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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	SEBJ-3-15 15 10/18/2013 Investigation Eastern SEBJ Subsurface	SEBJ-3-2 2 10/14/2013 Investigation Eastern SEBJ Surface	SEBJ-3-5 5 10/14/2013 Investigation Eastern SEBJ Subsurface	SEBJ-3-INT 16 10/18/2013 Investigation Eastern SEBJ Subsurface	SEBJ-4-10 10 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-4-15 15 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-4-20 20 12/19/2013 Investigation Eastern SEBJ Subsurface
Herbicides/Pesticides (mg/kg)								
2,4,5-T	93765	NA	NA	NA	NA	NA	NA	NA
2,4-D	94757	NA	NA	NA	NA	NA	NA	NA
2,4-Db	94826	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	72548	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	72559	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	50293	NA	NA	NA	NA	NA	NA	NA
Aldrin	309002	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	319846	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	319857	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	319868	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	5103719	NA	NA	NA	NA	NA	NA	NA
Dalapon	75990	NA	NA	NA	NA	NA	NA	NA
Dicamba	1918009	NA	NA	NA	NA	NA	NA	NA
Dichoroprop	120365	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60571	NA	NA	NA	NA	NA	NA	NA
Dinoseb	88857	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959988	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213659	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	1031078	NA	NA	NA	NA	NA	NA	NA
Endrin	72208	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	7421934	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	53494705	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC	58899	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	5103742	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76448	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	1024573	NA	NA	NA	NA	NA	NA	NA
Mcpa	94746	NA	NA	NA	NA	NA	NA	NA
Mcpp	93652	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72435	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Silvex (2,4,5-TP)	93721	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001352	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)								
Aluminum	7429905	NA	NA	NA	NA	NA	NA	NA
Antimony	7440360	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440417	NA	NA	NA	NA	NA	NA	NA
Boron	7440428	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	7440473	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440484	NA	NA	NA	NA	NA	NA	NA

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	SEBJ-3-15 15 10/18/2013 Investigation Eastern SEBJ Subsurface	SEBJ-3-2 2 10/14/2013 Investigation Eastern SEBJ Surface	SEBJ-3-5 5 10/14/2013 Investigation Eastern SEBJ Subsurface	SEBJ-3-INT 16 10/18/2013 Investigation Eastern SEBJ Subsurface	SEBJ-4-10 10 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-4-15 15 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-4-20 20 12/19/2013 Investigation Eastern SEBJ Subsurface
Total metals (mg/kg) (continued)								
Copper	7440508	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Lithium	7439932	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Molybdenum	7439987	NA	NA	NA	NA	NA	NA	NA
Nickel	7440020	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA
Strontium (Total)	7440246	NA	NA	NA	NA	NA	NA	NA
Thallium	7440280	NA	NA	NA	NA	NA	NA	NA
Tin	7440315	NA	NA	NA	NA	NA	NA	NA
Titanium	7440326	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440622	NA	NA	NA	NA	NA	NA	NA
Zinc	7440666	NA	NA	NA	NA	NA	NA	NA
Other Parameters								
PH	PH	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	1012	NA	NA	NA	NA	NA	NA	NA

Notes:
NA - Not Analyzed.
J - Estimated value.
R- Rejected value.

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	SEBJ-5-10 10 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-5-15 15 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-5-20 20 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-6-10 10 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-6-15 15 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-6-20 20 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-7-10 10 12/18/2013 Investigation Eastern SEBJ Subsurface
Volatile Organics (mg/kg)								
1,1,1,2-Tetrachloroethane	630206	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,1,1-Trichloroethane	71556	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,1,2,2-Tetrachloroethane	79345	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,1,2-Trichloroethane	79005	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,1-Dichloroethane	75343	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,1-Dichloroethene	75354	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,1-Dichloropropene	563586	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,2,3-Trichlorobenzene	87616	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,2,3-Trichloropropane	96184	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,2,4-Trichlorobenzene	120821	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,2,4-Trimethylbenzene	95636	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,2-Dibromoethane	106934	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,2-Dichlorobenzene	95501	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,2-Dichloroethane	107062	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,2-Dichloroethene, Total	540590	NA	0.0202	NA	NA	0.0129	NA	NA
1,2-Dichloropropane	78875	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,3,5-Trimethylbenzene	108678	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,3-Dichlorobenzene	541731	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,3-Dichloropropane	142289	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,4-Dichlorobenzene	106467	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
1,4-Dioxane	123911	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	594207	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
2-Butanone	78933	NA	< 0.0109	NA	NA	< 0.0086	NA	NA
2-Chloroethyl Vinyl Ether	110758	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	95498	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
2-Hexanone (methyl butyl ketone)	591786	NA	< 0.0217	NA	NA	< 0.0173	NA	NA
3-Chloro-1,2-Dibromopropane	96128	NA	< 0.0109	NA	NA	< 0.0086	NA	NA
4-Chlorotoluene	106434	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
4-Isopropyltoluene	99876	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
4-Methyl-2-Pentanone	108101	NA	< 0.0109	NA	NA	< 0.0086	NA	NA
Acetone	67641	NA	< 0.0144	NA	NA	< 0.0158	NA	NA
Acrolein	107028	NA		NA	NA	NA	NA	NA
Acrylonitrile	107131	NA		NA	NA	NA	NA	NA
Benzene	71432	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Bromobenzene	108861	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Bromochloromethane	74975	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Bromodichloromethane	75274	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Bromoform	75252	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Bromomethane	74839	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Carbon Disulfide	75150	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Carbon Tetrachloride	56235	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Chlorobenzene	108907	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Dibromochloromethane	124481	NA	< 0.0054	NA	NA	< 0.0043	NA	NA

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification / Sample Depth / Date Collected / Sample Type / RA Area / Area/SWMU / Surface/subsurface / CAS No.	SEBJ-5-10	SEBJ-5-15	SEBJ-5-20	SEBJ-6-10	SEBJ-6-15	SEBJ-6-20	SEBJ-7-10
	Sample Depth	10	15	20	10	15	20	10
	Date Collected	12/19/2013	12/19/2013	12/19/2013	12/19/2013	12/19/2013	12/19/2013	12/18/2013
	Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
	RA Area	Eastern	Eastern	Eastern	Eastern	Eastern	Eastern	Eastern
	Area/SWMU	SEBJ	SEBJ	SEBJ	SEBJ	SEBJ	SEBJ	SEBJ
	Surface/subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Volatile Organics (mg/kg) (continued)								
Chloroethane	75003	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Chloroform	67663	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Chloromethane	74873	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Cis-1,2-Dichloroethene	156592	NA	0.0202	NA	NA	0.0129	NA	NA
Cis-1,3-Dichloropropene	10061015	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Dibromomethane	74953	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Dichlorodifluoromethane	75718	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Ethylbenzene	100414	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Hexachlorobutadiene	87683	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Isopropylbenzene	98828	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
M,P-Xylenes	179601231	NA	NA	NA	NA	NA	NA	NA
Methyl Tert-Butyl Ether	1634044	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Methylene Chloride	75092	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Naphthalene	91203	NA	< 0.0109	NA	NA	< 0.0086	NA	NA
N-Butylbenzene	104518	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
N-Propylbenzene	103651	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
O-Xylene	95476	NA	NA	NA	NA	NA	NA	NA
Sec-Butylbenzene	135988	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Styrene	100425	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Tert-Butylbenzene	98066	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Tetrachloroethene	127184	NA	1.46	NA	NA	0.155	NA	NA
Toluene	108883	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Total Xylenes	1330207	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Trans-1,2-Dichloroethene	156605	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Trans-1,3-Dichloropropene	10061026	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Trichloroethene	79016	NA	0.024	NA	NA	0.0099	NA	NA
Trichlorofluoromethane	75694	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Vinyl Acetate	108054	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75014	NA	< 0.0054	NA	NA	< 0.0043	NA	NA
Dibromochloropropane (DBCP)	67708832	NA	NA	NA	NA	NA	NA	NA
VOCs - Method 3810 Mod								
Benzene	71432	< 0.0084 J	< 0.0084	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J
Cis-1,2-Dichloroethene	156592	0.0434 J	0.0385 J	< 0.0084 J	< 0.0084 J	0.0266 J	0.0161 J	0.0347 J
Ethylbenzene	100414	< 0.0084 J	< 0.0084	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J
Tetrachloroethene	127184	0.133 J	0.531 J	0.0085 J	0.102 J	0.334 J	0.012 J	0.125 J
Toluene	108883	< 0.0084 J	< 0.0084	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J
Trichloroethene	79016	0.0322 J	0.028 J	< 0.0084 J	< 0.0084 J	0.0182 J	< 0.0084 J	0.0186 J
Total Xylenes	1330207	< 0.0084 J	< 0.0084	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	SEBJ-5-10 10 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-5-15 15 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-5-20 20 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-6-10 10 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-6-15 15 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-6-20 20 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-7-10 10 12/18/2013 Investigation Eastern SEBJ Subsurface
Semi-Volatile Organics (mg/kg)								
1,2,4-Trichlorobenzene	120821	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95501	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122667	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541731	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106467	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90120	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95954	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88062	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120832	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105679	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51285	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121142	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606202	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91587	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95578	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91576	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95487	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88744	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88755	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	91941	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99092	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	534521	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	101553	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	59507	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106478	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl Phenyl Ether	7005723	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100016	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100027	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83329	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208968	NA	NA	NA	NA	NA	NA	NA
Aniline	62533	NA	NA	NA	NA	NA	NA	NA
Anthracene	120127	NA	NA	NA	NA	NA	NA	NA
Benzidine	92875	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Anthracene	56553	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Pyrene	50328	NA	NA	NA	NA	NA	NA	NA
Benzo(B)Fluoranthene	205992	NA	NA	NA	NA	NA	NA	NA
Benzo(G,H,I)Perylene	191242	NA	NA	NA	NA	NA	NA	NA
Benzo(K)Fluoranthene	207089	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	65850	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	100516	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)Methane	111911	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)Ether	111444	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)Ether	108601	NA	NA	NA	NA	NA	NA	NA

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification / Sample Depth / Date Collected / Sample Type / RA Area / Area/SWMU / Surface/subsurface / CAS No.	SEBJ-5-10	SEBJ-5-15	SEBJ-5-20	SEBJ-6-10	SEBJ-6-15	SEBJ-6-20	SEBJ-7-10
Sample Depth		10	15	20	10	15	20	10
Date Collected		12/19/2013	12/19/2013	12/19/2013	12/19/2013	12/19/2013	12/19/2013	12/18/2013
Sample Type		Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
RA Area		Eastern	Eastern	Eastern	Eastern	Eastern	Eastern	Eastern
Area/SWMU		SEBJ	SEBJ	SEBJ	SEBJ	SEBJ	SEBJ	SEBJ
Surface/subsurface		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Semi-Volatile Organics (mg/kg) (continued)								
Bis(2-Ethylhexyl) Phthalate	117817	NA	NA	NA	NA	NA	NA	NA
Butyl Benzyl Phthalate	85687	NA	NA	NA	NA	NA	NA	NA
Carbazole	86748	NA	NA	NA	NA	NA	NA	NA
Chrysene	218019	NA	NA	NA	NA	NA	NA	NA
Dibenz(A,H)Anthracene	53703	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132649	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	84662	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	131113	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	84742	NA	NA	NA	NA	NA	NA	NA
Di-N-Octyl Phthalate	117840	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206440	NA	NA	NA	NA	NA	NA	NA
Fluorene	86737	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Cyclopentadiene	77474	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118741	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87683	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67721	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-Cd)Pyrene	193395	NA	NA	NA	NA	NA	NA	NA
Isophorone	78591	NA	NA	NA	NA	NA	NA	NA
M-,P-Cresol Mixture	15831104	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91203	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98953	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62759	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	621647	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86306	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85018	NA	NA	NA	NA	NA	NA	NA
Phenol	108952	NA	NA	NA	NA	NA	NA	NA
Pyrene	129000	NA	NA	NA	NA	NA	NA	NA
Pyridine	110861	NA	NA	NA	NA	NA	NA	NA
PCBs (mg/kg)								
Pcb- 1016	12674112	NA	NA	NA	NA	NA	NA	NA
Pcb- 1221	11104282	NA	NA	NA	NA	NA	NA	NA
Pcb- 1232	11141165	NA	NA	NA	NA	NA	NA	NA
Pcb- 1242	53469219	NA	NA	NA	NA	NA	NA	NA
Pcb- 1248	12672296	NA	NA	NA	NA	NA	NA	NA
Pcb- 1254	11097691	NA	NA	NA	NA	NA	NA	NA
Pcb- 1260	11096825	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (TPH) (mg/kg)								
DRO (C10-C28) Range	DRO	NA	NA	NA	NA	NA	NA	NA

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	SEBJ-5-10 10 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-5-15 15 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-5-20 20 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-6-10 10 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-6-15 15 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-6-20 20 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-7-10 10 12/18/2013 Investigation Eastern SEBJ Subsurface
Herbicides/Pesticides (mg/kg)								
2,4,5-T	93765	NA	NA	NA	NA	NA	NA	NA
2,4-D	94757	NA	NA	NA	NA	NA	NA	NA
2,4-Db	94826	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	72548	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	72559	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	50293	NA	NA	NA	NA	NA	NA	NA
Aldrin	309002	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	319846	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	319857	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	319868	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	5103719	NA	NA	NA	NA	NA	NA	NA
Dalapon	75990	NA	NA	NA	NA	NA	NA	NA
Dicamba	1918009	NA	NA	NA	NA	NA	NA	NA
Dichoroprop	120365	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60571	NA	NA	NA	NA	NA	NA	NA
Dinoseb	88857	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959988	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213659	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	1031078	NA	NA	NA	NA	NA	NA	NA
Endrin	72208	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	7421934	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	53494705	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC	58899	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	5103742	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76448	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	1024573	NA	NA	NA	NA	NA	NA	NA
Mcpa	94746	NA	NA	NA	NA	NA	NA	NA
Mcpp	93652	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72435	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Silvex (2,4,5-TP)	93721	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001352	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)								
Aluminum	7429905	NA	NA	NA	NA	NA	NA	NA
Antimony	7440360	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440417	NA	NA	NA	NA	NA	NA	NA
Boron	7440428	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	7440473	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440484	NA	NA	NA	NA	NA	NA	NA

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Soil Analytical Data
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Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	SEBJ-5-10 10 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-5-15 15 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-5-20 20 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-6-10 10 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-6-15 15 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-6-20 20 12/19/2013 Investigation Eastern SEBJ Subsurface	SEBJ-7-10 10 12/18/2013 Investigation Eastern SEBJ Subsurface
Total metals (mg/kg) (continued)								
Copper	7440508	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Lithium	7439932	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Molybdenum	7439987	NA	NA	NA	NA	NA	NA	NA
Nickel	7440020	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA
Strontium (Total)	7440246	NA	NA	NA	NA	NA	NA	NA
Thallium	7440280	NA	NA	NA	NA	NA	NA	NA
Tin	7440315	NA	NA	NA	NA	NA	NA	NA
Titanium	7440326	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440622	NA	NA	NA	NA	NA	NA	NA
Zinc	7440666	NA	NA	NA	NA	NA	NA	NA
Other Parameters								
PH	PH	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	1012	NA	NA	NA	NA	NA	NA	NA

Notes:
NA - Not Analyzed.
J - Estimated value.
R- Rejected value.

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	SEBJ-7-15 15 12/18/2013 Investigation Eastern SEBJ Subsurface	SEBJ-7-20 20 12/18/2013 Investigation Eastern SEBJ Subsurface	SEBJ-8-10 10 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-8-15 15 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-8-20 20 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-8-5 5 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-9-10 10 1/6/2014 Investigation Eastern SEBJ Subsurface
Volatile Organics (mg/kg)								
1,1,1,2-Tetrachloroethane	630206	NA	NA	< 0.0031	NA	NA	NA	NA
1,1,1-Trichloroethane	71556	NA	NA	< 0.0031	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	79345	NA	NA	< 0.0031	NA	NA	NA	NA
1,1,2-Trichloroethane	79005	NA	NA	< 0.0031	NA	NA	NA	NA
1,1-Dichloroethane	75343	NA	NA	< 0.0031	NA	NA	NA	NA
1,1-Dichloroethene	75354	NA	NA	< 0.0031	NA	NA	NA	NA
1,1-Dichloropropene	563586	NA	NA	< 0.0031	NA	NA	NA	NA
1,2,3-Trichlorobenzene	87616	NA	NA	< 0.0031	NA	NA	NA	NA
1,2,3-Trichloropropane	96184	NA	NA	< 0.0031	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120821	NA	NA	< 0.0031	NA	NA	NA	NA
1,2,4-Trimethylbenzene	95636	NA	NA	< 0.0031	NA	NA	NA	NA
1,2-Dibromoethane	106934	NA	NA	< 0.0031	NA	NA	NA	NA
1,2-Dichlorobenzene	95501	NA	NA	< 0.0031	NA	NA	NA	NA
1,2-Dichloroethane	107062	NA	NA	< 0.0031	NA	NA	NA	NA
1,2-Dichloroethene, Total	540590	NA	NA	0.0186	NA	NA	NA	NA
1,2-Dichloropropane	78875	NA	NA	< 0.0031	NA	NA	NA	NA
1,3,5-Trimethylbenzene	108678	NA	NA	< 0.0031	NA	NA	NA	NA
1,3-Dichlorobenzene	541731	NA	NA	< 0.0031	NA	NA	NA	NA
1,3-Dichloropropane	142289	NA	NA	< 0.0031	NA	NA	NA	NA
1,4-Dichlorobenzene	106467	NA	NA	< 0.0031	NA	NA	NA	NA
1,4-Dioxane	123911	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	594207	NA	NA	< 0.0031	NA	NA	NA	NA
2-Butanone	78933	NA	NA	< 0.0062	NA	NA	NA	NA
2-Chloroethyl Vinyl Ether	110758	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	95498	NA	NA	< 0.0031	NA	NA	NA	NA
2-Hexanone (methyl butyl ketone)	591786	NA	NA	< 0.0125	NA	NA	NA	NA
3-Chloro-1,2-Dibromopropane	96128	NA	NA	< 0.0062	NA	NA	NA	NA
4-Chlorotoluene	106434	NA	NA	< 0.0031	NA	NA	NA	NA
4-Isopropyltoluene	99876	NA	NA	< 0.0031	NA	NA	NA	NA
4-Methyl-2-Pentanone	108101	NA	NA	< 0.0062	NA	NA	NA	NA
Acetone	67641	NA	NA	< 0.0125	NA	NA	NA	NA
Acrolein	107028	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	107131	NA	NA	NA	NA	NA	NA	NA
Benzene	71432	NA	NA	< 0.0031	NA	NA	NA	NA
Bromobenzene	108861	NA	NA	< 0.0031	NA	NA	NA	NA
Bromochloromethane	74975	NA	NA	< 0.0031	NA	NA	NA	NA
Bromodichloromethane	75274	NA	NA	< 0.0031	NA	NA	NA	NA
Bromoform	75252	NA	NA	< 0.0031	NA	NA	NA	NA
Bromomethane	74839	NA	NA	< 0.0031	NA	NA	NA	NA
Carbon Disulfide	75150	NA	NA	< 0.0031	NA	NA	NA	NA
Carbon Tetrachloride	56235	NA	NA	< 0.0031	NA	NA	NA	NA
Chlorobenzene	108907	NA	NA	< 0.0031	NA	NA	NA	NA
Dibromochloromethane	124481	NA	NA	< 0.0031	NA	NA	NA	NA

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Constituent / Sample Identification	CAS No.	SEBJ-7-15	SEBJ-7-20	SEBJ-8-10	SEBJ-8-15	SEBJ-8-20	SEBJ-8-5	SEBJ-9-10
Sample Depth		15	20	10	15	20	5	10
Date Collected		12/18/2013	12/18/2013	1/6/2014	1/6/2014	1/6/2014	1/6/2014	1/6/2014
Sample Type		Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
RA Area		Eastern	Eastern	Eastern	Eastern	Eastern	Eastern	Eastern
Area/SWMU		SEBJ	SEBJ	SEBJ	SEBJ	SEBJ	SEBJ	SEBJ
Surface/subsurface		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Volatile Organics (mg/kg) (continued)								
Chloroethane	75003	NA	NA	< 0.0031	NA	NA	NA	NA
Chloroform	67663	NA	NA	< 0.0031	NA	NA	NA	NA
Chloromethane	74873	NA	NA	< 0.0031	NA	NA	NA	NA
Cis-1,2-Dichloroethene	156592	NA	NA	0.0186	NA	NA	NA	NA
Cis-1,3-Dichloropropene	10061015	NA	NA	< 0.0031	NA	NA	NA	NA
Dibromomethane	74953	NA	NA	< 0.0031	NA	NA	NA	NA
Dichlorodifluoromethane	75718	NA	NA	< 0.0031	NA	NA	NA	NA
Ethylbenzene	100414	NA	NA	< 0.0031	NA	NA	NA	NA
Hexachlorobutadiene	87683	NA	NA	< 0.0031	NA	NA	NA	NA
Isopropylbenzene	98828	NA	NA	< 0.0031	NA	NA	NA	NA
M,P-Xylenes	179601231	NA	NA	NA	NA	NA	NA	NA
Methyl Tert-Butyl Ether	1634044	NA	NA	< 0.0031	NA	NA	NA	NA
Methylene Chloride	75092	NA	NA	< 0.0031	NA	NA	NA	NA
Naphthalene	91203	NA	NA	< 0.0062	NA	NA	NA	NA
N-Butylbenzene	104518	NA	NA	< 0.0031	NA	NA	NA	NA
N-Propylbenzene	103651	NA	NA	< 0.0031	NA	NA	NA	NA
O-Xylene	95476	NA	NA	NA	NA	NA	NA	NA
Sec-Butylbenzene	135988	NA	NA	< 0.0031	NA	NA	NA	NA
Styrene	100425	NA	NA	< 0.0031	NA	NA	NA	NA
Tert-Butylbenzene	98066	NA	NA	< 0.0031	NA	NA	NA	NA
Tetrachloroethene	127184	NA	NA	0.172	NA	NA	NA	NA
Toluene	108883	NA	NA	< 0.0031	NA	NA	NA	NA
Total Xylenes	1330207	NA	NA	< 0.0031	NA	NA	NA	NA
Trans-1,2-Dichloroethene	156605	NA	NA	< 0.0031	NA	NA	NA	NA
Trans-1,3-Dichloropropene	10061026	NA	NA	< 0.0031	NA	NA	NA	NA
Trichloroethene	79016	NA	NA	0.019	NA	NA	NA	NA
Trichlorofluoromethane	75694	NA	NA	< 0.0031	NA	NA	NA	NA
Vinyl Acetate	108054	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	75014	NA	NA	< 0.0031	NA	NA	NA	NA
Dibromochloropropane (DBCP)	67708832	NA	NA	NA	NA	NA	NA	NA
VOCs - Method 3810 Mod								
Benzene	71432	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J
Cis-1,2-Dichloroethene	156592	0.368 J	< 0.0084 J	0.0049 J	0.0958 J	0.0622 J	0.0347 J	0.02 J
Ethylbenzene	100414	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J
Tetrachloroethene	127184	0.557 J	< 0.0084 J	0.1 J	0.98 J	0.246 J	0.647 J	0.0121 J
Toluene	108883	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J
Trichloroethene	79016	0.0189 J	< 0.0084 J	0.0058 J	0.0693 J	0.0155 J	0.063 J	< 0.0084 J
Total Xylenes	1330207	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J	< 0.0084 J

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Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	SEBJ-7-15 15 12/18/2013 Investigation Eastern SEBJ Subsurface	SEBJ-7-20 20 12/18/2013 Investigation Eastern SEBJ Subsurface	SEBJ-8-10 10 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-8-15 15 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-8-20 20 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-8-5 5 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-9-10 10 1/6/2014 Investigation Eastern SEBJ Subsurface
Semi-Volatile Organics (mg/kg)								
1,2,4-Trichlorobenzene	120821	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95501	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122667	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541731	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106467	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90120	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95954	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88062	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120832	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105679	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51285	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121142	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606202	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91587	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95578	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91576	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95487	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88744	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88755	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	91941	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99092	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	534521	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	101553	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	59507	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106478	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl Phenyl Ether	7005723	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100016	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100027	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83329	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208968	NA	NA	NA	NA	NA	NA	NA
Aniline	62533	NA	NA	NA	NA	NA	NA	NA
Anthracene	120127	NA	NA	NA	NA	NA	NA	NA
Benzidine	92875	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Anthracene	56553	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Pyrene	50328	NA	NA	NA	NA	NA	NA	NA
Benzo(B)Fluoranthene	205992	NA	NA	NA	NA	NA	NA	NA
Benzo(G,H,I)Perylene	191242	NA	NA	NA	NA	NA	NA	NA
Benzo(K)Fluoranthene	207089	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	65850	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	100516	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)Methane	111911	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)Ether	111444	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)Ether	108601	NA	NA	NA	NA	NA	NA	NA

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Constituent	Sample Identification / Sample Depth / Date Collected / Sample Type / RA Area / Area/SWMU / Surface/subsurface / CAS No.	SEBJ-7-15 / 15 / 12/18/2013 / Investigation / Eastern / SEBJ / Subsurface	SEBJ-7-20 / 20 / 12/18/2013 / Investigation / Eastern / SEBJ / Subsurface	SEBJ-8-10 / 10 / 1/6/2014 / Investigation / Eastern / SEBJ / Subsurface	SEBJ-8-15 / 15 / 1/6/2014 / Investigation / Eastern / SEBJ / Subsurface	SEBJ-8-20 / 20 / 1/6/2014 / Investigation / Eastern / SEBJ / Subsurface	SEBJ-8-5 / 5 / 1/6/2014 / Investigation / Eastern / SEBJ / Subsurface	SEBJ-9-10 / 10 / 1/6/2014 / Investigation / Eastern / SEBJ / Subsurface
Semi-Volatile Organics (mg/kg) (continued)								
Bis(2-Ethylhexyl) Phthalate	117817	NA	NA	NA	NA	NA	NA	NA
Butyl Benzyl Phthalate	85687	NA	NA	NA	NA	NA	NA	NA
Carbazole	86748	NA	NA	NA	NA	NA	NA	NA
Chrysene	218019	NA	NA	NA	NA	NA	NA	NA
Dibenz(A,H)Anthracene	53703	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132649	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	84662	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	131113	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	84742	NA	NA	NA	NA	NA	NA	NA
Di-N-Octyl Phthalate	117840	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206440	NA	NA	NA	NA	NA	NA	NA
Fluorene	86737	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Cyclopentadiene	77474	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118741	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87683	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67721	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-Cd)Pyrene	193395	NA	NA	NA	NA	NA	NA	NA
Isophorone	78591	NA	NA	NA	NA	NA	NA	NA
M-,P-Cresol Mixture	15831104	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91203	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98953	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62759	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	621647	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86306	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85018	NA	NA	NA	NA	NA	NA	NA
Phenol	108952	NA	NA	NA	NA	NA	NA	NA
Pyrene	129000	NA	NA	NA	NA	NA	NA	NA
Pyridine	110861	NA	NA	NA	NA	NA	NA	NA
PCBs (mg/kg)								
Pcb- 1016	12674112	NA	NA	NA	NA	NA	NA	NA
Pcb- 1221	11104282	NA	NA	NA	NA	NA	NA	NA
Pcb- 1232	11141165	NA	NA	NA	NA	NA	NA	NA
Pcb- 1242	53469219	NA	NA	NA	NA	NA	NA	NA
Pcb- 1248	12672296	NA	NA	NA	NA	NA	NA	NA
Pcb- 1254	11097691	NA	NA	NA	NA	NA	NA	NA
Pcb- 1260	11096825	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (TPH) (mg/kg)								
DRO (C10-C28) Range	DRO	NA	NA	NA	NA	NA	NA	NA

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Herbicides/Pesticides (mg/kg)								
2,4,5-T	93765	NA	NA	NA	NA	NA	NA	NA
2,4-D	94757	NA	NA	NA	NA	NA	NA	NA
2,4-Db	94826	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	72548	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	72559	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	50293	NA	NA	NA	NA	NA	NA	NA
Aldrin	309002	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	319846	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	319857	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	319868	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	5103719	NA	NA	NA	NA	NA	NA	NA
Dalapon	75990	NA	NA	NA	NA	NA	NA	NA
Dicamba	1918009	NA	NA	NA	NA	NA	NA	NA
Dichoroprop	120365	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60571	NA	NA	NA	NA	NA	NA	NA
Dinoseb	88857	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959988	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213659	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	1031078	NA	NA	NA	NA	NA	NA	NA
Endrin	72208	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	7421934	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	53494705	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC	58899	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	5103742	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76448	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	1024573	NA	NA	NA	NA	NA	NA	NA
Mcpa	94746	NA	NA	NA	NA	NA	NA	NA
Mcpp	93652	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72435	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Silvex (2,4,5-TP)	93721	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001352	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)								
Aluminum	7429905	NA	NA	NA	NA	NA	NA	NA
Antimony	7440360	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440417	NA	NA	NA	NA	NA	NA	NA
Boron	7440428	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	7440473	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440484	NA	NA	NA	NA	NA	NA	NA

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	SEBJ-7-15 15 12/18/2013 Investigation Eastern SEBJ Subsurface	SEBJ-7-20 20 12/18/2013 Investigation Eastern SEBJ Subsurface	SEBJ-8-10 10 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-8-15 15 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-8-20 20 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-8-5 5 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-9-10 10 1/6/2014 Investigation Eastern SEBJ Subsurface
Total metals (mg/kg) (continued)								
Copper	7440508	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Lithium	7439932	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Molybdenum	7439987	NA	NA	NA	NA	NA	NA	NA
Nickel	7440020	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA
Strontium (Total)	7440246	NA	NA	NA	NA	NA	NA	NA
Thallium	7440280	NA	NA	NA	NA	NA	NA	NA
Tin	7440315	NA	NA	NA	NA	NA	NA	NA
Titanium	7440326	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440622	NA	NA	NA	NA	NA	NA	NA
Zinc	7440666	NA	NA	NA	NA	NA	NA	NA
Other Parameters								
PH	PH	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	1012	NA	NA	NA	NA	NA	NA	NA

Notes:
NA - Not Analyzed.
J - Estimated value.
R- Rejected value.

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	SEBJ-9-15 15 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-9-20 20 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-9-5 5 1/6/2014 Investigation Eastern SEBJ Subsurface	T2-1-Clay 27.5 10/10/2013 Investigation Central Area T-2 Subsurface	T3-3-Clay 27.5 10/11/2013 Investigation Central Area T-3 Subsurface	T4-3-Clay 25 10/16/2013 Investigation Central Area T-4 Subsurface	T4-3-ClayDup 25 10/16/2013 Duplicate Central Area T-4 Subsurface
Volatile Organics (mg/kg)								
1,1,1,2-Tetrachloroethane	630206	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,1,1-Trichloroethane	71556	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,1,2,2-Tetrachloroethane	79345	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,1,2-Trichloroethane	79005	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,1-Dichloroethane	75343	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,1-Dichloroethene	75354	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,1-Dichloropropene	563586	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,2,3-Trichlorobenzene	87616	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,2,3-Trichloropropane	96184	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,2,4-Trichlorobenzene	120821	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,2,4-Trimethylbenzene	95636	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,2-Dibromoethane	106934	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,2-Dichlorobenzene	95501	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,2-Dichloroethane	107062	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,2-Dichloroethene, Total	540590	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78875	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,3,5-Trimethylbenzene	108678	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,3-Dichlorobenzene	541731	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,3-Dichloropropane	142289	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,4-Dichlorobenzene	106467	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
1,4-Dioxane	123911	NA	NA	NA	< 0.18	< 0.17	< 0.18	< 0.19
2,2-Dichloropropane	594207	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
2-Butanone	78933	NA	NA	NA	< 0.023	< 0.021	< 0.022	< 0.024
2-Chloroethyl Vinyl Ether	110758	NA	NA	NA	< 0.023	< 0.021	< 0.022	< 0.024
2-Chlorotoluene	95498	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
2-Hexanone (methyl butyl ketone)	591786	NA	NA	NA	< 0.023	< 0.021	< 0.022	< 0.024
3-Chloro-1,2-Dibromopropane	96128	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	106434	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
4-Isopropyltoluene	99876	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
4-Methyl-2-Pentanone	108101	NA	NA	NA	< 0.023	< 0.021	< 0.022	< 0.024
Acetone	67641	NA	NA	NA	0.0587	< 0.043	< 0.044	< 0.048
Acrolein	107028	NA	NA	NA	< 0.023	< 0.021	< 0.022	< 0.024
Acrylonitrile	107131	NA	NA	NA	< 0.023	< 0.021	< 0.022	< 0.024
Benzene	71432	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Bromobenzene	108861	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Bromochloromethane	74975	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Bromodichloromethane	75274	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Bromoform	75252	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Bromomethane	74839	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Carbon Disulfide	75150	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Carbon Tetrachloride	56235	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Chlorobenzene	108907	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Dibromochloromethane	124481	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048

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Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	SEBJ-9-15 15 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-9-20 20 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-9-5 5 1/6/2014 Investigation Eastern SEBJ Subsurface	T2-1-Clay 27.5 10/10/2013 Investigation Central Area T-2 Subsurface	T3-3-Clay 27.5 10/11/2013 Investigation Central Area T-3 Subsurface	T4-3-Clay 25 10/16/2013 Investigation Central Area T-4 Subsurface	T4-3-ClayDup 25 10/16/2013 Duplicate Central Area T-4 Subsurface
Volatile Organics (mg/kg) (continued)								
Chloroethane	75003	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Chloroform	67663	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Chloromethane	74873	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Cis-1,2-Dichloroethene	156592	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Cis-1,3-Dichloropropene	10061015	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Dibromomethane	74953	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Dichlorodifluoromethane	75718	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Ethylbenzene	100414	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Hexachlorobutadiene	87683	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Isopropylbenzene	98828	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
M,P-Xylenes	179601231	NA	NA	NA	< 0.0092	< 0.0086	< 0.0089	< 0.0095
Methyl Tert-Butyl Ether	1634044	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Methylene Chloride	75092	NA	NA	NA	< 0.0092	< 0.0086	< 0.0089	< 0.0095
Naphthalene	91203	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
N-Butylbenzene	104518	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
N-Propylbenzene	103651	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
O-Xylene	95476	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Sec-Butylbenzene	135988	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Styrene	100425	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Tert-Butylbenzene	98066	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Tetrachloroethene	127184	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Toluene	108883	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Total Xylenes	1330207	NA	NA	NA	< 0.0092	< 0.0086	< 0.0089	< 0.0095
Trans-1,2-Dichloroethene	156605	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Trans-1,3-Dichloropropene	10061026	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Trichloroethene	79016	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Trichlorofluoromethane	75694	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Vinyl Acetate	108054	NA	NA	NA	< 0.023	< 0.021	< 0.022	< 0.024
Vinyl Chloride	75014	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
Dibromochloropropane (DBCP)	67708832	NA	NA	NA	< 0.0046	< 0.0043	< 0.0044	< 0.0048
VOCs - Method 3810 Mod								
Benzene	71432	< 0.0084 J	< 0.0084 J	< 0.0084 J	NA	NA	NA	NA
Cis-1,2-Dichloroethene	156592	0.0657 J	0.403 J	0.0317 J	NA	NA	NA	NA
Ethylbenzene	100414	< 0.0084 J	< 0.0084 J	< 0.0084 J	NA	NA	NA	NA
Tetrachloroethene	127184	0.464 J	0.195 J	0.114 J	NA	NA	NA	NA
Toluene	108883	< 0.0084 J	< 0.0084 J	< 0.0084 J	NA	NA	NA	NA
Trichloroethene	79016	0.0468 J	0.0158 J	0.0677 J	NA	NA	NA	NA
Total Xylenes	1330207	< 0.0084 J	< 0.0084 J	< 0.0084 J	NA	NA	NA	NA

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Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	SEBJ-9-15 15 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-9-20 20 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-9-5 5 1/6/2014 Investigation Eastern SEBJ Subsurface	T2-1-Clay 27.5 10/10/2013 Investigation Central Area T-2 Subsurface	T3-3-Clay 27.5 10/11/2013 Investigation Central Area T-3 Subsurface	T4-3-Clay 25 10/16/2013 Investigation Central Area T-4 Subsurface	T4-3-ClayDup 25 10/16/2013 Duplicate Central Area T-4 Subsurface
Semi-Volatile Organics (mg/kg)								
1,2,4-Trichlorobenzene	120821	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95501	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122667	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541731	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106467	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90120	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95954	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88062	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120832	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105679	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51285	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121142	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606202	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91587	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95578	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91576	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95487	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88744	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88755	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	91941	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99092	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	534521	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	101553	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	59507	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106478	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl Phenyl Ether	7005723	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100016	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100027	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83329	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208968	NA	NA	NA	NA	NA	NA	NA
Aniline	62533	NA	NA	NA	NA	NA	NA	NA
Anthracene	120127	NA	NA	NA	NA	NA	NA	NA
Benzidine	92875	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Anthracene	56553	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Pyrene	50328	NA	NA	NA	NA	NA	NA	NA
Benzo(B)Fluoranthene	205992	NA	NA	NA	NA	NA	NA	NA
Benzo(G,H,I)Perylene	191242	NA	NA	NA	NA	NA	NA	NA
Benzo(K)Fluoranthene	207089	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	65850	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	100516	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)Methane	111911	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)Ether	111444	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)Ether	108601	NA	NA	NA	NA	NA	NA	NA

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Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	SEBJ-9-15 15 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-9-20 20 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-9-5 5 1/6/2014 Investigation Eastern SEBJ Subsurface	T2-1-Clay 27.5 10/10/2013 Investigation Central Area T-2 Subsurface	T3-3-Clay 27.5 10/11/2013 Investigation Central Area T-3 Subsurface	T4-3-Clay 25 10/16/2013 Investigation Central Area T-4 Subsurface	T4-3-ClayDup 25 10/16/2013 Duplicate Central Area T-4 Subsurface
Semi-Volatile Organics (mg/kg) (continued)								
Bis(2-Ethylhexyl) Phthalate	117817	NA	NA	NA	NA	NA	NA	NA
Butyl Benzyl Phthalate	85687	NA	NA	NA	NA	NA	NA	NA
Carbazole	86748	NA	NA	NA	NA	NA	NA	NA
Chrysene	218019	NA	NA	NA	NA	NA	NA	NA
Dibenz(A,H)Anthracene	53703	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132649	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	84662	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	131113	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	84742	NA	NA	NA	NA	NA	NA	NA
Di-N-Octyl Phthalate	117840	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206440	NA	NA	NA	NA	NA	NA	NA
Fluorene	86737	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Cyclopentadiene	77474	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118741	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87683	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67721	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-Cd)Pyrene	193395	NA	NA	NA	NA	NA	NA	NA
Isophorone	78591	NA	NA	NA	NA	NA	NA	NA
M-,P-Cresol Mixture	15831104	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91203	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98953	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62759	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	621647	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86306	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85018	NA	NA	NA	NA	NA	NA	NA
Phenol	108952	NA	NA	NA	NA	NA	NA	NA
Pyrene	129000	NA	NA	NA	NA	NA	NA	NA
Pyridine	110861	NA	NA	NA	NA	NA	NA	NA
PCBs (mg/kg)								
Pcb- 1016	12674112	NA	NA	NA	NA	NA	NA	NA
Pcb- 1221	11104282	NA	NA	NA	NA	NA	NA	NA
Pcb- 1232	11141165	NA	NA	NA	NA	NA	NA	NA
Pcb- 1242	53469219	NA	NA	NA	NA	NA	NA	NA
Pcb- 1248	12672296	NA	NA	NA	NA	NA	NA	NA
Pcb- 1254	11097691	NA	NA	NA	NA	NA	NA	NA
Pcb- 1260	11096825	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (TPH) (mg/kg)								
DRO (C10-C28) Range	DRO	NA	NA	NA	NA	NA	NA	NA

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Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	SEBJ-9-15 15 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-9-20 20 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-9-5 5 1/6/2014 Investigation Eastern SEBJ Subsurface	T2-1-Clay 27.5 10/10/2013 Investigation Central Area T-2 Subsurface	T3-3-Clay 27.5 10/11/2013 Investigation Central Area T-3 Subsurface	T4-3-Clay 25 10/16/2013 Investigation Central Area T-4 Subsurface	T4-3-ClayDup 25 10/16/2013 Duplicate Central Area T-4 Subsurface
Herbicides/Pesticides (mg/kg)								
2,4,5-T	93765	NA	NA	NA	NA	NA	NA	NA
2,4-D	94757	NA	NA	NA	NA	NA	NA	NA
2,4-Db	94826	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	72548	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	72559	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	50293	NA	NA	NA	NA	NA	NA	NA
Aldrin	309002	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	319846	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	319857	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	319868	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	5103719	NA	NA	NA	NA	NA	NA	NA
Dalapon	75990	NA	NA	NA	NA	NA	NA	NA
Dicamba	1918009	NA	NA	NA	NA	NA	NA	NA
Dichoroprop	120365	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60571	NA	NA	NA	NA	NA	NA	NA
Dinoseb	88857	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959988	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213659	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	1031078	NA	NA	NA	NA	NA	NA	NA
Endrin	72208	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	7421934	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	53494705	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC	58899	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	5103742	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76448	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	1024573	NA	NA	NA	NA	NA	NA	NA
Mcpa	94746	NA	NA	NA	NA	NA	NA	NA
Mcpp	93652	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72435	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Silvex (2,4,5-TP)	93721	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001352	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)								
Aluminum	7429905	NA	NA	NA	NA	NA	NA	NA
Antimony	7440360	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440417	NA	NA	NA	NA	NA	NA	NA
Boron	7440428	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	7440473	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440484	NA	NA	NA	NA	NA	NA	NA

Table A-1

Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	SEBJ-9-15 15 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-9-20 20 1/6/2014 Investigation Eastern SEBJ Subsurface	SEBJ-9-5 5 1/6/2014 Investigation Eastern SEBJ Subsurface	T2-1-Clay 27.5 10/10/2013 Investigation Central Area T-2 Subsurface	T3-3-Clay 27.5 10/11/2013 Investigation Central Area T-3 Subsurface	T4-3-Clay 25 10/16/2013 Investigation Central Area T-4 Subsurface	T4-3-ClayDup 25 10/16/2013 Duplicate Central Area T-4 Subsurface
Total metals (mg/kg) (continued)								
Copper	7440508	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Lithium	7439932	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Molybdenum	7439987	NA	NA	NA	NA	NA	NA	NA
Nickel	7440020	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA
Strontium (Total)	7440246	NA	NA	NA	NA	NA	NA	NA
Thallium	7440280	NA	NA	NA	NA	NA	NA	NA
Tin	7440315	NA	NA	NA	NA	NA	NA	NA
Titanium	7440326	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440622	NA	NA	NA	NA	NA	NA	NA
Zinc	7440666	NA	NA	NA	NA	NA	NA	NA
Other Parameters								
PH	PH	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	1012	NA	NA	NA	NA	NA	NA	NA

Notes:
NA - Not Analyzed.
J - Estimated value.
R- Rejected value.

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	T5-2d-23 23 10/15/2013 Investigation Central Area T-5 Subsurface	T5-2d-Lower 31 10/15/2013 Investigation Central Area T-5 Subsurface	T5-2-INT 16 10/15/2013 Investigation Central Area T-5 Subsurface	T5-2-INTDup 16 10/15/2013 Duplicate Central Area T-5 Subsurface	T5-4-20 20 10/11/2013 Investigation Eastern Area T-5 Subsurface	T5-4-Clay 27 10/11/2013 Investigation Eastern Area T-5 Subsurface	T6-2-10 10 10/17/2013 Investigation Eastern Area T-6 Subsurface
Volatile Organics (mg/kg)								
1,1,1,2-Tetrachloroethane	630206	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,1,1-Trichloroethane	71556	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,1,2,2-Tetrachloroethane	79345	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,1,2-Trichloroethane	79005	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,1-Dichloroethane	75343	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,1-Dichloroethene	75354	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,1-Dichloropropene	563586	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,2,3-Trichlorobenzene	87616	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,2,3-Trichloropropane	96184	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,2,4-Trichlorobenzene	120821	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,2,4-Trimethylbenzene	95636	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,2-Dibromoethane	106934	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,2-Dichlorobenzene	95501	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,2-Dichloroethane	107062	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,2-Dichloroethene, Total	540590	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78875	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,3,5-Trimethylbenzene	108678	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,3-Dichlorobenzene	541731	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,3-Dichloropropane	142289	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,4-Dichlorobenzene	106467	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
1,4-Dioxane	123911	< 0.16	< 0.15	< 0.23	< 0.21	< 0.2	< 0.15	< 0.16
2,2-Dichloropropane	594207	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
2-Butanone	78933	< 0.02	< 0.019	< 0.028	< 0.026	< 0.025	< 0.019	< 0.021
2-Chloroethyl Vinyl Ether	110758	< 0.02	< 0.019	< 0.028	< 0.026	< 0.025	< 0.019	< 0.021
2-Chlorotoluene	95498	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
2-Hexanone (methyl butyl ketone)	591786	< 0.02	< 0.019	< 0.028	< 0.026	< 0.025	< 0.019	< 0.021
3-Chloro-1,2-Dibromopropane	96128	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	106434	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
4-Isopropyltoluene	99876	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
4-Methyl-2-Pentanone	108101	< 0.02	< 0.019	< 0.028	< 0.026	< 0.025	< 0.019	< 0.021
Acetone	67641	< 0.041	0.0181 J	< 0.057	< 0.052	0.0209 J	< 0.039	< 0.041
Acrolein	107028	< 0.02	< 0.019	< 0.028	< 0.026	< 0.025	< 0.019	< 0.021
Acrylonitrile	107131	< 0.02	< 0.019	< 0.028	< 0.026	< 0.025	< 0.019	< 0.021
Benzene	71432	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Bromobenzene	108861	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Bromochloromethane	74975	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Bromodichloromethane	75274	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Bromoform	75252	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Bromomethane	74839	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Carbon Disulfide	75150	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Carbon Tetrachloride	56235	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Chlorobenzene	108907	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Dibromochloromethane	124481	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	T5-2d-23 23 10/15/2013 Investigation Central Area T-5 Subsurface	T5-2d-Lower 31 10/15/2013 Investigation Central Area T-5 Subsurface	T5-2-INT 16 10/15/2013 Investigation Central Area T-5 Subsurface	T5-2-INTDup 16 10/15/2013 Duplicate Central Area T-5 Subsurface	T5-4-20 20 10/11/2013 Investigation Eastern Area T-5 Subsurface	T5-4-Clay 27 10/11/2013 Investigation Eastern Area T-5 Subsurface	T6-2-10 10 10/17/2013 Investigation Eastern Area T-6 Subsurface
Volatile Organics (mg/kg) (continued)								
Chloroethane	75003	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Chloroform	67663	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Chloromethane	74873	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Cis-1,2-Dichloroethene	156592	< 0.0041	0.0034 J	< 0.0057	< 0.0052	0.0106	< 0.0039	0.0061
Cis-1,3-Dichloropropene	10061015	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Dibromomethane	74953	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Dichlorodifluoromethane	75718	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Ethylbenzene	100414	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Hexachlorobutadiene	87683	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Isopropylbenzene	98828	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
M,P-Xylenes	179601231	< 0.0082	< 0.0076	< 0.011	< 0.01	< 0.0099	< 0.0077	< 0.0082
Methyl Tert-Butyl Ether	1634044	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Methylene Chloride	75092	< 0.0082	< 0.0076	< 0.011	< 0.01	< 0.0099	< 0.0077	< 0.0082
Naphthalene	91203	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
N-Butylbenzene	104518	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
N-Propylbenzene	103651	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
O-Xylene	95476	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Sec-Butylbenzene	135988	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Styrene	100425	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Tert-Butylbenzene	98066	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	0.0731
Tetrachloroethene	127184	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Toluene	108883	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Total Xylenes	1330207	< 0.0082	< 0.0076	< 0.011	< 0.01	< 0.0099	< 0.0077	< 0.0082
Trans-1,2-Dichloroethene	156605	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Trans-1,3-Dichloropropene	10061026	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Trichloroethene	79016	< 0.0041	0.0106	< 0.0057	< 0.0052	< 0.0049	< 0.0039	0.0102
Trichlorofluoromethane	75694	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
Vinyl Acetate	108054	< 0.02	< 0.019	< 0.028	< 0.026	< 0.025	< 0.019	< 0.021
Vinyl Chloride	75014	< 0.0041	< 0.0038	< 0.0057	< 0.0052	0.0599	< 0.0039	< 0.0041
Dibromochloropropane (DBCP)	67708832	< 0.0041	< 0.0038	< 0.0057	< 0.0052	< 0.0049	< 0.0039	< 0.0041
VOCs - Method 3810 Mod								
Benzene	71432	NA	NA	NA	NA	NA	NA	NA
Cis-1,2-Dichloroethene	156592	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100414	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127184	NA	NA	NA	NA	NA	NA	NA
Toluene	108883	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79016	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	1330207	NA	NA	NA	NA	NA	NA	NA

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	T5-2d-23 23 10/15/2013 Investigation Central Area T-5 Subsurface	T5-2d-Lower 31 10/15/2013 Investigation Central Area T-5 Subsurface	T5-2-INT 16 10/15/2013 Investigation Central Area T-5 Subsurface	T5-2-INTDup 16 10/15/2013 Duplicate Central Area T-5 Subsurface	T5-4-20 20 10/11/2013 Investigation Eastern Area T-5 Subsurface	T5-4-Clay 27 10/11/2013 Investigation Eastern Area T-5 Subsurface	T6-2-10 10 10/17/2013 Investigation Eastern Area T-6 Subsurface
Semi-Volatile Organics (mg/kg)								
1,2,4-Trichlorobenzene	120821	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95501	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122667	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541731	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106467	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90120	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95954	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88062	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120832	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105679	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51285	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121142	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606202	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91587	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95578	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91576	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95487	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88744	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88755	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	91941	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99092	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	534521	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	101553	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	59507	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106478	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl Phenyl Ether	7005723	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100016	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100027	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83329	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208968	NA	NA	NA	NA	NA	NA	NA
Aniline	62533	NA	NA	NA	NA	NA	NA	NA
Anthracene	120127	NA	NA	NA	NA	NA	NA	NA
Benzidine	92875	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Anthracene	56553	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Pyrene	50328	NA	NA	NA	NA	NA	NA	NA
Benzo(B)Fluoranthene	205992	NA	NA	NA	NA	NA	NA	NA
Benzo(G,H,I)Perylene	191242	NA	NA	NA	NA	NA	NA	NA
Benzo(K)Fluoranthene	207089	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	65850	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	100516	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)Methane	111911	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)Ether	111444	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)Ether	108601	NA	NA	NA	NA	NA	NA	NA

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification / Sample Depth / Date Collected / Sample Type / RA Area / Area/SWMU / Surface/subsurface / CAS No.	T5-2d-23 / 23 / 10/15/2013 / Investigation / Central / Area T-5 / Subsurface	T5-2d-Lower / 31 / 10/15/2013 / Investigation / Central / Area T-5 / Subsurface	T5-2-INT / 16 / 10/15/2013 / Investigation / Central / Area T-5 / Subsurface	T5-2-INTDup / 16 / 10/15/2013 / Duplicate / Central / Area T-5 / Subsurface	T5-4-20 / 20 / 10/11/2013 / Investigation / Eastern / Area T-5 / Subsurface	T5-4-Clay / 27 / 10/11/2013 / Investigation / Eastern / Area T-5 / Subsurface	T6-2-10 / 10 / 10/17/2013 / Investigation / Eastern / Area T-6 / Subsurface
Semi-Volatile Organics (mg/kg) (continued)								
Bis(2-Ethylhexyl) Phthalate	117817	NA	NA	NA	NA	NA	NA	NA
Butyl Benzyl Phthalate	85687	NA	NA	NA	NA	NA	NA	NA
Carbazole	86748	NA	NA	NA	NA	NA	NA	NA
Chrysene	218019	NA	NA	NA	NA	NA	NA	NA
Dibenz(A,H)Anthracene	53703	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132649	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	84662	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	131113	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	84742	NA	NA	NA	NA	NA	NA	NA
Di-N-Octyl Phthalate	117840	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206440	NA	NA	NA	NA	NA	NA	NA
Fluorene	86737	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Cyclopentadiene	77474	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118741	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87683	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67721	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-Cd)Pyrene	193395	NA	NA	NA	NA	NA	NA	NA
Isophorone	78591	NA	NA	NA	NA	NA	NA	NA
M-,P-Cresol Mixture	15831104	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91203	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98953	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62759	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	621647	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86306	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85018	NA	NA	NA	NA	NA	NA	NA
Phenol	108952	NA	NA	NA	NA	NA	NA	NA
Pyrene	129000	NA	NA	NA	NA	NA	NA	NA
Pyridine	110861	NA	NA	NA	NA	NA	NA	NA
PCBs (mg/kg)								
Pcb- 1016	12674112	NA	NA	NA	NA	NA	NA	NA
Pcb- 1221	11104282	NA	NA	NA	NA	NA	NA	NA
Pcb- 1232	11141165	NA	NA	NA	NA	NA	NA	NA
Pcb- 1242	53469219	NA	NA	NA	NA	NA	NA	NA
Pcb- 1248	12672296	NA	NA	NA	NA	NA	NA	NA
Pcb- 1254	11097691	NA	NA	NA	NA	NA	NA	NA
Pcb- 1260	11096825	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (TPH) (mg/kg)								
DRO (C10-C28) Range	DRO	NA	NA	NA	NA	NA	NA	NA

Table A-1

Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	T5-2d-23 23 10/15/2013 Investigation Central Area T-5 Subsurface	T5-2d-Lower 31 10/15/2013 Investigation Central Area T-5 Subsurface	T5-2-INT 16 10/15/2013 Investigation Central Area T-5 Subsurface	T5-2-INTDup 16 10/15/2013 Duplicate Central Area T-5 Subsurface	T5-4-20 20 10/11/2013 Investigation Eastern Area T-5 Subsurface	T5-4-Clay 27 10/11/2013 Investigation Eastern Area T-5 Subsurface	T6-2-10 10 10/17/2013 Investigation Eastern Area T-6 Subsurface
Herbicides/Pesticides (mg/kg)								
2,4,5-T	93765	NA	NA	NA	NA	NA	NA	NA
2,4-D	94757	NA	NA	NA	NA	NA	NA	NA
2,4-Db	94826	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	72548	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	72559	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	50293	NA	NA	NA	NA	NA	NA	NA
Aldrin	309002	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	319846	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	319857	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	319868	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	5103719	NA	NA	NA	NA	NA	NA	NA
Dalapon	75990	NA	NA	NA	NA	NA	NA	NA
Dicamba	1918009	NA	NA	NA	NA	NA	NA	NA
Dichoroprop	120365	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60571	NA	NA	NA	NA	NA	NA	NA
Dinoseb	88857	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959988	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213659	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	1031078	NA	NA	NA	NA	NA	NA	NA
Endrin	72208	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	7421934	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	53494705	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC	58899	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	5103742	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76448	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	1024573	NA	NA	NA	NA	NA	NA	NA
Mcpa	94746	NA	NA	NA	NA	NA	NA	NA
Mcpp	93652	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72435	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Silvex (2,4,5-TP)	93721	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001352	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)								
Aluminum	7429905	NA	NA	NA	NA	NA	NA	NA
Antimony	7440360	NA	NA	NA	NA	NA	NA	NA
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Beryllium	7440417	NA	NA	NA	NA	NA	NA	NA
Boron	7440428	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	7440473	NA	NA	NA	NA	NA	NA	NA
Cobalt	7440484	NA	NA	NA	NA	NA	NA	NA

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	T5-2d-23 23 10/15/2013 Investigation Central Area T-5 Subsurface	T5-2d-Lower 31 10/15/2013 Investigation Central Area T-5 Subsurface	T5-2-INT 16 10/15/2013 Investigation Central Area T-5 Subsurface	T5-2-INTDup 16 10/15/2013 Duplicate Central Area T-5 Subsurface	T5-4-20 20 10/11/2013 Investigation Eastern Area T-5 Subsurface	T5-4-Clay 27 10/11/2013 Investigation Eastern Area T-5 Subsurface	T6-2-10 10 10/17/2013 Investigation Eastern Area T-6 Subsurface
Total metals (mg/kg) (continued)								
Copper	7440508	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Lithium	7439932	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Molybdenum	7439987	NA	NA	NA	NA	NA	NA	NA
Nickel	7440020	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA
Strontium (Total)	7440246	NA	NA	NA	NA	NA	NA	NA
Thallium	7440280	NA	NA	NA	NA	NA	NA	NA
Tin	7440315	NA	NA	NA	NA	NA	NA	NA
Titanium	7440326	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440622	NA	NA	NA	NA	NA	NA	NA
Zinc	7440666	NA	NA	NA	NA	NA	NA	NA
Other Parameters								
PH	PH	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	1012	NA	NA	NA	NA	NA	NA	NA

Notes:
NA - Not Analyzed.
J - Estimated value.
R- Rejected value.

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	T6-2-15 15 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-2 2 10/17/2013 Investigation Eastern Area T-6 Surface	T6-2-20 20 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-5 5 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-Clay 26 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-INT 17 10/17/2013 Investigation Eastern Area T-6 Subsurface	T7-2-6 6 10/1/2013 Investigation Eastern Area T-7 Subsurface
Volatile Organics (mg/kg)								
1,1,1,2-Tetrachloroethane	630206	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
1,1,1-Trichloroethane	71556	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	0.0026 J
1,1,2,2-Tetrachloroethane	79345	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
1,1,2-Trichloroethane	79005	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
1,1-Dichloroethane	75343	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	0.0066
1,1-Dichloroethene	75354	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
1,1-Dichloropropene	563586	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
1,2,3-Trichlorobenzene	87616	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
1,2,3-Trichloropropane	96184	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
1,2,4-Trichlorobenzene	120821	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
1,2,4-Trimethylbenzene	95636	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
1,2-Dibromoethane	106934	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
1,2-Dichlorobenzene	95501	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
1,2-Dichloroethane	107062	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
1,2-Dichloroethene, Total	540590	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	78875	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
1,3,5-Trimethylbenzene	108678	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
1,3-Dichlorobenzene	541731	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
1,3-Dichloropropane	142289	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
1,4-Dichlorobenzene	106467	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
1,4-Dioxane	123911	< 0.18	< 0.15	NA	< 0.17	< 0.17	< 0.16	< 0.12
2,2-Dichloropropane	594207	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
2-Butanone	78933	< 0.022	0.0165 J	NA	< 0.021	< 0.021	< 0.02	< 0.016
2-Chloroethyl Vinyl Ether	110758	< 0.022	< 0.019	NA	< 0.021	< 0.021	< 0.02	< 0.016
2-Chlorotoluene	95498	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
2-Hexanone (methyl butyl ketone)	591786	< 0.022	< 0.019	NA	< 0.021	< 0.021	< 0.02	< 0.016
3-Chloro-1,2-Dibromopropane	96128	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	106434	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
4-Isopropyltoluene	99876	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
4-Methyl-2-Pentanone	108101	< 0.022	< 0.019	NA	< 0.021	< 0.021	< 0.02	< 0.016
Acetone	67641	< 0.044	0.0808	NA	0.0251 J	< 0.042	< 0.04	< 0.031
Acrolein	107028	< 0.022	< 0.019	NA	< 0.021	< 0.021	< 0.02	< 0.016
Acrylonitrile	107131	< 0.022	< 0.019	NA	< 0.021	< 0.021	< 0.02	< 0.016
Benzene	71432	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Bromobenzene	108861	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Bromochloromethane	74975	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Bromodichloromethane	75274	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Bromoform	75252	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Bromomethane	74839	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Carbon Disulfide	75150	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Carbon Tetrachloride	56235	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Chlorobenzene	108907	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Dibromochloromethane	124481	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Sample Identification		T6-2-15	T6-2-2	T6-2-20	T6-2-5	T6-2-Clay	T6-2-INT	T7-2-6
Sample Depth		15	2	20	5	26	17	6
Date Collected		10/17/2013	10/17/2013	10/17/2013	10/17/2013	10/17/2013	10/17/2013	10/1/2013
Sample Type		Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
RA Area		Eastern	Eastern	Eastern	Eastern	Eastern	Eastern	Eastern
Area/SWMU		Area T-6	Area T-6	Area T-6	Area T-6	Area T-6	Area T-6	Area T-7
Surface/subsurface		Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Constituent	CAS No.							
Volatile Organics (mg/kg) (continued)								
Chloroethane	75003	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Chloroform	67663	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Chloromethane	74873	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Cis-1,2-Dichloroethene	156592	0.0106	0.132	NA	0.0258	< 0.0042	0.0096	< 0.0031
Cis-1,3-Dichloropropene	10061015	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Dibromomethane	74953	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Dichlorodifluoromethane	75718	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Ethylbenzene	100414	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Hexachlorobutadiene	87683	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Isopropylbenzene	98828	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
M,P-Xylenes	179601231	< 0.0088	< 0.0075	NA	< 0.0083	< 0.0085	< 0.008	< 0.0062
Methyl Tert-Butyl Ether	1634044	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Methylene Chloride	75092	< 0.0088	< 0.0075	NA	< 0.0083	< 0.0085	< 0.008	< 0.0062
Naphthalene	91203	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
N-Butylbenzene	104518	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
N-Propylbenzene	103651	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
O-Xylene	95476	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Sec-Butylbenzene	135988	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Styrene	100425	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Tert-Butylbenzene	98066	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Tetrachloroethene	127184	0.0862	< 0.0037	NA	0.0038 J	< 0.0042	0.0668	0.0126
Toluene	108883	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Total Xylenes	1330207	< 0.0088	< 0.0075	NA	< 0.0083	< 0.0085	< 0.008	< 0.0062
Trans-1,2-Dichloroethene	156605	< 0.0044	0.002 J	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Trans-1,3-Dichloropropene	10061026	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Trichloroethene	79016	0.0088	< 0.0037	NA	0.0184	< 0.0042	0.0063	0.0011 J
Trichlorofluoromethane	75694	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Vinyl Acetate	108054	< 0.022	< 0.019	NA	< 0.021	< 0.021	< 0.02	< 0.016
Vinyl Chloride	75014	< 0.0044	0.0049	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
Dibromochloropropane (DBCP)	67708832	< 0.0044	< 0.0037	NA	< 0.0041	< 0.0042	< 0.004	< 0.0031
VOCs - Method 3810 Mod								
Benzene	71432	NA	NA	NA	NA	NA	NA	NA
Cis-1,2-Dichloroethene	156592	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100414	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	127184	NA	NA	NA	NA	NA	NA	NA
Toluene	108883	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	79016	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	1330207	NA	NA	NA	NA	NA	NA	NA

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	T6-2-15 15 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-2 2 10/17/2013 Investigation Eastern Area T-6 Surface	T6-2-20 20 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-5 5 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-Clay 26 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-INT 17 10/17/2013 Investigation Eastern Area T-6 Subsurface	T7-2-6 6 10/1/2013 Investigation Eastern Area T-7 Subsurface
Semi-Volatile Organics (mg/kg)								
1,2,4-Trichlorobenzene	120821	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95501	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122667	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541731	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106467	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90120	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95954	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88062	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120832	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105679	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51285	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121142	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606202	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91587	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95578	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91576	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95487	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88744	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88755	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	91941	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99092	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	534521	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	101553	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	59507	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106478	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl Phenyl Ether	7005723	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100016	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100027	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83329	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208968	NA	NA	NA	NA	NA	NA	NA
Aniline	62533	NA	NA	NA	NA	NA	NA	NA
Anthracene	120127	NA	NA	NA	NA	NA	NA	NA
Benzidine	92875	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Anthracene	56553	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Pyrene	50328	NA	NA	NA	NA	NA	NA	NA
Benzo(B)Fluoranthene	205992	NA	NA	NA	NA	NA	NA	NA
Benzo(G,H,I)Perylene	191242	NA	NA	NA	NA	NA	NA	NA
Benzo(K)Fluoranthene	207089	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	65850	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	100516	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)Methane	111911	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)Ether	111444	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)Ether	108601	NA	NA	NA	NA	NA	NA	NA

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	T6-2-15 15 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-2 2 10/17/2013 Investigation Eastern Area T-6 Surface	T6-2-20 20 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-5 5 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-Clay 26 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-INT 17 10/17/2013 Investigation Eastern Area T-6 Subsurface	T7-2-6 6 10/1/2013 Investigation Eastern Area T-7 Subsurface
Semi-Volatile Organics (mg/kg) (continued)								
Bis(2-Ethylhexyl) Phthalate	117817	NA	NA	NA	NA	NA	NA	NA
Butyl Benzyl Phthalate	85687	NA	NA	NA	NA	NA	NA	NA
Carbazole	86748	NA	NA	NA	NA	NA	NA	NA
Chrysene	218019	NA	NA	NA	NA	NA	NA	NA
Dibenz(A,H)Anthracene	53703	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132649	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	84662	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate	131113	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	84742	NA	NA	NA	NA	NA	NA	NA
Di-N-Octyl Phthalate	117840	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206440	NA	NA	NA	NA	NA	NA	NA
Fluorene	86737	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Cyclopentadiene	77474	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118741	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87683	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67721	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-Cd)Pyrene	193395	NA	NA	NA	NA	NA	NA	NA
Isophorone	78591	NA	NA	NA	NA	NA	NA	NA
M-,P-Cresol Mixture	15831104	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91203	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98953	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62759	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	621647	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86306	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85018	NA	NA	NA	NA	NA	NA	NA
Phenol	108952	NA	NA	NA	NA	NA	NA	NA
Pyrene	129000	NA	NA	NA	NA	NA	NA	NA
Pyridine	110861	NA	NA	NA	NA	NA	NA	NA
PCBs (mg/kg)								
Pcb- 1016	12674112	NA	NA	NA	NA	NA	NA	NA
Pcb- 1221	11104282	NA	NA	NA	NA	NA	NA	NA
Pcb- 1232	11141165	NA	NA	NA	NA	NA	NA	NA
Pcb- 1242	53469219	NA	NA	NA	NA	NA	NA	NA
Pcb- 1248	12672296	NA	NA	NA	NA	NA	NA	NA
Pcb- 1254	11097691	NA	NA	NA	NA	NA	NA	NA
Pcb- 1260	11096825	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (TPH) (mg/kg)								
DRO (C10-C28) Range	DRO	NA	NA	NA	NA	NA	NA	NA

Table A-1

Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	T6-2-15 15 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-2 2 10/17/2013 Investigation Eastern Area T-6 Surface	T6-2-20 20 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-5 5 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-Clay 26 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-INT 17 10/17/2013 Investigation Eastern Area T-6 Subsurface	T7-2-6 6 10/1/2013 Investigation Eastern Area T-7 Subsurface
Herbicides/Pesticides (mg/kg)								
2,4,5-T	93765	NA	NA	NA	NA	NA	NA	NA
2,4-D	94757	NA	NA	NA	NA	NA	NA	NA
2,4-Db	94826	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	72548	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	72559	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	50293	NA	NA	NA	NA	NA	NA	NA
Aldrin	309002	NA	NA	NA	NA	NA	NA	NA
Alpha-BHC	319846	NA	NA	NA	NA	NA	NA	NA
Beta-BHC	319857	NA	NA	NA	NA	NA	NA	NA
Delta-BHC	319868	NA	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	5103719	NA	NA	NA	NA	NA	NA	NA
Dalapon	75990	NA	NA	NA	NA	NA	NA	NA
Dicamba	1918009	NA	NA	NA	NA	NA	NA	NA
Dichoroprop	120365	NA	NA	NA	NA	NA	NA	NA
Dieldrin	60571	NA	NA	NA	NA	NA	NA	NA
Dinoseb	88857	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	959988	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	33213659	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	1031078	NA	NA	NA	NA	NA	NA	NA
Endrin	72208	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	7421934	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	53494705	NA	NA	NA	NA	NA	NA	NA
Gamma-BHC	58899	NA	NA	NA	NA	NA	NA	NA
Gamma-Chlordane	5103742	NA	NA	NA	NA	NA	NA	NA
Heptachlor	76448	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	1024573	NA	NA	NA	NA	NA	NA	NA
Mcpa	94746	NA	NA	NA	NA	NA	NA	NA
Mcpp	93652	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	72435	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Silvex (2,4,5-TP)	93721	NA	NA	NA	NA	NA	NA	NA
Toxaphene	8001352	NA	NA	NA	NA	NA	NA	NA
Total Metals (mg/kg)								
Aluminum	7429905		NA	NA	NA	NA	NA	NA
Antimony	7440360		NA	NA	NA	NA	NA	NA
Arsenic	7440382	4.9	NA	6	3.9	NA	NA	NA
Barium	7440393	111	NA	48.400002	119	NA	NA	NA
Beryllium	7440417		NA	NA	NA	NA	NA	NA
Boron	7440428		NA	NA	NA	NA	NA	NA
Cadmium	7440439	< 1	NA	< 0.89	< 1	NA	NA	NA
Calcium	7440702	2720	NA	5010	3120	NA	NA	NA
Chromium	7440473	10.1	NA	22	16	NA	NA	NA
Cobalt	7440484	NA	NA	NA	NA	NA	NA	NA

Table A-1

Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	T6-2-15 15 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-2 2 10/17/2013 Investigation Eastern Area T-6 Surface	T6-2-20 20 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-5 5 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-Clay 26 10/17/2013 Investigation Eastern Area T-6 Subsurface	T6-2-INT 17 10/17/2013 Investigation Eastern Area T-6 Subsurface	T7-2-6 6 10/1/2013 Investigation Eastern Area T-7 Subsurface
Total metals (mg/kg) (continued)								
Copper	7440508	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	13800	NA	21800	15400	NA	NA	NA
Lead	7439921	11.9	NA	14.7	10	NA	NA	NA
Lithium	7439932	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	680	NA	122	120	NA	NA	NA
Magnesium	7439954	2740	NA	7400	3960	NA	NA	NA
Mercury	7439976	< 0.05	NA	< 0.05	< 0.047	NA	NA	NA
Molybdenum	7439987	NA	NA	NA	NA	NA	NA	NA
Nickel	7440020	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	< 2600	NA	3910	2580	NA	NA	NA
Selenium	7782492	< 5.2	NA	< 4.5	< 5	NA	NA	NA
Silver	7440224	< 2.6	NA	< 2.2	< 2.5	NA	NA	NA
Sodium	7440235	< 2600	NA	< 2200	< 2500	NA	NA	NA
Strontium (Total)	7440246	NA	NA	NA	NA	NA	NA	NA
Thallium	7440280	NA	NA	NA	NA	NA	NA	NA
Tin	7440315	NA	NA	NA	NA	NA	NA	NA
Titanium	7440326	NA	NA	NA	NA	NA	NA	NA
Vanadium	7440622	NA	NA	NA	NA	NA	NA	NA
Zinc	7440666	NA	NA	NA	NA	NA	NA	NA
Other Parameters								
PH	PH	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	1012	1590	NA	3140	5600	NA	NA	NA

Notes:
NA - Not Analyzed.
J - Estimated value.
R- Rejected value.

Table A-1

Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	T8-1D-22 22 10/14/2013 Investigation Creek Bank Area T-8 Subsurface		T8-2D-22 22 10/14/2013 Investigation Creek Bank Area T-8 Subsurface		
Volatile Organics (mg/kg)						
1,1,1,2-Tetrachloroethane	630206	<	0.31	<	0.0034	
1,1,1-Trichloroethane	71556	<	0.31	<	0.0034	
1,1,2,2-Tetrachloroethane	79345	<	0.31	<	0.0034	
1,1,2-Trichloroethane	79005	<	0.31	<	0.0034	
1,1-Dichloroethane	75343	<	0.31	<	0.0034	
1,1-Dichloroethene	75354	<	0.31	<	0.0034	
1,1-Dichloropropene	563586	<	0.31	<	0.0034	
1,2,3-Trichlorobenzene	87616	<	0.31	<	0.0034	
1,2,3-Trichloropropane	96184	<	0.31	<	0.0034	
1,2,4-Trichlorobenzene	120821	<	0.31	<	0.0034	
1,2,4-Trimethylbenzene	95636		65.7	<	0.0034	
1,2-Dibromoethane	106934	<	0.31	<	0.0034	
1,2-Dichlorobenzene	95501	<	0.31	<	0.0034	
1,2-Dichloroethane	107062	<	0.31	<	0.0034	
1,2-Dichloroethene, Total	540590		NA		NA	
1,2-Dichloropropane	78875	<	0.31	<	0.0034	
1,3,5-Trimethylbenzene	108678		19.6	<	0.0034	
1,3-Dichlorobenzene	541731	<	0.31	<	0.0034	
1,3-Dichloropropane	142289	<	0.31	<	0.0034	
1,4-Dichlorobenzene	106467	<	0.31	<	0.0034	
1,4-Dioxane	123911	<	13	<	0.14	
2,2-Dichloropropane	594207	<	0.31	<	0.0034	
2-Butanone	78933	<	1.6	<	0.017	
2-Chloroethyl Vinyl Ether	110758	<	1.6	<	0.017	
2-Chlorotoluene	95498	<	0.31	<	0.0034	
2-Hexanone (methyl butyl ketone)	591786	<	1.6	<	0.017	
3-Chloro-1,2-Dibromopropane	96128		NA		NA	
4-Chlorotoluene	106434	<	0.31	<	0.0034	
4-Isopropyltoluene	99876		0.648	<	0.0034	
4-Methyl-2-Pentanone	108101	<	1.6	<	0.017	
Acetone	67641	<	3.1		0.0214	J
Acrolein	107028	<	1.6	<	0.017	
Acrylonitrile	107131	<	1.6	<	0.017	
Benzene	71432	<	0.31	<	0.0034	
Bromobenzene	108861	<	0.31	<	0.0034	
Bromochloromethane	74975	<	0.31	<	0.0034	
Bromodichloromethane	75274	<	0.31	<	0.0034	
Bromoform	75252	<	0.31	<	0.0034	
Bromomethane	74839	<	0.31	<	0.0034	
Carbon Disulfide	75150	<	0.31		0.0092	
Carbon Tetrachloride	56235	<	0.31	<	0.0034	
Chlorobenzene	108907	<	0.31	<	0.0034	
Dibromochloromethane	124481	<	0.31	<	0.0034	

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	T8-1D-22 22 10/14/2013 Investigation Creek Bank Area T-8 Subsurface		T8-2D-22 22 10/14/2013 Investigation Creek Bank Area T-8 Subsurface	
Volatile Organics (mg/kg) (continued)					
Chloroethane	75003	< 0.31		< 0.0034	
Chloroform	67663	< 0.31		< 0.0034	
Chloromethane	74873	< 0.31		< 0.0034	
Cis-1,2-Dichloroethene	156592	0.118	J	0.0057	
Cis-1,3-Dichloropropene	10061015	< 0.31		< 0.0034	
Dibromomethane	74953	< 0.31		< 0.0034	
Dichlorodifluoromethane	75718	< 0.31		< 0.0034	
Ethylbenzene	100414	18.9		< 0.0034	
Hexachlorobutadiene	87683	< 0.31		< 0.0034	
Isopropylbenzene	98828	3.42		< 0.0034	
M,P-Xylenes	179601231	42.4		< 0.0069	
Methyl Tert-Butyl Ether	1634044	< 0.31		< 0.0034	
Methylene Chloride	75092	< 0.63		< 0.0069	
Naphthalene	91203	5.21		0.0016	J
N-Butylbenzene	104518	2.82		< 0.0034	
N-Propylbenzene	103651	11.3		< 0.0034	
O-Xylene	95476	4.92		< 0.0034	
Sec-Butylbenzene	135988	1.32		< 0.0034	
Styrene	100425	< 0.31		< 0.0034	
Tert-Butylbenzene	98066	< 0.31		< 0.0034	
Tetrachloroethene	127184	< 0.31		< 0.0034	
Toluene	108883	0.334		< 0.0034	
Total Xylenes	1330207	47.32		< 0.0069	
Trans-1,2-Dichloroethene	156605	< 0.31		< 0.0034	
Trans-1,3-Dichloropropene	10061026	< 0.31		< 0.0034	
Trichloroethene	79016	< 0.31		< 0.0034	
Trichlorofluoromethane	75694	< 0.31		< 0.0034	
Vinyl Acetate	108054	< 1.6		< 0.017	
Vinyl Chloride	75014	< 0.31		< 0.0034	
Dibromochloropropane (DBCP)	67708832	< 0.31		< 0.0034	
VOCs - Method 3810 Mod					
Benzene	71432	NA		NA	
Cis-1,2-Dichloroethene	156592	NA		NA	
Ethylbenzene	100414	NA		NA	
Tetrachloroethene	127184	NA		NA	
Toluene	108883	NA		NA	
Trichloroethene	79016	NA		NA	
Total Xylenes	1330207	NA		NA	

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	T8-1D-22 22 10/14/2013 Investigation Creek Bank Area T-8 Subsurface	T8-2D-22 22 10/14/2013 Investigation Creek Bank Area T-8 Subsurface
Semi-Volatile Organics (mg/kg)			
1,2,4-Trichlorobenzene	120821	NA	NA
1,2-Dichlorobenzene	95501	NA	NA
1,2-Diphenylhydrazine	122667	NA	NA
1,3-Dichlorobenzene	541731	NA	NA
1,4-Dichlorobenzene	106467	NA	NA
1-Methylnaphthalene	90120	NA	NA
2,4,5-Trichlorophenol	95954	NA	NA
2,4,6-Trichlorophenol	88062	NA	NA
2,4-Dichlorophenol	120832	NA	NA
2,4-Dimethylphenol	105679	NA	NA
2,4-Dinitrophenol	51285	NA	NA
2,4-Dinitrotoluene	121142	NA	NA
2,6-Dinitrotoluene	606202	NA	NA
2-Chloronaphthalene	91587	NA	NA
2-Chlorophenol	95578	NA	NA
2-Methylnaphthalene	91576	NA	NA
2-Methylphenol	95487	NA	NA
2-Nitroaniline	88744	NA	NA
2-Nitrophenol	88755	NA	NA
3,3'-Dichlorobenzidine	91941	NA	NA
3-Nitroaniline	99092	NA	NA
4,6-Dinitro-2-Methylphenol	534521	NA	NA
4-Bromophenyl Phenyl Ether	101553	NA	NA
4-Chloro-3-Methylphenol	59507	NA	NA
4-Chloroaniline	106478	NA	NA
4-Chlorophenyl Phenyl Ether	7005723	NA	NA
4-Nitroaniline	100016	NA	NA
4-Nitrophenol	100027	NA	NA
Acenaphthene	83329	NA	NA
Acenaphthylene	208968	NA	NA
Aniline	62533	NA	NA
Anthracene	120127	NA	NA
Benzidine	92875	NA	NA
Benzo(A)Anthracene	56553	NA	NA
Benzo(A)Pyrene	50328	NA	NA
Benzo(B)Fluoranthene	205992	NA	NA
Benzo(G,H,I)Perylene	191242	NA	NA
Benzo(K)Fluoranthene	207089	NA	NA
Benzoic Acid	65850	NA	NA
Benzyl Alcohol	100516	NA	NA
Bis(2-Chloroethoxy)Methane	111911	NA	NA
Bis(2-Chloroethyl)Ether	111444	NA	NA
Bis(2-Chloroisopropyl)Ether	108601	NA	NA

Table A-1

Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification / Sample Depth / Date Collected / Sample Type / RA Area / Area/SWMU / Surface/subsurface / CAS No.	T8-1D-22 / 22 / 10/14/2013 / Investigation / Creek Bank / Area T-8 / Subsurface	T8-2D-22 / 22 / 10/14/2013 / Investigation / Creek Bank / Area T-8 / Subsurface
Semi-Volatile Organics (mg/kg) (continued)			
Bis(2-Ethylhexyl) Phthalate	117817	NA	NA
Butyl Benzyl Phthalate	85687	NA	NA
Carbazole	86748	NA	NA
Chrysene	218019	NA	NA
Dibenz(A,H)Anthracene	53703	NA	NA
Dibenzofuran	132649	NA	NA
Diethyl Phthalate	84662	NA	NA
Dimethyl Phthalate	131113	NA	NA
Di-N-Butyl Phthalate	84742	NA	NA
Di-N-Octyl Phthalate	117840	NA	NA
Fluoranthene	206440	NA	NA
Fluorene	86737	NA	NA
Hexachloro-1,3-Cyclopentadiene	77474	NA	NA
Hexachlorobenzene	118741	NA	NA
Hexachlorobutadiene	87683	NA	NA
Hexachloroethane	67721	NA	NA
Indeno(1,2,3-Cd)Pyrene	193395	NA	NA
Isophorone	78591	NA	NA
M-,P-Cresol Mixture	15831104	NA	NA
Naphthalene	91203	NA	NA
Nitrobenzene	98953	NA	NA
N-Nitrosodimethylamine	62759	NA	NA
N-Nitrosodi-N-Propylamine	621647	NA	NA
N-Nitrosodiphenylamine	86306	NA	NA
Pentachlorophenol	87865	NA	NA
Phenanthrene	85018	NA	NA
Phenol	108952	NA	NA
Pyrene	129000	NA	NA
Pyridine	110861	NA	NA
PCBs (mg/kg)			
Pcb- 1016	12674112	NA	NA
Pcb- 1221	11104282	NA	NA
Pcb- 1232	11141165	NA	NA
Pcb- 1242	53469219	NA	NA
Pcb- 1248	12672296	NA	NA
Pcb- 1254	11097691	NA	NA
Pcb- 1260	11096825	NA	NA
Total Petroleum Hydrocarbons (TPH) (mg/kg)			
DRO (C10-C28) Range	DRO	NA	NA

Table A-1

Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	T8-1D-22 22 10/14/2013 Investigation Creek Bank Area T-8 Subsurface	T8-2D-22 22 10/14/2013 Investigation Creek Bank Area T-8 Subsurface
Herbicides/Pesticides (mg/kg)			
2,4,5-T	93765	NA	NA
2,4-D	94757	NA	NA
2,4-Db	94826	NA	NA
4,4'-DDD	72548	NA	NA
4,4'-DDE	72559	NA	NA
4,4'-DDT	50293	NA	NA
Aldrin	309002	NA	NA
Alpha-BHC	319846	NA	NA
Beta-BHC	319857	NA	NA
Delta-BHC	319868	NA	NA
Alpha-Chlordane	5103719	NA	NA
Dalapon	75990	NA	NA
Dicamba	1918009	NA	NA
Dichoroprop	120365	NA	NA
Dieldrin	60571	NA	NA
Dinoseb	88857	NA	NA
Endosulfan I	959988	NA	NA
Endosulfan II	33213659	NA	NA
Endosulfan sulfate	1031078	NA	NA
Endrin	72208	NA	NA
Endrin aldehyde	7421934	NA	NA
Endrin ketone	53494705	NA	NA
Gamma-BHC	58899	NA	NA
Gamma-Chlordane	5103742	NA	NA
Heptachlor	76448	NA	NA
Heptachlor epoxide	1024573	NA	NA
Mcpa	94746	NA	NA
Mcpp	93652	NA	NA
Methoxychlor	72435	NA	NA
Pentachlorophenol	87865	NA	NA
Silvex (2,4,5-TP)	93721	NA	NA
Toxaphene	8001352	NA	NA
Total Metals (mg/kg)			
Aluminum	7429905	NA	NA
Antimony	7440360	NA	NA
Arsenic	7440382	NA	NA
Barium	7440393	NA	NA
Beryllium	7440417	NA	NA
Boron	7440428	NA	NA
Cadmium	7440439	NA	NA
Calcium	7440702	NA	NA
Chromium	7440473	NA	NA
Cobalt	7440484	NA	NA

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Soil Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Depth Date Collected Sample Type RA Area Area/SWMU Surface/subsurface CAS No.	T8-1D-22 22 10/14/2013 Investigation Creek Bank Area T-8 Subsurface	T8-2D-22 22 10/14/2013 Investigation Creek Bank Area T-8 Subsurface
Total metals (mg/kg) (continued)			
Copper	7440508	NA	NA
Iron	7439896	NA	NA
Lead	7439921	NA	NA
Lithium	7439932	NA	NA
Manganese	7439965	NA	NA
Magnesium	7439954	NA	NA
Mercury	7439976	NA	NA
Molybdenum	7439987	NA	NA
Nickel	7440020	NA	NA
Potassium	7440097	NA	NA
Selenium	7782492	NA	NA
Silver	7440224	NA	NA
Sodium	7440235	NA	NA
Strontium (Total)	7440246	NA	NA
Thallium	7440280	NA	NA
Tin	7440315	NA	NA
Titanium	7440326	NA	NA
Vanadium	7440622	NA	NA
Zinc	7440666	NA	NA
Other Parameters			
PH	PH	NA	NA
Total Organic Carbon	1012	NA	NA

Notes:
NA - Not Analyzed.
J - Estimated value.
R- Rejected value.

Risk-Based Remedies
RBR Consulting, Inc.

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	A10-3 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	A10-4 (10/1/2013) 10/1/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	A10-5 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	A11-1 (10/15/2013) 10/15/2013 Investigation OnsiteDown Onsite Shallow Central Area	A12-1 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	12-1-Clay (10/17/2013 10/17/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	12-1-Lower (10/17/201 10/17/2013 Investigation OnsiteDown Onsite Shallow Eastern Area
Volatile Organics (ug/L)								
1,1,1,2-Tetrachloroethane	630206	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	71556	15.2	0.68 J	31	2.5	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	79345	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	79005	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	75343	2.1	1.7	46	0.82 J	< 1	< 1	< 1
1,1-Dichloroethene	75354	< 1	< 1	1.9	< 1	< 1	< 1	< 1
1,1-Dichloropropene	563586	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	87616	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	96184	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,2,4-Trichlorobenzene	120821	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	95636	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,2-Dibromoethane	106934	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	95501	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	107062	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	78875	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	108678	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,3-Dichlorobenzene	541731	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	142289	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	106467	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dioxane	123911	< 200	< 200	< 200	< 200	< 200	< 200	< 200
2,2-Dichloropropane	594207	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone	78933	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Chloroethyl Vinyl Ether	110758	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Chlorotoluene	95498	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Hexanone (methyl butyl ketone)	591786	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-Chlorotoluene	106434	< 1	< 1	< 1	< 1	< 1	< 1	< 1
4-Isopropyltoluene	99876	< 1	< 1	< 1	< 1	< 1	< 1	< 1
4-Methyl-2-Pentanone	108101	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Acetone	67641	< 25	< 25	< 25	< 25	< 25	< 25	< 25
Acrolein	107028	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Acrylonitrile	107131	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	71432	< 1	0.25 J	< 1	< 1	< 1	< 1	< 1
Bromobenzene	108861	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	74975	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	75274	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	75252	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromomethane	74839	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Carbon Disulfide	75150	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Carbon Tetrachloride	56235		< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	108907	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	124481	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification / Date Collected / Sample Type / OnsiteDown/Up / Onsite/Offsite / Aquifer / Area / CAS No.	A10-3 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	A10-4 (10/1/2013) 10/1/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	A10-5 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	A11-1 (10/15/2013) 10/15/2013 Investigation OnsiteDown Onsite Shallow Central Area	A12-1 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	12-1-Clay (10/17/2013 10/17/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	12-1-Lower (10/17/201 10/17/2013 Investigation OnsiteDown Onsite Shallow Eastern Area
Volatile Organics (ug/L) (continued)								
Dibromochloropropane (DBCP)	67708832	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chloroethane	75003	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chloroform	67663	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloromethane	74873	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Cis-1,2-Dichloroethene	156592	< 1	3.3	16.1	18.5	7.4	20.299999	25.5
Cis-1,3-Dichloropropene	10061015	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dibromomethane	74953	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Dichlorodifluoromethane	75718	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Ethylbenzene	100414	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	87683	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Isopropylbenzene	98828	< 1	< 1	< 1	< 1	< 1	< 1	< 1
M,P-Xylenes	106423	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl Tert-Butyl Ether	1634044	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene Chloride	75092	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Naphthalene	91203	< 3	< 3	< 3	< 3	< 3	< 3	< 3
N-Butylbenzene	104518	< 1	< 1	< 1	< 1	< 1	< 1	< 1
N-Propylbenzene	103651	< 1	< 1	< 1	< 1	< 1	< 1	< 1
O-Xylene	95476	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Sec-Butylbenzene	135988	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100425	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert-Butylbenzene	98066	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	127184	10	1.2	8.1	3.6	< 1	< 1	2.3
Toluene	108883	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,2-Dichloroethene	156605	< 1	< 1	0.41 J	0.27 J	< 1	< 1	< 1
Trans-1,3-Dichloropropene	10061026	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	79016	0.49 J	0.56 J	5.6	2.6	< 1	1	110 E
Trichlorofluoromethane	75694	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Vinyl Acetate	108054	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Vinyl Chloride	75014	< 1	< 1	< 1	0.88 J	< 1	< 1	< 1
Total Xylenes	TotalXy	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Semi-volatile Organics (ug/L)								
1,2,4-Trichlorobenzene	120821	NA	NA	NA	< 4.8	NA	NA	NA
1,2-Dichlorobenzene	95501	NA	NA	NA	< 4.8	NA	NA	NA
1,2-Diphenylhydrazine	122667	NA	NA	NA	< 4.8	NA	NA	NA
1,3-Dichlorobenzene	541731	NA	NA	NA	< 4.8	NA	NA	NA
1,4-Dichlorobenzene	106467	NA	NA	NA	< 4.8	NA	NA	NA
1,4-Dioxane	123911	NA	NA	NA	< 4.8	NA	NA	NA
1-Methylnaphthalene	90120	NA	NA	NA	< 4.8	NA	NA	NA
2,4,5-Trichlorophenol	95954	NA	NA	NA	< 4.8	NA	NA	NA
2,4,6-Trichlorophenol	88062	NA	NA	NA	< 4.8	NA	NA	NA
2,4-Dichlorophenol	120832	NA	NA	NA	< 4.8	NA	NA	NA

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent / Sample Identification	CAS No.	A10-3 (10/3/2013)	A10-4 (10/1/2013)	A10-5 (10/3/2013)	A11-1 (10/15/2013)	A12-1 (10/9/2013)	A12-1-Clay (10/17/2013)	A12-1-Lower (10/17/2013)
Date Collected		10/3/2013	10/1/2013	10/3/2013	10/15/2013	10/9/2013	10/17/2013	10/17/2013
Sample Type		Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
OnsiteDown/Up		OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown
Onsite/Offsite		Onsite	Onsite	Onsite	Onsite	Onsite	Onsite	Onsite
Aquifer		Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Area		Eastern Area	Eastern Area	Eastern Area	Central Area	Eastern Area	Eastern Area	Eastern Area
Semi-volatile Organics (ug/L) (continued)								
2,4-Dimethylphenol	105679	NA	NA	NA	< 4.8	NA	NA	NA
2,4-Dinitrophenol	51285	NA	NA	NA	< 24	NA	NA	NA
2,4-Dinitrotoluene	121142	NA	NA	NA	< 4.8	NA	NA	NA
2,6-Dinitrotoluene	606202	NA	NA	NA	< 4.8	NA	NA	NA
2-Chloronaphthalene	91587	NA	NA	NA	< 4.8	NA	NA	NA
2-Chlorophenol	95578	NA	NA	NA	< 4.8	NA	NA	NA
2-Methylnaphthalene	91576	NA	NA	NA	< 4.8	NA	NA	NA
2-Methylphenol	95487	NA	NA	NA	< 4.8	NA	NA	NA
2-Nitroaniline	88744	NA	NA	NA	< 4.8	NA	NA	NA
2-Nitrophenol	88755	NA	NA	NA	< 4.8	NA	NA	NA
3,3'-Dichlorobenzidine	91941	NA	NA	NA	< 4.8	NA	NA	NA
3-Nitroaniline	99092	NA	NA	NA	< 4.8	NA	NA	NA
4,6-Dinitro-2-Methylphenol	534521	NA	NA	NA	< 4.8	NA	NA	NA
4-Bromophenyl Phenyl Ether	101553	NA	NA	NA	< 9.6	NA	NA	NA
4-Chloro-3-Methylphenol	59507	NA	NA	NA	< 4.8 R	NA	NA	NA
4-Chloroaniline	106478	NA	NA	NA	< 4.8	NA	NA	NA
4-Chlorophenyl Phenyl Ether	7005723	NA	NA	NA	< 4.8	NA	NA	NA
4-Nitroaniline	100016	NA	NA	NA	< 4.8	NA	NA	NA
4-Nitrophenol	100027	NA	NA	NA	< 4.8	NA	NA	NA
Acenaphthene	83329	NA	NA	NA	< 24	NA	NA	NA
Acenaphthylene	208968	NA	NA	NA	< 4.8	NA	NA	NA
Aniline	62533	NA	NA	NA	< 4.8	NA	NA	NA
Anthracene	120127	NA	NA	NA	< 4.8	NA	NA	NA
Benzidine	92875	NA	NA	NA	< 4.8	NA	NA	NA
Benzo(A)Anthracene	56553	NA	NA	NA	< 24	NA	NA	NA
Benzo(A)Pyrene	50328	NA	NA	NA	< 4.8	NA	NA	NA
Benzo(B)Fluoranthene	205992	NA	NA	NA	< 4.8	NA	NA	NA
Benzo(G,H,I)Perylene	191242	NA	NA	NA	< 4.8	NA	NA	NA
Benzo(K)Fluoranthene	207089	NA	NA	NA	< 4.8	NA	NA	NA
Benzoic Acid	65850	NA	NA	NA	< 4.8	NA	NA	NA
Benzyl Alcohol	100516	NA	NA	NA	< 48	NA	NA	NA
Bis(2-Chloroethoxy)Methane	111911	NA	NA	NA	< 4.8	NA	NA	NA
Bis(2-Chloroethyl)Ether	111444	NA	NA	NA	< 4.8	NA	NA	NA
Bis(2-Chloroisopropyl)Ether	108601	NA	NA	NA	< 4.8	NA	NA	NA
Bis(2-Ethylhexyl) Phthalate	117817	NA	NA	NA	< 4.8	NA	NA	NA
Butyl Benzyl Phthalate	85687	NA	NA	NA	< 4.8	NA	NA	NA
Carbazole	86748	NA	NA	NA	< 4.8	NA	NA	NA
Chrysene	218019	NA	NA	NA	< 4.8	NA	NA	NA
Dibenz(A,H)Anthracene	53703	NA	NA	NA	< 4.8	NA	NA	NA
Dibenzofuran	132649	NA	NA	NA	< 4.8	NA	NA	NA
Diethyl Phthalate	84662	NA	NA	NA	< 4.8	NA	NA	NA

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	A10-3 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	A10-4 (10/1/2013) 10/1/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	A10-5 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	A11-1 (10/15/2013) 10/15/2013 Investigation OnsiteDown Onsite Shallow Central Area	A12-1 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	12-1-Clay (10/17/2013 10/17/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	12-1-Lower (10/17/201 10/17/2013 Investigation OnsiteDown Onsite Shallow Eastern Area
Semi-volatile Organics (ug/L) (continued)								
Dimethyl Phthalate	131113	NA	NA	NA	< 4.8	NA	NA	NA
Di-N-Butyl Phthalate	84742	NA	NA	NA	< 4.8	NA	NA	NA
Di-N-Octyl Phthalate	117840	NA	NA	NA	< 4.8	NA	NA	NA
Fluoranthene	206440	NA	NA	NA	< 4.8	NA	NA	NA
Fluorene	86737	NA	NA	NA	< 4.8	NA	NA	NA
Hexachloro-1,3-Cyclopentadiene	77474	NA	NA	NA	< 4.8	NA	NA	NA
Hexachlorobenzene	118741	NA	NA	NA	< 4.8	NA	NA	NA
Hexachlorobutadiene	87683	NA	NA	NA	< 4.8	NA	NA	NA
Hexachloroethane	67721	NA	NA	NA	< 4.8	NA	NA	NA
Indeno(1,2,3-Cd)Pyrene	193395	NA	NA	NA	< 4.8	NA	NA	NA
Isophorone	78591	NA	NA	NA	< 4.8	NA	NA	NA
M-,P-Cresol Mixture	106445	NA	NA	NA	< 4.8	NA	NA	NA
Naphthalene	91203	NA	NA	NA	< 4.8	NA	NA	NA
Nitrobenzene	98953	NA	NA	NA	< 4.8	NA	NA	NA
N-Nitrosodimethylamine	62759	NA	NA	NA	< 4.8	NA	NA	NA
N-Nitrosodi-N-Propylamine	621647	NA	NA	NA	< 4.8	NA	NA	NA
N-Nitrosodiphenylamine	86306	NA	NA	NA	< 4.8	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	< 24	NA	NA	NA
Phenanthrene	85018	NA	NA	NA	< 4.8	NA	NA	NA
Phenol	108952	NA	NA	NA	< 4.8	NA	NA	NA
Pyrene	129000	NA	NA	NA	< 4.8	NA	NA	NA
Pyridine	110861	NA	NA	NA	< 9.6	NA	NA	NA
Total Petroleum Hydrocarbons (ug/L)								
DRO (C10-C28) Range	DRO	NA	NA	NA	NA	NA	NA	NA
Total Inorganics (ug/L)								
Arsenic	7440382	< 10	105	NA	< 10	NA	NA	NA
Barium	7440393	< 200	3540	NA	206	NA	NA	NA
Cadmium	7440439	< 5	< 10	NA	< 5	NA	NA	NA
Calcium	7440702	NA	165000	NA	NA	NA	NA	NA
Chromium	18540299	< 10	343	NA	< 10	NA	NA	NA
Iron	7439896	NA	311000	NA	NA	NA	NA	NA
Lead	7439921	29.299999	762	NA	< 5	NA	NA	NA
Magnesium	7439954	NA	102000	NA	NA	NA	NA	NA
Manganese	7439965	NA	16100	NA	NA	NA	NA	NA
Mercury	7439976	< 0.5	0.7	NA	< 0.5	NA	NA	NA
Potassium	7440097	NA	43100	NA	NA	NA	NA	NA
Selenium	7782492	< 10	< 20	NA	< 10	NA	NA	NA
Silver	7440224	< 10	< 20	NA	< 10	NA	NA	NA
Sodium	7440235	NA	42800	NA	NA	NA	NA	NA

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	A10-3 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	A10-4 (10/1/2013) 10/1/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	A10-5 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	A11-1 (10/15/2013) 10/15/2013 Investigation OnsiteDown Onsite Shallow Central Area	A12-1 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	12-1-Clay (10/17/2013 10/17/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	12-1-Lower (10/17/201 10/17/2013 Investigation OnsiteDown Onsite Shallow Eastern Area
Dissolved Inorganics (ug/L)								
Arsenic	7440382	NA	< 10	NA	NA	NA	NA	NA
Barium	7440393	NA	< 200	NA	NA	NA	NA	NA
Cadmium	7440439	NA	< 5	NA	NA	NA	NA	NA
Calcium	7440702	NA	113000	NA	NA	NA	NA	NA
Chromium	18540299	NA	< 10	NA	NA	NA	NA	NA
Iron	7439896	NA	< 5	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	38700	NA	NA	NA	NA	NA
Manganese	7439965	NA	3560	NA	NA	NA	NA	NA
Mercury	7439976	NA	< 0.5	NA	NA	NA	NA	NA
Potassium	7440097	NA	< 10000	NA	NA	NA	NA	NA
Selenium	7782492	NA	< 10	NA	NA	NA	NA	NA
Silver	7440224	NA	< 10	NA	NA	NA	NA	NA
Sodium	7440235	NA	49500	NA	NA	NA	NA	NA
Misc. Parameters (ug/L)								
Oxygen, Dissolved (mg/L)	7782447	1.98	0.43	0.74	1.34	0.66	0.36	1.29
Alkalinity (Caco3), Carbonate (mg/L)	71523	NA	NA	NA	NA	NA	NA	NA
Alkalinity (HCO3), Bicarbonate (mg/L)	AlkB	NA	NA	NA	NA	NA	NA	NA
Alkalinity (Total) (mg/L)	AlkT	NA	NA	NA	NA	NA	NA	NA
pH	pH	6.62	6.82	6.86	6.55	6.54	7.18	7.17
Redox Potential (mV)	Redox	-53.200001	-391	-29.700001	203.100006	-238.60001	-102.4	-60.599998
Specific Conductance (umhos/cm)	- -	1416	1059	1266	805	900	827	989
Temperature (°C)	- -	2314	24.290001	24.219999	16.440001	19	17.48	18.620001
Turbidity (NTU)	- -	398	1000	1000	< 0	1000	< 0	< 0
Chloride	16887006	NA	NA	NA	NA	NA	NA	NA
Chloride (Dissolved)	16887006	NA	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA	NA
Hardness	- -	NA	NA	NA	NA	NA	NA	NA
Nitrate as N	14797558	NA	NA	NA	NA	NA	NA	NA
Sulfate	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfate (Dissolved)	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfide	18496258	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	NA	NA	NA	NA	NA	NA	NA
Total Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids	- -	NA	NA	NA	NA	NA	NA	NA

Notes:
J - Estimated result.
NA - Not Analyzed.
R - Rejected result.

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	A12-3 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	A8-1 (10/1/2013) 10/1/2013 Investigation OnsiteDown Onsite Shallow Central Area	BC-2 (10/17/2013) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-17 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-17 DUP (10/9/2013 10/9/2013 Duplicate OnsiteDown Onsite Shallow Central Area	DC-3 (10/16/2013) 10/16/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-6 (10/16/2013) 10/16/2013 Investigation OnsiteDown Onsite Shallow Central Area
Volatile Organics (ug/L)								
1,1,1,2-Tetrachloroethane	630206	< 1	< 1	< 1	< 1	< 1	< 20	< 1
1,1,1-Trichloroethane	71556	< 1	< 1	7.4	33.099998	32.900002	87.099998	12.6
1,1,2,2-Tetrachloroethane	79345	< 1	< 1	< 1	< 1	< 1	< 20	< 1
1,1,2-Trichloroethane	79005	< 1	< 1	< 1	< 1	< 1	< 20	< 1
1,1-Dichloroethane	75343	< 1	0.49 J	< 1	5.8	5.7	26.200001	0.68 J
1,1-Dichloroethene	75354	< 1	< 1	< 1	4	4.4	8.5 J	1.2
1,1-Dichloropropene	563586	< 1	< 1	< 1	< 1	< 1	< 20	< 1
1,2,3-Trichlorobenzene	87616	< 1	< 1	< 1	< 1	< 1	< 20	< 1
1,2,3-Trichloropropane	96184	< 2	< 2	< 2	< 2	< 2	< 40	< 2
1,2,4-Trichlorobenzene	120821	< 1	< 1	< 1	< 1	< 1	< 20	< 1
1,2,4-Trimethylbenzene	95636	4.9	< 2	< 2	< 2	< 2	< 40	< 2
1,2-Dibromoethane	106934	< 1	< 1	< 1	< 1	< 1	< 20	< 1
1,2-Dichlorobenzene	95501	< 1	< 1	< 1	< 1	< 1	< 20	< 1
1,2-Dichloroethane	107062	< 1	< 1	< 1	< 1	< 1	< 20	< 1
1,2-Dichloropropane	78875	< 1	< 1	< 1	< 1	< 1	< 20	< 1
1,3,5-Trimethylbenzene	108678	2.1	< 2	< 2	< 2	< 2	< 40	< 2
1,3-Dichlorobenzene	541731	< 1	< 1	< 1	< 1	< 1	< 20	< 1
1,3-Dichloropropane	142289	< 1	< 1	< 1	< 1	< 1	< 20	< 1
1,4-Dichlorobenzene	106467	< 1	< 1	< 1	< 1	< 1	< 20	< 1
1,4-Dioxane	123911	< 200	< 200	< 200	< 200	< 200	< 4000	< 200
2,2-Dichloropropane	594207	< 1	< 1	< 1	< 1	< 1	< 20	< 1
2-Butanone	78933	< 5	< 5	< 5	< 5	< 5	< 100	< 5
2-Chloroethyl Vinyl Ether	110758	< 5	< 5	< 5	< 5	< 5	< 100	< 5
2-Chlorotoluene	95498	< 1	< 1	< 1	< 1	< 1	< 20	< 1
2-Hexanone (methyl butyl ketone)	591786	< 10	< 10	< 10	< 10	< 10	< 200	< 10
4-Chlorotoluene	106434	< 1	< 1	< 1	< 1	< 1	< 20	< 1
4-Isopropyltoluene	99876	0.22 J	< 1	< 1	< 1	< 1	< 20	< 1
4-Methyl-2-Pentanone	108101	< 5	< 5	< 5	< 5	< 5	< 100	< 5
Acetone	67641	< 25	< 25	< 25	< 25	< 25	< 500	< 25
Acrolein	107028	< 20	< 20	< 20	< 20	< 20	< 400	< 20
Acrylonitrile	107131	< 10	< 10	< 10	< 10	< 10	< 200	< 10
Benzene	71432	< 1	< 1	< 1	< 1	< 1	< 20	0.46 J
Bromobenzene	108861	< 1	< 1	< 1	< 1	< 1	< 20	< 1
Bromochloromethane	74975	< 1	< 1	< 1	< 1	< 1	< 20	< 1
Bromodichloromethane	75274	< 1	< 1	< 1	< 1	< 1	< 20	< 1
Bromoform	75252	< 1	< 1	< 1	< 1	< 1	< 20	< 1
Bromomethane	74839	< 2	< 2	< 2	< 2	< 2	< 40	< 2
Carbon Disulfide	75150	< 2	< 2	< 2	< 2	< 2	< 40	< 2
Carbon Tetrachloride	56235	< 1	< 1	< 1	< 1	< 1	< 20	< 1
Chlorobenzene	108907	< 1	< 1	< 1	< 1	< 1	< 20	< 1
Dibromochloromethane	124481	< 1	< 1	< 1	< 1	< 1	< 20	< 1

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	A12-3 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	A8-1 (10/1/2013) 10/1/2013 Investigation OnsiteDown Onsite Shallow Central Area	BC-2 (10/17/2013) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-17 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-17 DUP (10/9/2013) 10/9/2013 Duplicate OnsiteDown Onsite Shallow Central Area	DC-3 (10/16/2013) 10/16/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-6 (10/16/2013) 10/16/2013 Investigation OnsiteDown Onsite Shallow Central Area
Volatile Organics (ug/L) (continued)								
Dibromochloropropane (DBCP)	67708832	< 2	< 2	< 2	< 2	< 2	< 40	< 2
Chloroethane	75003	< 2	< 2	< 2	< 2	< 2	< 40	< 2
Chloroform	67663	< 1	< 1	< 1	< 1	< 1	< 20	< 1
Chloromethane	74873	< 2	< 2	< 2	< 2	< 2	< 40	< 2
Cis-1,2-Dichloroethene	156592	9.1	8.4	1.5	70.400002	68.599998	1710	18.700001
Cis-1,3-Dichloropropene	10061015	< 1	< 1	< 1	< 1	< 1	< 20	< 1
Dibromomethane	74953	< 2	< 2	< 2	< 2	< 2	< 40	< 2
Dichlorodifluoromethane	75718	< 2	< 2	< 2	< 2	< 2	< 40	< 2
Ethylbenzene	100414	43.099998	< 1	< 1	< 1	< 1	22.1	< 1
Hexachlorobutadiene	87683	< 2	< 2	< 2	< 2	< 2	< 40	< 2
Isopropylbenzene	98828	1.6	< 1	< 1	< 1	< 1	< 20	< 1
M,P-Xylenes	106423	134	< 2	< 2	< 2	< 2	48.099998	< 2
Methyl Tert-Butyl Ether	1634044	< 1	< 1	< 1	< 1	< 1	< 20	< 1
Methylene Chloride	75092	< 5	< 5	< 5	< 5	< 5	< 100	< 5
Naphthalene	91203	< 3	< 3	< 3	< 3	< 3	< 60	< 3
N-Butylbenzene	104518	0.29 J	< 1	< 1	< 1	< 1	< 20	< 1
N-Propylbenzene	103651	1.9	< 1	< 1	< 1	< 1	< 20	< 1
O-Xylene	95476	49.599998	< 1	< 1	< 1	< 1	< 20	< 1
Sec-Butylbenzene	135988	0.28 J	< 1	< 1	< 1	< 1	< 20	< 1
Styrene	100425	< 1	< 1	< 1	< 1	< 1	< 20	< 1
Tert-Butylbenzene	98066	< 1	< 1	< 1	< 1	< 1	< 20	< 1
Tetrachloroethene	127184	6.5	0.38 J	31.799999	60.099998	65	38.400002	11.4
Toluene	108883	41.200001	< 1	< 1	< 1	< 1	4.2 J	< 1
Trans-1,2-Dichloroethene	156605	< 1	0.63 J	< 1	2	2	< 20	0.99 J
Trans-1,3-Dichloropropene	10061026	< 1	< 1	< 1	< 1	< 1	< 20	< 1
Trichloroethene	79016	0.75 J	0.8 J	6.6	26.200001	27.1	19.5 J	2.3
Trichlorofluoromethane	75694	< 2	< 2	< 2	< 2	< 2	< 40	< 2
Vinyl Acetate	108054	< 10	< 10	< 10	< 10	< 10	< 200	< 10
Vinyl Chloride	75014	< 1	< 1	< 1	< 1	< 1	22.299999	< 1
Total Xylenes	TotalXy	183.599998	< 2	< 2	< 2	< 2	48.099998	< 2
Semi-volatile Organics (ug/L)								
1,2,4-Trichlorobenzene	120821	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95501	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122667	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541731	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106467	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	123911	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90120	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95954	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88062	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120832	NA	NA	NA	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	A12-3 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	A8-1 (10/1/2013) 10/1/2013 Investigation OnsiteDown Onsite Shallow Central Area	BC-2 (10/17/2013) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-17 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-17 DUP (10/9/2013 10/9/2013 Duplicate OnsiteDown Onsite Shallow Central Area	DC-3 (10/16/2013) 10/16/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-6 (10/16/2013) 10/16/2013 Investigation OnsiteDown Onsite Shallow Central Area
Semi-volatile Organics (ug/L) (continued)								
2,4-Dimethylphenol	105679	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51285	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121142	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606202	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91587	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95578	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91576	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95487	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88744	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88755	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	91941	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99092	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	534521	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	101553	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	59507	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106478	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl Phenyl Ether	7005723	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100016	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100027	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83329	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208968	NA	NA	NA	NA	NA	NA	NA
Aniline	62533	NA	NA	NA	NA	NA	NA	NA
Anthracene	120127	NA	NA	NA	NA	NA	NA	NA
Benzidine	92875	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Anthracene	56553	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Pyrene	50328	NA	NA	NA	NA	NA	NA	NA
Benzo(B)Fluoranthene	205992	NA	NA	NA	NA	NA	NA	NA
Benzo(G,H,I)Perylene	191242	NA	NA	NA	NA	NA	NA	NA
Benzo(K)Fluoranthene	207089	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	65850	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	100516	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)Methane	111911	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)Ether	111444	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)Ether	108601	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl) Phthalate	117817	NA	NA	NA	NA	NA	NA	NA
Butyl Benzyl Phthalate	85687	NA	NA	NA	NA	NA	NA	NA
Carbazole	86748	NA	NA	NA	NA	NA	NA	NA
Chrysene	218019	NA	NA	NA	NA	NA	NA	NA
Dibenz(A,H)Anthracene	53703	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132649	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	84662	NA	NA	NA	NA	NA	NA	NA

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	A12-3 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	A8-1 (10/1/2013) 10/1/2013 Investigation OnsiteDown Onsite Shallow Central Area	BC-2 (10/17/2013) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-17 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-17 DUP (10/9/2013 10/9/2013 Duplicate OnsiteDown Onsite Shallow Central Area	DC-3 (10/16/2013) 10/16/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-6 (10/16/2013) 10/16/2013 Investigation OnsiteDown Onsite Shallow Central Area
Semi-volatile Organics (ug/L) (continued)								
Dimethyl Phthalate	131113	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	84742	NA	NA	NA	NA	NA	NA	NA
Di-N-Octyl Phthalate	117840	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206440	NA	NA	NA	NA	NA	NA	NA
Fluorene	86737	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Cyclopentadiene	77474	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118741	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87683	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67721	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-Cd)Pyrene	193395	NA	NA	NA	NA	NA	NA	NA
Isophorone	78591	NA	NA	NA	NA	NA	NA	NA
M-,P-Cresol Mixture	106445	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91203	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98953	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62759	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	621647	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86306	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85018	NA	NA	NA	NA	NA	NA	NA
Phenol	108952	NA	NA	NA	NA	NA	NA	NA
Pyrene	129000	NA	NA	NA	NA	NA	NA	NA
Pyridine	110861	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (ug/L)								
DRO (C10-C28) Range	DRO	NA	NA	NA	NA	NA	NA	NA
Total Inorganics (ug/L)								
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	A12-3 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	A8-1 (10/1/2013) 10/1/2013 Investigation OnsiteDown Onsite Shallow Central Area	BC-2 (10/17/2013) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-17 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-17 DUP (10/9/2013 10/9/2013 Duplicate OnsiteDown Onsite Shallow Central Area	DC-3 (10/16/2013) 10/16/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-6 (10/16/2013) 10/16/2013 Investigation OnsiteDown Onsite Shallow Central Area
Dissolved Inorganics (ug/L)								
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA
Misc. Parameters (ug/L)								
Oxygen, Dissolved (mg/L)	7782447	0.86	0.41	0.57	1.69	NA	0.36	1.78
Alkalinity (Caco3), Carbonate (mg/L)	71523	NA	NA	NA	NA	NA	NA	NA
Alkalinity (HCO3), Bicarbonate (mg/L)	AlkB	NA	NA	NA	NA	NA	NA	NA
Alkalinity (Total) (mg/L)	AlkT	NA	NA	NA	NA	NA	NA	NA
pH	pH	6.67	6.89	6.75	6.83	NA	6.79	6.76
Redox Potential (mV)	Redox	-80.699997	9.8	-85.699997	-46.200001	NA	-98.300003	-43.299999
Specific Conductance (umhos/cm)	- -	924	786	861	795	NA	1754	1531
Temperature (°C)	- -	19.66	24.32	19.01	19.040001	NA	17.91	18
Turbidity (NTU)	- -	1000	1000	43	< 0	NA	35	45
Chloride	16887006	NA	NA	NA	NA	NA	NA	NA
Chloride (Dissolved)	16887006	NA	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA	NA
Hardness	- -	NA	NA	NA	NA	NA	NA	NA
Nitrate as N	14797558	NA	NA	NA	NA	NA	NA	NA
Sulfate	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfate (Dissolved)	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfide	18496258	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	NA	NA	NA	NA	NA	NA	NA
Total Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids	- -	NA	NA	NA	NA	NA	NA	NA

Notes:
J - Estimated result.
NA - Not Analyzed.
R - Rejected result.

Risk-Based Remedies
RBR Consulting, Inc.

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	DC-9 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-9 DUP (10/9/2013) 10/9/2013 Duplicate OnsiteDown Onsite Shallow Central Area	DC-SUMP (10/17/2013 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	JC-1 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-3 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-5 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-5a (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area
Volatile Organics (ug/L)								
1,1,1,2-Tetrachloroethane	630206	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
1,1,1-Trichloroethane	71556	< 1	< 1	23.700001	NA	< 1	< 1 J	0.3 J
1,1,2,2-Tetrachloroethane	79345	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
1,1,2-Trichloroethane	79005	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
1,1-Dichloroethane	75343	< 1	< 1	5.6	NA	< 1	< 1 J	0.87 J
1,1-Dichloroethene	75354	< 1	< 1	2.1	NA	< 1	0.22 J	< 1 J
1,1-Dichloropropene	563586	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
1,2,3-Trichlorobenzene	87616	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
1,2,3-Trichloropropane	96184	< 2	< 2	< 4	NA	< 2	< 2 J	< 2 J
1,2,4-Trichlorobenzene	120821	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
1,2,4-Trimethylbenzene	95636	< 2	< 2	< 4	NA	< 2	< 2 J	< 2 J
1,2-Dibromoethane	106934	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
1,2-Dichlorobenzene	95501	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
1,2-Dichloroethane	107062	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
1,2-Dichloropropane	78875	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
1,3,5-Trimethylbenzene	108678	< 2	< 2	< 4	NA	< 2	< 2 J	< 2 J
1,3-Dichlorobenzene	541731	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
1,3-Dichloropropane	142289	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
1,4-Dichlorobenzene	106467	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
1,4-Dioxane	123911	< 200	< 200	< 400	NA	< 200	< 200 J	< 200 J
2,2-Dichloropropane	594207	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
2-Butanone	78933	< 5	< 5	< 10	NA	< 5	< 5 J	< 5 J
2-Chloroethyl Vinyl Ether	110758	< 5	< 5	< 10	NA	< 5	< 5 J	< 5 J
2-Chlorotoluene	95498	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
2-Hexanone (methyl butyl ketone)	591786	< 10	< 10	< 20	NA	< 10	< 10 J	< 10 J
4-Chlorotoluene	106434	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
4-Isopropyltoluene	99876	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
4-Methyl-2-Pentanone	108101	< 5	< 5	< 10	NA	< 5	< 5 J	< 5 J
Acetone	67641	< 25	< 25	< 50	NA	< 25	< 25 J	14.7 J
Acrolein	107028	< 20	< 20	< 40	NA	< 20	< 20 J	< 20 J
Acrylonitrile	107131	< 10	< 10	< 20	NA	< 10	< 10 J	< 10 J
Benzene	71432	< 1	< 1	0.53 J	NA	0.58 J	0.73 J	0.37 J
Bromobenzene	108861	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
Bromochloromethane	74975	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
Bromodichloromethane	75274	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
Bromoform	75252	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
Bromomethane	74839	< 2	< 2	< 4	NA	< 2	< 2 J	< 2 J
Carbon Disulfide	75150	< 2	< 2	< 4	NA	2.4	6.6 J	< 2 J
Carbon Tetrachloride	56235	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
Chlorobenzene	108907	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
Dibromochloromethane	124481	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Sample Identification		DC-9 (10/9/2013)	DC-9 DUP (10/9/2013)	DC-SUMP (10/17/2013	JC-1 (10/18/2013)	JC-3 (10/18/2013)	JC-5 (10/18/2013)	JC-5a (10/18/2013)
Date Collected		10/9/2013	10/9/2013	10/17/2013	10/18/2013	10/18/2013	10/18/2013	10/18/2013
Sample Type		Investigation	Duplicate	Investigation	Investigation	Investigation	Investigation	Investigation
OnsiteDown/Up		OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown
Onsite/Offsite		Onsite	Onsite	Onsite	Onsite	Onsite	Onsite	Onsite
Aquifer		Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Area		Central Area	Central Area	Central Area	Eastern Area	Eastern Area	Eastern Area	Eastern Area
Constituent	CAS No.							
Volatile Organics (ug/L) (continued)								
Dibromochloropropane (DBCP)	67708832	< 2	< 2	< 4	NA	< 2	< 2 J	< 2 J
Chloroethane	75003	< 2	< 2	< 4	NA	< 2	< 2 J	< 2 J
Chloroform	67663	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
Chloromethane	74873	< 2	< 2	< 4	NA	< 2	< 2 J	< 2 J
Cis-1,2-Dichloroethene	156592	6.3	5.8	183 J	NA	10.5	5.8 J	8.9 J
Cis-1,3-Dichloropropene	10061015	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
Dibromomethane	74953	< 2	< 2	< 4	NA	< 2	< 2 J	< 2 J
Dichlorodifluoromethane	75718	< 2	< 2	< 4	NA	< 2	< 2 J	< 2 J
Ethylbenzene	100414	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
Hexachlorobutadiene	87683	< 2	< 2	< 4	NA	< 2	< 2 J	< 2 J
Isopropylbenzene	98828	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
M,P-Xylenes	106423	< 2	< 2	< 4	NA	0.49 J	< 2 J	1.1 J
Methyl Tert-Butyl Ether	1634044	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
Methylene Chloride	75092	< 5	< 5	< 10	NA	< 5	< 5 J	< 5 J
Naphthalene	91203	< 3	< 3	< 6	NA	< 3	< 3 J	< 3 J
N-Butylbenzene	104518	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
N-Propylbenzene	103651	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
O-Xylene	95476	< 1	< 1	< 2	NA	0.27 J	< 1 J	0.56 J
Sec-Butylbenzene	135988	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
Styrene	100425	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
Tert-Butylbenzene	98066	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
Tetrachloroethene	127184	< 1	< 1	6.3	NA	2.5	2 J	6.3 J
Toluene	108883	< 1	< 1	< 2	NA	0.43 J	0.27 J	0.55 J
Trans-1,2-Dichloroethene	156605	0.64 J	0.61 J	2.1	NA	< 1	< 1 J	< 1 J
Trans-1,3-Dichloropropene	10061026	< 1	< 1	< 2	NA	< 1	< 1 J	< 1 J
Trichloroethene	79016	< 1	< 1	7.1	NA	0.94 J	7.1 J	3.3 J
Trichlorofluoromethane	75694	< 2	< 2	< 4	NA	< 2	< 2 J	< 2 J
Vinyl Acetate	108054	< 10	< 10	< 20	NA	< 10	< 10 J	< 10 J
Vinyl Chloride	75014	< 1	< 1	23.299999	NA	3.2	0.56 J	0.71 J
Total Xylenes	TotalXy	< 2	< 2	< 4	NA	0.76	< 2	1.66
Semi-volatile Organics (ug/L)								
1,2,4-Trichlorobenzene	120821	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95501	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122667	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541731	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106467	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	123911	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90120	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95954	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88062	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120832	NA	NA	NA	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	DC-9 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-9 DUP (10/9/2013) 10/9/2013 Duplicate OnsiteDown Onsite Shallow Central Area	DC-SUMP (10/17/2013) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	JC-1 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-3 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-5 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-5a (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area
Semi-volatile Organics (ug/L) (continued)								
2,4-Dimethylphenol	105679	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51285	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121142	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606202	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91587	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95578	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91576	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95487	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88744	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88755	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	91941	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99092	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	534521	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	101553	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	59507	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106478	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl Phenyl Ether	7005723	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100016	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100027	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83329	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208968	NA	NA	NA	NA	NA	NA	NA
Aniline	62533	NA	NA	NA	NA	NA	NA	NA
Anthracene	120127	NA	NA	NA	NA	NA	NA	NA
Benzidine	92875	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Anthracene	56553	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Pyrene	50328	NA	NA	NA	NA	NA	NA	NA
Benzo(B)Fluoranthene	205992	NA	NA	NA	NA	NA	NA	NA
Benzo(G,H,I)Perylene	191242	NA	NA	NA	NA	NA	NA	NA
Benzo(K)Fluoranthene	207089	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	65850	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	100516	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)Methane	111911	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)Ether	111444	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)Ether	108601	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl) Phthalate	117817	NA	NA	NA	NA	NA	NA	NA
Butyl Benzyl Phthalate	85687	NA	NA	NA	NA	NA	NA	NA
Carbazole	86748	NA	NA	NA	NA	NA	NA	NA
Chrysene	218019	NA	NA	NA	NA	NA	NA	NA
Dibenz(A,H)Anthracene	53703	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132649	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	84662	NA	NA	NA	NA	NA	NA	NA

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	DC-9 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-9 DUP (10/9/2013) 10/9/2013 Duplicate OnsiteDown Onsite Shallow Central Area	DC-SUMP (10/17/2013) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	JC-1 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-3 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-5 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-5a (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area
Semi-volatile Organics (ug/L) (continued)								
Dimethyl Phthalate	131113	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	84742	NA	NA	NA	NA	NA	NA	NA
Di-N-Octyl Phthalate	117840	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206440	NA	NA	NA	NA	NA	NA	NA
Fluorene	86737	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Cyclopentadiene	77474	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118741	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87683	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67721	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-Cd)Pyrene	193395	NA	NA	NA	NA	NA	NA	NA
Isophorone	78591	NA	NA	NA	NA	NA	NA	NA
M-,P-Cresol Mixture	106445	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91203	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98953	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62759	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	621647	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86306	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85018	NA	NA	NA	NA	NA	NA	NA
Phenol	108952	NA	NA	NA	NA	NA	NA	NA
Pyrene	129000	NA	NA	NA	NA	NA	NA	NA
Pyridine	110861	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (ug/L)								
DRO (C10-C28) Range	DRO	NA	NA	NA	NA	NA	NA	NA
Total Inorganics (ug/L)								
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	DC-9 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Central Area	DC-9 DUP (10/9/2013) 10/9/2013 Duplicate OnsiteDown Onsite Shallow Central Area	DC-SUMP (10/17/2013) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	JC-1 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-3 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-5 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-5a (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area
Dissolved Inorganics (ug/L)								
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA
Misc. Parameters (ug/L)								
Oxygen, Dissolved (mg/L)	7782447	0.64	NA	0.51	-88	-88	-88	-88
Alkalinity (Caco3), Carbonate (mg/L)	71523	NA	NA	NA	NA	NA	NA	NA
Alkalinity (HCO3), Bicarbonate (mg/L)	AlkB	NA	NA	NA	NA	NA	NA	NA
Alkalinity (Total) (mg/L)	AlkT	NA	NA	NA	NA	NA	NA	NA
pH	pH	6.91	NA	7.18	-88	-88	-88	-88
Redox Potential (mV)	Redox	-99.800003	NA	-126	-88	-88	-88	-88
Specific Conductance (umhos/cm)	- -	794	NA	891	-88	-88	-88	-88
Temperature (°C)	- -	19.940001	NA	19.860001	-88	-88	-88	-88
Turbidity (NTU)	- -	< 0	NA	< 0	-88	-88	-88	-88
Chloride	16887006	NA	NA	NA	NA	NA	NA	NA
Chloride (Dissolved)	16887006	NA	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA	NA
Hardness	- -	NA	NA	NA	NA	NA	NA	NA
Nitrate as N	14797558	NA	NA	NA	NA	NA	NA	NA
Sulfate	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfate (Dissolved)	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfide	18496258	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	NA	NA	NA	NA	NA	NA	NA
Total Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids	- -	NA	NA	NA	NA	NA	NA	NA

Notes:
J - Estimated result.
NA - Not Analyzed.
R - Rejected result.

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	JC-7 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-9 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-11 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-13 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	NBJ-1 (10/7/2013) 10/7/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	NBJ-1 DUP (10/7/2013 10/7/2013 Duplicate OnsiteDown Onsite Shallow Eastern Area	NBJ-1a (10/14/2013) 10/14/2013 Investigation OnsiteDown Onsite Shallow Eastern Area
Volatile Organics (ug/L)								
1,1,1,2-Tetrachloroethane	630206	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,1,1-Trichloroethane	71556	< 1	< 1	< 1	< 1	1.5 J	1.5	< 1
1,1,2,2-Tetrachloroethane	79345	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,1,2-Trichloroethane	79005	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,1-Dichloroethane	75343	< 1	< 1	< 1	< 1	4 J	4.2	< 1
1,1-Dichloroethene	75354	0.22 J	< 1	0.21 J	< 1	0.75 J	0.81 J	0.44 J
1,1-Dichloropropene	563586	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,2,3-Trichlorobenzene	87616	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,2,3-Trichloropropane	96184	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
1,2,4-Trichlorobenzene	120821	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,2,4-Trimethylbenzene	95636	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
1,2-Dibromoethane	106934	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,2-Dichlorobenzene	95501	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,2-Dichloroethane	107062	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,2-Dichloropropane	78875	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,3,5-Trimethylbenzene	108678	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
1,3-Dichlorobenzene	541731	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,3-Dichloropropane	142289	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,4-Dichlorobenzene	106467	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,4-Dioxane	123911	< 200	< 200	< 200	< 200	< 200 J	< 200	< 200
2,2-Dichloropropane	594207	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
2-Butanone	78933	< 5	< 5	< 5	< 5	< 5 J	< 5	< 5
2-Chloroethyl Vinyl Ether	110758	< 5	< 5	< 5	< 5	< 5 J	< 5	< 5
2-Chlorotoluene	95498	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
2-Hexanone (methyl butyl ketone)	591786	< 10	< 10	< 10	< 10	< 10 J	< 10	< 10
4-Chlorotoluene	106434	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
4-Isopropyltoluene	99876	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
4-Methyl-2-Pentanone	108101	< 5	< 5	< 5	< 5	< 5 J	< 5	< 5
Acetone	67641	< 25	< 25	< 25	< 25	< 25 J	< 25	< 25
Acrolein	107028	< 20	< 20	< 20	< 20	< 20 J	< 20	< 20
Acrylonitrile	107131	< 10	< 10	< 10	< 10	< 10 J	< 10	< 10
Benzene	71432	1	0.33 J	0.79 J	1.4	< 1 J	< 1	1.6
Bromobenzene	108861	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Bromochloromethane	74975	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Bromodichloromethane	75274	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Bromoform	75252	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Bromomethane	74839	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
Carbon Disulfide	75150	< 2	0.6 J	< 2	2.4	< 2 J	< 2	< 2
Carbon Tetrachloride	56235	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Chlorobenzene	108907	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Dibromochloromethane	124481	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Sample Identification	JC-7 (10/18/2013)	JC-9 (10/18/2013)	JC-11 (10/18/2013)	JC-13 (10/18/2013)	NBJ-1 (10/7/2013)	NBJ-1 DUP (10/7/2013	NBJ-1a (10/14/2013)
Date Collected	10/18/2013	10/18/2013	10/18/2013	10/18/2013	10/7/2013	10/7/2013	10/14/2013
Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Duplicate	Investigation
OnsiteDown/Up	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown
Onsite/Offsite	Onsite	Onsite	Onsite	Onsite	Onsite	Onsite	Onsite
Aquifer	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Area	Eastern Area	Eastern Area	Eastern Area	Eastern Area	Eastern Area	Eastern Area	Eastern Area
Constituent / CAS No.							
Volatile Organics (ug/L) (continued)							
Dibromochloropropane (DBCP) 67708832	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
Chloroethane 75003	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
Chloroform 67663	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Chloromethane 74873	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
Cis-1,2-Dichloroethene 156592	6.5	18.299999	5.3	10.9	37 J	39	5.9
Cis-1,3-Dichloropropene 10061015	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Dibromomethane 74953	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
Dichlorodifluoromethane 75718	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
Ethylbenzene 100414	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Hexachlorobutadiene 87683	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
Isopropylbenzene 98828	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
M,P-Xylenes 106423	< 2	< 2	0.36 J	0.51 J	< 2 J	< 2	< 2
Methyl Tert-Butyl Ether 1634044	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Methylene Chloride 75092	< 5	< 5	< 5	< 5	< 5 J	< 5	< 5
Naphthalene 91203	< 3	< 3	< 3	< 3	< 3 J	< 3	< 3
N-Butylbenzene 104518	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
N-Propylbenzene 103651	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
O-Xylene 95476	< 1	< 1	0.27 J	0.32 J	< 1 J	< 1	< 1
Sec-Butylbenzene 135988	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Styrene 100425	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Tert-Butylbenzene 98066	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Tetrachloroethene 127184	2.6	4.1	0.6 J	1.2	18.9 J	18.200001	< 1
Toluene 108883	< 1	< 1	0.21 J	< 1	< 1 J	< 1	< 1
Trans-1,2-Dichloroethene 156605	< 1	< 1	< 1	< 1	1.3 J	1.3	< 1
Trans-1,3-Dichloropropene 10061026	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Trichloroethene 79016	5.8	2.5	8.1	0.81 J	19.799999 J	18.9	13
Trichlorofluoromethane 75694	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
Vinyl Acetate 108054	< 10	< 10	< 10	< 10	< 10 J	< 10	< 10
Vinyl Chloride 75014	< 1	0.55 J	< 1	1.6	5 J	5.2	< 1
Total Xylenes TotalXy	< 2	< 2	0.63	0.83	< 2	< 2	< 2
Semi-volatile Organics (ug/L)							
1,2,4-Trichlorobenzene 120821	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene 95501	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine 122667	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene 541731	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene 106467	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane 123911	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene 90120	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol 95954	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol 88062	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol 120832	NA	NA	NA	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	JC-7 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-9 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-11 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-13 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	NBJ-1 (10/7/2013) 10/7/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	NBJ-1 DUP (10/7/2013 10/7/2013 Duplicate OnsiteDown Onsite Shallow Eastern Area	NBJ-1a (10/14/2013) 10/14/2013 Investigation OnsiteDown Onsite Shallow Eastern Area
Semi-volatile Organics (ug/L) (continued)								
2,4-Dimethylphenol	105679	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51285	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121142	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606202	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91587	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95578	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91576	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95487	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88744	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88755	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	91941	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99092	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	534521	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	101553	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	59507	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106478	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl Phenyl Ether	7005723	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100016	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100027	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83329	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208968	NA	NA	NA	NA	NA	NA	NA
Aniline	62533	NA	NA	NA	NA	NA	NA	NA
Anthracene	120127	NA	NA	NA	NA	NA	NA	NA
Benzidine	92875	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Anthracene	56553	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Pyrene	50328	NA	NA	NA	NA	NA	NA	NA
Benzo(B)Fluoranthene	205992	NA	NA	NA	NA	NA	NA	NA
Benzo(G,H,I)Perylene	191242	NA	NA	NA	NA	NA	NA	NA
Benzo(K)Fluoranthene	207089	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	65850	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	100516	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)Methane	111911	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)Ether	111444	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)Ether	108601	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl) Phthalate	117817	NA	NA	NA	NA	NA	NA	NA
Butyl Benzyl Phthalate	85687	NA	NA	NA	NA	NA	NA	NA
Carbazole	86748	NA	NA	NA	NA	NA	NA	NA
Chrysene	218019	NA	NA	NA	NA	NA	NA	NA
Dibenz(A,H)Anthracene	53703	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132649	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	84662	NA	NA	NA	NA	NA	NA	NA

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	JC-7 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-9 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-11 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-13 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	NBJ-1 (10/7/2013) 10/7/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	NBJ-1 DUP (10/7/2013 10/7/2013 Duplicate OnsiteDown Onsite Shallow Eastern Area	NBJ-1a (10/14/2013) 10/14/2013 Investigation OnsiteDown Onsite Shallow Eastern Area
Semi-volatile Organics (ug/L) (continued)								
Dimethyl Phthalate	131113	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	84742	NA	NA	NA	NA	NA	NA	NA
Di-N-Octyl Phthalate	117840	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206440	NA	NA	NA	NA	NA	NA	NA
Fluorene	86737	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Cyclopentadiene	77474	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118741	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87683	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67721	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-Cd)Pyrene	193395	NA	NA	NA	NA	NA	NA	NA
Isophorone	78591	NA	NA	NA	NA	NA	NA	NA
M-,P-Cresol Mixture	106445	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91203	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98953	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62759	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	621647	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86306	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85018	NA	NA	NA	NA	NA	NA	NA
Phenol	108952	NA	NA	NA	NA	NA	NA	NA
Pyrene	129000	NA	NA	NA	NA	NA	NA	NA
Pyridine	110861	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (ug/L)								
DRO (C10-C28) Range	DRO	NA	NA	NA	NA	NA	NA	NA
Total Inorganics (ug/L)								
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA

Risk-Based Remedies
RBR Consulting, Inc.

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	JC-7 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-9 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-11 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	JC-13 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	NBJ-1 (10/7/2013) 10/7/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	NBJ-1 DUP (10/7/2013 10/7/2013 Duplicate OnsiteDown Onsite Shallow Eastern Area	NBJ-1a (10/14/2013) 10/14/2013 Investigation OnsiteDown Onsite Shallow Eastern Area
Dissolved Inorganics (ug/L)								
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA
Misc. Parameters (ug/L)								
Oxygen, Dissolved (mg/L)	7782447	-88	-88	-88	-88	0.48	NA	1.34
Alkalinity (Caco3), Carbonate (mg/L)	71523	NA	NA	NA	NA	NA	NA	NA
Alkalinity (HCO3), Bicarbonate (mg/L)	AlkB	NA	NA	NA	NA	NA	NA	NA
Alkalinity (Total) (mg/L)	AlkT	NA	NA	NA	NA	NA	NA	NA
pH	pH	-88	-88	-88	-88	6.58	NA	7.1
Redox Potential (mV)	Redox	-88	-88	-88	-88	-53.299999	NA	-38.900002
Specific Conductance (umhos/cm)	- -	-88	-88	-88	-88	1393	NA	900
Temperature (°C)	- -	-88	-88	-88	-88	19.18	NA	18.24
Turbidity (NTU)	- -	-88	-88	-88	-88	1000	NA	1000
Chloride	16887006	NA	NA	NA	NA	NA	NA	NA
Chloride (Dissolved)	16887006	NA	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA	NA
Hardness	- -	NA	NA	NA	NA	NA	NA	NA
Nitrate as N	14797558	NA	NA	NA	NA	NA	NA	NA
Sulfate	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfate (Dissolved)	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfide	18496258	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	NA	NA	NA	NA	NA	NA	NA
Total Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids	- -	NA	NA	NA	NA	NA	NA	NA

Notes:
J - Estimated result.
NA - Not Analyzed.
R - Rejected result.

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S1-1 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Central Area	S1-1 DUP (10/8/2013) 10/8/2013 Duplicate OnsiteDown Onsite Shallow Central Area	S1-2 (10/17/2013) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	S2-1 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Central Area	S3-1 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Central Area	S4-1 (10/15/2013) 10/15/2013 Investigation OnsiteDown Onsite Shallow Central Area	S4-2 (10/15/2013) 10/15/2013 Investigation OnsiteDown Onsite Shallow Central Area
Volatile Organics (ug/L)								
1,1,1,2-Tetrachloroethane	630206	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	71556	< 1	< 1	< 1	0.97 J	< 1	1.5	< 1
1,1,2,2-Tetrachloroethane	79345	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	79005	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	75343	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	75354	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	563586	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	87616	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	96184	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,2,4-Trichlorobenzene	120821	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	95636	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,2-Dibromoethane	106934	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	95501	< 1	< 1	< 1	< 1	< 4.7	< 1	< 1
1,2-Dichloroethane	107062	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	78875	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	108678	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,3-Dichlorobenzene	541731	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	142289	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	106467	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dioxane	123911	< 200	< 200	< 200	< 200	< 200	< 200	< 200
2,2-Dichloropropane	594207	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone	78933	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Chloroethyl Vinyl Ether	110758	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Chlorotoluene	95498	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Hexanone (methyl butyl ketone)	591786	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-Chlorotoluene	106434	< 1	< 1	< 1	< 1	< 1	< 1	< 1
4-Isopropyltoluene	99876	< 1	< 1	< 1	< 1	< 1	< 1	< 1
4-Methyl-2-Pentanone	108101	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Acetone	67641	< 25	< 25	< 25	< 25	< 25	< 25	< 25
Acrolein	107028	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Acrylonitrile	107131	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	71432	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	108861	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	74975	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	75274	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	75252	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromomethane	74839	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Carbon Disulfide	75150	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Carbon Tetrachloride	56235	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	108907	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	124481	< 1	< 1	< 1	< 1	< 1	< 1	< 1

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S1-1 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Central Area	S1-1 DUP (10/8/2013) 10/8/2013 Duplicate OnsiteDown Onsite Shallow Central Area	S1-2 (10/17/2013) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	S2-1 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Central Area	S3-1 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Central Area	S4-1 (10/15/2013) 10/15/2013 Investigation OnsiteDown Onsite Shallow Central Area	S4-2 (10/15/2013) 10/15/2013 Investigation OnsiteDown Onsite Shallow Central Area
Volatile Organics (ug/L) (continued)								
Dibromochloropropane (DBCP)	67708832	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chloroethane	75003	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chloroform	67663	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloromethane	74873	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Cis-1,2-Dichloroethene	156592	8.3	8.3	12.9	1.1	0.83 J	< 1	< 1
Cis-1,3-Dichloropropene	10061015	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dibromomethane	74953	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Dichlorodifluoromethane	75718	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Ethylbenzene	100414	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	87683	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Isopropylbenzene	98828	< 1	< 1	< 1	< 1	< 1	< 1	< 1
M,P-Xylenes	106423	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl Tert-Butyl Ether	1634044	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene Chloride	75092	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Naphthalene	91203	< 3	< 3	< 3	< 3	< 3	< 3	< 3
N-Butylbenzene	104518	< 1	< 1	< 1	< 1	< 1	< 1	< 1
N-Propylbenzene	103651	< 1	< 1	< 1	< 1	< 1	< 1	< 1
O-Xylene	95476	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Sec-Butylbenzene	135988	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100425	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert-Butylbenzene	98066	< 1	0.31 J	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	127184	< 1	< 1	< 1	0.89 J	0.44 J	2.2	< 1
Toluene	108883	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,2-Dichloroethene	156605	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	10061026	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	79016	< 1	< 1	< 1	0.49 J	< 1	< 1	< 1
Trichlorofluoromethane	75694	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Vinyl Acetate	108054	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Vinyl Chloride	75014	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	TotalXy	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Semi-volatile Organics (ug/L)								
1,2,4-Trichlorobenzene	120821	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
1,2-Dichlorobenzene	95501	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
1,2-Diphenylhydrazine	122667	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
1,3-Dichlorobenzene	541731	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
1,4-Dichlorobenzene	106467	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
1,4-Dioxane	123911		NA					< 4.7
1-Methylnaphthalene	90120	6.2	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
2,4,5-Trichlorophenol	95954	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
2,4,6-Trichlorophenol	88062	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
2,4-Dichlorophenol	120832	< 4.9 R	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S1-1 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Central Area		S1-1 DUP (10/8/2013) 10/8/2013 Duplicate OnsiteDown Onsite Shallow Central Area	S1-2 (10/17/2013) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area		S2-1 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Central Area	S3-1 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Central Area	S4-1 (10/15/2013) 10/15/2013 Investigation OnsiteDown Onsite Shallow Central Area		S4-2 (10/15/2013) 10/15/2013 Investigation OnsiteDown Onsite Shallow Central Area	
Semi-volatile Organics (ug/L) (continued)												
2,4-Dimethylphenol	105679	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
2,4-Dinitrophenol	51285	< 24		NA	< 25		< 27	< 24	< 24		< 24	
2,4-Dinitrotoluene	121142	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
2,6-Dinitrotoluene	606202	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
2-Chloronaphthalene	91587	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
2-Chlorophenol	95578	< 4.9	R	NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
2-Methylnaphthalene	91576	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
2-Methylphenol	95487	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
2-Nitroaniline	88744	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
2-Nitrophenol	88755	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
3,3'-Dichlorobenzidine	91941	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
3-Nitroaniline	99092	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
4,6-Dinitro-2-Methylphenol	534521	< 9.7		NA	< 10		< 11	< 9.4	< 9.4		< 9.4	
4-Bromophenyl Phenyl Ether	101553	< 4.9	R	NA	< 5		< 5.3	< 4.7	< 4.7	R	< 4.7	R
4-Chloro-3-Methylphenol	59507	< 4.9	R	NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
4-Chloroaniline	106478	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
4-Chlorophenyl Phenyl Ether	7005723	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
4-Nitroaniline	100016	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
4-Nitrophenol	100027	< 24		NA	< 25		< 27	< 24	< 24		< 24	
Acenaphthene	83329	2.8	J	NA	0.92	J	< 5.3	< 4.7	< 4.7		< 4.7	
Acenaphthylene	208968	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Aniline	62533	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Anthracene	120127	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Benzidine	92875	< 24		NA	< 25		< 27	< 24	< 24		< 24	
Benzo(A)Anthracene	56553	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Benzo(A)Pyrene	50328	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Benzo(B)Fluoranthene	205992	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Benzo(G,H,I)Perylene	191242	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Benzo(K)Fluoranthene	207089	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Benzoic Acid	65850	< 49		NA	< 50		< 53	< 47	< 47		< 47	
Benzyl Alcohol	100516	< 4.9	R	NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Bis(2-Chloroethoxy)Methane	111911	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Bis(2-Chloroethyl)Ether	111444	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Bis(2-Chloroisopropyl)Ether	108601	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Bis(2-Ethylhexyl) Phthalate	117817	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Butyl Benzyl Phthalate	85687	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Carbazole	86748	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Chrysene	218019	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Dibenz(A,H)Anthracene	53703	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Dibenzofuran	132649	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	
Diethyl Phthalate	84662	< 4.9		NA	< 5		< 5.3	< 4.7	< 4.7		< 4.7	

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S1-1 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Central Area	S1-1 DUP (10/8/2013) 10/8/2013 Duplicate OnsiteDown Onsite Shallow Central Area	S1-2 (10/17/2013) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	S2-1 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Central Area	S3-1 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Central Area	S4-1 (10/15/2013) 10/15/2013 Investigation OnsiteDown Onsite Shallow Central Area	S4-2 (10/15/2013) 10/15/2013 Investigation OnsiteDown Onsite Shallow Central Area
Semi-volatile Organics (ug/L) (continued)								
Dimethyl Phthalate	131113	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
Di-N-Butyl Phthalate	84742	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
Di-N-Octyl Phthalate	117840	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
Fluoranthene	206440	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
Fluorene	86737	0.74 J	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
Hexachloro-1,3-Cyclopentadiene	77474	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
Hexachlorobenzene	118741	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
Hexachlorobutadiene	87683	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
Hexachloroethane	67721	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
Indeno(1,2,3-Cd)Pyrene	193395	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
Isophorone	78591	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
M-,P-Cresol Mixture	106445	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
Naphthalene	91203	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
Nitrobenzene	98953	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
N-Nitrosodimethylamine	62759	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
N-Nitrosodi-N-Propylamine	621647	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
N-Nitrosodiphenylamine	86306	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
Pentachlorophenol	87865	< 24	NA	< 25	< 27	< 24	< 24	< 24
Phenanthrene	85018	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
Phenol	108952	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
Pyrene	129000	< 4.9	NA	< 5	< 5.3	< 4.7	< 4.7	< 4.7
Pyridine	110861	< 9.7	NA	< 10	< 11	< 9.4	< 9.4	< 9.4
Total Petroleum Hydrocarbons (ug/L)								
DRO (C10-C28) Range	DRO	NA	NA	NA	< 0.24	< 0.24	NA	NA
Total Inorganics (ug/L)								
Arsenic	7440382	< 10	NA	< 10	12.4	< 10	< 10	< 10
Barium	7440393	359	NA	379	332	< 200	< 200	< 200
Cadmium	7440439	< 5	NA	< 5	< 5	< 5	< 5	< 5
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	< 10	NA	12.1	15.3	< 10	< 10	< 10
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	< 5	NA	7.4	19.6	< 5	< 5	< 5
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	< 0.5	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	< 10	NA	< 10	< 10	< 10	< 10	< 10
Silver	7440224	< 10	NA	< 10	< 10	< 10	< 10	< 10
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S1-1 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Central Area	S1-1 DUP (10/8/2013) 10/8/2013 Duplicate OnsiteDown Onsite Shallow Central Area	S1-2 (10/17/2013) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	S2-1 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Central Area	S3-1 (10/18/2013) 10/18/2013 Investigation OnsiteDown Onsite Shallow Central Area	S4-1 (10/15/2013) 10/15/2013 Investigation OnsiteDown Onsite Shallow Central Area	S4-2 (10/15/2013) 10/15/2013 Investigation OnsiteDown Onsite Shallow Central Area
Dissolved Inorganics (ug/L)								
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA
Misc. Parameters (ug/L)								
Oxygen, Dissolved (mg/L)	7782447	1.25	NA	0.46	1.03	1.65	0.42	0.32
Alkalinity (Caco3), Carbonate (mg/L)	71523	NA	NA	NA	NA	NA	NA	NA
Alkalinity (HCO3), Bicarbonate (mg/L)	AlkB	NA	NA	NA	NA	NA	NA	NA
Alkalinity (Total) (mg/L)	AlkT	NA	NA	NA	NA	NA	NA	NA
pH	pH	7.01	NA	7.41	6.7	6.59	6.82	6.85
Redox Potential (mV)	Redox	-141.8	NA	-71	224.5	36.5	-119.7	-149.3
Specific Conductance (umhos/cm)	- -	968	NA	929	956	2063	788	768
Temperature (°C)	- -	19.610001	NA	18.41	16.02	17.209999	19.25	18.85
Turbidity (NTU)	- -	1000	NA	< 0	< 0	39	67.199997	< 0
Chloride	16887006	NA	NA	NA	NA	NA	NA	NA
Chloride (Dissolved)	16887006	NA	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA	NA
Hardness	- -	NA	NA	NA	NA	NA	NA	NA
Nitrate as N	14797558	NA	NA	NA	NA	NA	NA	NA
Sulfate	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfate (Dissolved)	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfide	18496258	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	NA	NA	NA	NA	NA	NA	NA
Total Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids	- -	NA	NA	NA	NA	NA	NA	NA

Notes:
J - Estimated result.
NA - Not Analyzed.
R - Rejected result.

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area Constituent / CAS No.	S10-1 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Central Area	S10-1 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Central Area	S10-1 (10/17/13) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-1 (10/4/13) 10/4/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-1a (10/16/2013) 10/16/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-2 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-3 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Central Area
Volatile Organics (ug/L)							
1,1,1,2-Tetrachloroethane 630206	< 1	< 1	NA	< 1	< 1	< 5	< 1
1,1,1-Trichloroethane 71556	0.59 J	0.65 J	NA	< 1	< 1	10.5	< 1
1,1,2,2-Tetrachloroethane 79345	< 1	< 1	NA	< 1	< 1	< 5	< 1
1,1,2-Trichloroethane 79005	< 1	< 1	NA	< 1	< 1	< 5	< 1
1,1-Dichloroethane 75343	< 1	< 1	NA	< 1	< 1	7.5	< 1
1,1-Dichloroethene 75354	< 1	< 1	NA	< 1	< 1	2.4 J	0.28 J
1,1-Dichloropropene 563586	< 1	< 1	NA	< 1	< 1	< 5	< 1
1,2,3-Trichlorobenzene 87616	< 1	< 1	NA	< 1	< 1	< 5	< 1
1,2,3-Trichloropropane 96184	< 2	< 2	NA	< 2	< 2	< 10	< 2
1,2,4-Trichlorobenzene 120821	< 1	< 1	NA	< 1	< 1	< 5	< 1
1,2,4-Trimethylbenzene 95636	< 2	< 2	NA	< 2	< 2	< 10	< 2
1,2-Dibromoethane 106934	< 1	< 1	NA	< 1	< 1	< 5	< 1
1,2-Dichlorobenzene 95501	< 1	< 1	NA	< 1	< 1	< 5	< 1
1,2-Dichloroethane 107062	< 1	< 1	NA	< 1	< 1	< 5	< 1
1,2-Dichloropropane 78875	< 1	< 1	NA	< 1	< 1	< 5	< 1
1,3,5-Trimethylbenzene 108678	< 2	< 2	NA	< 2	< 2	< 10	< 2
1,3-Dichlorobenzene 541731	< 1	< 1	NA	< 1	< 1	< 5	< 1
1,3-Dichloropropane 142289	< 1	< 1	NA	< 1	< 1	< 5	< 1
1,4-Dichlorobenzene 106467	< 1	< 1	NA	< 1	< 1	< 5	< 1
1,4-Dioxane 123911	< 200	< 200	NA	< 200	< 200	< 1000	< 200
2,2-Dichloropropane 594207	< 1	< 1	NA	< 1	< 1	< 5	< 1
2-Butanone 78933	< 5	< 5	NA	< 5	< 5	< 25	< 5
2-Chloroethyl Vinyl Ether 110758	< 5	< 5	NA	< 5 R	< 5	< 25 R	< 5 R
2-Chlorotoluene 95498	< 1	< 1	NA	< 1	< 1	< 5	< 1
2-Hexanone (methyl butyl ketone) 591786	< 10	< 10	NA	< 10	< 10	< 50	< 10
4-Chlorotoluene 106434	< 1	< 1	NA	< 1	< 1	< 5	< 1
4-Isopropyltoluene 99876	< 1	< 1	NA	< 1	< 1	< 5	< 1
4-Methyl-2-Pentanone 108101	< 5	< 5	NA	< 5	< 5	< 25	< 5
Acetone 67641	< 25	< 25	NA	< 25	< 25	< 130	< 25
Acrolein 107028	< 20	< 20	NA	< 20	< 20	< 100	< 20
Acrylonitrile 107131	< 10	< 10	NA	< 10	< 10	< 50	< 10
Benzene 71432	< 1	< 1	NA	< 1	< 1	< 5	0.79 J
Bromobenzene 108861	< 1	< 1	NA	< 1	< 1	< 5	< 1
Bromochloromethane 74975	< 1	< 1	NA	< 1	< 1	< 5	< 1
Bromodichloromethane 75274	< 1	< 1	NA	< 1	< 1	< 5	< 1
Bromoform 75252	< 1	< 1	NA	< 1	< 1	< 5	< 1
Bromomethane 74839	< 2	< 2	NA	< 2	< 2	< 10	< 2
Carbon Disulfide 75150	0.83 J	0.57 J	NA	< 2	0.86 J	< 10	< 2
Carbon Tetrachloride 56235	< 1	< 1	NA	< 1	< 1	< 5	< 1
Chlorobenzene 108907	< 1	< 1	NA	< 1	< 1	< 5	< 1
Dibromochloromethane 124481	< 1	< 1	NA	< 1	< 1	< 5	< 1

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S10-1 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Central Area	S10-1 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Central Area	S10-1 (10/17/13) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-1 (10/4/13) 10/4/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-1a (10/16/2013) 10/16/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-2 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-3 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Central Area
Volatile Organics (ug/L) (continued)								
Dibromochloropropane (DBCP)	67708832	< 2	< 2	NA	< 2	< 2	< 10	< 2
Chloroethane	75003	< 2	< 2	NA	< 2	< 2	< 10	< 2
Chloroform	67663	< 1	< 1	NA	< 1	< 1	< 5	< 1
Chloromethane	74873	< 2	< 2	NA	< 2	< 2	< 10	< 2
Cis-1,2-Dichloroethene	156592	23.9	23.6	NA	24.799999	30.6	403	18.1
Cis-1,3-Dichloropropene	10061015	< 1	< 1	NA	< 1	< 1	< 5	< 1
Dibromomethane	74953	< 2	< 2	NA	< 2	< 2	< 10	< 2
Dichlorodifluoromethane	75718	< 2	< 2	NA	< 2	< 2	< 10	< 2
Ethylbenzene	100414	< 1	< 1	NA	< 1	< 1	< 5	< 1
Hexachlorobutadiene	87683	< 2	< 2	NA	< 2	< 2	< 10	< 2
Isopropylbenzene	98828	< 1	< 1	NA	< 1	< 1	< 5	0.45 J
M,P-Xylenes	106423	< 2	< 2	NA	< 2	< 2	< 10	< 2
Methyl Tert-Butyl Ether	1634044	< 1	< 1	NA	< 1	< 1	< 5	< 1
Methylene Chloride	75092	< 5	< 5	NA	< 5	< 5	< 25	< 5
Naphthalene	91203	< 3	< 3	NA	< 3	< 3	< 15	< 3
N-Butylbenzene	104518	< 1	< 1	NA	< 1	< 1	< 5	< 1
N-Propylbenzene	103651	< 1	< 1	NA	< 1	< 1	< 5	< 1
O-Xylene	95476	< 1	< 1	NA	< 1	< 1	1.2 J	< 1
Sec-Butylbenzene	135988	< 1	< 1	NA	< 1	< 1	< 5	0.56 J
Styrene	100425	< 1	< 1	NA	< 1	< 1	< 5	< 1
Tert-Butylbenzene	98066	< 1	< 1	NA	0.43 J	< 1	< 5	0.4 J
Tetrachloroethene	127184	49.400002	45.299999	NA	3.8	7.1	21	< 1
Toluene	108883	< 1	< 1	NA	< 1	< 1	< 5	< 1
Trans-1,2-Dichloroethene	156605	0.26 J	0.26 J	NA	0.44 J	< 1	2 J	1.7
Trans-1,3-Dichloropropene	10061026	< 1	< 1	NA	< 1	< 1	< 5	< 1
Trichloroethene	79016	3.9	3.7	NA	1.2	1.7	10.8	0.44 J
Trichlorofluoromethane	75694	< 2	< 2	NA	< 2	< 2	< 10	< 2
Vinyl Acetate	108054	< 10	< 10	NA	< 10	< 10	< 50	< 10
Vinyl Chloride	75014	< 1	< 1	NA	< 1	< 1	102	2
Total Xylenes	TotalXy	< 2	< 2	NA	< 2	< 2	1.2	< 2
Semi-volatile Organics (ug/L)								
1,2,4-Trichlorobenzene	120821	NA	NA	< 4.7	NA	NA	NA	NA
1,2-Dichlorobenzene	95501	NA	NA	< 4.7	NA	NA	NA	NA
1,2-Diphenylhydrazine	122667	NA	NA	< 4.7	NA	NA	NA	NA
1,3-Dichlorobenzene	541731	NA	NA	< 4.7	NA	NA	NA	NA
1,4-Dichlorobenzene	106467	NA	NA	< 4.7	NA	NA	NA	NA
1,4-Dioxane	123911	NA	NA		NA	NA	NA	NA
1-Methylnaphthalene	90120	NA	NA	< 4.7	NA	NA	NA	NA
2,4,5-Trichlorophenol	95954	NA	NA	< 4.7	NA	NA	NA	NA
2,4,6-Trichlorophenol	88062	NA	NA	< 4.7	NA	NA	NA	NA
2,4-Dichlorophenol	120832	NA	NA	< 4.7	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S10-1 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Central Area	S10-1 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Central Area	S10-1 (10/17/13) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-1 (10/4/13) 10/4/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-1a (10/16/2013) 10/16/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-2 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-3 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Central Area
Semi-volatile Organics (ug/L) (continued)								
2,4-Dimethylphenol	105679	NA	NA	< 4.7	NA	NA	NA	NA
2,4-Dinitrophenol	51285	NA	NA	< 24	NA	NA	NA	NA
2,4-Dinitrotoluene	121142	NA	NA	< 4.7	NA	NA	NA	NA
2,6-Dinitrotoluene	606202	NA	NA	< 4.7	NA	NA	NA	NA
2-Chloronaphthalene	91587	NA	NA	< 4.7	NA	NA	NA	NA
2-Chlorophenol	95578	NA	NA	< 4.7	NA	NA	NA	NA
2-Methylnaphthalene	91576	NA	NA	< 4.7	NA	NA	NA	NA
2-Methylphenol	95487	NA	NA	< 4.7	NA	NA	NA	NA
2-Nitroaniline	88744	NA	NA	< 4.7	NA	NA	NA	NA
2-Nitrophenol	88755	NA	NA	< 4.7	NA	NA	NA	NA
3,3'-Dichlorobenzidine	91941	NA	NA	< 4.7	NA	NA	NA	NA
3-Nitroaniline	99092	NA	NA	< 4.7	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	534521	NA	NA	< 9.4	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	101553	NA	NA	< 4.7	NA	NA	NA	NA
4-Chloro-3-Methylphenol	59507	NA	NA	< 4.7	NA	NA	NA	NA
4-Chloroaniline	106478	NA	NA	< 4.7	NA	NA	NA	NA
4-Chlorophenyl Phenyl Ether	7005723	NA	NA	< 4.7	NA	NA	NA	NA
4-Nitroaniline	100016	NA	NA	< 4.7	NA	NA	NA	NA
4-Nitrophenol	100027	NA	NA	< 24	NA	NA	NA	NA
Acenaphthene	83329	NA	NA	0.69 J	NA	NA	NA	NA
Acenaphthylene	208968	NA	NA	< 4.7	NA	NA	NA	NA
Aniline	62533	NA	NA	< 4.7	NA	NA	NA	NA
Anthracene	120127	NA	NA	< 4.7	NA	NA	NA	NA
Benzidine	92875	NA	NA	< 24	NA	NA	NA	NA
Benzo(A)Anthracene	56553	NA	NA	< 4.7	NA	NA	NA	NA
Benzo(A)Pyrene	50328	NA	NA	< 4.7	NA	NA	NA	NA
Benzo(B)Fluoranthene	205992	NA	NA	< 4.7	NA	NA	NA	NA
Benzo(G,H,I)Perylene	191242	NA	NA	< 4.7	NA	NA	NA	NA
Benzo(K)Fluoranthene	207089	NA	NA	< 4.7	NA	NA	NA	NA
Benzoic Acid	65850	NA	NA	< 47	NA	NA	NA	NA
Benzyl Alcohol	100516	NA	NA	< 4.7	NA	NA	NA	NA
Bis(2-Chloroethoxy)Methane	111911	NA	NA	< 4.7	NA	NA	NA	NA
Bis(2-Chloroethyl)Ether	111444	NA	NA	< 4.7	NA	NA	NA	NA
Bis(2-Chloroisopropyl)Ether	108601	NA	NA	< 4.7	NA	NA	NA	NA
Bis(2-Ethylhexyl) Phthalate	117817	NA	NA	< 4.7	NA	NA	NA	NA
Butyl Benzyl Phthalate	85687	NA	NA	< 4.7	NA	NA	NA	NA
Carbazole	86748	NA	NA	< 4.7	NA	NA	NA	NA
Chrysene	218019	NA	NA	< 4.7	NA	NA	NA	NA
Dibenz(A,H)Anthracene	53703	NA	NA	< 4.7	NA	NA	NA	NA
Dibenzofuran	132649	NA	NA	< 4.7	NA	NA	NA	NA
Diethyl Phthalate	84662	NA	NA	< 4.7	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S10-1 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Central Area	S10-1 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Central Area	S10-1 (10/17/13) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-1 (10/4/13) 10/4/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-1a (10/16/2013) 10/16/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-2 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-3 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Central Area
Semi-volatile Organics (ug/L) (continued)								
Dimethyl Phthalate	131113	NA	NA	< 4.7	NA	NA	NA	NA
Di-N-Butyl Phthalate	84742	NA	NA	< 4.7	NA	NA	NA	NA
Di-N-Octyl Phthalate	117840	NA	NA	< 4.7	NA	NA	NA	NA
Fluoranthene	206440	NA	NA	< 4.7	NA	NA	NA	NA
Fluorene	86737	NA	NA	< 4.7	NA	NA	NA	NA
Hexachloro-1,3-Cyclopentadiene	77474	NA	NA	< 4.7	NA	NA	NA	NA
Hexachlorobenzene	118741	NA	NA	< 4.7	NA	NA	NA	NA
Hexachlorobutadiene	87683	NA	NA		NA	NA	NA	NA
Hexachloroethane	67721	NA	NA	< 4.7	NA	NA	NA	NA
Indeno(1,2,3-Cd)Pyrene	193395	NA	NA	< 4.7	NA	NA	NA	NA
Isophorone	78591	NA	NA	< 4.7	NA	NA	NA	NA
M-,P-Cresol Mixture	106445	NA	NA	< 4.7	NA	NA	NA	NA
Naphthalene	91203	NA	NA		NA	NA	NA	NA
Nitrobenzene	98953	NA	NA	< 4.7	NA	NA	NA	NA
N-Nitrosodimethylamine	62759	NA	NA	< 4.7	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	621647	NA	NA	< 4.7	NA	NA	NA	NA
N-Nitrosodiphenylamine	86306	NA	NA	< 4.7	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	< 24	NA	NA	NA	NA
Phenanthrene	85018	NA	NA	< 4.7	NA	NA	NA	NA
Phenol	108952	NA	NA	< 4.7	NA	NA	NA	NA
Pyrene	129000	NA	NA	< 4.7	NA	NA	NA	NA
Pyridine	110861	NA	NA	< 9.4	NA	NA	NA	NA
Total Petroleum Hydrocarbons (ug/L)								
DRO (C10-C28) Range	DRO	0.384	NA	NA	0.501	NA	0.505	0.668
Total Inorganics (ug/L)								
Arsenic	7440382	30	NA	NA	17.6	NA	NA	NA
Barium	7440393	1740	NA	NA	547	NA	NA	NA
Cadmium	7440439	< 5	NA	NA	< 5	NA	NA	NA
Calcium	7440702	NA	NA	NA	123000	NA	NA	NA
Chromium	18540299	130	NA	NA	14.2	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	65.900002	NA	NA	14	NA	NA	NA
Magnesium	7439954	NA	NA	NA	33500	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	< 0.5	NA	NA	< 0.5	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	< 10	NA	NA	< 10	NA	NA	NA
Silver	7440224	< 10	NA	NA	< 10	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S10-1 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Central Area	S10-1 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Central Area	S10-1 (10/17/13) 10/17/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-1 (10/4/13) 10/4/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-1a (10/16/2013) 10/16/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-2 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Central Area	S11-3 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Central Area
Dissolved Inorganics (ug/L)								
Arsenic	7440382	NA	NA	NA	< 10	NA	NA	NA
Barium	7440393	NA	NA	NA	309	NA	NA	NA
Cadmium	7440439	NA	NA	NA	< 5	NA	NA	NA
Calcium	7440702	NA	NA	NA	123000	NA	NA	NA
Chromium	18540299	NA	NA	NA	< 10	NA	NA	NA
Iron	7439896	NA	NA	NA	< 5	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	32800	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	< 0.5	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	< 10	NA	NA	NA
Silver	7440224	NA	NA	NA	< 10	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA
Misc. Parameters (ug/L)								
Oxygen, Dissolved (mg/L)	7782447	0.17	NA	1.49	NA	0.37	0.26	0.17
Alkalinity (Caco3), Carbonate (mg/L)	71523	NA	NA	NA	< 5	NA	NA	NA
Alkalinity (HCO3), Bicarbonate (mg/L)	AlkB	NA	NA	NA	461	NA	NA	NA
Alkalinity (Total) (mg/L)	AlkT	NA	NA	NA	462	NA	NA	NA
pH	pH	7.3	NA	6.83	7.07	7.18	7.01	6.46
Redox Potential (mV)	Redox	-157.60001	NA	97.300003	NA	-183.89999	-119.2	-89.400002
Specific Conductance (umhos/cm)	- -	964	NA	847	Na	1635	1053	839
Temperature (°C)	- -	18.120001	NA	18.379999	NA	18.959999	22.030001	18.92
Turbidity (NTU)	- -	1000	NA	41	NA	< 0	1000	1000
Chloride	16887006	NA	NA	NA	48799.999	NA	NA	NA
Chloride (Dissolved)	16887006	NA	NA	NA	48099.998	NA	NA	NA
Fluoride	16984488	NA	NA	NA	< 1000	NA	NA	NA
Hardness	- -	NA	NA	NA	445	NA	NA	NA
Nitrate as N	14797558	NA	NA	NA	< 500	NA	NA	NA
Sulfate	14808798	NA	NA	NA	26000	NA	NA	NA
Sulfate (Dissolved)	14808798	NA	NA	NA	27600	NA	NA	NA
Sulfide	18496258	NA	NA	NA	< 1000	NA	NA	NA
Total Dissolved Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	1.8	NA	NA	NA	NA	NA	NA
Total Solids	- -	NA	NA	NA	646	NA	NA	NA
Total Suspended Solids	- -	NA	NA	NA	< 10	NA	NA	NA

Notes:
J - Estimated result.
NA - Not Analyzed.
R - Rejected result.

Risk-Based Remedies
RBR Consulting, Inc.

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S13-1 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	13-1 DUP (10/10/2013 10/10/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S13-2 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	13-2 DUP (10/10/2013 10/10/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S13-3 (10/8/13) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S13-3 (10/17/13) 10/17/2013 Investigation OnsiteDown Onsite Shallow Western Area	S14-2 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area
Volatile Organics (ug/L)								
1,1,1,2-Tetrachloroethane	630206	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
1,1,1-Trichloroethane	71556	< 1	< 1	< 1	< 1	0.64 J	NA	1.5
1,1,2,2-Tetrachloroethane	79345	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
1,1,2-Trichloroethane	79005	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
1,1-Dichloroethane	75343	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
1,1-Dichloroethene	75354	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
1,1-Dichloropropene	563586	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
1,2,3-Trichlorobenzene	87616	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
1,2,3-Trichloropropane	96184	< 2	< 2	< 2	< 2	< 2 J	NA	< 2
1,2,4-Trichlorobenzene	120821	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
1,2,4-Trimethylbenzene	95636	< 2	< 2	< 2	< 2	< 2 J	NA	< 2
1,2-Dibromoethane	106934	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
1,2-Dichlorobenzene	95501	< 4.8	< 1	< 1	< 1	< 1 J	NA	< 1
1,2-Dichloroethane	107062	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
1,2-Dichloropropane	78875	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
1,3,5-Trimethylbenzene	108678	< 2	< 2	< 2	< 2	< 2 J	NA	< 2
1,3-Dichlorobenzene	541731	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
1,3-Dichloropropane	142289	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
1,4-Dichlorobenzene	106467	< 1	< 1	< 5	< 1	< 1 J	NA	< 1
1,4-Dioxane	123911	< 200	< 200	< 200	< 200	< 200 J	NA	< 200
2,2-Dichloropropane	594207	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
2-Butanone	78933	< 5	< 5	< 5	< 5	< 5 J	NA	< 5
2-Chloroethyl Vinyl Ether	110758	< 5	< 5	< 5	< 5	< 5 J	NA	< 5
2-Chlorotoluene	95498	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
2-Hexanone (methyl butyl ketone)	591786	< 10	< 10	< 10	< 10	< 10 J	NA	< 10
4-Chlorotoluene	106434	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
4-Isopropyltoluene	99876	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
4-Methyl-2-Pentanone	108101	< 5	< 5	< 5	< 5	< 5 J	NA	< 5
Acetone	67641	< 25	< 25	< 25	< 25	< 25 J	NA	< 25
Acrolein	107028	< 20	< 20	< 20	< 20	< 20 J	NA	< 20
Acrylonitrile	107131	< 10	< 10	< 10	< 10	< 10 J	NA	< 10
Benzene	71432	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Bromobenzene	108861	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Bromochloromethane	74975	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Bromodichloromethane	75274	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Bromoform	75252	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Bromomethane	74839	< 2	< 2	< 2	< 2	< 2 J	NA	< 2
Carbon Disulfide	75150	< 2	< 2	< 2	< 2	< 2 J	NA	< 2
Carbon Tetrachloride	56235	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Chlorobenzene	108907	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Dibromochloromethane	124481	< 1	< 1	< 1	< 1	< 1 J	NA	< 1

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S13-1 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	S13-1 DUP (10/10/2013) 10/10/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S13-2 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	S13-2 DUP (10/10/2013) 10/10/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S13-3 (10/8/13) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S13-3 (10/17/13) 10/17/2013 Investigation OnsiteDown Onsite Shallow Western Area	S14-2 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area
Volatile Organics (ug/L) (continued)								
Dibromochloropropane (DBCP)	67708832	< 2	< 2	< 2	< 2	< 2 J	NA	< 2
Chloroethane	75003	< 2	< 2	< 2	< 2	< 2 J	NA	< 2
Chloroform	67663	0.62 J	0.62 J	< 1	0.46 J	< 1 J	NA	< 1
Chloromethane	74873	< 2	< 2	< 2	< 2	< 2 J	NA	< 2
Cis-1,2-Dichloroethene	156592	3.6	3.3	2.8	3	1.9 J	NA	0.45 J
Cis-1,3-Dichloropropene	10061015	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Dibromomethane	74953	< 2	< 2	< 2	< 2	< 2 J	NA	< 2
Dichlorodifluoromethane	75718	< 2	< 2	< 2	< 2	< 2 J	NA	< 2
Ethylbenzene	100414	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Hexachlorobutadiene	87683	< 2	< 2	< 2	< 2	< 2 J	NA	< 2
Isopropylbenzene	98828	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
M,P-Xylenes	106423	< 2	< 2	< 2	< 2	< 2 J	NA	< 2
Methyl Tert-Butyl Ether	1634044	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Methylene Chloride	75092	< 5	< 5	< 5	< 5	< 5 J	NA	< 5
Naphthalene	91203	< 3	< 3	< 3	< 3	< 3 J	NA	< 3
N-Butylbenzene	104518	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
N-Propylbenzene	103651	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
O-Xylene	95476	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Sec-Butylbenzene	135988	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Styrene	100425	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Tert-Butylbenzene	98066	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Tetrachloroethene	127184	0.79 J	1.1	0.97 J	1.2	0.91 J	NA	0.6 J
Toluene	108883	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Trans-1,2-Dichloroethene	156605	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Trans-1,3-Dichloropropene	10061026	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Trichloroethene	79016	9.1	9.4	7.3	8.5	4.1 J	NA	< 1
Trichlorofluoromethane	75694	< 2	< 2	< 2	< 2	< 2 J	NA	< 2
Vinyl Acetate	108054	< 10	< 10	< 10	< 10	< 10 J	NA	< 10
Vinyl Chloride	75014	< 1	< 1	< 1	< 1	< 1 J	NA	< 1
Total Xylenes	TotalXy	< 2	< 2	< 2	< 2	< 2	NA	< 2
Semi-volatile Organics (ug/L)								
1,2,4-Trichlorobenzene	120821	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
1,2-Dichlorobenzene	95501		NA	< 5	NA	NA	< 4.7	< 5.2
1,2-Diphenylhydrazine	122667	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
1,3-Dichlorobenzene	541731	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
1,4-Dichlorobenzene	106467	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
1,4-Dioxane	123911	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90120	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
2,4,5-Trichlorophenol	95954	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
2,4,6-Trichlorophenol	88062	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
2,4-Dichlorophenol	120832	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S13-1 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	13-1 DUP (10/10/2013 10/10/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S13-2 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	13-2 DUP (10/10/2013 10/10/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S13-3 (10/8/13) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S13-3 (10/17/13) 10/17/2013 Investigation OnsiteDown Onsite Shallow Western Area	S14-2 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area
Semi-volatile Organics (ug/L) (continued)								
2,4-Dimethylphenol	105679	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
2,4-Dinitrophenol	51285	< 24	NA	< 25	NA	NA	< 24	< 26
2,4-Dinitrotoluene	121142	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
2,6-Dinitrotoluene	606202	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
2-Chloronaphthalene	91587	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
2-Chlorophenol	95578	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
2-Methylnaphthalene	91576	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
2-Methylphenol	95487	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
2-Nitroaniline	88744	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
2-Nitrophenol	88755	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
3,3'-Dichlorobenzidine	91941	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
3-Nitroaniline	99092	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
4,6-Dinitro-2-Methylphenol	534521	< 9.5	NA	< 9.9	NA	NA	< 9.4	< 10
4-Bromophenyl Phenyl Ether	101553	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
4-Chloro-3-Methylphenol	59507	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
4-Chloroaniline	106478	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
4-Chlorophenyl Phenyl Ether	7005723	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
4-Nitroaniline	100016	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
4-Nitrophenol	100027	< 24	NA	< 25	NA	NA	< 24	< 26
Acenaphthene	83329	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Acenaphthylene	208968	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Aniline	62533	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Anthracene	120127	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Benzidine	92875	< 24	NA	< 25	NA	NA	< 24	< 26
Benzo(A)Anthracene	56553	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Benzo(A)Pyrene	50328	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Benzo(B)Fluoranthene	205992	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Benzo(G,H,I)Perylene	191242	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Benzo(K)Fluoranthene	207089	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Benzoic Acid	65850	< 48	NA	< 50	NA	NA	< 47	< 52
Benzyl Alcohol	100516	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Bis(2-Chloroethoxy)Methane	111911	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Bis(2-Chloroethyl)Ether	111444	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Bis(2-Chloroisopropyl)Ether	108601	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Bis(2-Ethylhexyl) Phthalate	117817	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Butyl Benzyl Phthalate	85687	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Carbazole	86748	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Chrysene	218019	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Dibenz(A,H)Anthracene	53703	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Dibenzofuran	132649	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Diethyl Phthalate	84662	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S13-1 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	13-1 DUP (10/10/2013 10/10/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S13-2 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	13-2 DUP (10/10/2013 10/10/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S13-3 (10/8/13) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S13-3 (10/17/13) 10/17/2013 Investigation OnsiteDown Onsite Shallow Western Area	S14-2 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area
Semi-volatile Organics (ug/L) (continued)								
Dimethyl Phthalate	131113	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Di-N-Butyl Phthalate	84742	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Di-N-Octyl Phthalate	117840	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Fluoranthene	206440	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Fluorene	86737	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Hexachloro-1,3-Cyclopentadiene	77474	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Hexachlorobenzene	118741	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Hexachlorobutadiene	87683	< 4.8	NA	< 5	NA	NA		< 5.2
Hexachloroethane	67721	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Indeno(1,2,3-Cd)Pyrene	193395	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Isophorone	78591	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
M-,P-Cresol Mixture	106445	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Naphthalene	91203	< 4.8	NA	< 5	NA	NA		< 5.2
Nitrobenzene	98953	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
N-Nitrosodimethylamine	62759	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
N-Nitrosodi-N-Propylamine	621647	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
N-Nitrosodiphenylamine	86306	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Pentachlorophenol	87865	< 24	NA	< 25	NA	NA	< 24	< 26
Phenanthrene	85018	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Phenol	108952	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Pyrene	129000	< 4.8	NA	< 5	NA	NA	< 4.7	< 5.2
Pyridine	110861	< 9.5	NA	< 9.9	NA	NA	< 9.4	< 10
Total Petroleum Hydrocarbons (ug/L)								
DRO (C10-C28) Range	DRO	NA	NA	NA	NA	NA	NA	NA
Total Inorganics (ug/L)								
Arsenic	7440382	< 10	NA	< 10	NA	19.5	NA	< 10
Barium	7440393	278	NA	618	NA	416	NA	291
Cadmium	7440439	< 5	NA	< 5	NA	< 5	NA	< 5
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	26	NA	62.099998	NA	48.900002	NA	34.099998
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	21.700001	NA	42.200001	NA	88.900002	NA	11.6
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	< 0.5	NA	< 0.5	NA	< 0.5	NA	< 0.5
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	< 10	NA	< 10	NA	< 10	NA	< 10
Silver	7440224	< 10	NA	< 10	NA	< 10	NA	< 10
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S13-1 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	S13-1 DUP (10/10/2013) 10/10/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S13-2 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	S13-2 DUP (10/10/2013) 10/10/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S13-3 (10/8/13) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S13-3 (10/17/13) 10/17/2013 Investigation OnsiteDown Onsite Shallow Western Area	S14-2 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area
Dissolved Inorganics (ug/L)								
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA
Misc. Parameters (ug/L)								
Oxygen, Dissolved (mg/L)	7782447	0.39	NA	0.34	NA	1.03	NA	0.56
Alkalinity (Caco3), Carbonate (mg/L)	71523	NA	NA	NA	NA	NA	NA	NA
Alkalinity (HCO3), Bicarbonate (mg/L)	AlkB	NA	NA	NA	NA	NA	NA	NA
Alkalinity (Total) (mg/L)	AlkT	NA	NA	NA	NA	NA	NA	NA
pH	pH	6.52	NA	6.66	NA	6.76	NA	6.67
Redox Potential (mV)	Redox	-120.1	NA	-80.300003	NA	44.200001	NA	-44.900002
Specific Conductance (umhos/cm)	- -	827	NA	852	NA	925	NA	988
Temperature (°C)	- -	18.889999	NA	21.51	NA	22.450001	NA	21.91
Turbidity (NTU)	- -	< 0	NA	< 0	NA	1000	NA	1000
Chloride	16887006	NA	NA	NA	NA	NA	NA	NA
Chloride (Dissolved)	16887006	NA	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA	NA
Hardness	- -	NA	NA	NA	NA	NA	NA	NA
Nitrate as N	14797558	NA	NA	NA	NA	NA	NA	NA
Sulfate	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfate (Dissolved)	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfide	18496258	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	NA	NA	NA	NA	NA	NA	NA
Total Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids	- -	NA	NA	NA	NA	NA	NA	NA

Notes:
J - Estimated result.
NA - Not Analyzed.
R - Rejected result.

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S14-4 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S14-4 (10/17/13) 10/17/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-1 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-1 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S17-1a (10/7/2013) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-2 (10/4/13) 10/4/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-2 (10/4/13) DUP 10/4/2013 Duplicate OnsiteDown Onsite Shallow Western Area
Volatile Organics (ug/L)								
1,1,1,2-Tetrachloroethane	630206	< 1	NA	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	71556	1.2	NA	15	15	< 1	4.4	4.2
1,1,2,2-Tetrachloroethane	79345	< 1	NA	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	79005	< 1	NA	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	75343	< 1	NA	0.38 J	< 1	< 1	< 1	< 1
1,1-Dichloroethene	75354	< 1	NA	0.95 J	0.97 J	< 1	< 1	< 1
1,1-Dichloropropene	563586	< 1	NA	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	87616	< 1	NA	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	96184	< 2	NA	< 2	< 2	< 2	< 2	< 2
1,2,4-Trichlorobenzene	120821	< 1	NA	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	95636	< 2	NA	< 2	< 2	< 2	< 2	< 2
1,2-Dibromoethane	106934	< 1	NA	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	95501	< 1	NA	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	107062	< 1	NA	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	78875	< 1	NA	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	108678	< 2	NA	< 2	< 2	< 2	< 2	< 2
1,3-Dichlorobenzene	541731	< 1	NA	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	142289	< 1	NA	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	106467	< 1	NA	< 1	< 1	< 1	< 1	< 1
1,4-Dioxane	123911	< 200	NA	< 200	< 200	< 200	< 200	< 200
2,2-Dichloropropane	594207	< 1	NA	< 1	< 1	< 1	< 1	< 1
2-Butanone	78933	< 5	NA	< 5	< 5	< 5	< 5	< 5
2-Chloroethyl Vinyl Ether	110758	< 5	NA	< 5 R	< 5 R	< 5	< 5	< 5
2-Chlorotoluene	95498	< 1	NA	< 1	< 1	< 1	< 1	< 1
2-Hexanone (methyl butyl ketone)	591786	< 10	NA	< 10	< 10	< 10	< 10	< 10
4-Chlorotoluene	106434	< 1	NA	< 1	< 1	< 1	< 1	< 1
4-Isopropyltoluene	99876	< 1	NA	< 1	< 1	< 1	< 1	< 1
4-Methyl-2-Pentanone	108101	< 5	NA	< 5	< 5	< 5	< 5	< 5
Acetone	67641	< 25	NA	< 25	< 25	< 25	< 25	< 25
Acrolein	107028	< 20	NA	< 20	< 20	< 20	< 20	< 20
Acrylonitrile	107131	< 10	NA	< 10	< 10	< 10	< 10	< 10
Benzene	71432	< 1	NA	< 1	< 1	0.27 J	< 1	< 1
Bromobenzene	108861	< 1	NA	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	74975	< 1	NA	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	75274	< 1	NA	< 1	< 1	< 1	< 1	< 1
Bromoform	75252	< 1	NA	< 1	< 1	< 1	< 1	< 1
Bromomethane	74839	< 2	NA	< 2	< 2	< 2	< 2	< 2
Carbon Disulfide	75150	< 2	NA	< 2	< 2	< 2	< 2	< 2
Carbon Tetrachloride	56235	< 1	NA	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	108907	< 1	NA	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	124481	< 1	NA	< 1	< 1	< 1	< 1	< 1

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S14-4 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S14-4 (10/17/13) 10/17/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-1 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-1 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S17-1a (10/7/2013) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-2 (10/4/13) 10/4/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-2 (10/4/13) DUP 10/4/2013 Duplicate OnsiteDown Onsite Shallow Western Area
Volatile Organics (ug/L) (continued)								
Dibromochloropropane (DBCP)	67708832	< 2	NA	< 2	< 2	< 2	< 2	< 2
Chloroethane	75003	< 2	NA	< 2	< 2	< 2	< 2	< 2
Chloroform	67663	< 1	NA	< 1	< 1	< 1	0.36 J	0.27 J
Chloromethane	74873	0.52 J	NA	< 2	< 2	< 2	< 2	< 2
Cis-1,2-Dichloroethene	156592	0.27 J	NA	6.1	6.4	8.1	1.4	1.5
Cis-1,3-Dichloropropene	10061015	< 1	NA	< 1	< 1	< 1	< 1	< 1
Dibromomethane	74953	< 2	NA	< 2	< 2	< 2	< 2	< 2
Dichlorodifluoromethane	75718	< 2	NA	< 2	< 2	< 2	< 2	< 2
Ethylbenzene	100414	< 1	NA	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	87683	< 2	NA	< 2	< 2	< 2	< 2	< 2
Isopropylbenzene	98828	< 1	NA	< 1	< 1	< 1	< 1	< 1
M,P-Xylenes	106423	< 2	NA	< 2	< 2	0.97 J	< 2	< 2
Methyl Tert-Butyl Ether	1634044	< 1	NA	< 1	< 1	< 1	< 1	< 1
Methylene Chloride	75092	< 5	NA	< 5	< 5	< 5	< 5	< 5
Naphthalene	91203	< 3	NA	< 3	< 3	< 3	< 3	< 3
N-Butylbenzene	104518	< 1	NA	< 1	< 1	< 1	< 1	< 1
N-Propylbenzene	103651	< 1	NA	< 1	< 1	< 1	< 1	< 1
O-Xylene	95476	< 1	NA	< 1	< 1	0.76 J	< 1	< 1
Sec-Butylbenzene	135988	< 1	NA	< 1	< 1	< 1	< 1	< 1
Styrene	100425	< 1	NA	< 1	< 1	< 1	< 1	< 1
Tert-Butylbenzene	98066	< 1	NA	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	127184	2.7	NA	146 E	149 E	13.6	114	119
Toluene	108883	< 1	NA	< 1	< 1	0.29 J	< 1	< 1
Trans-1,2-Dichloroethene	156605	< 1	NA	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	10061026	< 1	NA	< 1	< 1	< 1	< 1	< 1
Trichloroethene	79016	5	NA	9.5	9.7	28.299999	19.5	21.299999
Trichlorofluoromethane	75694	< 2	NA	< 2	< 2	< 2	< 2	< 2
Vinyl Acetate	108054	< 10	NA	< 10	< 10	< 10	< 10	< 10
Vinyl Chloride	75014	< 1	NA	< 1	< 1	< 1	< 1	< 1
Total Xylenes	TotalXy	< 2	NA	< 2	< 2	1.73	< 2	< 2
Semi-volatile Organics (ug/L)								
1,2,4-Trichlorobenzene	120821	NA	< 4.7	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95501	NA	< 4.7	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122667	NA	< 4.7	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541731	NA	< 4.7	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106467	NA	< 4.7	NA	NA	NA	NA	NA
1,4-Dioxane	123911	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90120	NA	< 4.7	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95954	NA	< 4.7	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88062	NA	< 4.7	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120832	NA	< 4.7	NA	NA	NA	NA	NA

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area Constituent CAS No.	S14-4 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S14-4 (10/17/13) 10/17/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-1 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-1 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S17-1a (10/7/2013) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-2 (10/4/13) 10/4/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-2 (10/4/13) DUP 10/4/2013 Duplicate OnsiteDown Onsite Shallow Western Area
Semi-volatile Organics (ug/L) (continued)							
2,4-Dimethylphenol 105679	NA	< 4.7	NA	NA	NA	NA	NA
2,4-Dinitrophenol 51285	NA	< 24	NA	NA	NA	NA	NA
2,4-Dinitrotoluene 121142	NA	< 4.7	NA	NA	NA	NA	NA
2,6-Dinitrotoluene 606202	NA	< 4.7	NA	NA	NA	NA	NA
2-Chloronaphthalene 91587	NA	< 4.7	NA	NA	NA	NA	NA
2-Chlorophenol 95578	NA	< 4.7	NA	NA	NA	NA	NA
2-Methylnaphthalene 91576	NA	< 4.7	NA	NA	NA	NA	NA
2-Methylphenol 95487	NA	< 4.7	NA	NA	NA	NA	NA
2-Nitroaniline 88744	NA	< 4.7	NA	NA	NA	NA	NA
2-Nitrophenol 88755	NA	< 4.7	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine 91941	NA	< 4.7	NA	NA	NA	NA	NA
3-Nitroaniline 99092	NA	< 4.7	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol 534521	NA	< 9.4	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether 101553	NA	< 4.7	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol 59507	NA	< 4.7	NA	NA	NA	NA	NA
4-Chloroaniline 106478	NA	< 4.7	NA	NA	NA	NA	NA
4-Chlorophenyl Phenyl Ether 7005723	NA	< 4.7	NA	NA	NA	NA	NA
4-Nitroaniline 100016	NA	< 4.7	NA	NA	NA	NA	NA
4-Nitrophenol 100027	NA	< 24	NA	NA	NA	NA	NA
Acenaphthene 83329	NA	< 4.7	NA	NA	NA	NA	NA
Acenaphthylene 208968	NA	< 4.7	NA	NA	NA	NA	NA
Aniline 62533	NA	< 4.7	NA	NA	NA	NA	NA
Anthracene 120127	NA	< 4.7	NA	NA	NA	NA	NA
Benzidine 92875	NA	< 24	NA	NA	NA	NA	NA
Benzo(A)Anthracene 56553	NA	< 4.7	NA	NA	NA	NA	NA
Benzo(A)Pyrene 50328	NA	< 4.7	NA	NA	NA	NA	NA
Benzo(B)Fluoranthene 205992	NA	< 4.7	NA	NA	NA	NA	NA
Benzo(G,H,I)Perylene 191242	NA	< 4.7	NA	NA	NA	NA	NA
Benzo(K)Fluoranthene 207089	NA	< 4.7	NA	NA	NA	NA	NA
Benzoic Acid 65850	NA	< 47	NA	NA	NA	NA	NA
Benzyl Alcohol 100516	NA	< 4.7	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)Methane 111911	NA	< 4.7	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)Ether 111444	NA	< 4.7	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)Ether 108601	NA	< 4.7	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl) Phthalate 117817	NA	< 4.7	NA	NA	NA	NA	NA
Butyl Benzyl Phthalate 85687	NA	< 4.7	NA	NA	NA	NA	NA
Carbazole 86748	NA	< 4.7	NA	NA	NA	NA	NA
Chrysene 218019	NA	< 4.7	NA	NA	NA	NA	NA
Dibenz(A,H)Anthracene 53703	NA	< 4.7	NA	NA	NA	NA	NA
Dibenzofuran 132649	NA	< 4.7	NA	NA	NA	NA	NA
Diethyl Phthalate 84662	NA	< 4.7	NA	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S14-4 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S14-4 (10/17/13) 10/17/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-1 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-1 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S17-1a (10/7/2013) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-2 (10/4/13) 10/4/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-2 (10/4/13) DUP 10/4/2013 Duplicate OnsiteDown Onsite Shallow Western Area
Semi-volatile Organics (ug/L) (continued)								
Dimethyl Phthalate	131113	NA	< 4.7	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	84742	NA	< 4.7	NA	NA	NA	NA	NA
Di-N-Octyl Phthalate	117840	NA	< 4.7	NA	NA	NA	NA	NA
Fluoranthene	206440	NA	< 4.7	NA	NA	NA	NA	NA
Fluorene	86737	NA	< 4.7	NA	NA	NA	NA	NA
Hexachloro-1,3-Cyclopentadiene	77474	NA	< 4.7	NA	NA	NA	NA	NA
Hexachlorobenzene	118741	NA	< 4.7	NA	NA	NA	NA	NA
Hexachlorobutadiene	87683	NA		NA	NA	NA	NA	NA
Hexachloroethane	67721	NA	< 4.7	NA	NA	NA	NA	NA
Indeno(1,2,3-Cd)Pyrene	193395	NA	< 4.7	NA	NA	NA	NA	NA
Isophorone	78591	NA	< 4.7	NA	NA	NA	NA	NA
M-,P-Cresol Mixture	106445	NA	< 4.7	NA	NA	NA	NA	NA
Naphthalene	91203	NA		NA	NA	NA	NA	NA
Nitrobenzene	98953	NA	< 4.7	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62759	NA	< 4.7	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	621647	NA	< 4.7	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86306	NA	< 4.7	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	< 24	NA	NA	NA	NA	NA
Phenanthrene	85018	NA	< 4.7	NA	NA	NA	NA	NA
Phenol	108952	NA	< 4.7	NA	NA	NA	NA	NA
Pyrene	129000	NA	< 4.7	NA	NA	NA	NA	NA
Pyridine	110861	NA	< 9.4	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (ug/L)								
DRO (C10-C28) Range	DRO	NA	NA	NA	NA	NA	NA	NA
Total Inorganics (ug/L)								
Arsenic	7440382	< 10	NA	< 10	NA	NA	NA	NA
Barium	7440393	460	NA	234	NA	NA	NA	NA
Cadmium	7440439	< 5	NA	< 5	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	14.1	NA	< 10	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	16	NA	10.6	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	< 0.5	NA	< 0.5	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	< 10	NA	< 10	NA	NA	NA	NA
Silver	7440224	< 10	NA	< 10	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S14-4 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S14-4 (10/17/13) 10/17/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-1 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-1 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S17-1a (10/7/2013) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-2 (10/4/13) 10/4/2013 Investigation OnsiteDown Onsite Shallow Western Area	S17-2 (10/4/13) DUP 10/4/2013 Duplicate OnsiteDown Onsite Shallow Western Area
Dissolved Inorganics (ug/L)								
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA
Misc. Parameters (ug/L)								
Oxygen, Dissolved (mg/L)	7782447	0.87	NA	0.77	NA	-88	1.64	NA
Alkalinity (Caco3), Carbonate (mg/L)	71523	NA	NA	NA	NA	NA	NA	NA
Alkalinity (HCO3), Bicarbonate (mg/L)	AlkB	NA	NA	NA	NA	NA	NA	NA
Alkalinity (Total) (mg/L)	AlkT	NA	NA	NA	NA	NA	NA	NA
pH	pH	6.83	NA	6.84	NA	-88	6.92	NA
Redox Potential (mV)	Redox	-123.2	NA	98.199997	NA	-88	-82.199997	NA
Specific Conductance (umhos/cm)	- -	850	NA	988	NA	-88	961	NA
Temperature (°C)	- -	20.15	NA	20.360001	NA	-88	22.24	NA
Turbidity (NTU)	- -	1000	NA		NA	1000	1000	NA
Chloride	16887006	NA	NA	NA	NA	NA	NA	NA
Chloride (Dissolved)	16887006	NA	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA	NA
Hardness	- -	NA	NA	NA	NA	NA	NA	NA
Nitrate as N	14797558	NA	NA	NA	NA	NA	NA	NA
Sulfate	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfate (Dissolved)	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfide	18496258	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	NA	NA	NA	NA	NA	NA	NA
Total Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids	- -	NA	NA	NA	NA	NA	NA	NA

Notes:
J - Estimated result.
NA - Not Analyzed.
R - Rejected result.

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S18-1 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area		S18-1 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Western Area		S18-2 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area		S18-2 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Western Area		S18-3 (10/4/2013) 10/4/2013 Investigation OnsiteDown Onsite Shallow Western Area		S18-4 (10/8/13) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area		S18-4 (10/8/13) DUP 10/8/2013 Duplicate OnsiteDown Onsite Shallow Western Area	
Volatile Organics (ug/L)															
1,1,1,2-Tetrachloroethane	630206	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
1,1,1-Trichloroethane	71556	14.9		15		3.9		3.9		< 1		< 1		< 1	
1,1,2,2-Tetrachloroethane	79345	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
1,1,2-Trichloroethane	79005	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
1,1-Dichloroethane	75343	0.6	J	0.6	J	1.2		1.1		< 1		< 1		< 1	
1,1-Dichloroethene	75354	0.89	J	0.92	J	< 1		< 1		< 1		< 1		< 1	
1,1-Dichloropropene	563586	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
1,2,3-Trichlorobenzene	87616	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
1,2,3-Trichloropropane	96184	< 2		< 2		< 2		< 2		< 2		< 2		< 2	
1,2,4-Trichlorobenzene	120821	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
1,2,4-Trimethylbenzene	95636	< 2		< 2		< 2		< 2		< 2		< 2		< 2	
1,2-Dibromoethane	106934	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
1,2-Dichlorobenzene	95501	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
1,2-Dichloroethane	107062	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
1,2-Dichloropropane	78875	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
1,3,5-Trimethylbenzene	108678	< 2		< 2		< 2		< 2		< 2		< 2		< 2	
1,3-Dichlorobenzene	541731	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
1,3-Dichloropropane	142289	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
1,4-Dichlorobenzene	106467	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
1,4-Dioxane	123911	< 200		< 200		< 200		< 200		< 200		< 200		< 200	
2,2-Dichloropropane	594207	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
2-Butanone	78933	< 5		< 5		< 5		< 5		< 5		< 5		< 5	
2-Chloroethyl Vinyl Ether	110758	< 5	R	< 5	R	< 5	R	< 5	R	< 5	R	< 5		< 5	
2-Chlorotoluene	95498	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
2-Hexanone (methyl butyl ketone)	591786	< 10		< 10		< 10		< 10		< 10		< 10		< 10	
4-Chlorotoluene	106434	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
4-Isopropyltoluene	99876	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
4-Methyl-2-Pentanone	108101	< 5		< 5		< 5		< 5		< 5		< 5		< 5	
Acetone	67641	< 25		< 25		< 25		< 25		< 25		< 25		< 25	
Acrolein	107028	< 20		< 20		< 20		< 20		< 20		< 20		< 20	
Acrylonitrile	107131	< 10		< 10		< 10		< 10		< 10		< 10		< 10	
Benzene	71432	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
Bromobenzene	108861	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
Bromochloromethane	74975	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
Bromodichloromethane	75274	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
Bromoform	75252	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
Bromomethane	74839	< 2		< 2		< 2		< 2		< 2		< 2		< 2	
Carbon Disulfide	75150	< 2		< 2		< 2		< 2		< 2		< 2		< 2	
Carbon Tetrachloride	56235	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
Chlorobenzene	108907	< 1		< 1		< 1		< 1		< 1		< 1		< 1	
Dibromochloromethane	124481	< 1		< 1		< 1		< 2		< 1		< 1		< 1	

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S18-1 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S18-1 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S18-2 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S18-2 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S18-3 (10/4/2013) 10/4/2013 Investigation OnsiteDown Onsite Shallow Western Area	S18-4 (10/8/13) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S18-4 (10/8/13) DUP 10/8/2013 Duplicate OnsiteDown Onsite Shallow Western Area
Volatile Organics (ug/L) (continued)								
Dibromochloropropane (DBCP)	67708832	< 2	< 2	< 2	< 1	< 2	< 2	< 2
Chloroethane	75003	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chloroform	67663	0.37 J	0.35 J	< 1	< 1	< 1	0.34 J	< 1
Chloromethane	74873	< 2	< 2	< 2	< 1	< 2	< 2	< 2
Cis-1,2-Dichloroethene	156592	1.6	1.3	1.4	1.3	0.65 J	5	4.6
Cis-1,3-Dichloropropene	10061015	< 1	< 1	< 1	< 2	< 1	< 1	< 1
Dibromomethane	74953	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Dichlorodifluoromethane	75718	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Ethylbenzene	100414	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	87683	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Isopropylbenzene	98828	< 1	< 1	< 1	< 1	< 1	< 1	< 1
M,P-Xylenes	106423	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl Tert-Butyl Ether	1634044	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene Chloride	75092	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Naphthalene	91203	< 3	< 3	< 3	< 3	< 3	< 3	< 3
N-Butylbenzene	104518	< 1	< 1	< 1	< 1	< 1	< 1	< 1
N-Propylbenzene	103651	< 1	< 1	< 1	< 1	< 1	< 1	< 1
O-Xylene	95476	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Sec-Butylbenzene	135988	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100425	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert-Butylbenzene	98066	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	127184	152 E	150 E	8.7	8.4	0.99 J	0.34 J	0.39 J
Toluene	108883	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,2-Dichloroethene	156605	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	10061026	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	79016	95.900002	91.199997	0.77 J	1	< 1	10	9.3
Trichlorofluoromethane	75694	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Vinyl Acetate	108054	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Vinyl Chloride	75014	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	TotalXy	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Semi-volatile Organics (ug/L)								
1,2,4-Trichlorobenzene	120821	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95501	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122667	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541731	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106467	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	123911	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90120	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95954	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88062	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120832	NA	NA	NA	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent / Sample Identification / Date Collected / Sample Type / OnsiteDown/Up / Onsite/Offsite / Aquifer / Area	CAS No.	S18-1 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S18-1 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S18-2 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S18-2 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S18-3 (10/4/2013) 10/4/2013 Investigation OnsiteDown Onsite Shallow Western Area	S18-4 (10/8/13) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S18-4 (10/8/13) DUP 10/8/2013 Duplicate OnsiteDown Onsite Shallow Western Area
Semi-volatile Organics (ug/L) (continued)								
2,4-Dimethylphenol	105679	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51285	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121142	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606202	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91587	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95578	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91576	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95487	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88744	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88755	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	91941	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99092	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	534521	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	101553	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	59507	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106478	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl Phenyl Ether	7005723	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100016	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100027	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83329	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208968	NA	NA	NA	NA	NA	NA	NA
Aniline	62533	NA	NA	NA	NA	NA	NA	NA
Anthracene	120127	NA	NA	NA	NA	NA	NA	NA
Benzidine	92875	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Anthracene	56553	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Pyrene	50328	NA	NA	NA	NA	NA	NA	NA
Benzo(B)Fluoranthene	205992	NA	NA	NA	NA	NA	NA	NA
Benzo(G,H,I)Perylene	191242	NA	NA	NA	NA	NA	NA	NA
Benzo(K)Fluoranthene	207089	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	65850	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	100516	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)Methane	111911	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)Ether	111444	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)Ether	108601	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl) Phthalate	117817	NA	NA	NA	NA	NA	NA	NA
Butyl Benzyl Phthalate	85687	NA	NA	NA	NA	NA	NA	NA
Carbazole	86748	NA	NA	NA	NA	NA	NA	NA
Chrysene	218019	NA	NA	NA	NA	NA	NA	NA
Dibenz(A,H)Anthracene	53703	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132649	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	84662	NA	NA	NA	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S18-1 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S18-1 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S18-2 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S18-2 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S18-3 (10/4/2013) 10/4/2013 Investigation OnsiteDown Onsite Shallow Western Area	S18-4 (10/8/13) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S18-4 (10/8/13) DUP 10/8/2013 Duplicate OnsiteDown Onsite Shallow Western Area
Semi-volatile Organics (ug/L) (continued)								
Dimethyl Phthalate	131113	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	84742	NA	NA	NA	NA	NA	NA	NA
Di-N-Octyl Phthalate	117840	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206440	NA	NA	NA	NA	NA	NA	NA
Fluorene	86737	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Cyclopentadiene	77474	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118741	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87683	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67721	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-Cd)Pyrene	193395	NA	NA	NA	NA	NA	NA	NA
Isophorone	78591	NA	NA	NA	NA	NA	NA	NA
M-,P-Cresol Mixture	106445	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91203	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98953	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62759	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	621647	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86306	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85018	NA	NA	NA	NA	NA	NA	NA
Phenol	108952	NA	NA	NA	NA	NA	NA	NA
Pyrene	129000	NA	NA	NA	NA	NA	NA	NA
Pyridine	110861	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (ug/L)								
DRO (C10-C28) Range	DRO	NA	NA	NA	NA	NA	NA	NA
Total Inorganics (ug/L)								
Arsenic	7440382	< 10	NA	NA	NA	NA	< 10	NA
Barium	7440393	< 200	NA	NA	NA	NA	< 200	NA
Cadmium	7440439	< 5	NA	NA	NA	NA	< 5	NA
Calcium	7440702	NA	NA	NA	NA	NA	103000	NA
Chromium	18540299	< 10	NA	NA	NA	NA	< 10	NA
Iron	7439896	NA	NA	NA	NA	NA	1720	NA
Lead	7439921	5.4	NA	NA	NA	NA	< 5	NA
Magnesium	7439954	NA	NA	NA	NA	NA	35200	NA
Manganese	7439965	NA	NA	NA	NA	NA	1330	NA
Mercury	7439976	< 0.5	NA	NA	NA	NA	< 0.5	NA
Potassium	7440097	NA	NA	NA	NA	NA	< 10000	NA
Selenium	7782492	< 10	NA	NA	NA	NA	< 10	NA
Silver	7440224	< 10	NA	NA	NA	NA	< 10	NA
Sodium	7440235	NA	NA	NA	NA	NA	49400	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S18-1 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S18-1 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S18-2 (10/7/13) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	S18-2 (10/7/13) DUP 10/7/2013 Duplicate OnsiteDown Onsite Shallow Western Area	S18-3 (10/4/2013) 10/4/2013 Investigation OnsiteDown Onsite Shallow Western Area	S18-4 (10/8/13) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S18-4 (10/8/13) DUP 10/8/2013 Duplicate OnsiteDown Onsite Shallow Western Area
Dissolved Inorganics (ug/L)								
Arsenic	7440382	NA	NA	NA	NA	NA	< 10	NA
Barium	7440393	NA	NA	NA	NA	NA	< 200	NA
Cadmium	7440439	NA	NA	NA	NA	NA	< 5	NA
Calcium	7440702	NA	NA	NA	NA	NA	102000	NA
Chromium	18540299	NA	NA	NA	NA	NA	< 10	NA
Iron	7439896	NA	NA	NA	NA	NA	< 5	NA
Lead	7439921	NA	NA	NA	NA	NA	< 5	NA
Magnesium	7439954	NA	NA	NA	NA	NA	35200	NA
Manganese	7439965	NA	NA	NA	NA	NA	1350	NA
Mercury	7439976	NA	NA	NA	NA	NA	< 0.5	NA
Potassium	7440097	NA	NA	NA	NA	NA	< 10000	NA
Selenium	7782492	NA	NA	NA	NA	NA	< 10	NA
Silver	7440224	NA	NA	NA	NA	NA	< 10	NA
Sodium	7440235	NA	NA	NA	NA	NA	50300	NA
Misc. Parameters (ug/L)								
Oxygen, Dissolved (mg/L)	7782447	1.38	NA	0.72	NA	-88	0.9	NA
Alkalinity (Caco3), Carbonate (mg/L)	71523	NA	NA	NA	NA	NA	< 5	NA
Alkalinity (HCO3), Bicarbonate (mg/L)	AlkB	NA	NA	NA	NA	NA	320	NA
Alkalinity (Total) (mg/L)	AlkT	NA	NA	NA	NA	NA	321	NA
pH	pH	6.8	NA	6.86	NA	-88	7.37	NA
Redox Potential (mV)	Redox	211.199997	NA	-249.7	NA	-88	-136.10001	NA
Specific Conductance (umhos/cm)	- -	963	NA	1007	NA	-88	849	NA
Temperature (°C)	- -	18.93	NA	20.65	NA	-88	19.76	NA
Turbidity (NTU)	- -	1000	NA	< 0	NA	1000	1000	NA
Chloride	16887006	NA	NA	NA	NA	NA	62400.002	NA
Chloride (Dissolved)	16887006	NA	NA	NA	NA	NA	67699.997	NA
Fluoride	16984488	NA	NA	NA	NA	NA	< 1000	NA
Hardness	- -	NA	NA	NA	NA	NA	402	NA
Nitrate as N	14797558	NA	NA	NA	NA	NA	< 500	NA
Sulfate	14808798	NA	NA	NA	NA	NA	138000	NA
Sulfate (Dissolved)	14808798	NA	NA	NA	NA	NA	142000	NA
Sulfide	18496258	NA	NA	NA	NA	NA	< 1000	NA
Total Dissolved Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	NA	NA	NA	NA	NA	1.6	NA
Total Solids	- -	NA	NA	NA	NA	NA	980	NA
Total Suspended Solids	- -	NA	NA	NA	NA	NA	< 10	NA

Notes:
J - Estimated result.
NA - Not Analyzed.
R - Rejected result.

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Sample Identification		S18-5 (10/8/2013)	S20-1 (10/7/2013)	S22-1 (10/9/2013)	S22-2 (10/9/2013)	S24-1 (10/10/2013)	S24-2 (10/8/2013)	S24-3 (10/8/2013)
Date Collected		10/8/2013	10/7/2013	10/9/2013	10/9/2013	10/10/2013	10/8/2013	10/8/2013
Sample Type		Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
OnsiteDown/Up		OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown
Onsite/Offsite		Onsite	Onsite	Onsite	Onsite	Onsite	Onsite	Onsite
Aquifer		Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Area		Western Area	Central Area	Eastern Area	Eastern Area	Western Area	Western Area	Western Area
Constituent	CAS No.							
Volatile Organics (ug/L)								
1,1,1,2-Tetrachloroethane	630206	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	71556	1.6	< 1	< 1	< 1	1.5	0.96 J	0.54 J
1,1,2,2-Tetrachloroethane	79345	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	79005	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	75343	0.3 J	< 1	< 1	< 1	< 1	2.5	< 1
1,1-Dichloroethene	75354	< 1	< 1	0.26 J	0.3 J	< 1	< 1	< 1
1,1-Dichloropropene	563586	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	87616	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	96184	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,2,4-Trichlorobenzene	120821	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	95636	< 2	< 2	< 2	0.33 J	< 2	< 2	< 2
1,2-Dibromoethane	106934	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	95501	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	107062	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	78875	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	108678	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,3-Dichlorobenzene	541731	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	142289	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	106467	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dioxane	123911	< 200	< 200	< 200	< 200	< 200	< 200	< 200
2,2-Dichloropropane	594207	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone	78933	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Chloroethyl Vinyl Ether	110758	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Chlorotoluene	95498	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Hexanone (methyl butyl ketone)	591786	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-Chlorotoluene	106434	< 1	< 1	< 1	< 1	< 1	< 1	< 1
4-Isopropyltoluene	99876	< 1	< 1	< 1	< 1	< 1	< 1	< 1
4-Methyl-2-Pentanone	108101	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Acetone	67641	< 25	< 25	< 25	< 25	< 25	< 25	< 25
Acrolein	107028	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Acrylonitrile	107131	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	71432	< 1	< 1	< 1	< 1	< 1	2	< 1
Bromobenzene	108861	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	74975	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	75274	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	75252	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromomethane	74839	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Carbon Disulfide	75150	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Carbon Tetrachloride	56235	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	108907	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	124481	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Sample Identification		S18-5 (10/8/2013)	S20-1 (10/7/2013)	S22-1 (10/9/2013)	S22-2 (10/9/2013)	S24-1 (10/10/2013)	S24-2 (10/8/2013)	S24-3 (10/8/2013)
Date Collected		10/8/2013	10/7/2013	10/9/2013	10/9/2013	10/10/2013	10/8/2013	10/8/2013
Sample Type		Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
OnsiteDown/Up		OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown
Onsite/Offsite		Onsite	Onsite	Onsite	Onsite	Onsite	Onsite	Onsite
Aquifer		Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Area		Western Area	Central Area	Eastern Area	Eastern Area	Western Area	Western Area	Western Area
Constituent	CAS No.							
Volatile Organics (ug/L) (continued)								
Dibromochloropropane (DBCP)	67708832	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chloroethane	75003	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chloroform	67663	< 1	0.57 J	< 1	< 1	< 1	< 1	< 1
Chloromethane	74873	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Cis-1,2-Dichloroethene	156592	5.1	3.9	8.3	9.1	< 1	1.5	< 1
Cis-1,3-Dichloropropene	10061015	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dibromomethane	74953	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Dichlorodifluoromethane	75718	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Ethylbenzene	100414	< 1	< 1	< 1	3.5	< 1	< 1	< 1
Hexachlorobutadiene	87683	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Isopropylbenzene	98828	< 1	< 1	< 1	< 1	< 1	< 1	< 1
M,P-Xylenes	106423	< 2	< 2	< 2	11.6	< 2	< 2	< 2
Methyl Tert-Butyl Ether	1634044	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene Chloride	75092	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Naphthalene	91203	< 3	< 3	< 3	< 3	< 3	< 3	< 3
N-Butylbenzene	104518	< 1	< 1	< 1	< 1	< 1	< 1	< 1
N-Propylbenzene	103651	< 1	< 1	< 1	< 1	< 1	< 1	< 1
O-Xylene	95476	< 1	< 1	< 1	3.9	< 1	< 1	< 1
Sec-Butylbenzene	135988	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100425	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert-Butylbenzene	98066	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	127184	14	0.92 J	< 1	< 1	19.200001	9.7	1.4
Toluene	108883	< 1	< 1	< 1	2.7	< 1	< 1	< 1
Trans-1,2-Dichloroethene	156605	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	10061026	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	79016	1.2	8.4	4.1	3.7	0.38 J	0.64 J	< 1
Trichlorofluoromethane	75694	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Vinyl Acetate	108054	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Vinyl Chloride	75014	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	TotalXy	< 2	< 2	< 2	15.5	< 2	< 2	< 2
Semi-volatile Organics (ug/L)								
1,2,4-Trichlorobenzene	120821	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95501	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122667	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541731	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106467	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	123911	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90120	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95954	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88062	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120832	NA	NA	NA	NA	NA	NA	NA

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S18-5 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S20-1 (10/7/2013) 10/7/2013 Investigation OnsiteDown Onsite Shallow Central Area	S22-1 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	S22-2 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	S24-1 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	S24-2 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S24-3 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area
Semi-volatile Organics (ug/L) (continued)								
2,4-Dimethylphenol	105679	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51285	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121142	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606202	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91587	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95578	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91576	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95487	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88744	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88755	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	91941	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99092	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	534521	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	101553	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	59507	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106478	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl Phenyl Ether	7005723	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100016	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100027	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83329	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208968	NA	NA	NA	NA	NA	NA	NA
Aniline	62533	NA	NA	NA	NA	NA	NA	NA
Anthracene	120127	NA	NA	NA	NA	NA	NA	NA
Benzidine	92875	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Anthracene	56553	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Pyrene	50328	NA	NA	NA	NA	NA	NA	NA
Benzo(B)Fluoranthene	205992	NA	NA	NA	NA	NA	NA	NA
Benzo(G,H,I)Perylene	191242	NA	NA	NA	NA	NA	NA	NA
Benzo(K)Fluoranthene	207089	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	65850	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	100516	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)Methane	111911	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)Ether	111444	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)Ether	108601	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl) Phthalate	117817	NA	NA	NA	NA	NA	NA	NA
Butyl Benzyl Phthalate	85687	NA	NA	NA	NA	NA	NA	NA
Carbazole	86748	NA	NA	NA	NA	NA	NA	NA
Chrysene	218019	NA	NA	NA	NA	NA	NA	NA
Dibenz(A,H)Anthracene	53703	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132649	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	84662	NA	NA	NA	NA	NA	NA	NA

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S18-5 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S20-1 (10/7/2013) 10/7/2013 Investigation OnsiteDown Onsite Shallow Central Area	S22-1 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	S22-2 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	S24-1 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	S24-2 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S24-3 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area
Semi-volatile Organics (ug/L) (continued)								
Dimethyl Phthalate	131113	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	84742	NA	NA	NA	NA	NA	NA	NA
Di-N-Octyl Phthalate	117840	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206440	NA	NA	NA	NA	NA	NA	NA
Fluorene	86737	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Cyclopentadiene	77474	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118741	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87683	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67721	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-Cd)Pyrene	193395	NA	NA	NA	NA	NA	NA	NA
Isophorone	78591	NA	NA	NA	NA	NA	NA	NA
M-,P-Cresol Mixture	106445	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91203	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98953	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62759	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	621647	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86306	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85018	NA	NA	NA	NA	NA	NA	NA
Phenol	108952	NA	NA	NA	NA	NA	NA	NA
Pyrene	129000	NA	NA	NA	NA	NA	NA	NA
Pyridine	110861	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (ug/L)								
DRO (C10-C28) Range	DRO	NA	NA	NA	NA	NA	NA	NA
Total Inorganics (ug/L)								
Arsenic	7440382	NA	16	NA	NA	NA	NA	NA
Barium	7440393	NA	212	NA	NA	NA	NA	NA
Cadmium	7440439	NA	< 5	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	NA	26.6	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	17.200001	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	< 0.5	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	< 10	NA	NA	NA	NA	NA
Silver	7440224	NA	< 10	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S18-5 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S20-1 (10/7/2013) 10/7/2013 Investigation OnsiteDown Onsite Shallow Central Area	S22-1 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	S22-2 (10/9/2013) 10/9/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	S24-1 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	S24-2 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S24-3 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area
Dissolved Inorganics (ug/L)								
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA
Misc. Parameters (ug/L)								
Oxygen, Dissolved (mg/L)	7782447	2.75	2.2	0.61	0.57	0.58	3.84	-88
Alkalinity (Caco3), Carbonate (mg/L)	71523	NA	NA	NA	NA	NA	NA	NA
Alkalinity (HCO3), Bicarbonate (mg/L)	AlkB	NA	NA	NA	NA	NA	NA	NA
Alkalinity (Total) (mg/L)	AlkT	NA	NA	NA	NA	NA	NA	NA
pH	pH	6.73	6.8	6.77	6.9	6.71	6.99	-88
Redox Potential (mV)	Redox	106.300003	-67.5	-85.699997	-110.2	-120.5	-32.599998	-88
Specific Conductance (umhos/cm)	- -	901	843	1001	940	952	885	-88
Temperature (°C)	- -	18.15	16.620001	22.889999	22.379999	22.16	19.559999	-88
Turbidity (NTU)	- -	1000	1000	1000	1000	1000	< 0	-88
Chloride	16887006	NA	NA	NA	NA	NA	NA	NA
Chloride (Dissolved)	16887006	NA	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA	NA
Hardness	- -	NA	NA	NA	NA	NA	NA	NA
Nitrate as N	14797558	NA	NA	NA	NA	NA	NA	NA
Sulfate	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfate (Dissolved)	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfide	18496258	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	NA	NA	NA	NA	NA	NA	NA
Total Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids	- -	NA	NA	NA	NA	NA	NA	NA

Notes:
J - Estimated result.
NA - Not Analyzed.
R - Rejected result.

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S24-4 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	S25-1 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S25-2 (10/9/13) 10/9/2013 Investigation OnsiteDown Onsite Shallow Western Area	S25-2 (10/9/13) DUP 10/9/2013 Duplicate OnsiteDown Onsite Shallow Western Area	SEBJ-1 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SEBJ-2 (10/4/13) 10/4/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SEBJ-2 (10/4/13) DUP 10/4/2013 Duplicate OnsiteDown Onsite Shallow Eastern Area
Volatile Organics (ug/L)								
1,1,1,2-Tetrachloroethane	630206	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,1,1-Trichloroethane	71556	5.7	< 1	< 1	< 1	1.5 J	< 1	< 1
1,1,2,2-Tetrachloroethane	79345	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,1,2-Trichloroethane	79005	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,1-Dichloroethane	75343	0.78 J	< 1	< 1	< 1	3.2 J	1	1.1
1,1-Dichloroethene	75354	< 1	< 1	< 1	< 1	0.26 J	< 1	< 1
1,1-Dichloropropene	563586	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,2,3-Trichlorobenzene	87616	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,2,3-Trichloropropane	96184	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
1,2,4-Trichlorobenzene	120821	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,2,4-Trimethylbenzene	95636	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
1,2-Dibromoethane	106934	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,2-Dichlorobenzene	95501	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,2-Dichloroethane	107062	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,2-Dichloropropane	78875	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,3,5-Trimethylbenzene	108678	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
1,3-Dichlorobenzene	541731	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,3-Dichloropropane	142289	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,4-Dichlorobenzene	106467	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
1,4-Dioxane	123911	< 200	< 200	< 200	< 200	< 200 J	< 200	< 200
2,2-Dichloropropane	594207	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
2-Butanone	78933	< 5	< 5	< 5	< 5	< 5 J	< 5	< 5
2-Chloroethyl Vinyl Ether	110758	< 5	< 5	< 5	< 5	< 5 J	< 5 R	< 5 R
2-Chlorotoluene	95498	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
2-Hexanone (methyl butyl ketone)	591786	< 10	< 10	< 10	< 10	< 10 J	< 10	< 10
4-Chlorotoluene	106434	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
4-Isopropyltoluene	99876	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
4-Methyl-2-Pentanone	108101	< 5	< 5	< 5	< 5	< 5 J	< 5	< 5
Acetone	67641	< 25	< 25	< 25	< 25	< 25 J	< 25	< 25
Acrolein	107028	< 20	< 20	< 20	< 20	< 20 J	< 20	< 20
Acrylonitrile	107131	< 10	< 10	< 10	< 10	< 10 J	< 10	< 10
Benzene	71432	< 1	< 1	0.41 J	0.45 J	0.31 J	0.62 J	0.61 J
Bromobenzene	108861	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Bromochloromethane	74975	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Bromodichloromethane	75274	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Bromoform	75252	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Bromomethane	74839	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
Carbon Disulfide	75150	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
Carbon Tetrachloride	56235	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Chlorobenzene	108907	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Dibromochloromethane	124481	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification / Date Collected / Sample Type / OnsiteDown/Up / Onsite/Offsite / Aquifer / Area / CAS No.	S24-4 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	S25-1 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S25-2 (10/9/13) 10/9/2013 Investigation OnsiteDown Onsite Shallow Western Area	S25-2 (10/9/13) DUP 10/9/2013 Duplicate OnsiteDown Onsite Shallow Western Area	SEBJ-1 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SEBJ-2 (10/4/13) 10/4/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SEBJ-2 (10/4/13) DUP 10/4/2013 Duplicate OnsiteDown Onsite Shallow Eastern Area
Volatile Organics (ug/L) (continued)								
Dibromochloropropane (DBCP)	67708832	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
Chloroethane	75003	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
Chloroform	67663	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Chloromethane	74873	< 2	0.51 J	< 2	< 2	< 2 J	< 2	< 2
Cis-1,2-Dichloroethene	156592	17.6	8	1.7	1.7	100 J	12.2	12
Cis-1,3-Dichloropropene	10061015	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Dibromomethane	74953	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
Dichlorodifluoromethane	75718	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
Ethylbenzene	100414	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Hexachlorobutadiene	87683	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
Isopropylbenzene	98828	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
M,P-Xylenes	106423	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
Methyl Tert-Butyl Ether	1634044	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Methylene Chloride	75092	< 5	< 5	< 5	< 5	< 5 J	< 5	< 5
Naphthalene	91203	< 3	< 3	< 3	< 3	< 3 J	< 3	< 3
N-Butylbenzene	104518	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
N-Propylbenzene	103651	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
O-Xylene	95476	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Sec-Butylbenzene	135988	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Styrene	100425	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Tert-Butylbenzene	98066	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Tetrachloroethene	127184	32.900002	< 1	2.3	2.6	219 J	1.4	1.3
Toluene	108883	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Trans-1,2-Dichloroethene	156605	0.53 J	< 1	< 1	< 1	1.2 J	1.6	1.5
Trans-1,3-Dichloropropene	10061026	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1
Trichloroethene	79016	1.3	0.72 J	1.9	2.1	26.1 J	< 1	< 1
Trichlorofluoromethane	75694	< 2	< 2	< 2	< 2	< 2 J	< 2	< 2
Vinyl Acetate	108054	< 10	< 10	< 10	< 10	< 10 J	< 10	< 10
Vinyl Chloride	75014	< 1	< 1	< 1	< 1	1 J	4.3	4.1
Total Xylenes	TotalXy	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Semi-volatile Organics (ug/L)								
1,2,4-Trichlorobenzene	120821	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95501	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122667	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541731	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106467	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	123911	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90120	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95954	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88062	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120832	NA	NA	NA	NA	NA	NA	NA

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S24-4 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	S25-1 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S25-2 (10/9/13) 10/9/2013 Investigation OnsiteDown Onsite Shallow Western Area	S25-2 (10/9/13) DUP 10/9/2013 Duplicate OnsiteDown Onsite Shallow Western Area	SEBJ-1 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SEBJ-2 (10/4/13) 10/4/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SEBJ-2 (10/4/13) DUP 10/4/2013 Duplicate OnsiteDown Onsite Shallow Eastern Area
Semi-volatile Organics (ug/L) (continued)								
2,4-Dimethylphenol	105679	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51285	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121142	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606202	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91587	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95578	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91576	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	95487	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88744	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88755	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	91941	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99092	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol	534521	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether	101553	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	59507	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106478	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl Phenyl Ether	7005723	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100016	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100027	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	83329	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	208968	NA	NA	NA	NA	NA	NA	NA
Aniline	62533	NA	NA	NA	NA	NA	NA	NA
Anthracene	120127	NA	NA	NA	NA	NA	NA	NA
Benzidine	92875	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Anthracene	56553	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Pyrene	50328	NA	NA	NA	NA	NA	NA	NA
Benzo(B)Fluoranthene	205992	NA	NA	NA	NA	NA	NA	NA
Benzo(G,H,I)Perylene	191242	NA	NA	NA	NA	NA	NA	NA
Benzo(K)Fluoranthene	207089	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	65850	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	100516	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)Methane	111911	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)Ether	111444	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)Ether	108601	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl) Phthalate	117817	NA	NA	NA	NA	NA	NA	NA
Butyl Benzyl Phthalate	85687	NA	NA	NA	NA	NA	NA	NA
Carbazole	86748	NA	NA	NA	NA	NA	NA	NA
Chrysene	218019	NA	NA	NA	NA	NA	NA	NA
Dibenz(A,H)Anthracene	53703	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	132649	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate	84662	NA	NA	NA	NA	NA	NA	NA

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Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S24-4 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	S25-1 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S25-2 (10/9/13) 10/9/2013 Investigation OnsiteDown Onsite Shallow Western Area	S25-2 (10/9/13) DUP 10/9/2013 Duplicate OnsiteDown Onsite Shallow Western Area	SEBJ-1 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SEBJ-2 (10/4/13) 10/4/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SEBJ-2 (10/4/13) DUP 10/4/2013 Duplicate OnsiteDown Onsite Shallow Eastern Area
Semi-volatile Organics (ug/L) (continued)								
Dimethyl Phthalate	131113	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	84742	NA	NA	NA	NA	NA	NA	NA
Di-N-Octyl Phthalate	117840	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206440	NA	NA	NA	NA	NA	NA	NA
Fluorene	86737	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Cyclopentadiene	77474	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118741	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87683	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67721	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-Cd)Pyrene	193395	NA	NA	NA	NA	NA	NA	NA
Isophorone	78591	NA	NA	NA	NA	NA	NA	NA
M-,P-Cresol Mixture	106445	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91203	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98953	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62759	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	621647	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86306	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85018	NA	NA	NA	NA	NA	NA	NA
Phenol	108952	NA	NA	NA	NA	NA	NA	NA
Pyrene	129000	NA	NA	NA	NA	NA	NA	NA
Pyridine	110861	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (ug/L)								
DRO (C10-C28) Range	DRO	NA	NA	NA	NA	NA	NA	NA
Total Inorganics (ug/L)								
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	S24-4 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Western Area	S25-1 (10/8/2013) 10/8/2013 Investigation OnsiteDown Onsite Shallow Western Area	S25-2 (10/9/13) 10/9/2013 Investigation OnsiteDown Onsite Shallow Western Area	S25-2 (10/9/13) DUP 10/9/2013 Duplicate OnsiteDown Onsite Shallow Western Area	SEBJ-1 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SEBJ-2 (10/4/13) 10/4/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SEBJ-2 (10/4/13) DUP 10/4/2013 Duplicate OnsiteDown Onsite Shallow Eastern Area
Dissolved Inorganics (ug/L)								
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA
Misc. Parameters (ug/L)								
Oxygen, Dissolved (mg/L)	7782447	0.79	0.98	0.85	NA	1.61	0.91	NA
Alkalinity (Caco3), Carbonate (mg/L)	71523	NA	NA	NA	NA	NA	NA	NA
Alkalinity (HCO3), Bicarbonate (mg/L)	AlkB	NA	NA	NA	NA	NA	NA	NA
Alkalinity (Total) (mg/L)	AlkT	NA	NA	NA	NA	NA	NA	NA
pH	pH	6.69	6.93	6.77	NA	7.8	6.74	NA
Redox Potential (mV)	Redox	-64.300003	-130.10001	-117.4	NA	-152.39999	-69	NA
Specific Conductance (umhos/cm)	- -	879	927	807	NA	1220	1068	NA
Temperature (°C)	- -	19.280001	20.57	19.280001	NA	23.33	21.4	NA
Turbidity (NTU)	- -	< 0	1000	< 0	NA	< 0	< 0	NA
Chloride	16887006	NA	NA	NA	NA	NA	NA	NA
Chloride (Dissolved)	16887006	NA	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA	NA
Hardness	- -	NA	NA	NA	NA	NA	NA	NA
Nitrate as N	14797558	NA	NA	NA	NA	NA	NA	NA
Sulfate	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfate (Dissolved)	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfide	18496258	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	NA	NA	NA	NA	NA	NA	NA
Total Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids	- -	NA	NA	NA	NA	NA	NA	NA

Notes:
J - Estimated result.
NA - Not Analyzed.
R - Rejected result.

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Sample Identification		SEBJ-3 (10/3/2013)	SK-12S (10/4/2013)	SK-1S (10/4/2013)	SK-2S (10/4/2013)	T1-1 (10/7/2013)	T1-2 (10/11/2013)	T2-1 (10/10/2013)
Date Collected		10/3/2013	10/4/2013	10/4/2013	10/4/2013	10/7/2013	10/11/2013	10/10/2013
Sample Type		Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
OnsiteDown/Up		OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown	OnsiteDown
Onsite/Offsite		Onsite	Onsite	Onsite	Onsite	Onsite	Onsite	Onsite
Aquifer		Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Area		Eastern Area	Western Area	Eastern Area	Central Area	Western Area	Central Area	Central Area
Constituent	CAS No.							
Volatile Organics (ug/L)								
1,1,1,2-Tetrachloroethane	630206	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	71556	< 5	1.8	< 1	< 1	0.3 J	< 1	< 1
1,1,2,2-Tetrachloroethane	79345	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	79005	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	75343	2.7 J	0.54 J	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	75354	< 5	0.46 J	< 1	0.8 J	< 1	< 1	< 1
1,1-Dichloropropene	563586	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	87616	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	96184	< 10	< 2	< 2	< 2	< 2	< 2	< 2
1,2,4-Trichlorobenzene	120821	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	95636	< 10	3.9	< 2	< 2	< 2	< 2	< 2
1,2-Dibromoethane	106934	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	95501	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	107062	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	78875	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	108678	< 10	1.3 J	< 2	< 2	< 2	< 2	< 2
1,3-Dichlorobenzene	541731	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	142289	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	106467	< 5	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dioxane	123911	< 1000	< 200	< 200	< 200	< 200	< 200	< 200
2,2-Dichloropropane	594207	< 5	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone	78933	< 25	< 5	< 5	< 5	< 5	< 5	< 5
2-Chloroethyl Vinyl Ether	110758	< 25	< 5	< 5 R	< 5	< 5 R	< 5	< 5
2-Chlorotoluene	95498	< 5	< 1	< 1	< 1	< 1	< 1	< 1
2-Hexanone (methyl butyl ketone)	591786	< 50	< 10	< 10	< 10	< 10	< 10	< 10
4-Chlorotoluene	106434	< 5	< 1	< 1	< 1	< 1	< 1	< 1
4-Isopropyltoluene	99876	< 5	< 1	< 1	< 1	< 1	< 1	< 1
4-Methyl-2-Pentanone	108101	< 25	< 5	< 5	< 5	< 5	< 5	< 5
Acetone	67641	< 130	< 25	< 25	< 25	< 25	< 25	< 25
Acrolein	107028	< 100	< 20	< 20	< 20	< 20	< 20	< 20
Acrylonitrile	107131	< 50	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	71432	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	108861	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	74975	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	75274	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	75252	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Bromomethane	74839	< 10	< 2	< 2	< 2	< 2	< 2	< 2
Carbon Disulfide	75150	< 10	< 2	< 2	< 2	< 2	< 2	< 2
Carbon Tetrachloride	56235	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	108907	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	124481	< 5	< 1	< 1	< 1	< 1	< 1	< 1

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	SEBJ-3 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SK-12S (10/4/2013) 10/4/2013 Investigation OnsiteDown Onsite Shallow Western Area	SK-1S (10/4/2013) 10/4/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SK-2S (10/4/2013) 10/4/2013 Investigation OnsiteDown Onsite Shallow Central Area	T1-1 (10/7/2013) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	T1-2 (10/11/2013) 10/11/2013 Investigation OnsiteDown Onsite Shallow Central Area	T2-1 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Central Area
Volatile Organics (ug/L) (continued)								
Dibromochloropropane (DBCP)	67708832	< 10	< 2	< 2	< 2	< 2	< 2	< 2
Chloroethane	75003	< 10	< 2	< 2	< 2	< 2	< 2	< 2
Chloroform	67663	< 5	0.59 J	< 1	< 1	< 1	< 1	< 1
Chloromethane	74873	< 10	< 2	< 2	< 2	< 2	< 2	< 2
Cis-1,2-Dichloroethene	156592	436	10.4	7.3	14.5	< 1	< 1	0.94 J
Cis-1,3-Dichloropropene	10061015	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Dibromomethane	74953	< 10	< 2	< 2	< 2	< 2	< 2	< 2
Dichlorodifluoromethane	75718	< 10	< 2	< 2	< 2	< 2	< 2	< 2
Ethylbenzene	100414	< 5	1.6	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	87683	< 10	< 2	< 2	< 2	< 2	< 2	< 2
Isopropylbenzene	98828	< 5	< 1	< 1	< 1	< 1	< 1	< 1
M,P-Xylenes	106423	< 10	2.9	< 2	< 2	< 2	< 2	< 2
Methyl Tert-Butyl Ether	1634044	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Methylene Chloride	75092	< 25	< 5	< 5	< 5	< 5	< 5	< 5
Naphthalene	91203	< 15	< 3	< 3	< 3	1 J	< 3	< 3
N-Butylbenzene	104518	< 5	< 1	< 1	< 1	< 1	< 1	< 1
N-Propylbenzene	103651	< 5	0.85 J	< 1	< 1	< 1	< 1	< 1
O-Xylene	95476	< 5	0.36 J	< 1	< 1	< 1	< 1	< 1
Sec-Butylbenzene	135988	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100425	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Tert-Butylbenzene	98066	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	127184	281	29.5	0.78 J	2.2	6.2	< 1	< 1
Toluene	108883	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,2-Dichloroethene	156605	3.2 J	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	10061026	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	79016	58.099998	27.299999	88.800003	52.799999	< 1	< 1	< 1
Trichlorofluoromethane	75694	< 10	< 2	0.99 J	< 2	< 2	< 2	< 2
Vinyl Acetate	108054	< 50	< 10	< 10	< 10	< 10	< 10	< 10
Vinyl Chloride	75014	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	TotalXy	< 10	3.26	< 2	< 2	< 2	< 2	< 2
Semi-volatile Organics (ug/L)								
1,2,4-Trichlorobenzene	120821	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95501	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122667	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541731	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106467	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	123911	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	90120	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95954	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	88062	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	120832	NA	NA	NA	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area Constituent CAS No.	SEBJ-3 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SK-12S (10/4/2013) 10/4/2013 Investigation OnsiteDown Onsite Shallow Western Area	SK-1S (10/4/2013) 10/4/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SK-2S (10/4/2013) 10/4/2013 Investigation OnsiteDown Onsite Shallow Central Area	T1-1 (10/7/2013) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	T1-2 (10/11/2013) 10/11/2013 Investigation OnsiteDown Onsite Shallow Central Area	T2-1 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Central Area
Semi-volatile Organics (ug/L) (continued)							
2,4-Dimethylphenol 105679	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol 51285	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene 121142	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene 606202	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene 91587	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol 95578	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene 91576	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol 95487	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline 88744	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol 88755	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine 91941	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline 99092	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-Methylphenol 534521	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl Phenyl Ether 101553	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol 59507	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline 106478	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl Phenyl Ether 7005723	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline 100016	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol 100027	NA	NA	NA	NA	NA	NA	NA
Acenaphthene 83329	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene 208968	NA	NA	NA	NA	NA	NA	NA
Aniline 62533	NA	NA	NA	NA	NA	NA	NA
Anthracene 120127	NA	NA	NA	NA	NA	NA	NA
Benzidine 92875	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Anthracene 56553	NA	NA	NA	NA	NA	NA	NA
Benzo(A)Pyrene 50328	NA	NA	NA	NA	NA	NA	NA
Benzo(B)Fluoranthene 205992	NA	NA	NA	NA	NA	NA	NA
Benzo(G,H,I)Perylene 191242	NA	NA	NA	NA	NA	NA	NA
Benzo(K)Fluoranthene 207089	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid 65850	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol 100516	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethoxy)Methane 111911	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroethyl)Ether 111444	NA	NA	NA	NA	NA	NA	NA
Bis(2-Chloroisopropyl)Ether 108601	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl) Phthalate 117817	NA	NA	NA	NA	NA	NA	NA
Butyl Benzyl Phthalate 85687	NA	NA	NA	NA	NA	NA	NA
Carbazole 86748	NA	NA	NA	NA	NA	NA	NA
Chrysene 218019	NA	NA	NA	NA	NA	NA	NA
Dibenz(A,H)Anthracene 53703	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran 132649	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate 84662	NA	NA	NA	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	SEBJ-3 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SK-12S (10/4/2013) 10/4/2013 Investigation OnsiteDown Onsite Shallow Western Area	SK-1S (10/4/2013) 10/4/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SK-2S (10/4/2013) 10/4/2013 Investigation OnsiteDown Onsite Shallow Central Area	T1-1 (10/7/2013) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	T1-2 (10/11/2013) 10/11/2013 Investigation OnsiteDown Onsite Shallow Central Area	T2-1 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Central Area
Semi-volatile Organics (ug/L) (continued)								
Dimethyl Phthalate	131113	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	84742	NA	NA	NA	NA	NA	NA	NA
Di-N-Octyl Phthalate	117840	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	206440	NA	NA	NA	NA	NA	NA	NA
Fluorene	86737	NA	NA	NA	NA	NA	NA	NA
Hexachloro-1,3-Cyclopentadiene	77474	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118741	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87683	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	67721	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-Cd)Pyrene	193395	NA	NA	NA	NA	NA	NA	NA
Isophorone	78591	NA	NA	NA	NA	NA	NA	NA
M-,P-Cresol Mixture	106445	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91203	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	98953	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	62759	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-N-Propylamine	621647	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86306	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87865	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	85018	NA	NA	NA	NA	NA	NA	NA
Phenol	108952	NA	NA	NA	NA	NA	NA	NA
Pyrene	129000	NA	NA	NA	NA	NA	NA	NA
Pyridine	110861	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (ug/L)								
DRO (C10-C28) Range	DRO	NA	NA	NA	NA	NA	NA	NA
Total Inorganics (ug/L)								
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA

Table A-2

Groundwater Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Date Collected Sample Type OnsiteDown/Up Onsite/Offsite Aquifer Area CAS No.	SEBJ-3 (10/3/2013) 10/3/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SK-12S (10/4/2013) 10/4/2013 Investigation OnsiteDown Onsite Shallow Western Area	SK-1S (10/4/2013) 10/4/2013 Investigation OnsiteDown Onsite Shallow Eastern Area	SK-2S (10/4/2013) 10/4/2013 Investigation OnsiteDown Onsite Shallow Central Area	T1-1 (10/7/2013) 10/7/2013 Investigation OnsiteDown Onsite Shallow Western Area	T1-2 (10/11/2013) 10/11/2013 Investigation OnsiteDown Onsite Shallow Central Area	T2-1 (10/10/2013) 10/10/2013 Investigation OnsiteDown Onsite Shallow Central Area
Dissolved Inorganics (ug/L)								
Arsenic	7440382	NA	NA	NA	NA	NA	NA	NA
Barium	7440393	NA	NA	NA	NA	NA	NA	NA
Cadmium	7440439	NA	NA	NA	NA	NA	NA	NA
Calcium	7440702	NA	NA	NA	NA	NA	NA	NA
Chromium	18540299	NA	NA	NA	NA	NA	NA	NA
Iron	7439896	NA	NA	NA	NA	NA	NA	NA
Lead	7439921	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439954	NA	NA	NA	NA	NA	NA	NA
Manganese	7439965	NA	NA	NA	NA	NA	NA	NA
Mercury	7439976	NA	NA	NA	NA	NA	NA	NA
Potassium	7440097	NA	NA	NA	NA	NA	NA	NA
Selenium	7782492	NA	NA	NA	NA	NA	NA	NA
Silver	7440224	NA	NA	NA	NA	NA	NA	NA
Sodium	7440235	NA	NA	NA	NA	NA	NA	NA
Misc. Parameters (ug/L)								
Oxygen, Dissolved (mg/L)	7782447	3.43	0.49	0.61	0.53	-88	4.32	0.46
Alkalinity (Caco3), Carbonate (mg/L)	71523	NA	NA	NA	NA	NA	NA	NA
Alkalinity (HCO3), Bicarbonate (mg/L)	AlkB	NA	NA	NA	NA	NA	NA	NA
Alkalinity (Total) (mg/L)	AlkT	NA	NA	NA	NA	NA	NA	NA
pH	pH	6.34	6.22	7.04	6.78	-88	6.67	6.73
Redox Potential (mV)	Redox	-135	69.800003	60.599998	41.099998	-88	170.199997	-92.699997
Specific Conductance (umhos/cm)	- -	1212	848	1311	1062	-88	1611	946
Temperature (°C)	- -	20.16	18.799999	20.559999	21.200001	-88	25.309999	23.629999
Turbidity (NTU)	- -	< 0	-88	24.4	-88	-88	< 0	< 0
Chloride	16887006	NA	NA	NA	NA	NA	NA	NA
Chloride (Dissolved)	16887006	NA	NA	NA	NA	NA	NA	NA
Fluoride	16984488	NA	NA	NA	NA	NA	NA	NA
Hardness	- -	NA	NA	NA	NA	NA	NA	NA
Nitrate as N	14797558	NA	NA	NA	NA	NA	NA	NA
Sulfate	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfate (Dissolved)	14808798	NA	NA	NA	NA	NA	NA	NA
Sulfide	18496258	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	NA	NA	NA	NA	NA	NA	NA
Total Solids	- -	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids	- -	NA	NA	NA	NA	NA	NA	NA

Notes:
J - Estimated result.
NA - Not Analyzed.
R - Rejected result.

Risk-Based Remedies
RBR Consulting, Inc.

Table A-3

Air Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Sample Identification		AS1-DOWNSTAIRS		AIR-BACKGROUND		AS2-MAIN		AS-4		AS-5	
Lab Sample ID		FA8825-1		FA8825-2		FA8825-3		FA9023-1		FA9023-2	
Sample Date		10/3/2013		10/3/2013		10/3/2013		10/10/2013		10/10/2013	
Sample Type		Investigation		Investigation		Investigation		Investigation		Investigation	
Location		Indoor Air		Background		Indoor Air		Subslab Soil Gas		Subslab Soil Gas	
Constituent	CAS No.										
Volatile Organics (µg/m³)											
1,1,1-Trichloroethane	71-55-6	< 1.1		< 1.1		< 1.1		< 4.4		< 4.4	
1,1,2,2-Tetrachloroethane	79-34-5	< 1.4		< 1.4		< 1.4		< 5.5		< 5.5	
1,1,2-Trichloroethane	79-00-5	< 1.1		< 1.1		< 1.1		< 4.4		< 4.4	
1,1-Dichloroethane	75-34-3	< 0.81		< 0.81		< 0.81		< 3.2		< 3.2	
1,1-Dichloroethylene	75-35-4	< 0.79		< 0.79		< 0.79		< 3.2		< 3.2	
1,2,4-Trichlorobenzene	120-82-1	< 1.5		< 1.5		< 1.5		< 5.9		< 5.9	
1,2,4-Trimethylbenzene	95-63-6	< 0.98		< 0.98		18		< 3.9		< 3.9	
1,2-Dibromoethane	106-93-4	< 1.5		< 1.5		< 1.5		< 6.1		< 6.1	
1,2-Dichloroethane	107-06-2	< 0.81		< 0.81		< 0.81		< 3.2		< 3.2	
1,2-Dichloropropane	78-87-5	< 0.92		< 0.92		< 0.92		< 3.7		< 3.7	
1,3,5-Trimethylbenzene	108-67-8	< 0.98		< 0.98		4.3		< 3.9		< 3.9	
1,3-Butadiene	106-99-0	< 0.44		< 0.44		< 0.44		< 1.8		< 1.8	
1,4-Dioxane	123-91-1	< 0.72		< 0.72		< 0.72		< 2.9		< 2.9	
2,2,4-Trimethylpentane	540-84-1	< 0.93		< 0.93		< 0.93		< 3.7		< 3.7	
2-Chlorotoluene	95-49-8	0.88	J	< 1		< 1		< 4.1		< 4.1	
2-Hexanone	591-78-6	< 0.82		< 0.82		3.2		< 3.3		< 3.3	
3-Chloropropene	107-05-1	< 0.63		< 0.63		< 0.63		< 2.5		< 2.5	
4-Ethyltoluene	622-96-8	< 0.98		< 0.98		2		< 3.9		< 3.9	
Acetone	67-64-1	105		14		266		189		97.6	
Benzene	71-43-2	0.38	J	< 0.64		0.48	J	2	J	< 2.6	
Benzyl Chloride	100-44-7	< 1		< 1		< 1		< 4.1		< 4.1	
Bromodichloromethane	75-27-4	< 1.3		< 1.3		< 1.3		< 5.4		< 5.4	
Bromoethene	593-60-2	< 0.87		< 0.87		< 0.87		< 3.5		< 3.5	
Bromoform	75-25-2	< 2.1		< 2.1		< 2.1		< 8.3		< 8.3	
Bromomethane	74-83-9	< 0.78		< 0.78		< 0.78		< 3.1		< 3.1	
Carbon disulfide	75-15-0	< 0.62		< 0.62		< 0.62		< 2.5		1.3	J
Carbon tetrachloride	56-23-5	< 1.3		< 1.3		< 1.3		< 5		< 5	
Chlorobenzene	108-90-7	< 0.92		< 0.92		< 0.92		< 3.7		< 3.7	
Chloroethane	75-00-3	< 0.53		< 0.53		< 0.53		< 2.1		< 2.1	
Chloroform	67-66-3	< 0.98		< 0.98		< 0.98		< 3.9		< 3.9	
Chloromethane	74-87-3	1.8		1.6		2		1.9		< 1.7	
cis-1,2-Dichloroethylene	156-59-2	< 0.79		< 0.79		< 0.79		< 3.2		< 3.2	
cis-1,3-Dichloropropene	10061-01-5	< 0.91		< 0.91		< 0.91		< 3.6		< 3.6	
Cyclohexane	110-82-7	< 0.69		< 0.69		0.76		22		4.5	
Dibromochloromethane	124-48-1	< 1.7		< 1.7		< 1.7		< 6.8		< 6.8	
Dichlorodifluoromethane	75-71-8	2.8		2.8		2.5		< 4		< 4	
Ethanol	64-17-5	57.7		2.3		90.1		91.4		83.5	
Ethyl Acetate	141-78-6	< 0.72		< 0.72		< 0.72		< 2.9		< 2.9	

Table A-3

Air Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Sample Identification		AS1-DOWNSTAIRS		AIR-BACKGROUND		AS2-MAIN		AS-4		AS-5	
Lab Sample ID		FA8825-1		FA8825-2		FA8825-3		FA9023-1		FA9023-2	
Sample Date		10/3/2013		10/3/2013		10/3/2013		10/10/2013		10/10/2013	
Sample Type		Investigation		Investigation		Investigation		Investigation		Investigation	
Location		Indoor Air		Background		Indoor Air		Subslab Soil Gas		Subslab Soil Gas	
Constituent	CAS No.										
Volatile Organics (µg/m3) (continued)											
Ethylbenzene	100-41-4	0.43	J	< 0.87		2.6		< 3.5		< 3.5	
Freon 113	76-13-1	< 1.5		< 1.5		< 1.5		< 6.1		< 6.1	
Freon 114	76-14-2	< 1.4		< 1.4		< 1.4		< 5.6		< 5.6	
Heptane	142-82-5	< 0.82		< 0.82		0.61	J	< 3.3		3	J
Hexachlorobutadiene	87-68-3	< 2.1		< 2.1		< 2.1		< 8.5		< 8.5	
Hexane	110-54-3	< 0.7		< 0.7		< 0.7		16		28	
Isopropyl Alcohol	67-63-0	4.7		< 0.49		12		41.3		14	
m,p-Xylene		1.4		0.69	J	24		2.8	J	2.2	J
m-Dichlorobenzene	541-73-1	< 1.2		< 1.2		< 1.2		< 4.8		< 4.8	
Methyl ethyl ketone	78-93-3	5		1.5		29		52.5		15	
Methyl Isobutyl Ketone	108-10-1	1.6		< 0.82		4.5		< 3.3		6.6	
Methyl Tert Butyl Ether	1634-04-4	< 0.72		< 0.72		< 0.72		< 2.9		< 2.9	
Methylene chloride	75-09-2	3.5		3.8		3		79.9		60.8	
Methylmethacrylate	80-62-6	< 0.82		< 0.82		< 0.82		< 3.3		< 3.3	
o-Dichlorobenzene	95-50-1	< 1.2		< 1.2		< 1.2		< 4.8		< 4.8	
o-Xylene	95-47-6	0.61	J	< 0.87		5.2		< 3.5		< 3.5	
p-Dichlorobenzene	106-46-7	< 1.2		< 1.2		< 1.2		< 4.8		< 4.8	
Propylene	115-07-1	< 0.86		< 0.86		< 0.86		< 3.4		< 3.4	
Styrene	100-42-5	< 0.85		< 0.85		0.81	J	< 3.4		< 3.4	
Tertiary Butyl Alcohol	75-65-0	< 0.61		< 0.61		1.9		< 2.4		< 2.4	
Tetrachloroethylene	127-18-4	0.6		0.28		1.1		< 1.1		6	
Tetrahydrofuran	109-99-9	5		< 0.59		1.7		67.8		23	
Toluene	108-88-3	2.6		2.2		5.3		11		62.2	
trans-1,2-Dichloroethylene	156-60-5	< 0.79		< 0.79		< 0.79		< 3.2		< 3.2	
trans-1,3-Dichloropropene	10061-02-6	< 0.91		< 0.91		< 0.91		< 3.6		< 3.6	
Trichloroethylene	79-01-6	< 0.21		< 0.21		< 0.21		< 0.86		< 0.86	
Trichlorofluoromethane	75-69-4	1.5		1.5		1.3		2.4	J	2.4	J
Vinyl Acetate	108-05-4	< 0.7		< 0.7		< 0.7		< 2.8		< 2.8	
Vinyl chloride	75-01-4	< 0.51		< 0.51		< 0.51		< 2		< 2	
Xylenes (total)	1330-20-7	2		0.69	J	30		2.8	J	2.2	J

Notes:
All detection limits based on Reporting Limit (RL) values.
NA- Not Available
J- Estimated Value

Risk-Based Remedies
RBR Consulting, Inc.

Table A-4

Sediment Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent / Sample Identification / Sample Date / Sample Type	CAS No.	CC-1 10/4/2013 Investigation	CC-2 10/4/2013 Investigation	CC-3 10/4/2013 Investigation	CC-4 10/4/2013 Investigation	CC-5 10/8/2013 Investigation	CC-6 10/9/2013 Investigation
Semi-volatile Organics (mg/kg)							
1,2,4-Trichlorobenzene	120821	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
1,2-Dichlorobenzene	95501	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
1,2-Diphenylhydrazine	122667	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
1,3-Dichlorobenzene	541731	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
1,4-Dichlorobenzene	106467	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
1-Methylnaphthalene	90120	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
2,4,5-Trichlorophenol	95954	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
2,4,6-Trichlorophenol	88062	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenol	120832	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
2,4-Dimethylphenol	105679	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
2,4-Dinitrophenol	51285	< 1	< 0.98	< 0.97	< 0.98	< 0.98	< 0.98
2,4-Dinitrotoluene	121142	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
2,6-Dinitrotoluene	606202	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
2-Chloronaphthalene	91587	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
2-Chlorophenol	95578	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
2-Methylnaphthalene	91576	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
2-Methylphenol	95487	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
2-Nitroaniline	88744	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
2-Nitrophenol	88755	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
3&4-Methylphenol	59507	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
3,3'-Dichlorobenzidine	91941	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
3-Nitroaniline	99092	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
4,6-Dinitro-o-cresol	534521	< 0.42	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
4-Bromophenyl phenyl ether	101553	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
4-Chloro-3-methyl phenol	59507	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
4-Chloroaniline	106478	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
4-Chlorophenyl phenyl ether	7005723	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
4-Nitroaniline	100016	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
4-Nitrophenol	100027	< 1	< 0.98	< 0.97	< 0.98	< 0.98	< 0.98
Acenaphthene	83329	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Acenaphthylene	208968	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Aniline	62533	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Anthracene	120127	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Benzidine	92875	< 2.1	< 2	< 1.9	< 2	< 2	< 2
Benzo(a)anthracene	56553	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Benzo(a)pyrene	50328	< 0.21	0.061099998 J	< 0.19	< 0.2	< 0.2	< 0.2
Benzo(b)fluoranthene	205992	< 0.21	0.0679 J	< 0.19	< 0.2	< 0.2	< 0.2
Benzo(g,h,i)perylene	191242	< 0.21	0.089 J	< 0.19	< 0.2	< 0.2	< 0.2

Table A-4

Sediment Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification / Sample Date / Sample Type / CAS No.	CC-1 10/4/2013 Investigation	CC-2 10/4/2013 Investigation	CC-3 10/4/2013 Investigation	CC-4 10/4/2013 Investigation	CC-5 10/8/2013 Investigation	CC-6 10/9/2013 Investigation
Semi-volatile Organics (mg/kg) (continued)							
Benzo(k)fluoranthene	207089	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Benzoic Acid	65850	< 1	< 0.98	< 0.97	< 0.98	< 0.98	< 0.98
Benzyl Alcohol	100516	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
bis(2-Chloroethoxy)methane	111911	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
bis(2-Chloroethyl)ether	111444	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
bis(2-Chloroisopropyl)ether	108601	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
bis(2-Ethylhexyl)phthalate	117817	< 0.42	< 0.39	< 0.39	< 0.39	< 0.4	< 0.39
Butyl benzyl phthalate	85687	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Carbazole	86748	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Chrysene	218019	< 0.21	0.0501 J	< 0.19	< 0.2	< 0.2	< 0.2
Dibenzo(a,h)anthracene	53703	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Dibenzofuran	132649	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Diethyl phthalate	84662	< 0.42	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
Dimethyl phthalate	131113	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Di-n-butyl phthalate	84742	< 0.42	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
Di-n-octyl phthalate	117840	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Fluoranthene	206440	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Fluorene	86737	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Hexachlorobenzene	118741	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Hexachlorobutadiene	87683	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Hexachlorocyclopentadiene	77474	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Hexachloroethane	67721	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Indeno(1,2,3-cd)pyrene	193395	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Isophorone	78591	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Naphthalene	91203	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Nitrobenzene	98953	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
N-Nitrosodimethylamine	62759	< 0.42	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
N-Nitroso-di-n-propylamine	621647	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
N-Nitrosodiphenylamine	86306	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Pentachlorophenol	87865	< 1	< 0.98	< 0.97	< 0.98	< 0.98	< 0.98
Phenanthrene	85018	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Phenol	108952	< 0.21	< 0.2	< 0.19	< 0.2	< 0.2	< 0.2
Pyrene	129000	< 0.21	0.0235 J	< 0.19	< 0.2	< 0.2	< 0.2
Pyridine	110861	< 0.42	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
Toxaphene	8001352	< 0.1	< 0.099	< 0.097	< 0.097	< 0.097	< 0.098

Table A-4

Sediment Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent / Sample Identification / Sample Date / Sample Type / CAS No.	CC-1 10/4/2013 Investigation	CC-2 10/4/2013 Investigation	CC-3 10/4/2013 Investigation	CC-4 10/4/2013 Investigation	CC-5 10/8/2013 Investigation	CC-6 10/9/2013 Investigation
Metals (Total) (mg/kg)						
Arsenic 7440382	7.6	5.9	13.4 c	6.9	2.9	8.8
Barium 7440393	74.3	89.7	155 c	51.9	238	50.1
Cadmium 7440439	< 0.25	< 0.18	< 0.36 c	< 0.23	< 0.19	< 0.77 c
Chromium 7440473	6.8	10.8	6.9 c	4.7	3.5	3.7 c
Lead 7439921	12.3	9.7	10.8 c	18.6	126	15.5 c
Mercury 7439976	< 0.049	< 0.044	< 0.045	< 0.045	< 0.045	< 0.043
Selenium 7782492	< 1.2	< 0.89	< 1.8 c	< 1.1	< 0.97	< 3.9 c
Silver 7440224	< 0.62	< 0.44	< 0.9 c	< 0.57	< 0.48	< 0.39
General Chemistry						
Percent Solids (%) NA	79	83.9	84.6	84.7	85.5	85.2
Total Organic Carbon (mg/kg) NA	3890	5090	2570	2170	< 1200	< 1200

Notes:
All detection limits based on Reporting Limit (RL) values.
NA- Not Available
J- Estimated Value
c- Elevated reporting limit(s) due to matrix interference.

Table A-4

Sediment Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent / Sample Identification / Sample Date / Sample Type	CAS No.	CC-7 10/11/2013 Investigation	CC-8 10/11/2013 Investigation	CC-9 10/11/2013 Investigation	CC-10 10/11/2013 Investigation	CC-11 10/11/2013 Investigation
Semi-volatile Organics (mg/kg)						
1,2,4-Trichlorobenzene	120821	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
1,2-Dichlorobenzene	95501	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
1,2-Diphenylhydrazine	122667	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
1,3-Dichlorobenzene	541731	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
1,4-Dichlorobenzene	106467	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
1-Methylnaphthalene	90120	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
2,4,5-Trichlorophenol	95954	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
2,4,6-Trichlorophenol	88062	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
2,4-Dichlorophenol	120832	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
2,4-Dimethylphenol	105679	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
2,4-Dinitrophenol	51285	< 0.98	< 1	< 1.1	< 1.1	< 0.99
2,4-Dinitrotoluene	121142	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
2,6-Dinitrotoluene	606202	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
2-Chloronaphthalene	91587	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
2-Chlorophenol	95578	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
2-Methylnaphthalene	91576	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
2-Methylphenol	95487	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
2-Nitroaniline	88744	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
2-Nitrophenol	88755	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
3&4-Methylphenol	59507	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
3,3'-Dichlorobenzidine	91941	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
3-Nitroaniline	99092	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
4,6-Dinitro-o-cresol	534521	< 0.39	< 0.41	< 0.42	< 0.46	< 0.4
4-Bromophenyl phenyl ether	101553	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
4-Chloro-3-methyl phenol	59507	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
4-Chloroaniline	106478	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
4-Chlorophenyl phenyl ether	7005723	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
4-Nitroaniline	100016	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
4-Nitrophenol	100027	< 0.98	< 1	< 1.1	< 1.1	< 0.99
Acenaphthene	83329	< 0.2	< 0.21	0.033 J	< 0.23	< 0.2
Acenaphthylene	208968	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
Aniline	62533	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
Anthracene	120127	< 0.2	< 0.21	0.0264 J	< 0.23	< 0.2
Benzidine	92875	< 2	< 2.1	< 2.1	< 2.3	< 2
Benzo(a)anthracene	56553	< 0.2	< 0.21	< 0.21	0.032 J	< 0.2
Benzo(a)pyrene	50328	< 0.2	< 0.21	< 0.21	0.037 J	< 0.2
Benzo(b)fluoranthene	205992	< 0.2	< 0.21	< 0.21	0.066 J	< 0.2
Benzo(g,h,i)perylene	191242	< 0.2	< 0.21	< 0.21	0.065 J	< 0.2

Table A-4

Sediment Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification / Sample Date / Sample Type / CAS No.	CC-7 10/11/2013 Investigation	CC-8 10/11/2013 Investigation	CC-9 10/11/2013 Investigation	CC-10 10/11/2013 Investigation	CC-11 10/11/2013 Investigation
Semi-volatile Organics (mg/kg) (continued)						
Benzo(k)fluoranthene	207089	< 0.2	< 0.21	< 0.21	0.030 J	< 0.2
Benzoic Acid	65850	< 0.98	< 1	< 1.1	< 1.1	< 0.99
Benzyl Alcohol	100516	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
bis(2-Chloroethoxy)methane	111911	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
bis(2-Chloroethyl)ether	111444	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
bis(2-Chloroisopropyl)ether	108601	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
bis(2-Ethylhexyl)phthalate	117817	< 0.39	< 0.41	< 0.42	< 0.46	< 0.4
Butyl benzyl phthalate	85687	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
Carbazole	86748	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
Chrysene	218019	< 0.2	< 0.21	< 0.21	0.062 J	< 0.2
Dibenzo(a,h)anthracene	53703	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
Dibenzofuran	132649	< 0.2	< 0.21	0.0246 J	< 0.23	< 0.2
Diethyl phthalate	84662	< 0.39	< 0.41	< 0.42	< 0.46	< 0.4
Dimethyl phthalate	131113	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
Di-n-butyl phthalate	84742	< 0.39	< 0.41	< 0.42	< 0.46	< 0.4
Di-n-octyl phthalate	117840	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
Fluoranthene	206440	< 0.2	< 0.21	0.0224 J	0.065 J	< 0.2
Fluorene	86737	< 0.2	< 0.21	0.060599998 J	< 0.23	< 0.2
Hexachlorobenzene	118741	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
Hexachlorobutadiene	87683	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
Hexachlorocyclopentadiene	77474	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
Hexachloroethane	67721	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
Indeno(1,2,3-cd)pyrene	193395	< 0.2	< 0.21	< 0.21	0.041 J	< 0.2
Isophorone	78591	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
Naphthalene	91203	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
Nitrobenzene	98953	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
N-Nitrosodimethylamine	62759	< 0.39	< 0.41	< 0.42	< 0.46	< 0.4
N-Nitroso-di-n-propylamine	621647	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
N-Nitrosodiphenylamine	86306	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
Pentachlorophenol	87865	< 0.98	< 1	< 1.1	< 1.1	< 0.99
Phenanthrene	85018	< 0.2	< 0.21	< 0.21	0.027 J	< 0.2
Phenol	108952	< 0.2	< 0.21	< 0.21	< 0.23	< 0.2
Pyrene	129000	< 0.2	< 0.21	0.036 J	0.057 J	< 0.2
Pyridine	110861	< 0.39	< 0.41	< 0.42	< 0.46	< 0.4
Toxaphene	8001352	< 0.097	< 0.1	< 0.1	< 0.11	< 0.097

Table A-4

Sediment Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification Sample Date Sample Type CAS No.	CC-7 10/11/2013 Investigation	CC-8 10/11/2013 Investigation	CC-9 10/11/2013 Investigation	CC-10 10/11/2013 Investigation	CC-11 10/11/2013 Investigation
Metals (Total) (mg/kg)						
Arsenic	7440382	3.9	5.8	3.5	5	2.3
Barium	7440393	200	122	152	157	36.2
Cadmium	7440439	< 0.84	0.35	< 0.18	< 0.22	< 0.19
Chromium	7440473	4	8.7	5.8	11	2
Lead	7439921	6.5	3320	10	19.7	5.3
Mercury	7439976	< 0.046	< 0.046	< 0.048	< 0.051	< 0.048
Selenium	7782492	< 4.2	< 0.91	< 0.91	< 1.1	< 0.96
Silver	7440224	< 0.53	< 0.45	< 0.46	< 0.54	< 0.48
General Chemistry						
Percent Solids (%)	NA	NA	NA	NA	NA	NA
Total Organic Carbon (mg/kg)	NA	2680	3370	4000	12300	2040

Notes:
All detection limits based on Reporting Limit (RL) values.
NA- Not Available
J- Estimated Value
c- Elevated reporting limit(s) due to matrix interference.

Risk-Based Remedies
RBR Consulting, Inc.

Table A-5

Surface Water Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification / Sample Date / Sample Type / CAS No.	SW-BS-1 10/18/2013 Investigation	SW-BS-2 10/18/2013 Investigation	SW-BS-3 10/18/2013 Investigation	SW-BS-4 10/18/2013 Investigation	SW-BS-5 10/18/2013 Investigation	SR-SW-1 10/18/2013 Investigation	SR-SW-2 10/18/2013 Investigation
Volatile Organics (µg/L)								
Acetone	67641	< 25 a	< 25 a	< 25 a	< 25 a	< 25 a	< 25	< 25
Acrolein	107028	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Acrylonitrile	107131	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	71432	< 1	< 1	< 1	< 1	< 1	2.2	< 1
Bromobenzene	108861	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	74975	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	75274	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	75252	< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	104518	< 1	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	135988	< 1	< 1	< 1	< 1	< 1	< 1	< 1
tert-Butylbenzene	98066	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	108907	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	75003	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chloroform	67663	< 1	< 1	< 1	< 1	< 1	< 1	< 1
o-Chlorotoluene	95498	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	106434	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chloroethyl vinyl ether	110758	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon disulfide	75150	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Carbon tetrachloride	56235	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	75343	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethylene	75354	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	563586	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	96128	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,2-Dibromoethane	106934	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	107062	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	78875	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	142289	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dioxane	123911	< 200	< 200	< 200	< 200	< 200	< 200	< 200
2,2-Dichloropropane	594207	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	124481	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	75718	< 2 a	< 2 a	< 2 a	< 2 a	< 2 a	< 2	< 2
cis-1,2-Dichloroethylene	156592	< 1	< 1	< 1	< 1	< 1	3	1.3
cis-1,3-Dichloropropene	10061015	< 1	< 1	< 1	< 1	< 1	< 1	< 1
m-Dichlorobenzene	541731	< 1	< 1	< 1	< 1	< 1	< 1	< 1
o-Dichlorobenzene	95501	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Dichlorobenzene	106467	< 1	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,2-Dichloroethylene	156605	< 1	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	10061026	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Table A-5

Surface Water Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Sample Identification / Sample Date / Sample Type / Constituent	CAS No.	SW-BS-1 10/18/2013 Investigation	SW-BS-2 10/18/2013 Investigation	SW-BS-3 10/18/2013 Investigation	SW-BS-4 10/18/2013 Investigation	SW-BS-5 10/18/2013 Investigation	SR-SW-1 10/18/2013 Investigation	SR-SW-2 10/18/2013 Investigation
Volatile Organics (µg/L) (continued)								
Ethylbenzene	100414	< 1	< 1	< 1	< 1	< 1	0.32 J	< 1
2-Hexanone	591786	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Hexachlorobutadiene	87683	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Isopropylbenzene	98828	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Isopropyltoluene	99876	< 1	< 1	< 1	< 1	< 1	< 1	< 1
4-Methyl-2-pentanone	108101	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl bromide	74839	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl chloride	74873	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methylene bromide	74953	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methylene chloride	75092	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl ethyl ketone	78933	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl Tert Butyl Ether	1634044	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	91203	< 3	< 3	< 3	< 3	< 3	< 3	< 3
n-Propylbenzene	103651	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100425	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1,2-Tetrachloroethane	630206	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	71556	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	79345	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	79005	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	87616	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	96184	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,2,4-Trichlorobenzene	120821	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	95636	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,3,5-Trimethylbenzene	108678	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Tetrachloroethylene	127184	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	108883	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethylene	79016	0.54 J	0.75 J	0.52 J	0.57 J	0.47 J	3.8	1.4
Trichlorofluoromethane	75694	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Vinyl chloride	75014	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl Acetate	108054	< 10	< 10	< 10	< 10	< 10	< 10	< 10
m,p-Xylene	NA	< 2	< 2	< 2	< 2	< 2	< 2	< 2
o-Xylene	95476	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes:
All detection limits based on Reporting Limit (RL) values.
NA- Not Available
J- Estimated Value
a- Associated BS recovery outside control limits.

Risk-Based Remedies
RBR Consulting, Inc.

Table A-5

Surface Water Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent / Sample Identification / Sample Date / Sample Type / CAS No.		SR-SW-3 10/18/2013 Investigation		SR-SW-4 10/18/2013 Investigation		SR-SW-5 10/18/2013 Investigation	
Volatile Organics (µg/L)							
Acetone	67641	< 25		< 25		< 25	
Acrolein	107028	< 20		< 20		< 20	
Acrylonitrile	107131	< 10		< 10		< 10	
Benzene	71432	< 1		< 1		< 1	
Bromobenzene	108861	< 1		< 1		< 1	
Bromochloromethane	74975	< 1		< 1		< 1	
Bromodichloromethane	75274	< 1		< 1		< 1	
Bromoform	75252	< 1		< 1		< 1	
n-Butylbenzene	104518	< 1		< 1		< 1	
sec-Butylbenzene	135988	< 1		< 1		< 1	
tert-Butylbenzene	98066	< 1		< 1		< 1	
Chlorobenzene	108907	< 1		< 1		< 1	
Chloroethane	75003	< 2		< 2		< 2	
Chloroform	67663	< 1		< 1		< 1	
o-Chlorotoluene	95498	< 1		< 1		< 1	
p-Chlorotoluene	106434	< 1		< 1		< 1	
2-Chloroethyl vinyl ether	110758	< 5		< 5		< 5	
Carbon disulfide	75150	< 2		< 2		< 2	
Carbon tetrachloride	56235	< 1		< 1		< 1	
1,1-Dichloroethane	75343	< 1		< 1		< 1	
1,1-Dichloroethylene	75354	< 1		< 1		< 1	
1,1-Dichloropropene	563586	< 1		< 1		< 1	
1,2-Dibromo-3-chloropropane	96128	< 2		< 2		< 2	
1,2-Dibromoethane	106934	< 1		< 1		< 1	
1,2-Dichloroethane	107062	< 1		< 1		< 1	
1,2-Dichloropropane	78875	< 1		< 1		< 1	
1,3-Dichloropropane	142289	< 1		< 1		< 1	
1,4-Dioxane	123911	< 200		< 200		< 200	
2,2-Dichloropropane	594207	< 1		< 1		< 1	
Dibromochloromethane	124481	< 1		< 1		< 1	
Dichlorodifluoromethane	75718	< 2		< 2		< 2	
cis-1,2-Dichloroethylene	156592	0.52	J	< 1		0.55	J
cis-1,3-Dichloropropene	10061015	< 1		< 1		< 1	
m-Dichlorobenzene	541731	< 1		< 1		< 1	
o-Dichlorobenzene	95501	< 1		< 1		< 1	
p-Dichlorobenzene	106467	< 1		< 1		< 1	
trans-1,2-Dichloroethylene	156605	< 1		< 1		< 1	
trans-1,3-Dichloropropene	10061026	< 1		< 1		< 1	

Risk-Based Remedies
RBR Consulting, Inc.

Table A-5

Surface Water Analytical Data
Clean Harbors Kansas, LLC- Wichita, Kansas

Constituent	Sample Identification / Sample Date / Sample Type / CAS No.	SR-SW-3 10/18/2013 Investigation		SR-SW-4 10/18/2013 Investigation		SR-SW-5 10/18/2013 Investigation	
Volatile Organics (µg/L) (continued)							
Ethylbenzene	100414	<	1	<	1	<	1
2-Hexanone	591786	<	10	<	10	<	10
Hexachlorobutadiene	87683	<	2	<	2	<	2
Isopropylbenzene	98828	<	1	<	1	<	1
p-Isopropyltoluene	99876	<	1	<	1	<	1
4-Methyl-2-pentanone	108101	<	5	<	5	<	5
Methyl bromide	74839	<	2	<	2	<	2
Methyl chloride	74873	<	2	<	2	<	2
Methylene bromide	74953	<	2	<	2	<	2
Methylene chloride	75092	<	5	<	5	<	5
Methyl ethyl ketone	78933	<	5	<	5	<	5
Methyl Tert Butyl Ether	1634044	<	1	<	1	<	1
Naphthalene	91203	<	3	<	3	<	3
n-Propylbenzene	103651	<	1	<	1	<	1
Styrene	100425	<	1	<	1	<	1
1,1,1,2-Tetrachloroethane	630206	<	1	<	1	<	1
1,1,1-Trichloroethane	71556	<	1	<	1	<	1
1,1,2,2-Tetrachloroethane	79345	<	1	<	1	<	1
1,1,2-Trichloroethane	79005	<	1	<	1	<	1
1,2,3-Trichlorobenzene	87616	<	1	<	1	<	1
1,2,3-Trichloropropane	96184	<	2	<	2	<	2
1,2,4-Trichlorobenzene	120821	<	1	<	1	<	1
1,2,4-Trimethylbenzene	95636	<	2	<	2	<	2
1,3,5-Trimethylbenzene	108678	<	2	<	2	<	2
Tetrachloroethylene	127184	<	1	<	1	<	1
Toluene	108883	<	1	<	1	<	1
Trichloroethylene	79016		1.4	<	1		3.7
Trichlorofluoromethane	75694	<	2	<	2	<	2
Vinyl chloride	75014	<	1	<	1	<	1
Vinyl Acetate	108054	<	10	<	10	<	10
m,p-Xylene	NA	<	2	<	2	<	2
o-Xylene	95476	<	1	<	1	<	1

Notes:
All detection limits based on Reporting Limit (RL) values.
NA- Not Available
J- Estimated Value
a- Associated BS recovery outside control limits.

Risk-Based Remedies

RBR Consulting, Inc.

APPENDIX B

STATISTICAL CALCULATIONS

APPENDIX B-1-1
STATISTICS FOR SURFACE SOIL - WESTERN AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Tetrachloroethene
All units in mg/kg.

General Statistics

Number of Valid Data	33
Number of Distinct Detected Data	30
Number of Detected Data	31
Number of Non-Detect Data	2
Percent Non-Detects	6.06%

Raw Statistics

Minimum Detected	0.0012
Maximum Detected	109
Mean of Detected	5.673
SD of Detected	21.43
Minimum Non-Detect	0.005
Maximum Non-Detect	0.0051

Log-transformed Statistics

Minimum Detected	-6.725
Maximum Detected	4.691
Mean of Detected	-2.533
SD of Detected	2.82
Minimum Non-Detect	-5.298
Maximum Non-Detect	-5.279

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	5
Number treated as Detected	28
Single DL Non-Detect Percentage	15.15%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.3
5% Shapiro Wilk Critical Value	0.929

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method

Mean	5.329
SD	20.79
95% DL/2 (t) UCL	11.46

Maximum Likelihood Estimate(MLE) Method

Mean	2.744
SD	22.59
95% MLE (t) UCL	9.405
95% MLE (Tiku) UCL	9.035

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.926
5% Shapiro Wilk Critical Value	0.929

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method

Mean	-2.742
SD	2.856
95% H-Stat (DL/2) UCL	52.88

Log ROS Method

Mean in Log Scale	-2.818
SD in Log Scale	2.96
Mean in Original Scale	5.329
SD in Original Scale	20.79
95% t UCL	11.46
95% Percentile Bootstrap UCL	11.92
95% BCA Bootstrap UCL	16.61
95% H UCL	79.72

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.18
Theta Star	31.46
nu star	11.18
A-D Test Statistic	4.264
5% A-D Critical Value	0.91
K-S Test Statistic	0.91
5% K-S Critical Value	0.176

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data

Minimum	0.000001
Maximum	109
Mean	5.329
Median	0.0588
SD	20.79
k star	0.162
Theta star	32.85
Nu star	10.71
AppChi2	4.389
95% Gamma Approximate UCL (Use when n >= 40)	13
95% Adjusted Gamma UCL (Use when n < 40)	13.65

Data Distribution Test with Detected Values Only
Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

Kaplan-Meier (KM) Method

Mean	5.329
SD	20.48
SE of Mean	3.623
95% KM (t) UCL	11.47
95% KM (z) UCL	11.29
95% KM (jackknife) UCL	11.46
95% KM (bootstrap t) UCL	110.5
95% KM (BCA) UCL	11.91
95% KM (Percentile Bootstrap) UCL	11.99
95% KM (Chebyshev) UCL	21.12
97.5% KM (Chebyshev) UCL	27.96
99% KM (Chebyshev) UCL	41.38

Potential UCLs to Use

99% KM (Chebyshev) UCL	41.38

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). For additional insight, the user may want to consult a statistician.

APPENDIX B-1-1
STATISTICS FOR SURFACE SOIL - WESTERN AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Trichloroethene
All units in mg/kg.

General Statistics

Number of Valid Data	33
Number of Distinct Detected Data	14
Number of Detected Data	14
Number of Non-Detect Data	19
Percent Non-Detects	57.58%

Raw Statistics

Minimum Detected	0.00088
Maximum Detected	31.7
Mean of Detected	3.198
SD of Detected	8.788
Minimum Non-Detect	0.0029
Maximum Non-Detect	0.0073

Log-transformed Statistics

Minimum Detected	-7.036
Maximum Detected	3.456
Mean of Detected	-3.061
SD of Detected	3.112
Minimum Non-Detect	-5.843
Maximum Non-Detect	-4.92

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	22
Number treated as Detected	11
Single DL Non-Detect Percentage	66.67%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.432
5% Shapiro Wilk Critical Value	0.874

Data not Normal at 5% Significance Level

Assuming Normal Distribution
DL/2 Substitution Method

Mean	1.358
SD	5.827
95% DL/2 (t) UCL	3.076

Maximum Likelihood Estimate(MLE) Method	N/A

MLE yields a negative mean

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.898
5% Shapiro Wilk Critical Value	0.874

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution
DL/2 Substitution Method

Mean	-4.8
SD	2.502
95% H-Stat (DL/2) UCL	1.466

Log ROS Method

Mean in Log Scale	-5.669
SD in Log Scale	3.064
Mean in Original Scale	1.357
SD in Original Scale	5.827
95% t UCL	3.075
95% Percentile Bootstrap UCL	3.249
95% BCA Bootstrap UCL	4.266
95% H-UCL	7.643

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.187
Theta Star	17.09
nu star	5.238
A-D Test Statistic	1.837
5% A-D Critical Value	0.881
K-S Test Statistic	0.881
5% K-S Critical Value	0.254

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution
Gamma ROS Statistics using Extrapolated Data

Minimum	0.000001
Maximum	31.7
Mean	1.357
Median	0.000001
SD	5.827
k star	0.0988
Theta star	13.73
Nu star	6.523
AppChi2	1.912
95% Gamma Approximate UCL (Use when n >= 40)	4.627
95% Adjusted Gamma UCL (Use when n < 40)	4.952

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data appear Lognormal at 5% Significance Level

Nonparametric Statistics
Kaplan-Meier (KM) Method

Mean	1.358
SD	5.738
SE of Mean	1.037
95% KM (t) UCL	3.113
95% KM (z) UCL	3.063
95% KM (jackknife) UCL	3.076
95% KM (bootstrap t) UCL	53.81
95% KM (BCA) UCL	3.247
95% KM (Percentile Bootstrap) UCL	3.251
95% KM (Chebyshev) UCL	5.876
97.5% KM (Chebyshev) UCL	7.831
99% KM (Chebyshev) UCL	11.67

Potential UCLs to Use

99% KM (Chebyshev) UCL	11.67

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). For additional insight, the user may want to consult a statistician.

APPENDIX B-1-1
STATISTICS FOR SURFACE SOIL - WESTERN AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Arsenic
All units in mg/kg.

General Statistics

Number of Valid Observations 21

Number of Distinct Observations 17

Raw Statistics

Minimum 3.3
Maximum 170
Mean 56.43
Geometric Mean 18.82
Median 8.3
SD 67.57
Std. Error of Mean 14.74
Coefficient of Variation 1.197
Skewness 0.732

Log-transformed Statistics

Minimum of Log Data 1.194
Maximum of Log Data 5.136
Mean of log Data 2.935
SD of log Data 1.643

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic 0.732
Shapiro Wilk Critical Value 0.908
Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 81.86

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995) 83.2
95% Modified-t UCL (Johnson-1978) 82.25

Gamma Distribution Test

k star (bias corrected) 0.518
Theta Star 108.9
MLE of Mean 56.43
MLE of Standard Deviation 78.4
nu star 21.76
Approximate Chi Square Value (.05) 12.16
Adjusted Level of Significance 0.0383
Adjusted Chi Square Value 11.61

Anderson-Darling Test Statistic 2.002
Anderson-Darling 5% Critical Value 0.799
Kolmogorov-Smirnov Test Statistic 0.257
Kolmogorov-Smirnov 5% Critical Value 0.199
Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL (Use when n >= 40) 101
95% Adjusted Gamma UCL (Use when n < 40) 105.8

Lognormal Distribution Test

Shapiro Wilk Test Statistic 0.802
Shapiro Wilk Critical Value 0.908
Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL 266.7
95% Chebyshev (MVUE) UCL 185.3
97.5% Chebyshev (MVUE) UCL 238
99% Chebyshev (MVUE) UCL 341.3

Data Distribution

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

95% CLT UCL 80.68
95% Jackknife UCL 81.86
95% Standard Bootstrap UCL 80.61
95% Bootstrap-t UCL 83.67
95% Hall's Bootstrap UCL 79.18
95% Percentile Bootstrap UCL 79.48
95% BCA Bootstrap UCL 84.72
95% Chebyshev(Mean, Sd) UCL 120.7
97.5% Chebyshev(Mean, Sd) UCL 148.5
99% Chebyshev(Mean, Sd) UCL 203.1

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL 120.7

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

APPENDIX B-1-2
STATISTICS FOR SURFACE AND SUBSURFACE SOIL - WESTERN AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Tetrachloroethene
All units in mg/kg.

General Statistics

Number of Valid Data	99	Number of Detected Data	92
Number of Distinct Detected Data	88	Number of Non-Detect Data	7
		Percent Non-Detects	7.07%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.0012	Minimum Detected	-6.725
Maximum Detected	109	Maximum Detected	4.691
Mean of Detected	2.08	Mean of Detected	-3.073
SD of Detected	12.59	SD of Detected	2.2
Minimum Non-Detect	0.0025	Minimum Non-Detect	-5.991
Maximum Non-Detect	0.0053	Maximum Non-Detect	-5.24

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	18
Number treated as Detected	81
Single DL Non-Detect Percentage	18.18%

UCL Statistics

Normal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.437
5% Lilliefors Critical Value	0.0924

Data not Normal at 5% Significance Level

Assuming Normal Distribution
DL/2 Substitution Method

Mean	1.934
SD	12.14
95% DL/2 (t) UCL	3.96

Maximum Likelihood Estimate(MLE) Method N/A
MLE yields a negative mean

Lognormal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.146
5% Lilliefors Critical Value	0.0924

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution
DL/2 Substitution Method

Mean	-3.291
SD	2.265
95% H-Stat (DL/2) UCL	1.144

Log ROS Method

Mean in Log Scale	-3.325
SD in Log Scale	2.311
Mean in Original Scale	1.933
SD in Original Scale	12.14
95% t UCL	3.96
95% Percentile Bootstrap UCL	4.138
95% BCA Bootstrap UCL	5.731
95% H-UCL	1.268

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.195
Theta Star	10.66
nu star	35.91
A-D Test Statistic	15.46
5% A-D Critical Value	0.917
K-S Test Statistic	0.917
5% K-S Critical Value	0.104

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution
Gamma ROS Statistics using Extrapolated Data

Minimum	0.000001
Maximum	109
Mean	1.933
Median	0.0319
SD	12.14
k star	0.17
Theta star	11.38
Nu star	33.63
AppChi2	21.37
95% Gamma Approximate UCL (Use when n >= 40)	3.043
95% Adjusted Gamma UCL (Use when n < 40)	3.063

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics
Kaplan-Meier (KM) Method

Mean	1.934
SD	12.08
SE of Mean	1.221
95% KM (t) UCL	3.96
95% KM (z) UCL	3.941
95% KM (jackknife) UCL	3.96
95% KM (bootstrap t) UCL	27.68
95% KM (BCA) UCL	4.142
95% KM (Percentile Bootstrap) UCL	4.13
95% KM (Chebyshev) UCL	7.254
97.5% KM (Chebyshev) UCL	9.556
99% KM (Chebyshev) UCL	14.08

Potential UCLs to Use	
97.5% KM (Chebyshev) UCL	9.556

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-1-2
STATISTICS FOR SURFACE AND SUBSURFACE SOIL - WESTERN AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Trichloroethene
All units in mg/kg.

General Statistics

Number of Valid Data	99
Number of Distinct Detected Data	33
Number of Detected Data	33
Number of Non-Detect Data	66
Percent Non-Detects	66.67%

Raw Statistics

Minimum Detected	0.00083
Maximum Detected	31.7
Mean of Detected	1.385
SD of Detected	5.821
Minimum Non-Detect	0.0025
Maximum Non-Detect	0.0073

Log-transformed Statistics

Minimum Detected	-7.094
Maximum Detected	3.456
Mean of Detected	-3.984
SD of Detected	2.511
Minimum Non-Detect	-5.991
Maximum Non-Detect	-4.92

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	80
Number treated as Detected	19
Single DL Non-Detect Percentage	80.81%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.267
5% Shapiro Wilk Critical Value	0.931

Data not Normal at 5% Significance Level

Assuming Normal Distribution
DL/2 Substitution Method

Mean	0.463
SD	3.39
95% DL/2 (t) UCL	1.029

Maximum Likelihood Estimate(MLE) Method	N/A

MLE yields a negative mean

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.886
5% Shapiro Wilk Critical Value	0.931

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution
DL/2 Substitution Method

Mean	-5.449
SD	1.781
95% H-Stat (DL/2) UCL	0.037

Log ROS Method

Mean in Log Scale	-6.06
SD in Log Scale	2.22
Mean in Original Scale	0.462
SD in Original Scale	3.39
95% t UCL	1.028
95% Percentile Bootstrap UCL	1.092
95% BCA Bootstrap UCL	1.608
95% H-UCL	0.063

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.179
Theta Star	7.747
nu star	11.8
A-D Test Statistic	5.699
5% A-D Critical Value	0.912
K-S Test Statistic	0.912
5% K-S Critical Value	0.171

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution
Gamma ROS Statistics using Extrapolated Data

Minimum	0.000001
Maximum	31.7
Mean	0.462
Median	0.000001
SD	3.39
k star	0.089
Theta star	5.186
Nu star	17.62
AppChi2	9.119
95% Gamma Approximate UCL (Use when n >= 40)	0.892
95% Adjusted Gamma UCL (Use when n < 40)	0.901

Data Distribution Test with Detected Values Only
Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics
Kaplan-Meier (KM) Method

Mean	0.463
SD	3.373
SE of Mean	0.344
95% KM (t) UCL	1.034
95% KM (z) UCL	1.029
95% KM (jackknife) UCL	1.028
95% KM (bootstrap t) UCL	17.13
95% KM (BCA) UCL	1.11
95% KM (Percentile Bootstrap) UCL	1.099
95% KM (Chebyshev) UCL	1.963
97.5% KM (Chebyshev) UCL	2.613
99% KM (Chebyshev) UCL	3.888

Potential UCLs to Use

97.5% KM (Chebyshev) UCL	2.613

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-1-2
STATISTICS FOR SURFACE AND SUBSURFACE SOIL - WESTERN AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Arsenic
All units in mg/kg.

General Statistics

Number of Valid Observations 31

Number of Distinct Observations 26

Raw Statistics

Minimum 0.95
Maximum 170
Mean 39.12
Geometric Mean 9.949
Median 5.1
SD 60.78
Std. Error of Mean 10.92
Coefficient of Variation 1.554
Skewness 1.342

Log-transformed Statistics

Minimum of Log Data -0.0513
Maximum of Log Data 5.136
Mean of log Data 2.298
SD of log Data 1.652

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic 0.624
Shapiro Wilk Critical Value 0.929
Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 57.65

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995) 59.89
95% Modified-t UCL (Johnson-1978) 58.09

Gamma Distribution Test

k star (bias corrected) 0.445
Theta Star 87.95
MLE of Mean 39.12
MLE of Standard Deviation 58.66
nu star 27.58
Approximate Chi Square Value (.05) 16.6
Adjusted Level of Significance 0.0413
Adjusted Chi Square Value 16.13

Anderson-Darling Test Statistic 3.81
Anderson-Darling 5% Critical Value 0.817
Kolmogorov-Smirnov Test Statistic 0.306
Kolmogorov-Smirnov 5% Critical Value 0.167
Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL (Use when n >= 40) 64.99
95% Adjusted Gamma UCL (Use when n < 40) 66.9

Lognormal Distribution Test

Shapiro Wilk Test Statistic 0.8
Shapiro Wilk Critical Value 0.929
Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL 105.3
95% Chebyshev (MVUE) UCL 95.03
97.5% Chebyshev (MVUE) UCL 120.8
99% Chebyshev (MVUE) UCL 171.4

Data Distribution

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

95% CLT UCL 57.08
95% Jackknife UCL 57.65
95% Standard Bootstrap UCL 56.95
95% Bootstrap-t UCL 61.81
95% Hall's Bootstrap UCL 56.65
95% Percentile Bootstrap UCL 56.75
95% BCA Bootstrap UCL 59.62
95% Chebyshev(Mean, Sd) UCL 86.7
97.5% Chebyshev(Mean, Sd) UCL 107.3
99% Chebyshev(Mean, Sd) UCL 147.7

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL 86.7

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

APPENDIX B-2-1
STATISTICS FOR SURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

1,2,4-Trimethylbenzene
All units in mg/kg.

General Statistics

Number of Valid Data	93
Number of Distinct Detected Data	5
Number of Detected Data	6
Number of Non-Detect Data	87
Percent Non-Detects	93.55%

Raw Statistics

Minimum Detected	0.0011
Maximum Detected	0.132
Mean of Detected	0.0358
SD of Detected	0.0547
Minimum Non-Detect	0.0018
Maximum Non-Detect	0.33

Log-transformed Statistics

Minimum Detected	-6.812
Maximum Detected	-2.025
Mean of Detected	-4.868
SD of Detected	2.066
Minimum Non-Detect	-6.32
Maximum Non-Detect	-1.109

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	93
Number treated as Detected	0
Single DL Non-Detect Percentage	100.00%

Warning: There are only 6 Detected Values in this data
Note: It should be noted that even though bootstrap may be performed on this data set the resulting calculations may not be reliable enough to draw conclusions
It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.724
5% Shapiro Wilk Critical Value	0.788

Data not Normal at 5% Significance Level

Assuming Normal Distribution
DL/2 Substitution Method

Mean	0.00707
SD	0.0255
95% DL/2 (t) UCL	0.0115

Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.849
5% Shapiro Wilk Critical Value	0.788

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution
DL/2 Substitution Method

Mean	-6.127
SD	0.89
95% H-Stat (DL/2) UCL	0.00396

Log ROS Method

Mean in Log Scale	-6.836
SD in Log Scale	1.088
Mean in Original Scale	0.00354
SD in Original Scale	0.0154
95% t UCL	0.00618
95% Percentile Bootstrap UCL	0.0064
95% BCA Bootstrap UCL	0.00782
95% H-UCL	0.00253

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.323
Theta Star	0.111
nu star	3.879
A-D Test Statistic	0.633
5% A-D Critical Value	0.748
K-S Test Statistic	0.748
5% K-S Critical Value	0.352

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution
Gamma ROS Statistics using Extrapolated Data

Minimum	0.000001
Maximum	0.132
Mean	0.00671
Median	0.000001
SD	0.0169
k star	0.151
Theta star	0.0446
Nu star	28
AppChi2	16.93
95% Gamma Approximate UCL (Use when n >= 40)	0.0111
95% Adjusted Gamma UCL (Use when n < 40)	0.0112

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics
Kaplan-Meier (KM) Method

Mean	0.0034
SD	0.0154
SE of Mean	0.00177
95% KM (t) UCL	0.00635
95% KM (z) UCL	0.00632
95% KM (jackknife) UCL	0.00611
95% KM (bootstrap t) UCL	0.0507
95% KM (BCA) UCL	0.0725
95% KM (Percentile Bootstrap) UCL	0.00769
95% KM (Chebyshev) UCL	0.0111
97.5% KM (Chebyshev) UCL	0.0145
99% KM (Chebyshev) UCL	0.021

Potential UCLs to Use

95% KM (t) UCL	0.00635

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-1
STATISTICS FOR SURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Ethylbenzene
All units in mg/kg.

General Statistics

Number of Valid Data	93	Number of Detected Data	8
Number of Distinct Detected Data	7	Number of Non-Detect Data	85
		Percent Non-Detects	91.40%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.00091	Minimum Detected	-7.002
Maximum Detected	0.0078	Maximum Detected	-4.854
Mean of Detected	0.00274	Mean of Detected	-6.088
SD of Detected	0.00213	SD of Detected	0.617
Minimum Non-Detect	0.0018	Minimum Non-Detect	-6.32
Maximum Non-Detect	0.33	Maximum Non-Detect	-1.109

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	93
Number treated as Detected	0
Single DL Non-Detect Percentage	100.00%

Warning: There are only 8 Detected Values in this data
Note: It should be noted that even though bootstrap may be performed on this data set
the resulting calculations may not be reliable enough to draw conclusions
It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.688
5% Shapiro Wilk Critical Value	0.818

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	0.00495
SD	0.0208
95% DL/2 (t) UCL	0.00853
Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.905
5% Shapiro Wilk Critical Value	0.818

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-6.204
SD	0.692
95% H-Stat (DL/2) UCL	0.00297
Log ROS Method	
Mean in Log Scale	-6.396
SD in Log Scale	0.358
Mean in Original Scale	0.00179
SD in Original Scale	0.00083498
95% t UCL	0.00194
95% Percentile Bootstrap UCL	0.00194
95% BCA Bootstrap UCL	0.00199
95% H-UCL	0.0019

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	1.846
Theta Star	0.00148
nu star	29.53
A-D Test Statistic	0.656
5% A-D Critical Value	0.722
K-S Test Statistic	0.722
5% K-S Critical Value	0.297

Data follow Appr. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	5.201E-05
Maximum	0.0078
Mean	0.00212
Median	0.0022
SD	0.00116
k star	2.161
Theta star	0.0009814
Nu star	401.9
AppChi2	356.4
95% Gamma Approximate UCL (Use when n >= 40)	0.00239
95% Adjusted Gamma UCL (Use when n < 40)	0.0024

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data Follow Appr. Gamma Distribution at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	0.00184
SD	0.0008804
SE of Mean	0.00023578
95% KM (t) UCL	0.00224
95% KM (z) UCL	0.00223
95% KM (jackknife) UCL	0.00229
95% KM (bootstrap t) UCL	0.00222
95% KM (BCA) UCL	0.00238
95% KM (Percentile Bootstrap) UCL	0.00232
95% KM (Chebyshev) UCL	0.00287
97.5% KM (Chebyshev) UCL	0.00332
99% KM (Chebyshev) UCL	0.00419

Potential UCLs to Use

95% KM (t) UCL	0.00224

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-1
STATISTICS FOR SURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Naphthalene
All units in mg/kg.

General Statistics

Number of Valid Data	93
Number of Distinct Detected Data	2

Number of Detected Data	2
Number of Non-Detect Data	91
Percent Non-Detects	97.85%

Raw Statistics

Minimum Detected	0.0037
Maximum Detected	0.011
Mean of Detected	0.00735
SD of Detected	0.00516
Minimum Non-Detect	0.0018
Maximum Non-Detect	0.33

Log-transformed Statistics

Minimum Detected	-5.599
Maximum Detected	-4.51
Mean of Detected	-5.055
SD of Detected	0.77
Minimum Non-Detect	-6.32
Maximum Non-Detect	-1.109

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	93
Number treated as Detected	0
Single DL Non-Detect Percentage	100.00%

Warning: Data set has only 2 Distinct Detected Values.
This may not be adequate enough to compute meaningful and reliable test statistics and estimates.
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV)
Unless Data Quality Objectives (DQOs) have been met, it is suggested to collect additional observations.
The number of detected data may not be adequate enough to perform GOF tests, bootstrap, and ROS methods.
Those methods will return a 'N/A' value on your output display!
It is necessary to have 4 or more Distinct Values for bootstrap methods.
However, results obtained using 4 to 9 distinct values may not be reliable.
It is recommended to have 10 to 15 or more observations for accurate and meaningful results and estimates.

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	N/A
5% Shapiro Wilk Critical Value	N/A

Data not Normal at 5% Significance Level

Assuming Normal Distribution
DL/2 Substitution Method

Mean	0.00499
SD	0.0208
95% DL/2 (t) UCL	0.00857

Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	N/A
5% Shapiro Wilk Critical Value	N/A

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution
DL/2 Substitution Method

Mean	-6.199
SD	0.701
95% H-Stat (DL/2) UCL	0.00301

Log ROS Method

Mean in Log Scale	N/A
SD in Log Scale	N/A
Mean in Original Scale	N/A
SD in Original Scale	N/A
95% t UCL	N/A
95% Percentile Bootstrap UCL	N/A
95% BCA Bootstrap UCL	N/A
95% H-UCL	N/A

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	N/A
Theta Star	N/A
nu star	N/A
A-D Test Statistic	N/A
5% A-D Critical Value	N/A
K-S Test Statistic	N/A
5% K-S Critical Value	N/A

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution
Gamma ROS Statistics using Extrapolated Data

Minimum	N/A
Maximum	N/A
Mean	N/A
Median	N/A
SD	N/A
k star	N/A
Theta star	N/A
Nu star	N/A
AppChi2	N/A
95% Gamma Approximate UCL (Use when n >= 40)	N/A
95% Adjusted Gamma UCL (Use when n < 40)	N/A

Data Distribution Test with Detected Values Only
Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics
Kaplan-Meier (KM) Method

Mean	0.00378
SD	0.00076103
SE of Mean	0.00011282
95% KM (t) UCL	0.00397
95% KM (z) UCL	0.00397
95% KM (jackknife) UCL	0.00851
95% KM (bootstrap t) UCL	0.00378
95% KM (BCA) UCL	N/A
95% KM (Percentile Bootstrap) UCL	N/A
95% KM (Chebyshev) UCL	0.00427
97.5% KM (Chebyshev) UCL	0.00448
99% KM (Chebyshev) UCL	0.0049

Potential UCLs to Use

95% KM (t) UCL	0.00397
95% KM (% Bootstrap) UCL	N/A

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-1
STATISTICS FOR SURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Tetrachloroethene
All units in mg/kg.

General Statistics

Number of Valid Data	93	Number of Detected Data	83
Number of Distinct Detected Data	83	Number of Non-Detect Data	10
		Percent Non-Detects	10.75%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.0027	Minimum Detected	-5.915
Maximum Detected	308	Maximum Detected	5.73
Mean of Detected	14.5	Mean of Detected	-0.211
SD of Detected	39.34	SD of Detected	3.132
Minimum Non-Detect	0.0035	Minimum Non-Detect	-5.655
Maximum Non-Detect	0.0048	Maximum Non-Detect	-5.339

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	15
Number treated as Detected	78
Single DL Non-Detect Percentage	16.13%

UCL Statistics

Normal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.356
5% Lilliefors Critical Value	0.0973

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method

Mean	12.94
SD	37.41
95% DL/2 (t) UCL	19.39

Maximum Likelihood Estimate(MLE) Method

Mean	8.042
SD	41.55
95% MLE (t) UCL	15.2
95% MLE (Tiku) UCL	14.85

Lognormal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.0951
5% Lilliefors Critical Value	0.0973

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method

Mean	-0.852
SD	3.493
95% H-Stat (DL/2) UCL	1367

Log ROS Method

Mean in Log Scale	-0.843
SD in Log Scale	3.481
Mean in Original Scale	12.94
SD in Original Scale	37.41
95% t UCL	19.39
95% Percentile Bootstrap UCL	19.85
95% BCA Bootstrap UCL	23.41
95% H UCL	1310

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.246
Theta Star	59
nu star	40.81
A-D Test Statistic	1.748
5% A-D Critical Value	0.89
K-S Test Statistic	0.89
5% K-S Critical Value	0.108

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data

Minimum	0.000001
Maximum	308
Mean	12.94
Median	0.54
SD	37.41
k star	0.179
Theta star	72.5
Nu star	33.21
AppChi2	21.03
95% Gamma Approximate UCL (Use when n >= 40)	20.44
95% Adjusted Gamma UCL (Use when n < 40)	20.59

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data appear Lognormal at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method

Mean	12.94
SD	37.21
SE of Mean	3.882
95% KM (t) UCL	19.39
95% KM (z) UCL	19.33
95% KM (jackknife) UCL	19.39
95% KM (bootstrap t) UCL	27.02
95% KM (BCA) UCL	19.28
95% KM (Percentile Bootstrap) UCL	20.04
95% KM (Chebyshev) UCL	29.87
97.5% KM (Chebyshev) UCL	37.19
99% KM (Chebyshev) UCL	51.57

Potential UCLs to Use

97.5% KM (Chebyshev) UCL	37.19

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-1
STATISTICS FOR SURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Total Xylenes

General Statistics

Number of Valid Data	93
Number of Distinct Detected Data	11

Number of Detected Data	11
Number of Non-Detect Data	82
Percent Non-Detects	88.17%

Raw Statistics

Minimum Detected	0.0063
Maximum Detected	1.873
Mean of Detected	0.19
SD of Detected	0.559
Minimum Non-Detect	0.0036
Maximum Non-Detect	0.67

Log-transformed Statistics

Minimum Detected	-5.067
Maximum Detected	0.628
Mean of Detected	-3.731
SD of Detected	1.618
Minimum Non-Detect	-5.627
Maximum Non-Detect	-0.4

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	92
Number treated as Detected	1
Single DL Non-Detect Percentage	98.92%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.373
5% Shapiro Wilk Critical Value	0.85

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method

Mean	0.0318
SD	0.198
95% DL/2 (t) UCL	0.0659

Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.719
5% Shapiro Wilk Critical Value	0.85

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method

Mean	-5.3
SD	1.032
95% H-Stat (DL/2) UCL	0.0109

Log ROS Method

Mean in Log Scale	-9.397
SD in Log Scale	2.579
Mean in Original Scale	0.0226
SD in Original Scale	0.194
95% t UCL	0.056
95% Percentile Bootstrap UCL	0.0624
95% BCA Bootstrap UCL	0.103
95% H-UCL	0.00705

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.299
Theta Star	0.635
nu star	6.584
A-D Test Statistic	2.374
5% A-D Critical Value	0.815
K-S Test Statistic	0.815
5% K-S Critical Value	0.275

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data

Minimum	0.000001
Maximum	1.873
Mean	0.0225
Median	0.000001
SD	0.194
k star	0.097
Theta star	0.232
Nu star	18.05
AppChi2	9.424
95% Gamma Approximate UCL (Use when n >= 40)	0.0431
95% Adjusted Gamma UCL (Use when n < 40)	0.0435

Data Distribution Test with Detected Values Only

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

Kaplan-Meier (KM) Method

Mean	0.0281
SD	0.193
SE of Mean	0.0209
95% KM (t) UCL	0.0629
95% KM (z) UCL	0.0625
95% KM (jackknife) UCL	0.0609
95% KM (bootstrap t) UCL	1.596
95% KM (BCA) UCL	0.0724
95% KM (Percentile Bootstrap) UCL	0.0678
95% KM (Chebyshev) UCL	0.119
97.5% KM (Chebyshev) UCL	0.159
99% KM (Chebyshev) UCL	0.236

Potential UCLs to Use

95% KM (Chebyshev) UCL	0.119

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-1
STATISTICS FOR SURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Trichloroethene
All units in mg/kg.

General Statistics

Number of Valid Data	93	Number of Detected Data	76
Number of Distinct Detected Data	75	Number of Non-Detect Data	17
		Percent Non-Detects	18.28%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.0014	Minimum Detected	-6.571
Maximum Detected	22.5	Maximum Detected	3.114
Mean of Detected	2.968	Mean of Detected	-1.418
SD of Detected	5.546	SD of Detected	2.878
Minimum Non-Detect	0.0028	Minimum Non-Detect	-5.878
Maximum Non-Detect	0.24	Maximum Non-Detect	-1.427

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	51
Number treated as Detected	42
Single DL Non-Detect Percentage	54.84%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.324	Lilliefors Test Statistic	0.0857
5% Lilliefors Critical Value	0.102	5% Lilliefors Critical Value	0.102
Data not Normal at 5% Significance Level		**Data appear Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	2.427	Mean	-2.252
SD	5.138	SD	3.173
95% DL/2 (t) UCL	3.313	95% H-Stat (DL/2) UCL	83.6
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-2.28
		SD in Log Scale	3.196
		Mean in Original Scale	2.426
		SD in Original Scale	5.139
		95% t UCL	3.312
		95% Percentile Bootstrap UCL	3.365
		95% BCA Bootstrap UCL	3.538
		95% H-UCL	89.45
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.276	**Data appear Lognormal at 5% Significance Level**	
Theta Star	10.74		
nu star	41.99		
A-D Test Statistic	1.706	**Nonparametric Statistics**	
5% A-D Critical Value	0.875	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.875	Mean	2.426
5% K-S Critical Value	0.112	SD	5.111
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.534
		95% KM (t) UCL	3.313
Assuming Gamma Distribution		95% KM (z) UCL	3.304
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	3.312
Minimum	0.000001	95% KM (bootstrap t) UCL	3.543
Maximum	22.5	95% KM (BCA) UCL	3.347
Mean	2.426	95% KM (Percentile Bootstrap) UCL	3.343
Median	0.102	95% KM (Chebyshev) UCL	4.752
SD	5.139	97.5% KM (Chebyshev) UCL	5.758
k star	0.168	99% KM (Chebyshev) UCL	7.735
Theta star	14.48		
Nu star	31.16	**Potential UCLs to Use**	
AppChi2	19.41	97.5% KM (Chebyshev) UCL	5.758
95% Gamma Approximate UCL (Use when n >= 40)	3.895		
95% Adjusted Gamma UCL (Use when n < 40)	3.924		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-1
STATISTICS FOR SURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Vinyl chloride
All units in mg/kg.

General Statistics

Number of Valid Data	93	Number of Detected Data	7
Number of Distinct Detected Data	7	Number of Non-Detect Data	86
		Percent Non-Detects	92.47%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.0014	Minimum Detected	-6.571
Maximum Detected	0.277	Maximum Detected	-1.284
Mean of Detected	0.0486	Mean of Detected	-4.732
SD of Detected	0.102	SD of Detected	1.94
Minimum Non-Detect	0.0018	Minimum Non-Detect	-6.32
Maximum Non-Detect	0.33	Maximum Non-Detect	-1.109

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	93
Number treated as Detected	0
Single DL Non-Detect Percentage	100.00%

Warning: There are only 7 Detected Values in this data
Note: It should be noted that even though bootstrap may be performed on this data set the resulting calculations may not be reliable enough to draw conclusions

It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.55
5% Shapiro Wilk Critical Value	0.803

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	0.0084
SD	0.0352
95% DL/2 (t) UCL	0.0145
Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.885
5% Shapiro Wilk Critical Value	0.803

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-6.1
SD	0.921
95% H-Stat (DL/2) UCL	0.00422
Log ROS Method	
Mean in Log Scale	-6.471
SD in Log Scale	1.051
Mean in Original Scale	0.00535
SD in Original Scale	0.0288
95% t UCL	0.0103
95% Percentile Bootstrap UCL	0.0111
95% BCA Bootstrap UCL	0.0147
95% H-UCL	0.00346

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.317
Theta Star	0.154
nu star	4.431
A-D Test Statistic	0.727
5% A-D Critical Value	0.77
K-S Test Statistic	0.77
5% K-S Critical Value	0.332

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.000001
Maximum	0.277
Mean	0.00832
Median	0.000001
SD	0.0302
k star	0.139
Theta star	0.0599
Nu star	25.85
AppChi2	15.27
95% Gamma Approximate UCL (Use when n >= 40)	0.0141
95% Adjusted Gamma UCL (Use when n < 40)	0.0142

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	0.00531
SD	0.0288
SE of Mean	0.00324
95% KM (t) UCL	0.0107
95% KM (z) UCL	0.0106
95% KM (jackknife) UCL	0.0102
95% KM (bootstrap t) UCL	0.0533
95% KM (BCA) UCL	0.0144
95% KM (Percentile Bootstrap) UCL	0.0116
95% KM (Chebyshev) UCL	0.0194
97.5% KM (Chebyshev) UCL	0.0256
99% KM (Chebyshev) UCL	0.0376

Potential UCLs to Use

95% KM (t) UCL	0.0107

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-1
STATISTICS FOR SURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Benzo(a)pyrene
All units in mg/kg.

General Statistics

Number of Valid Data	84	Number of Detected Data	8
Number of Distinct Detected Data	8	Number of Non-Detect Data	76
		Percent Non-Detects	90.48%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.0208	Minimum Detected	-3.873
Maximum Detected	0.234	Maximum Detected	-1.452
Mean of Detected	0.0647	Mean of Detected	-3.102
SD of Detected	0.072	SD of Detected	0.829
Minimum Non-Detect	0.0053	Minimum Non-Detect	-5.24
Maximum Non-Detect	0.38	Maximum Non-Detect	-0.968

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	84
Number treated as Detected	0
Single DL Non-Detect Percentage	100.00%

Warning: There are only 8 Detected Values in this data
Note: It should be noted that even though bootstrap may be performed on this data set the resulting calculations may not be reliable enough to draw conclusions

It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.668
5% Shapiro Wilk Critical Value	0.818

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	0.0974
SD	0.0283
95% DL/2 (t) UCL	0.103
Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.879
5% Shapiro Wilk Critical Value	0.818

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-2.408
SD	0.526
95% H-Stat (DL/2) UCL	0.115
Log ROS Method	
Mean in Log Scale	-3.469
SD in Log Scale	0.7
Mean in Original Scale	0.04
SD in Original Scale	0.0332
95% t UCL	0.046
95% Percentile Bootstrap UCL	0.0463
95% BCA Bootstrap UCL	0.0472
95% H-UCL	0.0464

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	1.033
Theta Star	0.0626
nu star	16.53
A-D Test Statistic	0.67
5% A-D Critical Value	0.728
K-S Test Statistic	0.728
5% K-S Critical Value	0.299

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.000001
Maximum	0.234
Mean	0.0494
Median	0.0403
SD	0.0485
k star	0.249
Theta star	0.199
Nu star	41.8
AppChi2	27.98
95% Gamma Approximate UCL (Use when n >= 40)	0.0738
95% Adjusted Gamma UCL (Use when n < 40)	0.0743

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	0.0404
SD	0.0305
SE of Mean	0.00856
95% KM (t) UCL	0.0546
95% KM (z) UCL	0.0544
95% KM (jackknife) UCL	0.0553
95% KM (bootstrap t) UCL	0.0712
95% KM (BCA) UCL	0.0578
95% KM (Percentile Bootstrap) UCL	0.0557
95% KM (Chebyshev) UCL	0.0777
97.5% KM (Chebyshev) UCL	0.0938
99% KM (Chebyshev) UCL	0.125

Potential UCLs to Use

95% KM (t) UCL	0.0546

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-1
STATISTICS FOR SURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

MCPP
All units in mg/kg.

General Statistics

Number of Valid Data	66
Number of Distinct Detected Data	2
Number of Detected Data	2
Number of Non-Detect Data	64
Percent Non-Detects	96.97%

Raw Statistics

Minimum Detected	26.5
Maximum Detected	93.5
Mean of Detected	60
SD of Detected	47.38
Minimum Non-Detect	32
Maximum Non-Detect	210

Log-transformed Statistics

Minimum Detected	3.277
Maximum Detected	4.538
Mean of Detected	3.908
SD of Detected	0.892
Minimum Non-Detect	3.466
Maximum Non-Detect	5.347

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	66
Number treated as Detected	0
Single DL Non-Detect Percentage	100.00%

Warning: Data set has only 2 Distinct Detected Values.
This may not be adequate enough to compute meaningful and reliable test statistics and estimates.
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV)
Unless Data Quality Objectives (DQOs) have been met, it is suggested to collect additional observations.
The number of detected data may not be adequate enough to perform GOF tests, bootstrap, and ROS methods.
Those methods will return a 'N/A' value on your output display!
It is necessary to have 4 or more Distinct Values for bootstrap methods.
However, results obtained using 4 to 9 distinct values may not be reliable.
It is recommended to have 10 to 15 or more observations for accurate and meaningful results and estimates.

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	N/A
5% Shapiro Wilk Critical Value	N/A

Data not Normal at 5% Significance Level

Assuming Normal Distribution
DL/2 Substitution Method

Mean	29.92
SD	20.58
95% DL/2 (t) UCL	34.15

Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	N/A
5% Shapiro Wilk Critical Value	N/A

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution
DL/2 Substitution Method

Mean	3.254
SD	0.486
95% H-Stat (DL/2) UCL	32.59

Log ROS Method

Mean in Log Scale	N/A
SD in Log Scale	N/A
Mean in Original Scale	N/A
SD in Original Scale	N/A
95% t UCL	N/A
95% Percentile Bootstrap UCL	N/A
95% BCA Bootstrap UCL	N/A
95% H-UCL	N/A

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	N/A
Theta Star	N/A
nu star	N/A
A-D Test Statistic	N/A
5% A-D Critical Value	N/A
K-S Test Statistic	N/A
5% K-S Critical Value	N/A

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution
Gamma ROS Statistics using Extrapolated Data

Minimum	N/A
Maximum	N/A
Mean	N/A
Median	N/A
SD	N/A
k star	N/A
Theta star	N/A
Nu star	N/A
AppChi2	N/A
95% Gamma Approximate UCL (Use when n >= 40)	N/A
95% Adjusted Gamma UCL (Use when n < 40)	N/A

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics
Kaplan-Meier (KM) Method

Mean	27.58
SD	8.44
SE of Mean	1.516
95% KM (t) UCL	30.11
95% KM (z) UCL	30.07
95% KM (jackknife) UCL	71.02
95% KM (bootstrap t) UCL	27.65
95% KM (BCA) UCL	93.5
95% KM (Percentile Bootstrap) UCL	N/A
95% KM (Chebyshev) UCL	34.19
97.5% KM (Chebyshev) UCL	37.05
99% KM (Chebyshev) UCL	42.66

Potential UCLs to Use

95% KM (t) UCL	30.11
95% KM (% Bootstrap) UCL	N/A

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-1
STATISTICS FOR SURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Toxaphene
All units in mg/kg.

General Statistics

Number of Valid Data	66	Number of Detected Data	1
Number of Distinct Detected Data	1	Number of Non-Detect Data	65
		Percent Non-Detects	98.48%

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV)

The data set for variable Toxaphene was not processed!

APPENDIX B-2-1
STATISTICS FOR SURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Arsenic
All units in mg/kg.

General Statistics

Number of Valid Data	84	Number of Detected Data	81
Number of Distinct Detected Data	48	Number of Non-Detect Data	3
		Percent Non-Detects	3.57%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.56	Minimum Detected	-0.58
Maximum Detected	176	Maximum Detected	5.17
Mean of Detected	7.916	Mean of Detected	1.749
SD of Detected	18.99	SD of Detected	0.535
Minimum Non-Detect	2.2	Minimum Non-Detect	0.788
Maximum Non-Detect	41	Maximum Non-Detect	3.714

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	83
Number treated as Detected	1
Single DL Non-Detect Percentage	98.81%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.43	Lilliefors Test Statistic	0.194
5% Lilliefors Critical Value	0.0984	5% Lilliefors Critical Value	0.0984
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	7.905	Mean	1.726
SD	18.72	SD	0.597
95% DL/2 (t) UCL	11.3	95% H-Stat (DL/2) UCL	7.606
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	1.725
		SD in Log Scale	0.547
		Mean in Original Scale	7.75
		SD in Original Scale	18.66
		95% t UCL	11.14
		95% Percentile Bootstrap UCL	11.84
		95% BCA Bootstrap UCL	15.7
		95% H-UCL	7.293

Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**
k star (bias corrected)	1.655	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	4.782	
nu star	268.2	
A-D Test Statistic	12.89	**Nonparametric Statistics**
5% A-D Critical Value	0.767	Kaplan-Meier (KM) Method
K-S Test Statistic	0.767	Mean 7.714
5% K-S Critical Value	0.101	SD 18.57
Data not Gamma Distributed at 5% Significance Level		SE of Mean 2.039
		95% KM (t) UCL 11.1
Assuming Gamma Distribution		95% KM (z) UCL 11.07
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL 11.05
Minimum	0.000001	95% KM (bootstrap t) UCL 32.14
Maximum	176	95% KM (BCA) UCL 13.57
Mean	7.73	95% KM (Percentile Bootstrap) UCL 11.81
Median	5.7	95% KM (Chebyshev) UCL 16.6
SD	18.68	97.5% KM (Chebyshev) UCL 20.44
k star	0.861	99% KM (Chebyshev) UCL 28
Theta star	8.983	
Nu star	144.6	**Potential UCLs to Use**
AppChi2	117.8	95% KM (BCA) UCL 13.57
95% Gamma Approximate UCL (Use when n >= 40)	9.488	
95% Adjusted Gamma UCL (Use when n < 40)	9.522	

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-1
STATISTICS FOR SURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Lead
All units in mg/kg.

General Statistics

Number of Valid Data	84	Number of Detected Data	83
Number of Distinct Detected Data	72	Number of Non-Detect Data	1
		Percent Non-Detects	1.19%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	2.1	Minimum Detected	0.742
Maximum Detected	813	Maximum Detected	6.701
Mean of Detected	52.56	Mean of Detected	3.296
SD of Detected	111.2	SD of Detected	0.959
Minimum Non-Detect	4.1	Minimum Non-Detect	1.411
Maximum Non-Detect	4.1	Maximum Non-Detect	1.411

UCL Statistics

Normal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.338
5% Lilliefors Critical Value	0.0973

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	51.96
SD	110.7
95% DL/2 (t) UCL	72.05
Maximum Likelihood Estimate(MLE) Method	
Mean	50.24
SD	111.7
95% MLE (t) UCL	70.52
95% MLE (Tiku) UCL	68.37

Lognormal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.182
5% Lilliefors Critical Value	0.0973

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	3.266
SD	0.994
95% H-Stat (DL/2) UCL	54.79
Log ROS Method	
Mean in Log Scale	3.271
SD in Log Scale	0.983
Mean in Original Scale	51.97
SD in Original Scale	110.7
95% t UCL	72.06
95% Percentile Bootstrap UCL	73.04
95% BCA Bootstrap UCL	82.47
95% H UCL	54.23

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.857
Theta Star	61.32
nu star	142.3
A-D Test Statistic	7.225
5% A-D Critical Value	0.787
K-S Test Statistic	0.787
5% K-S Critical Value	0.101

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.000001
Maximum	813
Mean	51.93
Median	18
SD	110.7
k star	0.687
Theta star	75.57
Nu star	115.4
AppChi2	91.64
95% Gamma Approximate UCL (Use when n >= 40)	65.42
95% Adjusted Gamma UCL (Use when n < 40)	65.69

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	51.96
SD	110
SE of Mean	12.08
95% KM (t) UCL	72.05
95% KM (z) UCL	71.83
95% KM (jackknife) UCL	71.97
95% KM (bootstrap t) UCL	101.8
95% KM (BCA) UCL	73.67
95% KM (Percentile Bootstrap) UCL	73.8
95% KM (Chebyshev) UCL	104.6
97.5% KM (Chebyshev) UCL	127.4
99% KM (Chebyshev) UCL	172.1

Potential UCLs to Use

95% KM (BCA) UCL	73.67

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-2
STATISTICS FOR SURFACE AND SUBSURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

1,2,4-Trimethylbenzene
All units in mg/kg.

General Statistics

Number of Valid Data	176	Number of Detected Data	8
Number of Distinct Detected Data	7	Number of Non-Detect Data	168
		Percent Non-Detects	95.45%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.0011	Minimum Detected	-6.812
Maximum Detected	1230	Maximum Detected	7.115
Mean of Detected	158.2	Mean of Detected	-2.316
SD of Detected	433.3	SD of Detected	5.126
Minimum Non-Detect	0.0018	Minimum Non-Detect	-6.32
Maximum Non-Detect	0.33	Maximum Non-Detect	-1.109

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	174
Number treated as Detected	2
Single DL Non-Detect Percentage	98.86%

Warning: There are only 8 Detected Values in this data
Note: It should be noted that even though bootstrap may be performed on this data set the resulting calculations may not be reliable enough to draw conclusions
It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.435
5% Shapiro Wilk Critical Value	0.818

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	7.195
SD	92.74
95% DL/2 (t) UCL	18.75
Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.846
5% Shapiro Wilk Critical Value	0.818

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-6.023
SD	1.438
95% H-Stat (DL/2) UCL	0.00903
Log ROS Method	
Mean in Log Scale	-7.716
SD in Log Scale	2.691
Mean in Original Scale	7.193
SD in Original Scale	92.74
95% t UCL	18.75
95% Percentile Bootstrap UCL	21.17
95% BCA Bootstrap UCL	28.36
95% H-UCL	0.0379

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.151
Theta Star	1045
nu star	2.422
A-D Test Statistic	1.087
5% A-D Critical Value	0.869
K-S Test Statistic	0.869
5% K-S Critical Value	0.328

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.000001
Maximum	1230
Mean	12
Median	0.000001
SD	93.7
k star	0.0651
Theta star	184.3
Nu star	22.92
AppChi2	13.03
95% Gamma Approximate UCL (Use when n >= 40)	21.11
95% Adjusted Gamma UCL (Use when n < 40)	21.21

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data appear Lognormal at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	7.192
SD	92.47
SE of Mean	7.452
95% KM (t) UCL	19.51
95% KM (z) UCL	19.45
95% KM (jackknife) UCL	18.75
95% KM (bootstrap t) UCL	59702
95% KM (BCA) UCL	21.17
95% KM (Percentile Bootstrap) UCL	21.17
95% KM (Chebyshev) UCL	39.67
97.5% KM (Chebyshev) UCL	53.73
99% KM (Chebyshev) UCL	81.34

Potential UCLs to Use

97.5% KM (Chebyshev) UCL	53.73

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-2
STATISTICS FOR SURFACE AND SUBSURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Ethylbenzene
All units in mg/kg.

General Statistics

Number of Valid Data	176	Number of Detected Data	12
Number of Distinct Detected Data	11	Number of Non-Detect Data	164
		Percent Non-Detects	93.18%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.00091	Minimum Detected	-7.002
Maximum Detected	98.7	Maximum Detected	4.592
Mean of Detected	8.458	Mean of Detected	-4.391
SD of Detected	28.43	SD of Detected	3.554
Minimum Non-Detect	0.0018	Minimum Non-Detect	-6.32
Maximum Non-Detect	0.33	Maximum Non-Detect	-1.109

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	174
Number treated as Detected	2
Single DL Non-Detect Percentage	98.86%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.34
5% Shapiro Wilk Critical Value	0.859

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	0.581
SD	7.441
95% DL/2 (t) UCL	1.508
Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.678
5% Shapiro Wilk Critical Value	0.859

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-6.073
SD	1.167
95% H-Stat (DL/2) UCL	0.00558
Log ROS Method	
Mean in Log Scale	-6.461
SD in Log Scale	1.76
Mean in Original Scale	0.58
SD in Original Scale	7.441
95% t UCL	1.507
95% Percentile Bootstrap UCL	1.701
95% BCA Bootstrap UCL	2.807
95% H-UCL	0.0109

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.147
Theta Star	57.71
nu star	3.517
A-D Test Statistic	2.718
5% A-D Critical Value	0.892
K-S Test Statistic	0.892
5% K-S Critical Value	0.274

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.000001
Maximum	98.7
Mean	1.299
Median	0.000001
SD	7.67
k star	0.0784
Theta star	16.56
Nu star	27.6
AppChi2	16.62
95% Gamma Approximate UCL (Use when n >= 40)	2.157
95% Adjusted Gamma UCL (Use when n < 40)	2.166

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	0.578
SD	7.42
SE of Mean	0.584
95% KM (t) UCL	1.544
95% KM (z) UCL	1.539
95% KM (jackknife) UCL	1.506
95% KM (bootstrap t) UCL	1478
95% KM (BCA) UCL	1.716
95% KM (Percentile Bootstrap) UCL	1.685
95% KM (Chebyshev) UCL	3.125
97.5% KM (Chebyshev) UCL	4.227
99% KM (Chebyshev) UCL	6.391

Potential UCLs to Use	
97.5% KM (Chebyshev) UCL	4.227

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-2
STATISTICS FOR SURFACE AND SUBSURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Naphthalene
All units in mg/kg.

General Statistics

Number of Valid Data	176	Number of Detected Data	6
Number of Distinct Detected Data	6	Number of Non-Detect Data	170
		Percent Non-Detects	96.59%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.0037	Minimum Detected	-5.599
Maximum Detected	179	Maximum Detected	5.187
Mean of Detected	29.84	Mean of Detected	-3.124
SD of Detected	73.07	SD of Detected	4.115
Minimum Non-Detect	0.0018	Minimum Non-Detect	-6.32
Maximum Non-Detect	3.74	Maximum Non-Detect	1.319

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	175
Number treated as Detected	1
Single DL Non-Detect Percentage	99.43%

Warning: There are only 6 Detected Values in this data
Note: It should be noted that even though bootstrap may be performed on this data set the resulting calculations may not be reliable enough to draw conclusions

It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.496
5% Shapiro Wilk Critical Value	0.788

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	1.032
SD	13.49
95% DL/2 (t) UCL	2.714
Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.629
5% Shapiro Wilk Critical Value	0.788

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-6.004
SD	1.195
95% H-Stat (DL/2) UCL	0.00622
Log ROS Method	
Mean in Log Scale	-26.33
SD in Log Scale	7.931
Mean in Original Scale	1.017
SD in Original Scale	13.49
95% t UCL	2.699
95% Percentile Bootstrap UCL	3.051
95% BCA Bootstrap UCL	4.069
95% H-UCL	118733

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.172
Theta Star	173.7
nu star	2.062
A-D Test Statistic	1.453
5% A-D Critical Value	0.836
K-S Test Statistic	0.836
5% K-S Critical Value	0.368

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.000001
Maximum	179
Mean	1.017
Median	0.000001
SD	13.49
k star	0.0662
Theta star	15.37
Nu star	23.31
AppChi2	13.32
95% Gamma Approximate UCL (Use when n >= 40)	1.78
95% Adjusted Gamma UCL (Use when n < 40)	1.788

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	1.021
SD	13.45
SE of Mean	1.111
95% KM (t) UCL	2.858
95% KM (z) UCL	2.848
95% KM (jackknife) UCL	2.702
95% KM (bootstrap t) UCL	15186
95% KM (BCA) UCL	4.072
95% KM (Percentile Bootstrap) UCL	3.055
95% KM (Chebyshev) UCL	5.863
97.5% KM (Chebyshev) UCL	7.959
99% KM (Chebyshev) UCL	12.07

Potential UCLs to Use

97.5% KM (Chebyshev) UCL	7.959

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). For additional insight, the user may want to consult a statistician.

APPENDIX B-2-2
STATISTICS FOR SURFACE AND SUBSURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Tetrachloroethene
All units in mg/kg.

General Statistics

Number of Valid Data	176	Number of Detected Data	153
Number of Distinct Detected Data	148	Number of Non-Detect Data	23
		Percent Non-Detects	13.07%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.0009	Minimum Detected	-7.013
Maximum Detected	848	Maximum Detected	6.743
Mean of Detected	14.67	Mean of Detected	-0.759
SD of Detected	74.1	SD of Detected	3.044
Minimum Non-Detect	0.0027	Minimum Non-Detect	-5.915
Maximum Non-Detect	23.1	Maximum Non-Detect	3.14

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	158
Number treated as Detected	18
Single DL Non-Detect Percentage	89.77%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.422	Lilliefors Test Statistic	0.0979
5% Lilliefors Critical Value	0.0716	5% Lilliefors Critical Value	0.0716
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	12.82	Mean	-1.388
SD	69.23	SD	3.361
95% DL/2 (t) UCL	21.45	95% H-Stat (DL/2) UCL	244.5
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-1.465
		SD in Log Scale	3.406
		Mean in Original Scale	12.75
		SD in Original Scale	69.23
		95% t UCL	21.38
		95% Percentile Bootstrap UCL	22.53
		95% BCA Bootstrap UCL	28.21
		95% H-UCL	272.8

Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**
k star (bias corrected)	0.212	**Data do not follow a Discernable Distribution (0.05)**
Theta Star	69.2	
nu star	64.86	
A-D Test Statistic	7.259	**Nonparametric Statistics**
5% A-D Critical Value	0.908	Kaplan-Meier (KM) Method
K-S Test Statistic	0.908	Mean 12.76
5% K-S Critical Value	0.0837	SD 69.04
Data not Gamma Distributed at 5% Significance Level		SE of Mean 5.221
		95% KM (t) UCL 21.4
Assuming Gamma Distribution		95% KM (z) UCL 21.35
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL 21.39
Minimum	0.000001	95% KM (bootstrap t) UCL 46.02
Maximum	848	95% KM (BCA) UCL 23
Mean	12.75	95% KM (Percentile Bootstrap) UCL 22.62
Median	0.138	95% KM (Chebyshev) UCL 35.52
SD	69.23	97.5% KM (Chebyshev) UCL 45.37
k star	0.154	99% KM (Chebyshev) UCL 64.71
Theta star	82.73	
Nu star	54.26	**Potential UCLs to Use**
AppChi2	38.33	97.5% KM (Chebyshev) UCL 45.37
95% Gamma Approximate UCL (Use when n >= 40)	18.05	
95% Adjusted Gamma UCL (Use when n < 40)	18.1	

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). For additional insight, the user may want to consult a statistician.

APPENDIX B-2-2
STATISTICS FOR SURFACE AND SUBSURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Total Xylenes
All units in mg/kg.

General Statistics

Number of Valid Data	176
Number of Distinct Detected Data	15

Number of Detected Data	15
Number of Non-Detect Data	161
Percent Non-Detects	91.48%

Raw Statistics

Minimum Detected	0.0019
Maximum Detected	313
Mean of Detected	21.41
SD of Detected	80.68
Minimum Non-Detect	0.0027
Maximum Non-Detect	0.67

Log-transformed Statistics

Minimum Detected	-6.266
Maximum Detected	5.746
Mean of Detected	-2.92
SD of Detected	3.2
Minimum Non-Detect	-5.915
Maximum Non-Detect	-0.4

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	173
Number treated as Detected	3
Single DL Non-Detect Percentage	98.30%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.294
5% Shapiro Wilk Critical Value	0.881

Data not Normal at 5% Significance Level

Assuming Normal Distribution
DL/2 Substitution Method

Mean	1.833
SD	23.59
95% DL/2 (t) UCL	4.774

Maximum Likelihood Estimate(MLE) Method	N/A

MLE yields a negative mean

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.756
5% Shapiro Wilk Critical Value	0.881

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution
DL/2 Substitution Method

Mean	-5.339
SD	1.332
95% H-Stat (DL/2) UCL	0.015

Log ROS Method

Mean in Log Scale	-9.352
SD in Log Scale	2.856
Mean in Original Scale	1.825
SD in Original Scale	23.59
95% t UCL	4.766
95% Percentile Bootstrap UCL	5.382
95% BCA Bootstrap UCL	8.894
95% H-UCL	0.0128

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.149
Theta Star	143.5
nu star	4.476
A-D Test Statistic	3.226
5% A-D Critical Value	0.901
K-S Test Statistic	0.901
5% K-S Critical Value	0.248

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution
Gamma ROS Statistics using Extrapolated Data

Minimum	0.000001
Maximum	313
Mean	1.825
Median	0.000001
SD	23.59
k star	0.0661
Theta star	27.6
Nu star	23.27
AppChi2	13.3
95% Gamma Approximate UCL (Use when n >= 40)	3.194
95% Adjusted Gamma UCL (Use when n < 40)	3.209

Data Distribution Test with Detected Values Only
Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics
Kaplan-Meier (KM) Method

Mean	1.827
SD	23.53
SE of Mean	1.836
95% KM (t) UCL	4.862
95% KM (z) UCL	4.846
95% KM (jackknife) UCL	4.764
95% KM (bootstrap t) UCL	306.6
95% KM (BCA) UCL	5.394
95% KM (Percentile Bootstrap) UCL	5.377
95% KM (Chebyshev) UCL	9.828
97.5% KM (Chebyshev) UCL	13.29
99% KM (Chebyshev) UCL	20.09

Potential UCLs to Use

97.5% KM (Chebyshev) UCL	13.29

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-2
STATISTICS FOR SURFACE AND SUBSURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Trichloroethene
All units in mg/kg.

General Statistics

Number of Valid Data	176	Number of Detected Data	138
Number of Distinct Detected Data	132	Number of Non-Detect Data	38
		Percent Non-Detects	21.59%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.00067	Minimum Detected	-7.308
Maximum Detected	29.3	Maximum Detected	3.378
Mean of Detected	2.045	Mean of Detected	-2.004
SD of Detected	4.943	SD of Detected	2.717
Minimum Non-Detect	0.0027	Minimum Non-Detect	-5.915
Maximum Non-Detect	23.1	Maximum Non-Detect	3.14

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	175
Number treated as Detected	1
Single DL Non-Detect Percentage	99.43%

UCL Statistics

Normal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.367
5% Lilliefors Critical Value	0.0754

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	1.676
SD	4.513
95% DL/2 (t) UCL	2.238
Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.0703
5% Lilliefors Critical Value	0.0754

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-2.809
SD	2.974
95% H-Stat (DL/2) UCL	13.47
Log ROS Method	
Mean in Log Scale	-2.928
SD in Log Scale	3.025
Mean in Original Scale	1.605
SD in Original Scale	4.454
95% t UCL	2.16
95% Percentile Bootstrap UCL	2.187
95% BCA Bootstrap UCL	2.323
95% H-UCL	14.39

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.259
Theta Star	7.903
nu star	71.43
A-D Test Statistic	5.642
5% A-D Critical Value	0.886
K-S Test Statistic	0.886
5% K-S Critical Value	0.0872

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.000001
Maximum	29.3
Mean	1.604
Median	0.0329
SD	4.454
k star	0.154
Theta star	10.43
Nu star	54.11
AppChi2	38.21
95% Gamma Approximate UCL (Use when n >= 40)	2.271
95% Adjusted Gamma UCL (Use when n < 40)	2.278

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data appear Lognormal at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	1.614
SD	4.449
SE of Mean	0.337
95% KM (t) UCL	2.171
95% KM (z) UCL	2.168
95% KM (jackknife) UCL	2.171
95% KM (bootstrap t) UCL	2.293
95% KM (BCA) UCL	2.25
95% KM (Percentile Bootstrap) UCL	2.174
95% KM (Chebyshev) UCL	3.084
97.5% KM (Chebyshev) UCL	3.72
99% KM (Chebyshev) UCL	4.97

Potential UCLs to Use

97.5% KM (Chebyshev) UCL	3.72

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-2
STATISTICS FOR SURFACE AND SUBSURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Vinyl chloride
All units in mg/kg.

General Statistics

Number of Valid Data	176	Number of Detected Data	7
Number of Distinct Detected Data	7	Number of Non-Detect Data	169
		Percent Non-Detects	96.02%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.0014	Minimum Detected	-6.571
Maximum Detected	0.277	Maximum Detected	-1.284
Mean of Detected	0.0486	Mean of Detected	-4.732
SD of Detected	0.102	SD of Detected	1.94
Minimum Non-Detect	0.0018	Minimum Non-Detect	-6.32
Maximum Non-Detect	23.1	Maximum Non-Detect	3.14

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	176
Number treated as Detected	0
Single DL Non-Detect Percentage	100.00%

Warning: There are only 7 Detected Values in this data
Note: It should be noted that even though bootstrap may be performed on this data set
the resulting calculations may not be reliable enough to draw conclusions
It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.55
5% Shapiro Wilk Critical Value	0.803

Data not Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.885
5% Shapiro Wilk Critical Value	0.803

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	0.0771
SD	0.873
95% DL/2 (t) UCL	0.186
Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-6.055
SD	1.094
95% H-Stat (DL/2) UCL	0.00514
Log ROS Method	
Mean in Log Scale	-6.531
SD in Log Scale	0.991
Mean in Original Scale	0.00378
SD in Original Scale	0.021
95% t UCL	0.00639
95% Percentile Bootstrap UCL	0.00678
95% BCA Bootstrap UCL	0.00864
95% H-UCL	0.0028

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.317
Theta Star	0.154
nu star	4.431
A-D Test Statistic	0.727
5% A-D Critical Value	0.77
K-S Test Statistic	0.77
5% K-S Critical Value	0.332

Data appear Gamma Distributed at 5% Significance Level

Data Distribution Test with Detected Values Only
Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.000001
Maximum	0.277
Mean	0.00923
Median	0.000001
SD	0.0248
k star	0.138
Theta star	0.0668
Nu star	48.65
AppChi2	33.64
95% Gamma Approximate UCL (Use when n >= 40)	0.0134
95% Adjusted Gamma UCL (Use when n < 40)	0.0134

Note: DL/2 is not a recommended method.

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	0.00364
SD	0.0211
SE of Mean	0.00175
95% KM (t) UCL	0.00653
95% KM (z) UCL	0.00651
95% KM (jackknife) UCL	0.00618
95% KM (bootstrap t) UCL	0.0223
95% KM (BCA) UCL	0.0181
95% KM (Percentile Bootstrap) UCL	0.00724
95% KM (Chebyshev) UCL	0.0113
97.5% KM (Chebyshev) UCL	0.0146
99% KM (Chebyshev) UCL	0.021

Potential UCLs to Use

95% KM (t) UCL	0.00653

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-2
STATISTICS FOR SURFACE AND SUBSURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Benzo(a)pyrene
All units in mg/kg.

General Statistics

Number of Valid Data	93	Number of Detected Data	8
Number of Distinct Detected Data	8	Number of Non-Detect Data	85
		Percent Non-Detects	91.40%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.0208	Minimum Detected	-3.873
Maximum Detected	0.234	Maximum Detected	-1.452
Mean of Detected	0.0647	Mean of Detected	-3.102
SD of Detected	0.072	SD of Detected	0.829
Minimum Non-Detect	0.0053	Minimum Non-Detect	-5.24
Maximum Non-Detect	0.38	Maximum Non-Detect	-0.968

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	93
Number treated as Detected	0
Single DL Non-Detect Percentage	100.00%

Warning: There are only 8 Detected Values in this data
Note: It should be noted that even though bootstrap may be performed on this data set the resulting calculations may not be reliable enough to draw conclusions
It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.668
5% Shapiro Wilk Critical Value	0.818

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	0.0977
SD	0.027
95% DL/2 (t) UCL	0.102
Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.879
5% Shapiro Wilk Critical Value	0.818

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-2.397
SD	0.501
95% H-Stat (DL/2) UCL	0.114
Log ROS Method	
Mean in Log Scale	-3.47
SD in Log Scale	0.693
Mean in Original Scale	0.0397
SD in Original Scale	0.0324
95% t UCL	0.0453
95% Percentile Bootstrap UCL	0.0453
95% BCA Bootstrap UCL	0.047
95% H-UCL	0.0457

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	1.033
Theta Star	0.0626
nu star	16.53
A-D Test Statistic	0.67
5% A-D Critical Value	0.728
K-S Test Statistic	0.728
5% K-S Critical Value	0.299

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.000001
Maximum	0.234
Mean	0.0494
Median	0.0403
SD	0.0482
k star	0.246
Theta star	0.201
Nu star	45.68
AppChi2	31.18
95% Gamma Approximate UCL (Use when n >= 40)	0.0723
95% Adjusted Gamma UCL (Use when n < 40)	0.0728

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	0.0402
SD	0.0299
SE of Mean	0.0085
95% KM (t) UCL	0.0543
95% KM (z) UCL	0.0542
95% KM (jackknife) UCL	0.055
95% KM (bootstrap t) UCL	0.0727
95% KM (BCA) UCL	0.0562
95% KM (Percentile Bootstrap) UCL	0.0562
95% KM (Chebyshev) UCL	0.0772
97.5% KM (Chebyshev) UCL	0.0933
99% KM (Chebyshev) UCL	0.125

Potential UCLs to Use	
95% KM (t) UCL	0.0543

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-2
STATISTICS FOR SURFACE AND SUBSURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

MCPP
All units in mg/kg.

General Statistics

Number of Valid Data	67
Number of Distinct Detected Data	2
Number of Detected Data	2
Number of Non-Detect Data	65
Percent Non-Detects	97.01%

Raw Statistics

Minimum Detected	26.5
Maximum Detected	93.5
Mean of Detected	60
SD of Detected	47.38
Minimum Non-Detect	32
Maximum Non-Detect	210

Log-transformed Statistics

Minimum Detected	3.277
Maximum Detected	4.538
Mean of Detected	3.908
SD of Detected	0.892
Minimum Non-Detect	3.466
Maximum Non-Detect	5.347

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	67
Number treated as Detected	0
Single DL Non-Detect Percentage	100.00%

Warning: Data set has only 2 Distinct Detected Values.
This may not be adequate enough to compute meaningful and reliable test statistics and estimates.
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).
Unless Data Quality Objectives (DQOs) have been met, it is suggested to collect additional observations.
The number of detected data may not be adequate enough to perform GOF tests, bootstrap, and ROS methods.
Those methods will return a 'N/A' value on your output display!
It is necessary to have 4 or more Distinct Values for bootstrap methods.
However, results obtained using 4 to 9 distinct values may not be reliable.
It is recommended to have 10 to 15 or more observations for accurate and meaningful results and estimates.

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	N/A
5% Shapiro Wilk Critical Value	N/A

Data not Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	N/A
5% Shapiro Wilk Critical Value	N/A

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method

Mean	29.78
SD	20.45
95% DL/2 (t) UCL	33.94

Maximum Likelihood Estimate(MLE) Method N/A
MLE method failed to converge properly

Assuming Lognormal Distribution

DL/2 Substitution Method

Mean	3.25
SD	0.484
95% H-Stat (DL/2) UCL	32.38

Log ROS Method

Mean in Log Scale	N/A
SD in Log Scale	N/A
Mean in Original Scale	N/A
SD in Original Scale	N/A
95% t UCL	N/A
95% Percentile Bootstrap UCL	N/A
95% BCA Bootstrap UCL	N/A
95% H-UCL	N/A

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	N/A
Theta Star	N/A
nu star	N/A
A-D Test Statistic	N/A
5% A-D Critical Value	N/A
K-S Test Statistic	N/A
5% K-S Critical Value	N/A

Data not Gamma Distributed at 5% Significance Level

Data Distribution Test with Detected Values Only
Data do not follow a Discernable Distribution (0.05)

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data

Minimum	N/A
Maximum	N/A
Mean	N/A
Median	N/A
SD	N/A
k star	N/A
Theta star	N/A
Nu star	N/A
AppChi2	N/A
95% Gamma Approximate UCL (Use when n >= 40)	N/A
95% Adjusted Gamma UCL (Use when n < 40)	N/A

Nonparametric Statistics

Kaplan-Meier (KM) Method

Mean	27.56
SD	8.374
SE of Mean	1.492
95% KM (t) UCL	30.05
95% KM (z) UCL	30.02
95% KM (jackknife) UCL	71
95% KM (bootstrap t) UCL	27.65
95% KM (BCA) UCL	93.5
95% KM (Percentile Bootstrap) UCL	93.5
95% KM (Chebyshev) UCL	34.07
97.5% KM (Chebyshev) UCL	36.88
99% KM (Chebyshev) UCL	42.41

Potential UCLs to Use

95% KM (t) UCL	30.05
95% KM (% Bootstrap) UCL	93.5

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-2
STATISTICS FOR SURFACE AND SUBSURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Toxaphene
All units in mg/kg.

General Statistics

Number of Valid Data	67	Number of Detected Data	1
Number of Distinct Detected Data	1	Number of Non-Detect Data	66
		Percent Non-Detects	98.51%

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Toxaphene was not processed!

APPENDIX B-2-2
STATISTICS FOR SURFACE AND SUBSURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Arsenic
All units in mg/kg.

General Statistics

Number of Valid Data	95
Number of Distinct Detected Data	53

Number of Detected Data	91
Number of Non-Detect Data	4
Percent Non-Detects	4.21%

Raw Statistics

Minimum Detected	0.56
Maximum Detected	176
Mean of Detected	7.359
SD of Detected	17.98
Minimum Non-Detect	2.2
Maximum Non-Detect	41

Log-transformed Statistics

Minimum Detected	-0.58
Maximum Detected	5.17
Mean of Detected	1.656
SD of Detected	0.601
Minimum Non-Detect	0.788
Maximum Non-Detect	3.714

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	94
Number treated as Detected	1
Single DL Non-Detect Percentage	98.95%

UCL Statistics

Normal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.424
5% Lilliefors Critical Value	0.0929

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	7.301
SD	17.68
95% DL/2 (t) UCL	10.31
Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.175
5% Lilliefors Critical Value	0.0929

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	1.622
SD	0.662
95% H-Stat (DL/2) UCL	7.218
Log ROS Method	
Mean in Log Scale	1.624
SD in Log Scale	0.614
Mean in Original Scale	7.163
SD in Original Scale	17.62
95% t UCL	10.17
95% Percentile Bootstrap UCL	10.67
95% BCA Bootstrap UCL	12.98
95% H-UCL	6.921

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	1.571
Theta Star	4.685
nu star	285.8
A-D Test Statistic	11.35
5% A-D Critical Value	0.77
K-S Test Statistic	0.77
5% K-S Critical Value	0.0953

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.000001
Maximum	176
Mean	7.128
Median	5.4
SD	17.64
k star	0.737
Theta star	9.666
Nu star	140.1
AppChi2	113.8
95% Gamma Approximate UCL (Use when n >= 40)	8.779
95% Adjusted Gamma UCL (Use when n < 40)	8.808

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	7.144
SD	17.53
SE of Mean	1.809
95% KM (t) UCL	10.15
95% KM (z) UCL	10.12
95% KM (jackknife) UCL	10.15
95% KM (bootstrap t) UCL	25.26
95% KM (BCA) UCL	11
95% KM (Percentile Bootstrap) UCL	10.7
95% KM (Chebyshev) UCL	15.03
97.5% KM (Chebyshev) UCL	18.44
99% KM (Chebyshev) UCL	25.14

Potential UCLs to Use

95% KM (BCA) UCL	11

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-2-2
STATISTICS FOR SURFACE AND SUBSURFACE SOIL - CENTRAL AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Lead
All units in mg/kg.

General Statistics

Number of Valid Data	95	Number of Detected Data	94
Number of Distinct Detected Data	82	Number of Non-Detect Data	1
		Percent Non-Detects	1.05%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	2.1	Minimum Detected	0.742
Maximum Detected	813	Maximum Detected	6.701
Mean of Detected	47.38	Mean of Detected	3.139
SD of Detected	105.4	SD of Detected	1.022
Minimum Non-Detect	4.1	Minimum Non-Detect	1.411
Maximum Non-Detect	4.1	Maximum Non-Detect	1.411

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.334	Lilliefors Test Statistic	0.169
5% Lilliefors Critical Value	0.0914	5% Lilliefors Critical Value	0.0914
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	46.91	Mean	3.114
SD	105	SD	1.046
95% DL/2 (t) UCL	64.8	95% H-Stat (DL/2) UCL	49.84
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	43.92	Mean in Log Scale	3.117
SD	107.3	SD in Log Scale	1.039
95% MLE (t) UCL	62.21	Mean in Original Scale	46.91
95% MLE (Tiku) UCL	60.37	SD in Original Scale	105
		95% t UCL	64.8
		95% Percentile Bootstrap UCL	65.89
		95% BCA Bootstrap UCL	75.39
		95% H UCL	49.51
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.803	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	58.99		
nu star	151		
A-D Test Statistic	7.202	**Nonparametric Statistics**	
5% A-D Critical Value	0.791	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.791	Mean	46.91
5% K-S Critical Value	0.0957	SD	104.4
Data not Gamma Distributed at 5% Significance Level		SE of Mean	10.77
Assuming Gamma Distribution		95% KM (t) UCL	64.8
Gamma ROS Statistics using Extrapolated Data		95% KM (z) UCL	64.63
Minimum	0.000001	95% KM (jackknife) UCL	64.8
Maximum	813	95% KM (bootstrap t) UCL	92.82
Mean	46.88	95% KM (BCA) UCL	65.29
Median	16.8	95% KM (Percentile Bootstrap) UCL	67.19
SD	105	95% KM (Chebyshev) UCL	93.86
k star	0.669	97.5% KM (Chebyshev) UCL	114.2
Theta star	70.08	99% KM (Chebyshev) UCL	154.1
Nu star	127.1		
AppChi2	102.1	**Potential UCLs to Use**	
95% Gamma Approximate UCL (Use when n >= 40)	58.39	95% KM (Chebyshev) UCL	93.86
95% Adjusted Gamma UCL (Use when n < 40)	58.58		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). For additional insight, the user may want to consult a statistician.

APPENDIX B-3-1
STATISTICS FOR SURFACE SOIL - EASTERN AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

1,2,4-Trimethylbenzene
All units in mg/kg.

General Statistics

Number of Valid Data	61
Number of Distinct Detected Data	8

Number of Detected Data	8
Number of Non-Detect Data	53
Percent Non-Detects	86.89%

Raw Statistics

Minimum Detected	0.0017
Maximum Detected	34.4
Mean of Detected	6.915
SD of Detected	11.97
Minimum Non-Detect	0.0018
Maximum Non-Detect	0.008

Log-transformed Statistics

Minimum Detected	-6.377
Maximum Detected	3.538
Mean of Detected	-1.091
SD of Detected	3.649
Minimum Non-Detect	-6.32
Maximum Non-Detect	-4.828

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	55
Number treated as Detected	6
Single DL Non-Detect Percentage	90.16%

Warning: There are only 8 Detected Values in this data
Note: It should be noted that even though bootstrap may be performed on this data set the resulting calculations may not be reliable enough to draw conclusions
It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.67
5% Shapiro Wilk Critical Value	0.818

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	0.909
SD	4.717
95% DL/2 (t) UCL	1.918
Maximum Likelihood Estimate(MLE) Method	N/A

MLE yields a negative mean

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.935
5% Shapiro Wilk Critical Value	0.818

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-5.415
SD	2.125
95% H-Stat (DL/2) UCL	0.104
Log ROS Method	
Mean in Log Scale	-7.215
SD in Log Scale	3.15
Mean in Original Scale	0.908
SD in Original Scale	4.718
95% t UCL	1.917
95% Percentile Bootstrap UCL	1.974
95% BCA Bootstrap UCL	2.593
95% H-UCL	0.614

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.231
Theta Star	29.89
nu star	3.702
A-D Test Statistic	0.354
5% A-D Critical Value	0.822
K-S Test Statistic	0.822
5% K-S Critical Value	0.321

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.000001
Maximum	34.4
Mean	0.907
Median	0.000001
SD	4.718
k star	0.0777
Theta star	11.67
Nu star	9.481
AppChi2	3.62
95% Gamma Approximate UCL (Use when n >= 40)	2.375
95% Adjusted Gamma UCL (Use when n < 40)	2.434

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	0.908
SD	4.679
SE of Mean	0.64
95% KM (t) UCL	1.978
95% KM (z) UCL	1.962
95% KM (jackknife) UCL	1.913
95% KM (bootstrap t) UCL	4.075
95% KM (BCA) UCL	2.154
95% KM (Percentile Bootstrap) UCL	2.086
95% KM (Chebyshev) UCL	3.7
97.5% KM (Chebyshev) UCL	4.908
99% KM (Chebyshev) UCL	7.28

Potential UCLs to Use

95% KM (t) UCL	1.978

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-3-1
STATISTICS FOR SURFACE SOIL - EASTERN AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Ethylbenzene
All units in mg/kg.

General Statistics

Number of Valid Data	61
Number of Distinct Detected Data	10

Number of Detected Data	10
Number of Non-Detect Data	51
Percent Non-Detects	83.61%

Raw Statistics

Minimum Detected	0.0025
Maximum Detected	51.3
Mean of Detected	12.33
SD of Detected	20.46
Minimum Non-Detect	0.0018
Maximum Non-Detect	0.008

Log-transformed Statistics

Minimum Detected	-5.991
Maximum Detected	3.938
Mean of Detected	-2.017
SD of Detected	4.085
Minimum Non-Detect	-6.32
Maximum Non-Detect	-4.828

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	56
Number treated as Detected	5
Single DL Non-Detect Percentage	91.80%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.655
5% Shapiro Wilk Critical Value	0.842

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method

Mean	2.023
SD	9.162
95% DL/2 (t) UCL	3.983

Maximum Likelihood Estimate(MLE) Method	N/A

MLE yields a negative mean

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.781
5% Shapiro Wilk Critical Value	0.842

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method

Mean	-5.404
SD	2.209
95% H-Stat (DL/2) UCL	0.133

Log ROS Method

Mean in Log Scale	-13.08
SD in Log Scale	5.889
Mean in Original Scale	2.021
SD in Original Scale	9.162
95% t UCL	3.981
95% Percentile Bootstrap UCL	4.192
95% BCA Bootstrap UCL	5.082
95% H-UCL	24631

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.184
Theta Star	67.15
nu star	3.672
A-D Test Statistic	1.333
5% A-D Critical Value	0.865
K-S Test Statistic	0.865
5% K-S Critical Value	0.296

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data

Minimum	0.000001
Maximum	51.3
Mean	2.021
Median	0.000001
SD	9.162
k star	0.0751
Theta star	26.9
Nu star	9.167
AppChi2	3.428
95% Gamma Approximate UCL (Use when n >= 40)	5.404
95% Adjusted Gamma UCL (Use when n < 40)	5.541

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

Kaplan-Meier (KM) Method

Mean	2.023
SD	9.087
SE of Mean	1.226
95% KM (t) UCL	4.072
95% KM (z) UCL	4.04
95% KM (jackknife) UCL	3.981
95% KM (bootstrap t) UCL	5.759
95% KM (BCA) UCL	4.193
95% KM (Percentile Bootstrap) UCL	4.121
95% KM (Chebyshev) UCL	7.369
97.5% KM (Chebyshev) UCL	9.682
99% KM (Chebyshev) UCL	14.23

Potential UCLs to Use

97.5% KM (Chebyshev) UCL	9.682

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-3-1
STATISTICS FOR SURFACE SOIL - EASTERN AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Naphthalene
All units in mg/kg.

General Statistics

Number of Valid Data	61
Number of Distinct Detected Data	5
Number of Detected Data	5
Number of Non-Detect Data	56
Percent Non-Detects	91.80%

Raw Statistics

Minimum Detected	0.0184
Maximum Detected	2
Mean of Detected	0.706
SD of Detected	0.823
Minimum Non-Detect	0.0018
Maximum Non-Detect	0.008

Log-transformed Statistics

Minimum Detected	-3.995
Maximum Detected	0.693
Mean of Detected	-1.365
SD of Detected	1.948
Minimum Non-Detect	-6.32
Maximum Non-Detect	-4.828

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	56
Number treated as Detected	5
Single DL Non-Detect Percentage	91.80%

Warning: There are only 5 Detected Values in this data
Note: It should be noted that even though bootstrap may be performed on this data set the resulting calculations may not be reliable enough to draw conclusions
It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.878
5% Shapiro Wilk Critical Value	0.762

Data appear Normal at 5% Significance Level

Assuming Normal Distribution
DL/2 Substitution Method

Mean	0.0601
SD	0.288
95% DL/2 (t) UCL	0.122

Maximum Likelihood Estimate(MLE) Method	N/A

MLE yields a negative mean

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.938
5% Shapiro Wilk Critical Value	0.762

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution
DL/2 Substitution Method

Mean	-5.673
SD	1.426
95% H-Stat (DL/2) UCL	0.0149

Log ROS Method

Mean in Log Scale	-12.6
SD in Log Scale	4.209
Mean in Original Scale	0.0579
SD in Original Scale	0.289
95% t UCL	0.12
95% Percentile Bootstrap UCL	0.125
95% BCA Bootstrap UCL	0.17
95% H-UCL	0.567

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.376
Theta Star	1.878
nu star	3.759
A-D Test Statistic	0.229
5% A-D Critical Value	0.706
K-S Test Statistic	0.706
5% K-S Critical Value	0.37

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution
Gamma ROS Statistics using Extrapolated Data

Minimum	0.000001
Maximum	2
Mean	0.0579
Median	0.000001
SD	0.289
k star	0.0903
Theta star	0.641
Nu star	11.02
AppChi2	4.586
95% Gamma Approximate UCL (Use when n >= 40)	0.139
95% Adjusted Gamma UCL (Use when n < 40)	0.142

Data Distribution Test with Detected Values Only
Data appear Normal at 5% Significance Level

Nonparametric Statistics
Kaplan-Meier (KM) Method

Mean	0.0748
SD	0.283
SE of Mean	0.0405
95% KM (t) UCL	0.142
95% KM (z) UCL	0.141
95% KM (jackknife) UCL	0.127
95% KM (bootstrap t) UCL	0.167
95% KM (BCA) UCL	1.029
95% KM (Percentile Bootstrap) UCL	0.996
95% KM (Chebyshev) UCL	0.251
97.5% KM (Chebyshev) UCL	0.328
99% KM (Chebyshev) UCL	0.478

Potential UCLs to Use

95% KM (t) UCL	0.142
95% KM (Percentile Bootstrap) UCL	0.996

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). For additional insight, the user may want to consult a statistician.

APPENDIX B-3-1
STATISTICS FOR SURFACE SOIL - EASTERN AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Tetrachloroethene
All units in mg/kg.

General Statistics

Number of Valid Data	61	Number of Detected Data	45
Number of Distinct Detected Data	43	Number of Non-Detect Data	16
		Percent Non-Detects	26.23%

Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.00082	Minimum Detected	-7.106
Maximum Detected	8.62	Maximum Detected	2.154
Mean of Detected	0.255	Mean of Detected	-3.986
SD of Detected	1.287	SD of Detected	1.723
Minimum Non-Detect	0.0035	Minimum Non-Detect	-5.655
Maximum Non-Detect	0.28	Maximum Non-Detect	-1.273

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	57
Number treated as Detected	4
Single DL Non-Detect Percentage	93.44%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Shapiro Wilk Test Statistic	0.206	Shapiro Wilk Test Statistic	0.91
5% Shapiro Wilk Critical Value	0.945	5% Shapiro Wilk Critical Value	0.945
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.191	Mean	-4.47
SD	1.107	SD	1.767
95% DL/2 (t) UCL	0.428	95% H-Stat (DL/2) UCL	0.104
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-4.664
		SD in Log Scale	1.891
		Mean in Original Scale	0.188
		SD in Original Scale	1.108
		95% t UCL	0.425
		95% Percentile Bootstrap UCL	0.465
		95% BCA Bootstrap UCL	0.619
		95% H-UCL	0.117

Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.265	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	0.961		
nu star	23.86		
A-D Test Statistic	7.487	**Nonparametric Statistics**	
5% A-D Critical Value	0.876	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.876	Mean	0.189
5% K-S Critical Value	0.144	SD	1.098
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.142
		95% KM (t) UCL	0.426
Assuming Gamma Distribution		95% KM (z) UCL	0.423
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	0.426
Minimum	0.000001	95% KM (bootstrap t) UCL	2.255
Maximum	8.62	95% KM (BCA) UCL	0.501
Mean	0.188	95% KM (Percentile Bootstrap) UCL	0.464
Median	0.009	95% KM (Chebyshev) UCL	0.809
SD	1.108	97.5% KM (Chebyshev) UCL	1.077
k star	0.159	99% KM (Chebyshev) UCL	1.604
Theta star	1.179		
Nu star	19.45	**Potential UCLs to Use**	
AppChi2	10.45	97.5% KM (Chebyshev) UCL	1.077
95% Gamma Approximate UCL (Use when n >= 40)	0.35		
95% Adjusted Gamma UCL (Use when n < 40)	0.356		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-3-1
STATISTICS FOR SURFACE SOIL - EASTERN AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Total Xylenes
All units in mg/kg.

General Statistics

Number of Valid Data	61
Number of Distinct Detected Data	9

Number of Detected Data	10
Number of Non-Detect Data	51
Percent Non-Detects	83.61%

Raw Statistics

Minimum Detected	0.0087
Maximum Detected	228.8
Mean of Detected	45.13
SD of Detected	79.83
Minimum Non-Detect	0.0037
Maximum Non-Detect	0.016

Log-transformed Statistics

Minimum Detected	-4.744
Maximum Detected	5.433
Mean of Detected	-1.066
SD of Detected	4.352
Minimum Non-Detect	-5.599
Maximum Non-Detect	-4.135

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	54
Number treated as Detected	7
Single DL Non-Detect Percentage	88.52%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.656
5% Shapiro Wilk Critical Value	0.842

Data not Normal at 5% Significance Level

Assuming Normal Distribution
DL/2 Substitution Method

Mean	7.402
SD	35.21
95% DL/2 (t) UCL	14.93

Maximum Likelihood Estimate(MLE) Method	N/A

MLE yields a negative mean

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.746
5% Shapiro Wilk Critical Value	0.842

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution
DL/2 Substitution Method

Mean	-4.663
SD	2.347
95% H-Stat (DL/2) UCL	0.415

Log ROS Method

Mean in Log Scale	-15.47
SD in Log Scale	7.789
Mean in Original Scale	7.398
SD in Original Scale	35.21
95% t UCL	14.93
95% Percentile Bootstrap UCL	15.47
95% BCA Bootstrap UCL	18.65
95% H-UCL	4.892E+11

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.176
Theta Star	255.9
nu star	3.526
A-D Test Statistic	1.336
5% A-D Critical Value	0.869
K-S Test Statistic	0.869
5% K-S Critical Value	0.296

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution
Gamma ROS Statistics using Extrapolated Data

Minimum	0.000001
Maximum	228.8
Mean	7.398
Median	0.000001
SD	35.21
k star	0.0703
Theta star	105.3
Nu star	8.574
AppChi2	3.071
95% Gamma Approximate UCL (Use when n >= 40)	20.65
95% Adjusted Gamma UCL (Use when n < 40)	21.2

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics
Kaplan-Meier (KM) Method

Mean	7.405
SD	34.92
SE of Mean	4.712
95% KM (t) UCL	15.28
95% KM (z) UCL	15.16
95% KM (jackknife) UCL	14.93
95% KM (bootstrap t) UCL	25.35
95% KM (BCA) UCL	14.9
95% KM (Percentile Bootstrap) UCL	15.44
95% KM (Chebyshev) UCL	27.95
97.5% KM (Chebyshev) UCL	36.83
99% KM (Chebyshev) UCL	54.29

Potential UCLs to Use

97.5% KM (Chebyshev) UCL	36.83

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

APPENDIX B-3-1
STATISTICS FOR SURFACE SOIL - EASTERN AREA
Clean Harbors Kansas, LLC- Wichita, Kansas

Trichloroethene
All units in mg/kg.

General Statistics

Number of Valid Data	61
Number of Distinct Detected Data	21
Number of Detected Data	21
Number of Non-Detect Data	40
Percent Non-Detects	65.57%

Raw Statistics

Minimum Detected	0.00095
Maximum Detected	1.34
Mean of Detected	0.0746
SD of Detected	0.29
Minimum Non-Detect	0.0027
Maximum Non-Detect	0.28

Log-transformed Statistics

Minimum Detected	-6.959
Maximum Detected	0.293
Mean of Detected	-4.89
SD of Detected	1.641
Minimum Non-Detect	-5.915
Maximum Non-Detect	-1.273

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	60
Number treated as Detected	1
Single DL Non-Detect Percentage	98.36%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.26
5% Shapiro Wilk Critical Value	0.908

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	0.0297
SD	0.172
95% DL/2 (t) UCL	0.0664
Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.873
5% Shapiro Wilk Critical Value	0.908

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-5.538
SD	1.193
95% H-Stat (DL/2) UCL	0.0114
Log ROS Method	
Mean in Log Scale	-5.908
SD in Log Scale	1.282
Mean in Original Scale	0.0269
SD in Original Scale	0.171
95% t UCL	0.0635
95% Percentile Bootstrap UCL	0.0709
95% BCA Bootstrap UCL	0.0963
95% H-UCL	0.00904

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.289
Theta Star	0.258
nu star	12.15
A-D Test Statistic	3.563
5% A-D Critical Value	0.846
K-S Test Statistic	0.846
5% K-S Critical Value	0.205

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.000001
Maximum	1.34
Mean	0.0261
Median	0.000001
SD	0.171
k star	0.12
Theta star	0.217
Nu star	14.68
AppChi2	7.04
95% Gamma Approximate UCL (Use when n >= 40)	0.0544
95% Adjusted Gamma UCL (Use when n < 40)	0.0554

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only
Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	0.0272
SD	0.17
SE of Mean	0.0223
95% KM (t) UCL	0.0644
95% KM (z) UCL	0.0638
95% KM (jackknife) UCL	0.0638
95% KM (bootstrap t) UCL	0.551
95% KM (BCA) UCL	0.0711
95% KM (Percentile Bootstrap) UCL	0.0708
95% KM (Chebyshev) UCL	0.124
97.5% KM (Chebyshev) UCL	0.166
99% KM (Chebyshev) UCL	0.249

Potential UCLs to Use

95% KM (Chebyshev) UCL	0.124

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.