Summary of Available Data for LOU 20
Associated Piping in Area III

Tronox Facility – Henderson, Nevada

Name of LOU:

LOU 20 Associated Piping in Area III

Goal of Closure:

- Closure for future commercial/industrial use.

Site Investigation Area:

- Size: The piping associated with LOU 20 within Area III is approximately 1,625 linear feet
- Location: Western boundary of Area III.
- Current Status/Features: Pond C-1 within LOU 20 was used as an evaporation pond for non-hazardous industrial wastewater and is no longer active. The associated piping was removed in 1994.

Description:

- Pond C-1 received non-hazardous industrial liquid waste products from Unit 4, Unit 5, and the Steam Plant. The pond was used for evaporation and was not equipped to recycle liquids back to processes [Ref. 4 and 6].
- Pond C-1 was in operation from October 1974 through October 1994 [Ref. 4].
- Process waste streams included metal wastes and various sulfates and phosphates discharged into the Pond C-1 [Ref. 4].
- Process waste streams discharged into Pond C-1 did not contain fuels, solvents, PCBs, pesticides, or herbicides [Ref. 6].

<u>Associated piping system:</u>

- The piping system consisted of above-ground plastic piping aligned along 9th Street from Units 4 and 5 to the pond [Ref 6]. Piping was removed in 1994 when Pond C-1 was decommissioned [Ref. 7].
- Aboveground piping also ran from the steam plant across 9th Street to Pond C-1 [Ref. 6].
- Pipe system handled low pressure flow with no vents or sample points [Ref. 6].
- Pipeline outfalls were in the southeast and southwest corners of Pond C-1 [Ref. 5 and 6].
- Process waste flow was diverted to LOU 21 (Pond Mn-1) if Pond C-1 neared maximum capacity [Ref. 4 and 6].

Process Waste Streams Associated with LOU 20	Known or Potential Constituents Associated with LOU 20
Sodium chlorate and sodium perchlorate from production processes in Units 4 and 5	• Hexavalent chromium • Paraffin (TPH-DRO/ORO)

Summary of Available Data for LOU 20
Associated Piping in Area III

Tronox Facility – Henderson, Nevada

Process Waste Streams Associated with LOU 20	Known or Potential Constituents Associated with LOU 20
Paraffin from Units 4 and 5 processes.	• TPH-DRO
Steam Plant boiler blow-down – 2.8 to 8.9 gpm [Ref. 4 and 6].	• Salts • Phosphates • Sulfates
Boiler Plant wash-down – episodic [Ref. 4 and Ref. 6].	• Salts • Phosphates • Sulfates
Manganese dioxide cathode wash – 1.2 to 8.1 gpm [Ref. 4 and 6].	• Manganese • Phosphates • Calcium • Magnesium
Main Cooling Tower blow down and filter wash – 15,000 gpd [Ref. 4 and 6].	• Salts • Phosphates • Sulfates • Metals (hexavalent chromium)
Boron neutralization solutions – 0.9 to 1.9 gpm [Ref. 4 and 6].	• Boron • Sulfates • Carbonates • Borates
Halide wall Solid and Screen filter wastes [Ref. 6].	• Boron trichloride • Boron tribromide

Adjacent or Overlapping LOUs:

The following LOUs overlap or are adjacent to LOU 20:

Overlapping LOUs

- LOU 59 (Storm Sewer System) – Overlaps LOU 20 associated piping in the central and southern portions of Area III.
- LOU 60 (Acid Drain System) – Overlaps and runs parallel to LOU 20 associated piping in Area III.

Adjacent LOUs

- LOUs 24 (Leach Beds, Associated Conveyance Facilities, and Mn Tailings Area) and 46 (Former Old Main Cooling Tower and Recirculation Lines) – Located west (downgradient) of LOU 20 associated pipelines.
- LOU 50 (Current and Historical Leach Plant Area Leach Tanks) – Located west (downgradient) of LOU 20 associated pipelines.
- LOU 34W (Historic Manganese Tailings Area, West) – Located east (upgradient) of LOU 20 associated pipelines.
- LOU 13 and 14 (Ponds S-1 and P-1 [Area II]) – Located east (upgradient) of LOU 20 associated pipelines.

Summary of Available Data for LOU 20
Associated Piping in Area III
Tronox Facility – Henderson, Nevada

- LOU 61 (Unit 5 Basement and Old Sodium Chlorate Plant Decommissioning) – Located south (upgradient) of LOU 20 associated pipelines.

For detailed information on the LOUs listed above, please refer to the specific LOU data package.

Other LOUs Potentially Affecting Soils in LOU 20 Associated Piping:

- LOU 59 (Storm Sewer System): The Storm Sewer system crosses the pipelines associated with LOU 20 at one location. LOU 20 may have been affected by possible leaks (none reported) associated with LOU 59.
- LOU 60 (Former Acid Drain System): Underground pipelines associated with LOU 60 ran parallel to the route of the LOU 20 associated pipelines. LOU 20 may have been affected by possible leaks (none reported) associated with LOU 60.

Known or potential chemical classes that are associated with LOU 21 are consistent with those listed for LOU 20; therefore, no additional chemical classes have been added to the Phase B Analytical Plan for LOU 20.

Known or Potential Chemical Classes:

- Metals
- Hexavalent chromium
- Wet chemistry analytes
- TPH

Known or Potential Release Mechanisms:

- No known releases documented for these LOUs.
- Potential infiltration to subsurface soil and groundwater could have occurred from potential leaks in the pipelines; however, no leaks were identified in the documents reviewed.

Results of Historical Sampling:

Soil

- No historical soil boring locations were identified in the documents reviewed for the pipeline in Area III.

Groundwater

- Upgradient and downgradient monitoring wells (M-12A, M-34, M-31A, M-50, M-52, and M-11) are tested for total chromium, perchlorate, and total dissolved solids as part of periodic or routine groundwater monitoring program [Ref. 2].
- Analytical results are summarized in LOU 20 Table 6 and Table 7 (see attached).

Summary of Available Data for LOU 20
Associated Piping in Area III
Tronox Facility – Henderson, Nevada

Did Historical Samples Address Potential Release?

- No

Summary of Phase A SAI:

Soil

- None specifically conducted for this LOU. The closest boring in Area III (SA07) is approximately 130 feet north (cross-gradient) and was not specifically designed to evaluate this LOU [Ref. 2].

Groundwater:

- None specifically conducted for this LOU. The closest well sampled (M-11) is located to the east (downgradient) and was not specifically designed to evaluate this LOU [Ref. 2].
- Analytical results for soil and groundwater from the Phase A sampling event are summarized in LOU 20 Tables 1 through 5 and 8 through 23 (see attached).

Chemical classes detected in Phase A soil boring SA17:

- Metals
- Hexavalent chromium
- Perchlorate
- Wet chemistry analytes
- VOCs
- SVOCs
- Organochlorine pesticides
- Dioxins/furans
- Radionuclides

As a result of the Phase A data, the Phase B analytical plan for samples collected from LOU 20 will be expanded to include analyses for perchlorate, VOCs, SVOCs, organochlorine pesticides, dioxins/furans, and radionuclides.

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

- No

Is Phase B Investigation Recommended?

- Yes

Proposed Phase B Soil Investigation/Rationale:

- The Phase B Source Area Investigation of LOU 20 associated piping in Area III consists of collecting soil samples from the following 5 locations.
    - Three (3) of the five soil borings will be placed within the boundaries of LOU 20 and associated piping in Area III.

- Two (2) of the five soil borings will be drilled west (upgradient) of LOU 20 and associated piping in Area III.

Soil sample locations consist of both judgmental and randomly-placed locations.

- Judgmental sample locations:
  - Designed to evaluate soil for known or potential chemical classes associated with LOU 20 and associated piping in Area III, based on the known process waste streams.
  - Three (3) of the five sample locations are judgmental locations and include soil borings SA36, SA157, and SA178.

- Random sample locations:
  - Designed to assess whether unknown constituents associated with LOU 20 and associated piping in Area III are present.
  - Two (2) of the five sample locations are randomly-placed locations and include soil borings RSAP7 and RSAQ7.

All five borings along with the analytical program to evaluate soil samples from LOU 20 and associated piping in Area III are listed on **Table A – Soil Sampling and Analytical Plan for LOU 20.**

Proposed Chemical Classes for Phase B Investigation for soils:

Judgmental samples locations will be analyzed for LOU-specific constituents consisting of the following:

- Metals (Phase A list)
- Hexavalent chromium
- Wet chemistry analytes
- TPH-DRO/ORO

Judgmental sample locations will also be analyzed for the following analytes for area-wide coverage purposes:

- Perchlorate
- VOCs
- Organochlorine pesticides
- Radionuclides
- Asbestos

Summary of Available Data for LOU 20
Associated Piping in Area III
Tronox Facility – Henderson, Nevada

Random sample locations will be analyzed for the following full list of Phase A site-related chemicals for area-wide coverage purposes:

- Metals (Phase A list)
- Hexavalent chromium
- Perchlorate
- Wet chemistry analytes
- VOCs
- SVOCs
- TPH-DRO/ORO
- Organochlorine pesticides
- Dioxins/furans
- Radionuclides
- Asbestos

Proposed Phase B Groundwater Investigation/Rationale:

- The Phase B groundwater investigation of LOU 20 and associated piping in Area III consists of collecting groundwater samples from five (5) locations to evaluate local groundwater conditions and as part of site-wide evaluation of constituent trends in groundwater.
  - Four (4) downgradient existing wells east of LOU 20 associated piping (M-11, M-52, M-34, and M-31A) will be sampled.
  - One (1) existing well west (upgradient) of LOU 20 associated piping (M-12A) will be sampled.
  - The sampling wells and the analytical program to evaluate groundwater samples associated with LOU 20 and associated piping in Area III are listed on **Table B – Groundwater Sampling and Analytical Plan for LOU 20.**

Proposed Phase B Constituents List for Groundwater:

Groundwater samples will be analyzed for the following analytes:

- Metals (Phase A list)
- Hexavalent chromium
- Perchlorate
- Wet chemistry analytes
- VOCs
- SVOCs
- TPH-DRO/ORO
- Organochlorine pesticides
- Radionuclides

Summary of Available Data for LOU 20
Associated Piping in Area III
Tronox Facility – Henderson, Nevada

Proposed Phase B Soil Gas Investigation/Rationale

Soil gas samples will be collected from one (1) location to evaluate area conditions for the presence of vapor-phase VOCs in the vadose zone.

- One (1) soil gas sample location (SG84) is located adjacent to randomly-placed sample RSAP7 to evaluate for potential vapor-phase VOCs from groundwater and/or soil.

Details of the soil gas sampling program are contained in the NDEP-approved (March 26, 2008) Soil Gas Survey Work Plan, Tronox LLC, Henderson, Nevada, dated March 20, 2008.

Proposed Phase B Constituents List for Soil Gas:

- VOCs (EPA TO-15)

References

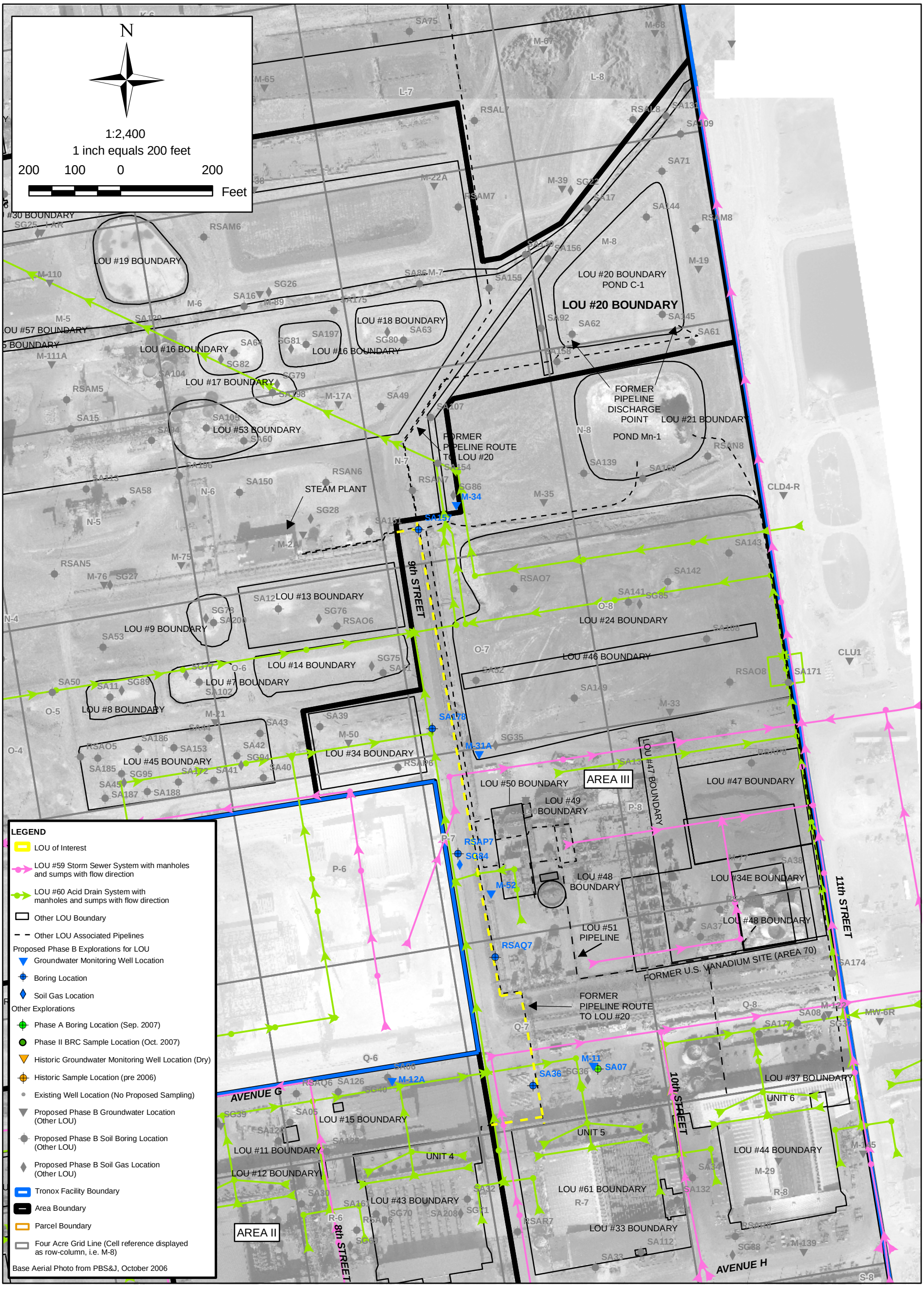
1. ENSR Corporation (ENSR), 1997, Phase II Environmental Conditions Assessment located at Kerr-McGee Chemical Corporation, Henderson, Nevada, August 7, 1997.
2. ENSR, 2007a, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
3. ENSR, 2007b, Quarterly Performance 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.
6. Tronox, Susan Crowley, verbal communication, January 14, 2008.
7. Tronox, Susan Crowley, verbal communication, February 5, 2008.

Summary of Available Data for LOU 20
Associated Piping in Area III

Tronox Facility – Henderson, Nevada

LOU Figure

J:\TronoxGIS\mxd\Phase_B_WorkPlan\LOUs\lou-20_Area-3.mxd



SHEET NUMBER: X

FIGURE NUMBER: 1

SAMPLE LOCATIONS FOR LOU #20, POND C-1 AND ASSOCIATED PIPING IN AREA III

Phase B Area III Source Area Investigation
Tronox Facility
Henderson, Nevada

SCALE:	DATE:	PROJECT NUMBER:
AS SHOWN	6/4/2008	04020-023-430

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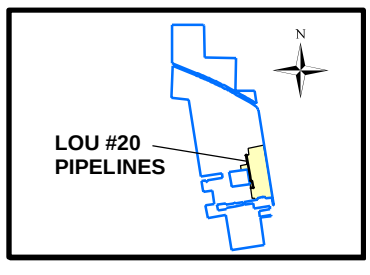

Summary of Available Data for LOU 20
Associated Piping in Area III

Tronox Facility – Henderson, Nevada

Sampling and Analytical Plans for LOU 20:

Table A – Soil Sampling and Analytical Plan for LOU 20
Table B – Groundwater Sampling and Analytical Plan for LOU 20

Table A
Soil Sampling and Analytical Plan for LOU 20
Phase B Source Area Investigation Work Plan
Tronox Facility - Henderson, Nevada

Grid Location	LOU Number	Phase B Boring No.	Sample ID Number	Sample Depths[1.] (ft. bgs)	Perchlorate (EPA 314.0)	Metals (EPA 6020)	Hex Cr (EPA 7199)	TPH-DRO/ORO (EPA 8015B)	TPH-GRO (EPA 8015B)	VOCs[2.] (EPA 8260B)	Wet Chemistry[3.]	Total Cyanide (EPA 9012A)	OCPs[4.] (EPA 8081A)	SVOCs[5.] (EPA 8270C)	Radio-nuclides[6.]	Dioxins/ Furans[7.]	PCBs[8.] (EPA 8082 and 1668A)	Asbestos[9.] EPA/540/R-97/028	Geo-technical Tests[10.]	Rationale
Borings are organized by grid location as shown on Plate A - Starting point is on the northwestern most grid in Area 3 (N-7) and ending with the southeastern most grid in Area 3 (S-8).																				
N-7	20, 21, 22, 23	SA157	SA157-0.0	0.0														X		Boring located to evaluate LOU 20 (Pond C-1 Associated Piping), LOU 21 (Pond Mn-1 and
N-7	20, 21, 22, 23		SA157-0.5	0.5	X	X	X			X	X		X	X	X	X				Associated Piping), LOU 22 (WC-West Associated Piping), and LOU 23 (WC-East Associated
N-7	20, 21, 22, 23		SA157-10	10	X	X	X			X	X		Hold	X	X						Piping). Located at piping junction from all LOUs at highest release potential location (manhole
N-7	20, 21, 22, 23		SA157-20	20	X	X	X			X	X		Hold	X	X						and junction).
N-7	20, 21, 22, 23		SA157-30	30	X	X	X			X	X		Hold	X	X						
N-7	20, 21, 22, 23		SA157-40	40	X	X	X			X	X		X	X	X						
O-7	34W, 60, 20, 22, 23	SA178	SA178-0.0	0.0														X		Boring located to evaluate LOU 20 (Pond C-1 Associated Piping Associated Piping), LOU 22
O-7	34W, 60, 20, 22, 23		SA178-0.5	0.5	X	X	X			X	X	X	X	X	X	X				(WC-West Associated Piping), LOU 23 (WC-East Associated Piping), LOU 34W (Historic Mn
O-7	34W, 60, 20, 22, 23		SA178-10	10	X	X	X			X	X	X	Hold	X	X						Tailings Pile Area, West), and LOU 60 (Acid Drain system). Located within this cluster of
O-7	34W, 60, 20, 22, 23		SA178-20	20	X	X	X			X	X	X	Hold	X	X						LOUs at a likely high release potential location for all five LOUs (low point,edge of road).
O-7	34W, 60, 20, 22, 23		SA178-30	30	X	X	X			X	X	X	Hold	X	X						
O-7	34W, 60, 20, 22, 23		SA178-40	40	X	X	X			X	X	X	X	X	X						
P-7	60, 20, 22, 23	RSAP7	RSAP7-0.0	0.0														X		Boring located to evaluate LOU 20 (Pond C-1 Associated Piping Associated Piping), LOU 21
P-7	60, 20, 22, 23		RSAP7-0.5	0.5	X	X	X	X		X	X	X	X	X	X	X				(Pond Mn-1 and Associated Piping), LOU 22 (WC-West Associated Piping), LOU 23 (WC-East
P-7	60, 20, 22, 23		RSAP7-10	10	X	X	X	X		X	X	X	Hold	X	X						Associated Piping), and LOU 60 (Acid Drain System). Random boring located within a cluster
P-7	60, 20, 22, 23		RSAP7-20	20	X	X	X	X		X	X	X	Hold	X	X						of five LOUs for area coverage of all five.
P-7	60, 20, 22, 23		RSAP7-30	30	X	X	X	X		X	X	X	Hold	X	X						
P-7	60, 20, 22, 23		RSAP7-40	40	X	X	X	X		X	X	X	X	X	X						
Q-7	20, 22, 23, 48, 50, 51, 60	RSAQ7	RSAQ7-0.0	0.0														X		Boring located to evaluate LOU 20 (Pond C-1 Associated Piping), LOU 22 (WC-West Associated
Q-7	20, 22, 23, 48, 50, 51, 60		RSAQ7-0.5	0.5	X	X	X	X		X	X	X	X	X	X	X				Piping), LOU 23 (WC-East Associated Piping), LOU 48 (Leach Plant Anolyte Storage Tanks),
Q-7	20, 22, 23, 48, 50, 51, 60		RSAQ7-10	10	X	X	X	X		X	X	X	Hold	X	X						LOU 50 (Leach Plant Area Leach Tanks), and LOU 60 (Acid Drain System). Random boring located
Q-7	20, 22, 23, 48, 50, 51, 60		RSAQ7-20	20	X	X	X	X		X	X	X	Hold	X	X						within area piping for all five LOUs for likely release points.
Q-7	20, 22, 23, 48, 50, 51, 60		RSAQ7-30	30	X	X	X	X		X	X	X	Hold	X	X						
Q-7	20, 22, 23, 48, 50, 51, 60		RSAQ7-40	40	X	X	X	X		X	X	X	X	X	X						
Q-7	20, 22, 23, 61	SA36	SA36-0.0	0.0														X		Boring located to evaluate LOU 20 (Pond C-1 Associated Piping), LOU 22 (WC-West Associated
Q-7	20, 22, 23, 61		SA36-0.5	0.5	X	X	X	X		X	X		X		X	X				Piping), LOU 23 (WC-East Associated Piping), and LOU 61 (Old Sodium Plant Decommissioning
Q-7	20, 22, 23, 61		SA36-10	10	X	X	X	X		X	X		Hold		X						and Unit-5 Basement). Located adjacent to piping for LOUs 20,22,and 23 for potiential release points,
Q-7	20, 22, 23, 61		SA36-20	20	X	X	X	X		X	X		Hold		X						and downgradient of LOU 61 for likely releases (accessible low area).
Q-7	20, 22, 23, 61		SA36-30	30	X	X	X	X		X	X		Hold		X						
Q-7	20, 22, 23, 61		SA36-40	40	X	X	X	X		X	X		X		X						
Number of Borings:		**5**																		
Number of Samples:					**25**	**25**	**25**	**15**	**0**	**25**	**25**	**15**	**10**	**20**	**25**	**5**	**0**	**5**	**0**	

Notes:

n/a	Not applicable - boring is not associated with a specific LOU but is located to evaluate soil for general area-wide coverage.
X	Sample will be collected and analyzed.
	No sample collected under Phase B sampling program.
DD*	Sample depth to be determined in the field where DD = sample depth (ft).
TPH-DRO/ORO	Total petroleum hydrocarbons - Diesel-Range Organics/Oil-Range Organics.
1.	The 0.5 ft bgs sample will be collected from the 0.0 to 0.5 ft bgs interval, unless the area is paved. If area is paved, samples will be collected at 0.5 feet below or from a representative depth beneath the pavement. Alternately, if an unpaved area is within a reasonable distance, the sample will be moved to the unpaved area.
2.	Samples for VOC analysis will be preserved in the field using sodium bisulfate (or DI water) and methanol preservatives per EPA Method 5035.
3.	Consists of wet chemistry parameters (including pH) listed on Table 1 of the Phase B Source Area Work Plan.
4.	Organochlorine Pesticides (includes analysis for hexachlorobenzene).
5.	Semi-volatile Organic Compounds
6.	Radionuclides consists of alpha spec reporting for isotopic Thorium and isotopic Uranium, and Radium-226, plus Radium-228 by beta counting (per NDEP).
7.	Dioxins/furans will be analyzed by EPA Method 8290 for all samples. Screening reports will be provided for 90% of the samples and full data packages for 10% of the samples.
8.	Polychlorinated biphenyls - Sample locations will be analyzed by USEPA methods 8082 and 1668A. Concrete srufaces at these locations will also include chip and/or wipe samples per EPA Region 1 SOP for Sampling Concrete in the Field (1997).
9.	Soil samples for asbestos analyses will be collected from a depth of 0 to 2-inches bgs.
10.	Geotechnical Tests consist of: moisture content (ASTM D-2216), grain size analysis (ASTM D-422 and C117-04), Soil Dry Bulk Density (ASTM D-2937), Grain Density (ASTM D-854, Soil-Water Filled Porosity (ASTM D-2216); Vertical Hydraulic Conductivity (ASTM D-5084/USEPA 9100).

Table B
Groundwater Sampling and Analysis Plan for LOU 20
Phase B Source Area Investigation Area III Work Plan
Tronox Facility - Henderson, Nevada

Grid Location	Location Area	Monitoring Well No.	Screen Interval (ft bgs)	Soil Type Expected Across Screen Interval[1.]	Well Sampled for Phase A? (y/n)	Perchlorate (EPA 314.0)	Hex Cr (EPA 7199)	Metals	VOCs[2.] (EPA 8260)	Wet Chemistry (a)	OCPs[3.] (EPA 8081A)	SVOCs[4.] (EPA 8270C)	Radio-nuclides[5.]	Rationale
Wells are organized by grid location as shown on Plate A - Starting point is on the northwestern-most grid in Area III (N-7) and ending with the southeastern-most grid covering Area III (Q-9).														
N-7	IIIW	M-34	25 - 40	Qal/MCfg1	no	X	X	X	X	X	X	X	X	Located to serve as a downgradient step out for LOU 46; as a cross-gradient step out for LOUs 20, 22, 23, and 60; and for general Site coverage.
P-7	III	M-31A	35 - 55	MCfg1	yes	X	X	X	X	X	X	X	X	Located to serve as a downgradient step out for LOU 59; as an upgradient step out for LOUs 24 and 46; as a crossgradient step out for LOUs 20, 22, and 23; and for general Site coverage.
P-7	III	M-52	34.5 - 44.5	MCfg1	no	X	X	X	X	X	X	X	X	Located to evaluate LOUs 34E, 47 through 51, and Area 70 (former U.S. Vanadium); as a crossgradient step out fo LOUs 20, 22, 23, and 60; and for general Site coverage.
Q-6	IIIN	M-12A	28-48	MCfg1	yes	X	X	X	X	X	X	X	X	Located to serve as a upgradient step out for LOUs 20, 22, and 23 and for general Site coverage.
Q-7	III	M-11	33.3 - 53	Qal/MCfg1	yes	X	X	X	X	X	X	X	X	Located as a downgradient step out for LOU 61; as an upgradient step out for LOUs 34E, 47 through 51 and Area 70 (former U.S. Vanadium); as a crossgradient step out for LOUs 20, 22, 23, and 60, and for general Site coverage.
				Number of Field Samples:		**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	

Notes:

X	Sample will be collected and analyzed.
1	It is anticipated that the large majority of the flow to the well will be from the coarse-grained sediments. As such, in the cases where there are two lithologies present across the screen interval, the water sampled will represent conditions in the coarse-grained interval.
2	VOCs = Volatile organic compounds (to include analysis for naphthalene).
3	OCPs = Organochlorine pesticides (to include analysis for hexachlorobenzene).
4	SVOCs = Semi volatile organic compounds.
5	Radionuclides consists of alpha spec reporting for isotopic Thorium and isotopic Uranium, and Radium-226, plus Radium-228 by beta counting (per NDEP).
(a)	Complete list of wet chemistry parameters are shown on Table 1. All groundwater samples will have pH measured in the field.
IIIN/E/W/S	Well located outside (north, east, west, or south) of Area III.
TBD	To be determined when well is constructed.
nr	Not recorded in the All Wells Database (June 2008).
Qal	Quaternary Alluvium
MCfg1	Muddy Creek Formation - first fine-grained facies
MCcg1	Muddy Creek Formation - first coarse-grained facies
MCfg2	Muddy Creek Formation - second fine-grained facies

Summary of Available Data for LOU 20
Associated Piping in Area III

Tronox Facility – Henderson, Nevada

Soil and Groundwater Characterization Data

Summary of Available Data for LOU 20
Associated Piping in Area III

Tronox Facility – Henderson, Nevada

LOU-specific analytes identified include:

- Wet chemistry analytes
- Metals (Phase A list)
- Hexavalent chromium
- TPH (paraffin)

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

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

LOU 20 Table 1
Soil Characterization Data - Wet Chemistry

Pond C-1and Associated Piping
Tronox Facility - Henderson, Nevada

Sampling Program		Ph A[1]	Ph A	Ph A	Ph A	Ph A	
Boring No.		SA17	SA17	SA17	SA17	SA17	
Sample ID		SA17-0.5	SA17-0.5D	SA17-10	SA17-20	SA17-25	
Sample Depth (ft)		0.5	0.5	10	20	25	
Sample Date		11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/15/2006	
Wet Chemistry Parameter	**MSSL[2] mg/kg**						**Units**
Percent moisture	--	**14.7**	**13.4**	**12.1**	**5.8**	**19.0**	percent
Alkalinity (as CaCO3)	--	**160**	**109**	**216**	**217**	**389**	mg/kg
Bicarbonate	--	**524**	**499**	**563**	**439**	**1260**	mg/kg
Total Alkalinity	--	**685**	**608**	**778**	**656**	**1640**	mg/kg
Ammonia (as N)	--	5.9 UJ	5.8 UJ	5.7 UJ	5.3 UJ	6.2 UJ	mg/kg
Cyanide	1.37E+04	R	R	R	R	R	mg/kg
MBAS	--	2.4 U	**2.4 J**	2.2 U	2.1 U	2.6 U	mg/kg
pH (solid)	--	**9.6**	**9.6**	**9.7**	**9.8**	**8.5**	none
Bromide	--	2.9 U	2.9 U	2.8 U	2.7 U	**1.5 J**	mg/kg
Chlorate	--	5.9 UJ	5.8 U	5.7 U	5.3 U	**82.9**	mg/kg
Chloride	--	**8.7**	**8.1**	**5.2**	**1.9 J**	**155**	mg/kg
Nitrate (as N)	--	**0.48 J+**	**0.77 J+**	**0.96 J+**	0.21 U	**2.5 J+**	mg/kg
Nitrite	--	**0.95**	**0.25**	**0.83**	**0.31**	**0.37**	mg/kg
ortho-Phosphate	--	**10.6 J**	**4.5 J**	5.7 U	5.3 U	6.2 U	mg/kg
Sulfate	--	**28.8**	**24.9**	**44.4**	**152**	**685**	mg/kg
Total Organic Carbon	--	**3900**	**4900**	**3500**	**2000**	**13100**	mg/kg

Notes:

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

2. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).

LOU 20 Table 2
Groundwater Characterization Data - Wet Chemistry

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

Sampling Program		Ph A[1]	Ph A	Ph A	
Well ID		M-2A	M-31A	M-39	
Sample ID		M-2A	M-31A	M-39	
Sample Date		12/04/2006	12/06/2006	12/05/2006	
Wet Chemistry Parameters	**MCL[2] mg/L**				**Units**
Total Dissolved Solids	5.00E+02 j	**12700**	**9720**	**7270**	mg/L
Total Suspended Solids	--	**36.0 J**	**25.0 J**	**56.0 J**	mg/L
Alkalinity (as CaCO3)	--	5.0 U	5.0 U	5.0 U	mg/L
Bicarbonate	--	**92.0**	**108**	**137**	mg/L
Total Alkalinity	--	**92.0**	**108**	**137**	mg/L
Ammonia (as N)	--	50.0 U	**1270**	50.0 U	ug/L
MBAS	--	**0.63**	**1.8 J**	**1.2 J**	mg/L
Cyanide	2.00E-01	R	R	R	ug/L
pH (liquid)	--	**7.2 J**	**7.1 J**	**7.1 J**	none
Specific Conductance	--	**2450 J+**	**2630 J+**	**2360 J+**	umhos/cm
Bromide	--	**0.54**	25.0 U	**2.7**	mg/L
Chlorate	--	**4600**	**3320**	**1620**	mg/L
Chloride	2.50E+02	**1800**	**1130**	**1280**	mg/L
Nitrate (as N)	1.00E+01	**13.6**	**17.6**	**12.1**	mg/L
Nitrite	1.00E+00	**22.5**	10.0 U	10.0 U	mg/L
ortho-Phosphate	--	500 U	500 U	5.0 U	mg/L
Sulfate	2.50E+02 j	**1250**	**1480**	**2720**	mg/L
Total Organic Carbon	--	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,
2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.
(j) Secondary Drinking Water Regulation value.

LOU 20 Table 3
Soil Characterization Data - Dioxins and Dibenzofurans

Pond C-1and Associated Piping
Tronox Facility - Henderson, Nevada

			Sampling Program	Ph A[1]	Ph A
			Boring No.	SA17	SA17
			Sample ID	SA17-0.5	SA17-0.5D
			Sample Depth (ft)	0.5	0.5
			Sample Date	11/15/2006	11/15/2006
Chemical Name:	**Method**	**Unit**	**MSSL[2] ng/kg**		
Dioxin 8290 SCREEN Total TEQ-ENSR Calculated (a) ng/kg		ng/kg	--	**13.64**	
Dioxin SW 846 8290 Total TEQ-ENSR Calculated (a) ng/kg		ng/kg	--		
Dioxin 8290 SCREEN Total TEQ-ENSR Calculated (b) ng/kg		ng/kg	--	**13.66**	
Dioxin SW 846 8290 Total TEQ-ENSR Calculated (b) ng/kg		ng/kg	--		
1,2,3,4,6,7,8-Heptachlorodibenzofuran	8290 Screen	ng/kg	--	**1.752**	**3.563**
1,2,3,4,6,7,8-Heptachlorodibenzofuran	SW 846 8290	ng/kg	--		
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	--	**0.279**	**0.845**
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg	--		
1,2,3,4,7,8,9-Heptachlorodibenzofuran	8290 Screen	ng/kg	--	**0.818**	**1.760**
1,2,3,4,7,8,9-Heptachlorodibenzofuran	SW 846 8290	ng/kg	--		
1,2,3,4,7,8-Hexachlorodibenzofuran	8290 Screen	ng/kg	--	**1.703**	**3.450**
1,2,3,4,7,8-Hexachlorodibenzofuran	SW 846 8290	ng/kg	--		
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	--	0.062 U	0.099 U
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg	--		
1,2,3,6,7,8-Hexachlorodibenzofuran	8290 Screen	ng/kg	--	**0.773**	**1.330**
1,2,3,6,7,8-Hexachlorodibenzofuran	SW 846 8290	ng/kg	--		
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	--	0.049 U	**0.160**
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg	--		
1,2,3,7,8,9-Hexachlorodibenzofuran	8290 Screen	ng/kg	--	**0.700**	**1.218**
1,2,3,7,8,9-Hexachlorodibenzofuran	SW 846 8290	ng/kg	--		
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	--	**0.100**	**0.163**
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg	--		
1,2,3,7,8-Pentachlorodibenzofuran	8290 Screen	ng/kg	--	**6.375**	**11.863**
1,2,3,7,8-Pentachlorodibenzofuran	SW 846 8290	ng/kg	--		
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	--	0.042 U	**0.220**
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg	--		
2,3,4,6,7,8-Hexachlorodibenzofuran	8290 Screen	ng/kg	--	**0.440**	**1.355**
2,3,4,6,7,8-Hexachlorodibenzofuran	SW 846 8290	ng/kg	--		
2,3,4,7,8-Pentachlorodibenzofuran	8290 Screen	ng/kg	--	**3.691**	**6.606**
2,3,4,7,8-Pentachlorodibenzofuran	SW 846 8290	ng/kg	--		
2,3,7,8-Tetrachlorodibenzofuran	8290 Screen	ng/kg	--	**74.100**	**144.703**
2,3,7,8-Tetrachlorodibenzofuran	SW 846 8290	ng/kg	--		
2,3,7,8-Tetrachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	1.00E+03 h,v	**0.121**	**0.194**
2,3,7,8-Tetrachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg	1.00E+03 h,v		
Octachlorodibenzofuran	8290 Screen	ng/kg	--	**6.847**	**14.903**
Octachlorodibenzofuran	SW 846 8290	ng/kg	--		
Octachlorodibenzo-p-Dioxin	8290 Screen	ng/kg	--	**2.193**	**5.440**

LOU 20 Table 3 (continued)
Soil Characterization Data - Dioxins and Dibenzofurans

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

			Sampling Program	Ph A[1]	Ph A
			Boring No.	SA17	SA17
			Sample ID	SA17-0.5	SA17-0.5D
			Sample Depth (ft)	0.5	0.5
			Sample Date	11/15/2006	11/15/2006
Chemical Name:	**Method**	**Unit**	**MSSL[2] ng/kg**		
Octachlorodibenzo-p-Dioxin	SW 846 8290	ng/kg	--		
Tetrachlorinated Dibenzofurans, (Total)	SW 846 8290	ng/kg	--		
Total HpCDD	SW 846 8290	ng/kg	--		
Total HpCDF	SW 846 8290	ng/kg	--		
Total HxCDD	SW 846 8290	ng/kg	--		
Total HxCDF	SW 846 8290	ng/kg	--		
Total PeCDD	SW 846 8290	ng/kg	--		
Total PeCDF	SW 846 8290	ng/kg	--		
Total TCDD	SW 846 8290	ng/kg	--		

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.
2. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).
(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.
(h) Dioxins and furans were expressed as 2,3,7,8- TCDD TEQ (toxic equivalents), calculated using the TEFs published by Van den Berg et al., 2006.
(v) USEPA. 1998. Approach for Addressing Dioxin in Soil at CERCLA and RCRA Sites. OSWER Directive 9200.4-26. April, 1998. A value of 1000 ng/kg is applicable to residential soils. The range of 5000 to 20000 ng/kg is applicable to commercial/industrial soils. The Agency for Toxic Substances and Disease Registry (ATSDR) provides a screening level of 50 ng/kg for dioxin in residential soil [http://www.atsdr.cdc.gov/substances/dioxin/policy/].

LOU 20 Table 4
Soil Characterization Data - Metals

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

Sampling Program		Ph A[1]	Ph A	Ph A	Ph A	Ph A	
Boring No.		SA17	SA17	SA17	SA17	SA17	
Sample ID		SA17-0.5	SA17-0.5D	SA17-10	SA17-20	SA17-25	
Sample Depth (ft)		0.5	0.5	10	20	25	
Sample Date		11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/15/2006	
Metals	**MSSL[2] mg/kg**						**Units**
Aluminum	1.00E+05	**13300**	**14300**	**8000**	**4050**	**5120**	mg/kg
Antimony	4.50E+02	**0.27 J-**	**0.25 J-**	**0.21 J-**	**0.094 J-**	**0.16 J-**	mg/kg
Arsenic	2.80E+02	**22.1**	**37.0**	**4.2**	**13.0**	**13.7**	mg/kg
Barium	1.00E+05	**142 J**	**185 J**	**202 J**	**136 J**	**52.7 J**	mg/kg
Beryllium	2.20E+03	**0.93**	**0.88**	**0.65**	**0.30**	**0.35 J**	mg/kg
Boron	1.00E+05	8.5 UJ	8.9 UJ	6.9 UJ	6.8 UJ	24.8 UJ	mg/kg
Cadmium	5.60E+02	**0.089**	**0.10**	**0.24**	**0.091**	**0.066**	mg/kg
Calcium	--	**7470**	**11600**	**16700**	**25900**	**47300**	mg/kg
Chromium (Total)	7.10E+01	**44.6 J-**	**81.9 J-**	**23.2 J-**	**12.5 J-**	**22.2 J-**	mg/kg
Chromium-hexavalent	5.00E+02	**0.58**	**1.2**	**0.16 J**	**0.39**	**0.19 J**	mg/kg
Cobalt	2.10E+03	**12.2 J-**	**11.8 J-**	**7.1 J-**	**4.6 J-**	**2.7 J-**	mg/kg
Copper	4.20E+04	**223 J**	**175 J**	**13.6 J**	**8.3 J**	**6.7 J**	mg/kg
Iron	1.00E+05	**12600**	**11500**	**13300**	**7190**	**6130**	mg/kg
Lead	8.00E+02	**28.6**	**36.3**	**8.6**	**5.1**	**4.3**	mg/kg
Magnesium	--	**11100 J-**	**10300 J-**	**7970 J-**	**5300 J-**	**36800 J-**	mg/kg
Manganese	3.50E+04	**349**	**373**	**325**	**171**	**122**	mg/kg
Molybdenum	5.70E+03	**1.1 J**	**2.4**	**0.46 J**	**0.44 J**	**0.29 J**	mg/kg
Nickel	2.30E+04	**19.3 J-**	**17.8 J-**	**15.0 J-**	**10.7 J-**	**7.2 J-**	mg/kg
Platinum	--	**0.029 J**	**0.027 J**	**0.022 J**	0.011 U	0.012 U	mg/kg
Potassium	--	**2270**	**2750**	**1680**	**1050**	**1710**	mg/kg
Selenium	5.70E+03	0.13 UJ	0.13 UJ	0.12 UJ	0.11 UJ	0.13 UJ	mg/kg
Silver	5.70E+03	**0.15 J**	**0.14 J**	**0.48**	**0.097 J**	**0.20 J**	mg/kg
Sodium	--	**1420 J-**	**1860 J-**	**1090 J-**	**858 J-**	**978 J-**	mg/kg
Strontium	1.00E+05	**112 J**	**165 J**	**110 J**	**137 J**	**220 J**	mg/kg
Thallium	--	0.11 U	0.095 U	0.38 U	0.074 U	0.086 U	mg/kg
Tin	--	**0.52**	**0.48**	**0.56**	**0.32**	**0.30**	mg/kg
Titanium	--	**480**	**438**	**638**	**298**	**347**	mg/kg
Tungsten	--	**9.1 J-**	**13.9 J-**	**1.8 J-**	**2.5 J-**	0.64 UJ	mg/kg
Uranium	--	**1.8**	**2.0**	**1.6**	**2.6**	**3.7**	mg/kg
Vanadium	5.70E+03	**31.8 J-**	**30.5 J-**	**37.9 J-**	**31.9 J-**	**26.7 J-**	mg/kg
Zinc	1.00E+05	**206 J-**	**152 J-**	**28.9 J-**	**17.0 J-**	26.1 UJ	mg/kg
Mercury	3.41E+02 (t)	0.0078 UJ	0.0077 UJ	0.0076 UJ	0.0071 UJ	0.0083 UJ	mg/kg

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).
(t) Value for mercury and compounds.

LOU 20 Table 5
Groundwater Characterization Data - Metals

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

Sampling Program		Ph A[1]	Ph A	Ph A	Ph A	
Well ID:		M-02A	M-31A	M-39	M-39	
Sample ID		M-02A-Z	M-31A-Z	M-39-Z	M-39-ZD	
Sample Date		05/09/2007	05/09/2007	05/10/2007	05/10/2007	
Metals	**MCL[2] ug/L**					**Unit**
Aluminum	5.00E+01 j	393 U	**760 J**	393 U	393 U	ug/L
Antimony	6.00E+00	25.0 U	25.0 U	25.0 U	25.0 U	ug/L
Arsenic	1.00E+01	100 U	**127 J**	**103 J**	100 U	ug/L
Barium	2.00E+03	**46.5 J**	**42.5 J**	**17.0 J**	**17.6 J**	ug/L
Beryllium	4.00E+00	4.4 U	4.4 U	4.4 U	4.4 U	ug/L
Boron	7.30E+03	**3210**	**6950**	**10800**	**10900**	ug/L
Cadmium	5.00E+00	2.9 U	2.9 U	2.9 U	2.9 U	ug/L
Calcium	--	**713000**	**617000**	**620000**	**633000**	ug/L
Chromium (Total)	1.00E+02	**18100**	**12300**	**4580**	**4700**	ug/L
Chromium-hexavalent	1.09E+02	**18700 J**	**12900 J**	**4720 J**	**4640**	ug/L
Cobalt	7.30E+02	15.7 U	15.7 U	15.7 U	15.7 U	ug/L
Copper	1.30E+03 p	12.5 U	12.5 U	12.5 U	12.5 U	ug/L
Iron	3.00E+02 j	470 UJ	470 UJ	R	R	ug/L
Lead	1.50E+01 u	24.6 U	24.6 U	24.6 U	24.6 U	ug/L
Magnesium	1.50E+05 a	**386000**	**275000**	**408000**	**414000**	ug/L
Manganese	5.00E+01 j	17.1 U	127 U	17.1 U	17.1 U	ug/L
Molybdenum	1.82E+02	25.0 U	25.0 U	25.0 U	25.0 U	ug/L
Nickel	7.30E+02	25.8 U	25.8 U	25.8 U	25.8 U	ug/L
Platinum	--	5.0 U	5.0 U	5.0 U	5.0 U	ug/L
Potassium	--	**34100**	**23600**	**24200**	**24700**	ug/L
Selenium	5.00E+01	50.0 U	50.0 U	50.0 U	50.0 U	ug/L
Silver	1.00E+02 j	10.1 U	10.1 U	10.1 U	10.1 U	ug/L
Sodium	--	**1620000**	**1650000**	**864000**	**866000**	ug/L
Strontium	2.19E+04	**18600**	**14800**	**14500**	**14700**	ug/L
Thallium	2.00E+00	16.0 U	16.0 U	16.0 U	16.0 U	ug/L
Tin	2.19E+04	10.0 U	10.0 U	10.0 U	10.0 U	ug/L
Titanium	1.46E+05	19.6 U	**33.6 J**	19.6 U	19.6 U	ug/L
Tungsten	--	25.0 U	25.0 U	25.0 U	25.0 U	ug/L
Uranium	3.00E+01	**19.0 J**	**28.9 J**	**106**	**106**	ug/L
Vanadium	3.65E+01	80.0 U	80.0 U	80.0 UJ	80.0 UJ	ug/L
Zinc	5.00E+03 j	**146 J**	**97.5 J**	50.0 U	50.0 U	ug/L
Mercury	2.00E+00	**0.13 J+**	**0.11 J+**	0.13 U	0.14 U	ug/L

Notes:

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

2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.
(j) Secondary Drinking Water Regulation value.
(p) The national primary drinking water regulations (b) lists a treatment technology action level of 1.3 mg/l as the MCL for Copper. Therefore, the secondary value is not used.
(u) See footnote (b). Treatment technology action level.
(a) NAC 445A.455 Secondary standards. Certain provisions of the National Primary Drinking Water Regulations are adopted by reference (NAC 445A.4525). These values are listed in the first column of this table and are therefore not listed again here. Only NAC 445A.455 Secondary standards are listed.

LOU 20 Table 6
Groundwater Characterization Data - Routine Monitoring[1]

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

Well ID	Date	Depth to water (ft)	Perchlorate mg/L	Qual	MCL[2] mg/L	Total Chromium mg/L	Qual	MCL[2] mg/L	TDS mg/L	Qual	MCL[2] mg/L	Nitrate (as N) mg/L	Qual	MCL[2] mg/L	Chlorate mg/L	Qual	MCL[2] mg/L
M-19	2/2/2006	31.67	1	d	1.80E-02 a,m	0.2	d	1.00E-01			5.00E+02 j			1.00E+01			--
M-19	5/3/2006	33.14	0.96	d	1.80E-02 a,m	0.19	d	1.00E-01	2950		5.00E+02 j			1.00E+01			--
M-19	8/2/2006	34.11	0.91	d	1.80E-02 a,m	0.22	d	1.00E-01	2650		5.00E+02 j			1.00E+01			--
M-19	11/1/2006	35.72	1.83	d	1.80E-02 a,m	0.32	d	1.00E-01	3670		5.00E+02 j			1.00E+01			--
M-19	1/31/2007	34.92	1.9		1.80E-02 a,m	0.29		1.00E-01	3740		5.00E+02 j			1.00E+01			--
M-19	5/2/2007	34.51	1.91		1.80E-02 a,m	0.34		1.00E-01	3720		5.00E+02 j			1.00E+01			--
M-19	8/1/2007	34.93	2.49		1.80E-02 a,m	0.38		1.00E-01	4820		5.00E+02 j			1.00E+01			--
M-2A	5/5/2006	---	430	d	1.80E-02 a,m	18	d	1.00E-01	12100		5.00E+02 j			1.00E+01			--
M-2A	5/4/2007	---	362		1.80E-02 a,m	17		1.00E-01	10200		5.00E+02 j			1.00E+01			--
M-31A	2/2/2006	46.07	1800	d	1.80E-02 a,m	13	d	1.00E-01			5.00E+02 j			1.00E+01			--
M-31A	5/3/2006	46.41	1700	d	1.80E-02 a,m	13	d	1.00E-01	8030		5.00E+02 j			1.00E+01			--
M-31A	8/2/2006	46.56	1410	d	1.80E-02 a,m	12	d	1.00E-01	6300		5.00E+02 j			1.00E+01			--
M-31A	11/1/2006	47.03	1750	d	1.80E-02 a,m	13	d	1.00E-01	9780		5.00E+02 j			1.00E+01			--
M-31A	1/31/2007	46.43	1490		1.80E-02 a,m	13		1.00E-01	9710		5.00E+02 j			1.00E+01			--
M-31A	5/2/2007	46.05	1400		1.80E-02 a,m	13		1.00E-01	8750		5.00E+02 j			1.00E+01			--
M-31A	8/1/2007	46.84	1710		1.80E-02 a,m	11		1.00E-01	9330		5.00E+02 j			1.00E+01			--
M-34	2/2/2006	---	1800	d	1.80E-02 a,m	17	d	1.00E-01			5.00E+02 j			1.00E+01			--
M-34	5/3/2006	---	1700	d	1.80E-02 a,m	18	d	1.00E-01	8960		5.00E+02 j			1.00E+01			--
M-34	5/7/2006	40.86	1950	d	1.80E-02 a,m			1.00E-01	14500		5.00E+02 j			1.00E+01			--
M-34	8/2/2006	---	1550	d	1.80E-02 a,m	18	d	1.00E-01	7430		5.00E+02 j			1.00E+01			--
M-34	11/1/2006	---	1910	d	1.80E-02 a,m	18	d	1.00E-01	10900		5.00E+02 j			1.00E+01			--
M-34	1/31/2007	---	1860		1.80E-02 a,m	17		1.00E-01	12000		5.00E+02 j			1.00E+01			--
M-34	5/2/2007	37.52	1670		1.80E-02 a,m	17		1.00E-01	9850		5.00E+02 j			1.00E+01			--
M-34	8/1/2007	---	2130		1.80E-02 a,m	16		1.00E-01	11900		5.00E+02 j			1.00E+01			--
M-35	2/2/2006	34.73	810	d	1.80E-02 a,m	9.4	d	1.00E-01			5.00E+02 j			1.00E+01			--
M-35	5/3/2006	35.02	550	d	1.80E-02 a,m	9.8	d	1.00E-01	6090		5.00E+02 j			1.00E+01			--
M-35	5/7/2006	38.68	945	d	1.80E-02 a,m			1.00E-01	9610		5.00E+02 j			1.00E+01			--
M-35	5/7/2006	38.68	777	d	1.80E-02 a,m			1.00E-01	9670		5.00E+02 j			1.00E+01			--
M-35	8/2/2006	35.54	694	d	1.80E-02 a,m	11	d	1.00E-01	6240		5.00E+02 j			1.00E+01			--
M-35	11/1/2006	35.67	785	d	1.80E-02 a,m	12	d	1.00E-01	9070		5.00E+02 j			1.00E+01			--
M-35	1/31/2007	35.74	650		1.80E-02 a,m	12		1.00E-01	9530		5.00E+02 j			1.00E+01			--
M-35	5/2/2007	35.52	408		1.80E-02 a,m	6.2		1.00E-01	6090		5.00E+02 j			1.00E+01			--
M-35	8/1/2007	35.97	407		1.80E-02 a,m	9.4		1.00E-01	7280		5.00E+02 j			1.00E+01			--
M-39	2/2/2006	30.42	380	d	1.80E-02 a,m	4	d	1.00E-01			5.00E+02 j			1.00E+01			--
M-39	5/3/2006	30.36	320	d	1.80E-02 a,m	3.7	d	1.00E-01	4300		5.00E+02 j	2.6	d	1.00E+01	1100	d	--

LOU 20 Table 6 (continued)
Groundwater Characterization Data - Routine Monitoring[1]

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

Well ID	Date	Depth to water (ft)	Perchlorate mg/L	Qual	MCL[2] mg/L	Total Chromium mg/L	Qual	MCL[2] mg/L	TDS mg/L	Qual	MCL[2] mg/L	Nitrate (as N) mg/L	Qual	MCL[2] mg/L	Chlorate mg/L	Qual	MCL[2] mg/L
M-39	8/2/2006	31.20	320	d	1.80E-02 a,m	4.3	d	1.00E-01	4560		5.00E+02 j	3.5	d	1.00E+01	1220	d	--
M-39	11/1/2006	31.53	400	d	1.80E-02 a,m	4.5	d	1.00E-01	6310		5.00E+02 j	10.8	d	1.00E+01	1370	d	--
M-39	1/31/2007	31.78	390		1.80E-02 a,m	4.5		1.00E-01	6730		5.00E+02 j			1.00E+01			--
M-39	5/2/2007	31.67	403		1.80E-02 a,m	4.7		1.00E-01	6990		5.00E+02 j	10.3		1.00E+01	1380		--
M-39	8/1/2007	32.10	489		1.80E-02 a,m	4.6		1.00E-01	7280		5.00E+02 j			1.00E+01			--
M-52	2/2/2006	---	1200	d	1.80E-02 a,m	10	d	1.00E-01			5.00E+02 j			1.00E+01			--
M-52	5/4/2006	---	1100	d	1.80E-02 a,m	9.6	d	1.00E-01	6760		5.00E+02 j			1.00E+01			--
M-52	11/2/2006	---	1020	d	1.80E-02 a,m	9.1	d	1.00E-01	7190		5.00E+02 j			1.00E+01			--
M-52	1/31/2007	---	946		1.80E-02 a,m	9		1.00E-01	8600		5.00E+02 j			1.00E+01			--
M-52	5/2/2007	---	720		1.80E-02 a,m	7.9		1.00E-01	7450		5.00E+02 j			1.00E+01			--

Notes
1. ENSR, 2007, Quarterly Performance Report for Remediation Systems, Tronox LLC, Henderson, Nevada, July – September 2007.
2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.
(a) NAC 445A.455 Secondary standards. Certain provisions of the National Primary Drinking Water Regulations are adopted by reference (NAC 445A.4525). These values are listed in the first column of this table and are therefore not listed again here. Only NAC 445A.455 Secondary standards are listed.
(m) Equal to the provisional action level derived by NDEP as referenced in "Defining a Perchlorate Drinking Water Standard". NDEP Bureau of Corrective Action. URL [http://ndep.nv.gov/bca/perchlorate02_05.htm].
(j) Secondary Drinking Water Regulation value.

< = 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

LOU 20 Table 7
Groundwater Characterization Data - Routine Monitoring[1]

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

Well ID	Sample Date	Total Depth (ft bgs)	Depth to Water (ft TOC)	pH (Lab)	EC (Lab, µmho/cm)	Cr-total (ppm)	Mn (ppm)	ClO_4 (ppm)
M-19	5/6/99	39.54	33.03	7.14	12000	0.62	0.70	13.0
M-19	5/5/00	39.54	34.50	7.62	11300	0.71	0.34	7.360
M-19	5/4/01	39.54	35.06	7.38	10700	0.88	0.08	0.056
M-19	4/29/02	39.54	34.02	7.3	8360	0.45	0.17	6.8
M-35	5/6/99	42.80	34.27	7.13	9720	4.30	0.85	1000
M-35	5/5/00	42.80	35.22	7.31	8970	3.40	1.20	820
M-35	5/4/01	42.80	25.40	7.28	9970	4.60	2.40	1000
M-35	3/11/02	42.80	--	--	--	--	0.07	--
M-35	4/29/02	42.80	34.27	7.2	9370	6.8	0.14	990
M-35	9/9/02	42.80	--	--	--	--	0.22	--
M-35	12/9/02	42.80	35.40	7.2	9280	6.8	0.061	590
M-35	4/29/03	42.80	--	--	--	--	ND<0.15	--
M-39	5/6/99	42.12	30.59	7.45	8080	2.40	0.44	140
M-39	5/5/00	42.12	31.70	7.54	7680	2.80	1.60	190
M-39	5/2/01	42.12	32.10	7.34	7620	3.30	1.80	280
M-39	3/11/02	42.12	--	--	--	--	0.06	--
M-39	4/29/02	42.12	20.60	7.3	7700	13	ND <0.15	450
M-39	9/9/02	42.12	--	--	--	--	ND <0.15	--
M-39	12/10/02	42.12	--	--	--	--	ND <0.15	--
M-39	5/7/03	42.12	--	--	--	--	ND<0.15	--

Notes:
1. ENSR, 2005, Conceptual Site Model, Kerr-McGee Facility, Henderson, Nevada, ENSR, Camarillo, California, 04020-023-130, February 2005 and August 2005.

ft bgs = feet below ground surface
ppm = parts per million
µmho/cm = micromhos per centimeter
ft TOC = feet from Top of Casing
EC = Electrical Conductivity
Cr-total: Total Chromium
Mn = Manganese
ClO_4: Perchlorate
ND<0.15 = Not determined, not detected above the designated detection limit.
-- = Either no data was obtained or was not analyzed for the respective constituent.

LOU 20 Table 8
Soil Characterization Data - Organochlorine Pesticides (OCPs)

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

	Sampling Program	Ph A[1]	Ph A	
	Boring No.	SA17	SA17	
	Sample ID	SA17-0.5	SA17-0.5D	
	Sample Depth (ft)	0.5	0.5	
	Sample Date	11/15/2006	11/15/2006	
Organochlorine Pesticides	**MSSL[2] mg/kg**			**Unit**
4,4'-DDD	1.10E+01	0.0020 U	0.0020 U	mg/kg
4,4'-DDE	7.80E+00	**0.014**	**0.015**	mg/kg
4,4'-DDT	7.80E+00	**0.0068**	**0.0083**	mg/kg
Aldrin	1.10E-01	0.0020 U	0.0020 U	mg/kg
Alpha-BHC	4.00E-01	0.0020 U	0.0020 U	mg/kg
Alpha-chlordane	1.40E+00 (y)	0.0020 U	0.0020 U	mg/kg
Beta-BHC	1.40E+00	0.0020 U	**0.0026**	mg/kg
Delta-BHC	--	0.0020 U	0.0020 U	mg/kg
Dieldrin	1.20E-01	0.0020 U	0.0020 U	mg/kg
Endosulfan I	4.10E+03 (aa)	0.0020 U	0.0020 U	mg/kg
Endosulfan II	4.10E+03 (aa)	0.0020 U	0.0020 U	mg/kg
Endosulfan Sulfate	4.10E+03 (aa)	0.0020 U	0.0020 U	mg/kg
Endrin	2.10E+02	0.0020 U	0.0020 U	mg/kg
Endrin Aldehyde	2.10E+02 (k)	0.0020 U	0.0020 U	mg/kg
Endrin Ketone	2.10E+02 (k)	0.0020 U	0.0020 U	mg/kg
Gamma-BHC (Lindane)	1.90E+00	0.0020 U	0.0020 U	mg/kg
Gamma-Chlordane	1.40E+00 (y)	0.0020 U	0.0020 U	mg/kg
Heptachlor	4.30E-01	0.0020 U	0.0020 U	mg/kg
Heptachlor Epoxide	2.10E-01	0.0020 U	0.0020 U	mg/kg
Methoxychlor	3.40E+03	**0.045 J**	**0.055 J**	mg/kg
Tech-Chlordane	1.40E+00	0.012 U	0.012 U	mg/kg
Toxaphene	1.70E+00	0.059 U	0.058 U	mg/kg

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).
(y) Value for chlordane (technical) used as surrogate for alpha-chlordane and gamma-chlordane based on structural similarities.
(aa) Value for endosulfan used as surrogate for endosulfan I, endosulfan II and endosulfan sulfate based on structural similarities.
(k) Value for endrin used as surrogate for endrin aldehyde and endrin ketone due to structural similarities.

LOU 20 Table 9
Groundwater Characterization Data - Organochlorine Pesticides (OCPs)

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

	Sampling Program	Ph A[1]	Ph A	Ph A	
	Well ID	M-2A	M-31A	M-39	
	Sample ID	M-2A	M-31A	M-39	
	Sample Date	12/04/2006	12/06/2006	12/05/2006	
Organochlorine Pesticides	**MCL[2] ug/L**				**Unit**
4,4'-DDD	2.80E-01	0.050 U	0.050 U	0.050 U	ug/L
4,4'-DDE	1.98E-01	0.050 U	0.050 U	0.050 U	ug/L
4,4'-DDT	1.98E-01	0.050 U	0.050 U	0.050 U	ug/L
Aldrin	4.00E-03	0.050 U	0.050 U	0.050 U	ug/L
Alpha-BHC	1.10E-02	0.050 U	0.050 U	0.050 U	ug/L
Alpha-chlordane	2.00E+00 (l)	0.050 U	0.050 U	0.050 U	ug/L
Beta-BHC	3.74E-02	0.050 U	0.050 U	0.050 U	ug/L
Delta-BHC	1.10E-02 (z)	0.050 U	0.050 U	0.050 U	ug/L
Dieldrin	4.20E-03 (z)	0.050 U	0.050 U	0.050 U	ug/L
Endosulfan I	2.19E+02 (aa)	0.050 U	0.050 U	0.050 U	ug/L
Endosulfan II	2.19E+02 (aa)	0.050 U	0.050 U	0.050 U	ug/L
Endosulfan Sulfate	2.19E+02 (aa)	0.050 U	0.050 U	0.050 U	ug/L
Endrin	2.00E+00	0.050 U	0.050 U	0.050 U	ug/L
Endrin Aldehyde	1.09E+01 (k)	0.050 U	0.050 U	0.050 U	ug/L
Endrin Ketone	1.09E+01 (k)	0.050 U	0.050 U	0.050 U	ug/L
Gamma-BHC (Lindane)	2.00E-01	0.050 U	0.050 U	0.050 U	ug/L
Gamma-Chlordane	2.00E+00 (l)	0.050 U	0.050 U	0.050 U	ug/L
Heptachlor	4.00E-01	0.050 U	0.050 U	0.050 U	ug/L
Heptachlor Epoxide	2.00E-01	0.050 U	0.050 U	0.050 U	ug/L
Methoxychlor	4.00E+01	0.10 U	0.10 U	0.10 U	ug/L
Tech-Chlordane	2.00E+00 (l)	0.50 U	0.50 U	0.50 U	ug/L
Toxaphene	3.00E+00	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.
2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.
(l) Value for chlordane used as surrogate for alpha-chlordane, chlordane (technical) and gamma-chlordane due to structural similarities.
(z) Value for alpha-BHC used as surrogate for delta-BHC based on structural similarities.
(aa) Value for endosulfan used as surrogate for endosulfan I, endosulfan II and endosulfan sulfate based on structural similarities.
(k) Value for endrin used as surrogate for endrin aldehyde and endrin ketone due to structural similarities.

LOU 20 Table 10
Soil Characterization Data - Organophosphorus Pesticides (OPPs)

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

Sampling Program		Ph A[1]	Ph A	
Boring No.		SA17	SA17	
Sample ID		SA17-0.5	SA17-0.5D	
Sample Depth (ft)		0.5	0.5	
Sample Date		11/15/2006	11/15/2006	
OPPs	**MSSL[2] mg/kg**			**Unit**
Azinphos-methyl	--	0.015 UJ	0.015 UJ	mg/kg
Bolstar	--	0.015 U	0.015 U	mg/kg
Chlorpyrifos	2.10E+03	0.023 UJ	0.023 UJ	mg/kg
Coumaphos	--	0.015 UJ	0.015 UJ	mg/kg
Demeton-O	--	0.046 UJ	**0.092 J**	mg/kg
Demeton-S	--	0.018 UJ	0.017 UJ	mg/kg
Diazinon	6.20E+02	0.026 U	0.025 U	mg/kg
Dichlorvos	6.60E+00	0.027 U	0.027 U	mg/kg
Dimethoate	--	0.026 UJ	0.025 UJ	mg/kg
Disulfoton	2.70E+01	0.056 U	0.055 U	mg/kg
EPN	--	0.015 U	0.015 U	mg/kg
Ethoprop	--	0.018 U	0.017 U	mg/kg
Ethyl Parathion	4.10E+03	0.021 U	0.021 U	mg/kg
Famphur	--	0.015 UJ	0.015 UJ	mg/kg
Fensulfothion	--	0.015 U	0.015 U	mg/kg
Fenthion	1.70E+02 (ff)	0.039 U	0.038 U	mg/kg
Malathion	1.40E+04	0.018 U	0.017 U	mg/kg
Merphos	--	0.035 U	0.035 U	mg/kg
Methyl parathion	1.70E+02	0.023 U	0.023 U	mg/kg
Mevinphos	--	0.018 U	0.017 U	mg/kg
Naled	1.40E+03	0.039 UJ	0.038 UJ	mg/kg
Phorate	--	0.023 U	0.023 U	mg/kg
Ronnel	3.40E+04	0.021 UJ	0.021 UJ	mg/kg
Stirphos	--	0.018 UJ	0.017 UJ	mg/kg
Sulfotep	--	0.023 U	0.023 U	mg/kg
Thionazin	--	0.021 U	0.021 U	mg/kg
Tokuthion	--	0.023 U	0.023 U	mg/kg
Trichloronate	--	0.023 UJ	0.023 UJ	mg/kg

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).
(ff) Value for methyl parathion used as surrogate for fenthion based on structural similarities.

LOU 20 Table 11
Groundwater Characterization Data - Organophosphorus Pesticides (OPPs)

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

	Sampling Program	Ph A[1]	Ph A	Ph A	
	Well ID	M-2A	M-31A	M-39	
	Sample ID	M-2A	M-31A	M-39	
	Sample Date	12/04/2006	12/06/2006	12/05/2006	
OPPs	**MCL[2] ug/L**				**Unit**
Azinphos-methyl	--	2.5 U	2.5 U	2.5 U	ug/L
Bolstar	--	1.0 U	1.0 U	1.0 U	ug/L
Chlorpyrifos	1.09E+02	1.0 U	1.0 U	1.0 U	ug/L
Coumaphos	--	1.0 U	1.0 U	1.0 U	ug/L
Demeton-O	1.46E+00 (cc)	1.0 U	1.0 U	1.0 U	ug/L
Demeton-S	1.46E+00 (cc)	1.0 UJ	1.0 U	1.0 UJ	ug/L
Diazinon	3.28E+01	1.0 U	1.0 U	1.0 U	ug/L
Dichlorvos	2.32E-01	1.0 U	1.0 U	1.0 U	ug/L
Dimethoate	7.30E+00	1.0 U	1.0 U	1.0 U	ug/L
Disulfoton	1.46E+00	0.50 U	0.50 U	0.50 U	ug/L
EPN	3.65E-01	1.2 U	1.2 U	1.2 U	ug/L
Ethoprop	--	0.50 U	0.50 U	0.50 U	ug/L
Ethyl Parathion	9.12E+00 (tt)	1.0 U	1.0 U	1.0 U	ug/L
Famphur	--	1.0 U	1.0 U	1.0 U	ug/L
Fensulfothion	--	2.5 U	2.5 U	2.5 U	ug/L
Fenthion	9.10E+00 (ff)	2.5 U	2.5 U	2.5 U	ug/L
Malathion	7.30E+02	1.2 U	1.2 U	1.2 U	ug/L
Merphos	1.09E+00	5.0 U	5.0 U	5.0 U	ug/L
Methyl parathion	9.12E+00	4.0 U	4.0 U	4.0 U	ug/L
Mevinphos	--	6.2 U	6.2 U	6.2 U	ug/L
Naled	7.30E+01	1.0 UJ	1.0 U	1.0 UJ	ug/L
Phorate	7.30E+00	1.2 U	1.2 U	1.2 UJ	ug/L
Ronnel	1.82E+03	10 U	10 U	10 U	ug/L
Stirphos	--	3.5 U	3.5 U	3.5 U	ug/L
Sulfotep	1.82E+01	1.5 U	1.5 U	1.5 U	ug/L
Thionazin	--	1.0 U	1.0 U	1.0 U	ug/L
Tokuthion	--	1.6 U	1.6 U	1.6 U	ug/L
Trichloronate	--	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.
2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.

(cc) Value for demeton used as surrogate for demeton-o and demeton-s based on structural similarities.

(tt) Value for parathion-methyl used as surrogate for parathion-ethyl due to structural similarities.
(ff) Value for methyl parathion used as surrogate for fenthion based on structural similarities.

LOU 20 Table 12
Soil Characterization Data - PCBs

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

Sampling Program		Ph A[1]	Ph A	Ph A	Ph A	Ph A	
Boring ID		SA17	SA17	SA17	SA17	SA17	
Sample ID		SA17-0.5	SA17-0.5D	SA17-10	SA17-20	SA17-25	
Sample Depth (ft)		0.5	0.5	10	20	25	
Sample Date		11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/15/2006	
PCBs	**MSSL[2] mg/kg**						**Unit**
Aroclor-1016	2.40E+01 (i)	0.039 U	0.038 U	0.038 U	0.035 U	0.041 U	mg/kg
Aroclor-1221	8.30E-01 (i)	0.039 U	0.038 U	0.038 U	0.035 U	0.041 U	mg/kg
Aroclor-1232	8.30E-01 (i)	0.039 U	0.038 U	0.038 U	0.035 U	0.041 U	mg/kg
Aroclor-1242	8.30E-01 (i)	0.039 U	0.038 U	0.038 U	0.035 U	0.041 U	mg/kg
Aroclor-1248	8.30E-01 (i)	0.039 U	0.038 U	0.038 U	0.035 U	0.041 U	mg/kg
Aroclor-1254	8.30E-01 (i)	0.039 U	0.038 U	0.038 U	0.035 U	0.041 U	mg/kg
Aroclor-1260	8.30E-01 (i)	0.039 U	0.038 U	0.038 U	0.035 U	0.041 U	mg/kg

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008)
(i) For PCBs, the individual Aroclors were compared to the TSCA action level of 10 mg/kg, for high occupancy, restricted (non-residential) use. (40 CFR Part 761; 63 FR 35383-35474, June 29, 1998).

LOU 20 Table 13
Groundwater Characterization Data - PCBs

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

	Sampling Program	Ph A[1]	Ph A	Ph A	
	Well ID	M-2A	M-31A	M-39	
	Sample ID	M-2A	M-31A	M-39	
	Sample Date	12/04/2006	12/06/2006	12/05/2006	
PCBs	**MCL[2] ug/L**				**Unit**
Aroclor-1016	5.00E-01 (bb)	0.10 U	0.10 U	0.10 U	ug/L
Aroclor-1221	5.00E-01 (bb)	0.10 U	0.10 U	0.10 U	ug/L
Aroclor-1232	5.00E-01 (bb)	0.10 U	0.10 U	0.10 U	ug/L
Aroclor-1242	5.00E-01 (bb)	0.10 U	0.10 U	0.10 U	ug/L
Aroclor-1248	5.00E-01 (bb)	0.10 U	0.10 U	0.10 U	ug/L
Aroclor-1254	5.00E-01 (bb)	0.10 U	0.10 U	0.10 U	ug/L
Aroclor-1260	5.00E-01 (bb)	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.
2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.
(bb) Value for total PCBs.

LOU 20 Table 14
Soil Characterization Data - Perchlorate

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

Boring ID	Sample ID	Sample Depth (ft)	Sample Date	Perchlorate ug/kg	MSSL[1] ug/kg	Sampling Program
SA17	SA17-0.5	0.5	11/15/2006	**366**	7.95E+05	Ph A[2]
SA17	SA17-0.5D	0.5	11/15/2006	**302**	7.95E+05	Ph A
SA17	SA17-10	10	11/15/2006	**122**	7.95E+05	Ph A
SA17	SA17-20	20	11/15/2006	**792**	7.95E+05	Ph A
SA17	SA17-25	25	11/15/2006	**13500**	7.95E+05	Ph A

Notes:
1. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).
2. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.

LOU 20 Table 15
Groundwater Characterization Data - Perchlorate

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

Well ID Number	Sample ID	Sample Date	Perchlorate	Units	MCL[1] ug/L	Sampling Program
M-2A	M-2A	12/04/2006	**465000**	ug/L	1.80E+01 a,(m)	Ph A[2]
M-31A	M-31A	12/06/2006	**1740000 J+**	ug/L	1.80E+01 a,(m)	Ph A
M-39	M-39	12/05/2006	**403000 J+**	ug/L	1.80E+01 a,(m)	Ph A

Notes:
1. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.
2. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
(a) NAC 445A.455 Secondary standards. Certain provisions of the National Primary Drinking Water Regulations are adopted by reference (NAC 445A.4525). These values are listed in the first column of this table and are therefore not listed again here. Only NAC 445A.455 Secondary standards are listed.
(m) Equal to the provisional action level derived by NDEP as referenced in "Defining a Perchlorate Drinking Water Standard". NDEP Bureau of Corrective Action. URL [http://ndep.nv.gov/bca/perchlorate02_05.htm].

LOU 20 Table 16
Soil Characterization Data - Radionuclides

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

				Ra-226	Ra-228	Th-228	Th-230	Th-232	U-233/234	U-235/236	U-238	
				(gamma)	(gamma)	(TH MOD)	(TH MOD)	(TH MOD)	(U MOD)	(U MOD)	(U MOD)	
				pci/g	pci/g	pci/g	pci/g	pci/g	pci/g	pci/g	pci/g	
Boring ID Number	**Sample ID**	**Sample Depth (ft)**	**Date**									**Sampling Program**
SA17	SA17-0.5	0.5	11/15/2006	**1.12 J**	**1.75**							Ph A[1]
SA17	SA17-0.5D	0.5	11/15/2006	**1.12 J**	**1.8**							Ph A
SA17	SA17-10	10	11/15/2006	**1.2 J**	**1.55**							Ph A
SA17	SA17-20	20	11/15/2006	**1.8 J**	**1.99**							Ph A
SA17	SA17-25	25	11/15/2006	**1.81 J**	**1.32**							Ph A

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

LOU 20 Table 17
Groundwater Characterization Data - Radionuclides

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

			Ra-226	Ra-228	Th-228	Th-230	Th-232	U-233/234	U-235/236	U-238	
			pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	
Well ID Number	**Sample ID**	**Date**									**Sampling Program**
M-2A	M-2A-Z	05/09/2007	0.0440 U	0.402 UJ							Ph A[1]
M-31	M-31A-Z	05/09/2007	**0.312 J**	0.862 UJ	0.0584 U	0.0798 U	0.0285 U	**13.7**	**0.408**	**8.09**	Ph A
M-39	M-39-Z	05/10/2007	**0.191 J**	0.277 U	0.0105 U	**5.00 J**	**0.102 J**	**55.1**	**1.19**	**34.9**	Ph A
M-39	M-39-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 20 Table 18
Soil Characterization Data - SVOCs

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

		Sampling Program	Ph A[1]	Ph A	Ph A	Ph A	Ph A
		Boring No.	SA17	SA17	SA17	SA17	SA17
		Sample ID	SA17-0.5	SA17-0.5D	SA17-10	SA17-20	SA17-25
		Sample Depth (ft)	0.5	0.5	10	20	25
		Sample Date	11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/15/2006
SVOC	**Analytical Method**	**MSSL[2] ug/kg**	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
1,4-Dioxane	non-SIM	1.70E+05	77 U	380 U	380 U	350 U	410 U
2-Methylnaphthalene	non-SIM	2.10E+05 (jj)	390 U	380 U	380 U	350 U	410 U
2-Methylnaphthalene	SIM	2.10E+05 (jj)	7.7 U				
Acenaphthene	non-SIM	3.30E+07	390 U	380 U	380 U	350 U	410 U
Acenaphthene	SIM	3.30E+07	7.7 U				
Acenaphthylene	non-SIM	3.30E+07 (pp)	390 U	380 U	380 U	350 U	410 U
Acenaphthylene	SIM	3.30E+07 (pp)	7.7 U				
Anthracene	non-SIM	1.00E+08	390 U	380 U	380 U	350 U	410 U
Anthracene	SIM	1.00E+08	7.7 U				
Benz(a)anthracene	non-SIM	2.30E+03	390 U	380 U	380 U	350 U	410 U
Benz(a)anthracene	SIM	2.30E+03	7.7 U				
Benzo(a)pyrene	non-SIM	2.30E+02	390 U	380 U	380 U	350 U	410 U
Benzo(a)pyrene	SIM	2.30E+02	7.7 U				
Benzo(b)fluoranthene	non-SIM	2.30E+03	390 U	380 U	380 U	350 U	410 U
Benzo(b)fluoranthene	SIM	2.30E+03	7.7 U				
Benzo(g,h,i)perylene	non-SIM	3.20E+07 (w)	390 U	380 U	380 U	350 U	410 U
Benzo(g,h,i)perylene	SIM	3.20E+07 (w)	7.7 U				
Benzo(k)fluoranthene	non-SIM	2.30E+04	390 U	380 U	380 U	350 U	410 U
Benzo(k)fluoranthene	SIM	2.30E+04	7.7 U				
bis(2-Ethylhexyl)phthalate	non-SIM	1.40E+05	390 U	380 U	380 U	350 U	410 U
Butyl benzyl phthalate	non-SIM	2.40E+05	390 U	380 U	380 U	350 U	410 U
Chrysene	non-SIM	2.30E+05	390 U	380 U	380 U	350 U	410 U
Chrysene	SIM	2.30E+05	7.7 U				
Dibenz(a,h)anthracene	non-SIM	2.30E+02	390 U	380 U	380 U	350 U	410 U
Dibenz(a,h)anthracene	SIM	2.30E+02	7.7 U				
Diethyl phthalate	non-SIM	1.00E+08	390 U	380 U	380 U	350 U	410 U
Dimethyl phthalate	non-SIM	1.00E+08	390 U	380 U	380 U	350 U	410 U
Di-N-Butyl phthalate	non-SIM	6.80E+07	390 U	380 U	380 U	350 U	410 U
Di-N-Octyl phthalate	non-SIM	--	390 U	380 U	380 U	350 U	410 U
Fluoranthene	non-SIM	2.40E+07	390 U	380 U	380 U	350 U	410 U
Fluoranthene	SIM	2.40E+07	7.7 U				
Fluorene	non-SIM	2.60E+07	390 U	380 U	380 U	350 U	410 U
Fluorene	SIM	2.60E+07	7.7 U				
Hexachlorobenzene	non-SIM	1.20E+03	**61 J**	**45 J**	**57 J**	350 U	410 U
Hexachlorobenzene	SIM	1.20E+03	**60**				
Indeno(1,2,3-cd)pyrene	non-SIM	2.30E+03	390 UJ	380 UJ	380 UJ	350 UJ	410 UJ
Indeno(1,2,3-cd)pyrene	SIM	2.30E+03	7.7 U				
Naphthalene	non-SIM	2.10E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Naphthalene	non-SIM	2.10E+05	390 U	380 U	380 U	350 U	410 U
Naphthalene	SIM	2.10E+05	7.7 U				
Nitrobenzene	non-SIM	1.10E+05	390 U	380 U	380 U	350 U	410 U

LOU 20 Table 18 (continued)
Soil Characterization Data - SVOCs

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

		Sampling Program	Ph A[1]	Ph A	Ph A	Ph A	Ph A
		Boring No.	SA17	SA17	SA17	SA17	SA17
		Sample ID	SA17-0.5	SA17-0.5D	SA17-10	SA17-20	SA17-25
		Sample Depth (ft)	0.5	0.5	10	20	25
		Sample Date	11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/15/2006
SVOC	**Analytical Method**	**MSSL[2] ug/kg**	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Octachlorostyrene	non-SIM	--	390 U	380 U	380 U	350 U	410 U
Phenanthrene	non-SIM	1.00E+08 (n)	390 U	380 U	380 U	350 U	410 U
Phenanthrene	SIM	1.00E+08 (n)	7.7 U				
Pyrene	non-SIM	3.20E+07	390 U	380 U	380 U	350 U	410 U
Pyrene	SIM	3.20E+07	7.7 U				
Pyridine	non-SIM	6.80E+05	1900 U	1800 U	1800 U	1700 U	2000 U

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).
(jj) Value for naphthalene used as surrogate for 2-methylnaphthalene based on structural similarities.
(pp) Value for acenaphthene used as surrogate for acenapthylene based on structural similarities.
(w) Value for pyrene used as surrogate for benzo(g,h,i)perylene based on structural similarities.
(n) Value for anthracene used as surrogate for phenanthrene due to structural similarities.

LOU 20 Table 19
Groundwater Characterization Data - SVOCs

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

		Sampling Program	Ph A[1]	Ph A	Ph A
		Well No.	M-2A	M-31A	M-39
		Sample ID	M-2A	M-31A	M-39
		Sample Date	12/04/2006	12/06/2006	12/05/2006
SVOCs	**Analytic Method**	**MCL[2] ug/L**	ug/L	ug/L	ug/L
1,4-Dioxane	non-SIM	6.11E+00	10 U	10 U	10 U
2-Methylnaphthalene	non-SIM	6.20E+00 (jj)	10 U	10 U	10 U
2-Methylnaphthalene	SIM	6.20E+00 (jj)		0.20 U	
Acenaphthene	non-SIM	3.65E+02	10 UJ	10 UJ	10 U
Acenaphthene	SIM	3.65E+02		0.20 U	
Acenaphthylene	non-SIM	3.65E+02 (pp)	R	R	10 U
Acenaphthylene	SIM	3.65E+02 (pp)		0.20 U	
Anthracene	non-SIM	1.83E+03	10 UJ	10 U	10 U
Anthracene	SIM	1.83E+03		0.20 U	
Benz(a)anthracene	non-SIM	9.21E-02	10 U	10 U	10 U
Benz(a)anthracene	SIM	9.21E-02		0.20 U	
Benzo(a)pyrene	non-SIM	2.00E-01	10 U	10 U	10 U
Benzo(a)pyrene	SIM	2.00E-01		0.20 U	
Benzo(b)fluoranthene	non-SIM	9.21E-02	10 U	10 U	10 U
Benzo(b)fluoranthene	SIM	9.21E-02		0.20 U	
Benzo(g,h,i)perylene	non-SIM	1.83E+02 (w)	10 U	10 U	10 U
Benzo(g,h,i)perylene	SIM	1.83E+02 (w)		0.20 U	
Benzo(k)fluoranthene	non-SIM	9.21E-01	10 U	10 U	10 U
Benzo(k)fluoranthene	SIM	9.21E-01		0.20 U	
bis(2-Ethylhexyl)phthalate	non-SIM	6.00E+00	10 U	10 U	10 U
Butyl benzyl phthalate	non-SIM	7.30E+03	10 U	10 U	10 U
Chrysene	non-SIM	9.21E+00	10 U	10 U	10 U
Chrysene	SIM	9.21E+00		0.20 U	
Dibenz(a,h)anthracene	non-SIM	9.21E-03	10 U	10 U	10 U
Dibenz(a,h)anthracene	SIM	9.21E-03		0.20 U	
Diethyl phthalate	non-SIM	2.92E+04	10 U	10 U	10 U
Dimethyl phthalate	non-SIM	3.65E+05	10 U	10 U	10 U
Di-N-Butyl phthalate	non-SIM	3.65E+03	10 U	10 U	10 U
Di-N-Octyl phthalate	non-SIM	1.46E+03	10 U	10 U	10 U
Fluoranthene	non-SIM	1.46E+03	10 U	10 U	10 U
Fluoranthene	SIM	1.46E+03		0.23 U	
Fluorene	non-SIM	2.43E+02	10 U	10 U	10 U
Fluorene	SIM	2.43E+02		0.20 U	
Hexachlorobenzene	non-SIM	1.00E+00	10 U	10 U	10 U
Hexachlorobenzene	SIM	1.00E+00		0.20 U	
Indeno(1,2,3-cd)pyrene	non-SIM	9.21E-02	10 U	10 UJ	10 U
Indeno(1,2,3-cd)pyrene	SIM	9.21E-02		0.20 U	
Naphthalene	non-SIM	6.20E+00	5.0 U	5.0 U	5.0 U
Naphthalene	non-SIM	6.20E+00	10 U	10 UJ	10 U
Naphthalene	SIM	6.20E+00		0.20 U	
Nitrobenzene	non-SIM	3.40E+00	10 U	10 U	10 U
Octachlorostyrene	non-SIM	--	10 U	10 U	10 U

LOU 20 Table 19 (continued)
Groundwater Characterization Data - SVOCs

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

		Sampling Program	Ph A[1]	Ph A	Ph A
		Well No.	M-2A	M-31A	M-39
		Sample ID	M-2A	M-31A	M-39
		Sample Date	12/04/2006	12/06/2006	12/05/2006
SVOCs	**Analytic Method**	**MCL[2] ug/L**	ug/L	ug/L	ug/L
Phenanthrene	non-SIM	1.80E+03 (n)	10 U	10 U	10 U
Phenanthrene	SIM	1.80E+03 (n)		0.20 U	
Pyrene	non-SIM	1.83E+02	10 U	10 U	10 U
Pyrene	SIM	1.83E+02		0.20 U	
Pyridine	non-SIM	3.65E+01	20 UJ	20 U	20 U

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.
(jj) Value for naphthalene used as surrogate for 2-methylnaphthalene based on structural similarities.
(pp) Value for acenaphthene used as surrogate for acenapthylene based on structural similarities.
(w) Value for pyrene used as surrogate for benzo(g,h,i)perylene based on structural similarities.
(n) Value for anthracene used as surrogate for phenanthrene due to structural similarities.

LOU 20 Table 20
Soil Characteristic Data - TPH and Fuel Alcohols

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

				Fuel Alcohols			Total Petroleum Hydrocarbons			
				Ethanol	Ethylene glycol	Methanol	TPH - ORO	TPH - DRO	TPH - GRO	
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
			MSSL[1] mg/kg	--	1.00E+05	1.00E+05	1.00E+02 vv	1.00E+02 vv	1.00E+02 vv	
Boring No.	**Sample ID.**	**Sample Depth (ft)**	**Sample Date**							**Sampling Program**
SA17	SA17-0.5	0.5	11/15/2006				29 U	29 U	0.12 U	Ph A[2]
SA17	SA17-0.5D	0.5	11/15/2006				29 U	29 U	0.12 U	Ph A
SA17	SA17-10	10	11/15/2006				28 U	28 U	0.11 U	Ph A
SA17	SA17-20	20	11/15/2006				27 U	27 U	0.11 U	Ph A
SA17	SA17-25	25	11/15/2006				31 U	31 U	0.12 U	Ph A

Notes:
1. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).
2. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
(w) Value for pyrene used as surrogate for benzo(g,h,i)perylene based on structural similarities.

LOU 20 Table 21
Soil Characterization Data - VOCs

C-1 Pond and Associated Piping
Tronox Facility - Henderson, Nevada

	Sampling Program	Ph A[1]	Ph A	Ph A	Ph A	Ph A
	Boring No.	SA17	SA17	SA17	SA17	SA17
	Sample ID	SA17-0.5	SA17-0.5D	SA17-10	SA17-20	SA17-25
	Sample Depth (ft)	0.5	0.5	10	20	25
	Sample Date	11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/15/2006
VOCs	**MSSL[2] ug/kg**	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Naphthalene	2.10E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
1,1,1,2-Tetrachloroethane	7.60E+03	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
1,1,1-Trichloroethane	1.40E+06	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
1,1,2,2-Tetrachloroethane	9.70E+02	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
1,1,2-Trichloroethane	2.10E+03	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
1,1-Dichloroethane	2.30E+06	5.9 U	**1.6 J**	5.7 U	5.3 U	6.2 U
1,1-Dichloroethene	4.70E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
1,1-Dichloropropene	1.75E+03 (gg)	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
1,2,3-Trichlorobenzene	2.60E+05 (hh)	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
1,2,3-Trichloropropane	1.60E+03	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
1,2,4-Trichlorobenzene	2.60E+05	5.9 U	5.8 U	5.7 U	5.3 U	**1.9 J**
1,2,4-Trimethylbenzene	2.20E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
1,2-Dibromo-3-chloropropane	2.00E+01	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
1,2-Dichlorobenzene	3.70E+05	5.9 U	5.8 U	5.7 U	5.3 U	**0.99 J**
1,2-Dichloroethane	8.40E+02	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
1,2-Dichloropropane	8.50E+02	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
1,3,5-Trimethylbenzene	7.80E+04	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
1,3-Dichlorobenzene	1.40E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
1,3-Dichloropropane	4.10E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
1,4-Dichlorobenzene	8.10E+03	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
2,2-Dichloropropane	8.50E+02 (ii)	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
2-Butanone	3.40E+07	12 U	12 U	11 U	11 U	12 U
2-Chlorotoluene	5.10E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
2-Hexanone	1.72E+07 (nn)	12 UJ	12 UJ	11 UJ	11 UJ	12 UJ
2-Methoxy-2-methyl-butane	--	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
4-Chlorotoluene	5.10E+05 (ww)	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
4-Isopropyltoluene	--	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
4-Methyl-2-pentanone	1.70E+07	12 U	12 U	11 U	11 U	12 U
Acetone	6.00E+07	12 UJ	**71 J**	**6.9 J**	11 U	12 U

LOU 20 Table 21 (continued)
Soil Characterization Data - VOCs

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

	Sampling Program	Ph A[2]	Ph A	Ph A	Ph A	Ph A
	Boring No.	SA17	SA17	SA17	SA17	SA17
	Sample ID	SA17-0.5	SA17-0.5D	SA17-10	SA17-20	SA17-25
	Sample Depth (ft)	0.5	0.5	10	20	25
	Sample Date	11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/15/2006
VOCs	**MSSL[2] ug/kg**	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Benzene	1.60E+03	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Bromobenzene	1.20E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Bromochloromethane	1.75E+03 (qq)	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Bromodichloromethane	2.60E+03	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Bromoform	2.40E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Bromomethane	1.50E+04	12 U	12 U	11 U	11 U	12 U
Carbon tetrachloride	5.80E+02	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Chlorobenzene	5.00E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Chloroethane	7.20E+03	5.9 UJ	5.8 UJ	5.7 UJ	5.3 UJ	6.2 UJ
Chloroform	5.80E+02	5.9 U	5.8 U	5.7 U	5.3 U	**14**
Chloromethane	1.70E+05	5.9 UJ	5.8 UJ	5.7 UJ	5.3 UJ	6.2 UJ
cis-1,2-Dichloroethene	1.60E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
cis-1,3-Dichloropropene	1.75E+03 (gg)	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Dibromochloromethane	2.60E+03	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Dibromomethane	5.90E+05 (xx)	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Dichlorodifluoromethane	3.40E+05	5.9 UJ	5.8 UJ	5.7 UJ	5.3 UJ	6.2 UJ
Ethyl t-butyl ether	7.90E+04 (kk)	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Ethylbenzene	2.30E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Ethylene dibromide	7.00E+01	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Hexachlorobutadiene	2.50E+04	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
isopropyl ether	--	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Isopropylbenzene	5.80E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Methyl tert butyl ether	7.90E+04	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Methylene chloride	2.20E+04	5.9 UJ	23 UJ	5.7 UJ	5.3 UJ	6.2 UJ
N-Butylbenzene	2.40E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
N-Propylbenzene	2.40E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
sec-Butylbenzene	2.20E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Styrene	1.70E+06	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U

LOU 20 Table 21 (continued)
Soil Characterization Data - VOCs

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

	Sampling Program	Ph A[2]	Ph A	Ph A	Ph A	Ph A
	Boring No.	SA17	SA17	SA17	SA17	SA17
	Sample ID	SA17-0.5	SA17-0.5D	SA17-10	SA17-20	SA17-25
	Sample Depth (ft)	0.5	0.5	10	20	25
	Sample Date	11/15/2006	11/15/2006	11/15/2006	11/15/2006	11/15/2006
VOCs	**MSSL[2] ug/kg**	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
t-Butyl alcohol	--	12 UJ	12 UJ	11 UJ	11 UJ	12 UJ
tert-Butylbenzene	3.90E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Tetrachloroethene	1.70E+03	5.9 U	5.8 U	5.7 U	5.3 U	**1.1 J**
Toluene	5.20E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
trans-1,2-Dichloroethylene	2.00E+05	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
trans-1,3-Dichloropropene	1.75E+03 (gg)	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Trichloroethene	1.00E+02	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Trichlorofluoromethane	1.40E+06	5.9 UJ	5.8 UJ	5.7 UJ	5.3 UJ	6.2 UJ
Vinylchloride	8.60E+02	5.9 U	5.8 U	5.7 U	5.3 U	6.2 U
Xylene (Total)	2.10E+05	12 U	12 U	11 U	11 U	12 U

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).
(gg) Value for 1,3-dichloropropene used as surrogate for 1,1-dichloropropene, cis-1,3-dichloropropene and trans-1,3-dichloropropene based on structural similarities.
(hh) Value for 1,2,4-trichlorobenzene used as surrogate for 1,2,3-trichlorobenzene based on structural similarities.
(ii) Value for 1,2-dichloropropane used as surrogate for 2,2-dichloropropane based on structural similarities.
(nn) Value for methyl isobutyl ketone used as surrogate for 2-hexanone based on structural similarities.
(ww) Value for 2-chlorotoluene used as surrogate for 4-chlorotoluene based on structural similarities.
(qq) Value for bromodichloromethane used as surrogate for bromochloromethane due to structural similarities.
(xx) Value for methylene bromide used as surrogate for dibromomethane based on structural similarities.
(kk) Value for methyl tertbutyl ether (MTBE) used as surrogate for ethyl-tert-butyl ether (ETBE) based on structural similarities.

LOU 20 Table 22
Groundwater Characteristic Data - VOCs

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

	Sampling Program	Ph A[1]	Ph A	Ph A
	Well ID	M-2A	M-31A	M-39
	Sample ID	M-2A	M-31A	M-39
	Sample Date	12/04/2006	12/06/2006	12/05/2006
VOCs	**MCL[2] ug/L**	ug/L	ug/L	ug/L
Naphthalene	6.20E+00	5.0 U	5.0 U	5.0 U
1,1,1,2-Tetrachloroethane	4.32E-01	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	2.00E+02	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.00E+00	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.00E+00	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	8.11E+02	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	7.00E+00	**0.83 J**	5.0 U	5.0 U
1,1-Dichloropropene	3.95E-01 gg	5.0 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	7.16E+00 hh	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	5.60E-03	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	7.00E+01	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	1.23E+01	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	2.00E-01	5.0 UJ	5.0 U	5.0 UJ
1,2-Dichlorobenzene	6.00E+02	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.00E+00	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.00E+00	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	1.23E+01	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	1.83E+02	5.0 U	5.0 U	5.0 U
1,3-Dichloropropane	1.22E+02	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	7.50E+01	5.0 U	5.0 U	5.0 U
2,2-Dichloropropane	1.65E-01 ii	5.0 U	5.0 U	5.0 U
2-Butanone	6.97E+03	10 U	10 U	10 U
2-Chlorotoluene	1.22E+02	5.0 U	5.0 U	5.0 U
2-Hexanone	2.00E+03 nn	10 U	10 UJ	10 U
2-Methoxy-2-methyl-butane	--	5.0 U	5.0 UJ	5.0 U
4-Chlorotoluene	1.22E+02 ww	5.0 U	5.0 U	5.0 U
4-Isopropyltoluene	--	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	1.99E+03	10 UJ	10 UJ	10 UJ
Acetone	5.48E+03	10 UJ	10 U	10 U
Benzene	5.00E+00	5.0 U	5.0 U	5.0 U
Bromobenzene	2.03E+01	5.0 U	5.0 U	5.0 U
Bromochloromethane	1.81E-01 qq	5.0 U	5.0 U	5.0 U
Bromodichloromethane	8.00E+01 r	5.0 U	5.0 U	5.0 U
Bromoform	8.00E+01 r	5.0 U	**4.8 J**	5.0 U
Bromomethane	8.66E+00	10 UJ	10 U	10 UJ
Carbon tetrachloride	5.00E+00	**1.2 J**	5.0 U	5.0 U
Chlorobenzene	1.00E+02 o	5.0 U	5.0 U	5.0 U
Chloroethane	4.64E+00	5.0 U	5.0 U	5.0 U
Chloroform	8.00E+01 r	**1300 J+**	**930 J+**	**820 J+**

LOU 20 Table 22 (continued)
Groundwater Characteristic Data - VOCs

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

	Sampling Program	Ph A[1]	Ph A	Ph A
	Well ID	M-2A	M-31A	M-39
	Sample ID	M-2A	M-31A	M-39
	Sample Date	12/04/2006	12/06/2006	12/05/2006
VOCs	**MCL[2] ug/L**	ug/L	ug/L	ug/L
Chloromethane	1.58E+02	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	7.00E+01	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	3.95E-01 gg	5.0 U	5.0 U	5.0 U
Dibromochloromethane	8.00E+01 r	5.0 U	5.0 U	5.0 U
Dibromomethane	6.08E+01 xx	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	3.95E+02	5.0 U	5.0 UJ	5.0 U
Ethyl t-butyl ether	1.10E+01 kk	5.0 U	5.0 UJ	5.0 U
Ethylbenzene	7.00E+02	5.0 U	5.0 U	5.0 U
Ethylene dibromide	--	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	8.62E-01	5.0 U	5.0 U	5.0 U
isopropyl ether	--	5.0 U	5.0 UJ	5.0 U
Isopropylbenzene	6.58E+02	5.0 U	5.0 U	5.0 U
Methyl tert butyl ether	2.00E+01 a,uu	**0.67 J**	5.0 U	5.0 U
Methylene chloride	5.00E+00	5.0 U	5.0 UJ	5.0 U
N-Butylbenzene	2.43E+02	5.0 U	5.0 U	5.0 U
N-Propylbenzene	2.43E+02	5.0 U	5.0 U	5.0 U
sec-Butylbenzene	2.43E+02	5.0 U	5.0 U	5.0 U
Styrene	1.00E+02	R	5.0 U	5.0 U
t-Butyl alcohol	--	10 UJ	10 UJ	10 UJ
tert-Butylbenzene	2.43E+02	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.00E+00	5.0 U	5.0 U	5.0 U
Toluene	1.00E+03	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethylene	1.00E+02	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	--	5.0 U	5.0 U	5.0 U
Trichloroethene	5.00E+00	**25**	5.0 U	5.0 U
Trichlorofluoromethane	--	5.0 U	5.0 U	5.0 U
Vinylchloride	2.00E+00	5.0 U	5.0 U	5.0 U
Xylene (Total)	1.00E+04	10 U	10 UJ	10 U

Notes:
1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.
(gg) Value for 1,3-dichloropropene used as surrogate for 1,1-dichloropropene, cis-1,3-dichloropropene and trans-1,3-dichloropropene based on structural similarities.
(hh) Value for 1,2,4-trichlorobenzene used as surrogate for 1,2,3-trichlorobenzene based on structural similarities.
(ii) Value for 1,2-dichloropropane used as surrogate for 2,2-dichloropropane based on structural similarities.

LOU 20 Table 22 (continued)
Groundwater Characteristic Data - VOCs

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

Notes:
(nn) Value for methyl isobutyl ketone used as surrogate for 2-hexanone based on structural similarities.
(ww) Value for 2-chlorotoluene used as surrogate for 4-chlorotoluene based on structural similarities.
(qq) Value for bromodichloromethane used as surrogate for bromochloromethane due to structural similarities.
(o) See footnote (b). Listed under synonym monochlorobenzene.
(xx) Value for methylene bromide used as surrogate for dibromomethane based on structural similarities.
(kk) Value for methyl tertbutyl ether (MTBE) used as surrogate for ethyl-tert-butyl ether (ETBE) based on structural similarities.
(a) NAC 445A.455 Secondary standards. Certain provisions of the National Primary Drinking Water Regulations are adopted by reference (NAC 445A.4525). These values are listed in the first column of this table and are therefore not listed again here. Only NAC 445A.455 Secondary standards are listed.
(uu) NDEP, 1998. Oxygenated Fuel Corrective Action Guidance. Draft. October, 12 1998. URL [http://ndep.nv.gov/bca/mtbe_doc.htm].

LOU 20 Table 23
Soil Characterization Data - Long Asbestos Fibers in Respirable Soil Fraction

Pond C-1 and Associated Piping
Tronox Facility - Henderson, Nevada

			Long Amphibole Protocol Structures	Long Amphibole Protocol Structures	Long Chrysotile Protocol Structures	Long Chrysotile Protocol Structures	Sampling Program
Boring No.	**Sample ID**	**Sample Date**	s/gPM10	(structures/samples)	s/gPM10	(structures/samples)	
SA17	SA17	12/07/2006	2995000 U	0	2995000 U	0	Ph A[1]

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

LOU 20
Notes for Phase A Data Tables

Pond C-1 and Associated Piping
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.
--	Not established