File

Jump, Christine

From: Michael Stephenson <mstephenson@cameron-cole.com>
Sent: Tuesday, October 21, 2014 3:08 PM
To: Jump, Christine
Cc: SMITH, MARTIN L; Brady Gerber; sklaus@geostatenvironmental.com
Subject: CH Wichita Confirmation sampling
Attachments: Confirmatory Sample RL-MDL.pdf

Follow Up Flag: Follow up
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Hello Chris,

I am writing to request a revision to the approved confirmation sampling plan for the IRM currently being executed at the CH Wichita site.

As you are aware, there have been some changes in the regulatory approach to this IRM since our final response to comments on the IRM workplan in July 2014. The confirmation sampling approach outlined in the attached table was intended to satisfy both corrective action and closure concerns. Since that time, KDHE has indicated that they will not consider the subsurface data obtained through confirmation sampling for the purposes of closure. Rather, Clean Harbors will be required to sample for the full list of analytes that the facility is permitted to accept prior to going through final complete closure of the facility.

Previous work performed at the Site as presented in the IRM workplan and DRAFT RFI phase IV report have identified the presence of select COCs at concentrations exceeding interim action objectives. These COCs are comprised of several VOCs, three metals and one SVOC. Other compounds (pesticides, herbicides, pcbs) were not detected in any samples at concentrations exceeding IAOs. Considering that there is no evidence that these compounds are present in site soils at levels of concern, and that data collected at this time will not be considered in a future application for closure of the facility, Clean Harbors is requesting that pesticides, herbicides and PCBs be dropped from the confirmation sampling program. These constituents were previously proposed (and approved) to be analyzed in 10 % of confirmation samples.

The one SVOC that was detected at concentrations exceeding IAOs was aniline. This compound was detected in two building D samples collected from the upper 2 feet of the soil column and in both cases, the sample collected at deeper depths did not contain aniline at concentrations above laboratory detection limits. The soils with aniline exceeding IAOs will be excavated, and existing data within Building D adequately characterize the lateral and vertical distribution of aniline as extremely limited. For this reason, Clean Harbors is also requesting the SVOCs be eliminated from the confirmation sampling program.

In summary, Clean Harbors wishes to revise the confirmation sampling program to include only VOCs by USEPA Method 8260 and RCRA 8 metals. Confirmation samples analyzed for these compounds will be sufficient to confirm that the IAOs have been achieved for all compounds detected above IAOs in all previous site work.

Please call or email me with any questions or concerns. As the excavation is proceeding rather quickly, we appreciate your prompt attention to this matter.

Thank you,

Mike Stephenson
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Reporting Limits and Detection Limits
IRM Comfirmatory Samples
Clean Harbors Wichita

Compound	CAS No.	RL/PQL	MDL	IAO	Units	Phase I	Phase II	Phase III	Phase IV	Closure *
Volatile Organic Compounds (USEPA Method 8260)										
Acetone	67-64-1	50	15	51600	ug/kg	X	X	X	X	X
Acrolein	107-02-8	25	11	NA	ug/kg	X	X	X	X	X
Acrylonitrile	107-13-1	25	7.8	NA	ug/kg	X	X	X	X	X
Benzene	71-43-2	5	1	168	ug/kg	X	X	X	X	X
Bromobenzene	108-86-1	5	1.1	NA	ug/kg	X	X	X	X	X
Bromochloromethane	74-97-5	5	1.9	NA	ug/kg	X	X	X	X	X
Bromodichloromethane	75-27-4	5	1	NA	ug/kg	X	X	X	X	X
Bromoform	75-25-2	5	1.1	NA	ug/kg	X	X	X	X	X
n-Butylbenzene	104-51-8	5	1	50900	ug/kg	X	X	X	X	X
sec-Butylbenzene	135-98-8	5	1	82700	ug/kg	X	X	X	X	X
tert-Butylbenzene	98-06-6	5	1	10000000	ug/kg	X	X	X	X	X
Chlorobenzene	108-90-7	5	1	5100	ug/kg	X	X	X	X	X
Chloroethane	75-00-3	5	2.3	128000	ug/kg	X	X	X	X	X
Chloroform	67-66-3	5	1.1	850	ug/kg	X	X	X	X	X
o-Chlorotoluene	95-49-8	5	1	NA	ug/kg	X	X	X	X	X
p-Chlorotoluene	106-43-4	5	1	NA	ug/kg	X	X	X	X	X
2-Chloroethyl vinyl ether	110-75-8	25	10	NA	ug/kg	X	X	X	X	X
Carbon disulfide	75-15-0	5	1	6710	ug/kg	X	X	X	X	X
Carbon tetrachloride	56-23-5	5	1.4	73.4	ug/kg	X	X	X	X	X
1,1-Dichloroethane	75-34-3	5	1	269	ug/kg	X	X	X	X	X
1,1-Dichloroethylene	75-35-4	5	1	85.9	ug/kg	X	X	X	X	X
1,1-Dichloropropene	563-58-6	5	1.1	NA	ug/kg	X	X	X	X	X
1,2-Dibromo-3-chloropropane	96-12-8	5	2.1	NA	ug/kg	X	X	X	X	X
1,2-Dibromoethane	106-93-4	5	1.8	NA	ug/kg	X	X	X	X	X
1,2-Dichloroethane	107-06-2	5	1	60	ug/kg	X	X	X	X	X
1,2-Dichloropropane	78-87-5	5	1	81.7	ug/kg	X	X	X	X	X
1,3-Dichloropropane	142-28-9	5	1	NA	ug/kg	X	X	X	X	X
2,2-Dichloropropane	594-20-7	5	1.4	NA	ug/kg	X	X	X	X	X
Dibromochloromethane	124-48-1	5	1	NA	ug/kg	X	X	X	X	X
Dichlorodifluoromethane	75-71-8	5	1.3	NA	ug/kg	X	X	X	X	X
cis-1,2-Dichloroethylene	156-59-2	5	1	855	ug/kg	X	X	X	X	X
cis-1,3-Dichloropropene	10061-01-5	5	1	NA	ug/kg	X	X	X	X	X
m-Dichlorobenzene	541-73-1	5	1	NA	ug/kg	X	X	X	X	X
o-Dichlorobenzene	95-50-1	5	1	48400	ug/kg	X	X	X	X	X
p-Dichlorobenzene	106-46-7	5	1.1	5940	ug/kg	X	X	X	X	X
trans-1,2-Dichloroethylene	156-60-5	5	1.3	1220	ug/kg	X	X	X	X	X
trans-1,3-Dichloropropene	10061-02-6	5	1	NA	ug/kg	X	X	X	X	X
1,4-Dioxane (8260 SIM)	123-91-1	5	2	38.4	ug/kg	X	X	X	X	X
Ethylbenzene	100-41-4	5	1	65600	ug/kg	X	X	X	X	X
2-Hexanone	591-78-6	25	4.9	140000	ug/kg	X	X	X	X	X
Hexachlorobutadiene	87-68-3	5	1	1100	ug/kg	X	X	X	X	X
Isopropylbenzene	98-82-8	5	1	65100	ug/kg	X	X	X	X	X
p-Isopropyltoluene	99-87-6	5	1	NA	ug/kg	X	X	X	X	X
4-Methyl-2-pentanone	108-10-1	25	5	6690	ug/kg	X	X	X	X	X
Methyl bromide	74-83-9	5	1.9	NA	ug/kg	X	X	X	X	X
Methyl chloride	74-87-3	5	2	NA	ug/kg	X	X	X	X	X
Methylene bromide	74-95-3	5	1.2	NA	ug/kg	X	X	X	X	X
Methylene chloride	75-09-2	10	4	42.9	ug/kg	X	X	X	X	X
Methyl ethyl ketone	78-93-3	25	7.5	24200	ug/kg	X	X	X	X	X
Methyl Tert Butyl Ether	1634-04-4	5	1	848	ug/kg	X	X	X	X	X
Naphthalene	91-20-3	5	2	349	ug/kg	X	X	X	X	X
n-Propylbenzene	103-65-1	5	1	110000	ug/kg	X	X	X	X	X
Styrene	100-42-5	5	1	9340	ug/kg	X	X	X	X	X
1,1,1,2-Tetrachloroethane	630-20-6	5	1.1	NA	ug/kg	X	X	X	X	X
1,1,1-Trichloroethane	71-55-6	5	1	2800	ug/kg	X	X	X	X	X
1,1,2,2-Tetrachloroethane	79-34-5	5	1.4	16	ug/kg	X	X	X	X	X
1,1,2-Trichloroethane	79-00-5	5	1.6	81	ug/kg	X	X	X	X	X
1,2,3-Trichlorobenzene	87-61-6	5	1.2	NA	ug/kg	X	X	X	X	X

Reporting Limits and Detection Limits
IRM Comfirmatory Samples
Clean Harbors Wichita

Compound	CAS No.	RL/PQL	MDL	IAO	Units	Phase I	Phase II	Phase III	Phase IV	Closure *
1,2,3-Trichloropropane	96-18-4	5	1.9	NA	ug/kg	X	X	X	X	X
1,2,4-Trichlorobenzene	120-82-1	5	1.2	NA	ug/kg	X	X	X	X	X
1,2,4-Trimethylbenzene	95-63-6	5	1	1070	ug/kg	X	X	X	X	X
1,3,5-Trimethylbenzene	108-67-8	5	1	5510	ug/kg	X	X	X	X	X
Tetrachloroethylene	127-18-4	5	1.3	121	ug/kg	X	X	X	X	X
Toluene	108-88-3	5	1	51200	ug/kg	X	X	X	X	X
Trichloroethylene	79-01-6	5	1	84.2	ug/kg	X	X	X	X	X
Trichlorofluoromethane	75-69-4	5	1	NA	ug/kg	X	X	X	X	X
Vinyl chloride	75-01-4	5	1	20.5	ug/kg	X	X	X	X	X
Vinyl Acetate	108-05-4	25	8	NA	ug/kg	X	X	X	X	X
m,p-Xylene		10	1.6	NA	ug/kg	X	X	X	X	X
o-Xylene	95-47-6	5	1.1	809000	ug/kg	X	X	X	X	X
Semi-Volatile Organic Compounds (USEPA Method 8270)										
Benzoic Acid	65-85-0	830	170	NA	ug/kg	X	X	X	X	X
2-Chlorophenol	95-57-8	170	17	NA	ug/kg	X	X	X	X	X
4-Chloro-3-methyl phenol	59-50-7	170	17	NA	ug/kg	X	X	X	X	X
2,4-Dichlorophenol	120-83-2	170	17	NA	ug/kg	X	X	X	X	X
2,4-Dimethylphenol	105-67-9	170	18	29900	ug/kg	X	X	X	X	X
2,4-Dinitrophenol	51-28-5	830	170	NA	ug/kg	X	X	X	X	X
4,6-Dinitro-o-cresol	534-52-1	330	67	NA	ug/kg	X	X	X	X	X
2-Methylphenol	95-48-7	170	17	48600	ug/kg	X	X	X	X	X
3&4-Methylphenol		170	33	NA	ug/kg	X	X	X	X	X
2-Nitrophenol	88-75-5	170	17	NA	ug/kg	X	X	X	X	X
4-Nitrophenol	100-02-7	830	130	NA	ug/kg	X	X	X	X	X
Pentachlorophenol	87-86-5	830	130	996	ug/kg	X	X	X	X	X
Phenol	108-95-2	170	17	189000	ug/kg	X	X	X	X	X
2,4,5-Trichlorophenol	95-95-4	170	21	NA	ug/kg	X	X	X	X	X
2,4,6-Trichlorophenol	88-06-2	170	17	NA	ug/kg	X	X	X	X	X
Acenaphthene	83-32-9	170	21	255000	ug/kg	X	X	X	X	X
Acenaphthylene	208-96-8	170	17	NA	ug/kg	X	X	X	X	X
Aniline	62-53-3	170	17	1950	ug/kg	X	X	X	X	X
Anthracene	120-12-7	170	17	3770000	ug/kg	X	X	X	X	X
Benzidine	92-87-5	1700	330	NA	ug/kg	X	X	X	X	X
Benzo(a)anthracene	56-55-3	170	17	7890	ug/kg	X	X	X	X	X
Benzo(a)pyrene	50-32-8	170	17	23500	ug/kg	X	X	X	X	X
Benzo(b)fluoranthene	205-99-2	170	17	19200	ug/kg	X	X	X	X	X
Benzo(g,h,i)perylene	191-24-2	170	17	NA	ug/kg	X	X	X	X	X
Benzo(k)fluoranthene	207-08-9	170	18	190000	ug/kg	X	X	X	X	X
4-Bromophenyl phenyl ether	101-55-3	170	17	NA	ug/kg	X	X	X	X	X
Butyl benzyl phthalate	85-68-7	170	33	478000	ug/kg	X	X	X	X	X
Benzyl Alcohol	100-51-6	170	17	NA	ug/kg	X	X	X	X	X
2-Chloronaphthalene	91-58-7	170	20	NA	ug/kg	X	X	X	X	X
4-Chloroaniline	106-47-8	170	17	NA	ug/kg	X	X	X	X	X
Carbazole	86-74-8	170	17	52700	ug/kg	X	X	X	X	X
Chrysene	218-01-9	170	17	805000	ug/kg	X	X	X	X	X
bis(2-Chloroethoxy)methane	111-91-1	170	17	NA	ug/kg	X	X	X	X	X
bis(2-Chloroethyl)ether	111-44-4	170	17	NA	ug/kg	X	X	X	X	X
bis(2-Chloroisopropyl)ether	108-60-1	170	17	NA	ug/kg	X	X	X	X	X
4-Chlorophenyl phenyl ether	7005-72-3	170	25	NA	ug/kg	X	X	X	X	X
1,2-Dichlorobenzene	95-50-1	170	17	48400	ug/kg	X	X	X	X	X
1,2-Diphenylhydrazine	122-66-7	170	19	NA	ug/kg	X	X	X	X	X
1,3-Dichlorobenzene	541-73-1	170	17	NA	ug/kg	X	X	X	X	X
1,4-Dichlorobenzene	106-46-7	170	17	5940	ug/kg	X	X	X	X	X
2,4-Dinitrotoluene	121-14-2	170	19	NA	ug/kg	X	X	X	X	X
2,6-Dinitrotoluene	606-20-2	170	18	NA	ug/kg	X	X	X	X	X
3,3'-Dichlorobenzidine	91-94-1	170	17	NA	ug/kg	X	X	X	X	X
Dibenzo(a,h)anthracene	53-70-3	170	17	3080	ug/kg	X	X	X	X	X
Dibenzofuran	132-64-9	170	17	7590	ug/kg	X	X	X	X	X
Di-n-butyl phthalate	84-74-2	330	33	318000	ug/kg	X	X	X	X	X

Reporting Limits and Detection Limits
IRM Comfirmatory Samples
Clean Harbors Wichita

Compound	CAS No.	RL/PQL	MDL	IAO	Units	Phase I	Phase II	Phase III	Phase IV	Closure *
Di-n-octyl phthalate	117-84-0	170	33	NA	ug/kg	X	X	X	X	X
Diethyl phthalate	84-66-2	330	33	NA	ug/kg	X	X	X	X	X
Dimethyl phthalate	131-11-3	170	33	NA	ug/kg	X	X	X	X	X
bis(2-Ethylhexyl)phthalate	117-81-7	330	33	144000	ug/kg	X	X	X	X	X
Fluoranthene	206-44-0	170	17	2830000	ug/kg	X	X	X	X	X
Fluorene	86-73-7	170	17	297000	ug/kg	X	X	X	X	X
Hexachlorobenzene	118-74-1	170	17	1240	ug/kg	X	X	X	X	X
Hexachlorobutadiene	87-68-3	170	17	1100	ug/kg	X	X	X	X	X
Hexachlorocyclopentadiene	77-47-4	170	17	NA	ug/kg	X	X	X	X	X
Hexachloroethane	67-72-1	170	17	NA	ug/kg	X	X	X	X	X
Indeno(1,2,3-cd)pyrene	193-39-5	170	17	45500	ug/kg	X	X	X	X	X
Isophorone	78-59-1	170	17	1800000	ug/kg	X	X	X	X	X
1-Methylnaphthalene	90-12-0	170	17	2190	ug/kg	X	X	X	X	X
2-Methylnaphthalene	91-57-6	170	17	8340	ug/kg	X	X	X	X	X
2-Nitroaniline	88-74-4	170	33	NA	ug/kg	X	X	X	X	X
3-Nitroaniline	99-09-2	170	33	NA	ug/kg	X	X	X	X	X
4-Nitroaniline	100-01-6	170	33	NA	ug/kg	X	X	X	X	X
Naphthalene	91-20-3	170	17	349	ug/kg	X	X	X	X	X
Nitrobenzene	98-95-3	170	17	NA	ug/kg	X	X	X	X	X
N-Nitrosodimethylamine	62-75-9	170	19	NA	ug/kg	X	X	X	X	X
N-Nitroso-di-n-propylamine	621-64-7	170	17	NA	ug/kg	X	X	X	X	X
N-Nitrosodiphenylamine	86-30-6	170	17	350000	ug/kg	X	X	X	X	X
Phenanthrene	85-01-8	170	17	NA	ug/kg	X	X	X	X	X
Pyrene	129-00-0	170	17	2190000	ug/kg	X	X	X	X	X
Pyridine	110-86-1	330	33	NA	ug/kg	X	X	X	X	X
1,2,4-Trichlorobenzene	120-82-1	170	17	NA	ug/kg	X	X	X	X	X
Dalapon (8151MS)										
Dalapon	75-99-0	5	1.5	929	ug/kg	X**				X
Pesticides (8081)										
Aldrin	309-00-2	1.7	0.34	NA	ug/kg					X
alpha-BHC	319-84-6	1.7	0.33	NA	ug/kg					X
beta-BHC	319-85-7	1.7	0.33	NA	ug/kg					X
delta-BHC	319-86-8	1.7	0.37	NA	ug/kg					X
gamma-BHC (Lindane)	58-89-9	1.7	0.33	NA	ug/kg					X
alpha-Chlordane	5103-71-9	1.7	0.35	NA	ug/kg					X
gamma-Chlordane	5103-74-2	1.7	0.4	NA	ug/kg					X
Dieldrin	60-57-1	1.7	0.38	193	ug/kg					X
4,4'-DDD	72-54-8	3.3	0.39	31800	ug/kg					X
4,4'-DDE	72-55-9	3.3	0.41	24100	ug/kg					X
4,4'-DDT	50-29-3	3.3	0.33	24600	ug/kg					X
Endrin	72-20-8	3.3	0.33	NA	ug/kg					X
Endosulfan sulfate	1031-07-8	3.3	0.34	NA	ug/kg					X
Endrin aldehyde	7421-93-4	3.3	0.33	NA	ug/kg					X
Endrin ketone	53494-70-5	3.3	0.33	NA	ug/kg					X
Endosulfan-I	959-98-8	1.7	0.36	NA	ug/kg					X
Endosulfan-II	33213-65-9	1.7	0.33	NA	ug/kg					X
Heptachlor	76-44-8	1.7	0.39	NA	ug/kg					X
Heptachlor epoxide	1024-57-3	1.7	0.36	405	ug/kg					X
Methoxychlor	72-43-5	3.3	0.4	215000	ug/kg					X
Toxaphene	8001-35-2	83	33	46300	ug/kg					X
Herbicides (8151)										
2,4-D	94-75-7	33	5.6	NA	ug/kg					X
2,4,5-TP (Silvex)	93-72-1	3.3	0.9	NA	ug/kg					X
2,4,5-T	93-76-5	3.3	0.66	3750	ug/kg					X
Dicamba	1918-00-9	3.3	1.1	NA	ug/kg					X
Dinoseb	88-85-7	83	17	NA	ug/kg					X
Dalapon	75-99-0	170	33	929	ug/kg					X
Dichloroprop	120-36-5	33	12	NA	ug/kg					X
2,4-DB	94-82-6	33	12	NA	ug/kg					X

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MCPP	93-65-2	3300	880	NA	ug/kg					X
MCPA	94-74-6	3300	790	NA	ug/kg					X
Pentachlorophenol	87-86-5	3.3	0.5	996	ug/kg					X
PCBs (8082)										
Aroclor 1016	12674-11-2	17	6.6	NA	ug/kg					X
Aroclor 1221	11104-28-2	17	8.3	NA	ug/kg					X
Aroclor 1232	11141-16-5	17	8.3	NA	ug/kg					X
Aroclor 1242	53469-21-9	17	6.6	NA	ug/kg					X
Aroclor 1248	12672-29-6	17	6.6	NA	ug/kg					X
Aroclor 1254	11097-69-1	17	6.6	***	ug/kg					X
Aroclor 1260	11096-82-5	17	6.6	NA	ug/kg					X
RCRA 8 Metals (USEPA Method 6010/6020)										
Arsenic	7440-38-2	0.5	0.1	63.2	mg/kg	X	X	X	X	X
Barium	7440-39-3	10	0.05	277000	mg/kg	X	X	X	X	X
Cadmium	7440-43-9	0.2	0.025	965	mg/kg	X	X	X	X	X
Chromium	7440-47-3	0.5	0.05	111	mg/kg	X	X	X	X	X
Mercury (7470/7471)	7439-97-6	0.041	0.0041	20	mg/kg	X	X	X	X	X
Lead	7439-92-1	1	0.08	1000	mg/kg	X	X	X	X	X
Selenium	7782-49-2	1	0.15	10200	mg/kg	X	X	X	X	X
Silver	7440-22-4	0.5	0.0325	10200	mg/kg	X	X	X	X	X

* - Analysis of closure analytes to be performed beneath buildings undergoing closure (Buildings B, C, D and the process area)
This work will be performed during phases III and IV of the IRM.
** - Samples for Dalapon by 8151 MS to be collected only beneath Building J and not in other phase I excavations.
*** - PCB detections in confirmation soil samples will be addressed in consultation with EPA.
RL/PQL - Reporting Limit or Practical Quantitation Limit
MDL - Method Detection Limit
IAO - Interim Action Objective for compounds detected duirng previous RFI phases. No IAOs are proposed for compounds not detected to date.
ug/kg - micrograms per kilogram
mg/kg - milligrams per kilogram
X - Denotes that confirmation sampling for the specified analyte will be performed
VOCs are to be analyzed in every confirmation sample collected
Metals are to be analyzed in all confirmation samples from the Northeastern Corner and Processing Area excavations
Metals are to be analyzed at a frequency of 10% of the VOC samples in other areas of the Site
SVOCs, Pesticides, Herbicides and PCBs are to be analyzed at a frequency of 10% of the VOC samples in the areas specified.