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Kansas Department of Health and Environment

Integrated Assessment Report

Kansas Oxide Site
Kansas City, Kansas

Bureau of Environmental Remediation

INTEGRATED ASSESSMENT

Kansas Oxide Site
Kansas City, Kansas

Prepared by:
Kansas Department of Health and Environment
Bureau of Environmental Remediation
Remedial Section
Site Assessment Program

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1.0 Introduction

The Kansas Department of Health and Environment (KDHE) has an ongoing cooperative agreement with the United States Environmental Protection Agency (USEPA) to conduct assessments of sites pursuant to the Comprehensive Environmental Response, Compensation, and Liabilities Act (CERCLA) consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This Integrated Assessment (IA) was conducted under this agreement to assess a release or threat of release of hazardous substances, pollutants or contaminants at the Kansas Oxide site in Kansas City, Wyandotte County, Kansas. Assessment of the site was initiated in response to continued concerns of potential off-site impacts of airborne lead to adjacent properties.

2.0 Site Location and Description

The Kansas Oxide site is located at 603 Sunshine Road, Kansas City, Kansas 66203. The site has a center global positioning system (GPS) coordinates of 39.14640 latitude and -94.62122 longitude. The site is located at the southwestern corner of the intersection of Sunshine and Brinkerhoff Roads in the Fairfax District of Kansas City in the southwest ¼ of Section 27, Township 10 South, and Range 25 East (see Figure 1). The site property is currently owned by Metals and Additives Corporation.

3.0 Site Background

3.1 History

Kansas Oxide has produced powdered lead for battery components at this facility since November 1979. The facility most recently operated as Kansas Oxide Division of Omni Oxide Limited Liability Corporation (L. L. C). The original facility was constructed by Oxide and Chemical Corporation, a Kansas corporation, in 1979 for the production of commercial-grade lead oxide and began operations in the same year. The lead oxide production process involved melting lead ingots in Barton pots, which would be stirred as a strong draft of air was blown over them. According to information from KDHE's Bureau of Air and Radiation, the resultant lead oxide became airborne and was blown into a cyclone and baghouse from which the lead oxide dust was extracted and sold.

In 1990 Oxide and Chemical Corporation was acquired by American Oxide, which operated under its subsidiary, Kansas Oxide Corporation. Later, in 1996, Kansas Oxide Corporation merged into Omni Oxide, L. L. C. Omni Oxide L. L. C. is also known as Metals and Additives Corporation, Inc. Active lead oxide production ceased at this site in approximately 2004.

KDHE sent two Voluntary Encouragement letters to Metals and Additives Corporation, Inc. on December 7,2007, and July 21, 2008 (Reference 2). Metals and Additives responded indicating that while they admitted operation of the Sunshine facility, airborne deposition was alleged from

Exide Technologies for the lead contamination. Metals and Additives Corporation, Inc., has not responded to subsequent KDHE communications. The focus of this IA is to verify the release of lead at the site and to further evaluate the allegations of potential wind-blown deposition from the Exide/Fairfax facility impacting the Kansas Oxide site.

3.2 Previous Investigations

EPA conducted a Resource Conservation and Recovery Act (RCRA) compliance inspection of Kansas Oxide in 1998. By documentation contained in KDHE's Bureau of Waste Management (BWM) files, Kansas Oxide was a "Kansas Generator" class of characteristic lead waste (code D008) as documented by BWM in 2001. Kansas Oxide was instructed by BWM in 2001 that its generator status was incorrect and that the facility actually had generated more D008 waste than was previously documented. Several violations were noted by BWM in the 2001 inspection documentation including container management violations (marking, leaving containers open, etc.).

An aerial photograph (see Appendix 1) taken by a commercial aerial photography company in October 2000 indicates visual evidence of lead dust releases from the exhaust fans of Kansas Oxide to the roof of the adjacent Central Solutions, Inc., property. A previous 1993 Environmental Assessment conducted on the Central Solutions, Inc., property indicated lead at 590,000 mg/Kg from a particulate sample collected on the roof of the Central Solutions, Inc., building near the exhaust fans from Kansas Oxide.

A chemist for Central Solutions, Inc., Mr. George Derra, worked near ventilation receiving airflow from the Kansas Oxide building, and was solicited for blood lead sampling by Kansas Oxide in August of 2001. The Central Solutions, Inc., facility is a commercial health care products distributor and lead detections on its property cannot be attributed to processes by Central Solutions, Inc.

No reporting was identified by KDHE during the preparation of this IA by Kansas Oxide to local, State, or Federal authorities for the lead dust release identified in the aerial photographs. These aerial photographs are included in Appendix 2. The lead dust is seen as a white powder on the northwest corner of the Central Solutions building, directly adjacent to the exhaust fans from the Kansas Oxide building.

In 2001 a Phase I Environmental Assessment was conducted by Maxim Technologies, Inc., for Central Solutions, Inc. The two primary concerns identified in the Phase I were airborne lead dust emissions from the Kansas Oxide facility, and volatile organic compounds (VOCs) and polychlorinated biphenyl releases from the adjacent Unison/Union Carbide facility to the south currently being addressed through a KDHE Consent Agreement. Additional soil and dust sampling was collected in 2004, and a dust wipe sample from the Central Solutions, Inc., roof indicated a maximum level of 65,778.3 micrograms per square foot ($\mu g.ft^2$). A dust sample collected inside the Central Solutions, Inc., facility receiving ventilation from this portion of the roof also indicated elevated lead at 3,682 $\mu g.ft^2$. The Department of Housing and Urban Development (HUD) has established a residential lead dust criterion of 40 $\mu g.ft^2$. A composite soil sample also collected during this event indicated total lead at 20,870 milligrams per kilogram (mg/Kg).

In 2008 data collected by a consultant for Central Solutions, Inc., indicated total lead levels as high as 5,858 mg/Kg and Toxicity Characteristic Leachate Procedure (TCLP) levels for lead as high as 23.01 milligrams per liter (mg/L), in excess of the TCLP threshold of 5 mg/L set by the Resource Conservation and Recovery Act (RCRA) for determination of characteristic hazardous waste.

Central Solutions, Inc., had previously applied to KDHE's Voluntary Cleanup Program (VCP) in 2007 but was not deemed to qualify for the requested "No Further Action" determination. Central Solutions, Inc., then initiated a limited soil removal independent of the VCP and without approval of KDHE's BWM, and the soil from this removal was disposed in the Courtney Ridge Landfill in October, 2008.

3.3 Hazardous Substance Characteristics

Lead and arsenic are the primary hazardous substances of concern at the Kansas Oxide site. It is unclear if the arsenic releases are related to this site. Toxicological profiles for lead and arsenic are included in Appendix 5.

4.0 Physical Setting

4.1 Land Use

The Kansas Oxide site is situated at the intersection of Sunshine and Brinkerhoff Roads in Kansas City, Wyandotte County. The site is within the Fairfax District and all adjacent land use is heavy industrial or commercial. A rail siding is present to the west of the site, Brinkerhoff Road to the west, Sunshine Road to the north and the Central Solutions property is to the south of the site.

4.2 Soils and Geology

The Kansas Oxide site is situated on relatively level terrain in the flood plain of the Kansas River. Native soils at the site consist of the Onawa series, however the Fairfax District is heavily industrialized and much of the area has been extensively developed. The Onawa is silty clay to silt loam formed in nearly level alluvium. The soil depth typically is greater than 80 inches with a seasonal perched water table at 24 to 36 inches in the higher clay content of the subsoil (Reference 3).

Soils in the Fairfax District are underlain by alluvial deposits. These alluvial deposits are of Pleistocene and Recent age associated with the Missouri River. A test hole drilled by the Corps of Engineers in the vicinity of the intersection of Kindelberger Road and 7th Street Trafficway encountered silt to nine feet underlain by sand to 30 feet, gravel and sand to 100 feet, and gravel to 116 feet. The gravel was underlain by carbonaceous sandstone of Pennsylvanian–Missourian age (Reference 4).

4.3 Hydrogeology

Groundwater occurs in these alluvial deposits and flows to the east-northeast during times of low to normal stream flow in the Missouri River and to the south-southeast during periods of high stream flow when subject to gradient reversals from high river stage in the Missouri River (Reference 5). Groundwater sampling was not conducted for this IA.

5.0 Receptors

5.1 Groundwater Pathway

The groundwater exposure pathway under the HRS is evaluated in part by calculating the number of residents, students, and workers served by water wells located within four miles of the site and determining whether these people are actually or potentially exposed to hazardous substances (Reference 6). Most people within the target distance limit for the site obtain drinking water from the Kansas City Board of Public Utilities, which obtains water from the Missouri River at the Nearman drinking water plant, which operates two horizontal collector wells approximately five miles up river of the site. An alternate drinking water intake, used during large-scale maintenance projects at the Nearman plant, is the Quindaro plant, which operates one surface water intake along the Missouri River approximately 1 ½ miles up river of the site (Reference 7). No public water supply wells were identified within four miles of the site.

A search of KDHE's water well completion records (Form WWC-5) identified two domestic drinking wells within a four-mile radius of the site. The number of potential drinking water targets associated with domestic wells equates to 5.48 potential drinking water targets for the groundwater pathway under the HRS when the number of domestic wells is multiplied by the average number of persons per household (2.74) in Wyandotte County (References 8 and 9). This estimate of potential groundwater target population is limited by the WWC-5 water well record database, which only contains records for water wells completed since 1975 and contains records for wells that may no longer be used for domestic purposes. Groundwater samples were not obtained for this IA because of the airborne and surficial nature of the observed releases. Historical VOC groundwater releases are present south of the site attributable to the Unison/Union Carbide site but are being addressed through a KDHE Consent Agreement.

5.2 Soil and Air Pathways

The Kansas Oxide site is located in the heavily industrial Fairfax district. There are no residences within ¼ mile of the site. Likely exposure scenarios include workers and transients at the site. The site is not fenced and contaminated areas, especially along Sunshine and Brinkerhoff Roads are easily accessible. Population within four miles of the site is approximately 16,500 persons (Reference 8). Historical airborne releases of lead dust appear to have occurred at the site, as indicated by the aerial photographs included in Appendix 2 and the primary release mechanism appears to be via fugitive dust emissions.

Prevailing wind in this portion of Kansas is generally south to southwest which would, in most recorded times of the year, not be from the Exide stack towards the Kansas Oxide site (Reference

10). According to the wind rose from the Kansas City International Airport, the wind direction necessary for significant deposition (east-southeast to southeast) generally falls within the 5% annual probability range.

5.3 Surface Water Pathway

The site is situated in a flood plain on the inside bend of the Missouri River. Overland drainage from potential source facilities is controlled by curbs and gutters that direct drainage to a municipal storm sewer. Surface water bodies in the site area include the Missouri River, which is located about ½ mile from the site. The Missouri River is a perennial river with a daily stream low of 20,000 to 100,000 cubic feet per second (Reference 11). During periods of high precipitation the river may gain stream flow from groundwater in the area. This may be an important consideration when evaluating contaminated groundwater in the vicinity of the river. No probable point of entry to the Missouri River was established for this assessment for the overland flow segment of the HRS surface water pathway, and thus the surface water pathway does not appear to be a threat. Observed contamination appears to be limited to the area near Kansas Oxide and Central Solutions. Continued surface runoff from the Central Solutions roof and/or continued drainage through contaminated soils may cause some localized surface migration.

6.0 Assessment Activities

6.1 Off-Site Soil Sampling

As one of the primary contentions of Kansas Oxide in correspondence to KDHE has been alleged airborne depositional releases from the Exide facility on Fairfax Trafficway, the initial sampling was conducted to determine if elevated levels of lead existed in the general area between the stack at Exide and the Kansas Oxide site. A total of 17 soil samples were obtained in this area. Of these, three were southeast of the Exide stack and 14 were between the Exide stack and the Kansas Oxide site. The off-site samples were collected in March 2009. At all locations a stainless steel trowel was used to obtain a soil sample from surface to six inches; the soil sample was homogenized and then transferred to a laboratory jar after homogenization. Metals were submitted to KDHE's Health and Environment Laboratories for analysis by EPA Methods 6010 (except mercury) and 7471 (mercury).

6.2 On-Site Soil Sampling

An additional 14 soil samples were taken at or near the Kansas Oxide site on right-of-ways adjacent to the property, and on the Central Solutions property. At all locations a stainless steel trowel was used to obtain a soil sample as described in the previous section. The on-site soil samples were also bagged for potential X-ray fluorescence (XRF) screening by placing in a plastic freezer bag, marking the bag and double-bagging to prevent spillage. Metals were submitted to KDHE's Health and Environment Laboratories for same analyses as above. The on-site samples were screened by XRF to select a subset of five samples to submit for TCLP analysis by EPA Method 1311. Since the XRF screening was only utilized for TCLP sample screening purposes, and all samples were submitted for total lead analysis, a separate correlation

was not calculated. The on-site soil samples were collected in March 2009. XRF screening was performed by drying each bag and analyzing three times using a Niton Model 733 XRF analyzer with a cadmium-109 sealed source and a 30-second analysis time.

6.3 Quality Control Sample

A rinsate sample was obtained during decontamination of the stainless steel trowels used to obtain soil samples. The sample was obtained during the final rinse by collecting rinse water from several trowels into a 250 milliliter laboratory bottle preserved with nitric acid.

6.4 Sampling Plan Deviations

No significant deviations occurred from the original Field Sampling Plan.

7.0 Assessment Results

7.1 Off-Site Soil Results

Lead was detected at a maximum of 180 milligrams per kilogram (mg/Kg) at location BH-3; as this is potentially downwind of the Kansas Oxide site it cannot be definitively determined to not be impacted by the Kansas Oxide site. This level is significantly lower than lead levels detected at or near the Kansas Oxide site. The mean of all off-site results was calculated to be 77.9 mg/Kg, and a mean plus two standard deviations level for all off-site results was calculated to be 185.4 mg/Kg, less than ½ the KDHE residential RSK level.

Using the maximum of the three background samples, the three times background calculated concentration is 144 mg/Kg for lead. By comparison, the sample collected directly adjacent to the Exide stack indicated 140 mg/Kg, less than this value.

Arsenic was detected at levels between not detected and 31 mg/Kg and was sporadically elevated. The three-times background concentration for arsenic was calculated to be 21.3 mg/Kg for arsenic. As mentioned, arsenic levels are sporadic and do not appear to follow any coherent spatial distribution.

7.2 On-Site Soil Results

The samples collected around the Kansas Oxide building within the right-of way and from the adjacent Central Solutions property indicated a maximum level of lead of 8,000 mg/Kg at location CS-3, near the downspout from the roof of Central Solutions. This location also had the associated maximum TCLP level of 22 mg/L. Three of the 14 samples taken near the Kansas Oxide facility indicated levels below the 400 mg/Kg KDHE RSK residential level.

Of the samples analyzed for TCLP, four of the five analyzed indicated lead above the 5 mg/L threshold defining lead as a characteristic hazardous waste (D008). Thus some of the lead-impacted soil might be a RCRA characteristic hazardous waste when removed.

7.3 Quality Control Sample Results

Lead and arsenic were not detected in the rinsate sample obtained from sampling tools. Systematic error from improperly decontaminated sampling tools therefore does not appear to be a concern.

8.0 Removal Considerations

An area of elevated lead contamination in soils appears to be present surrounding the Kansas Oxide facility extending to the former Central Solutions facility to the south. Considering KDHE's residential RSK level of 400 mg/Kg to be a boundary condition, an estimated soil removal volume of 1,150 cubic yards was calculated using a linear distance of 1,194 feet, ten foot width and one foot depth. From preliminary analytical information it appears at least some of the soil may potentially be a RCRA characteristic hazardous waste (D008).

The following conditions consistent with §300.415(b)(1) of the NCP were identified at the Kansas Oxide site: (i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants; (iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate; and (v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.

With regard to condition (vii), the availability of other appropriate federal or state response mechanisms to respond to the release, KDHE is initiating enforcement actions against Kansas Oxide to address the lead releases. If these are not successful, this condition will also apply. At this time KDHE is not referring the site to EPA for a removal action contingent on response to State enforcement actions.

9.0 Conclusions

Based upon the sampling conducted at the site for the IA, historical analytical data, and historic aerial photographs, a release of lead is apparent from Kansas Oxide. Off-site sampling indicates that potential fugitive dust/depositional lead contamination from the Exide stack to the southeast of Kansas Oxide does not appear to be impacting the Kansas Oxide site. The mean plus two standard deviation values for lead off-site is less than ½ the KDHE residential RSK level.

No trend of depositional lead impact from Exide to the Kansas Oxide site can be established by the data collected for this IA. By comparison out of 14 on-site samples only three were less than the residential RSK level for lead. From the initial sampling it appears some of the soil may be a characteristic hazardous waste (D008) when removed and may require treatment or stabilization.

This site appears to qualify for a removal action and corresponding Federal-lead CERCLA enforcement actions if the site is not addressed through a KDHE remedial program. The site

may also qualify for further civil and criminal enforcement evaluation by EPA air and RCRA programs if a responsible party does not participate in a KDHE remedial program.

A lower priority supplemental sampling assessment is also recommended to verify that the elevated arsenic levels detected in location CS-10 (57 mg/Kg) are localized and not prevalent. Arsenic levels did not appear to follow a coherent trend of spatial distribution from the data collected during this IA.

10.0 References

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3. United States Department of Agriculture, Natural Resources Conservation Service, internet soil surveys, http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

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5. Kansas Geological Survey, Bulletin 206, Part 2, *Ground Water in the Kansas River Valley, Junction City to Kansas City, Kansas*, 1974.

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7. Kansas Board of Public Utilities, 2009 information.

8. United States Census Bureau, *Kansas by County*, http://factfinder.census.gov

9. Kansas Geological Survey, water well data base, http://www.kgs.ku.edu/Magellan/WaterWell/index.html

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12. U.S. Environmental Protection Agency, *Quality Assurance/Quality Control Guidance for Removal Activities under CERCLA*, EPA 540/G-90/004, April, 1990.

13. U.S. Environmental Protection Agency, *Hazard Evaluation Manual: A Guide to Removal Actions*, EPA Region III, 1993.

14. U.S. Environmental Protection Agency, Office of Solid Waste, Method 6200: *Field Portable X-Ray Fluorescence Spectrometry for the Determination of Elemental Concentrations in Soils and Sediment* (EPA Method 6200), 1998.

15. Historical aerial photographs provided by Mark Nobrega, Central Solutions, to KDHE in April 2009.

11.0 Appendices

Appendix 1: Tables and Figures

Table 1: Metals Results

Sample I.D.	Total Lead (mg/Kg):	Toxicity Characteristic Leachate Procedure Lead (mg/L):	Arsenic (mg/Kg):
CS-1	***730***	NA	9.9
CS-2	***1,800***	1.4	8.5
CS-3	***8,000***	**22**	**13**
CS-4	***2,500***	**9.8**	9.5
CS-5	*280*	NA	11
CS-6	***3,500***	**11**	8.0
CS-7	***2,100***	**16**	9.4
CS-8	***980***	NA	**13**
CS-9	***410***	NA	**20**
CS-10	160	NA	***57***
CS-11	170	NA	9.0
CS-12	***580***	NA	8.2
BH-1	***2,600***	NA	**14**
BH-2	***630***	NA	**15**
BH-3	180	NA	9.9
BH-4	170	NA	8.3
BH-5	120	NA	6.9
DG-1	23	NA	11
DG-2	120	NA	***31***
FG-1	27	NA	8.0
FG-2	95	NA	6.4
FG-3	110	NA	8.1
FT-1	58	NA	8.6
FT-2	140	NA	6.7
FT-3	46	NA	8.6
CH-1	47	NA	9.6
CH-2	74	NA	**16**
CH-3	13	NA	ND
DO-1	38	NA	6.6
DO-2	48	NA	7.1
DO-3	15	NA	5.8
Residential RSK Level:	**400**		**11**
TCLP Threshold:		**5**	

Explanation: mg/Kg = milligrams per kilogram; mg/L = milligrams per liter. ND = not detected.
RSK= Risk-based Standards for Kansas. TCLP = Toxicity Characteristic Leachate Procedure (*c.f.* CFR 40 § 261). **Bold** concentrations are in excess of the KDHE residential RSK level or the TCLP threshold value. *Italicized* numbers indicate levels above the mean plus two standard deviation off-site values (see Table 3). NA= not analyzed.

Table 2: Rinsate Sample Results

Sample I.D.	Total Lead (mg/L):	Arsenic (mg/Kg):
Rinsate	ND	ND

Explanation: mg/L = milligrams per liter. ND = not detected.

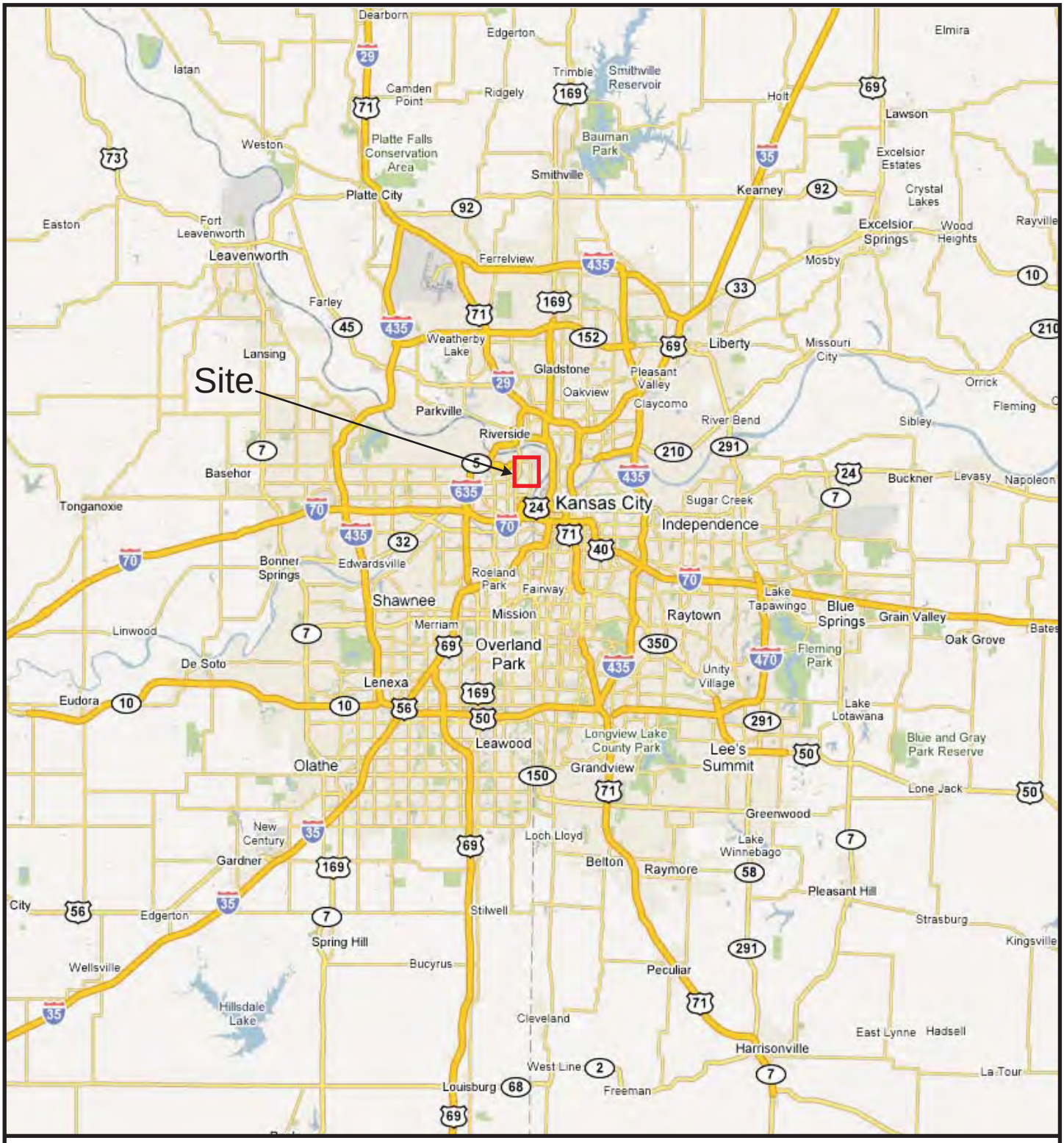
Table 3: Range of Off-site Concentrations Potentially Upwind of Kansas Oxide

Sample I.D.	Lead (mg/kg)	Arsenic (mg/kg)
BH-3	180	9.9
BH-4	170	8.3
BH-5	120	6.9
DG-1	23	11
DG-2	120	***31***
FG-1	27	8.0
FG-2	95	6.4
FG-3	110	8.1
FT-1	58	8.6
FT-2	140	6.7
FT-3	46	8.6
CH-1	47	9.6
CH-2	74	**16**
CH-3	13	ND
DO-1	38	6.6
DO-2	48	7.1
DO-3	15	5.8
Mean	77.8	9.4
Standard Deviation (σ)	53.8	6.3
Mean + 2σ	185.4	**22**
Residential RSK	**400**	**11**
3X Max Background *(CERCLA Benchmark for observed release criteria using DO-2 as the maximum "true" background result)*	154	**21.3**

Explanation: mg/Kg = milligrams per kilogram; ND = not detected. RSK= Risk-based Standards for Kansas.
Bold concentrations are in excess of the KDHE residential RSK level.
Italicized numbers indicate levels above the mean plus two standard deviation values.
CERCLA = Comprehensive Environmental Response, Compensation and Liabilities Act.

Table 4: Global Positioning System (GPS) Coordinates

Sample I.D.	Latitude (in degrees):	Longitude (in degrees):	Precision (± feet):
CS-1	39.14640	-094.62122	9
CS-2	39.14629	-094.62123	8
CS-3	39.14579	-094.62123	8
CS-4	39.14583	-094.62121	9
CS-5	39.14577	-094.62120	11
CS-6	39.14569	-094.62120	8
CS-7	39.14555	094.62118	9
CS-8	39.14541	-094.62114	13
CS-9	39.14536	-094.62120	10
CS-10	39.14558	-094.62054	7
CS-11	39.14669	-094.62144	9
CS-12	39.14650	-094.62093	8
BH-1	39.14591	-094.62051	13
BH-2	39.14622	-094.62050	4
BH-3	39.14723	-094.62045	13
BH-4	39.14789	-094.62031	3
BH-5	39.14429	-094.62049	9
DG-1	39.14455	-094.61865	30
DG-2	39.14638	-094.61847	12
FG-1	39.14476	-094.61671	6
FG-2	39.14571	-094.61676	19
FG-3	39.14761	-094.61689	10
FT-1	39.13915	-094.61111	22
FT-2	39.14092	-094.61102	14
FT-3	39.14246	-094.61104	4
CH-1	39.14227	-094.61274	19
CH-2	39.14322	-094.61246	29
CH-3	39.14381	-094.61273	20
DO-1	39.13551	-094.60886	22
DO-2	39.13663	-094.60593	10
DO-3	39.13871	-094.60507	6



Scale: 0 5 10 Miles

N

Wyandotte County

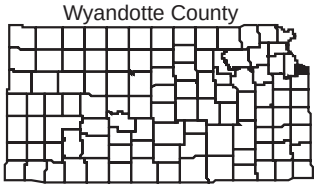


FIGURE 1

Area Map
Kansas Oxide Site
Kansas City, Kansas

Map Drawn by KDHE

Project Manager: RB Drawn by: PBJ

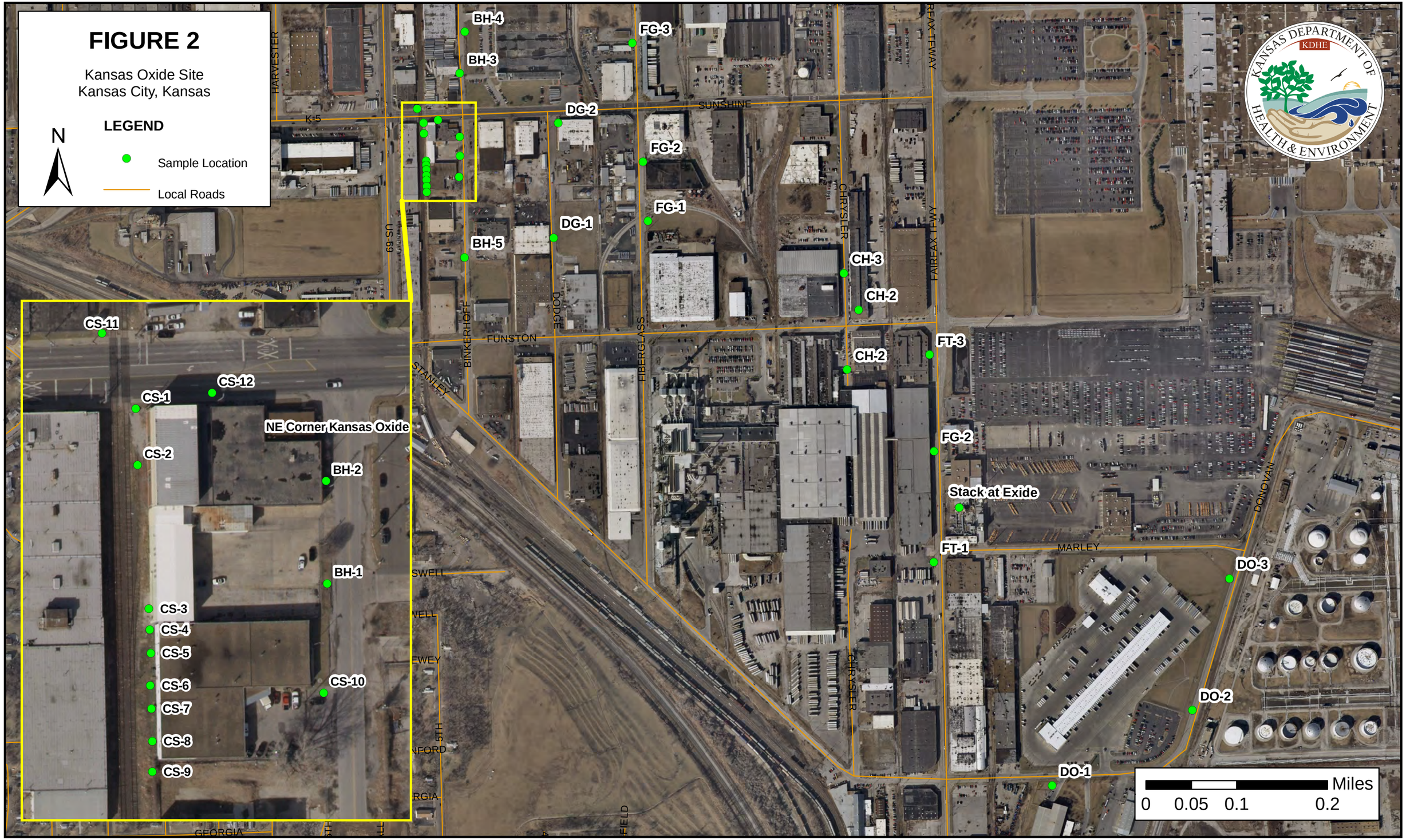


FIGURE 2
Kansas Oxide Site
Kansas City, Kansas
LEGEND
N
Sample Location
Local Roads
BH-4
BH-3
FG-3
DG-2
FG-2
FG-1
DG-1
BH-5
CH-3
CH-2
CH-2
FT-3
FG-2
Stack at Exide
FT-1
DO-3
DO-2
DO-1
CS-11
CS-12
CS-1
NE Corner Kansas Oxide
CS-2
BH-2
BH-1
CS-3
CS-4
CS-5
CS-6
CS-7
CS-8
CS-9
CS-10
HARVESTER
K-5
US-69
SUNSHINE
BINKERHOFF
DODGE
FUNSTON
STANLEY
FIBERGLASS
CHRYSLER
FAIRFAX TFWY
DONOVAN
MARLEY
GEORGIA
Miles
0
0.05
0.1
0.2

Appendix 2: Historical Aerial Photography, 2000

Kansas Oxide Historical Aerial Photographs
October 2000

Kansas Oxide Historical Aerial Photographs
October 2000

Always mention photo number when ordering and on your check.

108	112

PHOTO #

AERIAL VIEWS

ORDER FORM

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THANK YOU!

Appendix 3: Analytical Data

KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES

Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 527349

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE CS-1
Collector: RANDY BROWN
Date/Time Collected: 03/31/09 14:40

Matrix: Soil Collect Depth: .5
Date/Time Received: 04/08/09 08:19

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	10000	mg/Kg	04/27/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Arsenic (Total)	9.9	mg/Kg	04/27/09	EPA 6010
Barium (Total)	220	mg/Kg	04/27/09	EPA 6010
Beryllium (Total)	< 0.10	mg/Kg	04/27/09	EPA 6010
Boron (Total)	13	mg/Kg	04/27/09	EPA 6010
Cadmium (Total)	3.2	mg/Kg	04/27/09	EPA 6010
Calcium (Total)	65000	mg/Kg	04/27/09	EPA 6010
Chromium (Total)	30	mg/Kg	04/27/09	EPA 6010
Cobalt (Total)	6.5	mg/Kg	04/27/09	EPA 6010
Copper (Total)	37	mg/Kg	04/27/09	EPA 6010
Iron (Total)	16000	mg/Kg	04/27/09	EPA 6010
Lead (Total)	730	mg/Kg	04/27/09	EPA 6010
Magnesium (Total)	5100	mg/Kg	04/27/09	EPA 6010
Manganese (Total)	400	mg/Kg	04/27/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/27/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/27/09	EPA 6010
Nickel (Total)	16	mg/Kg	04/27/09	EPA 6010
Percent Solids	82	Percent	04/10/09	EPA 1311
Potassium (Total)	2200	mg/Kg	04/27/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Silica (Total)	3500	mg/Kg	04/27/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/27/09	EPA 6010
Sodium (Total)	200	mg/Kg	04/27/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Vanadium (Total)	26	mg/Kg	04/27/09	EPA 6010
Zinc (Total)	190	mg/Kg	04/27/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/29/09
Copies To: File

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* - Holding Time Exceeded

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KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES

Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN: RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 527343

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE CS-2
Collector: RANDY BROWN Matrix: Soil Collect Depth: 0.5
Date/Time Collected: 03/31/09 14:45 Date/Time Received: 04/08/09 08:17

Sample Comments:

Parameter	Analytical Result		Units	Analysis Date	Analytical Method
Aluminum (Total)	11000		mg/Kg	04/27/09	EPA 6010
Antimony (Total)	< 5.0		mg/Kg	04/27/09	EPA 6010
Arsenic (TCLP)	< 0.050		mg/L	04/23/09	EPA 1311
Arsenic (Total)	8.5		mg/Kg	04/27/09	EPA 6010
Barium (TCLP)	1.4		mg/L	04/23/09	EPA 1311
Barium (Total)	210		mg/Kg	04/27/09	EPA 6010
Beryllium (Total)	< 0.10		mg/Kg	04/27/09	EPA 6010
Boron (Total)	17		mg/Kg	04/27/09	EPA 6010
Cadmium (TCLP)	0.0077		mg/L	04/23/09	EPA 1311
Cadmium (Total)	1.4		mg/Kg	04/27/09	EPA 6010
Calcium (Total)	58000		mg/Kg	04/27/09	EPA 6010
Chromium (TCLP)	< 0.010		mg/L	04/23/09	EPA 1311
Chromium (Total)	31		mg/Kg	04/27/09	EPA 6010
Cobalt (Total)	6.2		mg/Kg	04/27/09	EPA 6010
Copper (Total)	35		mg/Kg	04/27/09	EPA 6010
Iron (Total)	15000		mg/Kg	04/27/09	EPA 6010
Lead (TCLP)	1.4		mg/L	04/23/09	EPA 1311
Lead (Total)	1800		mg/Kg	04/27/09	EPA 6010
Magnesium (Total)	5300		mg/Kg	04/27/09	EPA 6010
Manganese (Total)	380		mg/Kg	04/27/09	EPA 6010
Mercury (TCLP)	< 0.00050	*	mg/L	04/29/09	EPA 1311
Mercury (Total)	< 0.050		mg/Kg	04/27/09	EPA 245.1
Molybdenum (Total)	< 2.0		mg/Kg	04/27/09	EPA 6010
Nickel (Total)	17		mg/Kg	04/27/09	EPA 6010
Percent Solids	74		Percent	04/10/09	EPA 1311
Potassium (Total)	2200		mg/Kg	04/27/09	EPA 6010
Selenium (TCLP)	0.071		mg/L	04/23/09	EPA 1311
Selenium (Total)	< 5.0		mg/Kg	04/27/09	EPA 6010
Silica (Total)	3000		mg/Kg	04/27/09	EPA 6010
Silver (TCLP)	< 0.010		mg/L	04/23/09	EPA 1311
Silver (Total)	< 1.0		mg/Kg	04/27/09	EPA 6010
Sodium (Total)	180		mg/Kg	04/27/09	EPA 6010
Thallium (Total)	< 5.0		mg/Kg	04/27/09	EPA 6010
Vanadium (Total)	29		mg/Kg	04/27/09	EPA 6010
Zinc (Total)	290		mg/Kg	04/27/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 05/01/09
Copies To: File

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KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES

Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN: RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 527341

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE CS-3
Collector: RANDY BROWN
Date/Time Collected: 03/31/09 14:50

Matrix: Soil Collect Depth: 0.5
Date/Time Received: 04/08/09 08:17

Sample Comments:

Parameter	Analytical Result		Units	Analysis Date	Analytical Method
Aluminum (Total)	9400		mg/Kg	04/27/09	EPA 6010
Antimony (Total)	< 5.0		mg/Kg	04/27/09	EPA 6010
Arsenic (TCLP)	< 0.050		mg/L	04/23/09	EPA 1311
Arsenic (Total)	13		mg/Kg	04/27/09	EPA 6010
Barium (TCLP)	1.4		mg/L	04/23/09	EPA 1311
Barium (Total)	220		mg/Kg	04/27/09	EPA 6010
Beryllium (Total)	< 0.10		mg/Kg	04/27/09	EPA 6010
Boron (Total)	12		mg/Kg	04/27/09	EPA 6010
Cadmium (TCLP)	0.057		mg/L	04/23/09	EPA 1311
Cadmium (Total)	5.3		mg/Kg	04/27/09	EPA 6010
Calcium (Total)	29000		mg/Kg	04/27/09	EPA 6010
Chromium (TCLP)	< 0.010		mg/L	04/23/09	EPA 1311
Chromium (Total)	20		mg/Kg	04/27/09	EPA 6010
Cobalt (Total)	5.7		mg/Kg	04/27/09	EPA 6010
Copper (Total)	30		mg/Kg	04/27/09	EPA 6010
Iron (Total)	13000		mg/Kg	04/27/09	EPA 6010
Lead (TCLP)	22		mg/L	04/23/09	EPA 1311
Lead (Total)	8000		mg/Kg	04/27/09	EPA 6010
Magnesium (Total)	5400		mg/Kg	04/27/09	EPA 6010
Manganese (Total)	320		mg/Kg	04/27/09	EPA 6010
Mercury (TCLP)	< 0.00050	*	mg/L	04/29/09	EPA 1311
Mercury (Total)	< 0.050		mg/Kg	04/27/09	EPA 245.1
Molybdenum (Total)	< 2.0		mg/Kg	04/27/09	EPA 6010
Nickel (Total)	15		mg/Kg	04/27/09	EPA 6010
Percent Solids	75		Percent	04/10/09	EPA 1311
Potassium (Total)	2100		mg/Kg	04/27/09	EPA 6010
Selenium (TCLP)	< 0.050		mg/L	04/23/09	EPA 1311
Selenium (Total)	< 5.0		mg/Kg	04/27/09	EPA 6010
Silica (Total)	3300		mg/Kg	04/27/09	EPA 6010
Silver (TCLP)	< 0.010		mg/L	04/23/09	EPA 1311
Silver (Total)	< 1.0		mg/Kg	04/27/09	EPA 6010
Sodium (Total)	230		mg/Kg	04/27/09	EPA 6010
Thallium (Total)	< 5.0		mg/Kg	04/27/09	EPA 6010
Vanadium (Total)	25		mg/Kg	04/27/09	EPA 6010
Zinc (Total)	810		mg/Kg	04/27/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 05/01/09
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KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES

Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN: RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 527345

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE CS-4
Collector: RANDY BROWN
Date/Time Collected: 03/31/09 15:00

Matrix: Soil Collect Depth: 0.5
Date/Time Received: 04/08/09 08:18

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	8700	mg/Kg	04/27/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Arsenic (TCLP)	< 0.050	mg/L	04/23/09	EPA 1311
Arsenic (Total)	9.5	mg/Kg	04/27/09	EPA 6010
Barium (TCLP)	1.6	mg/L	04/23/09	EPA 1311
Barium (Total)	230	mg/Kg	04/27/09	EPA 6010
Beryllium (Total)	< 0.10	mg/Kg	04/27/09	EPA 6010
Boron (Total)	9.9	mg/Kg	04/27/09	EPA 6010
Cadmium (TCLP)	0.032	mg/L	04/23/09	EPA 1311
Cadmium (Total)	12	mg/Kg	04/27/09	EPA 6010
Calcium (Total)	27000	mg/Kg	04/27/09	EPA 6010
Chromium (TCLP)	< 0.010	mg/L	04/23/09	EPA 1311
Chromium (Total)	19	mg/Kg	04/27/09	EPA 6010
Cobalt (Total)	5.6	mg/Kg	04/27/09	EPA 6010
Copper (Total)	23	mg/Kg	04/27/09	EPA 6010
Iron (Total)	13000	mg/Kg	04/27/09	EPA 6010
Lead (TCLP)	9.8	mg/L	04/23/09	EPA 1311
Lead (Total)	2500	mg/Kg	04/27/09	EPA 6010
Magnesium (Total)	5000	mg/Kg	04/27/09	EPA 6010
Manganese (Total)	310	mg/Kg	04/27/09	EPA 6010
Mercury (TCLP)	< 0.00050 *	mg/L	04/29/09	EPA 1311
Mercury (Total)	< 0.050	mg/Kg	04/27/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/27/09	EPA 6010
Nickel (Total)	14	mg/Kg	04/27/09	EPA 6010
Percent Solids	78	Percent	04/10/09	EPA 1311
Potassium (Total)	2000	mg/Kg	04/27/09	EPA 6010
Selenium (TCLP)	< 0.050	mg/L	04/23/09	EPA 1311
Selenium (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Silica (Total)	3300	mg/Kg	04/27/09	EPA 6010
Silver (TCLP)	< 0.010	mg/L	04/23/09	EPA 1311
Silver (Total)	< 1.0	mg/Kg	04/27/09	EPA 6010
Sodium (Total)	120	mg/Kg	04/27/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Vanadium (Total)	24	mg/Kg	04/27/09	EPA 6010
Zinc (Total)	270	mg/Kg	04/27/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 05/01/09
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KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES
Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 527348

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE CS-5
Collector: RANDY BROWN Matrix: Soil Collect Depth: .5
Date/Time Collected: 03/31/09 15:05 Date/Time Received: 04/08/09 08:19

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	18000	mg/Kg	04/27/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Arsenic (Total)	11	mg/Kg	04/27/09	EPA 6010
Barium (Total)	270	mg/Kg	04/27/09	EPA 6010
Beryllium (Total)	0.13	mg/Kg	04/27/09	EPA 6010
Boron (Total)	14	mg/Kg	04/27/09	EPA 6010
Cadmium (Total)	1.1	mg/Kg	04/27/09	EPA 6010
Calcium (Total)	15000	mg/Kg	04/27/09	EPA 6010
Chromium (Total)	25	mg/Kg	04/27/09	EPA 6010
Cobalt (Total)	8.2	mg/Kg	04/27/09	EPA 6010
Copper (Total)	25	mg/Kg	04/27/09	EPA 6010
Iron (Total)	20000	mg/Kg	04/27/09	EPA 6010
Lead (Total)	280	mg/Kg	04/27/09	EPA 6010
Magnesium (Total)	6100	mg/Kg	04/27/09	EPA 6010
Manganese (Total)	550	mg/Kg	04/27/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/27/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/27/09	EPA 6010
Nickel (Total)	22	mg/Kg	04/27/09	EPA 6010
Percent Solids	76	Percent	04/10/09	EPA 1311
Potassium (Total)	3600	mg/Kg	04/27/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Silica (Total)	3700	mg/Kg	04/27/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/27/09	EPA 6010
Sodium (Total)	160	mg/Kg	04/27/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Vanadium (Total)	40	mg/Kg	04/27/09	EPA 6010
Zinc (Total)	97	mg/Kg	04/27/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/29/09
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* - Holding Time Exceeded

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KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES

Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN: RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 527346

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE CS-6
Collector: RANDY BROWN
Date/Time Collected: 03/31/09 15:10

Matrix: Soil Collect Depth: 0.5
Date/Time Received: 04/08/09 08:19

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	9400	mg/Kg	04/27/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Arsenic (TCLP)	< 0.050	mg/L	04/23/09	EPA 1311
Arsenic (Total)	8.0	mg/Kg	04/27/09	EPA 6010
Barium (TCLP)	1.7	mg/L	04/23/09	EPA 1311
Barium (Total)	230	mg/Kg	04/27/09	EPA 6010
Beryllium (Total)	< 0.10	mg/Kg	04/27/09	EPA 6010
Boron (Total)	9.6	mg/Kg	04/27/09	EPA 6010
Cadmium (TCLP)	0.038	mg/L	04/23/09	EPA 1311
Cadmium (Total)	11	mg/Kg	04/27/09	EPA 6010
Calcium (Total)	23000	mg/Kg	04/27/09	EPA 6010
Chromium (TCLP)	< 0.010	mg/L	04/23/09	EPA 1311
Chromium (Total)	20	mg/Kg	04/27/09	EPA 6010
Cobalt (Total)	5.7	mg/Kg	04/27/09	EPA 6010
Copper (Total)	22	mg/Kg	04/27/09	EPA 6010
Iron (Total)	14000	mg/Kg	04/27/09	EPA 6010
Lead (TCLP)	11	mg/L	04/23/09	EPA 1311
Lead (Total)	3500	mg/Kg	04/27/09	EPA 6010
Magnesium (Total)	4700	mg/Kg	04/27/09	EPA 6010
Manganese (Total)	320	mg/Kg	04/27/09	EPA 6010
Mercury (TCLP)	< 0.00050 *	mg/L	04/29/09	EPA 1311
Mercury (Total)	< 0.050	mg/Kg	04/27/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/27/09	EPA 6010
Nickel (Total)	15	mg/Kg	04/27/09	EPA 6010
Percent Solids	79	Percent	04/10/09	EPA 1311
Potassium (Total)	2100	mg/Kg	04/27/09	EPA 6010
Selenium (TCLP)	< 0.050	mg/L	04/23/09	EPA 1311
Selenium (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Silica (Total)	3100	mg/Kg	04/27/09	EPA 6010
Silver (TCLP)	< 0.010	mg/L	04/23/09	EPA 1311
Silver (Total)	< 1.0	mg/Kg	04/27/09	EPA 6010
Sodium (Total)	140	mg/Kg	04/27/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Vanadium (Total)	26	mg/Kg	04/27/09	EPA 6010
Zinc (Total)	290	mg/Kg	04/27/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 05/01/09
Copies To: File

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* - Holding Time Exceeded

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KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES

Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN: RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 527340

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE CS-7
Collector: RANDY BROWN
Date/Time Collected: 03/31/09 15:15

Matrix: Soil Collect Depth: 0.5
Date/Time Received: 04/08/09 08:17

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	9800	mg/Kg	04/27/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Arsenic (TCLP)	< 0.050	mg/L	04/23/09	EPA 1311
Arsenic (Total)	9.4	mg/Kg	04/27/09	EPA 6010
Barium (TCLP)	2.0	mg/L	04/23/09	EPA 1311
Barium (Total)	230	mg/Kg	04/27/09	EPA 6010
Beryllium (Total)	< 0.10	mg/Kg	04/27/09	EPA 6010
Boron (Total)	9.5	mg/Kg	04/27/09	EPA 6010
Cadmium (TCLP)	0.034	mg/L	04/23/09	EPA 1311
Cadmium (Total)	7.4	mg/Kg	04/27/09	EPA 6010
Calcium (Total)	15000	mg/Kg	04/27/09	EPA 6010
Chromium (TCLP)	< 0.010	mg/L	04/23/09	EPA 1311
Chromium (Total)	22	mg/Kg	04/27/09	EPA 6010
Cobalt (Total)	6.1	mg/Kg	04/27/09	EPA 6010
Copper (Total)	60	mg/Kg	04/27/09	EPA 6010
Iron (Total)	14000	mg/Kg	04/27/09	EPA 6010
Lead (TCLP)	16	mg/L	04/23/09	EPA 1311
Lead (Total)	2100	mg/Kg	04/27/09	EPA 6010
Magnesium (Total)	5200	mg/Kg	04/27/09	EPA 6010
Manganese (Total)	340	mg/Kg	04/27/09	EPA 6010
Mercury (TCLP)	< 0.00050 *	mg/L	04/29/09	EPA 1311
Mercury (Total)	< 0.050	mg/Kg	04/27/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/27/09	EPA 6010
Nickel (Total)	16	mg/Kg	04/27/09	EPA 6010
Percent Solids	77	Percent	04/10/09	EPA 1311
Potassium (Total)	2100	mg/Kg	04/27/09	EPA 6010
Selenium (TCLP)	< 0.050	mg/L	04/23/09	EPA 1311
Selenium (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Silica (Total)	3200	mg/Kg	04/27/09	EPA 6010
Silver (TCLP)	< 0.010	mg/L	04/23/09	EPA 1311
Silver (Total)	< 1.0	mg/Kg	04/27/09	EPA 6010
Sodium (Total)	140	mg/Kg	04/27/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Vanadium (Total)	27	mg/Kg	04/27/09	EPA 6010
Zinc (Total)	270	mg/Kg	04/27/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 05/01/09
Copies To: File

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* - Holding Time Exceeded

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KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES
Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 527344

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE CS-8
Collector: RANDY BROWN
Date/Time Collected: 03/31/09 15:20

Matrix: Soil Collect Depth: .5
Date/Time Received: 04/08/09 08:18

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	12000	mg/Kg	04/27/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Arsenic (Total)	13	mg/Kg	04/27/09	EPA 6010
Barium (Total)	270	mg/Kg	04/27/09	EPA 6010
Beryllium (Total)	< 0.10	mg/Kg	04/27/09	EPA 6010
Boron (Total)	14	mg/Kg	04/27/09	EPA 6010
Cadmium (Total)	14	mg/Kg	04/27/09	EPA 6010
Calcium (Total)	25000	mg/Kg	04/27/09	EPA 6010
Chromium (Total)	30	mg/Kg	04/27/09	EPA 6010
Cobalt (Total)	6.3	mg/Kg	04/27/09	EPA 6010
Copper (Total)	27	mg/Kg	04/27/09	EPA 6010
Iron (Total)	15000	mg/Kg	04/27/09	EPA 6010
Lead (Total)	980	mg/Kg	04/27/09	EPA 6010
Magnesium (Total)	5300	mg/Kg	04/27/09	EPA 6010
Manganese (Total)	370	mg/Kg	04/27/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/27/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/27/09	EPA 6010
Nickel (Total)	17	mg/Kg	04/27/09	EPA 6010
Percent Solids	78	Percent	04/10/09	EPA 1311
Potassium (Total)	2700	mg/Kg	04/27/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Silica (Total)	3300	mg/Kg	04/27/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/27/09	EPA 6010
Sodium (Total)	160	mg/Kg	04/27/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Vanadium (Total)	34	mg/Kg	04/27/09	EPA 6010
Zinc (Total)	240	mg/Kg	04/27/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/29/09
Copies To: File

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* - Holding Time Exceeded

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KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES

Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 527347

4EM80

Site ID:
Account Code: EP

Collection Location: KANSAS OXIDE CS-9
Collector: RANDY BROWN Matrix: Soil Collect Depth: .5
Date/Time Collected: 03/31/09 15:25 Date/Time Received: 04/08/09 08:19

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	10000	mg/Kg	04/27/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Arsenic (Total)	20	mg/Kg	04/27/09	EPA 6010
Barium (Total)	260	mg/Kg	04/27/09	EPA 6010
Beryllium (Total)	< 0.10	mg/Kg	04/27/09	EPA 6010
Boron (Total)	12	mg/Kg	04/27/09	EPA 6010
Cadmium (Total)	1.4	mg/Kg	04/27/09	EPA 6010
Calcium (Total)	56000	mg/Kg	04/27/09	EPA 6010
Chromium (Total)	21	mg/Kg	04/27/09	EPA 6010
Cobalt (Total)	6.2	mg/Kg	04/27/09	EPA 6010
Copper (Total)	21	mg/Kg	04/27/09	EPA 6010
Iron (Total)	14000	mg/Kg	04/27/09	EPA 6010
Lead (Total)	410	mg/Kg	04/27/09	EPA 6010
Magnesium (Total)	6300	mg/Kg	04/27/09	EPA 6010
Manganese (Total)	370	mg/Kg	04/27/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/27/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/27/09	EPA 6010
Nickel (Total)	16	mg/Kg	04/27/09	EPA 6010
Percent Solids	80	Percent	04/10/09	EPA 1311
Potassium (Total)	2900	mg/Kg	04/27/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Silica (Total)	3700	mg/Kg	04/27/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/27/09	EPA 6010
Sodium (Total)	170	mg/Kg	04/27/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Vanadium (Total)	26	mg/Kg	04/27/09	EPA 6010
Zinc (Total)	140	mg/Kg	04/27/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/29/09
Copies To: File

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KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES

Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 527342

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE CS-10
Collector: RANDY BROWN
Matrix: Soil Collect Depth: .5
Date/Time Collected: 03/31/09 15:45
Date/Time Received: 04/08/09 08:17

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	15000	mg/Kg	04/27/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Arsenic (Total)	57	mg/Kg	04/27/09	EPA 6010
Barium (Total)	200	mg/Kg	04/27/09	EPA 6010
Beryllium (Total)	< 0.10	mg/Kg	04/27/09	EPA 6010
Boron (Total)	14	mg/Kg	04/27/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/27/09	EPA 6010
Calcium (Total)	41000	mg/Kg	04/27/09	EPA 6010
Chromium (Total)	36	mg/Kg	04/27/09	EPA 6010
Cobalt (Total)	6.5	mg/Kg	04/27/09	EPA 6010
Copper (Total)	34	mg/Kg	04/27/09	EPA 6010
Iron (Total)	15000	mg/Kg	04/27/09	EPA 6010
Lead (Total)	160	mg/Kg	04/27/09	EPA 6010
Magnesium (Total)	4700	mg/Kg	04/27/09	EPA 6010
Manganese (Total)	460	mg/Kg	04/27/09	EPA 6010
Mercury (Total)	0.084	mg/Kg	04/27/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/27/09	EPA 6010
Nickel (Total)	16	mg/Kg	04/27/09	EPA 6010
Percent Solids	75	Percent	04/10/09	EPA 1311
Potassium (Total)	3300	mg/Kg	04/27/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Silica (Total)	3600	mg/Kg	04/27/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/27/09	EPA 6010
Sodium (Total)	190	mg/Kg	04/27/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/27/09	EPA 6010
Vanadium (Total)	33	mg/Kg	04/27/09	EPA 6010
Zinc (Total)	110	mg/Kg	04/27/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/29/09
Copies To: File

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Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 528692

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE CS-11
Collector: RANDY BROWN
Date/Time Collected: 04/08/09 13:05

Matrix: Soil Collect Depth: .6
Date/Time Received: 05/11/09 12:10

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	13000	mg/Kg	05/14/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	05/14/09	EPA 6010
Arsenic (Total)	9.0	mg/Kg	05/14/09	EPA 6010
Barium (Total)	300	mg/Kg	05/14/09	EPA 6010
Beryllium (Total)	0.60	mg/Kg	05/14/09	EPA 6010
Boron (Total)	12	mg/Kg	05/14/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	05/14/09	EPA 6010
Calcium (Total)	40000	mg/Kg	05/14/09	EPA 6010
Chromium (Total)	38	mg/Kg	05/14/09	EPA 6010
Cobalt (Total)	7.1	mg/Kg	05/14/09	EPA 6010
Copper (Total)	52	mg/Kg	05/14/09	EPA 6010
Iron (Total)	17000	mg/Kg	05/14/09	EPA 6010
Lead (Total)	170	mg/Kg	05/14/09	EPA 6010
Magnesium (Total)	5400	mg/Kg	05/14/09	EPA 6010
Manganese (Total)	450	mg/Kg	05/14/09	EPA 6010
Molybdenum (Total)	< 2.0	mg/Kg	05/14/09	EPA 6010
Nickel (Total)	19	mg/Kg	05/14/09	EPA 6010
Percent Solids	80	Percent	05/12/09	EPA 1311
Potassium (Total)	3300	mg/Kg	05/14/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	05/14/09	EPA 6010
Silica (Total)	2600	mg/Kg	05/14/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	05/14/09	EPA 6010
Sodium (Total)	160	mg/Kg	05/14/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	05/14/09	EPA 6010
Vanadium (Total)	32	mg/Kg	05/14/09	EPA 6010
Zinc (Total)	180	mg/Kg	05/14/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 05/22/09
Copies To: File

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KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES

Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 528691

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE CS-12
Collector: RANDY BROWN
Date/Time Collected: 04/08/09 13:15

Matrix: Soil Collect Depth: .6
Date/Time Received: 05/11/09 12:10

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	6500	mg/Kg	05/14/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	05/14/09	EPA 6010
Arsenic (Total)	8.2	mg/Kg	05/14/09	EPA 6010
Barium (Total)	220	mg/Kg	05/14/09	EPA 6010
Beryllium (Total)	0.25	mg/Kg	05/14/09	EPA 6010
Boron (Total)	12	mg/Kg	05/14/09	EPA 6010
Cadmium (Total)	3.0	mg/Kg	05/14/09	EPA 6010
Calcium (Total)	100000	mg/Kg	05/14/09	EPA 6010
Chromium (Total)	44	mg/Kg	05/14/09	EPA 6010
Cobalt (Total)	4.5	mg/Kg	05/14/09	EPA 6010
Copper (Total)	79	mg/Kg	05/14/09	EPA 6010
Iron (Total)	17000	mg/Kg	05/14/09	EPA 6010
Lead (Total)	580	mg/Kg	05/14/09	EPA 6010
Magnesium (Total)	4600	mg/Kg	05/14/09	EPA 6010
Manganese (Total)	410	mg/Kg	05/14/09	EPA 6010
Molybdenum (Total)	2.2	mg/Kg	05/14/09	EPA 6010
Nickel (Total)	21	mg/Kg	05/14/09	EPA 6010
Percent Solids	83	Percent	05/12/09	EPA 1311
Potassium (Total)	1600	mg/Kg	05/14/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	05/14/09	EPA 6010
Silica (Total)	1200	mg/Kg	05/14/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	05/14/09	EPA 6010
Sodium (Total)	270	mg/Kg	05/14/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	05/14/09	EPA 6010
Vanadium (Total)	19	mg/Kg	05/14/09	EPA 6010
Zinc (Total)	250	mg/Kg	05/14/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 05/22/09
Copies To: File

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Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526791

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE BH-1
Collector: RANDY BROWN Matrix: Soil Collect Depth: .5
Date/Time Collected: 03/10/09 12:15 Date/Time Received: 03/23/09 07:12

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	21000	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	14	mg/Kg	04/07/09	EPA 6010
Barium (Total)	480	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.69	mg/Kg	04/07/09	EPA 6010
Boron (Total)	13	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	17000	mg/Kg	04/07/09	EPA 6010
Chromium (Total)	35	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	10	mg/Kg	04/07/09	EPA 6010
Copper (Total)	23	mg/Kg	04/07/09	EPA 6010
Iron (Total)	19000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	2600	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	3600	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	640	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/01/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	19	mg/Kg	04/07/09	EPA 6010
Percent Solids	77	Percent	03/23/09	EPA 1311
Potassium (Total)	3600	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	4100	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	110	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	46	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	210	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
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KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES

Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526797

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE BH-2
Collector: RANDY BROWN
Date/Time Collected: 03/10/09 12:10

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:16

Sample Comments:

Parameter	*Analytical Result*	*Units*	*Analysis Date*	*Analytical Method*
Aluminum (Total)	13000	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	15	mg/Kg	04/07/09	EPA 6010
Barium (Total)	270	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.83	mg/Kg	04/07/09	EPA 6010
Boron (Total)	8.2	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	4.2	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	34000	mg/Kg	04/07/09	EPA 6010
Chromium (Total)	25	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	9.0	mg/Kg	04/07/09	EPA 6010
Copper (Total)	25	mg/Kg	04/07/09	EPA 6010
Iron (Total)	25000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	630	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	3400	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	780	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/01/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	15	mg/Kg	04/07/09	EPA 6010
Percent Solids	79	Percent	03/23/09	EPA 1311
Potassium (Total)	2400	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	4300	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	120	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	42	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	200	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
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KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES

Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526794

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE BH-3
Collector: RANDY BROWN
Date/Time Collected: 03/10/09 11:25

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:14

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	17000	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	9.9	mg/Kg	04/07/09	EPA 6010
Barium (Total)	240	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.73	mg/Kg	04/07/09	EPA 6010
Boron (Total)	20	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	1.4	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	41000	mg/Kg	04/07/09	EPA 6010
Chromium (Total)	47	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	7.6	mg/Kg	04/07/09	EPA 6010
Copper (Total)	37	mg/Kg	04/07/09	EPA 6010
Iron (Total)	19000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	180	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	7100	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	450	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/01/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	20	mg/Kg	04/07/09	EPA 6010
Percent Solids	67	Percent	03/23/09	EPA 1311
Potassium (Total)	3800	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	4200	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	1000	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	43	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	150	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
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Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526801

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE BH-4
Collector: RANDY BROWN
Date/Time Collected: 03/10/09 11:30

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:19

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	9300	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	8.3	mg/Kg	04/07/09	EPA 6010
Barium (Total)	200	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.54	mg/Kg	04/07/09	EPA 6010
Boron (Total)	11	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	41000	mg/Kg	04/07/09	EPA 6010
Chromium (Total)	44	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	5.6	mg/Kg	04/07/09	EPA 6010
Copper (Total)	27	mg/Kg	04/07/09	EPA 6010
Iron (Total)	13000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	170	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	5600	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	340	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/01/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	14	mg/Kg	04/07/09	EPA 6010
Percent Solids	73	Percent	03/23/09	EPA 1311
Potassium (Total)	2500	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	3900	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	230	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	26	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	110	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
Copies To: File

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Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526798

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE BH-5
Collector: RANDY BROWN
Date/Time Collected: 03/10/09 12:25

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:16

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	12000	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	6.9	mg/Kg	04/07/09	EPA 6010
Barium (Total)	160	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.83	mg/Kg	04/07/09	EPA 6010
Boron (Total)	14	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	110000	mg/Kg	04/08/09	EPA 6010
Chromium (Total)	650	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	6.4	mg/Kg	04/07/09	EPA 6010
Copper (Total)	45	mg/Kg	04/07/09	EPA 6010
Iron (Total)	15000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	120	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	6000	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	420	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/01/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	23	mg/Kg	04/07/09	EPA 6010
Percent Solids	67	Percent	03/23/09	EPA 1311
Potassium (Total)	2900	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	4300	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	1100	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	27	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	160	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
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Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526792

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE D6-1
Collector: RANDY BROWN
Date/Time Collected: 03/10/09 11:15

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:13

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	15000	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	11	mg/Kg	04/07/09	EPA 6010
Barium (Total)	240	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.72	mg/Kg	04/07/09	EPA 6010
Boron (Total)	14	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	16000	mg/Kg	04/07/09	EPA 6010
Chromium (Total)	25	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	8.5	mg/Kg	04/07/09	EPA 6010
Copper (Total)	25	mg/Kg	04/07/09	EPA 6010
Iron (Total)	20000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	23	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	6800	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	540	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/01/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	22	mg/Kg	04/07/09	EPA 6010
Percent Solids	75	Percent	03/23/09	EPA 1311
Potassium (Total)	4000	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	4500	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	220	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	35	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	82	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
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Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526800

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE D6-2
Collector: RANDY BROWN
Date/Time Collected: 03/10/09 11:20

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:18

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	11000	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	31	mg/Kg	04/07/09	EPA 6010
Barium (Total)	200	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.59	mg/Kg	04/07/09	EPA 6010
Boron (Total)	10	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	44000	mg/Kg	04/07/09	EPA 6010
Chromium (Total)	30	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	6.2	mg/Kg	04/07/09	EPA 6010
Copper (Total)	26	mg/Kg	04/07/09	EPA 6010
Iron (Total)	15000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	120	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	4900	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	410	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	0.051	mg/Kg	04/01/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	16	mg/Kg	04/07/09	EPA 6010
Percent Solids	77	Percent	03/23/09	EPA 1311
Potassium (Total)	2500	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	4100	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	370	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	27	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	130	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
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REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526799

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE F6-1
Collector: RANDY BROWN
Date/Time Collected: 03/10/09 11:00

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:17

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	13000	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	8.0	mg/Kg	04/07/09	EPA 6010
Barium (Total)	200	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.66	mg/Kg	04/07/09	EPA 6010
Boron (Total)	14	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	45000	mg/Kg	04/07/09	EPA 6010
Chromium (Total)	20	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	6.5	mg/Kg	04/07/09	EPA 6010
Copper (Total)	20	mg/Kg	04/07/09	EPA 6010
Iron (Total)	16000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	27	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	6100	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	420	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/01/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	17	mg/Kg	04/07/09	EPA 6010
Percent Solids	74	Percent	03/23/09	EPA 1311
Potassium (Total)	3400	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	4200	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	150	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	31	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	82	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
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Kansas Department of Health and Environment
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REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526793

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE F6-2
Collector: RANDY BROWN
Date/Time Collected: 03/10/09 11:05

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:14

Sample Comments:

Parameter	*Analytical Result*	*Units*	*Analysis Date*	*Analytical Method*
Aluminum (Total)	13000	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	6.4	mg/Kg	04/07/09	EPA 6010
Barium (Total)	210	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.58	mg/Kg	04/07/09	EPA 6010
Boron (Total)	14	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	28000	mg/Kg	04/07/09	EPA 6010
Chromium (Total)	29	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	6.4	mg/Kg	04/07/09	EPA 6010
Copper (Total)	30	mg/Kg	04/07/09	EPA 6010
Iron (Total)	15000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	95	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	4700	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	420	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/01/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	17	mg/Kg	04/07/09	EPA 6010
Percent Solids	74	Percent	03/23/09	EPA 1311
Potassium (Total)	3000	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	4200	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	390	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	32	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	140	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
Copies To: File

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Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526796

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE F6-3
Collector: RANDY BROWN
Date/Time Collected: 03/10/09 11:10

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:15

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	13000	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	8.1	mg/Kg	04/07/09	EPA 6010
Barium (Total)	260	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.68	mg/Kg	04/07/09	EPA 6010
Boron (Total)	16	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	29000	mg/Kg	04/07/09	EPA 6010
Chromium (Total)	28	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	7.6	mg/Kg	04/07/09	EPA 6010
Copper (Total)	32	mg/Kg	04/07/09	EPA 6010
Iron (Total)	18000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	110	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	6300	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	520	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/01/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	20	mg/Kg	04/07/09	EPA 6010
Percent Solids	70	Percent	03/23/09	EPA 1311
Potassium (Total)	3500	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	4700	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	150	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	33	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	250	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
Copies To: File

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Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526795

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE FT-1
Collector: RANDY BROWN
Date/Time Collected: 03/10/09 10:45

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:15

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	12000	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	8.6	mg/Kg	04/07/09	EPA 6010
Barium (Total)	230	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.60	mg/Kg	04/07/09	EPA 6010
Boron (Total)	13	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	29000	mg/Kg	04/07/09	EPA 6010
Chromium (Total)	20	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	7.1	mg/Kg	04/07/09	EPA 6010
Copper (Total)	22	mg/Kg	04/07/09	EPA 6010
Iron (Total)	16000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	58	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	6100	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	440	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/01/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	18	mg/Kg	04/07/09	EPA 6010
Percent Solids	75	Percent	03/23/09	EPA 1311
Potassium (Total)	3100	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	4600	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	190	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	28	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	100	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
Copies To: File

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Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526802

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE FT-2
Collector: RANDY BROWN
Date/Time Collected: 03/10/09 14:00

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:19

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	9600	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	6.7	mg/Kg	04/07/09	EPA 6010
Barium (Total)	210	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.54	mg/Kg	04/07/09	EPA 6010
Boron (Total)	17	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	36000	mg/Kg	04/07/09	EPA 6010
Chromium (Total)	23	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	6.1	mg/Kg	04/07/09	EPA 6010
Copper (Total)	30	mg/Kg	04/07/09	EPA 6010
Iron (Total)	15000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	140	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	4400	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	400	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/01/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	15	mg/Kg	04/07/09	EPA 6010
Percent Solids	77	Percent	03/23/09	EPA 1311
Potassium (Total)	2300	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	4500	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	570	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	23	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	180	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
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REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526804

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE FT-3
Collector: RANDY BROWN
Date/Time Collected: 03/10/09 13:50

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:20

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	10000	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	8.6	mg/Kg	04/07/09	EPA 6010
Barium (Total)	210	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.51	mg/Kg	04/07/09	EPA 6010
Boron (Total)	8.6	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	18000	mg/Kg	04/07/09	EPA 6010
Chromium (Total)	17	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	6.7	mg/Kg	04/07/09	EPA 6010
Copper (Total)	22	mg/Kg	04/07/09	EPA 6010
Iron (Total)	15000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	46	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	5300	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	390	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/03/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	16	mg/Kg	04/07/09	EPA 6010
Percent Solids	79	Percent	03/24/09	EPA 1311
Potassium (Total)	2900	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	4300	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	210	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	25	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	91	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
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REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526807

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE CH-1
Collector: RANDY BROWN
Date/Time Collected: 03/11/09 07:45

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:22

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	15000	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	9.6	mg/Kg	04/07/09	EPA 6010
Barium (Total)	210	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.60	mg/Kg	04/07/09	EPA 6010
Boron (Total)	14	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	12000	mg/Kg	04/07/09	EPA 6010
Chromium (Total)	26	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	8.4	mg/Kg	04/07/09	EPA 6010
Copper (Total)	27	mg/Kg	04/07/09	EPA 6010
Iron (Total)	17000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	47	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	3100	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	570	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/03/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	16	mg/Kg	04/07/09	EPA 6010
Percent Solids	73	Percent	03/24/09	EPA 1311
Potassium (Total)	2800	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	4000	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	880	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	35	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	98	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
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Kansas Department of Health and Environment
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REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526806

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE CH-2
Collector: RANDY BROWN
Date/Time Collected: 03/10/09 16:25

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:22

Sample Comments:

Parameter	*Analytical Result*	*Units*	*Analysis Date*	*Analytical Method*
Aluminum (Total)	14000	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	16	mg/Kg	04/07/09	EPA 6010
Barium (Total)	230	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.63	mg/Kg	04/07/09	EPA 6010
Boron (Total)	11	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	9400	mg/Kg	04/07/09	EPA 6010
Chromium (Total)	44	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	8.9	mg/Kg	04/07/09	EPA 6010
Copper (Total)	30	mg/Kg	04/07/09	EPA 6010
Iron (Total)	17000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	74	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	3400	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	590	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/03/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	19	mg/Kg	04/07/09	EPA 6010
Percent Solids	79	Percent	03/24/09	EPA 1311
Potassium (Total)	2900	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	4100	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	120	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	30	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	130	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
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Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526803

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE CH-3
Collector: RANDY BROWN
Date/Time Collected: 03/11/09 08:00

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:20

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	3900	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Barium (Total)	53	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.83	mg/Kg	04/07/09	EPA 6010
Boron (Total)	6.5	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	290000	mg/Kg	04/08/09	EPA 6010
Chromium (Total)	11	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	2.3	mg/Kg	04/07/09	EPA 6010
Copper (Total)	13	mg/Kg	04/07/09	EPA 6010
Iron (Total)	5700	mg/Kg	04/07/09	EPA 6010
Lead (Total)	13	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	5000	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	290	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/03/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	7.2	mg/Kg	04/07/09	EPA 6010
Percent Solids	86	Percent	03/23/09	EPA 1311
Potassium (Total)	930	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	3500	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	180	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	9.8	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	74	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
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REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526809

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE DO-1
Collector: RANDY BROWN
Date/Time Collected: 03/10/09 13:20

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:23

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	14000	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	6.6	mg/Kg	04/07/09	EPA 6010
Barium (Total)	140	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.57	mg/Kg	04/07/09	EPA 6010
Boron (Total)	9.4	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	29000	mg/Kg	04/07/09	EPA 6010
Chromium (Total)	20	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	6.0	mg/Kg	04/07/09	EPA 6010
Copper (Total)	19	mg/Kg	04/07/09	EPA 6010
Iron (Total)	14000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	38	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	3200	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	340	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/03/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	13	mg/Kg	04/07/09	EPA 6010
Percent Solids	78	Percent	03/24/09	EPA 1311
Potassium (Total)	2700	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	4100	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	190	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	27	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	110	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
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Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526808

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE DO-2
Collector: RANDY BROWN
Date/Time Collected: 03/10/09 13:35

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:23

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	9500	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	7.1	mg/Kg	04/07/09	EPA 6010
Barium (Total)	200	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.48	mg/Kg	04/07/09	EPA 6010
Boron (Total)	7.7	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	17000	mg/Kg	04/07/09	EPA 6010
Chromium (Total)	16	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	6.2	mg/Kg	04/07/09	EPA 6010
Copper (Total)	17	mg/Kg	04/07/09	EPA 6010
Iron (Total)	14000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	48	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	4700	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	340	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/03/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	15	mg/Kg	04/07/09	EPA 6010
Percent Solids	78	Percent	03/24/09	EPA 1311
Potassium (Total)	2700	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	4200	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	470	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	24	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	88	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
Copies To: File

< - Not Detected at Indicated Level
* - Holding Time Exceeded

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BUREAU OF
ENVIRONMENTAL REMEDIATION

KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES

Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526805

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE DO-3
Collector: RANDY BROWN
Date/Time Collected: 03/10/09 13:30

Matrix: Soil Collect Depth: .5
Date/Time Received: 03/23/09 07:21

Sample Comments:

Parameter	Analytical Result	Units	Analysis Date	Analytical Method
Aluminum (Total)	6200	mg/Kg	04/07/09	EPA 6010
Antimony (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Arsenic (Total)	5.8	mg/Kg	04/07/09	EPA 6010
Barium (Total)	170	mg/Kg	04/07/09	EPA 6010
Beryllium (Total)	0.35	mg/Kg	04/07/09	EPA 6010
Boron (Total)	5.8	mg/Kg	04/07/09	EPA 6010
Cadmium (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Calcium (Total)	16000	mg/Kg	04/07/09	EPA 6010
Chromium (Total)	11	mg/Kg	04/07/09	EPA 6010
Cobalt (Total)	5.0	mg/Kg	04/07/09	EPA 6010
Copper (Total)	12	mg/Kg	04/07/09	EPA 6010
Iron (Total)	11000	mg/Kg	04/07/09	EPA 6010
Lead (Total)	15	mg/Kg	04/07/09	EPA 6010
Magnesium (Total)	3800	mg/Kg	04/07/09	EPA 6010
Manganese (Total)	240	mg/Kg	04/07/09	EPA 6010
Mercury (Total)	< 0.050	mg/Kg	04/03/09	EPA 245.1
Molybdenum (Total)	< 2.0	mg/Kg	04/07/09	EPA 6010
Nickel (Total)	13	mg/Kg	04/07/09	EPA 6010
Percent Solids	79	Percent	03/24/09	EPA 1311
Potassium (Total)	1700	mg/Kg	04/07/09	EPA 6010
Selenium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Silica (Total)	4000	mg/Kg	04/07/09	EPA 6010
Silver (Total)	< 1.0	mg/Kg	04/07/09	EPA 6010
Sodium (Total)	440	mg/Kg	04/07/09	EPA 6010
Thallium (Total)	< 5.0	mg/Kg	04/07/09	EPA 6010
Vanadium (Total)	18	mg/Kg	04/07/09	EPA 6010
Zinc (Total)	54	mg/Kg	04/07/09	EPA 6010

Analytical Comments:
Results for total metals are expressed on a dry weight basis.

Reporting Analyst: JAB
Date Reported: 04/21/09
Copies To: File

< - Not Detected at Indicated Level
* - Holding Time Exceeded

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Laboratory Customer Service - (785) 296-1620
Laboratory Fax - (785) 296-1641
CLIA No. 17D0648254

KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES

Kansas Department of Health and Environment
Forbes Field, Bldg. 740, Topeka, Kansas 66620-0001

REPORT OF ANALYSIS

INORGANIC CHEMISTRY

Report To: BUREAU OF ENV. REMEDIATION
ATTN RANDY BROWN
CURTIS SOB, SUITE 410
TOPEKA KS 66612

Analysis Code: PT Lab Number: 526810

Site ID: 4EM80
Account Code: EP

Collection Location: KANSAS OXIDE RINSE
Collector: RANDY BROWN
Date/Time Collected: 03/10/09 12:15

Matrix: Water Collect Depth: .5
Date/Time Received: 03/23/09 07:24

Sample Comments: NITRIC ACID PRESERVED

Parameter	*Analytical Result*	*Units*	*Analysis Date*	*Analytical Method*
Aluminum	0.34	mg/L	04/15/09	EPA 200.7
Antimony	< 0.050	mg/L	04/15/09	EPA 200.7
Arsenic	< 0.050	mg/L	04/15/09	EPA 200.7
Barium	< 0.020	mg/L	04/15/09	EPA 200.7
Beryllium	< 0.0010	mg/L	04/15/09	EPA 200.7
Boron	< 0.050	mg/L	04/15/09	EPA 200.7
Cadmium	< 0.0050	mg/L	04/15/09	EPA 200.7
Calcium	0.30	mg/L	04/15/09	EPA 200.7
Chromium	< 0.010	mg/L	04/15/09	EPA 200.7
Cobalt	< 0.010	mg/L	04/15/09	EPA 200.7
Copper	< 0.010	mg/L	04/15/09	EPA 200.7
Iron	0.27	mg/L	04/15/09	EPA 200.7
Lead	< 0.050	mg/L	04/15/09	EPA 200.7
Magnesium	0.076	mg/L	04/15/09	EPA 200.7
Manganese	0.0062	mg/L	04/15/09	EPA 200.7
Mercury	< 0.50	ug/L	04/03/09	EPA 245.1
Molybdenum	< 0.020	mg/L	04/15/09	EPA 200.7
Nickel	< 0.050	mg/L	04/15/09	EPA 200.7
Potassium	1.0	mg/L	04/15/09	EPA 200.7
Selenium	< 0.050	mg/L	04/15/09	EPA 200.7
Silica	1.1	mg/L	04/15/09	EPA 200.7
Silver	< 0.010	mg/L	04/15/09	EPA 200.7
Sodium	0.066	mg/L	04/15/09	EPA 200.7
Thallium	< 0.050	mg/L	04/15/09	EPA 200.7
Vanadium	< 0.0050	mg/L	04/15/09	EPA 200.7
Zinc	0.0050	mg/L	04/15/09	EPA 200.7

Reporting Analyst: JAB
Date Reported: 04/21/09
Copies To: File

< - Not Detected at Indicated Level
* - Holding Time Exceeded

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Laboratory Customer Service - (785) 296-1620
Laboratory Fax - (785) 296-1641
CLIA No. 17D0648254

Kansas Department of Health and Environment
Division of Health and Environmental Laboratories
Forbes Field, Building 740
Topeka, Kansas 66620-0001

Lab Number: 0527349 PT
Date Received:
Analysis Code:

Sample Submission Form

Report To: Randy Brown /BER Address: Curtis SOB Ste 410

Collection Site: Kansas Oxide CS-1 (Legal / Project Code / Name) PWS Acct. No.

Site ID Number: Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown (Name / Agency (Abbr)) Date: 03-31-09 (Mo Day Yr) Time: 1440 (24 Hour)

Program Code: EA EB EC ED EE EF EG EH EK EL EM EN EP ET EW EX EZ
ES FK LM SC SE SG SN SP SW PC PD PE PG PI PL PP PT
PU PV WE WI HD HF HL HS RP AR GS KC US AQ RT WC

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments:

Chain of Custody:

Date 04/08/09 Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

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Kansas Department of Health and Environment
Division of Health and Environmental Labora
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0527348 PT
Date Received:
Analysis Code:

Sample Submission Form

Report To: Randy Brown /BER Address: Curt's SOB Ste 410

Collection Site: Kansas Oxide GS-5 (Legal / Project Code / Name) PWS Acct. No.

Site ID Number: Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown (Name / Agency (Abbr)) Date: 03-31-09 (Mo Day Yr) Time: 1505 (24 Hour)

Program Code: EA EB EC ED EE EF EG EH EK EL EM EN EP ET EW EX EZ
ES FK LM SC SE SG SN SP SW PC PD PE PG PI PL PP PT
PU PV WE WI HD HF HL HS RP AR GS KC US AQ RT WC

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 04/08/09 Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF HEALTH LABORATORIES

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Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

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Kansas Department of Health and Environment
Division of Health and Environmental Laborato
Forbes Field, Building 740
Topeka, Kansas 66620-0001

L 0527347 PT

Date Received:

Analysis Code:

Sample Submission Form

Report To: Randy Brown /BER Address: Curt's SOB Ste 410

Collection Site: Kansas Oxide GS-9 (Legal / Project Code / Name)

Site ID Number: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ PWS Acct. No.

Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe

Priority: Regular Moderate Urgent

Sample Collector: Randy Brown (Name) Agency (Abbr)

Date: 03-31-09 (Mo Day Yr) Time: 1525 (24 Hour)

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	EP	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 04/08/09 Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

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Kansas Department of Health and Environ.
Division of Health and Environmental Labor.
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0527346 PT
Lab Number:
Date Received:
Analysis Code:

Sample Submission Form

Report To: Randy Brown /BER Address: Curt's SOB Ste 410

Collection Site: Kansas Oxide GS — 6
Legal Project Code Name

Site ID Number: PWS Acct. No.

Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown Date: 03-31-09 Time: 1510
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	EP	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: Other VOC Sample Acidified:

Volatiles Method: 624 8260 524.2 Pesticides Method: 608 8080 507/8

Acids Method: 625 8270 Base/Neutrals Method: 625 8270 525.2

PCB's Method: 608 8080 Oil Herbicides Method: 615 8150 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem DO NUT HM CN O&G Phenol

Check Desired Analysis: Other

Metals Mercury Mineral TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: Other

Gross Alpha Gross Uranium Ra-226 Ra-228

Sample Comments:

Chain of Custody:

Date 04/08/09 Relinquished By Received By

Date Relinquished By Received By

Date Relinquished By Received By

DIV. OF H&E LAB

Additional Reports Routed To:

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Name Address

Name Address

Name Address

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Kansas Department of Health and Environment
Division of Health and Environmental Laborato
Forbes Field, Building 740
Topeka, Kansas 66620-0001

L 0527344 PT
Date Received:
Analysis Code:

Sample Submission Form

Report To: Randy Brown /BER Address: Curt's SOB Ste 410

Collection Site: Kansas Oxide GS-8 Hem80
Legal Project Code Name PWS Acct. No.

Site ID Number: Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown Date: 03-31-09 Time: 1520
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	EP	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments:

Chain of Custody:

Date 04/08/09 Relinquished By [signature] Received By [signature]

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF H&E LABORATORIES
2009 APR -8 AM 8:17

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

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Kansas Department of Health and Environme
Division of Health and Environmental Laborato
Forbes Field, Building 740
Topeka, Kansas 66620-0001

1 0527345 PT

Date Received:

Analysis Code:

Sample Submission Form

Report To: Randy Brown /BER Address: Curt's SOB Ste 410

Collection Site: Kansas Oxide GS-4 (FM80)
Legal Project Code Name PWS Acct. No.

Site ID Number: Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown Date: 03-31-09 Time: 1500
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code: EA EB EC ED EE EF EG EH EK EL EM EN EP ET EW EX EZ
ES FK LM SC SE SG SN SP SW PC PD PE PG PI PL PP PT
PU PV WE WI HD HF HL HS RP AR GS KC US AQ RT WC

Organic Chemistry Laboratory

Check Desired Analysis: Other VOC Sample Acidified:

Volatiles Method: 624 8260 524.2 Pesticides Method: 608 8080 507/8

Acids Method: 625 8270 Base/Neutrals Method: 625 8270 525.2

PCB's Method: 608 8080 Oil Herbicides Method: 615 8150 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem DO NUT HM CN O&G Phenol

Check Desired Analysis: Other

Metals Mercury Mineral TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: Other

Gross Alpha Gross Uranium Ra-226 Ra-228

Sample Comments:

Chain of Custody:

Date 04/08/09 Relinquished By Received By

Date Relinquished By Received By

Date Relinquished By Received By

Additional Reports Routed To:

Name Address

Name Address

Name Address

DIV. OF HCE LABORATORIES
2009 APR -8 AM 8:17

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Kansas Department of Health and Environment
Division of Health and Environmental Laborat
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0527343 PT

Date Received: _____

Analysis Code: _____

Sample Submission Form

Report To: Randy Brown /BER Address: Curtis SOB Ste 410

Collection Site: Kansas Oxide CS — 2 Yemo

Legal | Project Code | Name | PWS Acct. No.

Site ID Number: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown Date: 03-31-09 Time: 1445

Name | Agency (Abbr) | Mo Day Yr | 24 Hour

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	EP	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☒ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 04/08/09 Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF H&E LABORATORIES

2009 APR -8 AM 8:18

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

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Kansas Department of Health and Environment
Division of Health and Environmental Laborator
Forbes Field, Building 740
Topeka, Kansas 66620-0001

La 0527342 PT
Date Received:
Analysis Code:

Sample Submission Form

Report To: Randy Brown /BER Address: Curtis SOB Ste 410

Collection Site: Kansas Oxide CS-10 HM80
Legal Project Code Name PWS Acct. No.

Site ID Number: Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown Date: 03-31-09 Time: 1545
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code: EA EB EC ED EE EF EG EH EK EL EM EN EP ET EW EX EZ
ES FK LM SC SE SG SN SP SW PC PD PE PG PI PL PP PT
PU PV WE WI HD HF HL HS RP AR GS KC US AQ RT WC

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 04/08/09 Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DIV OF H&E LABORATORIES 2009 APR -8 AM 8:18

RECEIVED APR 9 2009 BUREAU OF ENVIRONMENTAL REMEDIATION

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

Kansas Department of Health and Environme
Division of Health and Environmental Laborato
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0527341 PT

Date Received: _____

Analysis Code: _____

Sample Submission Form

Report To: Randy Brown / BER Address: Curtis SOB Ste 410

Collection Site: Kansas Oxide GS — 3 [illegible]

Legal | Project Code | Name | PWS Acct. No.

Site ID Number: [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown Date: 03-31-09 Time: 1450

Name | Agency (Abbr) | Mo Day Yr | 24 Hour

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	EP	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: [ ] Other _____ VOC Sample Acidified: [ ]

[ ] Volatiles Method: [ ] 624 [ ] 8260 [ ] 524.2 [ ] Pesticides Method: [ ] 608 [ ] 8080 [ ] 507/8

[ ] Acids Method: [ ] 625 [ ] 8270 [ ] Base/Neutrals Method: [ ] 625 [ ] 8270 [ ] 525.2

[ ] PCB's Method: [ ] 608 [ ] 8080 [ ] Oil [ ] Herbicides Method: [ ] 615 [ ] 8150 [ ] 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: [ ] Other _____

[X] Metals [X] Mercury [ ] Mineral [X] TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: [ ] Other _____

[ ] Gross Alpha [ ] Gross Uranium [ ] Ra-226 [ ] Ra-228

Sample Comments: _____

Chain of Custody:

Date 04/08/09 Relinquished By [signature] Received By [signature]

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF H&E LABORATORIES

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

2009 APR -3 AM 8:18

RECEIVED APR 9 2009 BUREAU OF ENVIRONMENTAL REMEDIATION

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

Kansas Department of Health and Environment
Division of Health and Environmental Laboratc
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0527340 PT

Date Received: _____

Analysis Code: _____

Sample Submission Form

Report To: Randy Brown /BER Address: Curt's SOB Ste 410

Collection Site: Kansas Oxide GS — 7 4tm80
Legal Project Code Name PWS Acct. No.

Site ID Number: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown Date: 03-31-09 Time: 1515
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	EP	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☒ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 04/08/09 Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

2009 APR -8 AM 8:18

RECEIVED
APR 9 2009
BUREAU OF ENVIRONMENTAL REMEDIATION

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

Kansas Department of Health and Environment
Division of Health and Environmental Laborato
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0526791 PT
Lab Number: _____
Date Received: _____
Analysis Code: _____

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide Bt-1
Legal Project Code Name PWS Acct. No.

Site ID Number: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Collection Depth: 0.5 Feet

Sample Type: Water (Soil) Sediment Sludge Air Oil Solid Liquid Wipe Priority: (Regular) Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-10-09 Time: 1215
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code: EA EB EC ED EE EF EG EH EK EL EM EN (EP) ET EW EX EZ
ES FK LM SC SE SG SN SP SW PC PD PE PG PI PL PP PT
PU PV WE WI HD HF HL HS RP AR GS KC US AQ RT WC

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/29/09 Relinquished By [signature] Received By [signature]

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

RECEIVED
MAR 25 2009
BUREAU OF ENVIRONMENTAL REMEDIATION

DHEL-01/2001 *Instructions for this form are printed on the reverse side.*

Kansas Department of Health and Environment
Division of Health and Environmental Laboratories
Forbes Field, Building 740
Topeka, Kansas 66620-0001

Lab Number: 0526792 PT
Date Received:
Analysis Code:

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide D6-1
Legal Project Code Name

Site ID Number: PWS Acct. No.

Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-10-09 Time: 1115
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code: EA EB EC ED EE EF EG EH EK EL EM EN EP ET EW EX EZ
ES FK LM SC SE SG SN SP SW PC PD PE PG PI PL PP PT
PU PV WE WI HD HF HL HS RP AR GS KC US AQ RT WC

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By Rm

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF HEAL
LABORATORIES
2009 MAR 23 AM 6:59

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

Kansas Department of Health and Environm
Division of Health and Environmental Laborat
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0526793
Lab Number: PT
Date Received:
Analysis Code:

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide F6-2
Legal Project Code Name

Site ID Number: PWS Acct. No.

Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-10-09 Time: 1105
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code: EA EB EC ED EE EF EG EH EK EL EM EN EP ET EW EX EZ
ES FK LM SC SE SG SN SP SW PC PD PE PG PI PL PP PT
PU PV WE WI HD HF HL HS RP AR GS KC US AQ RT WC

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By [signature]

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF H&E LABORATORIES 2009 MAR 20 AM 8:45

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

Kansas Department of Health and Environm
Division of Health and Environmental Labora
Forbes Field, Building 740
Topeka, Kansas 66620-0001

Lab Number: 0526794 PT
Date Received:
Analysis Code:

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide BH-3
Legal Project Code Name

Site ID Number: PWS Acct. No.

Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-10-09 Time: 1125
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code: EA EB EC ED EE EF EG EH EK EL EM EN EP ET EW EX EZ
ES FK LM SC SE SG SN SP SW PC PD PE PG PI PL PP PT
PU PV WE WI HD HF HL HS RP AR GS KC US AQ RT WC

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By Ron

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF H&E
LABORATORIES
2009 MAR 23 AM 8:59

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

Kansas Department of Health and Environmen
Division of Health and Environmental Laborator
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0526795 PT

Lab Number: _____
Date Received: _____
Analysis Code: _____

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide FT-1
Legal Project Code Name

Site ID Number: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ PWS Acct. No. Collection Depth: 0.5 Feet

Sample Type: Water (Soil) Sediment Sludge Air Oil Solid Liquid Wipe Priority: (Regular) Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-10-09 Time: 0945
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	(EP)	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By [signature]

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

Kansas Department of Health and Environm
Division of Health and Environmental Labora
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0526796 PT

Lab Number:
Date Received:
Analysis Code:

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide F6-3

Site ID Number: Legal | Project Code | Name | PWS Acct. No.

Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown KDHE/BER (Name / Agency (Abbr)) Date: 03-10-09 (Mo Day Yr) Time: 11 10 (24 Hour)

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	EP	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By [signature]

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF H&E LABORATORIES
2009 MAR 23 AM 6:59

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

Kansas Department of Health and Environment
Division of Health and Environmental Laboratori
Forbes Field, Building 740
Topeka, Kansas 66620-0001

Lab Number: 0526797 PT
Date Received:
Analysis Code:

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide BH-2
Legal Project Code Name

Site ID Number: PWS Acct. No.

Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-10-09 Time: 1210
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code: EA EB EC ED EE EF EG EH EK EL EM EN EP ET EW EX EZ
ES FK LM SC SE SG SN SP SW PC PD PE PG PI PL PP PT
PU PV WE WI HD HF HL HS RP AR GS KC US AQ RT WC

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By Rum

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF H&E LABORATORIES 2009 MAR 23 AM 6:50

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

0526798 PT

Kansas Department of Health and Environmen
Division of Health and Environmental Laboratories
Forbes Field, Building 740
Topeka, Kansas 66620-0001

Lab Number: _____
Date Received: _____
Analysis Code: _____

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide BH-5
Legal Project Code Name PWS Acct. No.

Site ID Number: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Collection Depth: 0.5 Feet

Sample Type: Water (Soil) Sediment Sludge Air Oil Solid Liquid Wipe Priority: (Regular) Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-10-09 Time: 1225
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	(EP)	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By [signature]

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF H&E LABORATORIES 2009 MAR 20 AM 11:03

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

Kansas Department of Health and Environme
Division of Health and Environmental Laborat
Forbes Field, Building 740
Topeka, Kansas 66620-0001

Lab Number: 0526799 PT
Date Received:
Analysis Code:

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide F6-1
Legal Project Code Name PWS Acct. No.

Site ID Number: Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-10-09 Time: 1100
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code: EA EB EC ED EE EF EG EH EK EL EM EN EP ET EW EX EZ
ES FK LM SC SE SG SN SP SW PC PD PE PG PI PL PP PT
PU PV WE WI HD HF HL HS RP AR GS KC US AQ RT WC

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By Rm

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF H&E LABORATORIES
2009 MAR 23 AM 7:00

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001

Instructions for this form are printed on the reverse side

Kansas Department of Health and Environm
Division of Health and Environmental Labora
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0526800 PT

Lab Number: _____
Date Received: _____
Analysis Code: _____

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide D6-2
Legal Project Code Name

Site ID Number: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ PWS Acct. No. Collection Depth: 0.5 Feet

Sample Type: Water (Soil) Sediment Sludge Air Oil Solid Liquid Wipe Priority: (Regular) Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-10-09 Time: 1120
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	(EP)	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By Rev

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF H&E LABORATORIES

Additional Reports Routed To:

2009 MAR 23 AM 7 00

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

Kansas Department of Health and Environment
Division of Health and Environmental Laboratories
Forbes Field, Building 740
Topeka, Kansas 66620-0001

Lab Number: 0526801 PT
Date Received:
Analysis Code:

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide BH-4
Legal Project Code Name

Site ID Number: PWS Acct. No.

Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe

Priority: Regular Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-10-09 Time: 1130
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	EP	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments:

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By [signature]

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF H&E LABORATORIES
2009 MAR 23 AM 9:50

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

Kansas Department of Health and Environm
Division of Health and Environmental Laborat
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0526802 PT

Lab Number: _____
Date Received: _____
Analysis Code: _____

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide FT-2

Site ID Number: Legal [ ] Project Code [ ] Name [ ] [ ] [ ] [ ] [ ] [ ] [ ] PWS Acct. No.

Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe

Priority: Regular Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-10-09 Time: 1400

Name / Agency (Abbr) / Mo Day Yr / 24 Hour

Program Code: EA EB EC ED EE EF EG EH EK EL EM EN EP ET EW EX EZ
ES FK LM SC SE SG SN SP SW PC PD PE PG PI PL PP PT
PU PV WE WI HD HF HL HS RP AR GS KC US AQ RT WC

Organic Chemistry Laboratory

Check Desired Analysis: [ ] Other _____ VOC Sample Acidified: [ ]

[ ] Volatiles Method: [ ] 624 [ ] 8260 [ ] 524.2 [ ] Pesticides Method: [ ] 608 [ ] 8080 [ ] 507/8

[ ] Acids Method: [ ] 625 [ ] 8270 [ ] Base/Neutrals Method: [ ] 625 [ ] 8270 [ ] 525.2

[ ] PCB's Method: [ ] 608 [ ] 8080 [ ] Oil [ ] Herbicides Method: [ ] 615 [ ] 8150 [ ] 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: [ ] Other _____

[X] Metals [X] Mercury [ ] Mineral [ ] TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: [ ] Other _____

[ ] Gross Alpha [ ] Gross Uranium [ ] Ra-226 [ ] Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By Ron

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF H&E LABORATORIES 2009 MAR 23 AM 6:59

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001

Instructions for this form are printed on the reverse side

Kansas Department of Health and Environm
Division of Health and Environmental Laborat
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0526803 PT

Date Received: _____

Analysis Code: _____

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide CH-3

Site ID Number: Legal [ ] Project Code [ ] Name [ ] [ ] [ ] [ ] [ ] [ ] [ ] PWS Acct. No.

Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe

Priority: Regular Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-19-09 Time: 0800

Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	EP	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: [ ] Other _____ VOC Sample Acidified: [ ]

[ ] Volatiles Method: [ ] 624 [ ] 8260 [ ] 524.2 [ ] Pesticides Method: [ ] 608 [ ] 8080 [ ] 507/8

[ ] Acids Method: [ ] 625 [ ] 8270 [ ] Base/Neutrals Method: [ ] 625 [ ] 8270 [ ] 525.2

[ ] PCB's Method: [ ] 608 [ ] 8080 [ ] Oil [ ] Herbicides Method: [ ] 615 [ ] 8150 [ ] 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: [ ] Other _____

[X] Metals [X] Mercury [ ] Mineral [ ] TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: [ ] Other _____

[ ] Gross Alpha [ ] Gross Uranium [ ] Ra-226 [ ] Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By [signature]

Date _____ Relinquished By DIV. OF H&E LABORATORIES Received By _____

Date _____ Relinquished By _____ Received By _____

2009 MAR 23 AM 6:50

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001

Instructions for this form are printed on the reverse side

Kansas Department of Health and Environmen
Division of Health and Environmental Laborator
Forbes Field, Building 740
Topeka, Kansas 66620-0001

Lab Number: 0526804 PT
Date Received:
Analysis Code:

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide FT-3
Legal Project Code Name

Site ID Number: PWS Acct. No.

Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-10-09 Time: 1350
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code: EA EB EC ED EE EF EG EH EK EL EM EN EP ET EW EX EZ
ES FK LM SC SE SG SN SP SW PC PD PE PG PI PL PP PT
PU PV WE WI HD HF HL HS RP AR GS KC US AQ RT WC

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By Rw

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF H&E LABORATORIES

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

Kansas Department of Health and Environmer
Division of Health and Environmental Laborato
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0526805

PT

Lab Number: _____
Date Received: _____
Analysis Code: _____

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide DO-3
Legal Project Code Name

Site ID Number: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ PWS Acct. No.

Collection Depth: 0.5 Feet

Sample Type: Water (Soil) Sediment Sludge Air Oil Solid Liquid Wipe

Priority: (Regular) Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-10-09 Time: 1330
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	(EP)	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By Rim

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

Kansas Department of Health and Environ
Division of Health and Environmental Labo
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0526806

Lab Number: PT
Date Received:
Analysis Code:

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide Off-2
Legal Project Code Name PWS Acct. No.

Site ID Number: Collection Depth: 0.5 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-10-09 Time: 1625
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	EP	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By Rim

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF H&E LABORATORIES
2009 MAR 23 AM 7:09

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

Kansas Department of Health and Environm
Division of Health and Environmental Laborat
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0526807 PT

Lab Number: _____
Date Received: _____
Analysis Code: _____

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide Ctr-1
Legal Project Code Name

Site ID Number: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ PWS Acct. No. Collection Depth: 0.5 Feet

Sample Type: Water (Soil) Sediment Sludge Air Oil Solid Liquid Wipe Priority: (Regular) Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-10-09 Time: 0745
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	(EP)	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By [signature]

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV OF HAE LABORATORIES
2009 MAR 23 AM 7:00

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

Kansas Department of Health and Environm
Division of Health and Environmental Labor
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0526808 PT

Lab Number: _____
Date Received: _____
Analysis Code: _____

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide DO-2
Legal Project Code Name PWS Acct. No.

Site ID Number: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Collection Depth: 0.5 Feet

Sample Type: Water (Soil) Sediment Sludge Air Oil Solid Liquid Wipe Priority: (Regular) Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-10-09 Time: 1335
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	(EP)	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By [signature]

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF HCF LABORATORIES
2009 MAR 23 AM 7:00

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

Kansas Department of Health and Environme
Division of Health and Environmental Laborat
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0526809 PT

Lab Number: _____
Date Received: _____
Analysis Code: _____

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide DO-1
Legal Project Code Name

Site ID Number: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ PWS Acct. No.

Collection Depth: 0.5 Feet

Sample Type: Water (Soil) Sediment Sludge Air Oil Solid Liquid Wipe

Priority: (Regular) Moderate Urgent

Sample Collector: Randy Brown KDHE/BER
Name Agency (Abbr)

Date: 03-10-09 (Mo Day Yr) Time: 1320 (24 Hour)

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	(EP)	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2

☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270

☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil

☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: _____

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By Rim

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

DIV. OF H&E LABORATORIES 2009 MAR 23 AM 7:00

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001

Instructions for this form are printed on the reverse side

Kansas Department of Health and Environme
Division of Health and Environmental Laborat
Forbes Field, Building 740
Topeka, Kansas 66620-0001

0526810 PT

Lab Number: _____
Date Received: _____
Analysis Code: _____

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB, Ste 410

Collection Site: Kansas Oxide Rinse
Legal Project Code Name PWS Acct. No.

Site ID Number: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Collection Depth: 0.5 Feet

Sample Type: Water Sediment Sludge Air Oil Solid Liquid Wipe Priority: Regular Moderate Urgent

Sample Collector: Randy Brown KDHE/BER Date: 03-10-09 Time: 1715
Name Agency (Abbr) Mo Day Yr 24 Hour

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	EP	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: ☐ Other _____ VOC Sample Acidified: ☐

☐ Volatiles Method: ☐ 624 ☐ 8260 ☐ 524.2 ☐ Pesticides Method: ☐ 608 ☐ 8080 ☐ 507/8

☐ Acids Method: ☐ 625 ☐ 8270 ☐ Base/Neutrals Method: ☐ 625 ☐ 8270 ☐ 525.2

☐ PCB's Method: ☐ 608 ☐ 8080 ☐ Oil ☐ Herbicides Method: ☐ 615 ☐ 8150 ☐ 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: ☐ Other _____

☒ Metals ☒ Mercury ☐ Mineral ☐ TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: ☐ Other _____

☐ Gross Alpha ☐ Gross Uranium ☐ Ra-226 ☐ Ra-228

Sample Comments: Nitric Acid Preserved

Chain of Custody:

Date 03/20/09 Relinquished By [signature] Received By [signature]

Date _____ Relinquished By _____ Received By _____

Date _____ Relinquished By _____ Received By _____

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DIV. OF H&E LABORATORIES 2009 MAR 23 AM 7:00

Kansas Department of Health and Environment
Division of Health and Environmental Laboratories
Forbes Field, Building 740
Topeka, Kansas 66620-0001

Lab Number: _____
Date Received: _____
Analysis Code: _____

Sample Submission Form

Report To: Randy Brown Address: Curtis SOB Sre 410

Collection Site: Kansas Oxide CS-12

Site ID Number: Legal [ ] Project Code [ ] [ ] Name [ ] [ ] [ ] [ ] PWS Acct. No.

Collection Depth: 0.6 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe

Priority: Regular Moderate Urgent

Sample Collector: Randy Brown (Name) Agency (Abbr) Date: 04-08-09 (Mo Day Yr) Time: 1315 (24 Hour)

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	EP	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: [ ] Other _____ VOC Sample Acidified: [ ]

[ ] Volatiles Method: [ ] 624 [ ] 8260 [ ] 524.2 [ ] Pesticides Method: [ ] 608 [ ] 8080 [ ] 507/8

[ ] Acids Method: [ ] 625 [ ] 8270 [ ] Base/Neutrals Method: [ ] 625 [ ] 8270 [ ] 525.2

[ ] PCB's Method: [ ] 608 [ ] 8080 [ ] Oil [ ] Herbicides Method: [ ] 615 [ ] 8150 [ ] 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: [ ] Other _____

[X] Metals [ ] Mercury [ ] Mineral [ ] TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: [ ] Other _____

[ ] Gross Alpha [ ] Gross Uranium [ ] Ra-226 [ ] Ra-228

Sample Comments: _____

Chain of Custody:

Date 05/11/09	Relinquished By [signature]	Received By [signature]	
Date 5-11-09	Relinquished By [signature]	Received By	
Date _____	Relinquished By _____	Received By	

DIV. OF H&E LABORATORIES 2009 MAY 11 PM 12:05

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001 *Instructions for this form are printed on the reverse side*

Kansas Department of Health and Environment
Division of Health and Environmental Laboratories
Forbes Field, Building 740
Topeka, Kansas 66620-0001

Lab Number: _____
Date Received: _____
Analysis Code: _____

Sample Submission Form

Report To: Randy Brown IBER Address: Curris SOB Ste 410

Collection Site: Kansas Oxide C5-11

Site ID Number: Legal [ ] Project Code [ ] Name [ ] [ ] [ ] [ ] [ ] [ ] PWS Acct. No.

Collection Depth: 0.6 Feet

Sample Type: Water Soil Sediment Sludge Air Oil Solid Liquid Wipe

Priority: Regular Moderate Urgent

Sample Collector: Randy Brown (Name) Agency (Abbr)

Date: 04-08-09 (Mo Day Yr) Time: 1305 (24 Hour)

Program Code:

EA	EB	EC	ED	EE	EF	EG	EH	EK	EL	EM	EN	EP	ET	EW	EX	EZ
ES	FK	LM	SC	SE	SG	SN	SP	SW	PC	PD	PE	PG	PI	PL	PP	PT
PU	PV	WE	WI	HD	HF	HL	HS	RP	AR	GS	KC	US	AQ	RT	WC	

Organic Chemistry Laboratory

Check Desired Analysis: [ ] Other _____ VOC Sample Acidified: [ ]

[ ] Volatiles Method: [ ] 624 [ ] 8260 [ ] 524.2

[ ] Pesticides Method: [ ] 608 [ ] 8080 [ ] 507/8

[ ] Acids Method: [ ] 625 [ ] 8270

[ ] Base/Neutrals Method: [ ] 625 [ ] 8270 [ ] 525.2

[ ] PCB's Method: [ ] 608 [ ] 8080 [ ] Oil

[ ] Herbicides Method: [ ] 615 [ ] 8150 [ ] 515.1

Inorganic Chemistry Laboratory

Bottle Nos.: Chem ____ DO ____ NUT ____ HM ____ CN ____ O&G ____ Phenol ____

Check Desired Analysis: [ ] Other _____

[X] Metals [ ] Mercury [ ] Mineral [ ] TCLP

Radiation Chemistry Laboratory

Check Desired Analysis: [ ] Other _____

[ ] Gross Alpha [ ] Gross Uranium [ ] Ra-226 [ ] Ra-228

Sample Comments: _____

Chain of Custody:

Date 05/11/09 Relinquished By [signature] Received By [signature]

Date 5-11-09 Relinquished By [signature] Received By [signature]

Date _____ Relinquished By _____ Received By _____

DIV. OF H&E LABORATORIES
2009 MAY 11 PM 12:05

Additional Reports Routed To:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

DHEL-01/2001

Instructions for this form are printed on the reverse side

Appendix 4: Integrated Site Evaluation Form

Kansas Department of Health and Environment

Integrated Site Evaluation Form

I. Site Information

Site Name: Kansas Oxide Site			
Address or location: 603 Sunshine Road			
City: Kansas City	County: Wyandotte	State: Kansas	ZIP: 66203
Telephone:	Fax:		
Directions to Site: Located at the intersection of Sunshine and Brinkerhoff Roads, Kansas City, Kansas.			
Map attached? ☒ Yes			
Requested by: Rick Bean	Agency/Office: KDHE		
Address: 1000 S.W. Jackson		Date of Request: 04/01/09	
City: Topeka	State: Kansas	ZIP: 66612-1367	
Phone: 785-296-1675	E-mail: rbean@kdhe.state.ks.us	Fax:	
Site Contact: Rick Bean/KDHE			
Address: 1000 SW. Jackson, Suite 410			
City: Topeka	State: Kansas	ZIP: 66612-1367	
Phone: 785-296-1675	E-mail: rbean@kdhe.state.ks.us	Fax: 785-296-7030	

II. CERCLA Site Screening Response Criteria (see Section V for definitions)

A. Is there a release or threat of release as defined by the NCP? Yes ☒ No ☐

Explain: Lead was detected above Risk-based Standards for Kansas in soils at the site.

B. Is the source a facility or vessel as defined by the NCP? Yes ☒ No ☐

Explain: The site is a former lead oxide processing facility.

C. Does the release or threat of release involve a hazardous substance, pollutant, or contaminant as defined by the NCP? Yes ☒ No ☐

Explain: Lead and arsenic are present at the site above background and risk-based soil concentrarions.

D. Is the release subject to the limitations on response? Yes ☐ No ☒

Explain: No release limitations appear to exist.

E. Does the quantity or concentration warrant response? Yes ☒ No ☐

Explain: Uncontrolled hazardous substances are present which require proper disposal and/or stabilization.

F. Has a PRP been identified? Yes ☒ No ☐

Name: Metals and Additives Corporation		Telephone:	
Address: 5901 Lakeside Boulevard	City: Indianapolis	State: Indiana	Zip: 46278

G. Document operational and regulatory history: see attached report ☒

H. What is the current land use around the facility? Check all that apply:
Residential ☐ Industrial ☒ Commercial ☒ Agricultural ☐ Recreational ☐

I. Is there an actual or potential exposure to hazardous substances, pollutants or contaminants:

Ground Water: Yes ☐ No ☐ Potential ☒ Receptor: Local groundwater
Explain: Ground water is not used near the site for drinking water purposes. Shallow groundwater is extensively impacted with VOCs from the adjacent Unison/Union Carbide site.

Surface Water: Yes ☐ No ☐ Potential ☒ Receptor:
Explain: Runoff from dust emissions may continue to spread unless mitigated.

Soil: Yes ☒ No ☐ Potential ☐ Receptor: Workers and transients
Explain: Extensive soil contamination appears to be present primarily from fugitive lead oxide dust emissions.

Waste: Yes ☒ No ☐ Potential ☐ Receptor: workers
Explain: Historical analytical results indicate some lead levels above TCLP thresholds which may make some of the impacted soil a characteristic hazardous waste (D008).

Air: Yes ☒ No ☐ Potential ☐ Receptor: workers and transients
Explain: Previous air releases from the Kansas Oxide facility have been documented through visual observations and historic aerial photographs.

J. Is there an actual or a potential for contamination of a drinking water well? Yes ☐ No ☐ Potential ☒
Explain: No drinking water wells are located at or within one mile of this site.

Kansas Department of Health and Environment
Integrated Site Evaluation Form

K. Are there hazardous substances, pollutants, or contaminants in drums, barrels, bulk storage containers, or tanks? Explain: Wastes appear to be contained in soils from fugitive dust emissions. Yes ☐ No ☒

L. Are there high levels of hazardous substances in:

Near-surface soils (< 2 feet below surface)?	Yes ☒	No ☐	Unknown ☐
Subsurface soils (> 2 feet below surface)?	Yes ☒	No ☐	Unknown ☐
Surficial Waste present?	Yes ☒	No ☐	Unknown ☐

Site Accessibility: Secure ☐ Access limited ☒ Readily accessible ☐ Worker population: 2-3

Further explanation: Lead-impacted soils have been documented at this site, and some levels are in excess of both risk-based total lead concentrations and TCLP thresholds.

M. Are there conditions on site that may be susceptible to impact from adverse weather? Yes ☒ No ☐

Explain: Continued roof and surface water runoff may spread contamination.

N. Is there a threat of fire or explosion? Yes ☐ No ☒

Explain:

O. Is there a potential for other federal or state response programs? Yes ☒ No ☐

KDHE is in the process of preparing an Administrative Order to submit to the successor corporation of Kansas Oxide.

P. Are there endangered species habitats, wetlands, or other sensitive environments nearby which may be adversely impacted by the site? Yes ☐ No ☒

Explain:

Q. Are there other situations or factors that warrant further CERCLA response? Yes ☒ No ☐

Explain: Internal and external surfaces of both the Kansas Oxide and Central Solutions, Inc., buildings may be impacted by lead oxide dust in addition to the impacted soils identified in this evaluation.

R. Document economic conditions surrounding the site: The site is situated in a heavy industrial area of the Fairfax District of Kansas City, Kansas.

III. CERCLA Site Screening Findings and Recommendations

A. CERCLA Eligible?

☒ Yes – further CERCLA evaluation is recommended. Cite applicable factors from Section III:

- ☒ A release of a hazardous substance, pollutant or contaminant has occurred;
- ☒ CERCLA Limitations on Response provisions do not apply;
- ☐ No responsible parties are willing/capable to respond at this time;
- ☐ Drums, barrels, and/or containers are, or may be present at the site;
- ☒ The site is susceptible to impact from adverse weather;
- ☒ No other federal or state response mechanisms were identified;
- ☒ The source is a facility as defined by the NCP;
- ☒ Contamination may be presenting sufficient quantity and/or concentration;
- ☒ There is an actual or potential exposure threat;
- ☐ There is, or may be, a threat of fire or explosion;
- ☒ There are, or may be, high concentrations of contaminants in surficial soils;
- ☐ There are endangered species, wetlands, or other sensitive environments or receptors that may be impacted by the site.

If necessary, explain:

Kansas Department of Health and Environment
Integrated Site Evaluation Form

☐ No - further CERCLA evaluation is not recommended. Cite appropriate factors from Section III:

- ☐ No release has occurred;
- ☐ Not a hazardous substance, pollutant or contaminant;
- ☐ Insufficient quantity or concentration:
- ☐ No actual or potential exposure threats;
- ☐ No high levels of contaminants in surficial soils:
- ☐ Not a facility or vessel;
- ☐ Subject to response limitations;
- ☐ Willing/capable responsible party response;
- ☐ Drums, barrels, and/or containers are, or may be present at the site;
- ☐ Site not susceptible to adverse weather:
- ☐ No threat of fire or explosion;
- ☐ Referred to another program.

If necessary, explain:

IV. Removal Considerations and Recommended Response Actions

If yes, check recommended or potential removal actions from § 300.415(d) of the NCP to warrant further removal site evaluation below:

☒ Release or threat of release is present.

- ☒ Site security
- ☒ Drainage control
- ☒ Stabilization or removal of surface impoundments
- ☒ Capping of contaminated soil
- ☒ Use of chemicals to retard or control spread of contaminants
- ☒ Excavation of contaminated soils
- ☐ Removal of drums, barrels, tanks or other bulk storage containers
- ☒ Containment, treatment, disposal or incineration of hazardous substances, pollutants or contaminants
- ☐ Provide alternate water supplies
- ☐ Other (specify and explain):

Briefly explain the rationale for checked alternatives: The primary concern identified at site is from uncontrolled lead releases. Removal, stabilization or disposal would alleviate release or threat of release.

V. Remedial Considerations

Future sampling to delineate and determine extent of wastes and impacted soils is recommended followed by treatment, stabilization and/or removal. Off-site removal and treatment appears to be the most expedient option.

VI. Final Comments/Recommendations

The Kansas Oxide site appears to warrant a removal action and associated Federal enforcement actions if a responsible party does not conduct response actions through a KDHE remedial program. The site may also qualify for additional Federal air and RCRA enforcement evaluation.

V. Definitions

I. **CERCLA** is the Comprehensive Environmental Response Compensation and Liabilities Act, 42 USC §9601 et seq. (as amended).

A **FACILITY** is defined as any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly-owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or any site or area, where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel.

A **HAZARDOUS SUBSTANCE** means any substance, element, compound, mixture, solution, hazardous waste, toxic pollutant, hazardous air pollutant, or imminently hazardous chemical substance or mixture designated pursuant to the Clean Water Act (CWA), CERCLA, Safe Drinking Water Act (SDWA), Clean Air Act (CAA) or Toxic Substances Control Act (TSCA). The term does not include petroleum products, natural gas, natural gas liquids, liquefied natural gas, synthetic gas or mixtures of natural and synthetic gas.

The LIMITATIONS ON RESPONSE provisions of the NCP [40 CFR 300.400(b)] states that removals shall not be undertaken in response to a release: of a naturally occurring substance in its unaltered or natural form; from products that are a part of the structure of, and result in exposure within, residential buildings or business or community structures; or into public or private drinking water supplies due to deterioration of the system through ordinary use.

NCP is the National Oil and Hazardous Substances Pollution Contingency Plan 40 CFR §300-302.

POLLUTANT or CONTAMINANT includes, but is not limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions or physical deformations, in such organisms or their offspring. The term does not include petroleum products, natural gas, natural gas liquids, liquefied natural gas, synthetic gas or mixtures of natural and synthetic gas. [40 CFR 300.5]

A **RELEASE** is defined as any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment of barrels, containers, and other closed receptacles containing any hazardous substances or pollutant or contaminant), but excludes: workplace exposures; engine exhaust emissions; nuclear releases otherwise regulated; and the normal application of fertilizer. For purposes of the NCP, release also means threat of release. [40 CFR 300.5]

A **VESSEL** is defined as every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel. [40 CFR 300.5]

Appendix 5: Hazardous Substance Characteristics

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

LEAD

CAS # 7439-92-1

Division of Toxicology and Environmental Medicine ToxFAQs™ August 2007

This fact sheet answers the most frequently asked health questions (FAQs) about lead. For more information, call the ATSDR Information Center at 1-800-232-4636. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Exposure to lead can happen from breathing workplace air or dust, eating contaminated foods, or drinking contaminated water. Children can be exposed from eating lead-based paint chips or playing in contaminated soil. Lead can damage the nervous system, kidneys, and reproductive system. Lead has been found in at least 1,272 of the 1,684 National Priority List sites identified by the Environmental Protection Agency (EPA).

What is lead?

Lead is a naturally occurring bluish-gray metal found in small amounts in the earth's crust. Lead can be found in all parts of our environment. Much of it comes from human activities including burning fossil fuels, mining, and manufacturing.

Lead has many different uses. It is used in the production of batteries, ammunition, metal products (solder and pipes), and devices to shield X-rays. Because of health concerns, lead from paints and ceramic products, caulking, and pipe solder has been dramatically reduced in recent years. The use of lead as an additive to gasoline was banned in 1996 in the United States.

What happens to lead when it enters the environment?

❏ Lead itself does not break down, but lead compounds are changed by sunlight, air, and water.

❏ When lead is released to the air, it may travel long distances before settling to the ground.

❏ Once lead falls onto soil, it usually sticks to soil particles.

❏ Movement of lead from soil into groundwater will depend on the type of lead compound and the characteristics of the soil.

How might I be exposed to lead?

❏ Eating food or drinking water that contains lead. Water pipes in some older homes may contain lead solder. Lead can leach out into the water.

❏ Spending time in areas where lead-based paints have been used and are deteriorating. Deteriorating lead paint can contribute to lead dust.

❏ Working in a job where lead is used or engaging in certain hobbies in which lead is used, such as making stained glass.

❏ Using health-care products or folk remedies that contain lead.

How can lead affect my health?

The effects of lead are the same whether it enters the body through breathing or swallowing. Lead can affect almost every organ and system in your body. The main target for lead toxicity is the nervous system, both in adults and children. Long-term exposure of adults can result in decreased performance in some tests that measure functions of the nervous system. It may also cause weakness in fingers, wrists, or ankles. Lead exposure also causes small increases in blood pressure, particularly in middle-aged and older people and can cause anemia. Exposure to high lead levels can severely damage the brain and kidneys in adults or children and ultimately cause death. In pregnant women, high levels of exposure to lead may cause miscarriage. High-level exposure in men can damage the organs responsible for sperm production.

How likely is lead to cause cancer?

We have no conclusive proof that lead causes cancer in humans. Kidney tumors have developed in rats and mice that had been given large doses of some kind of lead compounds. The Department of Health and Human Services

(DHHS) has determined that lead and lead compounds are reasonably anticipated to be human carcinogens and the EPA has determined that lead is a probable human carcinogen. The International Agency for Research on Cancer (IARC) has determined that inorganic lead is probably carcinogenic to humans and that there is insufficient information to determine whether organic lead compounds will cause cancer in humans.

How can lead affect children?

Small children can be exposed by eating lead-based paint chips, chewing on objects painted with lead-based paint, or swallowing house dust or soil that contains lead.

Children are more vulnerable to lead poisoning than adults. A child who swallows large amounts of lead may develop blood anemia, severe stomachache, muscle weakness, and brain damage. If a child swallows smaller amounts of lead, much less severe effects on blood and brain function may occur. Even at much lower levels of exposure, lead can affect a child's mental and physical growth.

Exposure to lead is more dangerous for young and unborn children. Unborn children can be exposed to lead through their mothers. Harmful effects include premature births, smaller babies, decreased mental ability in the infant, learning difficulties, and reduced growth in young children. These effects are more common if the mother or baby was exposed to high levels of lead. Some of these effects may persist beyond childhood.

How can families reduce the risks of exposure to lead?

❑ Avoid exposure to sources of lead.

❑ Do not allow children to chew or mouth surfaces that may have been painted with lead-based paint.

❑ If you have a water lead problem, run or flush water that has been standing overnight before drinking or cooking with it.

❑ Some types of paints and pigments that are used as make-up or hair coloring contain lead. Keep these kinds of products away from children

❑ If your home contains lead-based paint or you live in an area contaminated with lead, wash children's hands and faces often to remove lead dusts and soil, and regularly clean the house of dust and tracked in soil.

Is there a medical test to determine whether I've been exposed to lead?

A blood test is available to measure the amount of lead in your blood and to estimate the amount of your recent exposure to lead. Blood tests are commonly used to screen children for lead poisoning. Lead in teeth or bones can be measured by X-ray techniques, but these methods are not widely available. Exposure to lead also can be evaluated by measuring erythrocyte protoporphyrin (EP) in blood samples. EP is a part of red blood cells known to increase when the amount of lead in the blood is high. However, the EP level is not sensitive enough to identify children with elevated blood lead levels below about 25 micrograms per deciliter (μg/dL). These tests usually require special analytical equipment that is not available in a doctor's office. However, your doctor can draw blood samples and send them to appropriate laboratories for analysis.

Has the federal government made recommendations to protect human health?

The Centers for Disease Control and Prevention (CDC) recommends that states test children at ages 1 and 2 years. Children should be tested at ages 3–6 years if they have never been tested for lead, if they receive services from public assistance programs for the poor such as Medicaid or the Supplemental Food Program for Women, Infants, and Children, if they live in a building or frequently visit a house built before 1950; if they visit a home (house or apartment) built before 1978 that has been recently remodeled; and/or if they have a brother, sister, or playmate who has had lead poisoning. CDC considers a blood lead level of 10 μg/dL to be a level of concern for children.

EPA limits lead in drinking water to 15 μg per liter.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 2007. Toxicological Profile for lead (Update). Atlanta, GA: U.S. Department of Public Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology and Environmental Medicine, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-800-232-4636, FAX: 770-488-4178. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

ARSENIC

CAS # 7440-38-2

Division of Toxicology and Environmental Medicine ToxFAQs™ August 2007

This fact sheet answers the most frequently asked health questions (FAQs) about arsenic. For more information, call the ATSDR Information Center at 1-800-232-4636. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Exposure to higher than average levels of arsenic occur mostly in the workplace, near hazardous waste sites, or in areas with high natural levels. At high levels, inorganic arsenic can cause death. Exposure to lower levels for a long time can cause a discoloration of the skin and the appearance of small corns or warts. Arsenic has been found in at least 1,149 of the 1,684 National Priority List sites identified by the Environmental Protection Agency (EPA).

What is arsenic?

Arsenic is a naturally occurring element widely distributed in the earth's crust. In the environment, arsenic is combined with oxygen, chlorine, and sulfur to form inorganic arsenic compounds. Arsenic in animals and plants combines with carbon and hydrogen to form organic arsenic compounds.

Inorganic arsenic compounds are mainly used to preserve wood. Copper chromated arsenate (CCA) is used to make "pressure-treated" lumber. CCA is no longer used in the U.S. for residential uses; it is still used in industrial applications. Organic arsenic compounds are used as pesticides, primarily on cotton fields and orchards.

What happens to arsenic when it enters the environment?

❑ Arsenic occurs naturally in soil and minerals and may enter the air, water, and land from wind-blown dust and may get into water from runoff and leaching.
❑ Arsenic cannot be destroyed in the environment. It can only change its form.
❑ Rain and snow remove arsenic dust particles from the air.
❑ Many common arsenic compounds can dissolve in water. Most of the arsenic in water will ultimately end up in soil or sediment.
❑ Fish and shellfish can accumulate arsenic; most of this arsenic is in an organic form called arsenobetaine that is much less harmful.

How might I be exposed to arsenic?

❑ Ingesting small amounts present in your food and water or breathing air containing arsenic.
❑ Breathing sawdust or burning smoke from wood treated with arsenic.
❑ Living in areas with unusually high natural levels of arsenic in rock.
❑ Working in a job that involves arsenic production or use, such as copper or lead smelting, wood treating, or pesticide application.

How can arsenic affect my health?

Breathing high levels of inorganic arsenic can give you a sore throat or irritated lungs.

Ingesting very high levels of arsenic can result in death. Exposure to lower levels can cause nausea and vomiting, decreased production of red and white blood cells, abnormal heart rhythm, damage to blood vessels, and a sensation of "pins and needles" in hands and feet.

Ingesting or breathing low levels of inorganic arsenic for a long time can cause a darkening of the skin and the appearance of small "corns" or "warts" on the palms, soles, and torso.

Skin contact with inorganic arsenic may cause redness and swelling.

Almost nothing is known regarding health effects of organic arsenic compounds in humans. Studies in animals show that some simple organic arsenic compounds are less toxic than inorganic forms. Ingestion of methyl and dimethyl compounds can cause diarrhea and damage to the kidneys

How likely is arsenic to cause cancer?

Several studies have shown that ingestion of inorganic arsenic can increase the risk of skin cancer and cancer in the liver, bladder, and lungs. Inhalation of inorganic arsenic can cause increased risk of lung cancer. The Department of Health and Human Services (DHHS) and the EPA have determined that inorganic arsenic is a known human carcinogen. The International Agency for Research on Cancer (IARC) has determined that inorganic arsenic is carcinogenic to humans.

How can arsenic affect children?

There is some evidence that long-term exposure to arsenic in children may result in lower IQ scores. There is also some evidence that exposure to arsenic in the womb and early childhood may increase mortality in young adults.

There is some evidence that inhaled or ingested arsenic can injure pregnant women or their unborn babies, although the studies are not definitive. Studies in animals show that large doses of arsenic that cause illness in pregnant females, can also cause low birth weight, fetal malformations, and even fetal death. Arsenic can cross the placenta and has been found in fetal tissues. Arsenic is found at low levels in breast milk.

How can families reduce the risks of exposure to arsenic?

❑ If you use arsenic-treated wood in home projects, you should wear dust masks, gloves, and protective clothing to decrease exposure to sawdust.

❑ If you live in an area with high levels of arsenic in water or soil, you should use cleaner sources of water and limit contact with soil.

❑ If you work in a job that may expose you to arsenic, be aware that you may carry arsenic home on your clothing, skin, hair, or tools. Be sure to shower and change clothes before going home.

Is there a medical test to determine whether I've been exposed to arsenic?

There are tests available to measure arsenic in your blood, urine, hair, and fingernails. The urine test is the most reliable test for arsenic exposure within the last few days. Tests on hair and fingernails can measure exposure to high levels of arsenic over the past 6-12 months. These tests can determine if you have been exposed to above-average levels of arsenic. They cannot predict whether the arsenic levels in your body will affect your health.

Has the federal government made recommendations to protect human health?

The EPA has set limits on the amount of arsenic that industrial sources can release to the environment and has restricted or cancelled many of the uses of arsenic in pesticides. EPA has set a limit of 0.01 parts per million (ppm) for arsenic in drinking water.

The Occupational Safety and Health Administration (OSHA) has set a permissible exposure limit (PEL) of 10 micrograms of arsenic per cubic meter of workplace air (10 $\mu g/m^3$) for 8 hour shifts and 40 hour work weeks.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 2007. Toxicological Profile for Arsenic (Update). Atlanta, GA: U.S. Department of Public Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology and Environmental Medicine, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-800-232-4636, FAX: 770-488-4178. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

Appendix 6: Bureau of Waste Management Generator Information

NOTICE OF COMPLIANCE/NON-COMPLIANCE

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
Division of Environment
Waste Management Program

Hazardous Waste: Complaint( ) LDF( ) TSF( ) GEN(X) KG( ) SQ( ) TRA( ) UOM( ) UOB( ) NOT A GEN( )
Solid Waste: Complaint( ) SLF( ) TRF( ) ILF( ) CDL( ) HHW( ) OBS( ) UOS( ) WTT( ) WTP( ) WTM( ) YWC( ) MED( )

TO: Kansas Oxide (Facility Name) 3/1/01 (Date)

603 Southwest Road (Address) Kansas City (City) KS (State) (Zip Code)

K	S	T	2	1	0	0	1	0	1	4	6

EPA Identification No.

Solid Waste Permit No.

This inspection was conducted to determine compliance with the state and federal solid and hazardous waste statutes and regulations.

☒ **Violations As Follows** ☐ **No Violations Identified**

	Citation	Description of Violation
#1	KAR 28-31-4(g)(3)	Failure to label / storage drum with the words "Hazardous Waste".
#2	KAR 28-31-4(g)(7)	Failure to mark the accumulation start date on / storage drum.
#3	KAR 28-31-4(g)(1)	Failure to conduct weekly inspections of / hazardous waste storage area.
#4	KAR 28-31-4(j)	Failure to close / secure accumulation container

☒ **Other Comments/Concerns:**

#1 Update Notification of Regulated Activity Form with new contact information

This notice is provided to call immediate attention to those areas of non-compliance. This notice does not constitute a compliance order issued by KDHE and may not be a complete listing of all violations which may be identified as a result of this inspection. **Your facility must submit in writing within** 30 days of receipt of this notice **a description of all corrective actions taken and/or a schedule for completion of necessary corrective actions to be taken.** Any corrective actions taken by your facility will be considered in subsequent enforcement follow-up.

Response due March 30, 2001

Your response must be submitted to:
Roberta Wagner
Kansas Department of Health and Environment
Bureau of District Operation
Waste Management Programs
800 West 24th Street
Lawrence, Kansas 66046

RECEIVED
MAR 13 2001
BUREAU OF WASTE MANAGEMENT

If you have any questions concerning this Notice or wish to discuss your response, you may call me at (913) 842-4600 or Bureau of Waste Management in the Topeka Office at (913) 296-1604.

This Notice was prepared by

[signature]

Date 3/1/01

I, the undersigned hereby acknowledge that I have received and read this Notice.

Printed Name: RALPH N. PERKINS III

Signature: [signature]

Title: PLANT MANAGER

Date: 3/1/01

COPIES: White-Facility; Yellow-Bureau of Waste Management; Blue-District

NOTICE OF COMPLIANCE/NON-COMPLIANCE

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
Division of Environment
Waste Management Program

Hazardous Waste: Complaint( ) LDF( ) TSF( ) GEN(X) KG( ) SQ( ) TRA( ) UOM( ) UOB( ) NOT A GEN( )
Solid Waste: Complaint( ) SLF( ) TRF( ) ILF( ) CDL( ) HHW( ) OBS( ) UOS( ) WTT( ) WTP( ) WTM( ) YWC( ) MED( )

TO: Kansas Oxide (Facility Name) — Date: 3/1/01

603 Sunshine Rd (Address) — Kansas City (City) — KS (State) — 66115 (Zip Code)

EPA Identification No.: K S T 2 1 0 0 1 0 1 4 6

Solid Waste Permit No.:

This inspection was conducted to determine compliance with the state and federal solid and hazardous waste statutes and regulations.

☒ **Violations As Follows** ☐ **No Violations Identified**

Citation	Description of Violation
#5 KAR-28-31-4(j)	Failure to label 7 satellite accumulation containers w/ the words "Hazardous Waste".
#6 KAR 28-31-4(j)	Failure to mark the accumulation start date on 1 full satellite accumulation container (1 drum).
#7 KAR 28-31-4(j)	Failure to move full satellite accumulation container to storage within 3 days.

☐ **Other Comments/Concerns:**

This notice is provided to call immediate attention to those areas of non-compliance. This notice does not constitute a compliance order issued by KDHE and may not be a complete listing of all violations which may be identified as a result of this inspection. **Your facility must submit in writing within _____ days of receipt of this notice a description of all corrective actions taken and/or a schedule for completion of necessary corrective actions to be taken.** Any corrective actions taken by your facility will be considered in subsequent enforcement follow-up.

Your response must be submitted to:

Kansas Department of Health and Environment
Bureau of District Operation
Waste Management Programs
800 West 24th Street
Lawrence, Kansas 66046

If you have any questions concerning this Notice or wish to discuss your response, you may call me at (913) 842-4600 or Bureau of Waste Management in the Topeka Office at (913) 296-1604.

This Notice was prepared by

[signature]

Date 3/1/01

I, the undersigned hereby acknowledge that I have received and read this Notice.

Printed Name: RALPH N. PERKINS III

Signature: [signature]

Title: PLANT MANAGER

Date: 3/1/01

COPIES: White-Facility; Yellow-Bureau of Waste Management; Blue-District

NOTICE OF COMPLIANCE/NON-COMPLIANCE

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
Division of Environment
Waste Management Program

Hazardous Waste: Complaint( ) LDF( ) TSF( ) GEN(X) KG( ) SQ( ) TRA( ) UOM( ) UOB( ) NOT A GEN( )
Solid Waste: Complaint( ) SLF( ) TRF( ) ILF( ) CDL( ) HHW( ) OBS( ) UOS( ) WTT( ) WTP( ) WTM( ) YWC( ) MED( )

TO: Kansas Oxide — Facility Name — Date: 3/1/01

6D2 Sunshine Road — Address — Kansas City — City — KS — State — 66115 — Zip Code

K	S	T	2	1	2	0	1	0	1	4	6

EPA Identification No.

Solid Waste Permit No.

This inspection was conducted to determine compliance with the state and federal solid and hazardous waste statutes and regulations.

☒ **Violations As Follows** ☐ **No Violations Identified**

Citation	Description of Violation
#8 KAR 28-31-4(a)	Failure to use proper shipping name and to put unit (Pounds) on manifest.
#9 KAR 28-31-4(a)(4)/ 40 CFR 265.16(a)	Failure to maintain job titles or descriptions for each employee managing hazardous waste.
#10 KAR 28-31-4(a)(4)/ 40 CFR 265 Sub D	Failure to maintain a contingency plan.

☐ **Other Comments/Concerns:**

This notice is provided to call immediate attention to those areas of non-compliance. This notice does not constitute a compliance order issued by KDHE and may not be a complete listing of all violations which may be identified as a result of this inspection. **Your facility must submit in writing within _____ days of receipt of this notice a description of all corrective actions taken and/or a schedule for completion of necessary corrective actions to be taken.** Any corrective actions taken by your facility will be considered in subsequent enforcement follow-up.

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This Notice was prepared by

[signature]

Date 3/1/01

I, the undersigned hereby acknowledge that I have received and read this Notice.

Printed Name: RALPH N. PERKINS III

Signature: [signature]

Title: PLANT MANAGER

Date: 3/1/01

COPIES: White-Facility; Yellow-Bureau of Waste Management; Blue-District

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
BUREAU OF WASTE MANAGEMENT
FORBES FIELD, TOPEKA, KANSAS 66620

HAZARDOUS WASTE GENERATOR/TRANSPORTER COMPLIANCE INSPECTION CHECKLIST

GENERAL [X] ROUTINE [ ] COMPLAINT

EPA ID KST 210 010 146 Time 10:50 am Date 3/1/01

Facility Name Kansas Oxide (A division of Omni Oxide) District Northeast

Street 603 Sunshine Road City Kansas City, Kansas ZIP 66115

Mailing Address (if different than above) Same

County Wyandotte Phone (913) 342-9600 (Fax 913-342-2319)

Contact(s) Ralph Perkins III, Plant Manager

Inspector(s) Rebecca Wenner SIC: 2819

Type of Business Lead oxide manufaturer Number of Employees About 15

Facility size classification: [] Closed [] Small Qty. Generator [X] EPA Generator [] Not a Generator [] Kansas Generator [] Transporter

Other Regulated Activities: (complete applicable checklist) [] T/S/D Facility [] HW Burner/Marketer [X] Used Oil Activities [] Universal Waste Activities

Has the company declared any information/processes as trade secrets (KSA 65-3447)? No
If yes, explain:

Industrial Wastes Generated

(List hazardous wastes first)

Waste:	Spent Dust Collector Baghouse Bags (from Barton Pots)	Spent Dust Collector Baghouse Bags (from storage bins vents)
If waste is hazardous give HW ID Number:	D008	D008
Amount generated per month:	1 to 2 drums every 4 to 6 years	0.5 to 0.75 drums every 4 to 6 years
Amount presently in storage:	None	1 cartridge (about 10-15 lbs)
Accumulation time:	N/A	2/28/01
Present disposal methods:	Doe Run	Doe Run

Waste:	Dust collector dust	Barton Pot Build-up Waste
If waste is hazardous give HW ID Number:	Exempt	Exempt
Amount generated per month:	Unknown	0.5 drums every 6 months
Amount presently in storage:	1, 55-gallon drum	1/4 of a 55-gallon drum
Accumulation time:	< 1 week	< 1 week
Present disposal methods:	Some re-used on-site and some to Doe Run	Some re-used on-site and some to Doe Run

Waste:	Hammer Mill Build-Up Waste	Spent paint brushes and rollers
If waste is hazardous give HW ID Number:	Exempt	D008
Amount generated per month:	half a 55-gallon drum every 3-4 months	Varies
Amount presently in storage:	None	< 2 lbs
Accumulation time:	N/A	1 day
Present disposal methods:	Doe Run	Doe Run

Waste:	Scrap Metal	Regular trash
If waste is hazardous give HW ID Number:	Non-Hazardous	Non-Hazardous
Amount generated per month:	Varies	Varies
Amount presently in storage:	10-15 thousand pounds - full box	Not deteremined
Accumulation time:	About 4 months	< 1 week
Present disposal methods:	American Compressed Steel	Deffenbaugh - Johnson Cnty MSWLF

Waste:		
If waste is hazardous give HW ID Number:		
Amount generated per month:		
Amount presently in storage:		
Accumulation time:		
Present disposal methods:		

Pre-Transport Requirements (GPT)

		YES	NO	NA
6.	Does generator package waste in accordance with 49 CFR 173, 178, and 179 requirements? [KAR 28-31-4(e)(1)]	[X]	[ ]	
7.	Does generator label (flammable liquid, poison, etc.) each package in accordance with DOT requirements of Subpart E of 49 CFR 172? [KAR 28-31-4(e)(2)]	[X]	[ ]	
8.	Does generator mark (consignee's or consignor's name and address, etc.) on each package in accordance with DOT requirements of 49 CFR 172 Subpart D? [KAR 28-31-4(e)(3)]	[X]	[ ]	
	a. Does generator mark each container of 110 gallons or less as below? [KAR 28-31-4(e)(3)]	[X]	[ ]	

Hazardous Waste-Federal Law Prohibits Improper Disposal.
If found, contact the nearest police or public safety authority or the US EPA.
Generator's Name and Address
Manifest Document Number

		YES	NO	NA
9.	Does generator have placards to offer to transporters in accordance with 49 CFR 172 Subpart F? [KAR 28-31-4(e)(4)]	[X]	[ ]	
10.	Does generator only use a transporter who has notified the department and obtained an EPA Identification Number? [KAR 28-31-4(c)(2)]	[X]	[ ]	

Pre-Transport Requirements: [X] Compliance [ ] Non-Compliance [ ] N/A

Storage Requirements (GPT)

			YES	NO	NA
11.	Does generator temporarily store waste in containers before transport? If yes,		[X]	[ ]	
	a. Are containers marked with the words "Hazardous Waste"? [KAR 28-31-4(g)(3) or (h)(1)(D)]	**Violation # 1**	[ ]	[X]	
	b. Is the accumulation start date marked on each container? [KAR 28-31-4(g)(2) or (h)(1)(C)]	**Violation # 2**	[ ]	[X]	
	c. Are all containers holding hazardous waste in good condition and closed during storage except when necessary to add or remove waste? [KAR 28-31-4(g)(1) or (h)(1)(B)]		[X]	[ ]	
	d. Does generator conduct weekly inspections of containers for signs of leakage and/or deterioration caused by corrosion or other factors? [KAR 28-31-4(g)(1) or (h)(1)(B)]	**Violation # 3**	[ ]	[X]	
	A. If yes, are these inspections documented in a log that includes complete date and time of inspection, full name of inspector, notations of observations, and date and nature of remedial actions? [KAR 28-31-4(k)/40 CFR 265.15(d)]		[ ]	[X]	

Storage Requirements: [ ] Compliance [X] Non-Compliance [ ] N/A

(Small quantity generator accumulating <1,000 Kilograms stop here)

		YES	NO	NA
	K. Waste Description (DOT shipping name, hazard class, and Identification Number)? **Violation # 8**	[ ]	[X]	
	i. If applicable, are the requirements of 49 CFR 172.203(k) met?	[ ]	[ ]	
	L. Number and type of containers?	[X]	[ ]	
	M. Total quantity?	[X]	[ ]	
	Q. Name, signature, and date of transporter 1?	[X]	[ ]	
	R. Name, signature, and date of transporter 2?	[ ]	[ ]	[X]
b.	Does generator retain a copy of manifest(s) signed by both generator and transporter? [KAR 28-31-4(d)(4)(A-C)/40 CFR 262.23]	[X]	[ ]	
c.	Does generator retain copy of manifest(s) signed and dated by T/S/D facility owner/operator for three years? [KAR 28-31-4(f)(1)(A)]	[X]	[ ]	
d.	Has generator ever failed to receive a signed copy of a manifest within 45 days of initiating a shipment?	[ ]	[X]	
	A. If yes, was exception report(s) filed? [KAR 28-31-4(f)(4)(B)]	[ ]	[ ]	
	i. If yes, was copy retained for three years? [KAR 28-31-4(f)(1)(A)]	[ ]	[ ]	

Manifesting Requirements: [ ] Compliance [X] Non-Compliance [ ] N/A

Land Disposal Restriction Requirements (GLB)

		YES	NO	NA
14.	Does facility generate waste(s) subject to the Land Disposal Restrictions? [KAR 28-31-14/40 CFR 268]	[X]	[ ]	
15.	Does the generator dispose of his waste under a contractual or tolling agreement? [40 CFR 268.7(a)(10)]	[ ]	[X]	
	a. If yes, is a Land Disposal Restriction Notice available for the initial shipment?	[ ]	[ ]	
	b. If yes, is a copy of this notice kept for three years after termination of the agreement?	[ ]	[ ]	[ ]
16.	Is the waste(s) covered by a National Variance(s), Extension, or Petition? [40 CFR 268.5 & 6]	[ ]	[X]	
	a. If yes, describe the variance, extension, or petition which applies:			
17.	Does generator ship waste(s) covered by the Land Disposal Restrictions off-site for treatment or disposal? [40 CFR 268.7(a)(1)]	[X]	[ ]	[ ]
	If yes,			
	a. Does the generator provide a notice with each shipment?	[ ]	[ ]	
	b. Does the notice include: EPA hazardous waste number(s), manifest number(s), waste analysis data, if available, and waste constituents, wastewater or nonwastewater classification, and subcategory, if applicable?	[ ]	[ ]	
18.	Has the generator determined that his waste meets applicable treatment standards or does not exceed prohibition levels and requires no further treatment? [40 CFR 268.7(a)(2)]	[ ]	[X]	

		YES	NO	NA
a.	Has the generator submitted a one-time notice and certification to the State of Kansas and retained a copy for their files?	[ ]	[ ]	
b.	Does the information on the notice and certification need to be updated?	[ ]	[ ]	

LDR Requirements: [X] Compliance [ ] Non-Compliance [ ] N/A

Special Conditions (GSC)

28.	Has generator received or transported any hazardous waste to or from a foreign source? (40 CFR Subpart E & F)	[ ]	[X]	
	If yes,			
a.	Has generator filed a notice with the Secretary of the KDHE?	[ ]	[ ]	
b.	Is waste manifested and signed by a foreign consignee?	[ ]	[ ]	[ ]
c.	If generator transports waste out of the country, has confirmation of delivered shipment been received?	[ ]	[ ]	

Special Conditions Requirements: [ ] Compliance [ ] Non-Compliance [X] N/A

Kansas Generator's Emergency Preparedness (GPT)

29.	Has facility named one employee as emergency coordinator? [KAR 28-31-4(h)(1)(E)]	[ ]	[ ]	
a.	Is the emergency coordinator available to respond to an emergency by reaching the facility within a short period of time?	[ ]	[ ]	
b.	Is the emergency coordinator or his/her designee prepared to respond to any emergencies (fires, spills, or releases) that arise?	[ ]	[ ]	
c.	Is the emergency coordinator familiar with the reporting requirements of KAR 28-31-4(h)(2)?	[ ]	[ ]	
30.	Is the following information posted next to at least one telephone which is immediately accessible in an emergency? [KAR 28-31-4(h)(1)(F)]			
a.	Name and telephone number of the emergency coordinator(s)?	[ ]	[ ]	
b.	Location of fire extinguishers, fire alarms, or spill control material, if available?	[ ]	[ ]	
c.	Telephone number of fire department unless facility has a direct alarm?	[ ]	[ ]	
31.	Have employees been trained so that they are familiar with proper waste handling and emergency procedures that are relevant to their responsibilities during normal facility operations? [KAR 28-31-4(h)(1)(G)]	[ ]	[ ]	
a.	Is this training documented in any way?	[ ]	[ ]	

KS Gen.'s Emergency Preparedness Requirements: [ ] Compliance [ ] Non-Compliance [X] N/A

(If Kansas generator, stop here)

		YES	NO	NA
a.	Familiarized the local emergency authorities with the facility, waste(s) handled, entrances and exits? [KAR 28-31-4(g)(4)/40 CFR 265.37(a)(1)]	[X]	[ ]	
b.	Designated one authority where one or more police or fire departments might respond to an emergency? [KAR 28-31-4(g)(4)/40 CFR 265.37(a)(2)]	[ ]	[ ]	[X]
c.	Made agreements with local emergency response teams, emergency response contractors, and equipment suppliers? [KAR 28-31-4(g)(4)/40 CFR 265.37(a)(3)]	[ ]	[ ]	[X]
d.	Familiarized local hospitals with the properties of hazardous waste(s) handled and types of injuries which could result from fires, explosions, or releases at the facility. [KAR 28-31-4(g)(4)/40 CFR 265.37(a)(4)]	[X]	[ ]	
36.	In cases where local authorities decline to enter into such arrangements, is the refusal entered in the operating record? [KAR 28-31-4(g)(4)/40 CFR 265.37(b)]	[ ]	[ ]	X

Preparedness and Prevention Requirements: [X] Compliance [ ] Non-Compliance [ ] N/A

Personnel Training (GPT)

37.	Has the owner/operator established a hazardous waste management training program? [KAR 28-31-4(g)(4)/40 CFR 265.16]	[X]	[ ]	
a.	Is the program directed by a person trained in hazardous waste management? [40 CFR 265.16(a)(2)]	[X]	[ ]	
b.	Are new personnel trained within six months after their employment? [40 CFR 265.16(b)]	[X]	[ ]	
c.	Are new employees supervised until training is completed? [40 CFR 265.16(b)]	[X]	[ ]	
d.	After initial training, are employees trained on an annual basis? [40 CFR 265.16(c)]	[X]	[ ]	
e.	Does the facility maintain the following documents and records:			
	A. Job title for each position related to hazardous waste management and the name of the employee filling each job? [40 CFR 265.16(d)(I)] Violation # 9	[ ]	[X]	
	B. Written job description for each position? [40 CFR 265.16(d)(2)] Violation # 9	[ ]	[X]	
	C. Description of type and amount of training to be given each person? [40 CFR 265.16(d)(3)]	[X]	[ ]	
	D. Records of training given to facility personnel? [40 CFR 265.16(d)(4)]	[X]	[ ]	

Personnel Training Requirements: [ ] Compliance [X] Non-Compliance [ ] N/A

Contingency Plan (GPT)

38.	Does the facility have a contingency plan? [KAR 28-31-4(g)(4)/40 CFR 265 Subpart D] **Violation # 10**	[ ]	[X]	
	If yes,			
a.	Does the plan list the name(s), home address, and phone number of designated emergency coordinator(s) in the order in which they should be contacted? [40 CFR 265.52(d)]	[ ]	[ ]	
b.	Is an emergency coordinator available at all times? [40 CFR 265.55]	[ ]	[ ]	
c.	Does the plan describe emergency actions facility personnel must take to respond to fires, explosions, or releases of hazardous waste? [40 CFR 265.52(a)]	[ ]	[ ]	

RCRA Compliance Evaluation Inspection Summary

Kansas Oxide (a division of Omni Oxide)
603 Sunshine Road
Kansas City, KS 66115

RECEIVED
APR 13 2001
BUREAU OF WASTE MANAGEMENT

EPA ID No.: KST 210 010 146

Inspection Date: 3/1/01

KDHE Inspector: Rebecca Wenner, NEDO

1.0 INTRODUCTION

On March 1, 2001, a routine inspection was conducted at Kansas Oxide, to determine compliance with state hazardous waste regulations. The inspection covered points of waste generation, waste storage areas, and included a review of related documents and records. This facility was last inspected as an EPA Generator of Hazardous Waste on February 10, 1998. The February 10, 1998, inspection was conducted by the United States Environmental Protection Agency (USEPA). As a follow-up to the 1998 inspection, representatives of KDHE and USEPA visited the site on July 25, 2000, in order to confirm which of the facility's waste streams are considered hazardous wastes and which are exempt from the hazardous waste regulations.

I arrived at the facility at approximately 10:50 am and met with Mr. Ralph Perkins III, Plant Manager. I presented my credentials and discussed the purpose of the inspection. Mr. Perkins has been the Plant Manager at this facility since December 1999. Prior to December 1999, he worked for a different company.

2.0 CHANGES SINCE PREVIOUS INSPECTION

The waste streams have not changed significantly since USEPA's 1998 inspection. The only significant changes are regarding whether or not a waste is a hazardous waste, or is exempt from the hazardous waste regulations. Following are changes since the EPA inspection:

Floor Sweepings/Grinding Residue/Wood Scrap: Floors are no longer swept, but are cleaned exclusively by mopping. All waste from this process is included in the Water Recycling System sludge.

Spent Refactory, as referred in USEPA's 1998 report, is called spent refactory ceramic insulation in this report. This waste has not been generated since USEPA's 1998 inspection.

3.2 Generation Points and Satellite Accumulation Areas

Hazardous waste is generated throughout the facility, but only a few satellite accumulation areas are used. Most of the hazardous waste streams are generated sporadically and so do not require constant satellite accumulation areas. The satellite accumulation areas in use during the inspection are discussed below:

Oily rags (D008) - Oily rags are accumulated in a 5-gallon red safety (or step) can located just outside the compressor room (Photo 4). This can was full at the time of the inspection. Mr. Perkins was not sure how long the can had been full, so we asked Mr. Virgil Hyde, Maintenance Day Shift Supervisor, who said that the can had been full for at least two weeks (Violation 7). The can was bent so that the lid would not close properly on the can (even if it hadn't been full) (Violation 4). I checked all sides of this can and could not find the words "Hazardous Waste" (Violation 5), nor the accumulation start date (Violation 6).

Lab Waste/Lab Rags (D008) - There was one 7-gallon white container used to collect hazardous waste generated in the main laboratory. This container was located in the main laboratory, was closed, and was properly labeled. There were two other lab stations in the facility, but no hazardous waste is generated at either of these stations (Photo 6). All liquid waste from the main laboratory and from the two lab stations drains to the water recycling system. This liquid waste consists primarily of acetic acid. The liquid waste is treated with other liquid/water in this recycling system and is then re-used on-site in the processes.

Paint Waste Trash Can (D008) - At the time of the inspection, there was one 30-gallon trash can being used to accumulate waste from painting that had occurred the previous night (Photo 7). This painting was done as part of routine maintenance on the facility, and only water based paints were used. Mr. Perkins said that Kansas Oxide feels that the equipment used in the painting may become contaminated with lead during the painting process, and that all painting waste is therefore managed and disposed as a hazardous waste (D008). The trash can I observed during the inspection had a roller, rags, and paint tray in it. Mr. Perkins stated that there is not normally a trash can in this area (as no "trash" is generated here), and that the waste should have been put in a drum in the storage area. The trash can was not labeled with the words "Hazardous Waste" at the time of the inspection (Violation 5). The can did have a lid, but I had Mr. Perkins remove the lid so that I could take a picture of the contents.

Spent gloves/ear plugs/ hair nets (D008) - There is a 30-gallon plastic container located in the men's locker room that is used to accumulate this waste stream. This container was closed, and properly labeled at the time of the inspection.

Violation 5 **Failure to label two satellite accumulation containers with the words "Hazardous Waste" in violation of K.A.R. 28-31-4(j). Photos 4 and 7.** One 5-gallon red safety (or step) can containing oily rags had no label or identifying labels (I checked all sides of the container to verify) (This is the same can described in Violations 4, 6, and 7.) One 30-gallon plastic "trash" can was being used to accumulate waste painting equipment (rollers, trays, rags) from the previous night (February 28, 2001). This "trash" can was not labeled (I checked all sides to verify there was no label) with the words "Hazardous Waste". According to Mr. Perkins, all waste painting equipment is managed as lead (D008) containing hazardous waste.

Violation 6 **Satellite containers not marked with the accumulation start date when full in violation of K.A.R. 28-31-4(j). Photo 4.** The red safety can of oily rags described in violations 4, 5, and 7, did not have an accumulation start date on it, and had been filled about two weeks earlier according to Mr. Hyde.

Violation 7 **Full satellite accumulation container not moved to storage within 3 days in violation of K.A.R. 28-31-4(j). Photo 4.** The red safety can of oily rags described in violations 4, 5, and 6, had been full about two weeks, but had not been moved to the storage area according to Mr. Hyde.

Violation 8 **Failure to use proper shipping name and to put unit (pounds) on the uniform hazardous waste manifest in violation of K.A.R. 28-31-4(d).** The shipping description used on all manifests (according to Mr. Perkins), uses a shipping name that is not on the Hazardous Materials Table found in 49 CFR 172.101 (Attachment A). This error was previously pointed out to the facility in a letter from Mary Bitney, dated August 23, 2000. The last shipment of hazardous waste was sent off-site on February 22, 2001, using manifest number KS002. The unit of weight/volume was also missing on this manifest.

Violation 9 **Failure to maintain job titles and descriptions for each employee managing hazardous waste.** Although Mr. Perkins was able to produce documentation of training on managing hazardous waste given to each employee, he was unable to provide job titles and job descriptions for those employees actually managing the hazardous waste. Mr. Perkins looked extensively for this information during the inspection and could not locate it. Mr. Perkins was unaware of this requirement and said that he had did not remember seeing written job titles or descriptions for employees.

Violation 10 **Failure to maintain a contingency plan in violation of K.A.R. 28-31-4(g)(4) / 40 CFR 265 Subpart D.** Mr. Perkins was unable to locate any contingency plan. He was unaware of this requirement and said he did not remember seeing a contingency

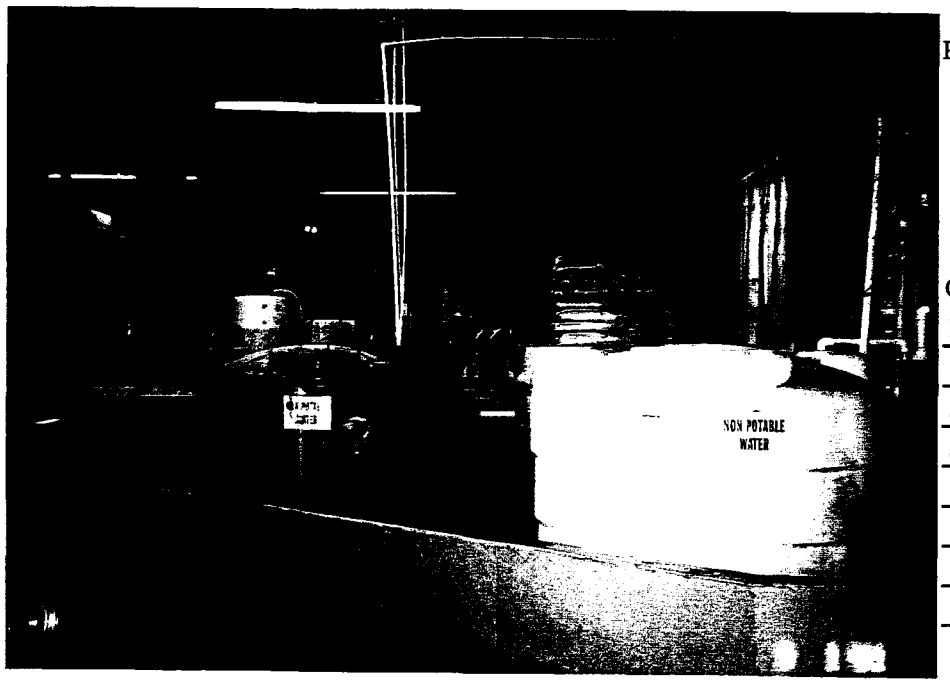
APPENDIX

PHOTOGRAPHIC LOG

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
Division of Environment
Photo Mounting Sheet

Name of Site: Kansas Oxide (A division of Omni Oxide)
Location: 603 Sunshine Road

City: Kansas City County: Wyandotte Legal:



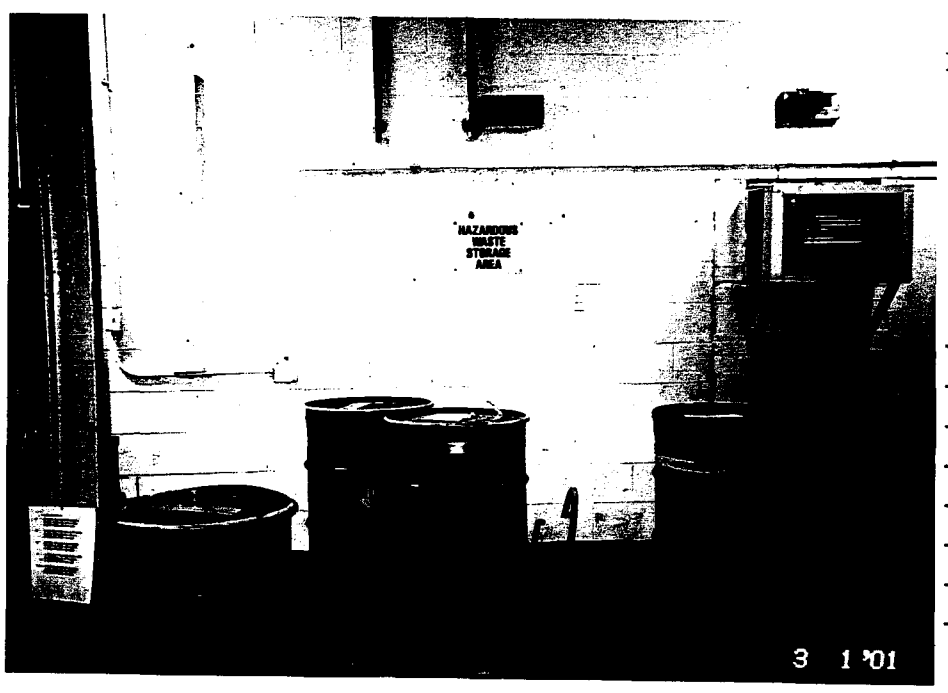
Picture Nos: 1

Date: 03/01/01

Facing: North

Weather: Cold, 40 degrees F

Comments: An overview of the Water Recycling System. The three tanks (red, gray, and white) visible in the photo are used as settling tanks, before the water is recycled back as process water.



Picture Nos: 2

Date: 03/01/01

Facing: West

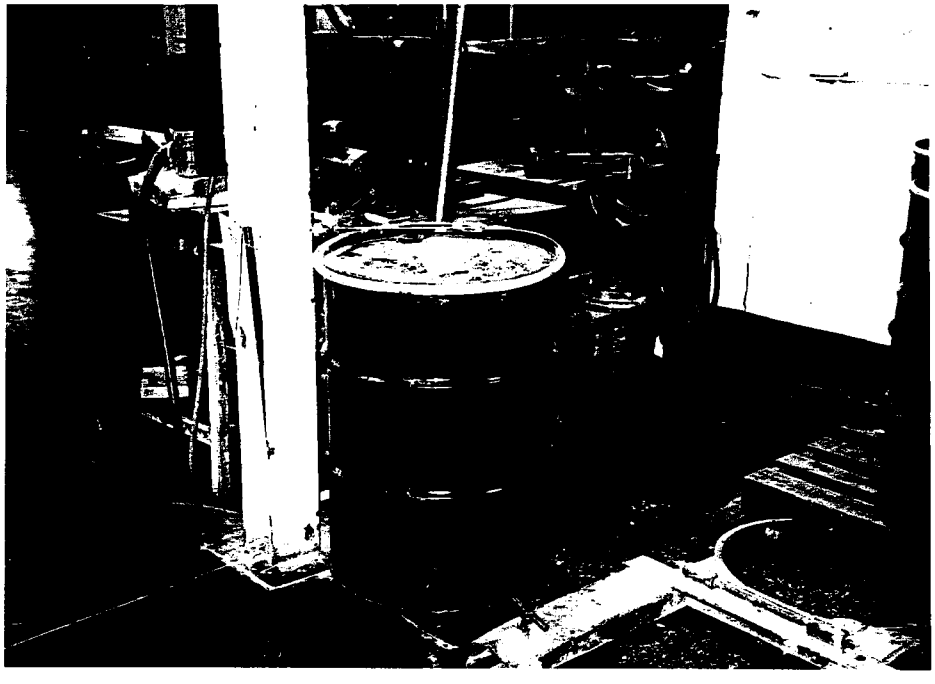
Weather: Cold, 40 degrees F

Comments: An overview of the less than 90 day storage area. The two drums on the located on the wooden pallet in the center of the photo, and the drum (partially visible) located on the far left, are the three drums containing hazardous waste at the time of the inspection. The drum on the far left contained the spent dust collector baghouse bag from the storage bin vent.

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
Division of Environment
Photo Mounting Sheet

Name of Site: Kansas Oxide (A division of Omni Oxide)
Location: 603 Sunshine Road

City: Kansas City County: Wyandotte Legal:



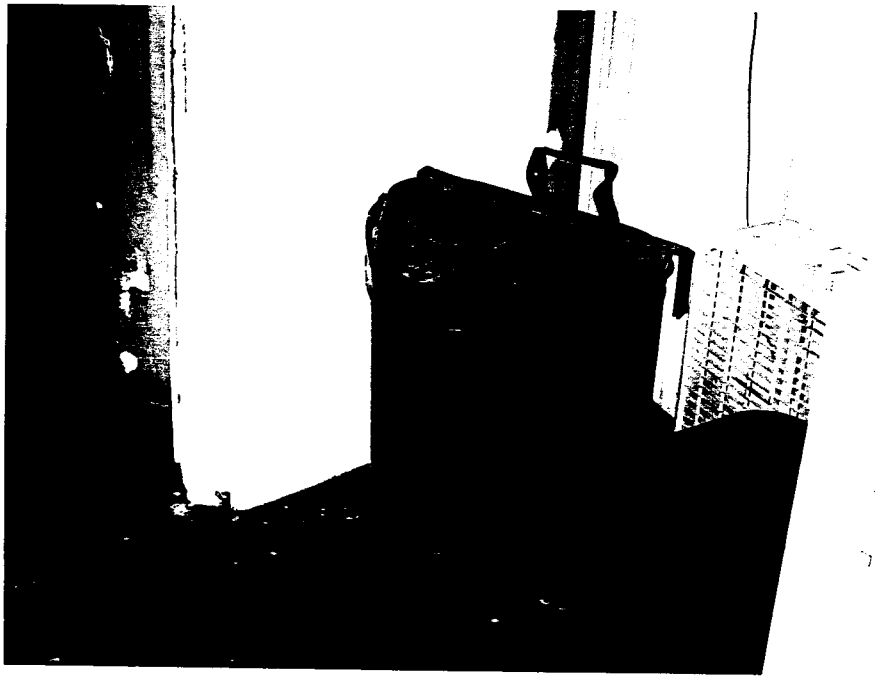
Picture Nos: 3

Date: 03/01/01

Facing: Southwest

Weather: Cold, 40 degrees F

Comments: Another view of the drum of spent dust collector baghouse bag from the storage bin vent which is partially shown in photo 2. This drum was not labeled with the words "Hazardous Waste" (Violation 1) and was not labeled with the accumulation start date (Violation 2).



Picture Nos: 4

Date: 03/01/01

Facing: Northeast

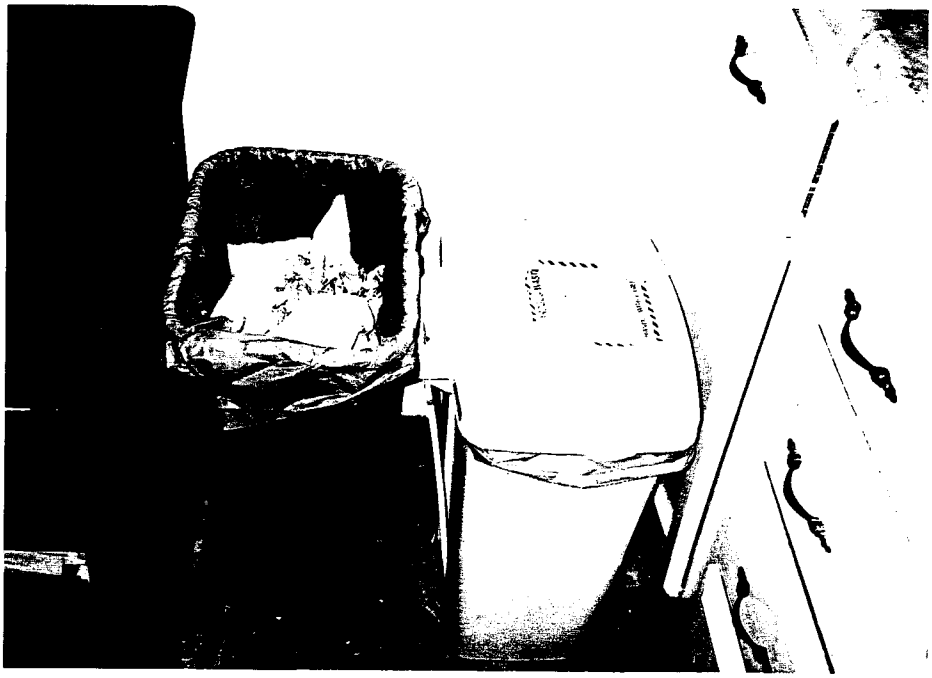
Weather: Cold, 40 degrees F

Comments: A view of the 5-gallon red safety can used as satellite accumulation for oily rags generated in the compressor room. This container was not labeled with the words "Hazardous Waste" (Violation 5), was full, but had no accumulation start date (Violation 6) and had not been moved to storage within 3 days of becoming full (Violation 7), and the lid was not properly aligned due to the can being bent, so the container was not properly closed (Violation 4).

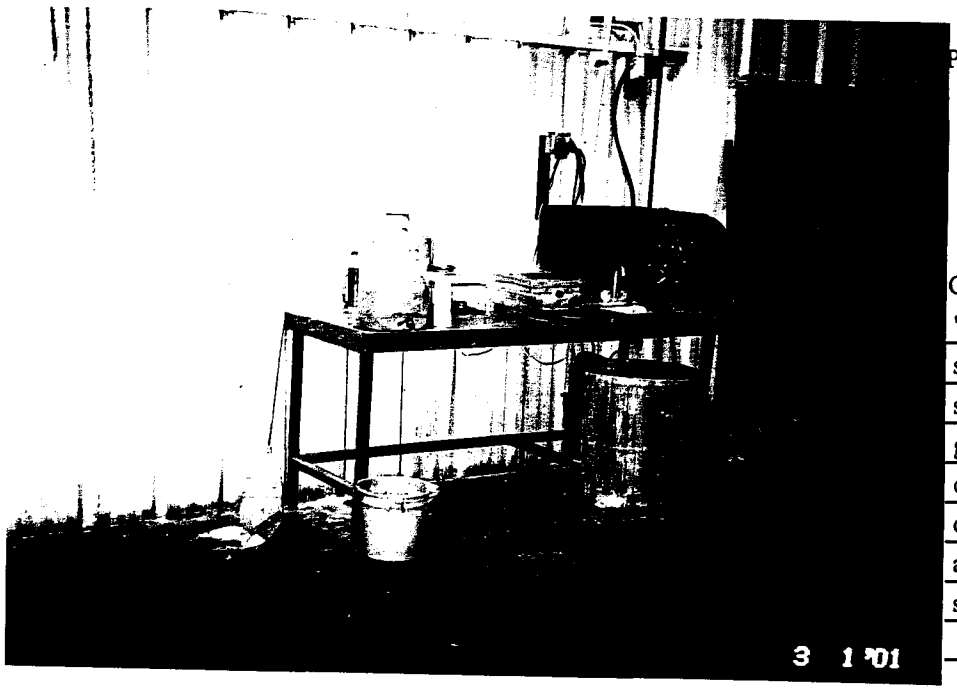
KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
Division of Environment
Photo Mounting Sheet

Name of Site: Kansas Oxide (A division of Omni Oxide)
Location: 603 Sunshine Road

City: Kansas City County: Wyandotte Legal:



Picture Nos: 5
Date: 03/01/01
Facing: East
Weather: Cold, 40 degrees F
Comments: A view of the satellite accumulation container used to collect laboratory waste in the main laboratory. This container was correctly labeled and was closed.



Picture Nos: 6
Date: 03/01/01
Facing: Northwest
Weather: Cold, 40 degrees F
Comments: A view of one of the two lab "stations" located inside the facility. These stations are used to check quality at various stages of production. Only a liquid waste is generated at these stations, and the liquid waste consists primarily of acetic acid. The liquid drains to the blue tub located under the bench and is then pumped to the water water recycling system.

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
Division of Environment
Photo Mounting Sheet

Name of Site: Kansas Oxide (A division of Omni Oxide)
Location: 603 Sunshine Road

City: Kansas City County: Wyandotte Legal:

Picture Nos: 7
Date: 03/01/01
Facing: South
Weather: Cold, 40 degrees F
Comments: A view of the contents of the trash can being used as a satellite accumulation container to collect painting wastes. This container was not labeled with the words "Hazardous Waste" which was cited as violation 5.

Picture Nos:
Date:
Facing:
Weather:
Comments:

ATTACHMENT A

UNIFORM HAZARDOUS WASTE MANIFESTS

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
Hazardous Waste Program
P.O. Box 176 Jefferson City, Missouri 65102
573-751-3176

LOT 1877

HAZARDOUS WASTE MANIFEST

THIS DOCUMENT MUST BE USED FOR ALL MISSOURI-DESTINED SHIPMENTS.
INSTRUCTIONS FOR THE COMPLETION OF THIS FORM ARE ON A SEPARATE SHEET.

EMERGENCY RESPONSE	U.S. COAST GUARD 1-800-424-8802	CHEM TREC 1-800-424-9300	DEPT. OF NATURAL RESOURCES 573-634-2436

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

Form Approved OMB No 2050-0039. Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. KST210101464KS002 — Manifest Document No.
2. Page 1 of 1

Information in the shaded areas is required by State law.

3. Generator's Name and Mailing Address
KANSAS OXIDE LLC
603 SUNSHINE
KANSAS CITY KS 66115
4. Generator's Phone (913) 342-9600

5. Transporter 1 Company Name: BELMAN TRUCKING
6. US EPA ID Number: ILD007814825

7. Transporter 2 Company Name
8. US EPA ID Number

9. Designated Facility Name and Site Address
DOE RUN COMPANY
RESOURCE RECYCLING HWY KK
BOSS MO 65440
10. US EPA ID Number: MOD059200089

11. US DOT Description (Including Proper Shipping Name, Hazard Class, ID Number and Packing Group (if any))	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol.
a. RQ, SOLID NOS, 9, NA 3077, PG III D008 ERG # 171, RECYCLABLE LEAD BEARING MATERIAL	010	DM	02820	P
b.				
c.				
d.				

15. Special Handling Instructions and Additional Information
TRUCK LIC # P58190 IL
TRAILER L/C # 226008 IL

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and applicable state regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method available to me that I can afford.

GENERATOR — Printed/Typed Name: RALPH N. PERKINS III — Signature — Month Day Year: 09 21 00

TRANSPORTER — 17. Transporter 1 Acknowledgement of Receipt of Materials — Date
Printed/Typed Name: X Dennis RICHARDSON — Signature: Dennis Richardson — Month Day Year: 09 21 00

18. Transporter 2 Acknowledgement of Receipt of Materials — Date
Printed/Typed Name — Signature — Month Day Year

FACILITY — 19. Discrepancy Indication Space

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. — Date
Printed/Typed Name: JOHN STORM — Signature: John Storm — Month Day Year: 09 22 00

MISSOURI DNR FINAL COPY – PART 1

THIS COPY MUST BE SENT BACK TO THE GENERATOR BY THE DESIGNATED

CONTAINS 50% RECYCLED PAPER WHICH INCLUDES NOT LESS THAN 20% POST

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
Hazardous Waste Program
P.O. Box 176 Jefferson City, Missouri 65102
573-751-3176

HAZARDOUS WASTE MANIFEST

THIS DOCUMENT MUST BE USED FOR ALL MISSOURI-DESTINED SHIPMENTS.
INSTRUCTIONS FOR THE COMPLETION OF THIS FORM ARE ON A SEPARATE SHEET.

EMERGENCY RESPONSE	U.S. COAST GUARD 1-800-424-8802	CHEM TREC 1-800-424-9300	DEPT. OF NATURAL RESOURCES 573-634-2436

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

Form Approved OMB No 2050-0039. Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. KST 2 1 0 1 0 1 1 4 6 Manifest Document No. K5 1 0 1 0 1 2

2. Page 1 of 1

Information in the shaded areas is required by State law.

3. Generator's Name and Mailing Address
KANSAS OXIDE CORP
603 SUNSHINE KANSAS CITY KS 66115

4. Generator's Phone (913) 342-9600

5. Transporter 1 Company Name
BUCKHEAD TRUCKING

6. US EPA ID Number
M D R 0 0 0 0 0 9 7 2 6

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
DOE RUN COMPANY
RESOURCE RECYCLING
HWY KK BOSS MO 65440

10. US EPA ID Number
M D D 0 5 9 2 0 0 0 9 9

11. US DOT Description (Including Proper Shipping Name, Hazard Class, ID Number and Packing Group (if any))	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol.
a. RQ, SOLID NOS. 19, NA 3077, PG III D009 ERG #171, RECYCLABLE LEAD BEARING MATERIAL	0 1 7	DM	0 2 9 8 0	
b.				
c.				
d.				

GENERATOR

15. Special Handling Instructions and Additional Information
TRUCK LIC # 63-860 MO
TRAILER LIC # PL0-10[illegible] MO

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and applicable state regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method available to me that I can afford.

Printed/Typed Name: RALPH N. PERKINS III
Signature:
Month Day Year: 0 2 2 2 0 1

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: ADAM RAY SEABAUGH
Signature:
Date: Month Day Year: 0 2 2 2 0 1

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name
Signature
Date: Month Day Year

TSDF FINAL COPY - PART 4

THIS COPY IS TO BE RETAINED BY THE DESIGNATED FACILITY

EPA FORM 8700-22 (REV. 9-96) MDNR-HWG 10 PREVIOUS EDITIONS ARE OBSOLETE

CONTAINS 50% RECYCLED PAPER WHICH INCLUDES NOT LESS THAN 20% POST CONSUMER WASTE.

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
Hazardous Waste Program
P.O. Box 176 Jefferson City, Missouri 65102
573-751-3176

HAZARDOUS WASTE MANIFEST

THIS DOCUMENT MUST BE USED FOR ALL MISSOURI-DESTINED SHIPMENTS.
INSTRUCTIONS FOR THE COMPLETION OF THIS FORM ARE ON A SEPARATE SHEET.

EMERGENCY RESPONSE	U.S. COAST GUARD 1-800-424-8802	CHEM TREC 1-800-424-9300	DEPT. OF NATURAL RESOURCES 573-634-2436

Lot 1666

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

Form Approved OMB No 2050-0039, Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. KST210010146 — Manifest Document No. KS001

2. Page 1 of 1

Information in the shaded areas is required by State law.

3. Generator's Name and Mailing Address
KANSAS OXIDE LLC.
603 SUNSHINE ROAD
KANSAS CITY, KS 66115

4. Generator's Phone ( )

A. Missouri Manifest Document Number: 03529 0003

B. Generator's Site Address: SAME

5. Transporter 1 Company Name: X BUCKLEY TRUCK SERVICE — 6. US EPA ID Number: MOR000009176

7. Transporter 2 Company Name — 8. US EPA ID Number

9. Designated Facility Name and Site Address
DOE RUN COMPANY
RESOURCE RECYCLING DIVISION - HWY/RR
BOSS, MO 65440

10. US EPA ID Number: MOD059200089

E. Transporter 1 Phone: 1-800-873-3604

F. Transporter 2 Phone

G. Designated Facility Site Phone: 3242

H. Designated Facility Phone: 573-626-3375

11. US DOT Description (Including Proper Shipping Name, Hazard Class, ID Number and Packing Group (if any))	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a. R.Q., Solid, N.O.S., 9, NA 3077, PG III, D008 ERG #171, RECYCLABLE LEAD BEARING MATERIALS	015	DM	04240	P	EPA WASTE CODE D008; STATE D008
b.					EPA WASTE CODE; STATE
c.					EPA WASTE CODE; STATE
d.					EPA WASTE CODE; STATE

J. Additional Descriptions for Materials Listed Above

			COMMENTS
a.		TON	HTMR
b.			
c.			
d.			

15. Special Handling Instructions and Additional Information
WEIGHT = 4240
TRUCK LIC # 74199 MO. 606
TRAILER LIC # PK0102 MO. 943

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and applicable state regulations

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method available to me that I can afford

GENERATOR

Printed/Typed Name	Signature	Month Day Year
Donald Richards	Donald Richards	10 25 99

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials — Date

Printed/Typed Name	Signature	Month Day Year
X LEON A. MOORE	Leon A. Moore	10 25 99

18. Transporter 2 Acknowledgement of Receipt of Materials — Date

Printed/Typed Name	Signature	Month Day Year

FACILITY

19. Discrepancy Indication Space

KANSAS OXIDE RECEIVED NOV 9 1999

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. — Date

Printed/Typed Name	Signature	Month Day Year
Steve Ogle	Steve Ogle BY:	10 26 99

EPA FORM 8700-22 (REV. 9-96) MDNRHWG 10 — PREVIOUS EDITIONS ARE OBSOLETE

CONTAINS 50% RECYCLED PAPER WHICH INCLUDES NOT LESS THAN 20% POST CONSUMER WASTE.

MISSOURI DNR FINAL COPY - PART 1

THIS COPY MUST BE SENT BACK TO THE GENERATOR BY THE DESIGNATED

Copy to Donna

ATTACHMENT B

LETTER TO KANSAS OXIDE DATED MARCH 7, 2001

KANSAS
DEPARTMENT OF HEALTH & ENVIRONMENT
BILL GRAVES, GOVERNOR
Clyde D. Graeber, Secretary

March 7, 2001

Mr. Ralph Perkins III
Kansas Oxide
603 Sunshine Road
Kansas City, KS 66115

Re: March 1, 2001, Compliance Inspection
Kansas Oxide, EPA ID KST 210 010 146

Dear Mr. Perkins:

In reviewing my notes from the March 1, 2001, compliance inspection conducted at your facility, I found an additional violation as follows:

Violation 11 **Failure to use a unique manifest document number in violation of K.A.R. 28-31-4(d) / 40 CFR 262.20.** Manifest number KS002 was used on two different manifests, one with the shipping date of September 21, 2000, and the other with a shipping date of February 22, 2001.

Your cooperation with the hazardous waste management program is appreciated. If you have questions concerning this letter, please call me at the Northeast District Office at (785) 842-4600.

Sincerely,

Rebecca Wenner
Environmental Technician
Waste Management Programs

cc: John Mitchell, BWM/PPO
Ron Smith, BWM/TSS
Julie Coleman ➤NEDO file

C:\MyFiles\Wyandotte\Kansas Oxide ltr.wpd

DIVISION OF ENVIRONMENT
Bureau of Environmental Field Services

Northeast District Office
800 W. 24 th Street
Lawrence, KS 66046-4417

PHONE (785) 842-4600
FAX (785) 842-3537
e-mail rwenner@kdhe.state.ks.us

Printed on Recycled Paper

KANSAS
DEPARTMENT OF HEALTH AND ENVIRONMENT
BILL GRAVES, GOVERNOR
Clyde D. Graeber, Secretary

April 17, 2001

Ralph Perkins
Kansas Oxide Corp
PO Box 15196
Kansas City KS 66115

Re: EPA I.D. Number------KST210010146---603 Sunshine Rd, Kansas City, KS

Dear Mr. Perkins:

We have received a **Subsequent** **"Notification of Regulated Waste Activity"** form for the installation located at the address above. K.A.R. 28-31-4 (c) (1) states that whenever there is a change in the information originally submitted to obtain an EPA Identification Number, the generator shall update that information. The generator shall submit these changes to the department on a form supplied by the department. You have complied with this requirement.

We have updated our records to show the following information: facility name from Kansas Oxide Div. of OMNI Oxide to Kansas Oxide Corp., contact person to Ralph Perkins, telephone number to 913/342-9600, legal owner to OMNI Oxide Corp. and generator status from a Large Quantity Generator to a Kansas Generator.

We are returning a copy of the notification form you submitted for your records.

The KDHE-BWM provides information to generators of hazardous waste through additional sources. The Hazardous Waste Generator's Handbook and other publications are on our web page. This information may be downloaded from *www.kdhe.state.ks.us/waste* using Adobe Acrobat Reader. Any additional requests for assistance can be directed to this office at the address listed below or by calling (785) 296-0005.

Sincerely,

Linda Prockish

Linda Prockish
Compliance Monitoring & Enforcement Section
Bureau of Waste Management

Enclosure
cc: NEDO/Waste Programs

lease refer to the Instructions for Filing otification before completing this form. he information requested in the form is quired by Section 3010 of the Resouce onservation Recovery Act.

Notification of Regulated Waste Activity
Kansas Department of Health & Environment

KDHE KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT

ENTERED 4/4/01 DB

RECEIVED
MAR 2 8 2001
BUREAU OF WASTE MANAGEMENT

For KDHE Use Only

INSTALLATION's EPA ID NUMBER — Mark "X' in the appropriate box.

☐ A. First ☐ B. Subsequent Notification (Complete Item C)

Kansas Oxide Div of OMNI Oxide

C. INSTALLATION'S EPA ID NUMBER: KST210010146

. NAME OF INSTALLATION: KANSAS OXIDE CORP

I. LOCATION of INSTALLATION (Physical address NOT P.O. Box or Route Number)

TREET: 603 SUNSHINE RD

ITY or TOWN: KANSAS CITY | STATE: KS | ZIP CODE: 66115-

OUNTY NAME: WYANDOTTE | CODE: 209 | KDHE DISTRICT: NEOO | #: 04

. INSTALLATION MAILING ADDRESS (See Instructions)

TREET or P.O. BOX: PO BOX 15196

ITY or TOWN: KANSAS CITY | STATE: KS | ZIP CODE: 66115-

. INSTALLATION CONTACT (PERSON to be contacted about waste activities)

AST NAME: PERKINS | FIRST NAME: RALPH

OB TITLE: PLANT MANAGER | AREA CODE & PHONE NUMBER: 913-342-9600

I. INSTALLATION CONTACT'S MAILING ADDRESS (See Instructions)

.Contact Address
☒ Location
☐ Mailing
☐ Other

B. STREET or P.O. BOX: 603 SUNSHINE RD

ITY or TOWN: KANSAS CITY | STATE: KS | ZIP CODE: 66115-

II. OWNERSHIP (See Instructions)

. NAME of LEGAL OWNER: OMNI OXIDE CORP

TREET, P.O. BOX, or ROUTE NUMBER: 5901 LAKESIDE BLVD

ITY or TOWN: INDIANAPOLIS | STATE: IN | ZIP CODE: 46278-

REA CODE and PHONE NUMBER	B. LAND TYPE	C. OWNER TYPE	D. Change of Owner Yes	No	(Date Changed) Month	Day	Year
317-290-5000	P	P		X			

KDHE Form 8700-12 (4-99) Previous editions are obsolete.

KANSAS
DEPARTMENT OF HEALTH & ENVIRONMENT
BILL GRAVES, GOVERNOR
Clyde D. Graeber, Secretary

April 11, 2001

RECEIVED
APR 13 2001
BUREAU OF WASTE MANAGEMENT

Mr. Chuck Pollom
Omni Oxide LLC
5901 Lakeside Blvd
Indianapolis, IN 46278

Re: March 1, 2001, Compliance Inspection
Kansas Oxide, EPA ID KST 210 010 146
Kansas City

Dear Mr. Perkins:

I received your response dated March 26, 2001, stating the actions you have taken to correct violations found during the March 1, 2001, hazardous waste inspection. Based on your response, violations 1, 2, 4, 5, 6, 7, 8 and 11, have been corrected. The following additional information is required in order to correct violations 3, 9, and 10.

Violation 3 — Provide a copy of the weekly inspection logs for all weekly inspections conducted since the March 1, 2001, inspection. Please also document that the person(s) conducting these inspections have been trained in hazardous waste management.

Violations 9 and 10 — You incorrectly stated in your response that you are correcting Violation 9 and 10 by becoming a Small Quantity Generator (SQG). Under Kansas Administrative Regulations, a SQG generates less than 25 kilograms (kg) per month. You have submitted an Updated Notification that you now generate between 25 and 1000 kg/month, making you a Kansas Generator. A Kansas Generator is not subject to the same preparedness and prevention requirements as an EPA generator (generators of greater than 1000 kg/month), but must still meet certain requirements. I am enclosing a copy of KDHE's Hazardous Waste Generator's Handbook, along with our hazardous waste regulations and an example of a Kansas Generator Emergency Response Information Sheet. This information was also provided to Mr. Perkins during the inspection. Please review this information and provide me with a description of how you

OMNI OXIDE L.L.C.

5901 Lakeside Boulevard
Indianapolis, IN 46278 USA
Phone (317) 290-5000
Fax (317) 290-5011

March 26, 2001

Kansas Department of Health and Environment
Bureau of District Operations
Waste Management Programs
800 West 24th Street
Lawrence, KS 66046-4417

RECEIVED
MAR 2 8 2001
K.D.H.E.
NORTHEAST DISTRICT

Attn: Ms. Rebecca Wenner

Ms. Wenner,

Enclosed are the actions we have taken as directed per your visit on March 1, 2001. I have addressed them per violation. Also included is a controlled copy of Kansas Oxides Hazardous Waste Inspection Log. This log will be done weekly as part of our Preventative Maintenance Program.

As we discussed last week, we are in the process of changing our generator status. I have also enclosed you a copy of the form.

If you have any questions or need additional information, please cal me at (812) 446-2525.

Chuck Pollom

Cc: C. Howell
M. McCaughey
R. Perkins

Kansas Oxide
Violation Responses for 3/01/2001

March 26, 2001

Violation #1, KAR 28-31-4,g,3. Failure to label storage drum with words "Hazardous Waste".

Will review EHS 35, Lead Bearing Material as Recyclable and Regulated Waste Activity, with all employees on proper handling and labeling of "Hazardous Waste" drums. The drum in question has been properly identified, labeled and dated on 3/02/2001.

Violation #2, KAR 28-31-4,g,2. Failure to mark accumulation start date on drum.

This will also be addressed as violation #1. The accumulation date has been marked on the drum 3/01/2001. This is the same drum in the first violation.

Violation #3, KAR 28-31-4,g,1. Failure to conduct weekly inspections of Hazardous Waste storage area.

A weekly inspection will be documented and included as part of Kansas Oxide Preventative Maintenance program. This will be completed once a week by the shift foreman. This is a controlled document.

Violation #4, KAR 28-31-4,j. Failure to close satellite accumulation container.

The lid on the oily rag container was broken. A new oily rag container with a self-closing foot activated lid was purchased and placed into service 3/02/2001. The broken container was taken out of service and disposed of.

Violation #5, KAR 28-31-4,j. Failure to label satellite accumulation container with words "Hazardous Waste"

The new oily rag container has been labeled "Hazardous Waste".

Violation #6, KAR 28-31-4,j. Failure to mark accumulation start date on full satellite container.

All 3 satellite containers will be emptied before they are full.

Violation #7, KAR 28-31-4,j. Failure to move full satellite accumulation container to storage within 3 days.

The container in questioned was emptied into a 55 gal "Hazardous Waste" drum on 3/02/2001.

Violation #8, KAR 28-31-4,d. Failure to use proper shipping name and to put unit (pounds) on manifest.

A revised manifest was sent to Doe Run on 03/12/2001. The units (pounds) were included. The proper shipping name is as follows:

RQ "Hazardous Waste", Solid, N.O.S. 9, NA 3066, pg III, D008, ERG # 171

Kansas Oxide
Violation Responses for 3/01/2001

March 26, 2001

Violation #9, KAR 28-31-4,g.4. Failure to maintain job titles and descriptions for each employee managing hazardous waste.

Kansas Oxide will change their generator status to a Small Quantity Generator. We do not fit the criteria for a LQG. This would eliminate this requirement.

Violation #10, KAR 28-3-g.4, Failure to maintain a contingency plan.

When Kansas Oxide changes their generator status, this would eliminate this requirement, but there are site emergency plans through out the location. This plan includes evacuation routes, fire extinguistur locations and emergency response numbers.

Violation #11, KAR 28-31-4,d/40 CFR 262.20. Failure to use a unique manifest document number.

The following code for manifest numbers will be used. The **KS** will be site specific for the location; the **001** will be sequential numbering per manifest.

Example: KS001

The manifest in question is KS003.

Kansas Oxide
Hazardous Waste Inspection Log

Date: _____ Time: _____ Inspected by: _____

Accumulation Area	Acceptable	Unacceptable	Comments
Container Placement			
Container Sealing			
Container Labeling			
Container Condition			

Storage Area	Acceptable	Unacceptable	Comments
Container Placement			
Container Sealing			
Container Labeling			
Container Condition			

Total Storage Inventory	Number of drums	Total Weight
Container Inventory		

lease refer to the Instructions for Filing otification before completing this form. he information requested in the form is quired by Section 3010 of the Resouce onservation Recovery Act.

Notification of
Regulated Waste Activi
Kansas Department of Health & Environment

Official Use Only

INSTALLATION's EPA ID NUMBER Mark "X" in the appropriate box.

☐ A. First ☐ B. Subsequent Notification (Complete Item C)

C. INSTALLATION'S EPA ID NUMBER: KST210010146

. NAME OF INSTALLATION: KANSAS OXIDE CORP

I. LOCATION of INSTALLATION (Physical address NOT P.O. Box or Route Number)

TREET: 603 SUNSHINE RD

ITY or TOWN: KANSAS CITY | STATE: KS | ZIP CODE: 66115-

OUNTY NAME: WYANDOTTE | CODE: 209 | KDHE DISTRICT: NE00 | #: 04

. INSTALLATION MAILING ADDRESS (See Instructions)

TREET or P.O. BOX: P O BOX 15196

ITY or TOWN: KANSAS CITY | STATE: KS | ZIP CODE: 66115-

. INSTALLATION CONTACT (PERSON to be contacted about waste activities)

AST NAME: PERKINS | FIRST NAME: RALPH

OB TITLE: PLANT MANAGER | AREA CODE & PHONE NUMBER: 913-342-9600

I. INSTALLATION CONTACT'S MAILING ADDRESS (See Instructions)

.Contact Address
☒ Location
☐ Mailing
☐ Other

B. STREET or P.O. BOX: 603 SUNSHINE RD

ITY or TOWN: KANSAS CITY | STATE: KS | ZIP CODE: 66115-

II. OWNERSHIP (See Instructions)

. NAME of LEGAL OWNER: OMNI OXIDE CORP

TREET, P.O. BOX, or ROUTE NUMBER: 5901 LAKESIDE BLVD

ITY or TOWN: INDIANAPOLIS | STATE: IN | ZIP CODE: 46278-

REA CODE and PHONE NUMBER: 317-290-5000

B. LAND TYPE: P

C. OWNER TYPE: P

D. Change of Owner: Yes ☐ No ☒ (Date Changed) Month Day Year

KDHE Form 8700-12 (4-99) Previous editions are obsolete.

II. TYPE OF REGULATED WASTE ACTIVITY Mark 'X' in the appropriate boxes. (See Instructions.)

A. Hazardous Waste Activity

Generator (see instructions)

- ☐ 1000 kg/mo (2200 lbs) or more
- ☒ 25 or more but less than 1000 kg/mo (55-2200 lbs)
- ☐ Less than 25 kg/mo (55 lbs)

Transporter (Indicate Mode)

- ☐ For own waste only
- ☐ For commercial purposes

Mode of Transportation

- ☐ Air
- ☐ Rail
- ☐ Highway
- ☐ Water
- ☐ Other-specify

☐ 3. Treater, Storer, Disposer (at installation) Note: A permit is required for this activity. (See instructions)

4. Hazardous Waste-as-Fuel
- ☐ a. Generator Marketing to Burner
- ☐ b. Other Marketers
- ☐ c. Boiler and/or Industrial Furnace (Burner)
  - ☐ 1. Smelter Deferral
  - ☐ 2. Small Quantity Exemption

Indicate Type of Combustion Device
- ☐ 1. Utility Boiler
- ☐ 2. Industrial Boiler
- ☐ 3. Industrial Furnace

☐ 5. Underground Injection Control

B. Used Oil Recycling Activities

1. Used Oil Fuel Marketer
   - ☐ a. Marketer Who Directs Shipment of Used Oil to Off-Specification Burner
   - ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications
2. Used Oil Burner - Indicate Type(s) of Combustion Device(s)
   - ☐ a. Utility Boiler
   - ☐ b. Industrial Boiler
   - ☐ c. Industrial Furnace
3. Used Oil Transporter - Indicate Type(s) of Activity(ies)
   - ☐ a. Transporter
   - ☐ b. Transfer Facility
4. Used Oil Processor/Re-Refiner - Indicate Type(s) of Activity(ies)
   - ☐ a. Process
   - ☐ b. Re-refine

. DESCRIPTION OF REGULATED WASTE (Use additional sheets if necessary)

Characteristics of Nonlisted Hazardous Wastes. Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous waste at this installation.

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic (List specific EPA hazardous waste number(s) for the Toxicity Characteristic contaminants)				
☐	☐	☐					

Listed Hazardous Wastes (F, K, P, U Listed Wastes)

1: D008	2:	3:	4:	5:	6:
7:	8:	9:	10:	11:	12:
13:	14:	15:	16:	17:	18:
19:	20:	21:	22:	23:	24:

CERTIFICATION

rtify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to re that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or e persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

ature	Name and Official Title (type or print)	Date Signed
Charles H. Pollom	CHARLES H. POLLOM QUALITY ASSURANCE MGR.	3/26/2001

COMMENTS

MAIL COMPLETED FORM TO: KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT
BUREAU OF WASTE MANAGEMENT
FORBES FIELD, BLDG. 740
TOPEKA, KS 66620-0001

Kansas City

KANSAS
DEPARTMENT OF HEALTH & ENVIRONMENT
BILL GRAVES, GOVERNOR
Clyde D. Graeber, Secretary

May 3, 2001

RECEIVED
MAY 0 7 2001
BUREAU OF WASTE MANAGEMENT

Mr. Chuck Pollom
Omni Oxide LLC
5901 Lakeside Blvd
Indianapolis, IN 46278

Re: March 1, 2001, Compliance Inspection
Kansas Oxide, EPA ID KST 210 010 146

Dear Mr. Perkins:

Thank you for your response dated April 20, 2001, stating the actions you have taken to correct violations found during the March 1, 2001, hazardous waste inspection. Based on this and a previous response, violations 1, 2, 3, 4, 5, 6, 7, 8, 9 and 11, have been corrected. The following additional information is required in order to correct violation 10.

Violation 10 As a Kansas Generator, you must comply with Kansas Administrative Regulations (K.A.R.) 28-31-4(h)(1). You must provide documentation that you are now complying with these requirements, including:

- Designating one employee as an emergency coordinator and ensuring that this employee can reach the facility within 30 minutes. Also ensuring that this person or his/her designee is prepared to respond to any emergency (fires, spills, or releases) that arise and is familiar with the reporting requirements of KAR 28-31-4(h)(2).

- Posting the name and telephone number of the emergency coordinator(s), location of fire extinguishers, fire alarms, or spill control material (if available), and the phone number of local emergency departments (fire department) next to at least one telephone that is immediately accessible in an emergency. I am enclosing an example of a form that, when completed, meets this requirement. You may use this form or create your own.

OMNI OXIDE

RECEIVED

APR 2 4 2001

K.D.H.E.
NORTHEAST DISTRICT

5901 Lakeside Boulevard
Indianapolis, IN 46278 USA
Phone (317) 290-5000
Fax (317) 290-5011

April 20, 2001

Kansas Department of Health and Environment
Bureau of District Operations
Waste Management Programs
800 West 24th Street
Lawrence, KS 66046-4417

Attn: Ms. Rebecca Wenner

Ms. Wenner,

Enclosed is the additional information you requested from your correspondence dated April 11, 2001.

The weekly inspection log is a controlled form that has been included in our Environmental Health and Safety Manual (EHS), procedure EHS-35, **LEAD BEARING MATERIAL AS RECYCLABLE AND REGULATED WASTE ACTIVITY**. I have enclosed copies of the inspections from 3-13-2001 to 4-12-2001. Also enclosed are Safety Meeting records indicating training and review.

As for violations 9 and 10, I incorrectly stated that we changed our generator status to a SQG, when actually we change to a Kansas Generator. We received notice on 4-20-2001, that our generator status has been changed from a Large Quantity to a Kansas Generator.

If you have any questions or need additional information, please contact me at (812) 446-2525.

Chuck Pollom

Cc: C. Howell
M. McCaughey
R. Perkins

KANSAS OXIDE CORP.

CONTAINER STORAGE AREA WEEKLY INSPECTION LOG SHEET

DATE & TIME	CONDITION OF CONTAINERS	MARKINGS	CONTAINERS CLOSED	SEGREGATION OF WASTES	ACTION/COMMENTS	SIGNATURE
3-13-01 8 AM	GOOD	LABEL ONE DRUM	YES	YES		[illegible]
3-20-01 [illegible]	GOOD	OK	YES	YES		[illegible]

Kansas Oxide
Hazardous Waste Inspection Log

Date: 3-27-01 Time: 10 Am Inspected by: [signature]

Accumulation Area	Acceptable	Unacceptable	Comments
Container Placement	✓		
Container Sealing	✓		
Container Labeling	✓		
Container Condition	✓		

Storage Area	Acceptable	Unacceptable	Comments
Container Placement	✓		
Container Sealing	✓		
Container Labeling	✓		
Container Condition	✓		

Total Storage Inventory	Number of drums	Total Weight
Container Inventory	3	719

Kansas Oxide
Hazardous Waste Inspection Log

Date: 4-18-01 Time: 10:30A Inspected by: [illegible]

Accumulation Area	Acceptable	Unacceptable	Comments
Container Placement	✓		
Container Sealing	✓		
Container Labeling	✓		
Container Condition	✓		

Storage Area	Acceptable	Unacceptable	Comments
Container Placement	✓		
Container Sealing	✓		
Container Labeling	✓		
Container Condition	✓		

Total Storage Inventory	Number of drums	Total Weight
Container Inventory	5	903

Kansas Oxide
Hazardous Waste Inspection Log

Date: 4-12-01 Time: 2:10 pm Inspected by: [illegible]

Accumulation Area	Acceptable	Unacceptable	Comments
Container Placement	✓		
Container Sealing	✓		
Container Labeling	✓		
Container Condition	✓		

Storage Area	Acceptable	Unacceptable	Comments
Container Placement	✓		
Container Sealing	✓		
Container Labeling	✓		
Container Condition	✓		

Total Storage Inventory	Number of drums	Total Weight
Container Inventory	5	903

KANSAS OXIDE

603 Sunshine Road
Kansas City, KS 66115
Phone: (913) 342-9600
Fax: (913) 342-2319

SAFETY MEETING
~~MAINTENANCE TRAINING~~

DATE OF MEETING: 4-5-01 TIME: 8 AM

PLACE OF MEETING: LUNCH ROOM

DATE OF LAST MEETING: 3-29-01

PERSONS IN ATTENDANCE:
(Each person attending must sign below at end of meeting.)

[illegible]	WILLIE CLEVANS
Richard [illegible]	Jeff [illegible]
Billy [illegible]	
Mary Alonzo Price	
Nicolas Mata	
Ernest Bates	
Darrell [illegible]	
Gary Upton	
[illegible]	
John Rocha	

AGENDA:

1) SF 37 - HAS-COM IN THE WORK PLACE ( )

2) SF 22 - HAZARDOUS MATERIAL LABELING ( )

3) HAZARDOUS MATERIAL COLLECTION. ( )

4) ( )

5) ( )

AGENDA: (CONTINUED)

6) _____ ( )

7) _____ ( )

8) _____ ( )

9) _____ ( )

10) _____ ( )

COMMENTS: (Briefly note major points of meeting, handouts to employees, audio-visual aids, etc.)

EMPLOYEES ABSENT AND REASON FOR ABSENCE:

KANSAS OXIDE

DATE: 4-6-01 BY: [signature]

DISTRIBUTION:
1) PLANT SAFETY FILE
2) CORPORATE OFFICE: JASON K. SIEFERT

KANSAS OXIDE

603 Sunshine Road
Kansas City, KS 66115
Phone: (913) 342-9600
Fax: (913) 342-2319

SAFETY MEETING
~~MAINTENANCE TRAINING~~

DATE OF MEETING: 3-29-01 TIME: 8 AM

PLACE OF MEETING: LUNCH ROOM

DATE OF LAST MEETING: 3-8-01

PERSONS IN ATTENDANCE:
(Each person attending must sign below at end of meeting.)

Al Prince	Joe Robb
Richard Cook	Shawn Adkins
Willie Evans	
[illegible]	
Kenneth Baker	
Gilbert Soley	
Jeff [illegible]	
[illegible]	
Darrell E. [illegible]	
Greg Upton	

AGENDA:

1) SF OZ RIGHT TO KNOW ( )

2) HAZARDOUS MATERIAL LOCATION ( )

3) ( )

4) ( )

5) ( )

6

AGENDA: (CONTINUED)

6) _____ ( )

7) _____ ( )

8) _____ ( )

9) _____ ( )

10) _____ ( )

COMMENTS: (Briefly note major points of meeting, handouts to employees, audio-visual aids, etc.)

EMPLOYEES ABSENT AND REASON FOR ABSENCE:

KANSAS OXIDE

DATE: 1-6-01 BY: [signature]

DISTRIBUTION:
1) PLANT SAFETY FILE
2) CORPORATE OFFICE: JASON K. SIEFERT

KANSAS OXIDE

603 Sunshine Road
Kansas City, KS 66115
Phone: (913) 342-9600
Fax: (913) 342-2319

SAFETY
~~production~~ Meeting

DATE OF MEETING: 11-16-00 TIME: 8 30 AM

PLACE OF MEETING: LUNCH Room

DATE OF LAST MEETING: 10-26-00

PERSONS IN ATTENDANCE:
(Each person attending must sign below at end of meeting.)

AGENDA:

1) SF. 33 CYLINDER & GAS SAFETY ( )

2) BLOOD LEADS ( )

3) DISPOSAL of USED FILTERS, GLOVES, MASKETS ( )

4) USE of GLASSES & FACE SHIELDS. ( )

5) ( )

AGENDA: (CONTINUED)

6) _____ ( )

7) _____ ( )

8) _____ ( )

9) _____ ( )

10) _____ ( )

COMMENTS: (Briefly note major points of meeting, handouts to employees, audio-visual aids, etc.)

EMPLOYEES ABSENT AND REASON FOR ABSENCE:

JOHN ROCHA - SCHOOL

KANSAS OXIDE

DATE: 11-20-00 BY: [signature]

DISTRIBUTION:
1) PLANT SAFETY FILE
2) CORPORATE OFFICE JASON K. SIEFERT

KANSAS OXIDE

603 Sunshine Road
Kansas City, KS 66115
Phone: (913) 342-9600
Fax: (913) 342-2319

SAFETY
Production Meeting

DATE OF MEETING: 4-13-00 TIME: 8:30 AM

PLACE OF MEETING: LUNCH ROOM

DATE OF LAST MEETING: 3-30-00

PERSONS IN ATTENDANCE:
(Each person attending must sign below at end of meeting.)

Kevin Hyde ✓	[illegible]
[illegible] ✓	JC Campbell
[illegible] ✓	[illegible]
Richard Cokill ✓	Eric E. Bolder
Kevin Vaughn ✓	
Willie L Edors ✓	
[illegible] ✓	
Jack A Smith ✓	
[illegible] ✓	
Robert L Rogers ✓	

AGENDA:

1) S.F. 32 - Hazcom in the Workplace ( )

2) SF 22 Hazardous Material Labeling ( )

3) Nails on top of Hogs ( )

4) Fork Lifts ( )

5) Mopping off trailers ( )

6

AGENDA: (CONTINUED)

6) MIKE ( )

7) ( )

8) ( )

9) ( )

10) ( )

COMMENTS: (Briefly note major points of meeting, handouts to employees, audio-visual aids, etc.)

EMPLOYEES ABSENT AND REASON FOR ABSENCE:

NONE

KANSAS OXIDE

DATE: 4-13-00 BY: [signature]

DISTRIBUTION:
1) PLANT SAFETY FILE
2) CORPORATE OFFICE: JASON K. SIEFERT

KANSAS
DEPARTMENT OF HEALTH & ENVIRONMENT
BILL GRAVES, GOVERNOR
Clyde D. Graeber, Secretary

May 23, 2001

RECEIVED
MAY 25 2001
BUREAU OF WASTE MANAGEMENT

Mr. Chuck Pollom
Omni Oxide LLC
5901 Lakeside Blvd
Indianapolis, IN 46278

Re: March 1, 2001, Compliance Inspection
Kansas Oxide, EPA ID KST 210 010 146
Kansas City

Dear Mr. Pollom:

Thank you for your response dated May 16, 2001, stating the actions you have taken to correct violations found during the March 1, 2001, hazardous waste inspection. Based on this and previous responses, all violations have been corrected.

Please be aware that a report of this inspection is submitted to the Bureau of Waste Management (BWM) in Topeka for review. Each report is reviewed and an evaluation is made to determine if additional enforcement is warranted. A penalty may be issued by BWM for violations identified during this inspection.

Your cooperation with the hazardous waste management program is appreciated. If you have questions concerning this letter, please call me at the Northeast District Office at (785) 842-4600.

Sincerely,

Rebecca Wenner
Environmental Technician
Waste Management Programs

cc: John Mitchell, BWM/PPO
Ron Smith, BWM/TSS
Julie Coleman ➤NEDO file

C:\MyFiles\Wyandotte\Kansas Oxide ltr4.wpd

DIVISION OF ENVIRONMENT
Bureau of Environmental Field Services

Northeast District Office
800 W. 24 th Street
Lawrence, KS 66046-4417

PHONE (785) 842-4600
FAX (785) 842-3537
e-mail rwenner@kdhe.state.ks.us

Printed on Recycled Paper

OMNI OXIDE

5901 Lakeside Boulevard
Indianapolis, IN 46278 USA
Phone (317) 290-5000
Fax (317) 290-5011

May 16, 2001

Kansas Department of Health and Environment
Bureau of District Operations
Waste Management Programs
800 West 24th Street
Lawrence, KS 66046-4417

RECEIVED
MAY 17 2001
K.D.H.E.
NORTHEAST DISTRICT

Attn: Ms. Rebecca Wenner

Ms. Wenner,

Enclosed is the Hazardous Waste Emergency Response posting you requested from our phone conversation on May 15, 2001. Listed below are the areas this form is posted:

Front Office
Break Room
Lab
Motor Control Center room
Control Room for Barton's 5 and 6
Control Room for Barton's 1 - 4

Kansas Oxide did have, although informal, emergency contact and phone numbers posted by each phone. They also had Emergency Plans posted, per locations in the facility, that includes evacuation routes and the locations of fire extinguishers per area.

If you have any questions or need additional information, please contact me at (812) 446-2525.

Chuck Pollom

Cc: C. Howell
M. McCaughey
R. Perkins

HAZARDOUS WASTE EMERGENCY RESPONSE

EMERGENCY COORDINATOR:

RALPH PERKINS
NAME

816-415-8698/CELL 816651-5862
HOME PHONE

412 LOCUST. LIBERTY MO
HOME ADDRESS

ALTERNATE:

VIRGIL HYDE
NAME

816-420-9419
HOME PHONE

7312 N. LIBERTY, KCMO
HOME ADDRESS

FIRE PHONE NUMBER 911

EQUIPMENT LOCATION:

FIRE EXTINGUISHERS: GARAGE, WAREHOUSE, MAINTENANCE LOWER PRODUCTION AREA, LOWER CONTROL ROOM, LOADING DOCK, OFFICE

SPILL CONTROL: PORTABLE VACUUM CLEANER BY SANITATION BAG HOUSE

FIRE ALARMS: N/A

RESPONSE ACTION:

FIRE = Call the fire department or extinguish the fire using an appropriate fire extinguisher.

SPILL = Contain the flow of hazardous waste to the extent possible. As soon as is practicable, recover the hazardous waste plus contaminated materials and/or soil.

FIRE, EXPLOSION, OR RELEASE WHICH THREATENS HUMAN HEALTH OR SURFACE WATER

Notify the National Response Center with the following information:

Name, address, US-EPA Number, date, time, type incident, quantity and type waste, extent of injury, quantity and disposition of recovered materials.

NATIONAL RESPONSE CENTER - 1-800-424-8802

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT - 913-296-1679

Hazardous Waste Site Info Verification Report *July 1, 2003*

The information summarized below has been entered into EPA's RCRA Computer Database for the location and EPA Identification Number listed. Please review carefully. If any of the enclosed information is incorrect or has changed, cross through the incorrect information and clearly print or type the correct information beside it. If information is not shown, refer to the attached instructions or telephone (785) 296-6898. Please sign, title, and date the certification area at the bottom of this report, regardless of whether the information was correct or incorrect, and submit to:

Kansas Dept of Health & Environment
1000 SW Jackson, Suite 320
Topeka, KS 66612-1366

RECEIVED
AUG 0 1 2003
BUREAU OF WASTE MANAGEMENT

9-30-03
AJW

EPA RCRA ID Number: KST210010146

Name of Company/Site: KANSAS OXIDE CORP

Location of Site: 603 SUNSHINE RD
KANSAS CITY, KS 66115
WYANDOTTE County
04 State District

Land Type: Private

Mailing Address: PO BOX 15196
KANSAS CITY, KS 66115

Site Contact: ~~RALPH PERKINS~~ Randy Stewart
Phone Number: (913)342-9600
Address: 603 SUNSHINE RD
KANSAS CITY, KS 66115

Current Owner of Site: OMNI OXIDE CORP 01/01/0001
Phone Number: (317)290-5000
Address: 5901 LAKESIDE BLVD
INDIANAPOLIS, IN 46278
Owner Type: Private

TYPE(S) OF REGULATED ACTIVITY: Federal Small Quantity Generator
State KSG (KANSAS GENERATOR)

Hazardous Wastes Handled: D008

1st N 02/12/00 N 03/28/01 2

Certified on Notification 03/28/01 by

CERTIFICATION BY OWNER(S), OPERATOR(S), or AUTHORIZED REPRESENTATIVE(S): I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the infomation submitted. based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Name and Offical Title(Print)	Date Signed
	Josh Elliott Environmental Health & Safety	7-25-03

All information you submit in a notification can be released to the public, according to the Freedom of Information Act, unless it is determined to be confidential by U.S. EPA pursuant to 40 CFR Part 2. Since notification information is very general, the U.S. EPA believes it is unlikely that any information in your notification could qualify to be protected from release. However, you may make a claim of confidentiality by printing the word "CONFIDENTIAL" on both sides of the Notification Form and on any attachments or submittals including this information report. EPA will take action on the confidentiality claims in accordance with 40 CFR Part 2.

0015684

KST210010146
Kansas Oxide Corp
603 Sunshine Rd
Kansas City, KS 66115

KANSAS DEPARTMENT of HEALTH and ENVIRONMENT

RECEIVED
AUG 0 1 2003
BUREAU OF WASTE MANAGEMENT

KANSAS GENERATOR 2003 HAZARDOUS WASTE REPORT

MF FORM

WHO MUST COMPLETE THIS FORM? Every "Kansas Generator" must complete this form.

INSTRUCTIONS: Kansas Administrative Regulation 28-31-10(g)(3) requires that all generators classified as Kansas Generators must pay an annual monitoring fee of $100 for waste generated during each calendar year. Please submit the enclosed **Site Info Verification Report** (with or without corrections), this **Monitoring Fee Form** with Section 1, Kansas Generator Classification marked and **your check** in the amount of $100 made payable to **"KDHE-BWM". The fee payment must be received before March 1.**

Sec. 1----KANSAS GENERATOR CLASSIFICATION

NOTE: In order to facilitate future regulatory changes, KDHE is gathering additional information about the amount of hazardous waste generated by facilities in the Kansas Generator classification only. KDHE identifies these two subclasses within the Kansas Generator classification as **KSG Sub-Class 1** and **KSG Sub-Class 2**. Please mark the subclass that corresponds to the highest monthly amount of hazardous waste that you generate. **This does NOT change your Kansas Generator classification. Both subclasses must still follow all regulations that apply to the Kansas Generator classification.**

☑ KSG Sub-Class 1: Greater than 100 kg/mo. and less than 1,000 kg/mo. (220 to 2,200 lbs in any single month) of non-acute hazardous waste;

☐ KSG Sub-Class 2: Greater than 25 kg/mo. and less than or equal to100 kg/mo. (220 lbs in any single month) of non-acute hazardous waste.

Sec. 2----FEE PAYMENT:

	AMOUNT
Kansas Hazardous Waste Monitoring Fee	$100

Sec. 3----Additional Information

Please enter your NAICS Codes and your Operator Type information in this section.

Enter NAICS CODES: **Primary:** 339900 **Other:** _____, _____, _____

Operator of the Site: Kansas Oxide Division of OMNI Oxide
This is the name of your facility's operator. If the name of the operator is the same as the owner, please enter "SAME."

Operator Type: P If Other, explain: _____
This is the operator type that **best** describes your facility. Select only **one** type: P--Private, C--County, D--District, F--Federal, I--Indian, M--Municipal, S--State, or O--Other.

OMNI OXIDE

046392

	KDH	KDHE-BWM				
HWST70103	KST210010146	07/01/03	100.00	0.00	0.00	100.00

RECEIVED
AUG 01 2003
BUREAU OF WASTE MANAGEMENT

(Acct: 1000-00-00) Check Date 07/30/03 Total 100.00

Hazardous Waste Site Info Verification Report

December 24, 2003

The information summarized below has been entered into EPA's RCRA Computer Database for the location and EPA Identification Number listed. Please review carefully. If any of the enclosed information is incorrect or has changed, cross through the incorrect information and clearly print or type the correct information beside it. If information is not shown, refer to the attached instructions or telephone (785) 296-6898. Please sign, title, and date the certification area at the bottom of this report, regardless of whether the information was correct or incorrect, and submit to:

Kansas Dept of Health & Environment
1000 SW Jackson, Suite 320
Topeka, KS 66612-1366

EPA RCRA ID Number:	**KST210010146**
Name of Company/Site:	**KANSAS OXIDE CORP**
Location of Site:	603 SUNSHINE RD KANSAS CITY, KS 66115 WYANDOTTE County 04 State District
Land Type:	Private
NAICS:	33999 - All Other Miscellaneous Manufacturing
Mailing Address:	PO BOX 15196 KANSAS CITY, KS 66115
Site Contact:	RANDY STEWART
Phone Number:	(913)342-9600
Address:	603 SUNSHINE RD KANSAS CITY, KS 66115
Current Owner of Site:	OMNI OXIDE CORP
Phone Number:	(317)290-5000
Owner Type:	Private
Current Operator of Site:	KANSAS OXIDE DIVISION OF OMNI OXIDE
Operator Type:	Private
TYPE(S) OF REGULATED ACTIVITY:	Federal Small Quantity Generator State KSG (KANSAS GENERATOR)

CERTIFICATION BY OWNER(S), OPERATOR(S), or AUTHORIZED REPRESENTATIVE(S): I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the infomation submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Name and Offical Title(Print)	Date Signed
	CHARLES PALCOM DIRECTOR of ENV+QUALITY	1/28/2004

All information you submit in a notification can be released to the public, according to the Freedom of Information Act, unless it is determined to be confidential by U.S. EPA pursuant to 40 CFR Part 2. Since notification information is very general, the U.S. EPA believes it is unlikely that any information in your notification could qualify to be protected from release. However, you may make a claim of confidentiality by printing the word "CONFIDENTIAL" on both sides of the Notification Form and on any attachments or submittals including this information report. EPA will take action on the confidentiality claims in accordance with 40 CFR Part 2.

Hazardous Waste Site Info Verification Report *December 24, 2003*

The information summarized below has been entered into EPA's RCRA Computer Database for the location and EPA Identification Number listed. Please review carefully. If any of the enclosed information is incorrect or has changed, cross through the incorrect information and clearly print or type the correct information beside it. If information is not shown, refer to the attached instructions or telephone (785) 296-6898. Please sign, title, and date the certification area at the bottom of this report, regardless of whether the information was correct or incorrect, and submit to:

Kansas Dept of Health & Environment
1000 SW Jackson, Suite 320
Topeka, KS 66612-1366

RECEIVED
FEB 2 5 2004
BWM

Hazardous Wastes Handled: D008

1st N 02/12/00 N 08/01/03 2

Certified by Notification on 08/01/03 by
JOSH ELLIOTT, ENV HEALTH & SAFETY 07/25/03

CERTIFICATION BY OWNER(S), OPERATOR(S), or AUTHORIZED REPRESENTATIVE(S): I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the infomation submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Name and Offical Title(Print)	Date Signed
Charles H Palm	Charles Pollom Director Env + Quality	1/28/04

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

Kansas Generator 2004
Hazardous Waste Report

MF FORM

Site Location Address:

KST210010146
KANSAS OXIDE CORP
603 SUNSHINE RD
KANSAS CITY, KS 66115

Site Mailing Address:

KST210010146
KANSAS OXIDE CORP
RANDY STEWART
PO BOX 15196
KANSAS CITY, KS 66115

RECEIVED
FEB 2 5 2004
BWM

WHO MUST COMPLETE THIS FORM? Every "Kansas Generator" must complete this form.

INSTRUCTIONS: Kansas Administrative Regulation 28-31-10(g)(3) requires that all generators classified as Kansas Generators must pay an annual monitoring fee of $100 for waste generated during each calendar year. Please submit the enclosed **Site Info Verification Report** (with or without corrections), this **Monitoring Fee Form** with Section 1, Kansas Generator Classification, marked and **your check** in the amount of $100 made payable to **"KDHE-BWM". The fee payment must be received before March 1.**

Sec. 1----KANSAS GENERATOR CLASSIFICATION

NOTE: In order to facilitate future regulatory changes, KDHE is gathering additional information about the amount of hazardous waste generated by facilities in the Kansas Generator classification only. KDHE identifies these two subclasses within the Kansas Generator classification as **KSG Sub-Class 1** and **KSG Sub-Class 2**. Please mark the subclass that corresponds to the highest monthly amount of hazardous waste that you generate. **This does NOT change your Kansas Generator classification. Both subclasses must still follow all regulations that apply to the Kansas Generator classification.**

- [x] KSG Sub-Class 1: Greater than 100 kg/mo. and less than 1,000 kg/mo. (220 to 2,200 lbs in any single month) of non-acute hazardous waste;
- [ ] KSG Sub-Class 2: Greater than 25 kg/mo. and less than or equal to100 kg/mo. (55 to 220 lbs in any single month) of non-acute hazardous waste.

Sec. 2----FEE PAYMENT:

	AMOUNT
Kansas Hazardous Waste Monitoring Fee	$100

048641

KDH	KDHE-BWM				48641
4	02/03/04	100.00	0.00	0.00	100.00

(000-00-00) Check Date 02/18/04 Total 100.00

Appendix 7: Field Notes

Kansas Oxide 03/10/09
City right-of-way OK'd

On site 0830 – meet w/ Fairfax Drainage District
looked at storm sewer drainage maps, recon
sample locations

FT-1 SW corner of Fairfax + Maley 1045
39.13915 -094.61171 ±22

F6-1 E side of Fiberglass Road N of Foster S of Railroad
50' N of NW corner of Republic Property 1100
39.14476 -094.61671 ±6
F6-2 NW corner of Gardner 1105
39.14571 -094.61676 ±14

F6-3 between Foster + Post office, W side
Fiberglass Road 1116
39.14761 -094.61689 ±10

D6-1 Field on E side of Dodge, S of Fuel
Station N of Innovative Aggregates 1125
39.14455 -094.61865 ±30

D6-2 50' S of Sunshine, E side of Dodge
1120
39.14638 -094.61847 ±12

BH-3 E side of Brinkerhoff N of Sunshine
1125 39.14723 -094.62045 ±13
BH-4 E side Brinkerhoff 200' N BH-3
1130 39.14789 -094.62031 ±3

Decon 1143
1500mL rinsate 1215

BH-2 NSW corner of Sunshine + Brinkerhoff
W side of Brinkerhoff 1210
39.14622 -094.62050 ±4

BH-1 SE corner PS Oxide site
1215 39.14591 -094.62051 ±13

BH-5 Fagan E side of Brinkerhoff 3125 Brinkerh
1225 39.14429 -094.62049

DO-1 at Phoenix Metals on Donovan
39.13551 -094.60886 ± 22
1320

DO-3 SW intersection of Marley + Donovan 1330
39.13871 -094.60507 ± 6

DO-2 on Donovan 200' N of Curve, W side
1335 39.13663 -094.60593 ± 6

FT-3 SW corner intersection Funston + Fairfax Trafficway
1350 150' S of intersection, W side Fairfax Trafficway
39.14246 -094.61104 ± 4

FT-2 W side Fairfax Trafficway, N bnd of Oxide stack
1400
39.14092 -094.61102 ± 14

CH-2 NE corner Chrysler + Funston
1625 39.14322 -094.61246 ±29
Leave site 1743

Onsite 03/11/09 Chrysler + Funston
CH-2 0745 Old Lab
39.14227 -094.61274 ±19

CH-3 E side Chrysler west of CH-2
39.14381 -094.61273 ±20
0800

Start at E side 39.14004 -094.6109
NE corner Kansas Oxide 39.14635 -094.62

Leave Chrysler for Lab 0930 and
Kansas site

Central Solutions / Kansas Oxide Sampling 03/31/09

On-site 1115

CS-1 39.14640 -094.62122

~~CS-2 1400~~ 1445

CS-2 39.14629 -094.62123

1450 Between barrelers

CS-3 39.14579 -094.62125

1458 under blowdown port

CS-4 39.14583 -094.62121

1500 Corner

CS-5 39.14577 -094.62120

1505 1st Drainpoint

CS-6 39.14569 -094.62120

1510 2nd Drainpoint

CS-7 39.14555 -094.62118

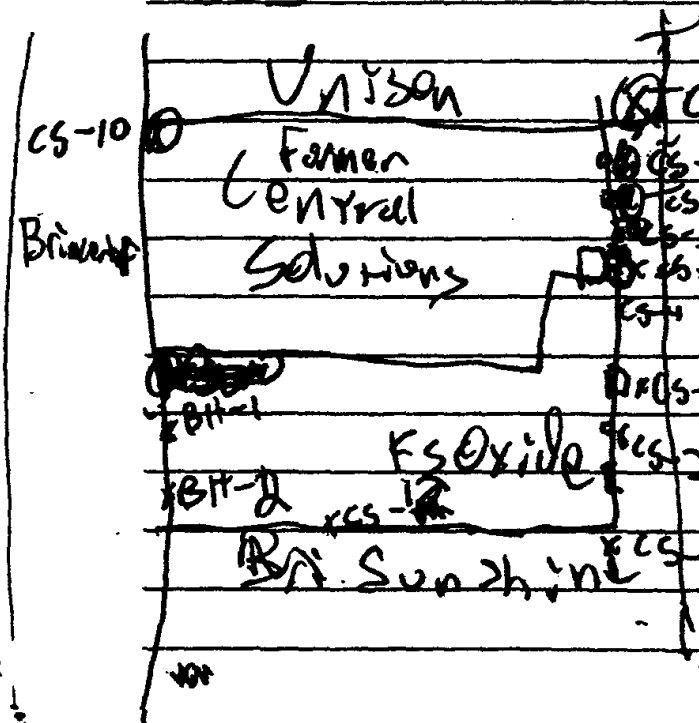
1515 S of door

CS8 39.14541 -094.62114

1520 Last drainpoint

CS-9 39.14536 -094.62120

1525 S Edge of property



CS-10 S Ecclesier Central Solutions 1545

~~39.14539 -094.62122~~

39.14558 -094.6205

CS-11 39.14669 -094.621

CS-12 39.14650 -094.6209

Off Site 1730

XRF Screening KS Oxide
04/09/09

Sample	Pb (mg/kg)	Run time	
Med STD	1140 ± 130	10	
Med STD	1160 ± 94	20	
CS-6	405 ± 86	6	
	514 ± 95	11	
	1,100 ± 150	11	x
CS-10	125 ± 52	11	✓
	290	11	
	110 ± 51		
CS-3	2,950 ± 250		x ✓
	3,930 ± 310		
	2,730 ± 240		
CS-1	388 ± 65		✓
	490 ± 110		
	455 ± 100		
CS-5	99.3 ± 52		✓
	263		
	284		
CS-4	134 ± 57		✓
	552 ± 100		
	784 ± 120		x
CS-9	309 ± 54		✓
	201 ± 68		
	178 ± 87		
CS-7	1,280 ± 150		x ✓
	777 ± 160		
	1,110 ± 140		
CS-8	270		✓
	398 ± 96		
	152 ± 63		

Sample	Pb (mg/kg)	Run time (hrs)	
CS-2	1,270 ± 180	6	
	Sd1 ± 100		Not ~~of~~ NOT

ESOnSite

04/08/09 OnSite 1200

CS-11 NE intersection of RR and Sunshine
1305 39.4669 -094.62144

CS-12 Near light pole and West garage door driveway/loading dock
39.4650 -094.62093
1315

Measured GPS locations off site 1430

5-11-09 11:00 Niton XRF

Sample ID	Lead	Other
NIST 2711 Standard	1080 ± 73	
	127 ± 27	
CS-11	110 ± 26	
	149 ± 29	
	426 ± 46	
CS-12	494 ± 49	
	397 ± 45	
Standard	1120 ± 83	

Appendix 8: Photographic Documentation

Kansas Oxide Site

Photo 1
View: East
Date: 03/31/2009
Photo by: Randy Brown
Comments: Exhaust fans from Kansas Oxide facility over Central Solutions, Inc., Building.

Photo 2
View: Southwast
Date: 03/31/2009
Photo by: Randy Brown
Comments: Photo shows frontage of Kansas Oxide facility along Sunshine Road.

Kansas Oxide Site

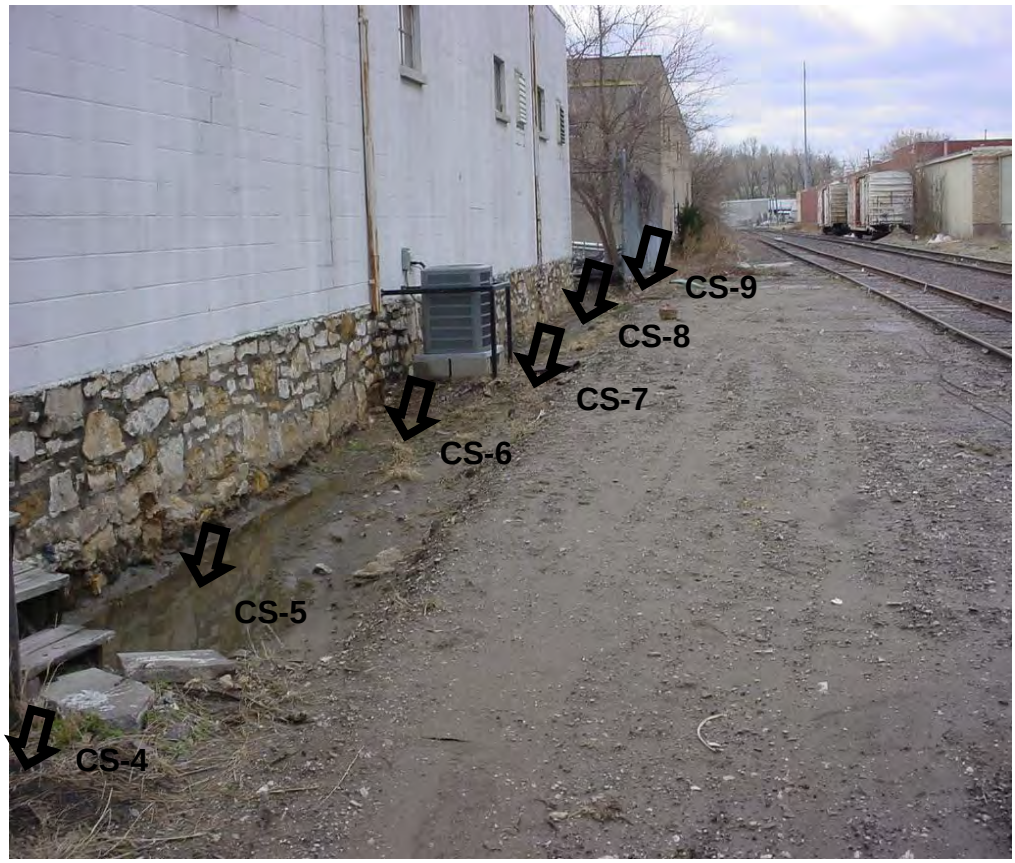


Photo 3
View: South
Date: 03/31/2009
Photo by: Randy Brown
Comments: Soil sample locations and area of previous soil removal at Central Solutions, Inc., Property.

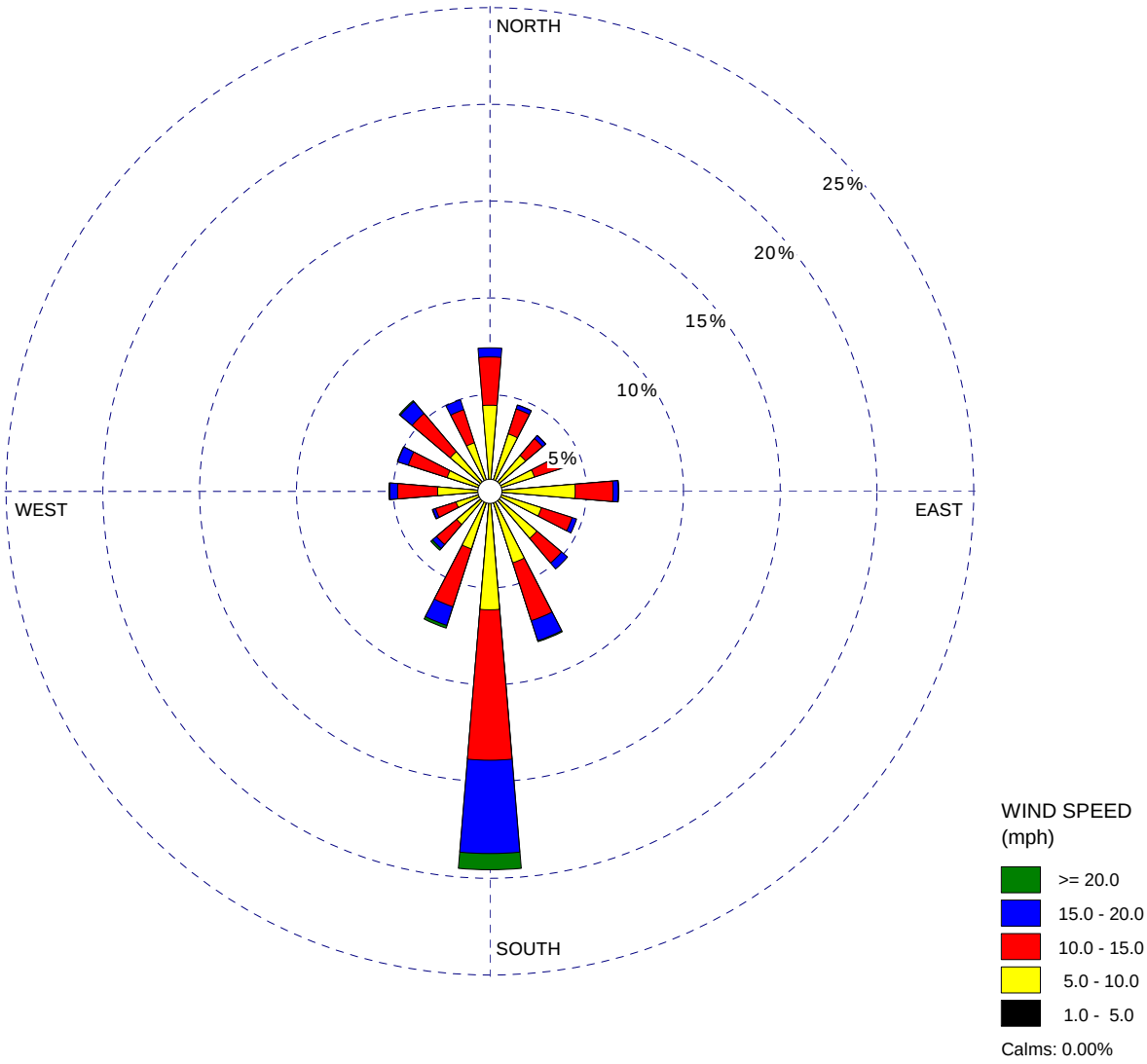
Photo 4
View: South
Date: 03/31/2009
Photo by: Randy Brown
Comments: Soil sample location CS-3 that indicated the highest total lead and TCLP lead results. This location is at the downspout of the Central Solutions, Inc., roof drain and is slightly downhill of the adjacent Kansas Oxide building exhaust fan (seen in foreground).

Appendix 9: Wind Rose from Kansas City International Airport

WIND ROSE PLOT:

Kansas City, MO Airport

Wind Speed
Direction (blowing from)



COMMENTS:

Based on hourly average wind speed and direction from the airport at Kansas City (measured at 10 meters)

DATA PERIOD:

1991-2006
Jan 1 - Dec 31
00:00 - 23:00

CALM WINDS (less than 1 mph):

0.00%

TOTAL COUNT:

5793 hrs.

AVG. WIND SPEED:

10.33 mph

DATE:

3/13/2007

UNIVERSITY OF MISSOURI
Extension
Commercial Agriculture Program

WRPLOT View - Lakes Environmental Software