Summary of Available Data for LOU 1 in Evaluation Area 05

Tronox Facility – Henderson, Nevada

Name of Facility: **(Former) Trade Effluent Settling Ponds**

Goal of Closure:

- Closure for future commercial/industrial uses.

Site Investigation Area:

- Size: Approximately 70 acres [Ref. 4]
- Location: North-central portion of Site. Area currently occupied by Pond GW-11, Pond WC-West (LOU 22), and Pond WC-East (LOU 23). Additionally, portions of LOU 1 were located to the west of the Tronox site, inside of the BMI Complex.

Description:

- Ponds were operated by U.S. Government and likely began receiving liquid wastes when operation started in 1942 and may have been used until the magnesium plant closed on November 15, 1944 [Ref.4].
- Actual dates of pond operation are not known [Ref.4].
- In the 1940's, four surface impoundments (ponds T3-T6) (20-acres each) were located inside the BMI Complex. The two easternmost Trade Effluent Settling Ponds and part of a third pond were located within what is now Tronox property. (The remaining portion of the third pond and the entire fourth pond extended off-Site to the west) [Ref. 5].
- Ponds were unlined and constructed of earthen dikes along northern, eastern, and western margins. (Earthen dike along southern margin was unnecessary due to natural topography [Ref. 4].
- A French drain system was incorporated north of the ponds [Ref. 4]. The outlet of the French drain is not known.

<u>Pre-1944:</u>

- Waste was conveyed via the acid drain system (LOU 60) and absorber drain system from all 10 Unit buildings northward to the acid neutralization plant (see LOU 60 for location of acid neutralization plant). A distribution pipeline then conveyed the waste from the acid effluent neutralization plant to the settling ponds [Ref. 4].
- Initially, acid waste was neutralized with waste caustic liquor prior to discharge to the settling ponds. The neutralization process was abandoned when the caustic line disintegrated and un-neutralized liquid acid wastes were discharged directly to the settling ponds [Ref. 4].
- 1943 Aerial photograph show linear 'streaks' extending northward of settling ponds suggesting possible seepage from settling ponds [Ref. 5].
- Use of these ponds for liquid waste management after November 15, 1944 is not known. [Ref. 4].

<u>Post-1944:</u>

- Settling ponds received solid materials/wastes at various

times between 1945 and 1979 based on aerial photos taken in 1950, 1960, 1969, and 1979 [Ref. 4 and 5].

- Portions of southern extent of former settling ponds converted to AP storage areas circa 1953 [Ref 4].
- Majority of settling pond area remained inactive until 1980's [Ref. 4].
- February 1980 – January 1983: Hazardous waste landfill (LOU 10) was constructed and operated in western portion of area formerly occupied by settling ponds [Ref 4].
- September to October 1985: Landfill was closed and multi-layered cover system was constructed over landfill [Ref. 4].
- October 1988, surface impoundments WC-West and WC-East were constructed in areas formerly occupied by settling ponds [Ref. 4].

Known or Potential Chemical Classes:

- Metals
- Wet chemistry analytes
- Pesticides (May be associated with LOU 4 use of the acid drain system which discharged into the Trade Effluent Ponds.)

Process Waste Stream	Known or Potential Constituents Associated with LOU 1
US Government Discharges	• Specific chemical composition unknown but included acidic and caustic process liquors [Ref. 4].
Scrubbing towers that washed chlorinator exhaust gases in the chlorination portion of the "metal units".	• Hydrochloric acid liquid wastes • Liquid wastes containing metals
Absorber towers to remove last traces of chlorine and hydrochloric acid passing the primary and secondary scrubbing towers.	• Waste caustic liquor presumed to be sodium hydroxide [Ref. 4].
Unknown solids / wastes 1945 to 1979	• Potential solids from waste neutralization processes [Ref. 4].

Known or Potential Release Mechanisms:

- Potential leaching to subsurface soils and potentially to groundwater. The ponds were reportedly unlined increasing the likelihood for a release to the soil and groundwater [Ref. 4].
- Historic releases via infiltration through underlying soil groundwater occurred as waste water seeped into near surface coarse alluvium.
- Possible release to surface soils via infiltration through containment dikes/berms [Ref 4].

- Potential release of wind-blown particulate matter (none documented [Ref. 4].

Results of Historical Sampling:

- Surface and subsurface soils samples were collected (in 1987) prior to the construction of WC-West and WC-East, and analyzed for EP Toxicity procedures, six organic compounds, and eight RCRA metals [Ref. 4].
- In 1997, several borings (SB1-1 through SB1-7) were drilled within the area formerly occupied by the Trade Effluent Settling Ponds, prior to the construction of the GW-11 Pond [Ref. 1]. Soil samples were collected at depths up to 10 feet bgs and tested for eight metals (arsenic, barium, cadmium, total chromium, lead, mercury, selenium, and silver [Ref. 1].
- Groundwater is collected on a periodic or quarterly basis from the following wells: M-7B, M-79, M-83, M-84, M-88, M-98, M-99, M-100, M-101, M-102.
- Analytical results from historical sampling events are summarized in the attached tables: "LOU 1 Tables 6 and 7" (see attached).

Did Historical Samples Address Potential Release?

- No

Summary of Phase A SAI:

Soil:

- Phase A Investigation borings SA21 and SA23 are located within this LOU along the northern boundary to specifically evaluate this LOU [Ref. 2].

Groundwater:

- Wells M-98, M-100, and M-7B are located within the LOU and were sampled specifically to evaluate this LOU [Ref. 2].
- Analytical results for soil and groundwater from the Phase A sampling event are summarized in the attached tables: "LOU 1 Tables 1 through 5 and Tables 8 through 23" (see attached).

Are Phase A Sample Locations in "Worst Case" Areas?

- No

Is Phase B Investigation Recommended?

- Yes

Proposed Phase B Soil Investigation/Rationale:

- The location of borings proposed to evaluate the former Trade Effluent Settling Ponds are limited in part, due to the presence of the GW-11 Pond, Ponds WC-West and WC-East – all of which are active operating units that

occupy parts of this LOU, and the closed RCRA landfill that occupies the western end of this LOU.

- The following soil borings will be sampled as part of the focused Phase B Investigation for this LOU:
- Soil borings SA76, SA77, SA78, SA79, SA89, SA96, and SA97 are located within this LOU to evaluate local soil conditions due to potential releases.
- Soil borings SA80, SA81, and SA90 are located north (downgradient) of the LOU to evaluate areas where pond contents appeared to seep from base of northern dike in 1943 aerial photographs [Ref. 4 and 5].
- Soil borings SA88 and SA91 are located south (upgradient) of the LOU to evaluate local soil conditions due to potential releases.
- Three test pits (TP1, TP2, and TP3) will be excavated in the area west of the GW-11 Pond to evaluate local soil conditions due to potential releases.
- SA82, SA189, and SA120 located along the conveyance to LOU 1 to evaluate local soil conditions due to potential releases from historic piping.
- The following randomly selected soil boring locations will be sampled as part of the site-wide Phase B investigation, and are located within this LOU area:
  - SAH2-R1, SAH3-R1, SAI3-R1, SAI4-R1, SAI5-R1, SAI6-R1, SAJ2-R1, SAJ3-R1, SAJ5-R1, SAJ6-R1, SAJ7-R1, SAK5-R1, SAK7-R1, SAK8-R1.

Proposed Phase B Constituents List for Soils:

LOU Specific Analytes:

- Metals (Phase A list)
- Hexavalent chromium
- Perchlorate
- Wet chemistry analytes
- Organochlorine pesticides

Additional Analytes for Area Coverage:

- VOCs
- Asbestos

Proposed Phase B Groundwater Investigation/Rationale:

Include line item adjacent LOU's - include adjacent statement

- The following wells will be sampled as part of the focused Phase B Investigation for this LOU:
- Wells M-79, M-83, M-84, and M-88 (located within the LOU) will be used to evaluate local groundwater conditions and as part of site-wide evaluation of constituent trends in groundwater.
- Wells H-28A, M-7B, M-23, M-98, M-99, M-100, M-101, M-102, MC-32, and MC-97 along the northern boundary of LOU 1 (downgradient) will be used to evaluate local groundwater conditions and as part of site-wide evaluation of constituent trends in groundwater.

- Wells M-5A, M-69, and AA-MW-16 south of LOU 1 (upgradient) will be used to evaluate local groundwater conditions and as part of site-wide evaluation of constituent trends in groundwater.

Proposed Phase B Constituents List for Groundwater:

LOU Specific Analytes:

- Metals (Phase A list)
- Hexavalent chromium
- Organochlorine pesticides
- Wet chemistry analytes

Additional Analytes for Area Coverage:

- VOCs
- Perchlorate
- Radionuclides

Proposed Phase B Soil Gas Investigation/Rationale:

- The following points will be sampled for soil gas as part of the focused Phase B Investigation for this LOU:
- Points SG51, SG19, located in the southwestern portion of the LOU to evaluate area conditions for vapor-phase VOCs from soil and/or groundwater.
- Point SG24 located north (downgradient) of LOU 1 to evaluate area conditions for vapor-phase VOCs from soil and/or groundwater.
- Point SG52 located south (upgradient) of LOU 1 and along the conveyance to evaluate area conditions for vapor-phase VOCs from soil and/or groundwater.

Proposed Phase B Constituents List for Soil Gas:

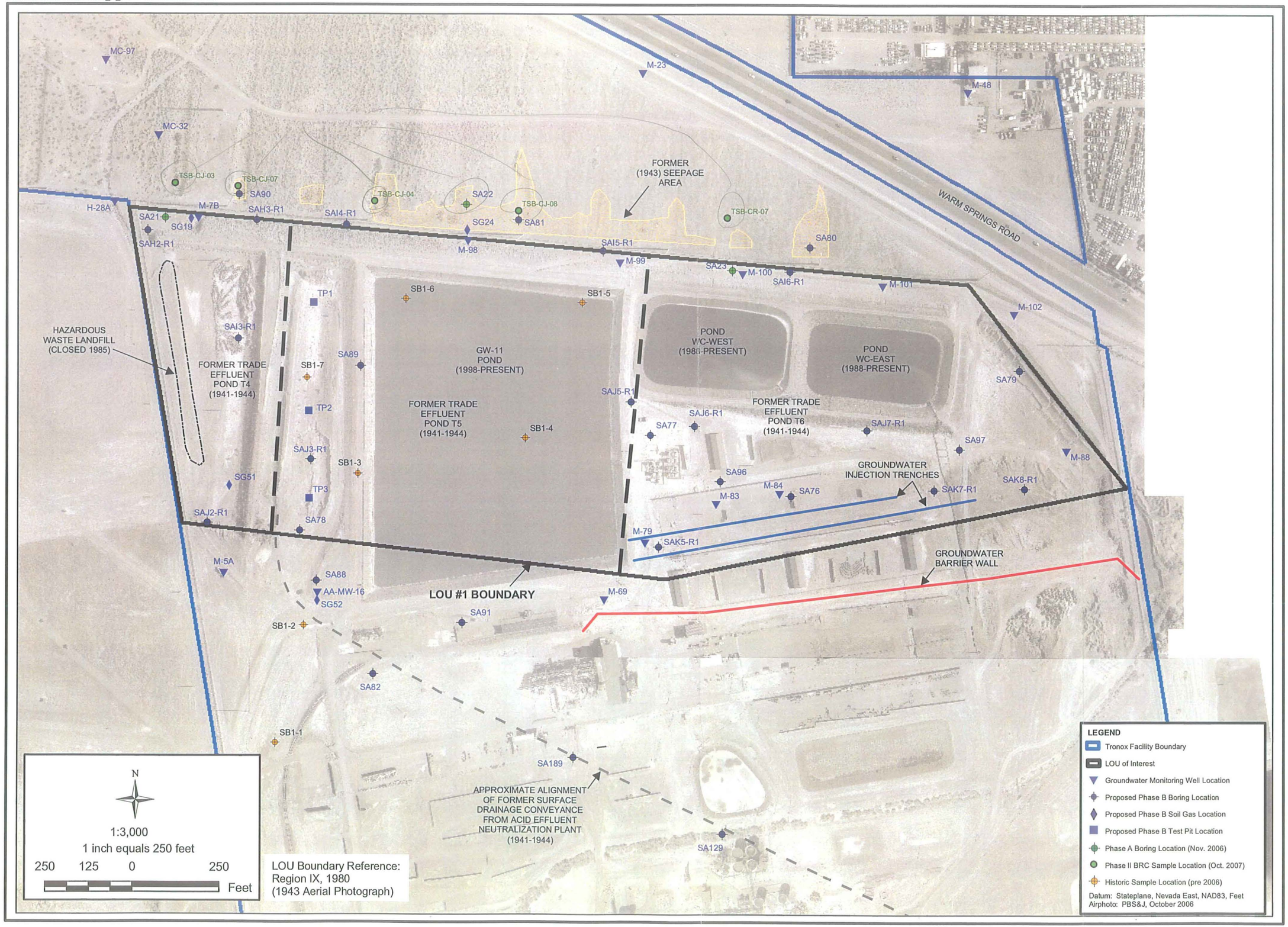
- VOCs (EPA TO-15)

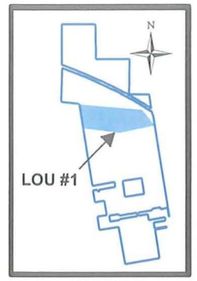
References

1. ENSR Corporation (ENSR), 1997, Phase II Environmental Conditions Assessment located at Kerr-McGee Chemical Corporation, Henderson, Nevada, August 7, 1997.
2. ENSR, 2007a, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
3. ENSR, 2007b, Quarterly Performance Report for Remediation Systems, Tronox LLC, Henderson, Nevada, July-September 2007, November 2007.
4. Kleinfelder, 1993, Environmental Conditions Assessment, Kerr-McGee Chemical Corporation, Henderson, Nevada Facility, April 15, 1993 (Final).
5. Region IX, 1980, Aerial Reconnaissance of Hazardous Waste Sources BMI Industrial Complex, Henderson, 1943-1979

LOU Map

J:\TronoxGIS\mxd\Phase_B_WorkPlan\LOUs\lou-1.mxd





DESIGNED BY:	DRAWN BY:	CHECKED BY:	APPROVED BY:
G. Hels	M. Scop	G. Hels	B. Ho

ENSR | AECOM
ENSR CORPORATION
1220 AVENIDA ACASO
CAMARILLO, CALIFORNIA 93012
PHONE: (805) 388-3775
FAX: (805) 388-3577
WEB: HTTP://WWW.ENSR.AECOM.COM

SAMPLE LOCATIONS FOR LOU #1
(FORMER) TRADE EFFLUENT SETTLING PONDS

Phase B Source Area Investigation
Tronox Facility
Henderson, Nevada

SCALE:	DATE:	PROJECT NUMBER:
AS SHOWN	2/11/2008	04020-023-430

FIGURE NUMBER:

X

SHEET NUMBER:

X

Soil and Groundwater Characterization Data

Summary of Available Data for LOU 1 in Evaluation Area 05

Tronox Facility – Henderson, Nevada

LOU-specific analytes identified include:

- Wet Chemistry
- Metals
- Organochlorine pesticides
- Perchlorate

The tables in **BOLD** below present historical data associated with these LOU-specific analytes.

LOU 1 Table 1 - Soil Characterization Data - Wet Chemistry
LOU 1 Table 2 - Groundwater Characterization Data - Wet Chemistry
LOU 1 Table 3 - Soil Characterization Data - Dioxins and Dibenzofurans
LOU 1 Table 4 - Soil Characterization Data - Metals
LOU 1 Table 5 - Groundwater Characterization Data - Metals
LOU 1 Table 6 - Groundwater Characterization Data - Routine Monitoring
LOU 1 Table 7 - Summary of Soil Analytical Data
LOU 1 Table 8 - Soil Characterization Data - Organochlorine Pesticides (OCPs)
LOU 1 Table 9 - Groundwater Characterization Data - Organochlorine Pesticides (OCPs)
LOU 1 Table 10 - Soil Characterization Data - Organophosphorus Pesticides (OPPs)
LOU 1 Table 11 - Groundwater Characterization Data - Organophosphorus Pesticides (OPPs)
LOU 1 Table 12 - Soil Characterization Data - PCBs
LOU 1 Table 13 - Groundwater Characterization Data - PCBs
LOU 1 Table 14 - Soil Characterization Data - Perchlorate
LOU 1 Table 15 - Groundwater Characterization Data - Perchlorate
LOU 1 Table 16 - Soil Characterization Data - Radionuclides
LOU 1 Table 17 - Groundwater Characterization Data - Radionuclides
LOU 1 Table 18 - Soil Characterization Data - SVOCs
LOU 1 Table 19 - Groundwater Characterization Data - SVOCs
LOU 1 Table 20 - Soil Characteristic Data - TPH and Fuel Alcohols
LOU 1 Table 21 - Soil Characterization Data - VOCs
LOU 1 Table 22 - Groundwater Characterization Data - VOCs
LOU 1 Table 23 - Groundwater Characterization Data – Long Asbestos Fibers in Respirable Soil Fraction
Notes for Phase A Data Tables

LOU 1 Table 1
Soil Characterization Data - Wet Chemistry

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Sampling Program	Ph A[1]	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	
Boring No.	SA21	SA21	SA21	SA21	SA21	SA22	SA22	SA22	SA23	SA23	SA23	SA23	
Sample ID	SA21-0.5	SA21-10	SA21-20	SA21-20D	SA21-30	SA22-0.5	SA22-10	SA22-20	SA23-0.5	SA23-10	SA23-20	SA23-20D	
Sample Depth (ft)	0.5	10	20	20	30	0.5	10	20	0.5	10	20	20	
Sample Date	11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/16/2006	11/16/2006	11/16/2006	11/09/2006	11/09/2006	11/09/2006	11/09/2006	
Wet Chemistry Parameter													**Units**
Percent moisture	**4.3**	**9.1**	**9.5**	**4.2**	**10.6**	**21.1**	**9.7**	**14.3**	**14.0**	**16.7**	**16.9**	**13.5**	percent
Alkalinity (as CaCO3)	**151 J**	55.0 UJ	**195 J**	**91.8 J**	**257 J**	**113**	55.4 U	**417**	**223 J+**	**570 J+**	60.1 UJ	57.8 UJ	mg/kg
Bicarbonate	**598 J**	**304 J**	**1160 J**	**470 J**	**302 J**	**373**	**317**	**2000**	**347 J+**	**697 J+**	**583 J+**	**426 J+**	mg/kg
Total Alkalinity	**749 J**	**327 J**	**1360 J**	**562 J**	**559 J**	**486**	**317**	**2420**	**570 J+**	**1270 J+**	**595 J+**	**426 J+**	mg/kg
Ammonia (as N)	5.2 UJ	5.5 UJ	5.5 UJ	5.2 UJ	5.6 UJ	6.3 UJ	5.5 UJ	5.8 UJ	5.8 UJ	6.0 UJ	6.0 UJ	5.8 UJ	mg/kg
Cyanide	R	R	R	R	R	R	R	R	0.58 UJ	0.60 UJ	0.60 UJ	0.58 UJ	mg/kg
MBAS	2.1 U	2.6 U	2.1 U	**2.2 J**	2.2 U	5.1 U	4.3 U	4.6 U	2.8 U	2.3 U	3.3 U	2.9 U	mg/kg
pH (solid)	**8.7**	**8.3**	**8.3**	**8.3**	**8.9**	**8.4**	**8.7**	**8.3**	**9.9**	**8.1**	**8.1**	**9.6**	none
Bromide	2.6 U	2.8 U	2.8 U	2.6 U	2.8 U	3.2 UJ	2.8 UJ	2.9 UJ	2.9 U	**2.6 J**	3.0 U	2.9 U	mg/kg
Chlorate	5.2 U	5.5 U	5.5 U	5.2 U	5.6 U	6.3 U	5.5 U	**5.4 J**	**5.2 J**	6.0 U	**101**	**101**	mg/kg
Chloride	**8.0**	**683**	**378**	**299**	**154**	**9.0 J-**	**10.0 J-**	**155 J-**	**4.2**	**41.6**	**204**	**100**	mg/kg
Nitrate (as N)	**2.5 J+**	**4.8 J+**	**0.93 J+**	**0.71 J+**	**0.64 J+**	**5.7 J+**	**2.0 J+**	**1.6 J+**	**0.21 J+**	**2.4 J+**	**11.3**	**6.8**	mg/kg
Nitrite	**0.47**	2.2 U	2.2 U	2.1 U	2.2 U	**1.1 J-**	**0.68 J-**	2.3 UJ	0.23 U	2.4 U	**3.1**	**1.9**	mg/kg
ortho-Phosphate	5.2 U	5.5 U	5.5 U	5.2 U	5.6 U	6.3 U	**6.3**	5.8 U	**5.7 J**	6 U	6.0 U	5.8 U	mg/kg
Sulfate	**57.0**	**2660**	**1600**	**1800**	**252**	**112 J+**	**23.1 J+**	**696**	**6.8**	**77.6**	**7410**	**5380**	mg/kg
Total Organic Carbon	**2480**	**6900**	**7200**	**5800**	**9400**	**7000 J-**	**11900 J-**	**7200 J-**	**5020**	**11700**	**1350**	**2520**	mg/kg

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

LOU 1 Table 2
Groundwater Characterization Data - Wet Chemistry

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Sampling Program	Ph A[1]	Ph A	Ph A	Ph A	
Well ID	M7B	M98	M100	M100D	
Sample ID	M7B	M98	M100	M100D	
Sample Date	11/30/2006	11/30/2006	12/04/2006	12/04/2006	
Wet Chemistry Parameters					**Units**
Total Dissolved Solids	**7650**	**3900**	**1670**	**1630**	mg/L
Total Suspended Solids	**37.0 J**	**21.0 J**	**12.0 J**	**7.0 J**	mg/L
Alkalinity (as CaCO3)	5.0 U	5.0 U	5.0 U	5.0 U	mg/L
Bicarbonate	**98.0**	**90.0**	**126**	**136**	mg/L
Total Alkalinity	**98.0**	**90.0**	**126**	**136**	mg/L
Ammonia (as N)	50.0 U	50.0 U	**3620**	**3770**	ug/L
MBAS	**4.0**	**0.22**	**0.41**	**0.34**	mg/L
Cyanide	R	R	R	R	ug/L
pH (liquid)	**7.2 J**	**7.1 J**	**7.5 J**	**7.6 J**	none
Specific Conductance	**4310**	**2420**	**1360 J+**	**1410 J+**	umhos/cm
Bromide	**84.1 J**	125 U	**0.22 J**	**0.23 J**	mg/L
Chlorate	**8.0**	**25.0**	**85.0**	**108**	mg/L
Chloride	**4160**	**1120**	**165**	**168**	mg/L
Nitrate (as N)	10.0 U	**2.6**	**12.8**	**12.9**	mg/L
Nitrite	10.0 U	10.0 U	**1.9**	**2.2**	mg/L
ortho-Phosphate	5.0 U	5.0 U	5.0 U	5.0 U	mg/L
Sulfate	**1690**	**1100**	**3520**	**3530**	mg/L
Total Organic Carbon	50.0 U	50.0 U	50.0 U	50.0 U	mg/L

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

LOU 1 Table 3
Soil Characterization Data - Dioxins and Dibenzofurans

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

	Sampling Program		Ph A[1]	Ph A	Ph A
		Boring No.	SA21	SA22	SA23
		Sample ID	SA21-0.5	SA22-0.5	SA23-0.5
	Sample Depth (ft)		0.5	0.5	0.5
	Sample Date		11/15/2006	11/16/2006	11/09/2006
Chemical Name	Method	Unit			
Dioxin 8290 SCREEN Total TEQ-ENSR Calculated (a) ng/kg		ng/kg	2.41	0.43	409
Dioxin SW 846 8290 Total TEQ-ENSR Calculated (a) ng/kg		ng/kg			330
Dioxin 8290 SCREEN Total TEQ-ENSR Calculated (b) ng/kg		ng/kg	2.42	0.47	409
Dioxin SW 846 8290 Total TEQ-ENSR Calculated (b) ng/kg		ng/kg			330
1,2,3,4,6,7,8-Heptachlorodibenzofuran	8290 Screen	ng/kg	18.803	1.882	2499.060
1,2,3,4,6,7,8-Heptachlorodibenzofuran	SW 846 8290	ng/kg			1955.868 J
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	1.360	0.735	208.977
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg			208.977
1,2,3,4,7,8,9-Heptachlorodibenzofuran	8290 Screen	ng/kg	5.435	0.739	1015.630
1,2,3,4,7,8,9-Heptachlorodibenzofuran	SW 846 8290	ng/kg			845.761 J
1,2,3,4,7,8-Hexachlorodibenzofuran	8290 Screen	ng/kg	6.907	0.819	1021.396
1,2,3,4,7,8-Hexachlorodibenzofuran	SW 846 8290	ng/kg			756.882 J
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	0.144	0.050	18.367
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg			18.367
1,2,3,6,7,8-Hexachlorodibenzofuran	8290 Screen	ng/kg	4.195	0.541	685.128
1,2,3,6,7,8-Hexachlorodibenzofuran	SW 846 8290	ng/kg			489.535 J
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	0.395	0.159	51.669
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg			51.669
1,2,3,7,8,9-Hexachlorodibenzofuran	8290 Screen	ng/kg	0.250 U	0.208	71.553
1,2,3,7,8,9-Hexachlorodibenzofuran	SW 846 8290	ng/kg			71.553
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	0.383	0.102	55.546
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg			55.546
1,2,3,7,8-Pentachlorodibenzofuran	8290 Screen	ng/kg	2.669	0.420	457.566
1,2,3,7,8-Pentachlorodibenzofuran	SW 846 8290	ng/kg			457.566
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	0.202	0.070	28.207
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg			28.207
2,3,4,6,7,8-Hexachlorodibenzofuran	8290 Screen	ng/kg	0.802	0.282	332.361
2,3,4,6,7,8-Hexachlorodibenzofuran	SW 846 8290	ng/kg			266.934 J
2,3,4,7,8-Pentachlorodibenzofuran	8290 Screen	ng/kg	0.772	0.182	199.983
2,3,4,7,8-Pentachlorodibenzofuran	SW 846 8290	ng/kg			199.983
2,3,7,8-Tetrachlorodibenzofuran	8290 Screen	ng/kg	2.994	0.399	389.197
2,3,7,8-Tetrachlorodibenzofuran	SW 846 8290	ng/kg			199.366 J
2,3,7,8-Tetrachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	0.047	0.073 U	5.753
2,3,7,8-Tetrachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg			5.753
Octachlorodibenzofuran	8290 Screen	ng/kg	38.958	3.974	6299.878
Octachlorodibenzofuran	SW 846 8290	ng/kg			5039.988 J
Octachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	2.214	3.430	213.695
Octachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg			213.695 J
Tetrachlorinated Dibenzofurans, (Total)	SW 846 8290	ng/kg			2262.272 J
Total HpCDD	SW 846 8290	ng/kg			328.279
Total HpCDF	SW 846 8290	ng/kg			4149.869 J
Total HxCDD	SW 846 8290	ng/kg			399.39
Total HxCDF	SW 846 8290	ng/kg			3588.757 J
Total PeCDD	SW 846 8290	ng/kg			291.05
Total PeCDF	SW 846 8290	ng/kg			4381.88
Total TCDD	SW 846 8290	ng/kg			212.030

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.
(a) Calculated assuming 0 for non-detected congeners and 2006 toxic equivalency factors (TEFs).
(b) Calculated assuming 1/2 detection limit as proxy for non-detected congeners and 2006 TEFs.

LOU 1 Table 4
Soil Characterization Data - Metals

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Sampling Program	Ph A[1]	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	
Boring No.	SA21	SA21	SA21	SA21	SA21	SA22	SA22	SA22	SA23	SA23	SA23	SA23	
Sample ID	SA21-0.5	SA21-10	SA21-20	SA21-20D	SA21-30	SA22-0.5	SA22-10	SA22-20	SA23-0.5	SA23-10	SA23-20	SA23-20D	
Sample Depth (ft)	0.5	10	20	20	30	0.5	10	20	0.5	10	30	20	
Sample Date	11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/16/2006	11/16/2006	11/16/2006	11/09/2006	11/09/2006	11/09/2006	11/09/2006	
Metals													**Units**
Aluminum	6140	7480	5840	7430	6380	6400	7430	8490	6850	7040	7080	6920	mg/kg
Antimony	0.15 J-	0.19 J-	0.17 J-	0.17 J-	0.14 J-	0.18 J-	0.17 J-	0.13 J-	0.13 J-	0.11 J-	0.076 J-	0.086 J-	mg/kg
Arsenic	2.4	4.6	4.2	4.3	10.5	3.1	5.8	26.8	2.6	3.0	14.0	12.9	mg/kg
Barium	165 J	171 J	194 J	154 J	212 J	277 J-	188 J	61.0 J	181 J	192 J	47.3 J	47.9 J	mg/kg
Beryllium	0.39	0.47	0.41	0.42	0.40	0.46	0.53	0.50	0.46	0.47	0.43	0.42	mg/kg
Boron	3.7 UJ	6.4 UJ	5.9 UJ	6.5 UJ	6.9 UJ	7.1 J-	8.4 J-	23.8 J-	4.5 UJ	4.2 UJ	18.3 J-	17.5 J-	mg/kg
Cadmium	0.12	0.073	0.073	0.096	0.089	0.076	0.082	0.092	0.14	0.056 J	0.069	0.070	mg/kg
Calcium	28400	20600	27200	24200	41800	18500	32000	31200	17500	24300	64700	55600	mg/kg
Chromium (Total)	8.7 J-	10.0 J-	7.6 J-	9.0 J-	12.0 J-	8.0	10.4 J-	10.6 J-	8.5 J-	8.0 J-	11.0 J-	10.6 J-	mg/kg
Chromium-hexavalent	0.21 U	0.22 U	0.22 U	0.21 U	0.22 U	0.25 U	0.11 J	0.23 U	0.23 U	0.24 U	0.16 J	0.18 J	mg/kg
Cobalt	5.2 J-	6.0 J-	7.2 J-	6.2 J-	4.4 J-	7.0 J-	5.5 J-	2.8 J-	7.1 J-	7.5 J-	3.2 J-	3.8 J-	mg/kg
Copper	11.2 J	11.1 J	11.2 J	12.3 J	10.8 J	13.5 J-	11.3 J-	6.6 J-	15.2 J	13.7 J	7.2 J	7.1 J	mg/kg
Iron	10300	11400	9990	11300	11100	11500	10600	6640	11500	11300	7520	7700	mg/kg
Lead	8.2 J	9.1 J	16.4 J	8.4 J	6.7 J	8.3	7.7	5.3	9.2	6.7	4.4	4.8	mg/kg
Magnesium	7560 J-	10000 J-	6520 J-	8060 J-	9660 J-	7680	10800 J-	15100 J-	6660 J-	8870 J-	9050 J-	7970 J-	mg/kg
Manganese	269 J	259 J	452 J	254 J	138 J	619	328	139	439	323	131	183	mg/kg
Molybdenum	0.56 J	0.74 J	1.2	0.57 J	0.49 J	0.69	0.74	0.73	0.54 J	0.41 J	0.39 J	0.43 J	mg/kg
Nickel	12.3 J-	12.6 J-	10.4 J-	12.8 J-	10.1 J-	12.9 J-	12.3 J-	6.6 J-	14.1 J-	11.7 J-	9.4 J	9.8 J-	mg/kg
Platinum	0.011 U	0.016 J	0.012 J	0.012 J	0.013 J	0.014 J	0.014 J	0.015 J	0.012 U	0.012 U	0.012 U	0.012 U	mg/kg
Potassium	2570	2240	1720	1870	1760	1840	1460	2210	1870	1180	2150	2020	mg/kg
Selenium	0.11 UJ	0.12 UJ	0.12 UJ	0.11 UJ	0.12 UJ	0.14 U	0.12 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	mg/kg
Silver	0.11 J	0.12 J	0.094 J	0.11 J	0.12 J	0.15 J	0.13 J	0.13 J	0.12 J	0.10 J	0.092 J	0.092 J	mg/kg
Sodium	530 J-	1450 J-	820 J-	1260 J-	924 J-	812	1460 J-	1060 J-	1120 J-	2790 J-	907 J-	852 J-	mg/kg
Strontium	139 J	251 J	224 J	310 J	217 J	166 J-	164 J	461 J	126 J	218 J	207 J	235 J	mg/kg
Thallium	0.073 U	0.081 U	0.091 U	0.073 U	0.078 U	0.10 J	0.11 J	0.12 J	0.083 J	0.084 U	0.094 J	0.098 J	mg/kg
Tin	0.46	0.51	0.48	0.44	0.45	0.49	0.45	0.64	0.51	0.36	0.46	0.46	mg/kg
Titanium	497	482	506	534	636	432 J+	408 J+	330 J+	410	371	328	336	mg/kg
Tungsten	0.28 UJ	0.34 UJ	0.67 J-	0.30 UJ	0.24 UJ	0.87 J-	0.46 J-	0.39 J-	0.36 J-	0.35 J-	0.29 J-	0.49 J-	mg/kg
Uranium	0.86	2.0	2.2	2.3	3.8	0.94	2.3	3.9	0.73	0.94	2.8	2.8	mg/kg
Vanadium	26.2 J-	30.2 J-	30.5 J-	30.7 J-	39.8 J-	29.1 J-	33.1 J-	33.5 J-	24.3 J-	25.7 J-	21.8 J-	22.1 J-	mg/kg
Zinc	25.0 J-	23.8 J-	23.8 J-	23.9 J-	24.5 J-	25.0 J-	22.5 J-	20.0 UJ	30.5 J-	22.4 J-	20.4 J-	20.6 J-	mg/kg
Mercury	0.007 UJ	0.0074 UJ	0.0074 UJ	0.007 UJ	0.0075 UJ	0.0085 UJ	0.0074 UJ	0.0078 UJ	0.020 J	0.008 UJ	0.008 UJ	0.0077 UJ	mg/kg

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

LOU 1 Table 5
Groundwater Characterization Data - Metals

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Sampling Program	Ph A[1]	Ph A	Ph A	
Well ID:	M7B	M98	M100	
Sample ID	M7B-Z	M98	M100-Z	
Sample Depth (ft)				
Sample Date	05/08/2007	11/30/2006	05/09/2007	
Metals				**Unit**
Aluminum	393 U	157 U	78.6 U	ug/L
Antimony	25.0 U	10.0 U	5.0 U	ug/L
Arsenic	100 U	**184**	**79.6**	ug/L
Barium	**36.0 J**	**16.3 J**	23.6 U	ug/L
Beryllium	4.4 U	1.8 U	0.88 U	ug/L
Boron	**4120**	**3200**	**2580**	ug/L
Cadmium	2.9 U	1.2 U	0.57 U	ug/L
Calcium	**591000**	**273000**	**133000**	ug/L
Chromium (Total)	R	**100 J**	**237**	ug/L
Chromium-hexavalent	1.0 U	**93.2 J**	**284**	ug/L
Cobalt	15.7 UJ	6.3 U	3.1 U	ug/L
Copper	12.5 U	**5.2**	3.0 U	ug/L
Iron	470 UJ	188 UJ	94.0 UJ	ug/L
Lead	24.6 U	9.8 U	4.9 U	ug/L
Magnesium	**408000**	**147000**	**56900**	ug/L
Manganese	17.1 U	6.8 U	24.4 U	ug/L
Molybdenum	25.0 U	**27.1 J**	**10.0 J**	ug/L
Nickel	25.8 UJ	10.3 U	5.2 U	ug/L
Platinum	5.0 U	2 U	1.0 U	ug/L
Potassium	**22500**	**8110**	**6780**	ug/L
Selenium	50.0 U	20 U	10.0 U	ug/L
Silver	10.1 U	4.1 U	2.0 U	ug/L
Sodium	**1430000**	**847000**	**300000**	ug/L
Strontium	**16900**	**6620**	**4400**	ug/L
Thallium	16.0 U	6.4 U	3.2 U	ug/L
Tin	10.0 U	4 U	2.0 U	ug/L
Titanium	19.6 U	7.8 U	6.1 U	ug/L
Tungsten	25.0 UJ	10.0 U	**5.5 J**	ug/L
Uranium	**44.9 J+**	**41.1**	**25.1**	ug/L
Vanadium	80.0 UJ	**133 J**	**163**	ug/L
Zinc	**86.2 J-**	20 UJ	25.7 U	ug/L
Mercury	0.093 U	0.093 U	**0.14 J+**	ug/L

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

LOU 1 Table 6
Groundwater Characterization Data - Routine Monitoring [1]

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Well ID	Date	Depth to water	Perchlorate	Qual	Total Chromium	Qual	TDS	Qual	Nitrate (as N)	Qual	Chlorate	Qual
units		feet	mg/l		mg/l		mg/l		mg/l		mg/l	
M-7B	5/2/2006	---	63	d	0.046	d	8030					
M-7B	8/1/2006	---					6650					
M-7B	5/2/2007	---	55.6		<0.02	U	7000					
M-7B	7/31/2007	---	59.5		<0.02	U	7280					
M-86	2/2/2006	29.23	20	d	0.12	d						
M-86	5/4/2006	29.34	100	d	0.43	d	1600					
M-86	8/3/2006	29.24	213	d	0.96	d	1930					
M-86	11/2/2006	29.89	427	d	1.9	d	4040					
M-86	2/1/2007	30.00	370		1.7		3420					
M-86	5/3/2007	31.09	295	J	1.4		3240	J				
M-86	8/2/2007	32.51	497		1.8		4050					
M-87	1/11/2006	33.01	94	d								
M-87	2/2/2006	33.27	120	d	1.3	d						
M-87	2/8/2006	33.27	130	d	1.4	d						
M-87	3/8/2006	33.61	110	d								
M-87	4/12/2006	33.91	130	d								
M-87	5/4/2006	33.82	150	d	1.3	d	1960					
M-87	5/10/2006	33.82	127	d	1.4	d						
M-87	6/13/2006	33.89	68.5	d								
M-87	7/13/2006	33.86	1140	d								
M-87	8/3/2006	33.92	92.2	d	0.96	d	1640					
M-87	8/9/2006	33.92	167	d	3.3	d	2680					
M-87	9/13/2006	34.24	129	d			1640					
M-87	10/12/2006	34.49	146	d			1940					
M-87	11/2/2006	34.33	155	d	1.8	d	2180					
M-87	11/9/2006	34.33	351	d	2.2	d	4170					
M-87	12/12/2006	34.59	120	d			1890					
M-87	1/10/2007	0.00	133				1970					
M-87	2/1/2007	34.64	116		1.3		1820					
M-87	2/8/2007	34.64	80.9		1.9		1590					
M-87	3/15/2007	34.65	118				1990					
M-87	4/12/2007	34.84	120				1910					
M-87	5/3/2007	35.05	121	J	1.5		2030	J				
M-87	5/10/2007	35.05	271		0.99		3500					
M-87	6/14/2007	35.78	147				2370					
M-87	7/13/2007	36.09	216				3070					
M-87	8/2/2007	36.19	196		1.9		2610					
M-87	8/16/2007	36.19	197		2.4		2860					
M-87	9/14/2007	36.57	211				2490					
M-88	2/2/2006	29.95	49	d	0.87	d						
M-88	5/3/2006	30.07	54	d	0.89	d	5670					
M-88	8/3/2006	30.41	56.3	d	0.93	d	5430					
M-88	11/1/2006	30.61	56.1	d	0.92	d	6360					
M-88	2/1/2007	30.63	52.4		0.93		6280					
M-88	5/3/2007	30.80	47.8	J	0.97		6260	J				
M-88	8/2/2007	31.33	55.3		0.87		6510					
M-98	1/31/2006	30.16	42	d	0.099	d						
M-98	5/2/2006	28.66	35	d	0.085	d	3120					
M-98	8/1/2006	29.90	25.4	d	0.15	d	3160					
M-98	10/31/2006	30.01	23.2	d	0.094	d	4940					
M-98	1/30/2007	29.40	17.3		0.089		3610					
M-98	5/1/2007	30.11	17.3		0.091		3810					
M-98	7/31/2007	30.89	19.4		0.089		3620					
M-99	1/31/2006	28.03	980	d	0.88	d						
M-99	5/2/2006	27.85	1100	d	0.88	d	4140					
M-99	8/1/2006	27.89	803	d	0.92	d	4650					
M-99	10/31/2006	28.02	975	d	1	d	5980					
M-99	1/30/2007	27.92	780		1.1		5750					
M-99	5/1/2007	28.32	756		1.1		5900					
M-99	7/31/2007	29.25	905		1.1		5760					

LOU 1 Table 6 (Continued)
Groundwater Characterization Data - Routine Monitoring[1]

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

M-100	2/2/2006	26.00	110	d	0.62	d	2140					
M-100	5/4/2006	25.98	71	d	0.41	d						
M-100	8/3/2006	26.02	63.2	d	0.35	d	1670					
M-100	11/2/2006	26.27	54.8	d	0.29	d	1820					
M-100	2/1/2007	26.21	43.2		0.26		1680					
M-100	5/3/2007	26.77	12.9	J	0.24		546	J				
M-100	8/2/2007	28.66	37.5		0.19		1540					
M-101	2/2/2006	26.91	130	d	0.29	d						
M-101	5/4/2006	28.41	92	d	0.26	d	3960					
M-101	8/3/2006	28.54	71.5	d	0.19	d	3160					
M-101	11/2/2006	28.42	70.6	d	0.25	d	3940					
M-101	2/1/2007	28.55	97.8		0.35		3820					
M-101	5/3/2007	28.62	100	J	0.54		3390	J				
M-101	8/2/2007	30.37	103		0.47		3380					
M-102	2/2/2006	36.48	170	d	1.8	d						
M-102	5/4/2006	36.91	130	d	1.4	d	2420					
M-102	8/3/2006	37.33	123	d	1.4	d	7860					
M-102	11/2/2006	37.59	110	d	1.1	d	2020					
M-102	2/1/2007	37.76	84.9		0.98		1840					
M-102	5/3/2007	38.05	92.1	J	1		1920	J				
M-102	8/2/2007	39.38	147		1.3		2330					

Explanation
1. ENSR, 2007, Quarterly Performance Report for Remediation Systems, Tronox Facility - Henderson, Nevada, July – September 2007.

< = less than the reporting limit
Blank cell or --- = no data and or no qualifier
Qual = data qualifiers applied by laboratory or during data validation
TDS = Total Dissolved Solids
mg/l = milligram per liter

Laboratory Qualifiers:
d = the sample was diluted
u = the analyte was not detected above the sample reporting limit
ud = the sample was dilluted and was not detected above the sample reporting limit

Validation Qualifiers:
J = the result is an estimated quantity
J- = the result is an estimated quantity and the result may be biased low
U = the analyte was analyzed for, but was not detected above the sample reporting limit
UJ = the sample was not detected above the sample reporting limit and the reporting limit is approximate

LOU 1 Table 7
Summary of Soil Analytical Data[1]

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

EP Toxicity Metals and pH Analysis

Sample Description	Date Collected	Sample Depth (ft bgs)	Metals EPA Method 6010 (mg/l). Preparation Method 1310								pH (Method 9045)
			As	Ba	Cd	Cr	Pb	Hg *	Se	Ag	
Hole 1	10-23-87	3-4	<0.3	0.16	<0.05	<0.05	<0.3	<0.0002	<0.3	<0.1	7.0
Hole 1	10-23-87	5-6	<0.3	0.95	<0.05	<0.05	<0.3	<0.0002	<0.3	<0.1	8.0
Hole 1	10-23-87	7-8	<0.3	0.48	<0.05	<0.05	<0.3	<0.0002	<0.3	<0.1	8.2
Hole 1	10-23-87	9-10	<0.3	0.95	<0.05	<0.05	<0.3	<0.0002	<0.3	<0.1	6.8
Hole 1	10-23-87	11-12	<0.3	0.66	<0.05	<0.05	<0.3	<0.0002	<0.3	<0.1	6.9
Hole 1	10-23-87	13-14	<0.3	1.00	<0.05	<0.05	<0.3	<0.0002	<0.3	<0.1	6.8
Hole 1	10-23-87	15-16	<0.3	0.90	<0.05	<0.05	<0.3	<0.0002	<0.3	<0.1	6.5
Hole 2	10-23-87	1-2	<0.3	0.10	<0.05	<0.05	<0.3	<0.0002	<0.3	<0.1	8.4
Hole 2	10-23-87	3-4	<0.3	0.65	<0.05	<0.05	<0.3	<0.0002	<0.3	<0.1	6.8

Pesticide and Silvex Analysis

Sample Description	Date Collected	Sample Depth (ft bgs)	EPA Method 608 (µg/l)				EPA Method 615 (µg/l)	
			Endrin	Lindane	Methoxychor	Toxaphene	2,4-D	2,4,5-TP Silvex
Hole 1	10-23-87	1-2	<0.01	<0.01	<0.1	<0.1	<0.1	<0.1
Hole 2	10-23-87	Surface	<0.01	<0.01	<0.1	<0.1	<0.1	<0.1
Iron Oxide (not associated with the	10-23-87	Solid	<0.01	<0.01	<0.1	<0.1	<0.1	<0.1

Notes:
1. Kerr-McGee, 1996b, Response to Letter of Understanding, Henderson, Nevada, October 1996.

LOU = Letter of Understanding
ft bgs = feet below ground surface
As = Arsenic
Ba = Barium
Cd = Cadmium
Cr = Chromium
Pb = Lead
Hg * = Mercury, EPA Method 7470
Se = Selenium
Ag = Silver
< = not detected above the designated method detection limit, with qualifier U-constituent was analyzed for but not detected.
mg/l = milligrams per liter
µg/l = micrograms per liter

Boring Number	Date	Sample Depth	Metals EPA Method 6010 (mg/kg)								pH Method
			As	Ba	Cd	Total Cr	Pb	Hg	Se	Ag	
SB1-1	4/9/1997	-1	3.2 [3]	173 [3]	<0.4	11.4	8.0	<0.1	<0.8	<0.4	8.9
		-5	4.4 [3]	131 [3]	<0.4	9.9	5.1	<0.1	<0.8	<0.4	8.6
		-10	5.1 [3]	183.0	<0.4	13.6	8.7	<0.1	<0.8	<0.4	8.2
		-10 D	5.2	193.0	<0.4	14.2	8.2	<0.1	<0.8	<0.4	ND
SB1-2	4/9/1997	-1	3.9	180.0	<0.4	11.0	9.7	<0.1	<0.9	<0.4	8.2
		-5	4.1	286.0	<0.4	12.8	9.0	<0.1	<0.9	<0.4	8.3
		-10	5.0	198.0	<0.4	11.8	8.0	<0.1	<0.8	<0.4	8.7
SB1-3	4/9/1997	-1	3.5	182.0	<0.5	10.2	8.4	<0.1	<0.9	<0.5	9.6
		-5	3.4	96.8	<0.5	9.9	6.0	<0.1	<0.9	<0.5	9.5
		-10	5.2	213.0	<0.4	13.4	8.4	<0.1	<0.8	<0.4	9.7
SB1-4	4/9/1997	-1	5.6	72.3	<0.4	5.70 (B)	8.3	<0.1	<0.8	<0.4	9.6
		-5	5.0	328.0	<0.4	12.6	8.5	<0.1	<0.8	<0.4	8.7
		-10	6.3	75.2	<0.4	18.0	7.8	<0.4	<0.9	<0.4	8.6
SB1-5	4/9/1997	-1	8.6	237.0	<0.5	23.8	65.8	0.1	<5	<0.5	9.6
SB1-5	4/9/1997	-5	17.4	397.0	2.6	43.5	158.0	<0.4	<5	<0.5	9.0
		-10	4.3	212.0	<0.4	16.1	10.3	<0.5	<0.8	<0.4	9.5
SB1-6	4/10/1997	-1	4.1	245.0	<0.5	15.9	16.0	<0.1	<1	<0.5	9.8
		-5	4.2 [3]	164 [3]	<0.4	15.8	8.9	<0.1	<0.8	<0.4	8.4
		-10	6.7 [3]	197 [3]	<0.4	13.8	7.0	<0.1	<0.8	<0.4	8.6
SB1-7	4/10/1997	-1	6.6 [3]	168 [3]	<0.4	31.3	184.0	<0.1	<0.9	<0.4	9.2
		-5	18.3 [3]	812 [3]	0.428 (B)	37.7	60.6	<0.1	<9	0.6 (B)	8.4
		-10	5.1 [3]	178 [3]	<0.4	14.6	8.9	<0.1	<0.8	<0.4	8.9
		-10D	4.7	134.0	<0.4	14.3	6.9	<0.4	<0.9	<0.4	8.8

Notes:
2. ENSR Corporation (ENSR), 1997, Phase II Environmental Conditions Assessment located at Kerr-McGee Chemical Corporation, Henderson, Nevada, August 7, 1997.

ft bgs = feet below ground surface
As = Arsenic
Ba = Barium
Cd = Cadmium
Cr = Chromium
Pb = Lead
Hg = Mercury
Se = Selenium
Ag = Silver
< = not detected above the designated method detection limit with qualifier U-constituent was analyzed for but not detected.
B = Reported value is less than the contract-required detection limit but greater than or equal to the instrument detection limit.
[3] = Relative percent difference (RPD) exceeded acceptable quality control limits.
D = Duplicate
ND = Not determined

LOU 1 Table 8
Soil Characterization Data - Organochlorine Pesticides (OCPs)

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Sampling Program	Ph A[1]	Ph A	Ph A	
Boring No.	SA21	SA22	SA23	
Sample ID	SA21-0.5	SA22-0.5	SA23-0.5	
Sample Depth (ft)	0.5	0.5	0.5	
Sample Date	11/15/2006	11/16/2006	11/09/2006	
Organochlorine Pesticides	mg/kg	mg/kg	mg/kg	**Unit**
4,4'-DDD	0.0018 U	0.0022 U	0.0020 U	mg/kg
4,4'-DDE	0.0018 U	0.0022 U	0.0020 U	mg/kg
4,4'-DDT	0.0018 U	0.0022 U	0.0020 U	mg/kg
Aldrin	0.0018 U	0.0022 U	0.0020 U	mg/kg
Alpha-BHC	0.0018 U	0.0022 U	0.0020 U	mg/kg
Alpha-chlordane	0.0018 U	0.0022 U	0.0020 U	mg/kg
Beta-BHC	0.0018 U	**0.0088 J**	0.0020 U	mg/kg
Delta-BHC	0.0018 U	0.0022 U	0.0020 U	mg/kg
Dieldrin	0.0018 U	0.0022 U	0.0020 U	mg/kg
Endosulfan I	0.0018 U	0.0022 U	0.0020 U	mg/kg
Endosulfan II	0.0018 U	0.0022 U	0.0020 U	mg/kg
Endosulfan Sulfate	0.0018 U	0.0022 U	0.0020 U	mg/kg
Endrin	0.0018 U	0.0022 U	0.0020 U	mg/kg
Endrin Aldehyde	0.0018 U	0.0022 U	0.0020 U	mg/kg
Endrin Ketone	0.0018 U	0.0022 U	0.0020 U	mg/kg
Gamma-BHC (Lindane)	0.0018 U	0.0022 U	0.0020 U	mg/kg
Gamma-Chlordane	0.0018 U	0.0022 U	0.0020 U	mg/kg
Heptachlor	0.0018 U	0.0022 U	0.0020 U	mg/kg
Heptachlor Epoxide	0.0018 U	0.0022 U	0.0020 U	mg/kg
Methoxychlor	0.0034 UJ	0.0042 UJ	0.0038 U	mg/kg
Tech-Chlordane	0.010 U	0.013 U	0.012 U	mg/kg
Toxaphene	0.052 U	0.063 U	0.058 U	mg/kg

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

LOU 1 Table 9
Groundwater Characterization Data - Organochlorine Pesticides (OCPs)

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Sampling Program	Ph A[1]	Ph A	Ph A	Ph A	
Well ID	M7B	M98	M100	M100D	
Sample ID	M7B	M98	M100	M100D	
Sample Date	11/30/2006	11/30/2006	12/04/2006	12/04/2006	
Organochlorine Pesticides	ug/L	ug/L	ug/L	ug/L	**Unit**
4,4'-DDD	0.050 U	0.050 U	0.050 U	0.050 U	ug/L
4,4'-DDE	0.050 U	0.050 U	0.050 U	0.050 U	ug/L
4,4'-DDT	0.050 U	0.050 U	0.050 U	0.050 U	ug/L
Aldrin	0.050 U	0.050 U	0.050 U	0.050 U	ug/L
Alpha-BHC	0.050 U	0.050 U	**0.082**	**0.087**	ug/L
Alpha-chlordane	0.050 U	0.050 U	0.050 U	0.050 U	ug/L
Beta-BHC	0.050 U	0.050 U	0.050 U	0.050 U	ug/L
Delta-BHC	**0.078**	0.050 U	0.050 U	0.050 U	ug/L
Dieldrin	0.050 U	0.050 U	0.050 U	0.050 U	ug/L
Endosulfan I	0.050 U	0.050 U	0.050 U	0.050 U	ug/L
Endosulfan II	0.050 U	0.050 U	0.050 U	0.050 U	ug/L
Endosulfan Sulfate	0.050 U	0.050 U	0.050 U	0.050 U	ug/L
Endrin	0.050 U	0.050 U	0.050 U	0.050 U	ug/L
Endrin Aldehyde	0.050 U	0.050 U	0.050 U	0.050 U	ug/L
Endrin Ketone	0.050 U	0.050 U	0.050 U	0.050 U	ug/L
Gamma-BHC (Lindane)	**0.20**	0.050 U	0.050 U	0.050 U	ug/L
Gamma-Chlordane	0.050 U	**0.17 J**	0.050 U	0.050 U	ug/L
Heptachlor	**0.25 J**	0.050 U	0.050 U	0.050 U	ug/L
Heptachlor Epoxide	0.050 U	0.050 U	0.050 U	0.050 U	ug/L
Methoxychlor	0.10 U	0.10 U	0.10 U	0.10 U	ug/L
Tech-Chlordane	0.50 U	0.50 U	0.50 U	0.50 U	ug/L
Toxaphene	2.0 U	2.0 U	2.0 U	2.0 U	ug/L

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

LOU 1 Table 10
Soil Characterization Data - Organophosphorus Pesticides (OPPs)

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Sampling Program	Ph A[1]	Ph A	Ph A	
Boring No.	SA21	SA22	SA23	
Sample ID	SA21-0.5	SA22-0.5	SA23-0.5	
Sample Depth (ft)	0.5	0.5	0.5	
Sample Date	11/15/2006	11/16/2006	11/09/2006	
OPPs				**Unit**
Azinphos-methyl	0.014 UJ	0.016 UJ	0.015 U	mg/kg
Bolstar	0.014 U	0.016 U	0.015 U	mg/kg
Chlorpyrifos	0.021 UJ	0.025 U	0.023 U	mg/kg
Coumaphos	0.014 UJ	0.016 UJ	0.015 U	mg/kg
Demeton-O	0.041 U	0.049 U	0.045 U	mg/kg
Demeton-S	0.016 UJ	0.019 U	0.017 U	mg/kg
Diazinon	0.023 U	0.028 U	0.026 U	mg/kg
Dichlorvos	0.024 U	0.029 U	0.027 U	mg/kg
Dimethoate	0.023 UJ	0.028 UJ	0.026 U	mg/kg
Disulfoton	0.050 U	0.061 U	0.056 U	mg/kg
EPN	0.014 U	0.016 UJ	0.015 UJ	mg/kg
Ethoprop	0.016 U	0.019 U	0.017 U	mg/kg
Ethyl Parathion	0.019 U	0.023 U	0.021 UJ	mg/kg
Famphur	0.014 UJ	0.016 UJ	0.015 U	mg/kg
Fensulfothion	0.014 U	0.016 U	0.015 U	mg/kg
Fenthion	0.034 U	0.042 U	0.038 U	mg/kg
Malathion	0.016 U	0.019 U	0.017 U	mg/kg
Merphos	0.031 U	0.038 U	0.035 U	mg/kg
Methyl parathion	0.021 U	0.025 U	0.023 U	mg/kg
Mevinphos	0.016 U	0.019 U	0.017 U	mg/kg
Naled	0.034 UJ	0.042 UJ	0.038 UJ	mg/kg
Phorate	0.021 U	0.025 U	0.023 U	mg/kg
Ronnel	0.019 UJ	0.023 UJ	0.021 U	mg/kg
Stirphos	0.016 UJ	0.019 UJ	0.017 U	mg/kg
Sulfotep	0.021 U	0.025 U	0.023 U	mg/kg
Thionazin	0.019 U	0.023 U	0.021 U	mg/kg
Tokuthion	0.021 U	0.025 U	0.023 U	mg/kg
Trichloronate	0.021 UJ	0.025 U	0.023 U	mg/kg

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

LOU 1 Table 11
Groundwater Characterization Data - Organophosphorus Pesticides (OPPs)

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Sampling Program	Ph A[1]	Ph A	Ph A	Ph A	
Well ID	M7B	M98	M100	M100D	
Sample ID	M7B	M98	M100	M100D	
Sample Date	11/30/2006	11/30/2006	12/04/2006	12/04/2006	
OPPs	ug/L	ug/L	ug/L	ug/L	**Unit**
Azinphos-methyl	2.5 UJ	2.5 UJ	2.5 U	2.5 U	ug/L
Bolstar	1.0 U	1.0 U	1.0 U	1.0 U	ug/L
Chlorpyrifos	1.0 U	1.0 U	1.0 U	1.0 U	ug/L
Coumaphos	1.0 U	1.0 U	1.0 U	1.0 U	ug/L
Demeton-O	1.0 U	1.0 U	1.0 U	1.0 U	ug/L
Demeton-S	1.0 U	1.0 U	1.0 UJ	1.0 UJ	ug/L
Diazinon	1.0 U	1.0 U	1.0 U	1.0 U	ug/L
Dichlorvos	1.0 U	1.0 U	1.0 U	1.0 U	ug/L
Dimethoate	1.0 U	1.0 U	1.0 U	1.0 U	ug/L
Disulfoton	0.50 U	0.50 U	0.50 U	0.50 U	ug/L
EPN	1.2 U	1.2 U	1.2 U	1.2 U	ug/L
Ethoprop	0.50 U	0.50 U	0.50 U	0.50 U	ug/L
Ethyl Parathion	1.0 U	1.0 U	1.0 U	1.0 U	ug/L
Famphur	1.0 U	1.0 U	1.0 U	1.0 U	ug/L
Fensulfothion	2.5 U	2.5 U	2.5 U	2.5 U	ug/L
Fenthion	2.5 U	2.5 U	2.5 U	2.5 U	ug/L
Malathion	1.2 U	1.2 U	1.2 U	1.2 U	ug/L
Merphos	5.0 U	5.0 U	5.0 U	5.0 U	ug/L
Methyl parathion	4.0 U	4.0 U	4.0 U	4.0 U	ug/L
Mevinphos	6.2 U	6.2 U	6.2 U	6.2 U	ug/L
Naled	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	ug/L
Phorate	1.2 U	1.2 U	1.2 U	1.2 U	ug/L
Ronnel	10 U	10 U	10 U	10 U	ug/L
Stirphos	3.5 U	3.5 U	3.5 U	3.5 U	ug/L
Sulfotep	1.5 U	1.5 U	1.5 U	1.5 U	ug/L
Thionazin	1.0 U	1.0 U	1.0 U	1.0 U	ug/L
Tokuthion	1.6 U	1.6 U	1.6 U	1.6 U	ug/L
Trichloronate	0.50 U	0.50 U	0.50 U	0.50 U	ug/L

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

LOU 1 Table 12
Soil Characterization Data - PCBs

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Sampling Program	Ph A[1]	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	
Boring ID	SA21	SA21	SA21	SA21	SA21	SA22	SA22	SA22	SA23	SA23	SA23	SA23	
Sample ID	SA21-0.5	SA21-10	SA21-20	SA21-20D	SA21-30	SA22-0.5	SA22-10	SA22-20	SA23-0.5	SA23-10	SA23-20	SA23-20D	
Sample Depth (ft)	0.5	10	20	20	30	0.5	10	20	0.5	10	20	20	
Sample Date	11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/16/2006	11/16/2006	11/16/2006	11/09/2006	11/09/2006	11/09/2006	11/09/2006	
PCBs													Unit
Aroclor-1016	0.034 U	0.036 U	0.036 U	0.034 U	0.037 U	0.042 U	0.037 U	0.038 U	0.038 U	0.040 U	0.040 U	0.038 U	mg/kg
Aroclor-1221	0.034 U	0.036 U	0.036 U	0.034 U	0.037 U	0.042 U	0.037 U	0.038 U	0.038 U	0.040 U	0.040 U	0.038 U	mg/kg
Aroclor-1232	0.034 U	0.036 U	0.036 U	0.034 U	0.037 U	0.042 U	0.037 U	0.038 U	0.038 U	0.040 U	0.040 U	0.038 U	mg/kg
Aroclor-1242	0.034 U	0.036 U	0.036 U	0.034 U	0.037 U	0.042 U	0.037 U	0.038 U	0.038 U	0.040 U	0.040 U	0.038 U	mg/kg
Aroclor-1248	0.034 U	0.036 U	0.036 U	0.034 U	0.037 U	0.042 U	0.037 U	0.038 U	0.038 U	0.040 U	0.040 U	0.038 U	mg/kg
Aroclor-1254	0.034 U	0.036 U	0.036 U	0.034 U	0.037 U	0.042 U	0.037 U	0.038 U	0.038 U	0.040 U	0.040 U	0.038 U	mg/kg
Aroclor-1260	0.034 U	0.036 U	0.036 U	0.034 U	0.037 U	0.042 U	0.037 U	0.038 U	0.038 U	0.040 U	0.040 U	0.038 U	mg/kg

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

LOU 1 Table 13
Groundwater Characterization Data - PCBs

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Sampling Program	Ph A[1]	Ph A	Ph A	Ph A	
Well ID	M7B	M98	M100	M100D	
Sample ID	M7B	M98	M100	M100D	
Sample Date	11/30/2006	11/30/2006	12/04/2006	12/04/2006	
PCBs					**Unit**
Aroclor-1016	0.10 U	0.10 U	0.10 U	0.10 U	ug/L
Aroclor-1221	0.10 U	0.10 U	0.10 U	0.10 U	ug/L
Aroclor-1232	0.10 U	0.10 U	0.10 U	0.10 U	ug/L
Aroclor-1242	0.10 U	0.10 U	0.10 U	0.10 U	ug/L
Aroclor-1248	0.10 U	0.10 U	0.10 U	0.10 U	ug/L
Aroclor-1254	0.10 U	0.10 U	0.10 U	0.10 U	ug/L
Aroclor-1260	0.10 U	0.10 U	0.10 U	0.10 U	ug/L

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

LOU 1 Table 14
Soil Characterization Data - Perchlorate

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Boring ID	Sample ID	Sample Depth (ft)	Sample Date	Perchlorate ug/kg	Sampling Program
SA21	SA21-0.5	0.5	11/15/2006	**1170**	Ph A[1]
	SA21-10	10	11/15/2006	44.0 U	Ph A
	SA21-20	20	11/15/2006	44.2 U	Ph A
	SA21-20D	20	11/15/2006	41.8 U	Ph A
	SA21-30	30	11/15/2006	**2050**	Ph A
SA22	SA22-0.5	0.5	11/16/2006	**4950**	Ph A
	SA22-10	10	11/16/2006	**2460**	Ph A
	SA22-20	20	11/16/2006	**60400**	Ph A
SA23	SA23-0.5	0.5	11/09/2006	**2760**	Ph A
	SA23-10	10	11/09/2006	**1280**	Ph A
	SA23-20	20	11/09/2006	**43200**	Ph A
	SA23-20D	20	11/09/2006	**34300**	Ph A

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

LOU 1 Table 15
Groundwater Characterization Data - Perchlorate

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Well ID Number	Sample ID	Sample Date	Perchlorate	Units	Sampling Program
M7B	M7B	11/30/2006	**61000**	ug/L	Ph A[1]
M98	M98	11/30/2006	**21800**	ug/L	Ph A
M100	M100	12/04/2006	**51400 J+**	ug/L	Ph A
M100D	M100D	12/04/2006	**50700 J+**	ug/L	Ph A

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

LOU 1 Table 16
Soil Characterization Data - Radionuclides

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Boring ID Number	Sample ID	Sample Depth (ft)	Date	Ra-226 (gamma) pci/g	Ra-228 (gamma) pci/g	Th-228 (TH MOD) pci/g	Th-230 (TH MOD) pci/g	Th-232 (TH MOD) pci/g	U-233/234 (U MOD) pci/g	U-235/236 (U MOD) pci/g	U-238 (U MOD) pci/g	Sampling Program
SA21	SA21-0.5	0.5	11/15/2006	**1.15 J**	**1.81**	**0.954 J**	**0.671 J-**	**0.742 J**	**0.314 J**	**0.0211 J+**	**0.237 J**	Ph A[1]
	SA21-10	10	11/15/2006	1.22 U	**2**							Ph A
	SA21-20	20	11/15/2006	**1.67 J**	**1.87**							Ph A
	SA21-20D	20	11/15/2006	**2.01**	**1.73**							Ph A
	SA21-30	30	11/15/2006	**1.48 J**	**1.87**							Ph A
SA22	SA22-0.5	0.5	11/16/2006	**1.01 J-**	**1.78 J-**							Ph A
	SA22-10	10	11/16/2006	**1.37 J-**	**1.78 J-**							Ph A
	SA22-20	20	11/16/2006	**2.28 J-**	**1.99 J-**							Ph A
SA23	SA23-0.5	0.5	11/09/2006	**1.11 J+**	**2.06 J+**							Ph A
	SA23-10	10	11/09/2006	**1.18 J+**	1.66 U							Ph A
	SA23-20	20	11/09/2006	**1.73 J+**	**1.59 J+**							Ph A
	SA23-20D	20	11/09/2006	**1.72 J+**	**1.34 J+**							Ph A

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

LOU 1 Table 17
Groundwater Characterization Data - Radionuclides

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Well ID			Ra-226	Ra-228	Th-228	Th-230	Th-232	U-233/234	U-235/236	U-238	Sampling
Number	Sample ID	Date	pci/L	pci/L	pci/L	pci/L	pci/L	pci/L	pci/L	pci/L	Program
M7B	M7B-Z	05/08/2007	**0.672 J**	**1.85 J-**							Ph A[1]
M98	M98	11/30/2006	**0.43 J**	**0.465 J-**							Ph A
M100	M100-Z	05/09/2007	0.151 U	0.240 UJ							Ph A
M39	M39-ZD	05/10/2007	**0.185 J**	0.106 U	0.0253 U	**0.428 B**	**0.122 J**	**53.1**	**1.43**	**33.3**	Ph A

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

LOU 1 Table 18
Soil Characterization Data - SVOCs

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Sampling Program		Ph A1	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A	Ph A
Boring No.		SA21	SA21	SA21	SA21	SA21	SA22	SA22	SA22	SA23	SA23	SA23	SA23
Sample ID		SA21-0.5	SA21-10	SA21-20	SA21-20D	SA21-30	SA22-0.5	SA22-10	SA22-20	SA23-0.5	SA23-10	SA23-20	SA23-20D
Sample Depth (ft)	Analytical	0.5	10	20	20	30	0.5	10	20	0.5	10	20	20
Sample Date	Method	11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/16/2006	11/16/2006	11/16/2006	11/09/2006	11/09/2006	11/09/2006	11/09/2006
SVOC		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
1,4-Dioxane	non-SIM	69 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
2-Methylnaphthalene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
2-Methylnaphthalene	SIM	6.9 U											
Acenaphthene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Acenaphthene	SIM	6.9 U											
Acenaphthylene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Acenaphthylene	SIM	6.9 U											
Anthracene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Anthracene	SIM	6.9 U											
Benz(a)anthracene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Benz(a)anthracene	SIM	6.9 U											
Benzo(a)pyrene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Benzo(a)pyrene	SIM	6.9 U											
Benzo(b)fluoranthene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Benzo(b)fluoranthene	SIM	6.9 U											
Benzo(g,h,i)perylene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Benzo(g,h,i)perylene	SIM	6.9 U											
Benzo(k)fluoranthene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Benzo(k)fluoranthene	SIM	6.9 U											
bis(2-Ethylhexyl)phthalate	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Butyl benzyl phthalate	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Chrysene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Chrysene	SIM	6.9 U											
Dibenz(a,h)anthracene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Dibenz(a,h)anthracene	SIM	6.9 U											
Diethyl phthalate	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Dimethyl phthalate	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Di-N-Butyl phthalate	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Di-N-Octyl phthalate	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Fluoranthene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Fluoranthene	SIM	6.9 U											
Fluorene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Fluorene	SIM	6.9 U											
Hexachlorobenzene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Hexachlorobenzene	SIM	6.9 U											
Indeno(1,2,3-cd)pyrene	non-SIM	340 UJ	360 UJ	360 UJ	340 UJ	370 UJ	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Indeno(1,2,3-cd)pyrene	SIM	6.9 U											
Naphthalene	non-SIM	5.2 U	5.5 U	5.5 U	5.2 U	5.6 U	6.3 U	5.5 U	5.8 U	5.8 UJ	6.0 UJ	6.0 UJ	5.8 UJ
Naphthalene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Naphthalene	SIM	6.9 U											
Nitrobenzene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Octachlorostyrene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Phenanthrene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Phenanthrene	SIM	6.9 U											
Pyrene	non-SIM	340 U	360 U	360 U	340 U	370 U	420 U	370 U	380 U	380 U	400 U	400 U	380 U
Pyrene	SIM	6.9 U											
Pyridine	non-SIM	1700 U	1800 U	1800 U	1700 U	1800 U	2000 U	1800 U	1900 U	1900 U	1900 U	1900 U	1800 U

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

LOU 1 Table 19
Groundwater Characterization Data - SVOCs

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Sampling Program		Ph A1	Ph A	Ph A	Ph A
Well No.		M7B	M98	M100	M100D
Sample ID	Analytic	M7B	M98	M100	M100D
Sample Date	Method	11/30/2006	11/30/2006	12/04/2006	12/04/2006
SVOCs		ug/L	ug/L	ug/L	ug/L
1,4-Dioxane	non-SIM	10 U	10 U	10 UJ	10 U
2-Methylnaphthalene	non-SIM	10 U	10 U	10 UJ	10 U
2-Methylnaphthalene	SIM				
Acenaphthene	non-SIM	10 U	10 U	10 UJ	10 U
Acenaphthene	SIM				
Acenaphthylene	non-SIM	10 U	10 U	10 UJ	10 U
Acenaphthylene	SIM				
Anthracene	non-SIM	10 U	10 U	10 UJ	10 U
Anthracene	SIM				
Benz(a)anthracene	non-SIM	10 U	10 U	10 UJ	10 U
Benz(a)anthracene	SIM				
Benzo(a)pyrene	non-SIM	10 U	10 U	10 UJ	10 U
Benzo(a)pyrene	SIM				
Benzo(b)fluoranthene	non-SIM	10 U	10 U	10 UJ	10 U
Benzo(b)fluoranthene	SIM				
Benzo(g,h,i)perylene	non-SIM	10 U	10 U	10 UJ	10 U
Benzo(g,h,i)perylene	SIM				
Benzo(k)fluoranthene	non-SIM	10 U	10 U	10 UJ	10 U
Benzo(k)fluoranthene	SIM				
bis(2-Ethylhexyl)phthalate	non-SIM	10 U	10 U	10 UJ	10 U
Butyl benzyl phthalate	non-SIM	10 U	10 U	10 UJ	10 U
Chrysene	non-SIM	10 U	10 U	10 UJ	10 U
Chrysene	SIM				
Dibenz(a,h)anthracene	non-SIM	10 U	10 U	10 UJ	10 U
Dibenz(a,h)anthracene	SIM				
Diethyl phthalate	non-SIM	10 U	10 U	10 UJ	10 U
Dimethyl phthalate	non-SIM	10 U	10 U	10 UJ	10 U
Di-N-Butyl phthalate	non-SIM	10 U	10 U	10 UJ	10 U
Di-N-Octyl phthalate	non-SIM	10 U	10 U	10 UJ	10 U
Fluoranthene	non-SIM	10 U	10 U	10 UJ	10 U
Fluoranthene	SIM				
Fluorene	non-SIM	10 U	10 U	10 UJ	10 U
Fluorene	SIM				
Hexachlorobenzene	non-SIM	10 U	10 U	10 UJ	10 U
Hexachlorobenzene	SIM				
Indeno(1,2,3-cd)pyrene	non-SIM	10 U	10 U	10 UJ	10 U
Indeno(1,2,3-cd)pyrene	SIM				
Naphthalene	non-SIM	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	non-SIM	10 U	10 U	10 UJ	10 U
Naphthalene	SIM				
Nitrobenzene	non-SIM	10 U	10 U	10 UJ	10 U
Octachlorostyrene	non-SIM	10 U	10 U	10 UJ	10 U
Phenanthrene	non-SIM	10 U	10 U	10 UJ	10 U
Phenanthrene	SIM				
Pyrene	non-SIM	10 U	10 U	10 UJ	10 U
Pyrene	SIM				
Pyridine	non-SIM	20 U	20 U	20 UJ	20 UJ

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

LOU 1 Table 20
Soil Characterization Data - TPH and Fuel Alcohols

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

Boring No.	Sample ID.	Sample Depth (ft)	Sample Date	Fuel Alcohols			Total Petroleum Hydrocarbons			Sampling Program
				Ethanol	Ethylene glycol	Methanol	TPH - ORO	TPH - DRO	TPH - GRO	
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
SA21	SA21-0.5	0.5	11/15/2006				26 U	26 U	0.10 U	Ph A[1]
	SA21-10	10	11/15/2006				28 U	28 U	0.11 U	Ph A
	SA21-20	20	11/15/2006				28 U	28 U	0.11 U	Ph A
	SA21-20D	20	11/15/2006				26 U	26 U	0.10 U	Ph A
	SA21-30	30	11/15/2006				28 U	28 U	0.11 U	Ph A
SA22	SA22-0.5	0.5	11/16/2006				32 U	32 U	0.13 UJ	Ph A
	SA22-10	10	11/16/2006				28 U	28 U	0.11 U	Ph A
	SA22-20	20	11/16/2006				29 U	29 U	0.12 U	Ph A

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

Sampling	A	Ph A	Ph A
	B	SA23	SA23
	10	SA23-20	SA23-20D
Sample		20	20
Sa	006	11/09/2006	11/09/2006
VOCs	g	ug/kg	ug/kg
Naphthalene	JJ	6.0 UJ	5.8 UJ
1,1,1,2-Tetrachloroethane	U	6.0 U	5.8 U
1,1,1-Trichloroethane	JJ	6.0 UJ	5.8 UJ
1,1,2,2-Tetrachloroethane	U	6.0 U	5.8 U
1,1,2-Trichloroethane	U	6.0 U	5.8 U
1,1-Dichloroethane	JJ	6.0 UJ	5.8 UJ
1,1-Dichloroethene	JJ	6.0 UJ	5.8 UJ
1,1-Dichloropropene	U	6.0 U	5.8 U
1,2,3-Trichlorobenzene	J	6.0 UJ	5.8 UJ
1,2,3-Trichloropropane	U	6.0 U	5.8 U
1,2,4-Trichlorobenzene	JJ	6.0 UJ	5.8 UJ
1,2,4-Trimethylbenzene	JJ	6.0 UJ	5.8 UJ
1,2-Dibromo-3-chloropropa	U	6.0 U	5.8 U
1,2-Dichlorobenzene	JJ	6.0 UJ	5.8 UJ
1,2-Dichloroethane	JJ	6.0 UJ	5.8 UJ
1,2-Dichloropropane	U	6.0 U	5.8 U
1,3,5-Trimethylbenzene	JJ	6.0 UJ	5.8 UJ
1,3-Dichlorobenzene	JJ	6.0 UJ	5.8 UJ
1,3-Dichloropropane	U	6.0 U	5.8 U
1,4-Dichlorobenzene	JJ	6.0 UJ	5.8 UJ
2,2-Dichloropropane	JJ	6.0 UJ	5.8 UJ
2-Butanone	U	12 U	12 U
2-Chlorotoluene	U	6.0 U	5.8 U
2-Hexanone	U	12 U	12 U
2-Methoxy-2-methyl-butan	U	6.0 U	5.8 U
4-Chlorotoluene	JJ	6.0 UJ	5.8 UJ
4-Isopropyltoluene	JJ	6.0 UJ	5.8 UJ
4-Methyl-2-pentanone	U	12 U	12 U
Acetone	JJ	12.0 UJ	12 UJ
Benzene	JJ	6.0 UJ	5.8 UJ
Bromobenzene	U	6.0 U	5.8 U
Bromochloromethane	U	6.0 U	5.8 U
Bromodichloromethane	JJ	6.0 UJ	5.8 UJ
Bromoform	U	6.0 U	5.8 U
Bromomethane	JJ	12 UJ	12 UJ
Carbon tetrachloride	JJ	6.0 UJ	5.8 UJ
Chlorobenzene	JJ	6.0 UJ	5.8 UJ
Chloroethane	JJ	6.0 UJ	5.8 UJ

Sampling		Ph A	Ph A
B		SA23	SA23
S	10	SA23-20	SA23-20D
Sample		20	20
Sar	006	11/09/2006	11/09/2006
VOCs	g	ug/kg	ug/kg
Chloroform		6.0 U	5.8 U
Chloromethane	J	6.0 UJ	5.8 UJ
cis-1,2-Dichloroethene	J	6.0 U	5.8 U
cis-1,3-Dichloropropene	J	6.0 U	5.8 U
Dibromochloromethane	J	6.0 U	5.8 U
Dibromomethane	J	6.0 U	5.8 U
Dichlorodifluoromethane	J	6.0 UJ	5.8 UJ
Ethyl t-butyl ether	J	6.0 U	5.8 U
Ethylbenzene	J	6.0 U	5.8 U
Ethylene dibromide	J	6.0 U	5.8 U
Hexachlorobutadiene	J	6.0 UJ	5.8 UJ
isopropyl ether	J	6.0 U	5.8 U
Isopropylbenzene	J	6.0 UJ	5.8 UJ
Methyl tert butyl ether	J	6.0 UJ	5.8 UJ
Methylene chloride	J	6.0 UJ	5.8 UJ
N-Butylbenzene	J	6.0 UJ	5.8 UJ
N-Propylbenzene	J	6.0 UJ	5.8 UJ
sec-Butylbenzene	J	6.0 UJ	5.8 UJ
Styrene	J	6.0 UJ	5.8 UJ
t-Butyl alcohol	J	16.0 UJ	18 UJ
tert-Butylbenzene	J	6.0 UJ	5.8 UJ
Tetrachloroethene	J	6.0 UJ	5.8 UJ
Toluene	J	6.0 U	5.8 U
trans-1,2-Dichloroethylene	J	6.0 UJ	5.8 UJ
trans-1,3-Dichloropropene	J	6.0 UJ	5.8 UJ
Trichloroethene	J	6.0 UJ	5.8 UJ
Trichlorofluoromethane	J	6.0 UJ	5.8 UJ
Vinylchloride	J	6.0 U	5.8 U
Xylene (Total)	J	12 UJ	12 UJ

Notes:

1. ENSR, 2005, Conceptua
2. ENSR, 2007, Phase A S

LOU 1 Table 22
Groundwater Characterization Data - VOCs

Trade Effluent Settling Ponds
Tronox Facility - Henderson, Nevada

Sampling Program	Ph A[1]	Ph A	Ph A	Ph A
Well ID	M7B	M98	M100	M100D
Sample ID	M7B	M98	M100	M100D
Sample Date	11/30/2006	11/30/2006	12/04/2006	12/04/2006
VOCs	ug/L	ug/L	ug/L	ug/L
Naphthalene	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	**2.1 J**	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	5.0 U	5.0 U	5.0 UJ	5.0 UJ
1,2-Dichlorobenzene	5.0 U	5.0 U	**0.48 J**	**0.60 J**
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	5.0 U	5.0 U	**0.60 J**	**0.73 J**
1,3-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	5.0 U	5.0 U	**1.5 J**	**0.72 J**
2,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	10 U	10 U	10 U	10 U
2-Chlorotoluene	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	10 UJ	10 UJ	10 U	10 U
2-Methoxy-2-methyl-butane	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	5.0 U	5.0 U	5.0 U	5.0 U
4-Isopropyltoluene	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	10 U	10 U	10 UJ	10 UJ
Acetone	10 U	10 U	10 U	10 U
Benzene	5.0 U	5.0 U	5.0 U	5.0 U
Bromobenzene	5.0 U	5.0 U	5.0 U	5.0 U
Bromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	10 UJ	10 UJ	10 UJ	10 UJ
Carbon tetrachloride	5.0 U	**9.6 J+**	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5.0 UJ	5.0 UJ	5.0 U	5.0 U
Chloroform	**2.3 J**	**810 J+**	**36**	**38**
Chloromethane	5.0 UJ	5.0 UJ	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U
Dibromomethane	5.0 U	5.0 U	5.0 U	5.0 U

LOU 1 Table 22 (Continued)
Groundwater Characterization Data - VOCs

Trade Effluent Settling Ponds
Tronox Facility - Henderson, Nevada

Sampling Program	Ph A[1]	Ph A	Ph A	Ph A
Well ID	M7B	M98	M100	M100D
Sample ID	M7B	M98	M100	M100D
Sample Date	11/30/2006	11/30/2006	12/04/2006	12/04/2006
VOCs	ug/L	ug/L	ug/L	ug/L
Dichlorodifluoromethane	5.0 UJ	5.0 UJ	5.0 U	5.0 U
Ethyl t-butyl ether	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U
Ethylene dibromide	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	5.0 U	5.0 U	5.0 U	5.0 U
isopropyl ether	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert butyl ether	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5.0 U	5.0 U	5.0 U	5.0 U
N-Butylbenzene	5.0 U	5.0 U	5.0 U	5.0 U
N-Propylbenzene	5.0 U	5.0 U	5.0 U	5.0 U
sec-Butylbenzene	5.0 UJ	5.0 UJ	5.0 U	5.0 U
Styrene	5.0 U	5.0 U	5.0 U	5.0 U
t-Butyl alcohol	10 UJ	10 UJ	10 UJ	10 UJ
tert-Butylbenzene	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 U	**0.54 J+**	5.0 U	5.0 U
Toluene	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethylene	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5.0 U	5.0 U	5.0 U	5.0 U
Trichlorofluoromethane	5.0 UJ	5.0 UJ	5.0 U	5.0 U
Vinylchloride	5.0 U	5.0 U	5.0 U	5.0 U
Xylene (Total)	10 U	10 U	10 U	10 U

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

LOU 1 Table 23
Soil Characterization Data - Long Asbestos Fibers in Respirable Soil Fraction

Tronox LLC Facility - Henderson, Nevada
Trade Effluent Settling Ponds

			Long Amphibole Protocol Structures	Long Chrysotile Protocol Structures	Sampling Program
No.	**Sample ID**	**Sample Date**	s/gPM10	s/gPM10	
SA21	SA21	12/02/2006	2935000 U	2935000 U	Ph A[1]
SA22	SA22	12/02/2006	2883000 U	2883000 U	Ph A
SA23	SA23	12/02/2006	2939000 U	**2940000**	Ph A

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.

Notes for Phase A Data Tables

Tronox Facility - Henderson, Nevada

Blank	Not analyzed.
Bold	Bold values are constituents detected above the laboratory sample quantitation limit.
Gray	Grayed out values are non-detected values with the laboratory sample quantitation limits shown.
B	The result may be a false positive totally attributable to blank contamination.
D	Dissolved Metals.
DO	Dissolved Oxygen.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J-	The result is an estimated quantity and the result may be biased low.
J+	The result is an estimated quantity and the result may be biased high.
JB	The result may be biased high partially attributable to blank contamination.
JK	The result is an estimated maximum possible concentration.
R	The result was rejected and unusable due to serious data deficiencies. The presence or absence of the analyte cannot be verified.
S	Soluable metals
T	Total Metals.
U	The analyte was analyzed for, but was not detected above the laboratory sample quantitation limit.
UJ	The analyte was not detected above the laboratory sample quantitation limit and the limit is approximate.
mg/kg	Milligrams per kilogram.
mg/L	Milligrams per liter.
ml/min	Milliliters per minute.
ng/kg	Nanogram per kilogram.
nm	Not measured.
NTUs	Nephelometric Turbidity Units.
ORP	Oxidation-reduction potential.
pCi/g	PicoCuries per gram.
pci/L	PicoCuries per liter.
s/gPM10	Revised protocol structures per gram PM10 fraction dust.
TEF	Toxic Equivalency Factor.
TEQ	Toxic Equivalent Concentration
ug/kg	Micrograms per kilogram.
ug/L	Micrograms per liter.
umhos/cm	MicroSiemens per centimeter.
L	Sample ID suffix indicating the sample was collected using low low-flow pumping rates (100-150 ml/min).
F	Sample ID suffix indicating the sample was collected using low-flow pumping rates (150-480 ml/min) and field filtered.
Z	Sample ID suffix indicating the sample was collected using low-flow pumping rates (150-480 ml/min).
*	No analytical data is available for this sample due to a laboratory error.
(a)	Calculated assuming 0 for non-detected congeners and 2006 toxic equivalency factors (TEFs).
(b)	Calculated assuming 1/2 detection limit as proxy for non-detected congeners and 2006 TEFs.