

**Analytical Results from the First Measurable
Storm Event Following Installation of Control
Measures at W-SMA-14.1**

November 19, 2013

NPDES PERMIT NO. NM0030759

LA-UR-13-28743

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

PF: W021

W-SMA-14.1

Sites: 15-004(h)
15-014(l)

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) W-SMA-14.1. The descriptions and photographs of each enhanced control installed at W-SMA-14.1 were provided to the U.S. Environmental Protection Agency on October 25, 2012 (EP2012-0262/LA-UR-12-24011). 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 September 13, 2013, Following Installation of Enhanced Controls, SMA W-SMA-14.1**

Sample ID	Analyte	Field Prep	Detect Status	Result (pCi/L)	TAL Exceedance Ratio ^a	Minimum detectable Activity (pCi/L)	Uncertainty (pCi/L)	Qualifier ^b	Data Receipt Date
WT_IPC-13-32037	Radium-226 and Radium-228	Unfiltered	Detect	1.97	2.580	1.31	0.497	NQ	10/21/13
WT_IPC-13-32037	Gross alpha	Unfiltered	Detect	38.7	0.066	4.34	2.28	NQ	10/21/13

^a Preliminary average TAL (ATAL) exceedance ratio from first of two possible samples.

^b Qualifier: NQ = Result is not qualified.

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

PF: W021

W-SMA-14.1

Sites: 15-004(h)
15-014(l)

**Table 2
Metals and Organic Analytical Results from the
First Measurable Storm Event Collected on September 13, 2013,
Following Installation of Enhanced Controls, SMA W-SMA-14.1**

Sample ID	Analyte	Field Prep	Detect Status	Result	Units	TAL Exceedance Ratio ^a	Method Detection Limit	Quantitation Limit	Qualifier ^b	Data Receipt Date
WT_IPC-13-32037	Cyanide, weak acid dissociable	Unfiltered	Nondetect	0.005	mg/L	n/a ^c	0.00167	0.005	U	10/21/13
WT_IPC-13-32492	Aluminum	Filtered	Detect	233	µg/L	0.311	15	50	NQ	10/21/13
WT_IPC-13-32492	Antimony	Filtered	Nondetect	3	µg/L	n/a	1	3	U	10/21/13
WT_IPC-13-32492	Arsenic	Filtered	Detect	1.9	µg/L	0.211	1.7	5	J	10/21/13
WT_IPC-13-32492	Boron	Filtered	Nondetect	50	µg/L	n/a	15	50	U	10/21/13
WT_IPC-13-32492	Cadmium	Filtered	Nondetect	1	µg/L	n/a	0.11	1	U	10/21/13
WT_IPC-13-32492	Chromium	Filtered	Nondetect	10	µg/L	n/a	2	10	U	10/21/13
WT_IPC-13-32492	Cobalt	Filtered	Nondetect	5	µg/L	n/a	1	5	U	10/21/13
WT_IPC-13-32492	Copper	Filtered	Detect	2.66	µg/L	0.619	0.35	1	NQ	10/21/13
WT_IPC-13-32492	Lead	Filtered	Nondetect	2	µg/L	n/a	0.5	2	U	10/21/13
WT_IPC-13-32037	Mercury	Unfiltered	Nondetect	0.2	µg/L	n/a	0.067	0.2	U	10/21/13
WT_IPC-13-32492	Nickel	Filtered	Detect	0.569	µg/L	0.003	0.5	2	J	10/21/13
WT_IPC-13-32037	Selenium	Unfiltered	Nondetect	5	µg/L	n/a	1.5	5	U	10/21/13
WT_IPC-13-32492	Silver	Filtered	Nondetect	1	µg/L	n/a	0.2	1	U	10/21/13
WT_IPC-13-32492	Thallium	Filtered	Nondetect	2	µg/L	n/a	0.45	2	U	10/21/13
WT_IPC-13-32492	Vanadium	Filtered	Detect	2.23	µg/L	0.022	1	5	J	10/21/13
WT_IPC-13-32492	Zinc	Filtered	Nondetect	10	µg/L	n/a	3.3	10	U	10/21/13
WT_IPC-13-32037	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	Unfiltered	Nondetect	0.281	µg/L	n/a	0.0899	0.281	U	10/21/13
WT_IPC-13-32037	Trinitrotoluene[2,4,6-] (TNT)	Unfiltered	Nondetect	0.281	µg/L	n/a	0.0899	0.281	U	10/21/13

^a Preliminary ATAL exceedance ratio from first of two possible samples.

^b Qualifier: U = Result is not detected; NQ = result is not qualified; J = result is estimated.

^c n/a = Value is not applicable.

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

PF: W021

W-SMA-14.1

Sites: 15-004(h)
15-014(l)

**Table 3
Applicable TALs**

Analyte	Units	CAS No.	MQL	ATAL	MTAL
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
RDX	µg/L	121-32-4	n/a	200	n/a
TNT	µg/L	118-96-7	n/a	20	n/a
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;
MTAL = maximum TAL.

* n/a = Value is not applicable.