

From: Lauridsen, Keld B - DNR
To: "[Lysne, Bjorn](#)"
Cc: [Boreen, Lee](#); [Bauer, Eric](#); [Olson, Beth J - DNR](#); [Kincaid, Gary W - DNR](#); [Chronert, Roxanne N - DNR](#); [Von Holdt, Crystal L - DNR](#)
Subject: RE: Emailing: City Slip Analytical Results Summary Table.pdf
Date: Friday, May 26, 2017 3:58:00 PM
Attachments: [City Slip Analytical Results Summary Table.pdf](#)

Bjorn,

Thank you for providing me the analytical results for the 5 composite soil samples collected along the City Slip. Based on our phone conversation yesterday and my review of the soil data, it would seem to me that considering what we currently know, on-site reuse of any soil excavated along the south side of the City Slip would be an option available, if all the involved parties agree.

Prior to any on-site reuse of excavated material, a soil management plan per s. NR718.12, Wisconsin Admin. Code should be submitted for Department review. Please note that this will be a fee based review covered under the Other Technical Assistance review fee of \$700.

Also, the appropriate direct contact soil standards applied to this property should be the non-industrial rather than the industrial due to current and planned future use not likely being industrial.

Let me know if anybody has any questions or concerns.

Have a great weekend.

-Keld

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Keld B. Lauridsen
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-----Original Message-----

From: Lysne, Bjorn [<mailto:Bjorn.Lysne@tetrattech.com>]
Sent: Thursday, May 25, 2017 2:00 PM
To: Lauridsen, Keld B - DNR
Cc: Boreen, Lee; Bauer, Eric
Subject: FW: Emailing: City Slip Analytical Results Summary Table.pdf

Good afternoon Keld,

Please find the attached composite results from our soil characterization of City Slip.

If you have time, we'd like to discuss a path forward with you shortly.

Thank you,

Bjorn

-----Original Message-----

From: Boreen, Lee
Sent: Thursday, May 25, 2017 1:58 PM
To: Lysne, Bjorn <Bjorn.Lysne@tetrattech.com>
Subject: Emailing: City Slip Analytical Results Summary Table.pdf

Your message is ready to be sent with the following file or link attachments:

City Slip Analytical Results Summary Table.pdf

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City Slip Upland Soil Composite Sample Results

Parameter	TTFR-17-COMP1-001			TTFR-17-COMP2-001			TTFR-17-COMP3-001			TTFR-17-COMP4-001			TTFR-17-COMP5-001			Limits (mg/Kg)				
	flag	Result (mg/Kg)	Qual	flag	Result (mg/Kg)	Qual	flag	Result (mg/Kg)	Qual	flag	Result (mg/Kg)	Qual	flag	Result (mg/Kg)	Qual	Groundwater RCL	Industrial BTV	DC	ADS TCLP	
Metals																				
Arsenic		4.7	J		3.1	J		1.9	J		2.5	J		4.7	J		0.584	8.0	8.3	<5.0 mg/L
Barium		54.8			47.5			34.5			13.6			43.6			165	364	100,000	<100.0 mg/L
Cadmium		0.25	J	<	0.15	U	<	0.16	U	<	0.13	U	<	0.15	U		0.752	1.0	985	<1.0 mg/L
Chromium		14.3			14.8			13.0			6.1			16.8			360,000	44	None	<5.0 mg/L
Copper		25.8			39.4			8.9			9.6			48.0			91.6	35	46,700	<200.0 mg/L
Lead		209	MO,R1		41.2			5.1			6.7			98.1			27.0	52	800	<5.0 mg/L
Nickel		8.8			11.1			9.0			5.3			11.1			13.1	31	22,500	<35.0 mg/L
Selenium	<	1.3	U	<	1.2	U	<	1.3	U	<	1.1	U	<	1.2	U		0.52	None	5,840	<1.0 mg/L
Silver	<	0.40	U	<	0.38	U	<	0.41	U	<	0.35	U	<	0.39	U		0.85	None	None	<5.0 mg/L
Zinc		111	MO		42.0			17.1			21.2			66.4			None	150	100,000	<500.0 mg/L
Mercury		0.074			0.016	J	<	0.013	U	<	0.012	U		0.017	J		0.21	None	3.13	<0.2 mg/L
VOC		ND			ND			ND			ND			ND			NA	NA	NA	NA
GRO	<	2.9	U	<	2.9	U	<	3.2	U	<	2.8	U	<	2.9	U		NA	NA	NA	NA
DRO		10.6	DC		9.6	DC	<	1.7	U	<	1.4	U		10.4			NA	NA	NA	NA
Percent moisture		13.9			14.2			22.1			9.9			13.3			NA	NA	NA	NA
PAHs																				
1-Methylnaphthalene		0.096			0.074		<	0.005	U		0.018			0.333			None	None	72.7	None
2-Methylnaphthalene		0.128			0.099		<	0.006	U		0.024			0.430			None	None	3,010	None
Acenaphthene		0.007	J		0.005	J	<	0.005	U	<	0.004	U		0.011	J		None	None	45,200	None
Acenaphthylene		0.023			0.017		<	0.004	U	<	0.004	U		0.011	J		None	None	None	None
Anthracene		0.036			0.019	J	<	0.007	U	<	0.006	U		0.033			197	None	100,000	None
Benzo(a)anthracene		0.072			0.079		<	0.004	U		0.004	J		0.067			None	None	20.8	None
Benzo(a)pyrene		0.093			0.067		<	0.003	U		0.005	J		0.061			0.47	None	2.1	None
Benzo(b)fluoranthene		0.083			0.065		<	0.004	U		0.006	J		0.083			0.48	None	21.1	None
Benzo(g,h,i)perylene		0.036			0.038		<	0.003	U		0.004	J		0.023			None	None	None	None
Benzo(k)fluoranthene		0.102			0.057		<	0.003	U		0.007	J		0.079			None	None	211	None
Chrysene		0.097			0.130		<	0.004	U		0.007	J		0.116			0.115	None	2,110	None
Dibenz(a,h)anthracene		0.014			0.015		<	0.003	U	<	0.003	U		0.011			None	None	2.11	None
Fluoranthene		0.129			0.093		<	0.007	U		0.006	J		0.110			88.9	None	30,100	None
Fluorene		0.015	J		0.007	J	<	0.005	U	<	0.005	U		0.019			14.8	None	30,100	None
Indeno(1,2,3-cd)pyrene		0.034			0.036		<	0.003	U		0.004	J		0.020			None	None	21.1	None
Naphthalene		0.103			0.084		<	0.011	U		0.020	J		0.312			0.658	None	24.1	None
Phenanthrene		0.125			0.066		<	0.015	U	<	0.013	U		0.252			None	None	None	None
Pyrene		0.133			0.092		<	0.006	U		0.006	J		0.103			54.5	None	22,600	None

Notes:

- DC - Chromatographic pattern inconsistent with typical Diesel Fuel.
- L1 - Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.
- MO - Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- R1 - RPD value was outside control limits.
- W Non-detect results are reported on a wet weight basis.

Groundwater RCL Exceedence