

**Analytical Results from the First Measurable  
Storm Event Following Installation of Control  
Measures at S-SMA-1.1**

**September 5, 2014**

**NPDES PERMIT NO. NM0030759**

**LA-UR-14-26796**



**LOS ALAMOS NATIONAL LABORATORY  
ANALYTICAL RESULTS FROM THE FIRST MEASURABLE STORM EVENT**

PF: S002

S-SMA-1.1

Site: 03-029

Tables 1 and 2 present the analytical results received from the confirmation monitoring samples collected from the first measurable storm event following the installation of enhanced controls at site monitoring area (SMA) S-SMA-1.1. The descriptions and photographs of each enhanced control installed at S-SMA-1.1 were provided to the U.S. Environmental Protection Agency on December 13, 2012 (EP2012-0296/LA-UR-12-26486). Table 3 presents each applicable target action level (TAL) for the analytes monitored.

**Table 1  
Radiochemical Analytical Results from the First Measurable Storm Event  
Collected on July 7, 2014, Following Installation of Enhanced Controls, SMA S-SMA-1.1**

Sample ID	Analyte	Field Prep	Detect Status	Result (pCi/L)	TAL Exceedance Ratio	Minimum Detectable Activity (pCi/L)	Uncertainty (pCi/L)	Qualifier*	Data Receipt Date
WT_IPC-14-56017	Gross alpha	Unfiltered	Detect	39.9	2.660	3.61	2.36	NQ	18-Aug-14
WT_IPC-14-56017	Radium-226 and Radium-228	Unfiltered	Detect	4.14	0.138	1.83	0.767	NQ	18-Aug-14

Note: TAL exceedance ratio is a preliminary average from the first of at least two confirmation samples.

\* Qualifier: NQ = Result is not qualified.

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Table 2

**Metals and Organic Analytical Results from the First Measurable Storm Event  
Collected on July 7, 2014, Following Installation of Enhanced Controls, SMA S-SMA-1.1**

Sample ID	Analyte	Field Prep	Detect Status	Result (µg/L)	TAL Exceedance Ratio	Method Detection Limit	Quantitation Limit	Qualifier <sup>a</sup>	Data Receipt Date
WT_IPC-14-56017	Cyanide, Weak acid dissociable	Unfiltered	Nondetect	0.005	n/a <sup>b</sup>	0.00167	0.005	U	18-Aug-14
WT_IPC-14-55941	Aluminum	Filtered	Detect	84.7	0.113	15	50	NQ	18-Aug-14
WT_IPC-14-55941	Antimony	Filtered	Nondetect	3	n/a	1	3	U	18-Aug-14
WT_IPC-14-55941	Arsenic	Filtered	Nondetect	5	n/a	1.7	5	U	18-Aug-14
WT_IPC-14-55941	Boron	Filtered	Nondetect	50	n/a	15	50	U	18-Aug-14
WT_IPC-14-55941	Cadmium	Filtered	Nondetect	1	n/a	0.11	1	U	18-Aug-14
WT_IPC-14-55941	Chromium	Filtered	Nondetect	10	n/a	2	10	U	18-Aug-14
WT_IPC-14-55941	Cobalt	Filtered	Nondetect	5	n/a	1	5	U	18-Aug-14
WT_IPC-14-55941	Copper	Filtered	Detect	2.24	0.521	0.35	1	NQ	18-Aug-14
WT_IPC-14-55941	Lead	Filtered	Nondetect	2	n/a	0.5	2	U	18-Aug-14
WT_IPC-14-56017	Mercury	Unfiltered	Detect	0.076	0.099	0.067	0.2	J	18-Aug-14
WT_IPC-14-55941	Nickel	Filtered	Detect	0.589	0.003	0.5	2	J	18-Aug-14
WT_IPC-14-56017	Selenium	Unfiltered	Nondetect	5	n/a	1.5	5	U	18-Aug-14
WT_IPC-14-55941	Silver	Filtered	Nondetect	1	n/a	0.2	1	U	18-Aug-14
WT_IPC-14-55941	Thallium	Filtered	Nondetect	2	n/a	0.45	2	U	18-Aug-14
WT_IPC-14-55941	Vanadium	Filtered	Detect	2.41	0.024	1	5	J	18-Aug-14
WT_IPC-14-55941	Zinc	Filtered	Nondetect	10	n/a	3.3	10	U	18-Aug-14
WT_IPC-14-56017	Total Polychlorinated biphenyls (PCBs)	Unfiltered	Detect	0.0182	28.438	n/a	n/a	NQ	12-Aug-14

Note: TAL exceedance ratio is a preliminary average from the first of at least two confirmation samples.

<sup>a</sup> Qualifier: U = Result is not detected; NQ = result is not qualified; J = result is estimated.

<sup>b</sup> n/a = Value is not applicable.

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**Table 3  
Applicable TALs**

Analyte	Units	CAS No.	MQL	ATAL	MTAL
Total PCBs	µg/L	1336-36-3	n/a*	0.00064	n/a
Aluminum, Dissolved	µg/L	7429-90-5	2.5	n/a	750
Antimony, Dissolved	µg/L	7440-36-0	60	640	n/a
Arsenic, Dissolved	µg/L	7440-38-2	0.5	9	340
Boron, Dissolved	µg/L	7440-72-8	100	5000	n/a
Cadmium, Dissolved	µg/L	7440-43-9	1	n/a	0.6
Chromium, Dissolved	µg/L	7440-47-3	10	n/a	210
Cobalt, Dissolved	µg/L	7440-48-4	50	1000	n/a
Copper, Dissolved	µg/L	7440-40-8	0.5	n/a	4.3
Cyanide, Weak acid dissociable	µg/L	57-12-5	10	5.2	22
Lead, Dissolved	µg/L	7439-92-1	0.5	n/a	17
Mercury	µg/L	7439-97-6	0.005	0.77	1.4
Nickel, Dissolved	µg/L	7440-02-0	0.5	n/a	170
Selenium	µg/L	7782-49-2	5	5	20
Silver, Dissolved	µg/L	7440-22-4	0.5	n/a	0.4
Thallium, Dissolved	µg/L	7440-28-0	0.5	6.3	n/a
Vanadium, Dissolved	µg/L	7440-62-2	50	100	n/a
Zinc, Dissolved	µg/L	7440-66-6	20	n/a	42
Gross alpha	pCi/L	n/a	n/a	15	n/a
Radium-226 and Radium-228	pCi/L	n/a	n/a	30	n/a

Notes: CAS = Chemical Abstracts Service; MQL = minimum quantification level;  
ATAL = average TAL; MTAL = maximum TAL.

\*n/a = Value is not applicable.