Basic Environmental
COMPANY

September 5, 2007

Ms. Shannon Harbor, P.E.
Nevada Division of Environmental Protection
Bureau of Corrective Actions
2030 E. Flamingo Road, Suite 230
Las Vegas, Nevada 89119-0818

Subject: Phase 2 Sampling and Analysis Plan to Conduct Soil Characterization, Tronox Parcel "G" Site, Henderson, Nevada

Dear Shannon:

On behalf of Tronox, Basic Environmental Company (BEC) appreciates the opportunity to submit this letter Phase 2 Sampling and Analysis Plan (SAP) to conduct soil characterization of Tronox Parcel "G" (portions of APN No. 178-13-101-002). Parcel G will be referred to as the Site for the purposes of this SAP. The Site is located within the Tronox facility, approximately 1/4 mile north of Lake Mead Parkway, in Henderson, Nevada. Figure 1 illustrates the location of the subject Site within the Tronox property. Figure 2 shows details of Parcel G. Legal boundaries of Parcel G will be provided to the NDEP prior to issuance of the requested No Further Action Determination (NFAD).

Background

The Site, which represents a portion of the Tronox property, is currently comprised primarily of vacant land, and includes a utility vault and several drain inlets. BEC also recognizes that other historic uses/disposals on or near the Site may have occurred. A Phase 1 investigation has been performed on the Site. The Phase 1 investigation, Site visits and historical aerial photographs analysis indicate some amount of staining and some debris, indicating the presence of stormwater evaporative residue. Given the vicinity of BMI Industrial Companies, it is also possible that the Site or portions thereof could also have been indirectly impacted by such operations.

Two deep monitoring wells (TR-7 and TR-8) are located within the Site, including one well (TR-8) which was used as part of the 2006 Tronox Upgradient Investigation. Chemical concentrations were generally low or non-detect; however, chloroform was detected at 2,500 parts per billion (ppb). No chemicals, including volatile organic compounds (VOCs), were found at levels in wells within the Site higher than wells located upgradient of Parcel G in any of the previous sampling events. This suggests that there are no on-Site sources of groundwater impacts.

This SAP will focus on the upper five feet of soil in order to obtain a NFAD from the NDEP in order to support future industrial/commercial use on this Site. No residential use is planned; a deed restriction will be placed on the property. The rationale for sampling for the upper five feet (as opposed to the upper 10 feet) is that imported fill of roughly five feet depth will be required

in order to meet final site grading requirements. This fill will be clean. One possible source is material from the BRC Borrow Pit.

Objective

The objective of the field investigation is to identify and characterize the distribution of Site-related chemicals (SRCs) in the vicinity of the future land use features (e.g., warehouse or commercial office-type buildings) and historical site features (e.g., staining and debris, etc.). Surface and shallow subsurface samples that will be collected are depth-discrete soil matrix samples. Sample locations have been placed to both evaluate potential future land use exposures (although future plans are not fully defined at this time), and to characterize potential source areas on the Site. The sample locations provide spatial coverage of the Site (Figure 2). The rationale for location of the sampling points is to ensure that the entire Site is reasonably and completely covered for sampling purposes in order to obtain data that are representative of the Site, that specific locations within the Site that were potentially impacted are also sampled, and that the sampled concentrations can be meaningfully used in subsequent risk assessments, if needed. Ultimately, the purpose of this sampling is to support the NFAD for Parcel G.

Scope of Work

The following is the proposed scope of work for investigating the Site and meeting the SAP objectives. The scope of work has been divided into three main tasks: 1) Field Implementation; 2) Data Evaluation; and 2) Reporting.

Task 1: Field Implementation

The purpose of the intrusive investigation is to collect data sufficient to meet the objectives of the SAP. All sampling and sample handling procedures will be consistent with the NDEP-approved BRC Field Sampling and Standard Operating Procedures (FSSOP) (BRC, ERM and MWH 2007a).

The proposed analyte list is composed of VOCs, semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), polyaromatic hydrocarbons (PAHs), metals, organo-chlorine pesticides, perchlorate, ions (including chloride, nitrate, nitrite, and sulfate), radio-nuclides, and asbestos. This list includes all of the compounds (with a few additional modifications as discussed subsequently) on Tronox's "reduced list" as shown in Table 1. Tronox's reduced list was developed as a subset of the entire suite of Tronox SRCs based on the findings of the Tronox Phase A Source Area Investigation.

The modifications are as follows: first, in general instead of analyzing for specific members of certain analyte categories like metals, VOCs and SVOCs, the entire suite will be analyzed and reported; second, the organophosphate pesticide and chlorinated herbicide suites were eliminated since only three detections were in these analytical suites (dimethoate and demeton-o) which were at least an order of magnitude below their respective U.S. Environmental Protection Agency (USEPA) Region 9 industrial preliminary remediation goals (PRGs); third, polychlorinated biphenyls (PCBs) were eliminated since only a single Aroclor was detected once (in the central portion of the Tronox property at 20 feet below ground surface (bgs), well north of the Site) below it's respective PRG; fourth, dioxins and furans are not proposed to be analyzed at this small Site since there is no indication of any surface impact (such as burning) which may

indicate the presence of dioxins, and fifth, not all SRCs are proposed to be analyzed at all depths in this SAP (for example, asbestos is proposed to be analyzed in surface soil samples only). Summary results of the Tronox Phase A investigation for PCBs, organophosphate pesticides, and chlorinated herbicides are provided in Table 2.

Given the absence of direct operations on this Site of a nature commensurate to that which took place on the Tronox plant site itself, the proposed SRC list and proposed sampling should characterize those sources that were located on the Site, as well as likely chemicals that may have been deposited on the Site via fugitive dust emissions from the Tronox operations and property and/or other neighboring BMI plants. The proposed analyte list for this SAP is presented in Table 1. Unless otherwise noted in the footnotes in Table 1, all analytes will be analyzed at all locations. BEC notes that this analyte list may not be appropriate for any future planned investigations (such as the proposed Tronox Phase B investigation) at the Site (which will extend from below 10 feet bgs to groundwater).

Pre-Field Activities

The pre-field activities will be conducted in accordance with applicable standard operating procedures (SOPs; BRC, ERM and MWH 2007a). The BRC Quality Assurance Project Plan (QAPP; BRC, ERM and MWH 2007b) and Health and Safety Plan (HASP; BRC and MWH 2005) prepared for the BMI Common Areas will be used for this proposed scope of work. All work will be completed under the direction of a State of Nevada Certified Environmental Manager.

Soil Borings

The SOPs referred to in the following discussion are documented in the FSSOP. BEC will implement field screening using photoionization detectors (PIDs) (using two lamps) in accordance with SOP-39. SOP-1 will be followed for all drilling activities including Hollow Stem Auger drilling. The field geologist will prepare logs for each boring indicating the Unified Soil Classification System (USCS) soil classification (SOP-17), an estimate of field moisture content, sampling depths, progress of drilling (SOP-15), final completion depth, and the nature and resolution of any problems encountered.

Soil sample and auger boring locations will be surveyed using a handheld GPS to a horizontal accuracy of 3 meters (approximately 10 feet) or better. Soil cuttings generated during soil sampling and drilling activities will be collected on visqueen, analyzed, and appropriately disposed off. Due to the nature of the shallow sampling, it is not anticipated that a significant amount of excess soil will be generated as a result of the sampling, or that the soils will require special handling. Also, because the groundwater at the Site is approximately 40 feet bgs (based on data from Tronox monitoring well M-92, the closest alluvial aquifer well, 800 feet north of the Site), it is not anticipated that groundwater will be encountered during drilling of the shallow borings. The quality assurance/quality control (QA/QC) procedures that will be followed during the field investigation are detailed in Section B of the QAPP (BRC, ERM and MWH 2007b).

Soil matrix samples will be collected based on random sample locations placed within a 4-acre grid across the Site. The random sample locations were supplemented with judgmental sampling locations targeting specific site features (e.g., miscellaneous pile locations). The rationale for the various judgmental sampling locations is provided below:

- Parcel G, grid cell 'G-A2' – approximate drain inlet location;
- Parcel G, grid cell 'G-A2' – approximate drain inlet location;
- Parcel G, grid cell 'G-A2' – approximate drain inlet location;
- Parcel G, grid cell 'G-A1' – approximate drain inlet location;
- Parcel G, grid cell 'G-A2' – approximate dumpster location;
- Parcel G, grid cell 'G-A2' – approximate utility vault access location; and
- Parcel G, grid cell 'G-A1' – stained soil area.

Soil borings will be advanced with a hollow-stem auger to a total depth of five feet bgs. Soil samples will be collected at approximately zero (i.e., surface) and five feet bgs. Soil samples will be analyzed for the analyte list provided in Table 1, with limitations as noted in the footnotes to this table.

Task 2: Data Evaluation

Once the data are collected, BEC will subject the data to validation per procedures agreed to previously with the NDEP and consistent with the QAPP (BRC, ERM and MWH 2007b). Only those data determined by the QA/QC review to be suitable for use will be considered for the site data set. A separate Data Validation Summary Report will be prepared and submitted to NDEP.

Task 3: Reporting

Upon receipt of laboratory analytical results, an investigation report will be prepared. The report shall contain, but not be limited to, the following items:

- A summary of the sampling procedures conducted;
- Sampling location map;
- Soil boring logs;
- An evaluation and summary of the collected data;
- Tables(s) summarizing soil results; and
- If appropriate, plan view maps indicating the locations of detected constituents in soil.

Given the depth to groundwater at the Site (approximately 40 feet bgs, as measured at off-site monitoring wells), and the fact that future development will cover the Site with paved areas and buildings, migration of chemicals at the Site to groundwater is considered unlikely. However, once the data are collected this will be evaluated in the report. It should also be noted that development of the site will not preclude future groundwater investigation or remediation activities that may need to be conducted by Tronox.

Following collection and analysis of soil samples, the data will be discussed with the NDEP. This will include a comparison to the recently approved BRC-TIMET background data set (BRC and TIMET 2007). If required upon this evaluation, a risk assessment will be conducted to evaluate the potential risks to future on-site human receptors. The receptors identified to be evaluated in the risk assessment will be consistent with the proposed development of the Site. These receptors will include construction workers, indoor commercial workers, and outdoor maintenance workers. Because the proposed development does not include residential units, on-site residents will not be evaluated. The risk assessment will be conducted using standard

USEPA guidance, input parameters, and methods. A risk assessment work plan will be submitted to NDEP after sample results have been obtained and NDEP approval will be obtained prior to conducting the risk assessment.

Schedule

Once final approval of the SAP is received from NDEP, field implementation activities can commence within one to two weeks. BEC will provide NDEP with at least one week notice prior to the initiation of field activities at the Site. It is anticipated that this work can be completed within one week, depending on field conditions. The soil samples will be submitted to the laboratories and placed on a standard turn around time, which is 28 days for the complete analyte list. A report will be completed within three weeks after the final data are received from the laboratory and validated.

Closing Remarks

See attached for appropriate certification language and signature. Please direct any remaining questions or comments you may have to me at 626-382-0001.

Sincerely,
Basic Environmental Company

Ranajit Sahu, CEM
Project Manager

cc: Brian Rakvica, NDEP, BCA, Las Vegas, NV 89119
Jim Najima, NDEP, BCA, Carson City, NV 89701

Attachments:

Table 1 – Project List of Analytes – Soil
Table 2 – Tronox Phase A PCB, Organophosphorous Pesticide and Chlorinated Herbicide Results Summary
Figure 1 – Tronox/BEC Parcel Map
Figure 2 – Proposed Sample Locations – Parcel "G"

References

BRC and MWH. 2005. BRC Health and Safety Plan, BMI Common Areas, Clark County, Nevada. October.

BRC, ERM, and MWH. 2007a. BRC Field Sampling and Standard Operating Procedures, BMI Common Areas, Clark County, Nevada. August.

BRC, ERM, and MWH. 2007b. BRC Quality Assurance Project Plan. BMI Common Areas, Clark County, Nevada. August.

BRC and TIMET. 2007. Background Shallow Soil Summary Report, BMI Complex and Common Areas Vicinity. March 16.

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

September 5, 2007

Dr. Ranajit Sahu, C.E.M. (No. EM-1699, Exp. 10/07/2009) Date
BRC Project Manager

TABLES

TABLE 1
PROJECT LIST OF ANALYTES – SOIL
(Page 1 of 11)

Parameter of Interest	Analytical Method	Compound List	CAS Number	Tronox SRC	Soil Sample Analysis	
					Surface (0 ft bgs)	Subsurface (5 ft bgs)
Ions	**EPA 300.0**	Bromide	24959-67-9		X	X
		Bromine	7726-95-6		X	X
		Chlorate	14866-68-3	X	X	X
		Chloride	16887-00-6	X	X	X
		Chlorine (soluble)	7782-50-5	X	X	X
		Chlorite	14998-27-7		X	X
		Fluoride	16984-48-8		X	X
		Nitrate (as N)	14797-55-8	X	X	X
		Nitrite (as N)	14797-65-0		X	X
		Orthophosphate	14265-44-2	X	X	X
		Sulfate	14808-79-8	X	X	X
	EPA 314.0	Perchlorate	14797-73-0	X	X	X
Polychlorinated Dibenzodioxins/ Dibenzofurans	**EPA 8290**	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	X		
		1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	X		
		1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	X		
		1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	X		
		1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	X		
		1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	X		
		1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	X		
		1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	X		
		1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	X		
		1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	X		
		1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	X		
		1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	X		
		1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4	X		
		2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	X		
		2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	X		
		2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	X		
		2,3,7,8-Tetrachlororodibenzo-p-dioxin	1746-01-6	X		
Asbestos	**Elutriator/TEM**	Asbestos	1332-21-4	X	X	

TABLE 1
PROJECT LIST OF ANALYTES – SOIL
(Page 2 of 11)

Parameter of Interest	Analytical Method	Compound List	CAS Number	Tronox SRC	Soil Sample Analysis	
					Surface (0 ft bgs)	Subsurface (5 ft bgs)
Metals	**EPA 6020/6010B**	Aluminum	7429-90-5	X	X	X
		Antimony	7440-36-0	X	X	X
		Arsenic	7440-38-2	X	X	X
		Barium	7440-39-3	X	X	X
		Beryllium	7440-41-7	X	X	X
		Boron	7440-42-8	X	X	X
		Cadmium	7440-43-9	X	X	X
		Calcium	7440-70-2	X	X	X
		Chromium	7440-47-3	X	X	X
		Cobalt	7440-48-4	X	X	X
		Copper	7440-50-8	X	X	X
		Iron	7439-89-6	X	X	X
		Lead	7439-92-1	X	X	X
		Lithium	1313-13-9		X	X
		Magnesium	7439-95-4	X	X	X
		Manganese	7439-96-5	X	X	X
		Molybdenum	7439-98-7	X	X	X
		Nickel	7440-02-0	X	X	X
		Niobium	7440-03-1		X	X
		Palladium	7440-05-3		X	X
		Phosphorus	7723-14-0	X	X	X
		Platinum	7440-06-4	X	X	X
		Potassium	7440-09-7	X	X	X
		Selenium	7782-49-2	X	X	X
		Silicon	7440-21-3	X	X	X
		Silver	7440-22-4	X	X	X
		Sodium	7440-23-5	X	X	X
		Strontium	7440-24-6	X	X	X
		Sulfur	7704-34-9		X	X
		Thallium	7440-28-0	X	X	X
		Tin	7440-31-5	X	X	X
		Titanium	7440-32-6	X	X	X

TABLE 1
PROJECT LIST OF ANALYTES – SOIL
(Page 3 of 11)

Parameter of Interest	Analytical Method	Compound List	CAS Number	Tronox SRC	Soil Sample Analysis	
					Surface (0 ft bgs)	Subsurface (5 ft bgs)
Metals (continued)	**EPA 6020/6010B**	Tungsten	7440-33-7	X	X	X
		Uranium	7440-61-1	X	X	X
		Vanadium	7440-62-2	X	X	X
		Zinc	7440-66-6	X	X	X
		Zirconium	7440-67-7		X	X
	EPA 7196A	Chromium (VI)	18540-29-9	X	X	X
Polychlorinated Biphenyls (PCBs)[1]	**EPA 8141A**	Aroclor 1016	12674-11-2	X		
		Aroclor 1221	11104-28-2	X		
		Aroclor 1232	11141-16-5	X		
		Aroclor 1242	53469-21-9	X		
		Aroclor 1248	12672-29-6	X		
		Aroclor 1254	11097-69-1	X		
		Aroclor 1260	11096-82-5	X		
Organophosphorous Pesticides[1]	**EPA 8141A**	Azinphos-Methyl	86-50-0	X		
		Bolstar	35400-43-2	X		
		Chlorpyrifos	2921-88-2	X		
		Coumaphos	56-72-4	X		
		Demeton-O	298-03-3	X		
		Demeton-S	126-75-0	X		
		Diazinon	333-41-5	X		
		Dichlorvos	62-73-7	X		
		Dimethoate	60-51-5	X		
		Disulfoton	298-04-4	X		
		Epn	2104-64-5	X		
		Ethoprop	13194-48-4	X		
		Ethyl Parathion	56-38-2	X		
		Famphur	52-85-7	X		
		Fensulfothion	115-90-2	X		
		Fenthion	55-38-9	X		
		Malathion	121-75-5	X		
		Merphos	150-50-5	X		
		Methyl Parathion	298-00-0	X		

TABLE 1
PROJECT LIST OF ANALYTES – SOIL
(Page 4 of 11)

Parameter of Interest	Analytical Method	Compound List	CAS Number	Tronox SRC	Soil Sample Analysis	
					Surface (0 ft bgs)	Subsurface (5 ft bgs)
Organophosphorous Pesticides[1] (continued)	**EPA 8141A**	Mevinphos	7786-34-7	X		
		Naled	300-76-5	X		
		Phorate	298-02-2	X		
		Ronnel	299-84-3	X		
		Stirphos	22248-79-9	X		
		Sulfotep	3689-24-5	X		
		Thionazin	297-97-2	X		
		Tokuthion	34643-46-4	X		
		Trichloronate	327-98-0	X		
Organochlorine Pesticides	**EPA 8081A**	2,4-DDD	53-19-0	X	X	X
		2,4-DDE	3424-82-6	X	X	X
		4,4-DDD	72-54-8	X	X	X
		4,4-DDE	72-55-9	X	X	X
		4,4-DDT	50-29-3	X	X	X
		Aldrin	309-00-2	X	X	X
		alpha-BHC	319-84-6	X	X	X
		alpha-Chlordane	5103-71-9	X	X	X
		beta-BHC	319-85-7	X	X	X
		Chlordane	57-74-9	X	X	X
		delta-BHC	319-86-8	X	X	X
		Dieldrin	60-57-1	X	X	X
		Endosulfan I	959-98-8	X	X	X
		Endosulfan II	33213-65-9	X	X	X
		Endosulfan sulfate	1031-07-8	X	X	X
		Endrin	72-20-8	X	X	X
		Endrin aldehyde	7421-93-4	X	X	X
		Endrin ketone	53494-70-5	X	X	X
		gamma-BHC (Lindane)	58-89-9	X	X	X
		gamma-Chlordane	5103-74-2	X	X	X

TABLE 1
PROJECT LIST OF ANALYTES – SOIL
(Page 5 of 11)

Parameter of Interest	Analytical Method	Compound List	CAS Number	Tronox SRC	Soil Sample Analysis	
					Surface (0 ft bgs)	Subsurface (5 ft bgs)
Organochlorine Pesticides (continued)	**EPA 8081A**	Heptachlor	76-44-8	X	X	X
		Heptachlor epoxide	1024-57-3	X	X	X
		Methoxychlor	72-43-5	X	X	X
		Toxaphene	8001-35-2	X	X	X
Chlorinated Herbicides[1]	**EPA 8151A**	2,4,5-TP (Silvex)	93-72-1	X		
Polynuclear Aromatic Hydrocarbons	**EPA 8310[2]**	Acenaphthene	83-32-9	X	X	X
		Acenaphthylene	208-96-8	X	X	X
		Anthracene	120-12-7	X	X	X
		Benzo(a)anthracene	56-55-3	X	X	X
		Benzo(a)pyrene	50-32-8	X	X	X
		Benzo(b)fluoranthene	205-99-2	X	X	X
		Benzo(g,h,i)perylene	191-24-2	X	X	X
		Benzo(k)fluoranthene	207-08-9	X	X	X
	EPA 8310[2]	Chrysene	218-01-9	X	X	X
		Dibenzo(a,h)anthracene	53-70-3	X	X	X
		Indeno(1,2,3-cd)pyrene	193-39-5	X	X	X
		Phenanthrene	85-01-8	X	X	X
		Pyrene	129-00-0	X	X	X
Radionuclides	**HASL A-01-R**	Thorium-228	14274-82-9	X	X	X
		Thorium-230	14269-63-7	X	X	X
		Thorium-232	7440-29-1	X	X	X
		Uranium-233/234	13966-29-5	X	X	X
		Uranium 235/236	15117-96-1	X	X	X
		Uranium-238	7440-61-1	X	X	X
	EPA 903.0 / 903.1	Radium-226	13982-63-3	X	X	X
	EPA 904.0	Radium-228	15262-20-1	X	X	X
Semivolatile Organic Compounds	**EPA 8270C [3]**	1,2,4,5-Tetrachlorobenzene	95-94-3		X	X
		1,2-Diphenylhydrazine	122-66-7		X	X
		1,4-Dioxane	123-91-1		X	X
		2,2'/4,4'-Dichlorobenzil	3457-46-3		X	X
		2,4,5-Trichlorophenol	95-95-4		X	X
		2,4,6-Trichlorophenol	88-06-2		X	X

TABLE 1
PROJECT LIST OF ANALYTES – SOIL
(Page 6 of 11)

Parameter of Interest	Analytical Method	Compound List	CAS Number	Tronox SRC	Soil Sample Analysis	
					Surface (0 ft bgs)	Subsurface (5 ft bgs)
Semivolatile Organic Compounds (continued)	**EPA 8270C [3]**	2,4-Dichlorophenol	120-83-2		X	X
		2,4-Dimethylphenol	105-67-9		X	X
		2,4-Dinitrophenol	51-28-5		X	X
		2,4-Dinitrotoluene	121-14-2		X	X
		2,6-Dinitrotoluene	606-20-2		X	X
		2-Chloronaphthalene	91-58-7		X	X
		2-Chlorophenol	95-57-8		X	X
		2-Methylnaphthalene	91-57-6		X	X
		2-Nitroaniline	88-74-4		X	X
		2-Nitrophenol	88-75-5		X	X
		3,3-Dichlorobenzidine	91-94-1		X	X
		3-Nitroaniline	99-09-2		X	X
		4,4'-Dichlorobenzil	3457-46-3		X	X
		4-Bromophenyl phenyl ether	101-55-3		X	X
		4-Chloro-3-methylphenol	59-50-7		X	X
		4-Chlorophenyl phenyl ether	7005-72-3		X	X
		4-Chlorothioanisole	123-09-1		X	X
		4-Chlorothiophenol	106-54-7		X	X
		4-Nitroaniline	100-01-6		X	X
		4-Nitrophenol	100-02-7		X	X
		Acenaphthene	83-32-9	X	X	X
		Acenaphthylene	208-96-8	X	X	X
		Acetophenone	98-86-2		X	X
		Aniline	62-53-3		X	X
		Anthracene	120-12-7	X	X	X
		Azobenzene	103-33-3		X	X
		Benzo(a)anthracene	56-55-3	X	X	X
		Benzo(a)pyrene	50-32-8	X	X	X
		Benzo(b)fluoranthene	205-99-2	X	X	X
		Benzo(g,h,i)perylene	191-24-2	X	X	X
		Benzo(k)fluoranthene	207-08-9	X	X	X
		Benzoic acid	65-85-0		X	X

TABLE 1
PROJECT LIST OF ANALYTES – SOIL
(Page 7 of 11)

Parameter of Interest	Analytical Method	Compound List	CAS Number	Tronox SRC	Soil Sample Analysis	
					Surface (0 ft bgs)	Subsurface (5 ft bgs)
Semivolatile Organic Compounds (continued)	**EPA 8270C [3]**	Benzyl alcohol	100-51-6		X	X
		bis(2-Chloroethoxy)methane	111-91-1		X	X
		bis(2-Chloroethyl) ether	111-44-4		X	X
		bis(2-Chloroisopropyl) ether	108-60-1		X	X
		bis(2-Ethylhexyl) phthalate	117-81-7		X	X
		bis(Chloromethyl) ether	542-88-1		X	X
		bis(p-Chlorophenyl) sulfone	80-07-9		X	X
		bis(p-Chlorophenyl)disulfide	1142-19-4		X	X
		Butylbenzyl phthalate	85-68-7		X	X
		Carbazole	86-74-8		X	X
		Chrysene	218-01-9	X	X	X
		Dibenzo(a,h)anthracene	53-70-3	X	X	X
		Dibenzofuran	132-64-9		X	X
		Dichloromethyl ether	542-88-1		X	X
		Diethyl phthalate	84-66-2		X	X
		Dimethyl phthalate	131-11-3		X	X
		Di-n-butyl phthalate	84-74-2		X	X
		Di-n-octyl phthalate	117-84-0		X	X
		Diphenyl disulfide	882-33-7		X	X
		Diphenyl sulfide	139-66-2		X	X
		Diphenyl sulfone	127-63-9		X	X
		Fluoranthene	206-44-0	X	X	X
		Fluorene	86-73-7	X	X	X
		Hexachlorobenzene	118-74-1	X	X	X
		Hexachlorobutadiene	87-68-3		X	X
		Hexachlorocyclopentadiene	77-47-4		X	X
		Hexachloroethane	67-72-1		X	X
		Hydroxymethyl phthalimide	118-29-6		X	X
		Indeno(1,2,3-cd)pyrene	193-39-5	X	X	X
		Isophorone	78-59-1		X	X
		m,p-Cresol	106-44-5		X	X
		Naphthalene	91-20-3	X	X	X

TABLE 1
PROJECT LIST OF ANALYTES – SOIL
(Page 8 of 11)

Parameter of Interest	Analytical Method	Compound List	CAS Number	Tronox SRC	Soil Sample Analysis	
					Surface (0 ft bgs)	Subsurface (5 ft bgs)
Semivolatile Organic Compounds (continued)	**EPA 8270C** [3]	Nitrobenzene	98-95-3	X	X	X
		N-nitrosodi-n-propylamine	621-64-7		X	X
		N-nitrosodiphenylamine	86-30-6		X	X
		o-Cresol	95-48-7		X	X
		Octachlorostyrene	29082-74-4	X	X	X
		p-Chloroaniline (4-Chloroaniline)	106-47-8		X	X
		p-Chlorobenzenethiol	106-54-7		X	X
		Pentachlorobenzene	608-93-5		X	X
		Pentachlorophenol	87-86-5		X	X
		Phenanthrene	85-01-8	X	X	X
		Phenol	108-95-2		X	X
		Phthalic acid	88-99-3		X	X
		Pyrene	129-00-0	X	X	X
		Pyridine	110-86-1	X	X	X
		Thiophenol	108-98-5		X	X
		Tentatively Identified Compounds (TICs)			X	X
Volatile Organic Compounds	**EPA 8260B**	1,1,1,2-Tetrachloroethane	630-20-6		X	X
		1,1,1-Trichloroethane	71-55-6	X	X	X
		1,1,2,2-Tetrachloroethane	79-34-5		X	X
		1,1,2-Trichloroethane	79-00-5		X	X
		1,1-Dichloroethane	75-34-3		X	X
		1,1-Dichloroethene	75-35-4		X	X
		1,1-Dichloropropene	563-58-6		X	X
		1,2,3-Trichlorobenzene	87-61-6		X	X
		1,2,3-Trichloropropane	96-18-4		X	X
		1,2,4-Trichlorobenzene	120-82-1		X	X
		1,2,4-Trimethylbenzene	95-63-6		X	X
		1,2-Dichlorobenzene	95-50-1	X	X	X
		1,2-Dichloroethane	107-06-2		X	X
		1,2-Dichloroethene	540-59-0		X	X
		1,2-Dichloropropane	78-87-5		X	X
		1,3,5-Trichlorobenzene	108-70-3		X	X

TABLE 1
PROJECT LIST OF ANALYTES – SOIL
(Page 9 of 11)

Parameter of Interest	Analytical Method	Compound List	CAS Number	Tronox SRC	Soil Sample Analysis	
					Surface (0 ft bgs)	Subsurface (5 ft bgs)
Volatile Organic Compounds (continued)	**EPA 8260B**	1,3,5-Trimethylbenzene	108-67-8		X	X
		1,3-Dichlorobenzene	541-73-1	X	X	X
		1,3-Dichloropropene	542-75-6		X	X
		1,3-Dichloropropane	142-28-9		X	X
		1,4-Dichlorobenzene	106-46-7	X	X	X
		2,2-Dichloropropane	594-20-7		X	X
		2,2-Dimethylpentane	590-35-2		X	X
		2,2,3-Trimethylbutane	464-06-2		X	X
		2,3-Dimethylpentane	565-59-3		X	X
		2,4-Dimethylpentane	108-08-7		X	X
		2-Chlorotoluene	95-49-8		X	X
		2-Hexanone	591-78-6	X	X	X
		2-Methylhexane	591-76-4		X	X
		2-Nitropropane	79-46-9		X	X
		3,3-Dimethylpentane	562-49-2		X	X
		3-Ethylpentane	617-78-7		X	X
		3-Methylhexane	589-34-4		X	X
		4-Chlorobenzene	108-90-7		X	X
		4-Chlorotoluene	106-43-4		X	X
		4-Methyl-2-pentanone (MIBK)	108-10-1	X	X	X
		Acetone	67-64-1	X	X	X
		Acetonitrile	75-05-8		X	X
		Benzene	71-43-2	X	X	X
		Bromobenzene	108-86-1		X	X
		Bromodichloromethane	75-27-4		X	X
		Bromoform	75-25-2		X	X
		Bromomethane	74-83-9		X	X
		Carbon disulfide	75-15-0		X	X
		Carbon tetrachloride	56-23-5		X	X
		Chlorobenzene	108-90-7	X	X	X
		Chlorobromomethane	74-97-5		X	X
		Chlorodibromomethane	124-48-1		X	X

TABLE 1
PROJECT LIST OF ANALYTES – SOIL
(Page 10 of 11)

Parameter of Interest	Analytical Method	Compound List	CAS Number	Tronox SRC	Soil Sample Analysis	
					Surface (0 ft bgs)	Subsurface (5 ft bgs)
Volatile Organic Compounds (continued)	**EPA 8260B**	Chloroethane	75-00-3		X	X
		Chloroform	67-66-3	X	X	X
		Chloromethane	74-87-3		X	X
		cis-1,2-Dichloroethene	156-59-2		X	X
		cis-1,3-Dichloropropene	10061-01-5		X	X
		Cymene (Isopropyltoluene)	99-87-6		X	X
		Dibromochloroethane	73506-94-2		X	X
		Dibromochloromethane	124-48-1		X	X
		Dibromochloropropane	96-12-8		X	X
		Dibromomethane	74-95-3		X	X
		Dichloromethane (Methylene chloride)	75-09-2		X	X
		Dimethyldisulfide	624-92-0		X	X
		Ethanol	64-17-5		X	X
		Ethylbenzene	100-41-4	X	X	X
		Freon-11 (Trichlorofluoromethane)	75-69-4		X	X
		Freon-113 (1,1,2-Trifluoro-1,2,2-trichloroethane)	76-13-1		X	X
		Freon-12 (Dichlorodifluoromethane)	75-71-8		X	X
		Heptane	142-82-5		X	X
		Isoheptane	31394-54-4		X	X
		Isopropylbenzene	98-82-8		X	X
		m,p-Xylene	mp-XYL	X	X	X
		Methyl ethyl ketone (2-Butanone)	78-93-3	X	X	X
		Methyl iodide	74-88-4		X	X
		MTBE (Methyl tert-butyl ether)	1634-04-4	X	X	X
		n-Butyl benzene	104-51-8		X	X
		n-Propylbenzene	103-65-1		X	X
		Nonanal	124-19-6		X	X
		o-Xylene	95-47-6	X	X	X
		sec-Butylbenzene	135-98-8		X	X
		Styrene	100-42-5		X	X
		tert-Butyl benzene	98-06-6		X	X
		Tetrachloroethene	127-18-4	X	X	X

TABLE 1
PROJECT LIST OF ANALYTES – SOIL
(Page 11 of 11)

Parameter of Interest	Analytical Method	Compound List	CAS Number	Tronox SRC	Soil Sample Analysis	
					Surface (0 ft bgs)	Subsurface (5 ft bgs)
Volatile Organic Compounds (continued)	**EPA 8260B**	Toluene	108-88-3	X	X	X
		trans-1,2-Dichloroethene	156-60-5		X	X
		trans-1,3-Dichloropropene	10061-02-6		X	X
		Trichloroethene	79-01-6	X	X	X
		Vinyl acetate	108-05-4		X	X
		Vinyl chloride	75-01-4		X	X
		Xylenes (total)	1330-20-7	X	X	X
		Tentatively Identified Compounds (TICs)			X	X
Total Petroleum Hydrocarbons	**EPA 8015**	Diesel	64742-46-7	X	X	X
		Gasoline	8006-61-9	X	X	X
		Grease	68153-81-1	X	X	X

Notes:
The laboratory will be instructed to report the top 25 Tentatively Identified Compounds (TICs) under method 8260B and 8270C.
[1]PCBs, organophosphorous pesticides and chlorinated herbicides are not included in the analyte list. See text for rationale.
[2]For polynuclear aromatic hydrocarbons, Method 8270C is the primary analytical method, but Method 8310 may be used if necessary.
[3]Method 3540 for extraction and Method 3640 for cleanup are to be used as appropriate.

TABLE 2
TRONOX PHASE A PCB, ORGANOPHOSPHOROUS PESTICIDE AND CHLORINATED HERBICIDE RESULTS SUMMARY

Method	Matrix	Chemical	Count	Hits	Minimum Detect	Maximum Detect	Minimum DL	Maximum DL	PRG/MCL
Polychlorinated Biphenyls (PCBs)	Soil (mg/kg)	Aroclor-1016	130	0	--	--	0.034	0.055	21.2
		Aroclor-1221	130	0	--	--	0.034	0.055	0.74
		Aroclor-1232	130	0	--	--	0.034	0.055	0.74
		Aroclor-1242	130	0	--	--	0.034	0.055	0.74
		Aroclor-1248	130	0	--	--	0.034	0.055	0.74
		Aroclor-1254	130	0	--	--	0.034	0.055	0.74
		Aroclor-1260	130	1	0.47	0.47	0.034	0.055	0.74
	Groundwater (ug/L)	Aroclor-1016	30	0	--	--	0.1	0.1	0.5
		Aroclor-1221	30	0	--	--	0.1	0.1	0.5
		Aroclor-1232	30	0	--	--	0.1	0.1	0.5
		Aroclor-1242	30	0	--	--	0.1	0.1	0.5
		Aroclor-1248	30	0	--	--	0.1	0.1	0.5
		Aroclor-1254	30	0	--	--	0.1	0.1	0.5
		Aroclor-1260	30	0	--	--	0.1	0.1	0.5
Organophosphorous Pesticides	Soil (mg/kg)	Azinphos-Methyl	36	0	--	--	0.014	0.017	--
		Bolstar	36	0	--	--	0.014	0.017	--
		Chlorpyrifos	36	0	--	--	0.021	0.026	1,847
		Coumaphos	36	0	--	--	0.014	0.017	--
		Demeton-O	36	1	0.092	0.092	0.041	0.05	24.6
		Demeton-S	36	0	--	--	0.016	0.019	24.6
		Diazinon	36	0	--	--	0.023	0.028	554
		Dichlorvos	36	0	--	--	0.024	0.03	5.9
		Dimethoate	36	3	0.011	0.013	0.023	0.028	123
		Disulfoton	36	0	--	--	0.05	0.062	24.6
		Epn	36	0	--	--	0.014	0.017	6.16
		Ethoprop	36	0	--	--	0.016	0.019	--
		Ethyl Parathion	36	0	--	--	0.019	0.023	3,694
		Famphur	36	0	--	--	0.014	0.017	--
		Fensulfothion	36	0	--	--	0.014	0.017	--
		Fenthion	36	0	--	--	0.034	0.043	--
		Malathion	36	0	--	--	0.016	0.019	12,312
		Merphos	36	0	--	--	0.031	0.039	--
		Methyl Parathion	36	0	--	--	0.021	0.026	154
		Mevinphos	36	0	--	--	0.016	0.019	--
		Naled	36	0	--	--	0.034	0.043	1,231
		Phorate	36	0	--	--	0.021	0.026	123
		Ronnel	36	0	--	--	0.019	0.023	30,780
		Stirphos	36	0	--	--	0.016	0.019	72

TABLE 2
TRONOX PHASE A PCB, ORGANOPHOSPHOROUS PESTICIDE AND CHLORINATED HERBICIDE RESULTS SUMMARY

Method	Matrix	Chemical	Count	Hits	Minimum Detect	Maximum Detect	Minimum DL	Maximum DL	PRG/MCL
Organophosphorous Pesticides	Soil (mg/kg)	Sulfotep	36	0	--	--	0.021	0.026	308
		Thionazin	36	0	--	--	0.019	0.023	--
		Tokuthion	36	0	--	--	0.021	0.026	--
		Trichloronate	36	0	--	--	0.021	0.026	--
	Groundwater (ug/L)	Azinphos-Methyl	30	0	--	--	2.5	2.5	--
		Bolstar	30	0	--	--	1	1	--
		Chlorpyrifos	30	0	--	--	1	1	--
		Coumaphos	30	0	--	--	1	1	--
		Demeton-O	30	0	--	--	1	1	--
		Demeton-S	30	0	--	--	1	1	--
		Diazinon	30	0	--	--	1	1	--
		Dichlorvos	30	0	--	--	1	1	--
		Dimethoate	30	0	--	--	1	1	--
		Disulfoton	30	0	--	--	0.5	0.5	--
		Epn	30	0	--	--	1.2	1.2	--
		Ethoprop	30	0	--	--	0.5	0.5	--
		Ethyl Parathion	30	0	--	--	1	1	--
		Famphur	30	0	--	--	1	1	--
		Fensulfothion	30	0	--	--	2.5	2.5	--
		Fenthion	30	0	--	--	2.5	2.5	--
		Malathion	30	0	--	--	1.2	1.2	--
		Merphos	30	0	--	--	5	5	--
		Methyl Parathion	30	0	--	--	4	4	--
		Mevinphos	30	0	--	--	6.2	6.2	--
		Naled	30	0	--	--	1	1	--
		Phorate	30	0	--	--	1.2	1.2	--
		Ronnel	30	0	--	--	10	10	--
		Stirphos	30	0	--	--	3.5	3.5	--
		Sulfotep	30	0	--	--	1.5	1.5	--
		Thionazin	30	0	--	--	1	1	--
		Tokuthion	30	0	--	--	1.6	1.6	--
		Trichloronate	30	0	--	--	0.5	0.5	--
Chlorinated Herbicides	Soil (mg/kg)	2,4,5-TP (Silvex)	3	0	--	--	0.021	0.025	4,925
	Groundwater (ug/L)	2,4,5-TP (Silvex)	4	0	--	--	1	1	50

-- = None detected/none established.
DL = detection limit
PRG = U.S. Environmental Protection Agency (USEPA) Region 9 preliminary remediation goal
MCL = USEPA Maximum Contaminant Level

FIGURES

Parcel "A"

Parcel "B"

Parcel "C"

Parcel "D"

Parcel "E"

Parcel "F"

Parcel "G"

Parcel "H"

Parcel "I"

Parcel "J"

N

600 300 0 600

Feet

Tronox Property

Monitoring Wells

Historical Ditches

Tronox/BEC Parcels

NFA to be obtained later

NFA to be obtained now

Parcels included in this SAP

TIMET NFA Area

BEC / Tronox Sampling and Analysis Plan
BMI Common Areas, Henderson, Nevada

FIGURE 1

TRONOX/BEC
PARCEL MAP

Basic Environmental COMPANY

Prepared by: MKJ

Date 07/25/07

JOB No. 0069073
FILE: GIS/BEC/TRONOX/FIGURE_1.MXD

Proposed Sampling Location

Monitoring Well

Approximate Drain Inlet Location

Approximate Dumpster Location

Approximate Utility Vault Location

4-Acre Random Sampling Grid (Grid ID = "A-X#")

Sample ID Nomenclature:

TSB-BR(J)-01

Parcel ID

Random Sample

Judgmental Sample

Sample Number

Fall 2006 Aerial from Clark County GIS.

BEC / Tronox Sampling and Analysis Plan
BMI Common Areas, Henderson, Nevada

FIGURE 2

PROPOSED SAMPLING LOCATIONS - PARCEL "G"

Basic Environmental COMPANY

Prepared by:	Date	JOB No. 0069073
MKJ	08/29/07	FILE: GIS/BEC/TRONOX/FIGURE_2.MXD