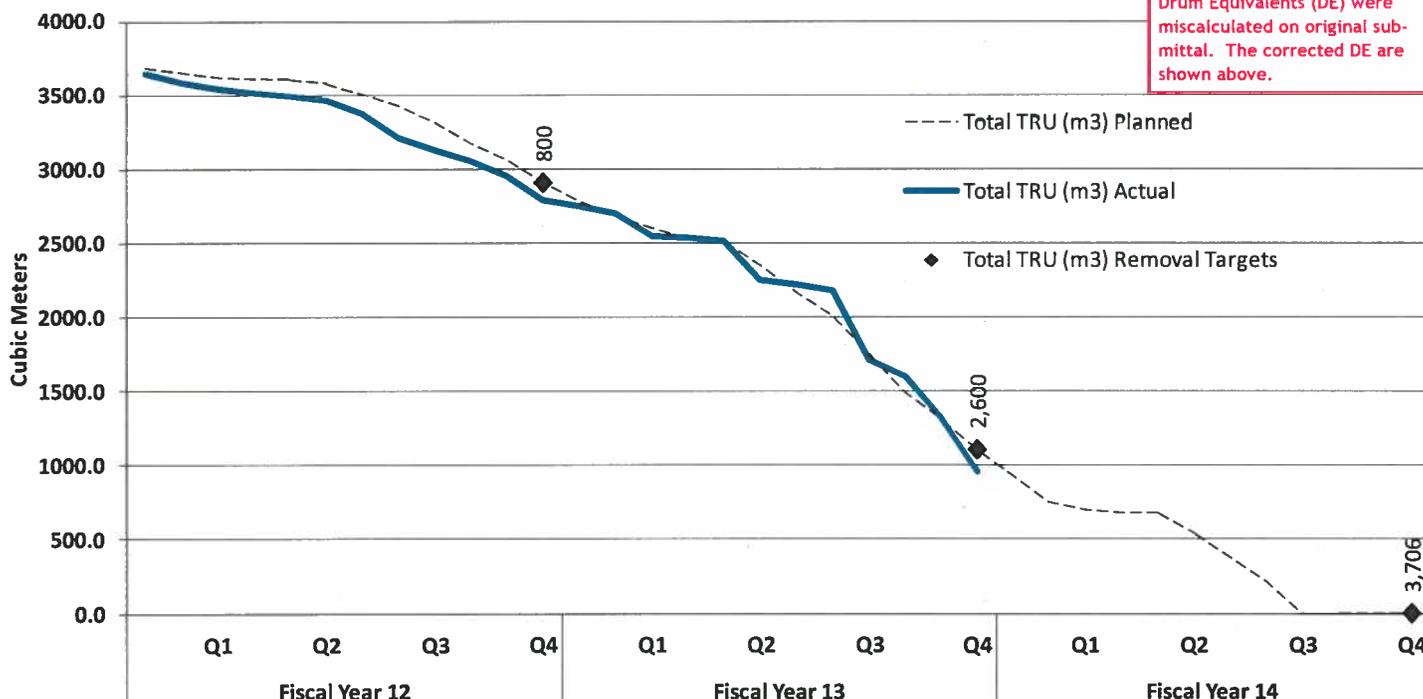
TRU Volume Removed			FY2012 thru 09/30/13			PROJECTIONS FOR NEXT QUARTER *			
SHIPMENTS * (as of 09/30/13)		2014 Goal	2012 Actual	FY2013 Q4 Actual to Date	Cumulative Actual to Date	% Complete	Q1 Forecast	Cumulative at End of Quarter	Cumulative % Complete
3,706 TRU Campaign	Volume (m3)	3706.0	920.1	752.0	2745.6	74%	407.8	3007.8	81%
	Drum Equivalents	17817.3	4423.3	3615.5	13200.0		1960.6	14460.6	
	Radioactivity (PE Ci)	41084.7	23075.2	2902.5	31332.9	76%	351.6	34890.1	83%

*Information Revised:* Corrected from 41,510.7

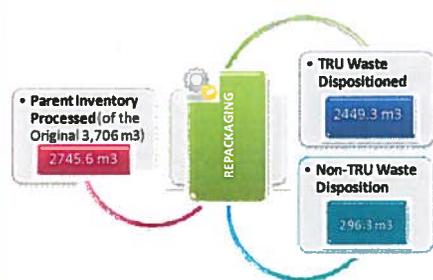
### 3,706 LANL TRU Campaign Performance

(Target = 3,706 m3; Remaining = 960 m3)

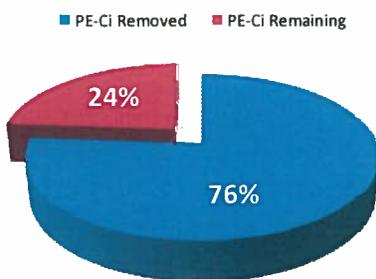
*Information Revised:* Drum Equivalents (DE) were miscalculated on original submittal. The corrected DE are shown above.



#### Parent vs. Shipped Volumes

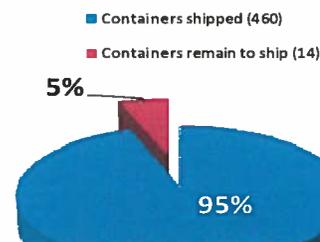


#### MAR Removal - Total Campaign



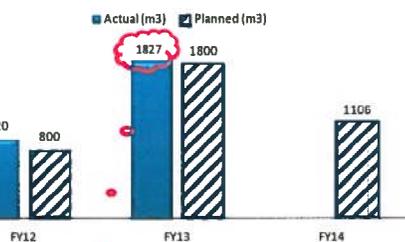
Note: Volumes and percentages are rounded to nearest whole number.

#### FY12 Newly Generated



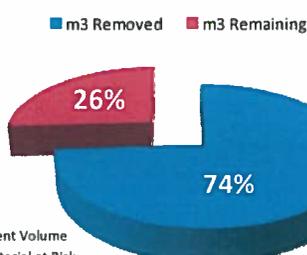
*Information Revised:* 4th Q data did not include classified waste shipments. Data has been corrected.

#### 3,706 Goal vs. Progress (Volumes)



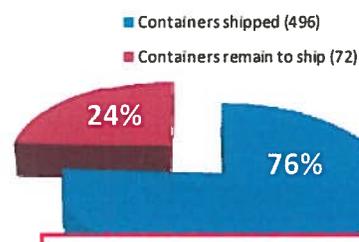
*Information Revised:* Rounding error.

#### 3,706 TRU Campaign Cumulative Progress



\* = Parent Volume  
 \*\* = Material at Risk  
 PE-Ci = Plutonium Equivalent Curies

#### FY13 Newly Generated



*Information Revised:* 4th Q data did not include classified waste shipments. Data has been corrected.

# LANL 3,706 TRU Campaign Status Report – FY14 1st Qtr. (Oct. thru Dec. 2013)

## Processing Highlights

### RANT (Shipping Facility):

- Completed 42 shipments this Quarter for a cumulative total of 457 shipments to WIPP since the beginning of the Campaign in October 2011.
- Shipped a cumulative total of 82% of the total Material at Risk (MAR) for the Campaign.

### WCRRF (High Activity Drum Line):

- The repackaging line has performed remediation on 1,262 drum equivalents (DE's) since the beginning of the Campaign in October 2011.

### Building 375 (Box Line):

- The Box Line 375 has remediated 697.7 m3 of Legacy TRU Waste since the beginning of the Campaign in October 2011.
- Continued 24 hour operations during this quarter.

### Dome 33 (Drum Venting):

- With completion of the drum venting for this Campaign during the 3rd Quarter of FY13.

### Building 412 (Box Line converted to Drum Line):

- The Box Line was converted to a drum line during the 3rd Quarter of FY13.
- During this Quarter, the Drum Line 412 processed 24.4 m3.

### Dome 231 (Box Line):

- The Box Line 231 has processed 657.7 m3 of Legacy TRU Waste since the beginning of the Campaign in October 2011.
- Continued 24 hour operations during this quarter.

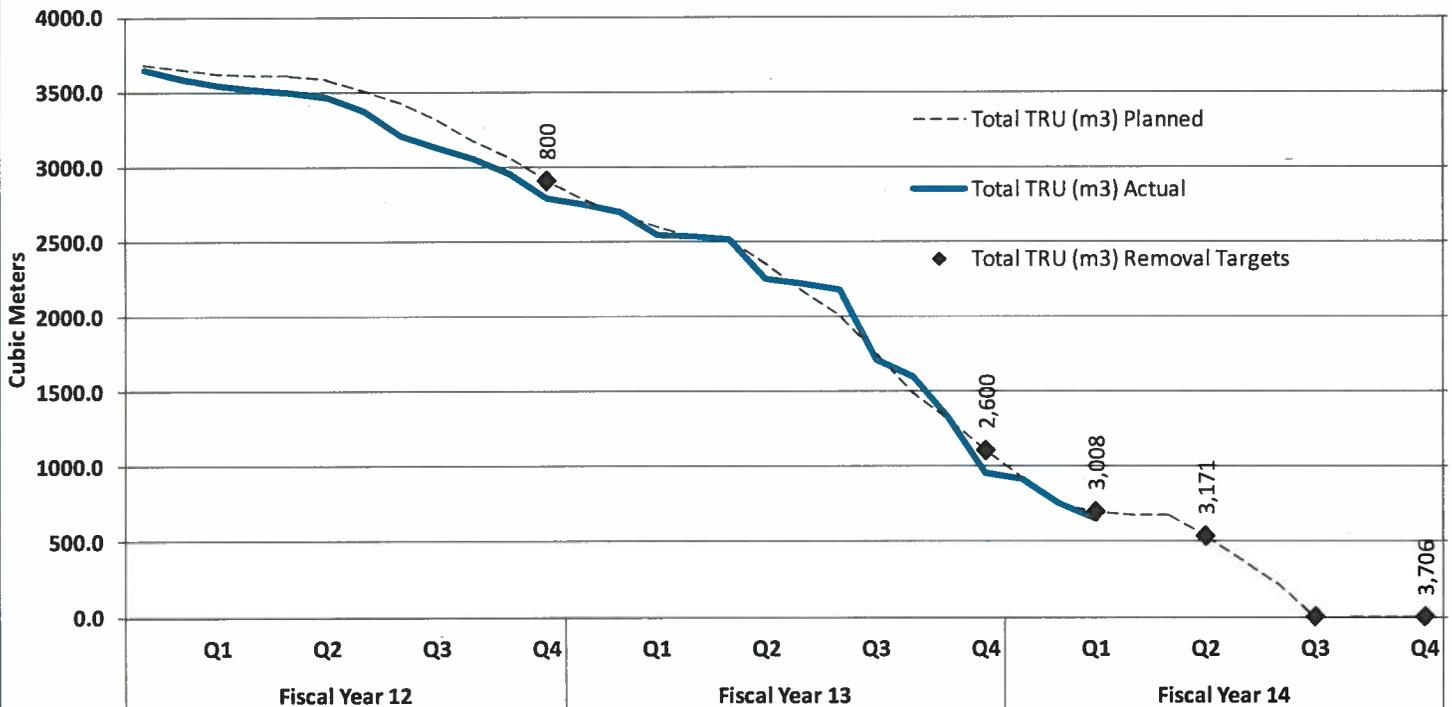
### Central Characterization Project (CCP):

- CCP has fully characterized 16,127 containers to the WIPP Waste Acceptance Criteria since the beginning of the Campaign in October 2011.
- During this Quarter, the CCP fully characterized 872 containers.

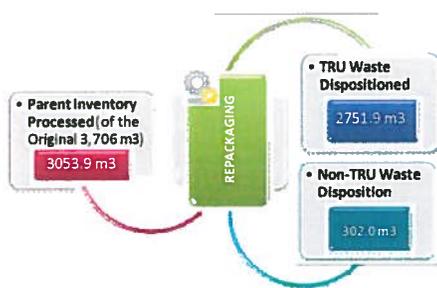
TRU Volume Removed				FY2012 thru 12/29/13			PROJECTIONS FOR NEXT QUARTER *		
SHIPMENTS * (as of 12/29/13)		2014 Goal	2012 Actual	2013 Actual	FY2014 Q1 Actual to Date	Cumulative Actual to Date	% Complete	Planned Cumulative at End of Quarter	Cumulative % Complete
3,706 TRU Campaign	Volume (m3)	3706.0	920.1	1827.4	306.4	3053.9	82%	3170.5	86%
	Drum Equivalents	17817.3	4423.3	8785.6	1473.2	14682.2		15242.8	
	Radioactivity (PE Ci)	41084.7	23075.2	8278.0	2338.1	33691.2	82%	35438.2	86%

## 3,706 LANL TRU Campaign Performance

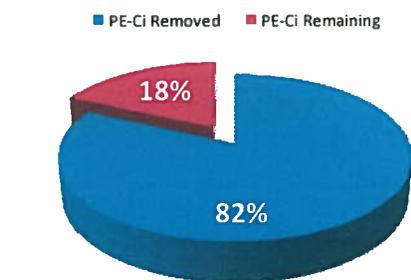
(Target = 3,706 m3; Remaining = 652 m3)



### Parent vs. Shipped Volumes

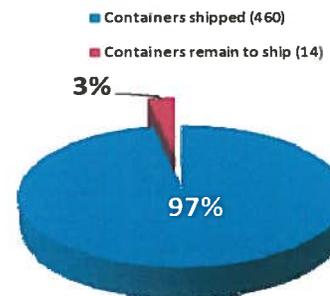


### MAR Removal - Total Campaign

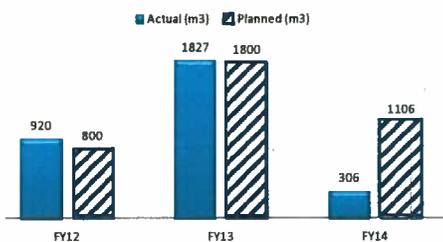


Note: Volumes and percentages are rounded to nearest whole number.

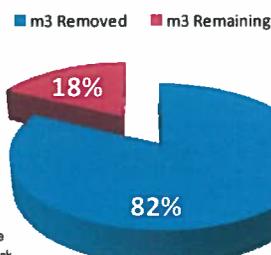
### FY12 Newly Generated



### 3,706 Goal vs. Progress (Volumes)

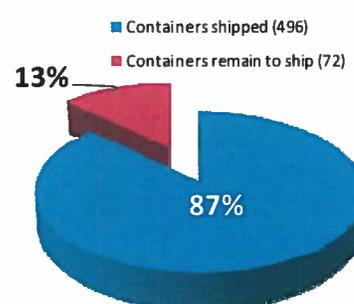


### 3,706 TRU Campaign Cumulative Progress



\* = Parent Volume  
\*\* = Material at Risk  
PE-Ci = Plutonium Equivalent Curies

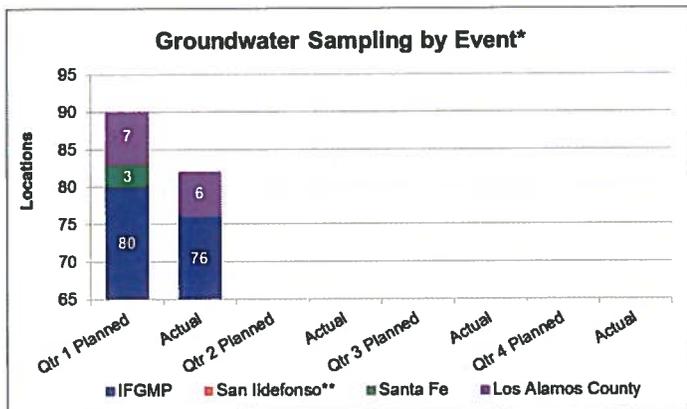
### FY13 Newly Generated



# LANL Water Protection Status Report — Fiscal Year 2014 First Quarter (October to December 2013)

	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	3 <sup>rd</sup> Qtr	4 <sup>th</sup> Qtr
Groundwater Protection — Continued monitoring of the Buckman Direct Diversion and Los Alamos County Water Supply Wells	☑			
Groundwater Protection — Continued implementation of the Interim Facility-Wide Groundwater Monitoring Plan (IFGMP)	☑			
Surface Water Protection — Continued protection of surface water through implementation of the Individual Storm Water Permit (IP)	☑			
Buckman Early Notification System operability at 100% per memorandum of understanding (MOU) requirements	☑			

## Groundwater Protection



\* An event is a single-screen well location, each individual well screen for multiscreen wells, spring, or base-flow location.

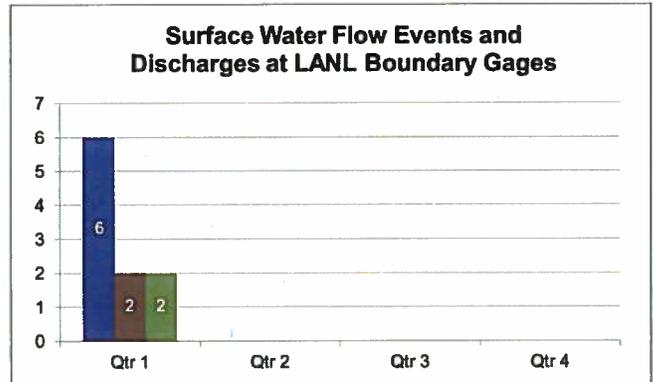
\*\* San Ildefonso locations included in both the IFGMP and San Ildefonso MOU are identified as San Ildefonso locations for this report.

FY13, 4<sup>th</sup> Quarter (Jul–Sep) Analytical Summary: Analysis of the 84 groundwater samples collected this quarter provided 18,562 analyte measurements of which no new exceedances were confirmed to be from a Los Alamos National Laboratory (LANL) source. (FY14, 1<sup>st</sup> quarter analytical results are pending.)

First Quarter Sampling Event Deviation Explanations:

- (1) **IFGMP:** R-28 and R-42 sampling was offline because of aquifer tests; Sandia Spring was frozen; and Spring 2 had snowmelt interference.
- (2) **San Ildefonso:** Not scheduled in the 1<sup>st</sup> quarter.
- (3) **City of Santa Fe:** Sampling canceled as requested by the City of Santa Fe.
- (4) **Los Alamos County:** One well (PM-4) was not operating.

## Surface Water Protection



- Days with measured flow\* at any LANL gage station (>5 cubic feet per second [cfs])
- Days with measured flow\* at LANL boundary stations E050.1, E060.1, E125, E250, E265, E267, E275, and E338 (>5 cfs)
- Days with measured flow\* at Buckman Early Notification Stations E050.1 and E060.1 (>5 cfs) from LANL watersheds.

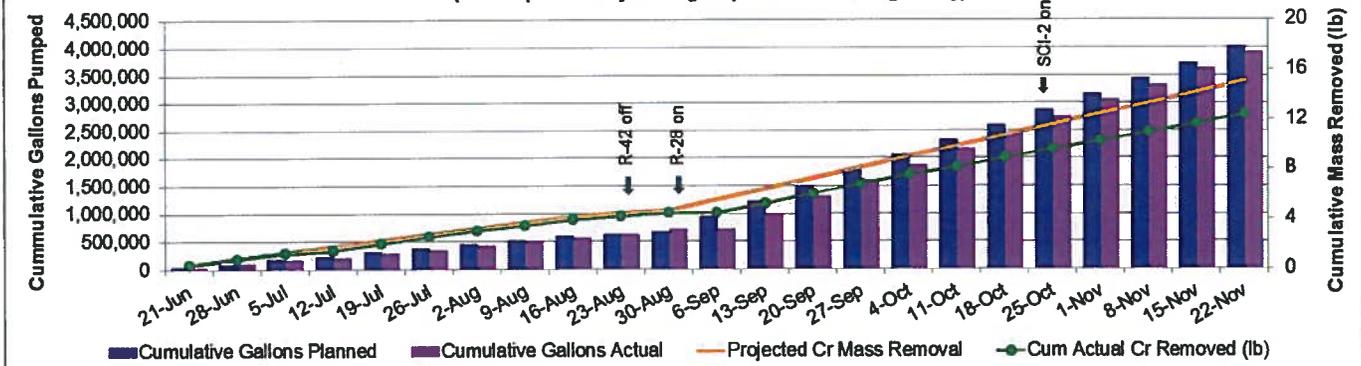
\* "Days with measured flow" is computed as the sum of the number of days each station exhibited flows greater than 5 cfs.

Notes:

- (1) Several gage stations were damaged by the September 13, 2013, flood and are being repaired.
- (2) Flow greater than 5 cfs was recorded for 70 days at gage station E123 below the Sandia Canyon wetland because of construction dewatering and is not representative of natural conditions. Thus, it is not included in the graph.
- (3) Two days of flow greater than 5 cfs were recorded at Buckman Early Notification Station E050.1 because of the release of water from the Los Alamos Canyon reservoir.

## Chromium Project Metrics

(from 4 p.m. Friday through 4 p.m. the following Friday)



Notes:

- (1) Through the end of FY14, 1<sup>st</sup> quarter, a total of 12.37 lb of chromium was removed from the 3.9 million gallons of groundwater extracted from the aquifer below Mortandad Canyon.
- (2) Pumping is suspended for the winter and will resume during spring 2014.