DCR - A + B

TABLE 2 - Analyses of Grab Samples

Outfall	Outfall 001A	Tandem Mill	Storm Water	Leachate
Matrix	Water	Water	Water	Water
Date Collected	5/15/2006	5/15/2006	5/15/2006	5/15/2006
Time Collected	12:11	14:20	14:48	11:35
	mg/l	mg/l	mg/l	mg/l
Temperature (F)	58	55	55	51
pH (S.U.)	8.06	7.64	7.55	11.75
Chlorine	<0.01	<0.01	<0.01	<0.01
Dissolved Oxygen	8.7	7.0	6.3	---
Suspended Solids	85	7	8	<4
Dissolved Solids	1200	1600	920	1300
CBOD-5	<6	6	<2	99
NH3	2.8	0.01	0.02	12 P
Available Cyanide	<ND	0.002	<0.005	0.009
Alkalinity (as CaCO3)	157	146	193	533
Conductivity (umho/cm)	1923	2058	1416	3090
Hardness (as CaCO3)	207	880	465	238
Calcium	66.3	255 D	134 D	95.3
Magnesium	10.1	59 D	31.7	ND
Oil and Grease (grav)	<10	16	<10	<10
	ug/l	ug/l	ug/l	ug/l
Phenolics	<10	<10	<10	17000 DP
Total Cadmium (Cd)	<0.2	<0.2	0.44	<0.2
Total Chromium (Cr)	2.8	1.1	1.0	1.1
Total Copper (Cu)	5.4	7.2	4.0	5.6
Total Lead (Pb)	<1	<1	<1	<1
Total Nickel (Ni)	71	24	12	260
Total Zinc (Zn)	17	42	39	<10
Total Barium (Ba)	47	34	64	150
Total Silver (Ag)	<0.2	<0.2	<0.2	<0.2
Total Mercury (Hg)	<0.2	<0.2	<0.2	<0.2
Hexavalent Chromium (Cr+6)	<5 H	<5 H	<5	<5 H
Total Iron (Fe)	3600	1500	230	30
Total Cobalt (Co)	<15	<15	<15	<15
Total Lithium (Li)	100	12	16	140
Total Manganese (Mn)	85	640	50	<5
Total Aluminum (Al)	1300 D	<50	71	1500 D
Total Beryllium (Be)	<1	<1	<1	<1
Total Titanium (Ti)	29	<10	<10	<10
Total Thallium (Tl)	<2	<2	<2	<2

United States Environmental Protection Agency
Region 5
Emergency Response Branch
Response Section 1, SE-GI
9311 Groh Road, Grosse Ile, MI 48138
Verification No.: 734-692-7660
Facsimile No.: 734-692-7677

FACSIMILE COVER SHEET

DATE: 6/11/2007

TO: DAN CAPONE

OFFICE: WESTON SOLUTIONS

FAX NO: 517.381.5921

FROM: B. SCHLIEGER

NO. PAGES: 14 (INCLUDING COVER SHEET)

COMMENTS: DSC ANALYTICAL

DSC Ltd.

1491 W. Jefferson Ave.
Trenton, MI 48183
(734) 246-4002
(734) 246-4040 *(fax)*

March 16, 2007

Ms. Tracy Kecskemeti
Southeast Michigan District Office
Water Bureau
27700 Donald Court
Warren, Michigan 48092

Dear Ms. Kecskemeti,

SUBJECT: NPDES PERMIT NO. MI0004227

In your letter dated August 17, 2006 you forwarded PCB results from the Tandem Mill Pond (TMP) sampling that you conducted in May of 2006 and had questioned whether the water discharged from the (TMP) was authorized in our current NPDES permit. Your analysis detected low levels of PCBs. We are uncertain why low levels of PCBs were detected because when the unit was closed PCBs were not detected in the soil samples. In our letter back to you we agreed to conduct additional PCB sampling in an effort to determine if PCBs were a likely contaminate before discharging to the Gibraltar treatment system.

Attached are the PCB analytical, chain of custody and drawing showing the sample locations. In all instances the analysis of the water and soil samples did not detect PCBs. Two oil samples taken from an area outside of the TMP did however detect low level PCBs. Based on this information, we request approval to resume discharging the TMP storm water to the treatment system. The discharge from the TMP, in our opinion, was included in the Wastewater permit application submitted in March 2002 as is authorized. The application identified industrial storm water as a source and the discharge from the TMP is industrial storm water. No process or groundwater enters the TMP. The only water that collects in the pond is the storm water that comes in contact with the oily banks of the TMP.

To avoid discharging any oil that may accumulate on the surface of the TMP, the water is pumped from the base of the pond to the treatment system.

I hope that this addresses your concerns. Please contact me at if you have any questions.

Sincerely,

Michael Wilkinson
President

Paragon
Laboratories, Inc.

Final Analytical Report

Generated 02/06/07 11 47

Project Number: 158596
Work ID: DSC-013007

Client ID: DSC
Contact: Laura Keener

P.O. # :

Lab ID: 1585960003
Sample ID: PCB. GRAB
Description: #4227
Collected By: Tom Konikowski

Collected: 01/29/07 10:30
Received: 01/30/07 12:32
Completed: 02/05/07 12:42
Matrix: Wastewater SW

Parameter	Result	RDL	Dil.	Units	Qual.	Method	Analyzed	Tech
Polychlorinated Biphenyls(PCB)								
PCB Aroclor 1016	<0 10	0 10	1	ug/L		EPA 608	02/02/07 18:29	DGK
PCB Aroclor 1221	<0 10	0 10	1	ug/L		EPA 608	02/02/07 18:29	DGK
PCB Aroclor 1232	<0 10	0 10	1	ug/L		EPA 608	02/02/07 18:29	DGK
PCB Aroclor 1242	<0 10	0 10	1	ug/L		EPA 608	02/02/07 18:29	DGK
PCB Aroclor 1248	<0.10	0 10	1	ug/L		EPA 608	02/02/07 18 29	DGK
PCB Aroclor 1254	<0 10	0 10	1	ug/L		EPA 608	02/02/07 18.29	DGK
PCB Aroclor 1260	<0 10	0 10	1	ug/L		EPA 608	02/02/07 18:29	DGK
Sample Preparation								
Sep Funnel Extraction. PCBs	Complete		1			EPA 608	01/31/07 7 45	DLC

STORM WATER POND

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Final Analytical Report

Generated 02/06/07 11:47

Project Number: 158596
Work ID: DSC-013007

Client ID: DSC
Contact: Laura Keener

PO #:

Lab ID: 1585960002
Sample ID: PCB #1, GRAB
Description: #4227
Collected By: Tom Konikowski

Collected: 01/29/07 10:15
Received: 01/30/07 12:32
Completed: 02/02/07 10:15
Matrix: Used Oil

Parameter	Result	RDL	Dil.	Units	Qual.	Method	Analyzed	Tech
PCBs in Liquid								
PCB Aroclor 1016	<30	30	1	ppm		EPA 8082	02/01/07 17:23	DGK
PCB Aroclor 1221	<30	30	1	ppm		EPA 8082	02/01/07 17:23	DGK
PCB Aroclor 1232	<30	30	1	ppm		EPA 8082	02/01/07 17:23	DGK
PCB Aroclor 1242	<30	30	1	ppm		EPA 8082	02/01/07 17:23	DGK
PCB Aroclor 1248	<30	30	1	ppm		EPA 8082	02/01/07 17:23	DGK
PCB Aroclor 1254	<30	30	1	ppm		EPA 8082	02/01/07 17:23	DGK
PCB Aroclor 1260	41	10	1	ppm		EPA 8082	02/01/07 17:23	DGK

OIL SAMPLE #1

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Final Analytical Report

Generated 02/06/07 11 47

Project Number: 158596
Work ID: DSC-013007

Client ID: DSC
Contact: Laura Keener

P.O. #:

Lab ID: 1585960004
Sample ID: PCB #2, GRAB
Description: #4227
Collected By: Tom Konikowski

Collected: 01/29/07 10:15
Received: 01/30/07 12:32
Completed: 02/02/07 10:15
Matrix: Used Oil

Parameter	Result	RDL	Dil.	Units	Qual.	Method	Analyzed	Tech
PCBs in Liquid								
PCB Aroclor 1016	<60	60	1	ppm		EPA 8082	02/01/07 18:34	DGK
PCB Aroclor 1221	<60	60	1	ppm		EPA 8082	02/01/07 18:34	DGK
PCB Aroclor 1232	<60	60	1	ppm		EPA 8082	02/01/07 18:34	DGK
PCB Aroclor 1242	<60	60	1	ppm		EPA 8082	02/01/07 18:34	DGK
PCB Aroclor 1248	<60	60	1	ppm		EPA 8082	02/01/07 18:34	DGK
PCB Aroclor 1254	<60	60	1	ppm		EPA 8082	02/01/07 18:34	DGK
PCB Aroclor 1260	32	10	1	ppm		EPA 8082	02/01/07 18:34	DGK

OIL SAMPLE #2

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Final Analytical Report

Generated 03/01/07 10:19

Project Number: 158794
Work ID: DSC-022107
Client ID: DSC
Contact: Laura Keener
P.O. #:

Lab ID: 1587940001
Sample ID: #4227, Grab
Description: Gibralter 2007
Collected By: Tom Konikowski

Collected: 02/21/07 9:45
Received: 02/21/07 17:45
Completed: 02/26/07 9:54
Matrix: Wastewater

Parameter	Result	RDL	Dil.	Units	Qual.	Method	Analyzed	Tech
Polychlorinated Biphenyls(PCB)								
PCB Aroclor 1016	<0.10	0.10	1	ug/L		EPA 608	02/24/07 23:00	DGK
PCB Aroclor 1221	<0.10	0.10	1	ug/L		EPA 608	02/24/07 23:00	DGK
PCB Aroclor 1232	<0.10	0.10	1	ug/L		EPA 608	02/24/07 23:00	DGK
PCB Aroclor 1242	<0.10	0.10	1	ug/L		EPA 608	02/24/07 23:00	DGK
PCB Aroclor 1248	<0.10	0.10	1	ug/L		EPA 608	02/24/07 23:00	DGK
PCB Aroclor 1254	<0.10	0.10	1	ug/L		EPA 608	02/24/07 23:00	DGK
PCB Aroclor 1260	<0.10	0.10	1	ug/L		EPA 608	02/24/07 23:00	DGK
Sample Preparation								
Sep Funnel Extraction, PCBs	Complete		1			EPA 608	02/23/07 7:20	DLC

From TMP 1&2

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Final Analytical Report

Generated: 03/01/07 10:19

Project Number: 158794
Work ID: DSC-022107

Client ID: DSC
Contact: Laura Keener

P.O. #:

Lab ID: 1587940002
Sample ID: #4227, Grab
Description: Gibralter 2007
Collected By: Tom Konikowski

Collected: 02/21/07 9:45
Received: 02/21/07 17:45
Completed: 03/01/07 10:18
Matrix: Wastewater

Parameter	Result	RDL	Dil.	Units	Qual.	Method	Analyzed	Tech
Polychlorinated Biphenyls(PCB)								
PCB Aroclor 1016	<0.10	0.10	1	ug/L		EPA 608	02/24/07 23:30	DGK
PCB Aroclor 1221	<0.10	0.10	1	ug/L		EPA 608	02/24/07 23:30	DGK
PCB Aroclor 1232	<0.10	0.10	1	ug/L		EPA 608	02/24/07 23:30	DGK
PCB Aroclor 1242	<0.10	0.10	1	ug/L		EPA 608	02/24/07 23:30	DGK
PCB Aroclor 1248	<0.10	0.10	1	ug/L		EPA 608	02/24/07 23:30	DGK
PCB Aroclor 1254	<0.10	0.10	1	ug/L		EPA 608	02/24/07 23:30	DGK
PCB Aroclor 1260	<0.10	0.10	1	ug/L		EPA 608	02/24/07 23:30	DGK
Sample Preparation								
Sep Funnel Extraction PCBs	Complete		1			EPA 608	02/23/07 7:20	DLC

From TMP 1 + 2

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Final Analytical Report

Generated 01/12/07 11:28

Project Number: 158384
Work ID: DSC-010907
Client ID: DSC
Contact: Laura Keener
P.O. #:

Lab ID: 1583840001
Sample ID: PCB #3. GRAB
Description: Gibraltar
Collected By: Tom Konikowski
Collected: 01/08/07 15:00
Received: 01/09/07 15:15
Completed: 01/12/07 10:28
Matrix: Wastewater

Parameter	Result	RDL	Dil.	Units	Qual.	Method	Analyzed	Tech
Polychlorinated Biphenyls(PCB)								
PCB Aroclor 1016	<2.0	2.0	1	ug/l		EPA 608	01/10/07 19:09	DGK
PCB Aroclor 1221	<2.0	2.0	1	ug/L		EPA 608	01/10/07 19:09	DGK
PCB Aroclor 1232	<2.0	2.0	1	ug/L		EPA 608	01/10/07 19:09	DGK
PCB Aroclor 1242	<2.0	2.0	1	ug/L		EPA 608	01/10/07 19:09	DGK
PCB Aroclor 1248	<0.10	0.10	1	ug/l		EPA 608	01/10/07 19:09	DGK
PCB Aroclor 1254	<0.10	0.10	1	ug/L		EPA 608	01/10/07 19:09	DGK
PCB Aroclor 1260	<0.10	0.10	1	ug/l		EPA 608	01/10/07 19:09	DGK
Sample Preparation								
Sep Funnel Extraction PCBs	Complete		1			EPA 608	01/10/07 8:00	DLC

TMP 3

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Final Analytical Report

Generated 01/12/07 11:28

Project Number: 158384 **Client ID:** DSC **P.O. #:**
Work ID: DSC-010907 **Contact:** Laura Keener

Lab ID: 1583840002 **Collected:** 01/08/07 15:00
Sample ID: PCB #4 GRAB **Received:** 01/09/07 15:15
Description: Gibralter **Completed:** 01/12/07 10:29
Collected By: Tom Konikowski **Matrix:** Wastewater

Parameter	Result	RDL	Dil.	Units	Qual.	Method	Analyzed	Tech
Polychlorinated Biphenyls(PCB)								
PCB Aroclor 1016	<0.40	0.40	1	ug/L		EPA 608	01/10/07 19:36	DGK
PCB Aroclor 1221	<0.40	0.40	1	ug/L		EPA 608	01/10/07 19:36	DGK
PCB Aroclor 1232	<0.40	0.40	1	ug/L		EPA 608	01/10/07 19:36	DGK
PCB Aroclor 1242	<0.40	0.40	1	ug/L		EPA 608	01/10/07 19:36	DGK
PCB Aroclor 1248	<0.10	0.10	1	ug/l		EPA 608	01/10/07 19:36	DGK
PCB Aroclor 1254	<0.10	0.10	1	ug/l		EPA 608	01/10/07 19:36	DGK
PCB Aroclor 1260	<0.10	0.10	1	ug/l		EPA 608	01/10/07 19:36	DGK
Sample Preparation								
Sep Funnel Extraction PCBs	Complete		1			EPA 608	01/10/07 8:00	DLC

TMP 4

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Final Analytical Report

Generated 02/06/07 11:47

Project Number: 158596
Work ID: DSC-013007
Client ID: DSC
Contact: Laura Keener
P.O. #:

Lab ID: 1585960005
Sample ID: PCB #1, GRAB
Description: #4227
Collected By: Tom Konikowski
Collected: 01/29/07 10:00
Received: 01/30/07 12:32
Completed: 02/06/07 11:23
Matrix: Soil

Parameter	Result	RDL	Dil.	Units	Qual.	Method	Analyzed	Tech
Individual Parameters								
Percent Total Solids	79	0.10	1	%		SM 2540 G	02/01/07 16:45	NM
Polychlorinated Biphenyls(PCB)								
PCB Aroclor 1016	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 18:58	DGK
PCB Aroclor 1221	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 18:58	DGK
PCB Aroclor 1232	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 18:58	DGK
PCB Aroclor 1242	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 18:58	DGK
PCB Aroclor 1248	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 18:58	DGK
PCB Aroclor 1254	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 18:58	DGK
PCB Aroclor 1260	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 18:58	DGK
Sample Preparation								
Ultrasonic Extraction, PCBs	Complete		1			EPA 3550B	02/02/07 8:00	DLC

SOIL SAMPLE #1

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Final Analytical Report

Generated 02/06/07 11:47

Project Number: 158596
Work ID: DSC-013007

Client ID: DSC
Contact: Laura Keener

P.O. #:

Lab ID: 1585960006
Sample ID: PCB #2, GRAB
Description: #4227
Collected By: Tom Konikowski

Collected: 01/29/07 10:00
Received: 01/30/07 12:32
Completed: 02/06/07 11:44
Matrix: Soil

Parameter	Result	RDL	Dil.	Units	Qual.	Method	Analyzed	Tech
Individual Parameters								
Percent Total Solids	80	0.10	1	%		SM 2540 G	02/01/07 16:45	NM
Polychlorinated Biphenyls(PCB)								
PCB Aroclor 1016	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 19:28	DGK
PCB Aroclor 1221	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 19:28	DGK
PCB Aroclor 1232	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 19:28	DGK
PCB Aroclor 1242	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 19:28	DGK
PCB Aroclor 1248	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 19:28	DGK
PCB Aroclor 1254	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 19:28	DGK
PCB Aroclor 1260	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 19:28	DGK
Sample Preparation								
Ultrasonic Extraction PCBs	Complete		1			EPA 3550B	02/02/07 8:00	DLC

SOIL SAMPLE #2

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Final Analytical Report

Generated 02/06/07 11 47

Project Number: 158596
Work ID: DSC-013007

Client ID: DSC
Contact: Laura Keener

P.O. #:

Lab ID: 1585960007
Sample ID: PCB #3, GRAB
Description: #4227
Collected By: Tom Konikowski

Collected: 01/29/07 10:00
Received: 01/30/07 12:32
Completed: 02/06/07 11:45
Matrix: Soil

Parameter	Result	RDL	Dil.	Units	Qual.	Method	Analyzed	Tech
Individual Parameters								
Percent Total Solids	77	0.10	1	%		SM 2540 G	02/01/07 16:45	NM
Polychlorinated Biphenyls(PCB)								
PCB Aroclor 1016	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 19:57	DGK
PCB Aroclor 1221	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 19:57	DGK
PCB Aroclor 1232	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 19:57	DGK
PCB Aroclor 1242	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 19:57	DGK
PCB Aroclor 1248	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 19:57	DGK
PCB Aroclor 1254	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 19:57	DGK
PCB Aroclor 1260	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 19:57	DGK
Sample Preparation								
Ultrasonic Extraction PCBs	Complete		1			EPA 3550B	02/02/07 8:00	DLC

Soil Sample # 3

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Final Analytical Report

Generated 02/06/07 11:47

Project Number: 158596
Work ID: DSC-013007
Client ID: DSC
Contact: Laura Keener
P.O. #:

Lab ID: 1585960001
Sample ID: PCB #4, GRAB
Description: #4227
Collected By: Tom Konikowski
Collected: 01/29/07 10:00
Received: 01/30/07 12:32
Completed: 02/06/07 11:22
Matrix: Soil

Parameter	Result	RDL	Dil.	Units	Qual.	Method	Analyzed	Tech
Individual Parameters								
Percent Total Solids	78	0.10	1	%		SM 2540 G	01/30/07 16:30	NM
Polychlorinated Biphenyls(PCB)								
PCB Aroclor 1016	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 15:33	DGK
PCB Aroclor 1221	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 15:33	DGK
PCB Aroclor 1232	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 15:33	DGK
PCB Aroclor 1242	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 15:33	DGK
PCB Aroclor 1248	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 15:33	DGK
PCB Aroclor 1254	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 15:33	DGK
PCB Aroclor 1260	<330	330	1	ug/Kg-dry		EPA 8082	02/02/07 15:33	DGK
Sample Preparation								
Ultrasonic Extraction PCBs	Complete		1			EPA 3550B	01/31/07 7:45	DLC

SOIL SAMPLE #4

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08-11-07 02:46pm From-US EPA R5/1 +734 692 7677 T-856 P.014/014 F-134

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

DCR-A+B

Sample Number: AB22859 LEACHATE

Volatile Compounds

Analytical Method: 624 **Date Tested:** 09/10/2008 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	103			
SURROGATE	#Dibromofluoromethane#	100			
SURROGATE	#Toluene-d8#	99.9			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	1.0		1.0
71-55-6	1,1,1-Trichloroethane	Not Detected	1.0		1.0
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	1.0		1.0
79-00-5	1,1,2-Trichloroethane	Not Detected	1.0		1.0
75-34-3	1,1-Dichloroethane	1.3	1.0		1.0
75-35-4	1,1-Dichloroethylene	Not Detected	1.0		1.0
87-61-6	1,2,3-Trichlorobenzene	Not Detected	5.0		1.0
96-18-4	1,2,3-Trichloropropane	Not Detected	1.0		1.0
120-82-1	1,2,4-Trichlorobenzene	Not Detected	5.0		1.0
95-63-6	1,2,4-Trimethylbenzene	Not Detected	1.0		1.0
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	5.0		1.0
106-93-4	1,2-Dibromoethane	Not Detected	1.0		1.0
95-50-1	1,2-Dichlorobenzene	Not Detected	1.0		1.0
107-06-2	1,2-Dichloroethane	Not Detected	1.0		1.0
78-87-5	1,2-Dichloropropane	Not Detected	1.0		1.0
108-67-8	1,3,5-Trimethylbenzene	Not Detected	1.0		1.0
541-73-1	1,3-Dichlorobenzene	Not Detected	1.0		1.0
106-46-7	1,4-Dichlorobenzene	Not Detected	1.0		1.0
78-93-3	2-Butanone (MEK)	14	5.0		1.0
591-78-6	2-Hexanone	Not Detected	5.0		1.0
91-57-6	2-Methylnaphthalene	6.9	5.0	X 5	1.0
67-64-1	2-Propanone (acetone)	110	100		5.0
108-10-1	4-Methyl-2-pentanone (MIBK)	12	5.0		1.0
107-13-1	Acrylonitrile	Not Detected	5.0		1.0
71-43-2	Benzene	Not Detected	1.0		1.0
108-86-1	Bromobenzene	Not Detected	1.0		1.0
74-97-5	Bromochloromethane	Not Detected	1.0		1.0
75-27-4	Bromodichloromethane	Not Detected	1.0		1.0
75-25-2	Bromoform	Not Detected	1.0		1.0
74-83-9	Bromomethane	Not Detected	5.0		1.0
75-15-0	Carbon disulfide	3.6	1.0		1.0
56-23-5	Carbon tetrachloride	Not Detected	1.0		1.0
108-90-7	Chlorobenzene	Not Detected	1.0		1.0
75-00-3	Chloroethane	Not Detected	5.0		1.0
67-66-3	Chloroform	Not Detected	1.0		1.0
74-87-3	Chloromethane	Not Detected	5.0		1.0
156-59-2	cis-1,2-Dichloroethylene	Not Detected	1.0		1.0
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	1.0		1.0

CAS# : Chemical Abstract Service Registry Number
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mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
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Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

Lab Work Order #: 80900075

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ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB22859 LEACHATE

Volatile Compounds

Analytical Method: 624 **Date Tested:** 09/10/2008 **Analyst:** RD

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
124-48-1	Dibromochloromethane	Not Detected	1.0		1.0
74-95-3	Dibromomethane	Not Detected	1.0		1.0
75-71-8	Dichlorodifluoromethane	Not Detected	5.0		1.0
60-29-7	Diethyl ether	Not Detected	5.0		1.0
100-41-4	Ethylbenzene	Not Detected	1.0		1.0
67-72-1	Hexachloroethane	Not Detected	5.0		1.0
98-82-8	Isopropylbenzene	Not Detected	1.0		1.0
108383,106423	m & p - Xylene	2.2	2.0		1.0
74-88-4	Methyl iodide	Not Detected	1.0		1.0
75-09-2	Methylene chloride	Not Detected	5.0		1.0
1634-04-4	Methyltertiarybutylether	Not Detected	1.0		1.0
91-20-3	Naphthalene	28	5.0	X	1.0
104-51-8	n-Butylbenzene	Not Detected	1.0		1.0
103-65-1	n-Propylbenzene	Not Detected	1.0		1.0
95-47-6	o-Xylene	1.8	1.0		1.0
99-87-6	p-Isopropyl toluene	Not Detected	1.0		1.0
135-98-8	sec-Butylbenzene	Not Detected	1.0		1.0
100-42-5	Styrene	Not Detected	1.0		1.0
98-06-6	tert-Butylbenzene	Not Detected	1.0		1.0
127-18-4	Tetrachloroethylene	Not Detected	1.0		1.0
109-99-9	Tetrahydrofuran	Not Detected	5.0		1.0
108-88-3	Toluene	2.6	1.0		1.0
156-60-5	trans-1,2-Dichloroethylene	Not Detected	1.0		1.0
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	5.0		1.0
79-01-6	Trichloroethylene	Not Detected	1.0		1.0
75-69-4	Trichlorofluoromethane	Not Detected	1.0		1.0
75-01-4	Vinyl chloride	Not Detected	1.0		1.0

Unidentified peaks present in sample.

Base Neutral Acid Compounds with Library

Analytical Method: 625 **Date Tested:** 09/22/2008 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 09/11/2008 **Qualifier:** **Volume:** 1000

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#2 - Fluorobiphenyl#	6.0		9	
SURROGATE	#2,4,6-Tribromophenol#	90.4			
SURROGATE	#2-Fluorophenol#	29.0			
SURROGATE	#Nitrobenzene - D5#	0.0		9	
SURROGATE	#Phenol - D6#	23.2			
SURROGATE	#p-Terphenyl-d14#	77.2			

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Sample Number: AB22859 LEACHATE

Base Neutral Acid Compounds with Library

Analytical Method: 625 **Date Tested:** 09/22/2008 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 09/11/2008 **Qualifier:** **Volume:** 1000

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
	*bis(methylethyl)-Phenol isomer1	4000		LB	
	*bis(methylethyl)-Phenol isomer2	1100		LB	
	*bis(methylethyl)-Phenol isomer3	370		LB	
	*Ethyl hexanol	2400		LB	
	*Ethyl-hexanoic acid	2500		LB	
	*Ethyl-phenol	2100		LB	
	*Methylethyl-phenol isomer1	3800		LB	
	*Methylethyl-phenol isomer2	15000		LB	
	*Tert-butyl-phenol	9200		LB	
120-82-1	1,2,4-Trichlorobenzene	Not Detected	200	8,J*	100
95-95-4	2,4,5-Trichlorophenol	Not Detected	1000	J*	100
88-06-2	2,4,6-Trichlorophenol	Not Detected	1000	J*	100
120-83-2	2,4-Dichlorophenol	Not Detected	1000	J*	100
105-67-9	2,4-Dimethylphenol	620	1000	J*	100
51-28-5	2,4-Dinitrophenol	Not Detected	500		10
121-14-2	2,4-Dinitrotoluene	Not Detected	50		10
606-20-2	2,6-Dinitrotoluene	Not Detected	50		10
91-58-7	2-Chloronaphthalene	Not Detected	20	8	10
95-57-8	2-Chlorophenol	Not Detected	100		10
534-52-1	2-Methyl-4,6-dinitrophenol	Not Detected	500		10
91-57-6	2-Methylnaphthalene	Not Detected	500	J*	100
95-48-7	2-Methylphenol (o-Cresol)	36	100	T	10
88-74-4	2-Nitroaniline	Not Detected	200		10
88-75-5	2-Nitrophenol	Not Detected	1000	J*	100
108394,106445	3 & 4-Methylphenol	Not Detected	200		10
99-09-2	3-Nitroaniline	Not Detected	200		10
101-55-3	4-Bromophenyl phenyl ether	Not Detected	20		10
59-50-7	4-Chloro-3-methyl-phenol	Not Detected	1000	J*	100
7005-72-3	4-Chlorodiphenylether	Not Detected	10		10
100-01-6	4-Nitroaniline	Not Detected	200		10
100-02-7	4-Nitrophenol	Not Detected	500		10
83-32-9	Acenaphthene	Not Detected	10		10
208-96-8	Acenaphthylene	Not Detected	10		10
120-12-7	Anthracene	Not Detected	10		10
103-33-3	Azobenzene	Not Detected	20		10
56-55-3	Benzo[a]anthracene	Not Detected	10		10
50-32-8	Benzo[a]pyrene	Not Detected	20		10
205-99-2	Benzo[b]fluoranthene	Not Detected	20		10
191-24-2	Benzo[g,h,i]perylene	Not Detected	20		10
207-08-9	Benzo[k]fluoranthene	Not Detected	20		10
111-91-1	Bis(2-chloroethoxy)methane	Not Detected	200	J*	100

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Sample Number: AB22859 LEACHATE

Base Neutral Acid Compounds with Library

Analytical Method: 625 **Date Tested:** 09/22/2008 **Analyst:** SMH
Extraction Method: 3510 **Extraction Date:** 09/11/2008 **Qualifier:** **Volume:** 1000

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
111-44-4	Bis(2-chloroethyl)ether	Not Detected	10		10
108-60-1	Bis(2-chloroisopropyl)ether	Not Detected	10		10
117-81-7	Bis(2-ethylhexyl)phthalate	Not Detected	50		10
85-68-7	Butyl benzyl phthalate	Not Detected	50		10
86-74-8	Carbazole	Not Detected	100		10
218-01-9	Chrysene	Not Detected	10		10
53-70-3	Dibenz[a,h]anthracene	Not Detected	20		10
132-64-9	Dibenzofuran	Not Detected	50		10
84-66-2	Diethylphthalate	Not Detected	50		10
131-11-3	Dimethyl phthalate	Not Detected	50	8	10
84-74-2	Di-n-butyl phthalate	Not Detected	50		10
117-84-0	Di-n-octyl phthalate	Not Detected	50		10
206-44-0	Fluoranthene	Not Detected	10		10
86-73-7	Fluorene	Not Detected	10		10
118-74-1	Hexachlorobenzene	Not Detected	20		10
87-68-3	Hexachlorobutadiene	Not Detected	200	J*	100
77-47-4	Hexachlorocyclopentadiene	Not Detected	1000	J*	100
67-72-1	Hexachloroethane	Not Detected	10	8	10
193-39-5	Indeno(1,2,3-c,d)pyrene	Not Detected	20		10
78-59-1	Isophorone	Not Detected	100	J*	100
91-20-3	Naphthalene	Not Detected	100	J*	100
98-95-3	Nitrobenzene	Not Detected	200	J*	100
67-75-9	N-Nitrosodimethylamine	Not Detected	50		10
621-64-7	N-Nitrosodi-n-propylamine	Not Detected	20		10
86-30-6	N-Nitrosodiphenylamine	Not Detected	20		10
87-86-5	Pentachlorophenol	Not Detected	500		10
85-01-8	Phenanthrene	Not Detected	10		10
108-95-2	Phenol	1200	100		10
129-00-0	Pyrene	Not Detected	10		10

RLs raised due to matrix interference.
Result(s) and RL(s) are estimated for base/neutral compounds due to low surrogate recovery.
*Results estimated due to interference with internal standard from methylethyl phenol.

Pesticides, Hydrocarbons, and PCBs

Analytical Method: 608 **Date Tested:** 09/18/2008 **Analyst:** MF
Extraction Method: 3510 **Extraction Date:** 09/10/2008 **Qualifier:** **Volume:** 1000

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Decachlorobiphenyl#	49.1			
SURROGATE	#Tetrachloro-m-xylene#	83.2		9	
634-66-2	1,2,3,4-Tetrachlorobenzene	Not Detected	0.01		1.0

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Sample Number: AB22859 LEACHATE

Pesticides, Hydrocarbons, and PCBs

Analytical Method: 608 **Date Tested:** 09/18/2008 **Analyst:** MF
Extraction Method: 3510 **Extraction Date:** 09/10/2008 **Qualifier:** **Volume:** 1000

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
95-94-3	1,2,4,5-Tetrachlorobenzene	Not Detected	0.01		1.0
72-54-8	4,4'-DDD	Not Detected	0.05		1.0
72-55-9	4,4'-DDE	Not Detected	0.01		1.0
50-29-3	4,4'-DDT	Not Detected	0.02	K	1.0
319-84-6	a-BHC	Not Detected	0.04	K	1.0
5103-71-9	a-Chlordane	Not Detected	0.03	K	1.0
309-00-2	Aldrin	Not Detected	0.01		1.0
12674-11-2	Aroclor 1016	Not Detected	0.33	K	1.0
11104-28-2	Aroclor 1221	Not Detected	0.33	K	1.0
11141-16-5	Aroclor 1232	0.32	0.10	JD 2	1.0
53469-21-9	Aroclor 1242	Not Detected	0.33	K	1.0
12672-29-6	Aroclor 1248	Not Detected	0.33	K	1.0
11097-69-1	Aroclor 1254	Not Detected	0.10		1.0
11096-82-5	Aroclor 1260	Not Detected	0.10		1.0
37324-23-5	Aroclor 1262	Not Detected	0.10		1.0
11100-14-4	Aroclor 1268	Not Detected	0.10		1.0
319-85-7	b-BHC	Not Detected	0.01		1.0
319-86-8	d-BHC	Not Detected	0.03	K	1.0
60-57-1	Dieldrin	Not Detected	0.01		1.0
959-98-8	Endosulfan I	Not Detected	0.01		1.0
72-20-8	Endrin	Not Detected	0.01		1.0
58-89-9	g-BHC (Lindane)	Not Detected	0.01		1.0
5103-74-2	g-Chlordane	Not Detected	0.01		1.0
76-44-8	Heptachlor	Not Detected	0.01		1.0
1024-57-3	Heptachlor Epoxide	Not Detected	0.04	K	1.0
87-82-1	Hexabromobenzene	Not Detected	0.01		1.0
118-74-1	Hexachlorobenzene	Not Detected	0.08	K	1.0
87-68-3	Hexachlorobutadiene	Not Detected	0.01		1.0
77-47-4	Hexachlorocyclopentadiene	Not Detected	0.01		1.0
72-43-5	Methoxychlor	Not Detected	0.05		1.0
2385-85-5	Mirex	Not Detected	0.01		1.0
59080-40-9	PBB (BP-6)	Not Detected	0.05		1.0
608-93-5	Pentachlorobenzene	Not Detected	0.01		1.0
82-68-8	Pentachloronitrobenzene	Not Detected	0.01		1.0
8001-35-2	Toxaphene	Not Detected	1	K	10

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Sample **AB22859** **LEACHATE**

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
	BOD - Carbonaceous 5 days	Lab Accident	mg/L	2		09/10/2008	405.1	GW
	Lab accident; BOD-C5 set but not read on day 5 of incubation.							
	BOD - Total 5 days	83	mg/L	2		09/10/2008	405.1	GW
7440-70-2	Calcium - Total	142	mg/L	1	D	09/16/2008	7140/215.1	LAV
7439-95-4	Magnesium - Total	ND	mg/L	1		09/16/2008	7450/242.1	LAV
7440-09-7	Potassium - Total	240	mg/L	0.1	D	09/16/2008	7610/258.1	LAV
7440-23-5	Sodium - Total	167	mg/L	1	D	09/16/2008	7770/273.1	LAV
CN_TOTAL	Cyanide	.01	mg/L	0.005		09/10/2008	9010/335.2	RG
	COD	350	mg/L	5	D P	09/12/2008	410	MB
	Digestion Metals Water	Completed				09/10/2008	3010/200	TK2
TDS	Solids - Total Dissolved	1400	mg/L	20		09/11/2008	160.1	GW
	GN bottle pH=10							
	Hardness - Calculated	355	mg/L	5		09/17/2008	Calculated	LV
	Digestion Mercury Water	Completed				09/15/2008	7470/245.1	TK2
7439-97-6	Mercury - Total	.3	µg/L	0.2		09/18/2008	7470/245.1	TS
	KN TP - Digestion	Completed				09/11/2008	351.2	DS1
TKN	Total Kjeldahl Nitrogen	17	mg N/L	2	D P	09/11/2008	351.2	DS1
7723-14-0	Total Phosphorus	.22	mg P/L	0.2	D P	09/11/2008	365.4	DS1
7429-90-5	Aluminium - Total	1500	µg/L	50	D	09/12/2008	6020/200.8	KS
7440-36-0	Antimony - Total	ND	µg/L	1		09/11/2008	6020/200.8	KS
7440-38-2	Arsenic - Total	7.7	µg/L	1		09/11/2008	6020/200.8	KS
7440-39-3	Barium - Total	260	µg/L	5		09/11/2008	6020/200.8	KS
7440-41-7	Beryllium - Total	ND	µg/L	1		09/11/2008	6020/200.8	KS
7440-43-9	Cadmium - Total	0.25	µg/L	0.2		09/11/2008	6020/200.8	KS
7440-47-3	Chromium - Total	ND	µg/L	1		09/11/2008	6020/200.8	KS
7440-48-4	Cobalt - Total	ND	µg/L	15		09/11/2008	6020/200.8	KS
7440-50-8	Copper - Total	1.6	µg/L	1		09/11/2008	6020/200.8	KS
7439-92-1	Lead - Total	1.4	µg/L	1		09/11/2008	6020/200.8	KS
7439-96-5	Manganese - Total	ND	µg/L	5		09/11/2008	6020/200.8	KS
7439-98-7	Molybdenum - Total	130	µg/L	25		09/11/2008	6020/200.8	KS
7440-02-0	Nickel - Total	160	µg/L	2.0		09/11/2008	6020/200.8	KS
7782-49-2	Selenium - Total	1.5	µg/L	1		09/15/2008	6020/200.8	KS
7440-22-4	Silver -Total	ND	µg/L	0.2		09/11/2008	6020/200.8	KS
7440-24-6	Strontium - Total	1800	µg/L	5	D	09/11/2008	6020/200.8	KS
7440-28-0	Thallium - Total	ND	µg/L	2		09/11/2008	6020/200.8	KS
7440-32-6	Titanium - Total	ND	µg/L	10		09/11/2008	6020/200.8	KS
7440-62-2	Vanadium - Total	7.3	µg/L	2		09/11/2008	6020/200.8	KS
7440-66-6	Zinc - Total	ND	µg/L	10		09/11/2008	6020/200.8	KS
7440-42-8	Boron - Total	86	µg/L	20		09/11/2008	6010/200.7	EG
7439-89-6	Iron - Total	ND	µg/L	20		09/11/2008	6010/200.7	EG
7439-93-2	Lithium - Total	180	µg/L	10		09/11/2008	6010/200.7	EG
7664-41-7	Ammonia	9.5	mg N/L	0.01	P	09/11/2008	350.1	RA
7727-37-9	Nitrate + Nitrite	ND	mg N/L	0.2	D P	09/11/2008	353.2	RA
	Oil and Grease	11	mg/L	10		09/11/2008	1664	WN
14797650	Nitrite	ND	mg N/L	0.02	I	09/10/2008	353.3	TK

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	Sample had pH11 at 1/2 dilution.							
7723-14-0	Ortho-phosphate	ND	mg P/L	0.02	I	09/10/2008	365.1	TK
	Sample had pH11 at 1/2 dilution.							
	Phenolics	14000	µg/L	10	D	09/11/2008	9066/420.2	MB
	Phenolics - Distillation	Completed				09/11/2008	9066/420.2	MB
	Conductance	3870	umhos/cm			09/12/2008	120.1	JB
	pH	12.69	pH		H	09/11/2008	150.1	TK2
	Solids - Suspended	ND	mg/L	4		09/10/2008	160.2	GW
7440-44-0	TOC	93	mg/L	0.5	D P	09/11/2008	415.1	MB
	Priority 1 Costs	Completed				09/15/2008		SG
	Silica Gel Cleanup	Completed				09/17/2008	3630	DT
	Florisil Cleanup	Completed				09/12/2008	3620	RD
	Gel Permeation Cleanup	Completed				09/11/2008	3640	DT

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Systems Mgmt Unit: George Krisztian

Designated Name	Monitoring Point	Sample Date	Result	Unit
DSC Ltd-Gibraltar	001A	1/16/2007	0.4688	MGD
DSC Ltd-Gibraltar	001A	1/17/2007	0.4745	MGD
DSC Ltd-Gibraltar	001A	1/18/2007	0.4414	MGD
DSC Ltd-Gibraltar	001A	1/19/2007	0.1738	MGD
DSC Ltd-Gibraltar	001A	3/22/2007	0.1901	MGD
DSC Ltd-Gibraltar	001A	3/27/2007	0.2564	MGD
DSC Ltd-Gibraltar	001A	4/30/2007	0.5	MGD
DSC Ltd-Gibraltar	001A	5/1/2007	0.548	MGD
DSC Ltd-Gibraltar	001A	5/2/2007	0.463	MGD
DSC Ltd-Gibraltar	001A	5/3/2007	0.466	MGD
DSC Ltd-Gibraltar	001A	7/23/2007	0.386	MGD
DSC Ltd-Gibraltar	001A	7/24/2007	0.375	MGD
DSC Ltd-Gibraltar	001A	7/25/2007	0.332	MGD
DSC Ltd-Gibraltar	001A	7/26/2007	0.098	MGD
DSC Ltd-Gibraltar	001A	11/6/2007	0.334	MGD
DSC Ltd-Gibraltar	001A	11/7/2007	0.4692	MGD
DSC Ltd-Gibraltar	001A	11/8/2007	0.4726	MGD
DSC Ltd-Gibraltar	001A	11/9/2007	0.1645	MGD
DSC Ltd-Gibraltar	001A	1/16/2008	0.4002	MGD
DSC Ltd-Gibraltar	001A	1/17/2008	0.2002	MGD
DSC Ltd-Gibraltar	001A	3/26/2008	0.3609	MGD
DSC Ltd-Gibraltar	001A	3/27/2008	0.2212	MGD
DSC Ltd-Gibraltar	001A	7/10/2008	0.6611	MGD
DSC Ltd-Gibraltar	001A	7/11/2008	0.5742	MGD
DSC Ltd-Gibraltar	001A	7/12/2008	0.4719	MGD

#s provided in blue are adjustable variables	CWLFL	Total Flow, GPD	20,000	CWLFU	Total Flow, GPD	15,000	DSC	Total Flow, GPD	20,000
	East Well	50%	10,000	SP-1 (west side)	21.67%	3,251	1A	43.0%	8,600
	West Well	50%	10,000	SP-3 (west side)	21.67%	3,251	1B	57.0%	11,400
				SP-5 (west side)	21.67%	3,251			
				SP-7 (east side)	35.00%	5,250			

Total Flow per Source, GPD: 20,000 | 15,002 | 20,000

	CWLFL-LL	CWLFU-LL	DSC 1A&1B	Total
GPD	20,000	15,002	20,000	55,002
GPM	13.89	10.42	13.89	38.2
% of Flow	36.36%	27.27%	36.36%	100%

Volatiles

Analyte	Reporting Limit (ug/L)	CWLFL-LL-111609-EW ug/L	CWLFL-LL-111609-WW ug/L	CWLFU-LL-111609-SP1 ug/L	CWLFU-LL-111609-SP3 ug/L	CWLFU-LL-111609-SP5 ug/L	CWLFU-LL-111709-SP7 ug/L	DSCG-LL-111709-PS1A ug/L	DSCG-LL-111709-PS1B ug/L	Anticipated Individual Source Conditions: CWLFL-LL ug/L	CWLFU-LL ug/L	DSC 1A&1B ug/L	Anticipated Leachate Feed Stream: Blended Feed ug/L	SHUVA Limits for CWLF U ug/L
1,1-Dichloroethane	1	0	1.65	0	0	0	0	3.1	0	0.825	0	1.333	0.78	
1,2,4-Trimethylbenzene	1	0	0	0	0	0	0	0.82	1.36	0	0	1.128	0.41	
2-Butanone	25	0	13.72	0	0	0	0	12.14	24.32	6.86	0	19.083	9.43	
2-Hexanone	50	0	5.64	0	0	0	0	0	0	2.82	0	0	1.03	
2-Methylnaphthalene	5	0	5.92	0	0	0	0	6.11	12.01	2.96	0	9.473	4.52	
4-Methyl-2-pentanone	50	0	46.35	0	1.93	0	0	10.46	8.88	23.175	0.418	9.559	12.02	
Acetone	50	0	116	7.83	9.05	0	6.09	119	202	58	5.789	166.572	83.19	
Benzene	1	0	2.23	0	0	0	0	0	0	1.115	0	0	0.41	
Carbon disulfide	5	0	12.12	0	1.96	0	0	2.21	3.37	6.06	0.425	2.871	3.36	
Diisopropyl Ether	5	0	0	0	2.39	0	0	0	0	0	0.518	0	0.14	
Ethylbenzene	1	0	0	0	0	0	0	1.16	0	0	0	0.499	0.18	
m,p-Xylene	2	0	1.22	0	0	0	0	4.24	0.96	0.61	0	2.370	1.08	
Methyl-tert-butyl ether	5	0	0	0	2.04	0	0	0	0	0	0.442	0	0.12	
Naphthalene	5	0	46.24	1.2	7	0	2.64	32.03	29.4	23.12	2.701	30.531	20.25	
o-Xylene	1	0	0.95	0	0	0	0	3.41	1.01	0.475	0	2.042	0.92	
Tert-butyl alcohol	50	0	404	0	44.76	0	0	92.61	28.97	202	9.699	56.335	96.60	
Tetrahydrofuran	90	0	3.94	0	36.75	0	5.59	0	0	1.97	9.920	0	3.42	
Toluene	1	0	1.73	0	0	0	0	2.56	2.87	0.865	0	2.737	1.31	1,000
Xylenes, total	3	0	2.17	0	0	0	0	7.65	1.97	1.085	0	4.412	2.00	
BTEX	calc									3.065	0	7.648	3.90	2,000

Semivolatiles

Analyte	Reporting Limit ug/L	CWLFL-LL-111609-EW ug/L	CWLFL-LL-111609-WW ug/L	CWLFU-LL-111609-SP1 ug/L	CWLFU-LL-111609-SP3 ug/L	CWLFU-LL-111609-SP5 ug/L	CWLFU-LL-111709-SP7 ug/L	DSCG-LL-111709-PS1A ug/L	DSCG-LL-111709-PS1B ug/L	CWLF-LL ug/L	CWLFU-LL ug/L	DSC 1A&1B ug/L	Blended Feed ug/L	SHUVA Limits for CWLF U ug/L
2,4-Dimethylphenol	480	0	2,291	0	0	0	0	1,491	3,627	1,146	0	2,708.510	1,401.50	
2-Methylnaphthalene	24	0	0	0	0	0	0	0	5.74	0	0	3.273	1.19	
2-Methylphenol (o-Cresol)	24	0	45.33	0	0	0	0	10.71	47.27	22.67	0	31.551	19.72	
3,4-Methylphenol (m,p Cresol)	24	0	799	0	0	0	0	399	1,100	400	0	798.456	435.69	
Acenaphthene	24	0	0	0	6.68	0	1.29	0	0	0	1.899	0	0.52	
Benzoic acid	480	0	0	0	0	0	0	103	0	0	0	44.345	16.13	
Bis(2-ethylhexyl)phthalate	24	0	0	0	0	1.54	5.02	0	0	0	2.093	0	0.57	
Carbazole	24	0	0	0	6.01	0	0	0	0	0	1.302	0	0.36	
Dibenzofuran	24	0	0	0	3.37	0	0	0	0	0	0.729	0	0.20	
Fluorene	24	0	0	0	4.28	0	0	0	0	0	0.927	0	0.25	
Naphthalene	24	0	22.86	0	4.28	0	0.97	15.92	15.69	11.43	1.266	15.793	10.24	
Phenanthrene	9.6	0	0	0	5.67	0	0	0	0	0	1.229	0	0.34	
Phenol	480	0	18,970	7.87	0	0	0	1,010	1,185	9,485	1.705	1,109.865	3,852.95	1,000

PCB

Analyte	Reporting Limit (ug/L)	CWLFL-LL-111609-EW ug/L	CWLFL-LL-111609-WW ug/L	CWLFU-LL-111609-SP1 ug/L	CWLFU-LL-111609-SP3 ug/L	CWLFU-LL-111609-SP5 ug/L	CWLFU-LL-111709-SP7 ug/L	DSCG-LL-111709-PS1A ug/L	DSCG-LL-111709-PS1B ug/L	CWLFL-LL ug/L	CWLFU-LL ug/L	DSC 1A&1B ug/L	Blended Feed ug/L	SHUVA Limits for CWLF U ug/L
Aroclor-1232	4.8	0	0	0	0.21	0	0.85	0	0	0	0.344	0.000	0.09	BDL

Analyte	Reporting Limit	CWLFL-LL-111609-EW	CWLFL-LL-111609-WW	CWLFU-LL-111609-SP1	CWLFU-LL-111609-SP3	CWLFU-LL-111609-SP5	CWLFU-LL-111709-SP7	DSCG-LL-111709-PS1A	DSCG-LL-111709-PS1B	CWLFL-LL	CWLFU-LL	DSC 1A&1B	Blended Feed	SHUVA Limits for CWLF U
EPA 1631E	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
Total Mercury	0.5	1.74	6.52	40.34	25.15	4.54	31.70	32.38	34.62	4.129	26.270	33.657	20.91	BDL
Dissolved Mercury	0.5	1.17	4.10	0.06	2.15	0.79	0.91	8.90	37.66	2.63	0.97	25.29	10.42	

#s provided in blue are adjustable variables	CWLFL	Total Flow, GPD	20,000	CWLFU	Total Flow, GPD	15,000	DSC	Total Flow, GPD	20,000
	East Well	50%	10,000	SP-1 (west side)	21.67%	3,251	1A	43.0%	8,600
	West Well	50%	10,000	SP-3 (west side)	21.67%	3,251	1B	57.0%	11,400
				SP-5 (west side)	21.67%	3,251			
				SP-7 (east side)	35.00%	5,250			

	CWLFL-LL	CWLFU-LL	DSC 1A&1B	Total
GPD	20,000	15,002	20,000	55,002
GPM	13.89	10.42	13.89	38.2
% of Flow	36.36%	27.27%	36.36%	100%

Total Flow per Source, GPD: 20,000 15,002 20,000

Volatiles

Analyte	Reporting Limit	CWLFL-LL-111609-EW	CWLFL-LL-111609-WW	CWLFU-LL-111609-SP1	CWLFU-LL-111609-SP3	CWLFU-LL-111609-SP5	CWLFU-LL-111709-SP7	DSCG-LL-111709-PS1A	DSCG-LL-111709-PS1B	Anticipated Individual Source Conditions: CWLFL-LL	CWLFU-LL	DSC 1A&1B	Anticipated Leachate Feed Stream: Blended Feed	SHUVA Limits for CWLF U
EPA 200.7/200.8	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Total Silver	0.5	0.00	0.03	0.11	0.05	0.02	0.03	0.02	0.01	0.02	0.05	0.02	0.03	220
Dissolved Silver	0.5	0.03	0.01	0.00	0.03	0.00	0.05	0.01	0.00	0.02	0.02	0.00	0.01	
Total Aluminum	50	0.00	2,359	1,529	100	44.10	106	1,574	1,832	1,180	400	1,721	1,163.62	
Dissolved Aluminum	50	0.00	2,460	0.00	0.00	0.00	0.00	1,625	1,874	1,230	0	1,767	1,089.72	
Total Arsenic	5	4.83	21.02	8.96	70.23	4.37	7.15	6.00	7.97	12.93	20.61	7.12	12.91	1,000
Dissolved Arsenic	5	4.63	23.65	3.86	64.55	4.00	6.64	5.37	8.82	14.14	18.01	7.34	12.72	
Total Boron	50	1,843	179	2,190	3,505	1,746	5,692	71.26	129	1,011	3,605	104	1,388.53	
Dissolved Boron	50	1,882	192	2,156	3,587	1,814	5,658	75.96	140	1,037	3,618	113	1,404.62	
Total Barium	50	43.03	49.89	196	128	184	464	252	266	46	273	260	185.78	
Dissolved Barium	50	37.81	54.17	139	130	93.92	437	263	288	46	232	277	180.66	
Total Beryllium	4	0.00	0.00	0.03	0.04	0.04	0.00	0.03	0.13	0.00	0.02	0.08	0.04	
Dissolved Beryllium	4	0.08	0.14	0.00	0.05	0.04	0.02	0.00	0.05	0.11	0.03	0.03	0.06	
Total Calcium	1,000	260,781	60,401	358,178	278,835	306,527	211,066	99,579	118,761	160,591	278,338	110,513	174,496.27	
Dissolved Calcium	1,000	268,643	61,678	337,032	297,372	163,307	212,865	106,692	122,442	165,161	247,367	115,669	169,585.82	
Total Cadmium	0.5	0.00	0.34	0.49	0.00	0.05	0.00	0.09	0.26	0.17	0.12	0.18	0.16	510
Dissolved Cadmium	0.5	0.00	0.21	0.06	0.00	0.00	0.00	0.00	0.02	0.10	0.01	0.01	0.05	
Total Cobalt	10	1.23	1.27	3.59	1.16	2.19	0.80	0.21	0.11	1.25	1.78	0.15	1.00	
Dissolved Cobalt	10	1.30	1.41	1.32	1.23	1.21	0.71	0.24	0.17	1.35	1.06	0.20	0.85	
Total Chromium	50	2.03	8.24	17.51	20.35	2.37	7.33	1.92	2.21	5.13	11.28	2.09	5.70	15,000
Dissolved Chromium	50	0.88	6.59	2.99	18.74	0.47	5.68	0.63	1.35	3.74	6.80	1.04	3.59	
Total Copper	25	2.68	1.60	10.80	2.96	4.89	2.45	2.37	2.74	2.14	4.90	2.58	3.05	580
Dissolved Copper	25	1.59	1.82	3.19	2.22	1.86	1.47	0.96	0.89	1.70	2.09	0.92	1.52	
Total Iron	100	6,027	883	33,167	895	845	2,270	1.53	145	3,455	8,359	84	3,566.49	
Dissolved Iron	100	163	294	455	28.70	0.00	869	0.00	0.54	228.40	408.93	0.31	194.70	
Total Hardness as CaCO3	calculation	1,100,000	150,000	2,200,000	1,500,000	1,300,000	1,600,000	250,000	300,000	625,000	1,643,500	278,500	776,796.36	
Dissolved Hardness as CaCO3	calculation	1,100,000	150,000	2,200,000	1,500,000	1,300,000	1,600,000	250,000	300,000	625,000	1,643,500	278,500	776,796.36	
Total Potassium	1000	20,325	623,874	64,785	135,653	44,432	48,272	185,257	217,011	322,100	69,958	203,357	210,150.91	
Dissolved Potassium	1000	21,182	687,516	63,897	135,406	44,028	47,237	195,174	223,433	354,349	69,263	211,281	224,569.41	
Total Lithium	25	36.70	75.64	91.90	63.78	64.60	56.40	162	171	56	67	167	99.73	
Dissolved Lithium	25	39.82	85.34	92.74	64.02	64.40	56.10	171	188	63	68	181	106.94	
Total Magnesium	1000	116,912	110	305,987	203,063	130,544	250,945	22.02	276	58,511	226,431	167	83,095.13	
Dissolved Magnesium	1000	119,779	0.00	301,672	205,854	127,059	244,733	0.00	0.00	59,889.70	223,171.27	0.00	82,646.80	
Total Manganese	20	1,438	22.89	1,314	110	499	386	0.08	10.46	730.62	551.69	6.00	418.32	
Dissolved Manganese	20	1,497	0.76	1,049	101	1.65	362	0.04	0.99	748.89	376.17	0.58	375.13	
Total Molybdenum	10	5.55	272	103	5.23	9.31	0.65	77.08	203	139	26	149	111.62	
Dissolved Molybdenum	10	6.86	306	93.75	4.17	9.80	0.58	69.05	195	157	24	141	114.52	
Total Sodium	1,000	156,647	504,284	195,375	352,623	88,050	207,832	128,427	170,240	330,466	210,573	152,261	232,965.21	
Dissolved Sodium	1,000	162,207	538,722	195,291	353,546	86,055	203,612	133,738	181,925	350,465	208,845	161,205	243,018.37	
Total Nickel	50	12.87	459	25.98	59.15	13.58	9.46	178	170	236	25	173	155.54	12,000
Dissolved Nickel	50	11.41	491	15.53	56.53	8.32	7.80	175	179	251	20	177	161.33	
Total Phosphorus	50	42.16	642	188	61.50	125	174	245	265	342	142	256	256.45	25,000
Dissolved Phosphorus	50	38.26	676	33.10	41.08	40.56	80.00	256	261	357	53	259	238.42	
Total Lead	2	0.69	6.39	63.15	0.45	14.68	3.01	0.54	2.44	3.54	18.01	1.62	6.79	1,000
Dissolved Lead	2	0.02	0.38	0.06	0.07	0.07	0.32	0.20	0.45	0.20	0.15	0.34	0.24	
Total Antimony	2	0.28	1.43	0.55	3.10	1.55	0.40	0.24	0.28	0.85	1.27	0.26	0.75	
Dissolved Antimony	2	0.23	1.59	0.31	3.09	1.54	0.39	0.23	0.37	0.91	1.21	0.31	0.77	
Total Selenium	8.5	14.04	21.32	6.40	18.02	7.45	16.12	7.48	8.62	17.68	12.55	8.13	12.81	
Dissolved Selenium	8.5	12.94	22.47	4.75	15.02	5.57	14.05	5.88	8.09	17.71	10.41	7.14	11.87	
Total Silicon	50	8,806	8,866	23,686	18,049	13,746	19,550	4,271	3,618	8,836	18,865	3,899	9,776.15	
Dissolved Silicon	50	8,312	9,060	18,081	17,222	12,870	17,805	4,241	3,589	8,686	16,671	3,869	9,112.35	
Total Tin	50	0.00	0.00	1	0.00	0.52	0.00	0.00	0.85	0.00	0.39	0.49	0.28	
Dissolved Tin	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total Strontium	50	2,643	546	8,345	2,322	2,525	3,109	1,676	1,427	1,595	3,947	1,534	2,214.17	
Dissolved Strontium	50	2,649	568	7,917	2,403	2,174	3,019	1,834	1,452	1,608	3,764	1,616	2,199.12	
Total Titanium	25	0.00	1.14	43.74	17.66	2.68	12.66	0.00	0.30	0.57	18.32	0.17	5.27	
Dissolved Titanium	25	0.00	0.00	0.00	14.16	0.00	7.62	0.00	0.21	0.00	5.74	0.12	1.61	
Total Thallium	2	0.00	0.00	0.00	0.00	0.00	-0.10	0.00	0.00	0.00	-0.03	0.00	-0.01	
Dissolved Thallium	2	0.42	0.06	0	0.00	0.01	-0.04	0.00	0.00	0.24	-0.01	0.00	0.09	
Total Vanadium	10	0.97	28.32	8.52	126	31.25	3.60	14.44	6.69	14.64	37.13	10.02	19.10	
Dissolved Vanadium	10	0.00	28.70	0.00	126	23.68	1.80	12.80	6.08	14.35	33.08	8.97	17.50	
Total Zinc	20	3.55	177	1,617	8.34	64.21	30.49	29.85	36.82	90.20	376.80	33.82	147.87	5,000
Dissolved Zinc	20	3.38	64.03	13.01	5.76	2.40	14.82	13.70	11.34	33.70	9.78	12.36	19.42	

#s provided in blue are adjustable variables	CWLFL	Total Flow, GPD	20,000	CWLFU	Total Flow, GPD	15,000	DSC	Total Flow, GPD	20,000
	East Well	50%	10,000	SP-1 (west side)	21.67%	3,251	1A	43.0%	8,600
	West Well	50%	10,000	SP-3 (west side)	21.67%	3,251	1B	57.0%	11,400
				SP-5 (west side)	21.67%	3,251			
				SP-7 (east side)	35.00%	5,250			

	CWLFL-LL	CWLFU-LL	DSC 1A&1B	Total
GPD	20,000	15,002	20,000	55,002
GPM	13.89	10.42	13.89	38.2
% of Flow	36.36%	27.27%	36.36%	100%

Total Flow per Source, GPD: 20,000 | 15,002 | 20,000

Anticipated Leachate Feed Stream

Volatiles

Analyte	Reporting Limit (mg/L)	CWLFL-LL-111609-EW mg/L	CWLFL-LL-111609-WW mg/L	CWLFU-LL-111609-SP1 mg/L	CWLFU-LL-111609-SP3 mg/L	CWLFU-LL-111609-SP5 mg/L	CWLFU-LL-111709-SP7 mg/L	DSCG-LL-111709-PS1A mg/L	DSCG-LL-111709-PS1B mg/L	Anticipated Individual Source Conditions: CWLFL-LL mg/L	CWLFU-LL mg/L	DSC 1A&1B mg/L	Blended Feed mg/L	SHUVA Limits for CWLF U mg/L
Alkalinity, Bicarbonate	10	594	0	966	995	967	1,631	0	0	297.225	1205.45	0	436.86	
Alkalinity, Carbonate	10	0	769	0	0	0	0	105	146	385	0	128.12	186.40	
Ammonia Nitrogen by EPA 350.1	0.04	0.474	135	8.25	202	3.1	8.85	11.125	18.4	67.737	49.33	15.27	43.64	
BOD5-Biochemical Oxygen Demand, 5-day	8	0	0	20	110	0	13	64	57	0	32.72	60.01	30.75	4,000
Chloride by Ion Chromatography	16	199	564	189	519	106	276	146	215	382	273.15	185.13	280.64	
COD, Chemical Oxygen Demand	39	83.26	2,115	152	601	76.21	210	291	345	1,099	253.22	321.65	585.70	
Cyanide, Total	5	0.010	0.907	0.021	0.051	0.019	0.034	0.014	0.042	0.459	0.03	0.03	0.19	
Ferrous Iron by SM 3500 Fe-D	0.02	5.590	0.655	27.980	1.108	0.400	3.023	0	0.128	3	7.45	0.07	3.19	
Fluoride by Ion Chromatography	0.1	1.251	0.553	1.870	0.166	2.590	0.240	1.418	2.248	0.902	1.09	1.89	1.31	
Hexavalent Chromium	0.075	0.004	0.074	0.004	0.002	0.004	0.002	0.007	0.234	0.039	0	0.14	0.06	
Nitrate as N by Ion Chromatography	0.1	0	0	0	0	0.184	0	0	0	0	0.04	0	0.01	
Nitrite as N by Ion Chromatography	0.1	0	0	0	0	0	0	0	0	0	0	0	0.00	
Oil and Grease (HEM)	5	0.8	1.5	74.4	5.657	0.5	1.010	1.818	2.1	1.150	17.81	1.98	6.00	100
Silica Dissolved	calculation	18	19	39	37	28	38	9.1	7.7	18.5	35.84	8.30	19.52	
Silica, Total	calculation	19	19	51	39	29	42	9.1	7.7	19	40.49	8.30	20.97	
Solids, Total	10	2,000	3400	3,700	3,300	1,800	2,200	1,000	1,300	2,700	2676.96	1171.00	2137.73	
Sulfate by Ion Chromatography	12	611	65.10	1,239	732	349	21.60	31.66	25.80	338.25	510.31	28.32	272.48	
TDS-Total Dissolved Solids	10	1,974	3,368	3,456	3,280	1,790	2184	983	1,277	2,671	2611.98	1150.58	2102.04	
TOC, Total Organic Carbon	30	28.12	756	50.71	255	34.17	74.64	81.49	185	391.98	99.81	140.53	220.86	
TSS-Total Suspended Solids	10	26	32	244	20	10	16	17	23	29	64.98	20.42	35.69	10,000

Field Parameters	Units	CWLFL-LL-111609-EW	CWLFL-LL-111609-WW	CWLFU-LL-111609-SP1	CWLFU-LL-111609-SP3	CWLFU-LL-111609-SP5	CWLFU-LL-111709-SP7	DSCG-LL-111709-PS1A	DSCG-LL-111709-PS1B	CWLFL-LL	CWLFU-LL	DSC 1A&1B	Blended Feed	SHUVA Limits for CWLF U
pH	su	7.21	13.2	8.16	7.57	7.91	8.41	13.19	13.19					5 - 11.5
Temperature	°C	11.28	14.34	16.31	14.59	12.05	15.12	13.08	12.44	12.8	14.60	12.72	13.264	
Conductivity	uS/cm	2560	6260	3810	4260	2440	3410	3230	3740	4410	3471.02	3520.70	3830.522	
Dissovled Oxygen	mg/L	10.21	8.95	8.46	9.26	10.25	10.21	10.75	10.86	9.58	9.63	10.81	10.043	
ORP	mV	-99	-82	-141	-309	-45	-133	-239	-220	-90.5	-153.82	-228.17	-157.830	
Salinity	%	0.12	0.33	0.19	0.22	0.12	0.17	0.16	0.19	0.225	0.17	0.18	0.194	
Turbidity	NTU	8.1	6.9	189	23.6	9.5	21	0	19.3	7.5	55.48	11.00	21.859	
Air Temperature	°F	45	45	50	50	50	50	52	50					

Toxicity		CWLFL-LL-111609-EW TUa	CWLFL-LL-111609-WW TUa	CWLFU-LL-111609-SP1 TUa	CWLFU-LL-111609-SP3 TUa	CWLFU-LL-111609-SP5 TUa	CWLFU-LL-111709-SP7 TUa	DSCG-LL-111709-PS1A TUa	DSCG-LL-111709-PS1B TUa					
Daphnia Magna		0.9	>16.7	0	0	1	0	5.4	7.4					
Fathead Minnow		0	>16.7	0	11.9	0.3	0	6.6	11.5					

GLC Area 4

1999 LANDFILL LEACHATE REMOVAL TOTALS

	Monthly Total	
January-99	0	
February-99	104,400	
March-99	89,000	
April-99	655,050	
May-99	773,195	
June-99	809,500	
July-99	777,000	
August-99	808,600	
September-99	750,800	
October-99	384,100	(On going)
November-99	0	
December-99	0	
1999 Year Total	5,151,645	Gallons

MCLOUTH STEEL PRODUCTS CORPORATION
GIBRALTAR PLANT
GIBRALTAR, MICHIGAN
TABLE 12

Location 12 (Landfill Area 1 Leachate)

Parameters	Day				Avg
	1	2	3	4	
pH	12.0	11.7		12.0	11.9
Total Suspended Solids, mg/L	6	4		12	7
Oil and Grease, mg/L	45	92		82	73
Ammonia, mg/L	62	54		57	58
Phenol, mg/L	116	105		130	117
Carbonaceous BOD, mg/L	400	600		14	338

Note:

Day 1: Mar 18, 1993
Day 2: Mar 25, 1993
Day 3: Apr 1, 1993
Day 4: Apr 8, 1993

MCLOUTH STEEL PRODUCTS CORPORATION
GIBRALTAR PLANT
GIBRALTAR, MICHIGAN
TABLE 13

Location 14 (Landfill Area 1B Leachate)

Parameters	Day				Avg
	1	2	3	4	
pH	11.8	11.6		12.0	11.8
Total Suspended Solids, mg/L	70	4		49	41
Oil and Grease, mg/L	20	143		40	68
Ammonia, mg/L	65	47		48	53
Phenol, mg/L	140	80		140	120
Carbonaceous BOD, mg/L	660	690		870	740

Note:

Day 1: Mar 18, 1993
Day 2: Mar 25, 1993
Day 3: Apr 1, 1993
Day 4: Apr 8, 1993

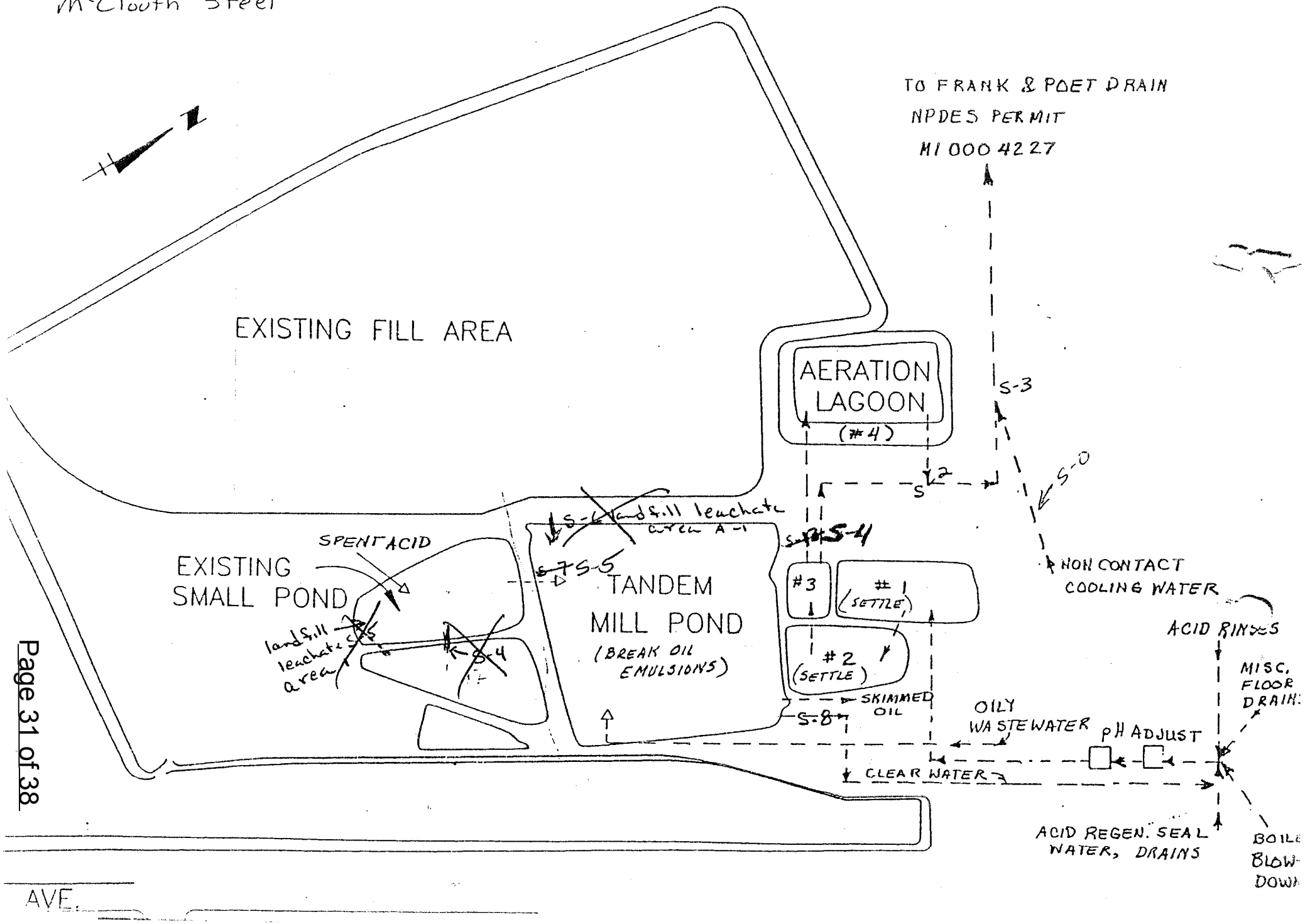
TABLE 2
SUMMARY OF WASTE CHARACTERIZATION AND LEACHATE TESTING
McLouth Steel Corporation - Gibraltar Landfill
Gibraltar, Wayne County, Michigan

Potential Monitoring Parameters	Range of Concentrations by Waste Stream (mg/l)			Concentrations in Leachate Samples (mg/l)		Range of Concentrations (mg/l) in Bedrock Monitoring Wells (Based on Samples Collected by NTH in May and July 1995)	Groundwater Monitoring Parameters		
	Central Wastewater Treatment Filter Cake	Blast Furnace Water Plant Filter Cake	Debris Pile	A1L	A4L		Proposed in HMP (9/28/95)	Revised by NTH (12/2/96)	To Be Included Per MDEQ
Primary Indicators:									
Chloride	1.5 to 7.6	3 to 15	<1 to 15	24	526	5.2 to 850			?
Iron	0.07 to 0.22	0.08 to 2.9	0.08 to 2.9	7.4	3.2	1.3 to 120			?
Sulfate	15 to 37	14 to 37	<7 to 37	8	44	150 to 1500			?
Ammonia-N	-	-	-	1.7	140	0.09 to .58	X	X	?
Nitrate-N	-	-	-	<0.1	<2	<0.05	X	X	?
Nitrite-N	-	-	-	<0.1	<2	<0.05	X	X	?
Total Dissolved Solids	-	-	-	250	3500	470 to 3800			?
Alternate Indicators:									
Magnesium	-	-	-	4.5	<1	42 to 730			?
Manganese	<0.02 to 0.34	<0.02 to 0.06	<0.02 to 0.06	-	-	-	X	X	?
Potassium	-	-	-	22.7	610	1.9 to 6.5		X	?
Sodium	2.8 to 7.4	2.7 to 7.4	3.6 to 7.8	33.5	572	1 to 280			?
Alkalinity (Carbonate)	-	-	-	12	180	-			?
Alkalinity (Bicarbonate)	-	-	-	100	<20	190 to 1,000			?
Conductivity	-	-	-	-	-	-	X		?
Phenolics	0.038 to 0.14	0.14 to 0.21	0.14 to 4.7	0.23	120	<0.001 to <0.01	X	X	?
Cyanide	<0.02 to 1.2	<0.02 to 1.2	<0.02 to 2.6	0.016	0.42	-	X	X	?
Total Organic Carbon	-	-	-	24	750	-		X	?
Chemical Oxygen Demand	-	-	-	75	2400	-		X	?
Metals:									
Antimony	-	-	-	-	-	<0.001			X
Arsenic	<0.001 to 0.008	<0.005 to 0.016	<0.001 to 0.008	0.0047	0.014	<0.001 to 0.004		X	X
Barium	"ND"	<0.1 to 0.4	<0.1 to 7.2	0.066	0.083	<0.01 to 0.11	X	X	X
Beryllium	-	-	-	-	-	<0.001 to 0.002		X	X
Cadmium	0.009 to 0.04	0.008 to 0.05	<0.003 to 0.04	<0.02	<0.02	<0.0002 to 0.0012		X	X
Chromium	<0.01 to 0.06	<0.01 to 0.45	<0.05 to 3	<0.02	<0.02	<0.001 to 0.028	X	X	X
Cobalt	-	-	-	-	-	<0.015		X	X
Copper	0.02 to 0.06	0.01 to 0.06	<0.02 to 0.09	<0.02	0.066	<0.001 to 0.021	X	X	X
Lead	"ND"	"ND"	<0.04 to 0.24	<0.05	<0.05	<0.001 to 0.011	X	X	X
Nickel	<0.02 to 0.03	0.02 to 0.33	0.02 to 0.33	<0.05	0.43	<0.05		X	X
Selenium	<0.001 to 0.01	0.003 to 0.01	0.001 to 0.01	<0.001	0.003	<0.001 to 0.007		X	X
Silver	<0.01 to 0.01	<0.01 to 0.01	<0.003 to 0.05	-	-	<0.0005		X	X
Thallium	-	-	-	-	-	<0.002			X
Vanadium	-	-	-	-	-	<0.01			X
Zinc	0.02 to 0.13	0.02 to 0.06	0.015 to 0.94	6.8	0.036	<0.004 to 1.9	X	X	X
Primary Volatile Organics:	All "ND"	All "ND"	All "ND"			All "ND"			X
1,1-Dichloroethane				<0.001	0.0016				
Benzene				<0.001	0.0018				
2-Hexanone				<0.005	0.100				
Toluene				<0.001	0.0018				
Other Primary Volatiles				"ND"	"ND"				
Secondary Volatile Organics:	All "ND"	All "ND"	All "ND"			All "ND"			X
Acetone				<0.025	0.650				
2-Butanone (MEK)				<0.005	0.051				
4-Methyl-2-pentanone (MIBK)				<0.005	0.0093				
Other Secondary Volatiles				"ND"	"ND"				

NOTES:
1. The results presented on this table represent a compilation of waste characterization sampling and analysis results from the indicated waste streams from 1981 through 1994, using a variety of leaching methods, including :
   EP Tox = Sample extracted using Extraction Procedure Toxicity method.
   TCLP = Sample extracted using Toxicity Characteristic Leaching Procedure.
   SPLP = Sample extracted using Synthetic Precipitation Leaching Procedure.
   DI Leach = Sample extracted by leaching with deionized water.
2. ND = Not Detected (all compounds in this category). Detection limits vary or not specified.

4286T1R.WK4

WASTEWATER SYSTEM
GIBRALTER PLANT
McCloutn Steel



DSC - GIBRALTAR LANDFILL

AREA 4 - LEACHATE EVALUATION

NTH PROJECT NO. 13-6855-13

WELL I.D	GROUND SURFACE ELEVATION (FEET)	TOP OF CASING ELEVATION (FEET)	LEACHATE LEVEL (FEET BTOC)	LEACHATE ELEVATION (FEET)	WELL TIP DEPTH (FEET BGS)
EAST WELL	595.31	596.23	7.32	588.91	19.1
WEST WELL	589.47	592.07	9.24	582.83	14.4
GP-1	595.44	598.07	8.1	589.97	7.4
GP-2	597.73	599.76	11.8	587.96	13
GP-3	599.46	602.33	12.14	590.19	12.1
GP-4	595.01	596.15	7.02	589.13	8.9
GP-5	603.24	606.74	17.4	589.34	16.5
GP-6	590.67	593.42	6.22	587.2	7.3

NOTES:

1) TOP OF CASING ELEVATIONS SURVEYED BY NTH PERSONNEL ON NOVEMBER 5, 1998

2) LEACHATE LEVELS MEASURED AND RECORDED BY NTH PERSONNEL ON NOVEMBER 5, 1998

Table 2 - CWLF

SHUVA 50,000 gpd.

Total Flow, GPD	20,000	CWLFU	Total Flow, GPD	15,000
50%	10,000	SP-1 (west side)	21.67%	3,251
50%	10,000	SP-3 (west side)	21.67%	3,251
		SP-5 (west side)	21.67%	3,251
		SP-7 (east side)	35.00%	5,250

Total Flow per Source, GPD: 20,000 | 15,002 | 35,002

SAMPLES 11-16 & 17-09

VSEP TREATABILITY

Volatiles

icipated Individual Source Conditi

Tbl 2

Analyte	Reporting Limit (ug/L)	CWLFL-LL-111609-EW ug/L	CWLFL-LL-111609-WW ug/L	CWLFU-LL-111609-SP1 ug/L	CWLFU-LL-111609-SP3 ug/L	CWLFU-LL-111609-SP5 ug/L	CWLFU-LL-111709-SP7 ug/L	CWLFL ug/L	CWLFU ug/L	CWLF U & L Blended ug/L	SHUVA Limits for CWLF U ug/L	MDNR NPDES CWLF <0.035 MGD ug/L	Target Discharge CWLF <0.035 MGD ug/L	Raw Feed CWLF ug/L	VSEP Permeate CWLF ug/L	VSEP Permeate RL ug/L	VSEP Conc. CWLF ug/L	VSEP Conc. RL ug/L
1,1-Dichloroethane	1	0	1.85	0	0	0	0	0.825	0	0.47		1,800	900					
1,2,4-Trimethylbenzene	1	0	0	0	0	0	0	0	0	0.00								
2-Butanone (Methyl Ethyl Ketone)	25	0	13.72	0	0	0	0	6.86	0	3.92		5,200	2,600					
2-Hexanone	50	0	5.64	0	0	0	0	2.82	0	1.61		1,400	700					
2-Methylnaphthalene	5	0	5.92	0	0	0	0	2.96	0	1.69		45	23					
4-Methyl-2-pentanone	50	0	46.35	0	1.93	0	0	23.175	0.418	13.42		2,400	1,200					
Acetone	50	0	116	7.83	9.05	0	6.09	58	5.789	35.55		4,000	2,000		550	100	440	100
Benzene	1	0	2.23	0	0	0	0	1.115	0	0.64		480	240					
Carbon disulfide	5	0	12.12	0	1.96	0	0	6.06	0.425	3.64		21	11					
Diisopropyl Ether	5	0	0	0	2.39	0	0	0	0.518	0.22		1,100	550					
Ethylbenzene	1	0	0	0	0	0	0	0	0	0.00								
m,p-Xylene	2	0	1.22	0	0	0	0	0.61	0	0.35								
Methyl-tert-butyl ether	5	0	0	0	2.04	0	0	0	0.442	0.19		76,000	38,000					
Naphthalene	5	0	46.24	1.2	7	0	2.64	23.12	2.701	14.37		26	13					
o-Xylene	1	0	0.95	0	0	0	0	0.475	0	0.27								
Tert-butyl alcohol	50	0	404	0	44.76	0	0	202	9.699	119.61					100	50	120	50
Tetrahydrofuran	90	0	3.94	0	36.75	0	5.59	1.97	9.920	5.38		26,000	13,000					
Toluene	1	0	1.79	0	0	0	0	0.865	0	0.49	1,000	640	320					
Xylenes, total	3	0	2.17	0	0	0	0	1.085	0	0.82		98	49					
BTEX	calc							3.065	0	1.75	2,000							
2- Butanone															56	25	94	50

Semivolatiles

(3)

Tbl 2

Analyte	Reporting Limit ug/L	CWLFL-LL-111609-EW ug/L	CWLFL-LL-111609-WW ug/L	CWLFU-LL-111609-SP1 ug/L	CWLFU-LL-111609-SP3 ug/L	CWLFU-LL-111609-SP5 ug/L	CWLFU-LL-111709-SP7 ug/L	CWLF-LL ug/L	CWLFU-LL ug/L	CWLF U & L Blended ug/L	SHUVA Limits for CWLF U ug/L	MDEQ NPDES CWLF <0.035 MGD ug/L	Target Discharge CWLF <0.035 MGD ug/L	Raw Feed CWLF ug/L	VSEP Permeate CWLF ug/L	VSEP Permeate RL ug/L	VSEP Conc. CWLF ug/L	VSEP Conc. RL ug/L
2,4-Dimethylphenol	480	0	2,291	0	0	0	0	1,146	0	654.7		910	455		150	12	170	62
2-Methylnaphthalene	24	0	0	0	0	0	0	0	0	0.0		45	23					
2-Methylphenol (o-Cresol)	24	0	45.33	0	0	0	0	22.67	0	13.0		200	100					
3,4-Methylphenol (m,p Cresol)	24	0	799	0	0	0	0	400	0	228.4					74	12	ND	62
Acenaphthene	24	0	0	0	6.68	0	1.29	0	1.899	0.8		91	46					
Benzoic acid	480	0	0	0	0	0	0	0	0	0.0								
Bis(2-ethylhexyl)phthalate	24	0	0	0	0	1.54	5.02	0	2.093	0.9		300	150		16	12	ND	62
Carbazole	24	0	0	0	6.01	0	0	0	1.302	0.6		9.5	4.8					
Dibenzofuran	24	0	0	0	3.37	0	0	0	0.729	0.3		9.5	4.8					
Fluorene	24	0	0	0	4.28	0	0	0	0.927	0.4		29.0	14.5					
Naphthalene	24	0	22.86	0	4.28	0	0.97	11.43	1.266	7.1		26.0	13.0					
Phenanthrene	9.6	0	0	0	5.67	0	0	0	1.229	0.5		3.3	1.7					
Phenol	480	0	18,970	7.87	0	0	0	9,485	1.705	5,420.8	1,000	1,100	550		2,500	62	2,200	62

PCB

Analyte	Reporting Limit (ug/L)	CWLFL-LL-111609-EW ug/L	CWLFL-LL-111609-WW ug/L	CWLFU-LL-111609-SP1 ug/L	CWLFU-LL-111609-SP3 ug/L	CWLFU-LL-111609-SP5 ug/L	CWLFU-LL-111709-SP7 ug/L	CWLFL-LL ug/L	CWLFU-LL ug/L	CWLF U & L Blended ug/L	SHUVA Limits for CWLF U ug/L	MDEQ NPDES CWLF <0.035 MGD ug/L	Target Discharge CWLF <0.035 MGD ug/L	Raw Feed CWLF ug/L	VSEP Permeate CWLF ug/L	VSEP Permeate RL ug/L	VSEP Conc. CWLF ug/L	VSEP Conc. RL ug/L
Aroclor-1232	4.8	0	0	0	0.21	0	0.85	0	0.344	0.15	<0.1	0.000026	0.000013					

Analyte	Reporting Limit	CWLFL-LL-111609-EW	CWLFL-LL-111609-WW	CWLFU-LL-111609-SP1	CWLFU-LL-111609-SP3	CWLFU-LL-111609-SP5	CWLFU-LL-111709-SP7	CWLFL-LL	CWLFU-LL	CWLF U & L Blended	SHUVA Limits for CWLF U	MDEQ NPDES CWLF <0.035 MGD	Target Discharge CWLF <0.035 MGD	Raw Feed CWLF	VSEP Permeate CWLF	VSEP Permeate RL	VSEP Conc. CWLF	VSEP Conc. RL
EPA 1631E	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L		ng/L	ng/L	ng/L	ng/L
Total Mercury	0.5	1.74	6.52	40.34	25.15	4.54	31.70	4.129	26.270	13.618	<200	41	See 21	10 (RL 1.3)	ND	5	14	6
Dissolved Mercury	0.5	1.17	4.10	0.06	2.15	0.79	0.91	2.63	0.97	1.92								

Analyte	Reporting Limit	CWLFL-LL-111609-EW	CWLFL-LL-111609-WW	CWLFU-LL-111609-SP1	CWLFU-LL-111609-SP3	CWLFU-LL-111609-SP5	CWLFU-LL-111709-SP7	CWLFL-LL	CWLFU-LL	CWLF U & L Blended	SHUVA Limits for CWLF U	MDEQ NPDES CWLF <0.035 MGD	Target Discharge CWLF <0.035 MGD	Raw Feed CWLF	VSEP Permeate CWLF	VSEP Permeate RL	VSEP Conc. CWLF	VSEP Conc. RL
EPA 200.7/200.8	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Total Silver	0.5	0.00	0.03	0.11	0.05	0.02	0.03	0.02	0.05	0.03	220	0.14	0.07		ND	0.5	1.4	0.5
Dissolved Silver	0.5	0.03	0.01	0.00	0.03	0.00	0.05	0.02	0.02	0.02								
Total Aluminum	50	0.00	2,359	1,529	100	44.10	106	1,180	400	845				730	ND	50	62	50
Dissolved Aluminum	50	0.00	2,460	0.00	0.00	0.00	0.00	1,230	0	703								
Total Arsenic	5	4.83	21.02	8.96	70.23	4.37	7.15	12.93	20.61	16.22	1,000	360	180	9	ND	5	27	5
Dissolved Arsenic	5	4.63	23.65	3.86	64.55	4.00	6.64	14.14	18.01	15.80								

Total Boron	50	1,843	179	2,190	3,505	1,746	5,692	1,011	3,605	2,122		12,000	6,000		1,100	50	1,900	50
Dissolved Boron	50	1,882	192	2,156	3,587	1,814	5,658	1,037	3,618	2,143								
Total Barium	50	43.03	49.89	196	128	184	464	46	279	143		2,400	1,200	ND	ND	50	180	50
Dissolved Barium	50	37.81	54.17	139	130	93.92	437	46	232	126								
Total Beryllium	4	0.00	0.00	0.03	0.04	0.04	0.00	0.00	0.02	0.01		41	21					
Dissolved Beryllium	4	0.08	0.14	0.00	0.05	0.04	0.02	0.11	0.03	0.07								
Total Calcium	1,000	260,781	60,401	358,178	278,895	306,527	211,066	160,591	278,338	211,054				150,000	8,800	1,000	370,000	1,000
Dissolved Calcium	1,000	268,643	61,678	337,032	297,372	163,307	212,865	165,161	247,367	200,392								
Total Cadmium	0.5	0.00	0.34	0.49	0.00	0.05	0.00	0.17	0.12	0.15	510	20	10	ND	ND	0.5	0.61	0.5
Dissolved Cadmium	0.5	0.00	0.21	0.06	0.00	0.00	0.00	0.10	0.01	0.07								
Total Cobalt	10	1.23	1.27	3.59	1.16	2.19	0.80	1.25	1.78	1.48		240	120					
Dissolved Cobalt	10	1.30	1.41	1.32	1.23	1.21	0.71	1.35	1.06	1.23								
Total Chromium	50	2.03	8.24	17.51	20.35	2.37	7.33	5.13	11.28	7.77	15,000	500	250					
Dissolved Chromium	50	0.88	6.59	2.99	18.74	0.47	5.68	3.74	6.80	5.05								
Total Copper	25	2.58	1.60	10.80	2.96	4.88	2.45	2.14	4.90	3.32	580	57	29	ND	ND	25	4,200	25
Dissolved Copper	25	1.59	1.82	3.19	2.22	1.86	1.47	1.70	2.09	1.87								
Total Iron	100	6,027	883	33,167	895	845	2,270	3,455	8,359	5,557				6,100	ND	100	490	100
Dissolved Iron	100	163	294	455	28.70	0.00	869	228.40	408.93	305.77								
Total Hardness as CaCO3	calculation	1,100,000	150,000	2,200,000	1,500,000	1,300,000	1,600,000	625,000	1,643,500	1,061,500				840,000	87,000	6,600	4,100,000	6,600
Dissolved Hardness as CaCO3	calculation	1,100,000	150,000	2,200,000	1,500,000	1,300,000	1,600,000	625,000	1,643,500	1,061,500								
Total Potassium	1000	20,325	623,874	64,785	135,653	44,432	48,272	322,100	69,958	214,039				190,000	96,000	100	760,000	2,000
Dissolved Potassium	1000	21,182	687,516	63,897	135,406	44,028	47,237	354,349	69,263	232,169								
Total Lithium	25	38.70	75.84	91.90	63.78	64.80	56.40	56	67	61		1,000	500		33	25	260	25
Dissolved Lithium	25	39.82	85.34	92.74	64.02	64.40	56.10	63	68	65								
Total Magnesium	1000	116,912	110	305,987	203,063	130,544	250,945	58,511	226,431	130,477				110,000	16,000	1,000	770,000	1,000
Dissolved Magnesium	1000	119,779	0.00	301,672	205,854	127,059	244,733	59,889.70	223,171.27	129,867.52								
Total Manganese	20	1,438	22.89	1,314	110	499	386	730.62	551.69	653.93		9,200	4,600	310	ND	20	40	20
Dissolved Manganese	20	1,497	0.76	1,049	101	1.65	362	748.89	376.17	589.15								
Total Molybdenum	10	5.55	272	103	5.23	9.31	0.65	139	26	90		7,600	3,800		ND	10	610	10
Dissolved Molybdenum	10	6.86	306	93.75	4.17	9.80	0.58	157	24	100								
Total Sodium	1,000	156,647	504,284	195,375	352,523	88,050	207,832	330,466	210,573	279,083				250,000	170,000	1,000	1,100,000	1,000
Dissolved Sodium	1,000	162,207	538,722	195,291	353,546	86,055	203,612	350,465	208,845	269,771								
Total Nickel	50	12.87	459	25.98	59.15	13.58	9.46	236	25	145	12,000	260	130	150	ND	50	1,200	50
Dissolved Nickel	50	11.41	491	15.53	56.53	8.32	7.80	251	20	152								
Total Phosphorus	50	42.16	642	188	61.50	125	174	342	142	257	25,000	1,000	500	270	ND	50	860	50
Dissolved Phosphorus	50	38.26	676	33.10	41.08	40.56	80.00	357	53	227								
Total Lead	2	0.69	6.39	83.15	0.45	14.88	3.01	3.54	18.01	9.74	1,000	250	125	44	ND	2	2.4	2.0
Dissolved Lead	2	0.02	0.38	0.06	0.07	0.07	0.32	0.20	0.15	0.18								
Total Antimony	2	0.29	1.43	0.55	3.10	1.55	0.40	0.85	1.27	1.03		570	285	ND	ND	2	9.8	2
Dissolved Antimony	2	0.23	1.59	0.31	3.09	1.54	0.39	0.91	1.21	1.03								
Total Selenium	8.5	14.04	21.32	6.40	18.02	7.45	16.12	17.68	12.55	15.48		12	6	15	ND	9	34	9
Dissolved Selenium	8.5	12.94	22.47	4.75	15.02	5.57	14.05	17.71	10.41	14.58								
Total Silicon	50	8,806	8,866	23,686	18,049	13,746	19,550	8,836	18,665	13,134					7,200	100	13,000	100
Dissolved Silicon	50	8,312	9,060	18,081	17,222	12,870	17,805	8,686	16,571	12,108								
Total Tin	50	0.00	0.00	1	0.00	0.52	0.00	0.00	0.39	0.17								
Dissolved Tin	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00								
Total Strontium	50	2,643	546	8,345	2,322	2,525	3,109	1,595	3,947	2,603		50,000	25,000		150	50	6,700	50
Dissolved Strontium	50	2,649	568	7,917	2,403	2,174	3,019	1,608	3,764	2,532								
Total Titanium	25	0.00	1.14	43.74	17.66	2.68	12.66	0.57	18.32	8.18								
Dissolved Titanium	25	0.00	0.00	0.00	14.16	0.00	7.62	0.00	5.74	2.46								
Total Thallium	2	0.00	0.00	0.00	0.00	0.00	-0.10	0.00	-0.03	-0.01		17	9					
Dissolved Thallium	2	0.42	0.06	0	0.00	0.01	-0.04	0.24	-0.01	0.13								
Total Vanadium	10	0.97	28.32	8.52	126	31.25	3.60	14.64	37.13	24.28		22	15	13	ND	10	38	10
Dissolved Vanadium	10	0.00	28.70	0.00	126	23.68	1.80	14.35	33.08	22.38								
Total Zinc	20	3.55	177	1,617	8.34	64.21	30.49	90.20	376.80	213.03	5,000	1,100	550	960	24	20	600	20
Dissolved Zinc	20	3.38	64.03	13.01	5.76	2.40	14.82	33.70	9.78	23.45								

Analyte	Reporting Limit (mg/L)	CWLFL-LL-111609-EW mg/L	CWLFL-LL-111609-WW mg/L	CWLFU-LL-111609-SP1 mg/L	CWLFU-LL-111609-SP3 mg/L	CWLFU-LL-111609-SP5 mg/L	CWLFU-LL-111709-SP7 mg/L	CWLFL-LL mg/L	CWLFU-LL mg/L	CWLF U & L Blended mg/L	SHUVA Limits for CWLF U mg/L	MDEQ NPDES CWLF <0.035 MGD mg/L	Target Discharge CWLF <0.035 MGD mg/L	Raw Feed CWLF mg/L	VSEP Permeate CWLF mg/L	VSEP Permeate RL mg/L	VSEP Conc. CWLF mg/L	VSEP Conc. RL mg/L
Alkalinity, Bicarbonate	10	594	0	968	995	967	1,631	297.225	1205.45	686				520	240.0	10.0	980	10
Alkalinity, Carbonate	10	0	769	0	0	0	0	385	0	219.71				84				
Ammonia Nitrogen by EPA 350.1	0.04	0.474	135	8.25	202	3.1	8.85	67.737	49.33	59.95				34 (RL=0.081)	20	0.4	190	0.81
BOD5-Biochemical Oxygen Demand, 5-day	8	0	0	20	110	0	13	0	32.72	14.02	4,000			170 (RL=20)	29	10	340	100
Chloride by Ion Chromatography	16	199	564	189	519	106	276	382	273.15	335.22		(1)	(1)		280	31	430	31
COD, Chemical Oxygen Demand	39	83.26	2,115	152	601	76.21	210	1,099	253.22	736.60				680 (RL=39)	110	5	1500	97
Cyanide, Total	5	0.010	0.907	0.021	0.051	0.019	0.034	0.459	0.03	0.28	2.0	0.012	Fre 0.006		0.270	0.005	0.560	0.005
Ferrous Iron by SM 3500 Fe-D	0.02	5.590	0.655	27.980	1.108	0.400	3.023	3	7.45	4.98								
Fluoride by Ion Chromatography	0.1	1.251	0.553	1.870	0.166	2.590	0.240	0.902	1.09	0.98		6.4	3.2		0.57	0.1	4.8	1.8
Hexavalent Chromium	0.075	0.004	0.074	0.004	0.002	0.004	0.002	0.039	0	0.02								
Nitrate as N by Ion Chromatography	0.1	0	0	0	0	0.184	0	0	0.04	0								
Nitrite as N by Ion Chromatography	0.1	0	0	0	0	0	0	0	0	0								
Oil and Grease (HEM)	5	0.8	1.5	74.4	5.657	0.5	1.010	1.150	17.81	8.29	100							
Silica Dissolved	calculation	18	19	39	37	28	38	18.5	35.84	25.93								
Silica, Total	calculation	19	19	51	39	29	42	19	40.49	28.21								
Solids, Total	10	2,000	3400	3,700	3,300	1,800	2,200	2,700	2676.96	2690.13					730	10	11,000	10
Sulfate by Ion Chromatography	12	611	65.10	1,239	732	349	21.60	338.25	510.31	411.99		(2)	(2)		4.5	1	6,200	120
TDS-Total Dissolved Solids	10	1,974	3,368	3,456	3,280	1,790	2184	2,671	2611.98	2645.71				1700 (RL=40)	740	20	10,000	200

TOC, Total Organic Carbon	30	28.12	756	50.71	255	34.17	74.64	391.98	99.81	266.76					26	0.7	480	30
TSS-Total Suspended Solids	10	26	32	244	20	10	16	29	64.98	44.42	10,000			220	ND	10	140	16
VSS	10													80				
cBOD	4													160 (RL=20)	30	4	300	100
TKN	0.5													36				
Orthophosphate	0.1													ND				

Field Parameters	Units	CWLFL-LL-111609-EW	CWLFL-LL-111609-WW	CWLFU-LL-111609-SP1	CWLFU-LL-111609-SP3	CWLFU-LL-111609-SP5	CWLFU-LL-111709-SP7	CWLFL-LL	CWLFU-LL	CWLF U & L Blended	SHUVA Limits for CWLF U	MDEQ NPDES CWLF <0.035 MGD	Target Discharge CWLF <0.035 MGD
pH	su	7.21	13.2	8.16	7.57	7.91	8.41				5 - 11.5	6.5 - 9	6.5 - 9
Temperature	°C	11.28	14.34	16.31	14.59	12.05	15.12	12.8	14.60	13.58			
Conductivity	uS/cm	2560	6260	3810	4260	2440	3410	4410	3471.02	4007.58			
Dissovled Oxygen	mg/L	10.21	8.95	8.46	9.26	10.25	10.21	9.58	9.63	9.60			
ORP	mV	-99	-82	-141	-309	-45	-133	-90.5	-153.82	-117.64			
Salinity	%	0.12	0.33	0.19	0.22	0.12	0.17	0.225	0.17	0.20			
Turbidity	NTU	8.1	6.9	189	29.6	9.5	21	7.5	55.48	28.06			
Air Temperature	°F	45	45	50	50	50	50						

Toxicity		CWLFL-LL-111609-EW TUa	CWLFL-LL-111609-WW TUa	CWLFU-LL-111609-SP1 TUa	CWLFU-LL-111609-SP3 TUa	CWLFU-LL-111609-SP5 TUa	CWLFU-LL-111709-SP7 TUa						
Daphnia Magna		0.9	>16.7	0	0	1	0						
Fathead Minnow		0	>16.7	0	11.9	0.3	0						

State 061509, 071409,0122009 are samples believed to have been collected from the 30K gallon tank at CWLF, collected by pond sampler.

(1) Monthly grab sample, analyzed by USEPA approved method, 1 mg/L quantification level.
(2) Monthly grab sample, analyzed by USEPA approved method, 2 mg/L quantification level.

Mercury:Higher limits provided for in 1/20/10 Draft DSC-Countwide Memo. Also include Theoretical water quality based effluent limits for Hg at 1.3 ng/L. NEED CLARIFICATION
Where Theoretical water quality based effluent limits provided, Monthly Average input as it is more stringent that Daily Max.
No analysis performed for this method/analyte

TABLE 1 · DSC Landfill

11-17-09 Samples

VSEP Treatability

Analyte	Reporting Limit (ug/L)	DSCG-LL-111709-PS1A ug/L	DSCG-LL-111709-PS1B ug/L	DSC 1A&1B ug/L	SHUVA Limits for CWLF U ug/L	MDNR NPDES DSC <0.02 MGD ug/L	Target Discharge DSC <0.02 MGD ug/L	Raw Feed DSC pre pH ug/L	Raw Feed DSC post pH ug/L	VSEP Permeate DSC ug/L	VSEP Permeate RL ug/L	VSEP Conc. DSC ug/L	VSEP Conc. RL ug/L
1,1-Dichloroethane	1	3.1	0	1.333		2,500	1,250						
1,2,4-Trimethylbenzene	1	0.82	1.36	1.128		58	29						
2-Butanone (Methyl Ethyl Ketone)	25	12.14	24.32	19.083		7,500	3,750						
2-Hexanone	50	0	0	0									
2-Methylnaphthalene	5	6.11	12.01	9.473		65	33						
4-Methyl-2-pentanone	50	10.46	8.88	9.559		2,400	1,200						
Acetone	50	119	202	166.572		5,800	2,900			1,100	200	9,700	2,000
Benzene	1	0	0	0									
Carbon disulfide	5	2.21	3.37	2.871		31	16						
Diisopropyl Ether	5	0	0	0									
Ethylbenzene	1	1.16	0	0.499		62	31						
m,p-Xylene	2	4.24	0.96	2.370									
Methyl-tert-butyl ether	5	0	0	0									
Naphthalene	5	32.03	29.4	30.531		38	19						
o-Xylene	1	3.41	1.01	2.042									
Tert-butyl alcohol	50	92.61	28.97	56.335						ND	50	160	50
Tetrahydrofuran	90	0	0	0		38,000	19,000						
Toluene	1	2.56	2.87	2.737	1,000	920	460						
Xylenes, total	3	7.65	1.97	4.412		140	70						
BTEX	calc			7.648	2,000								
2-Butanone	25									ND	25	51	25

Semivolatiles

(3)
Tbl 1

Analyte	Reporting Limit ug/L	DSCG-LL-111709-PS1A ug/L	DSCG-LL-111709-PS1B ug/L	DSC 1A&1B ug/L	SHUVA Limits for CWLF U ug/L	MDEQ NPDES DSC <0.02 MGD ug/L	Target Discharge DSC <0.02 MGD ug/L	Raw Feed DSC pre pH ug/L	Raw Feed DSC post pH ug/L	VSEP Permeate DSC ug/L	VSEP Permeate RL ug/L	VSEP Conc. DSC ug/L	VSEP Conc. RL ug/L
2,4-Dimethylphenol	480	1,491	3,627	2,708.510		1300	650			58	12	3,200	140
2-Methylnaphthalene	24	0	5.74	3.273		65	33						
2-Methylphenol (o-Cresol)	24	10.71	47.27	31.551		280	140						
3,4-Methylphenol (m,p Cresol)	24	399	1,100	798.456						32	12	1,200	140
Acenaphthene	24	0	0	0									
Benzoic acid	480	103	0	44.345									
Bis(2-ethylhexyl)phthalate	24	0	0	0									
Carbazole	24	0	0	0									
Dibenzofuran	24	0	0	0									
Fluorene	24	0	0	0									
Naphthalene	24	15.92	15.69	15.793		38	19						
Phenanthrene	9.6	0	0	0									
Phenol	480	1,010	1,185	1,109.865	1,000	1,500	750			140	12	2,400	140

PCB

Analyte	Reporting Limit (ug/L)	DSCG-LL-111709-PS1A ug/L	DSCG-LL-111709-PS1B ug/L	DSC 1A&1B ug/L	SHUVA Limits for CWLF U ug/L	MDEQ NPDES DSC <0.02 MGD ug/L	Target Discharge DSC <0.02 MGD ug/L	Raw Feed DSC pre pH ug/L	Raw Feed DSC post pH ug/L	VSEP Permeate DSC ug/L	VSEP Permeate RL ug/L	VSEP Conc. DSC ug/L	VSEP Conc. RL ug/L
Aroclor-1232	4.8	0	0	0.000	<0.1								

Analyte	Reporting Limit	DSCG-LL-111709-PS1A	DSCG-LL-111709-PS1B	DSC 1A&1B	SHUVA Limits for CWLF U	MDEQ NPDES DSC <0.02 MGD	Target Discharge DSC <0.02 MGD	Raw Feed DSC pre pH	Raw Feed DSC post pH	VSEP Permeate DSC	VSEP Permeate RL	VSEP Conc. DSC	VSEP Conc. RL
EPA 1631E	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
Total Mercury	0.5	32.38	34.62	33.657	<200	35	18	81 (RL 5.8)	48 (RL 5.9)	ND	5	67	6
Dissolved Mercury	0.5	8.90	37.66	25.29									

See

Analyte	Reporting	DSCG-LL-111709-PS1A	DSCG-LL-111709-PS1B	DSC 1A&1B	SHUVA Limits for CWLF U	MDEQ NPDES	Target Discharge	Raw Feed DSC pre pH	Raw Feed DSC post pH	VSEP Permeate	VSEP Permeate	VSEP Conc. DSC	VSEP Conc. RL

	Limit					DSC <0.02 MGD	DSC <0.02 MGD			DSC	RL		
EPA 200.7/200.8	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Total Silver	0.5	0.02	0.01	0.02	220	0.21	0.11	ND	ND	ND	0.5	2.3	0.5
Dissolved Silver	0.5	0.01	0.00	0.00									
Total Aluminum	50	1,574	1,832	1,721				1,700	1,700	ND	50	1,300	50
Dissolved Aluminum	50	1,625	1,874	1,767									
Total Arsenic	5	6.00	7.97	7.12	1,000	510	255	ND	ND	ND	5	35	5
Dissolved Arsenic	5	5.37	8.82	7.34									
Total Boron	50	71.26	129	104		17,000	8,500			51	50	390	50
Dissolved Boron	50	75.96	140	113									
Total Barium	50	252	266	260		34	17	230	230	ND	50	860	50
Dissolved Barium	50	263	288	277									
Total Beryllium	4	0.03	0.13	0.08		59	30						
Dissolved Beryllium	4	0.00	0.05	0.03									
Total Calcium	1,000	99,579	118,761	110,513				120,000	120,000	ND	1,000	940,000	1,000
Dissolved Calcium	1,000	106,692	122,442	115,669									
Total Cadmium	0.5	0.09	0.26	0.18	510	29	15	ND	ND	ND	0.5	1.2	0.5
Dissolved Cadmium	0.5	0.00	0.02	0.01									
Total Cobalt	10	0.21	0.11	0.15		340	170						
Dissolved Cobalt	10	0.24	0.17	0.20									
Total Chromium	50	1.92	2.21	2.09	15,000	720	360						
Dissolved Chromium	50	0.63	1.35	1.04									
Total Copper	25	2.37	2.74	2.58	580	80	40	ND	ND	ND	25	1,100	25
Dissolved Copper	25	0.96	0.89	0.92									
Total Iron	100	1.53	145	84				ND	ND	ND	100	510	100
Dissolved Iron	100	0.00	0.54	0.31									
Total Hardness as CaCO3	calculation	250,000	300,000	278,500				300,000	300,000	ND	7	2,600,000	7
Dissolved Hardness as CaCO3	calculation	250,000	300,000	278,500									
Total Potassium	1000	185,257	217,011	203,357				170,000	160,000	1,600	100	1,300,000	10,000
Dissolved Potassium	1000	195,174	223,433	211,281									
Total Lithium	25	162	171	167		1,500	750			ND	25	1,700	25
Dissolved Lithium	25	171	188	181									
Total Magnesium	1000	22.02	276	167				ND	ND	ND	1,000	69,000	1,000
Dissolved Magnesium	1000	0.00	0.00	0.00									
Total Manganese	20	0.08	10.46	6.00		13,000	6,500	ND	ND	ND	20	81	20
Dissolved Manganese	20	0.04	0.99	0.58									
Total Molybdenum	10	77.08	203	149		11,000	5,500			ND	10	750	10
Dissolved Molybdenum	10	69.05	195	141									
Total Sodium	1,000	128,427	170,240	152,261				140,000	140,000	2,800	1,000	1,300,000	5,000
Dissolved Sodium	1,000	133,738	181,925	161,205									
Total Nickel	50	178	170	173	12,000	370	185	160	160	ND	50	710	50
Dissolved Nickel	50	175	179	177									
Total Phosphorus	50	245	265	256	25,000	1,000	500	240	230	ND	50	1,300	50
Dissolved Phosphorus	50	256	261	259									
Total Lead	2	0.54	2.44	1.62	1,000	360	180	ND	ND	ND	2	4.9	2
Dissolved Lead	2	0.20	0.45	0.34									
Total Antimony	2	0.24	0.28	0.26		820	410	ND	ND	ND	2	7.7	2
Dissolved Antimony	2	0.23	0.37	0.31									
Total Selenium	8.5	7.48	8.62	8.13		17	9	8.7	9.5	ND	8.5	66	8.5
Dissolved Selenium	8.5	5.88	8.09	7.14									
Total Silicon	50	4,271	3,618	3,899						ND	100	25,000	100
Dissolved Silicon	50	4,241	3,589	3,869									
Total Tin	50	0.00	0.85	0.49									
Dissolved Tin	50	0.00	0.00	0.00									
Total Strontium	50	1,676	1,427	1,534		72,000	36,000			ND	50	13,000	50
Dissolved Strontium	50	1,834	1,452	1,616									
Total Titanium	25	0.00	0.30	0.17									
Dissolved Titanium	25	0.00	0.21	0.12									
Total Thallium	2	0.00	0.00	0.00		25	13						
Dissolved Thallium	2	0.00	0.00	0.00									
Total Vanadium	10	14.44	6.69	10.02		41	21	ND	ND	ND	10	39	10
Dissolved Vanadium	10	12.80	6.08	8.97									
Total Zinc	20	29.85	36.82	33.82	5,000	1,600	800	20	26	ND	20	3,400	20
Dissolved Zinc	20	13.70	11.34	12.36									

Analyte	Reporting Limit (mg/L)	DSCG-LL-111709-PS1A mg/L	DSCG-LL-111709-PS1B mg/L	DSC 1A&1B mg/L	SHUVA Limits for CWLF U mg/L	MDEQ NPDES DSC <0.02 MGD mg/L	Target Discharge DSC <0.02 MGD mg/L	Raw Feed DSC pre pH mg/L	Raw Feed DSC post pH mg/L	VSEP Permeate DSC mg/L	VSEP Permeate RL mg/L	VSEP Conc. DSC mg/L	VSEP Conc. RL mg/L
Alkalinity, Bicarbonate	10	0	0	0				ND	ND	ND	10.0	250	10
Alkalinity, Carbonate	10	105	146	128.12				ND	100				
Ammonia Nitrogen by EPA 350.1	0.04	11.125	18.4	15.27				12 (RL=0.081)	12 (RL=0.081)	0.57	0.01	98.0	0.4
BOD5-Biochemical Oxygen Demand, 5-day	8	64	57	60.01	4,000			79 (RL=10)	76 (RL=20)	7.7	2	190	50
Chloride by Ion Chromatography	16	146	215	185.13		(1)	(1)			ND	10	1,400	78
COD, Chemical Oxygen Demand	39	291	345	321.65				310 (RL=39)	280 (RL=39)	13	5	930	190
Cyanide, Total	5	0.014	0.042	0.03	2.0	0.018 Free	0.009			ND	0.005	0.059	0.005
Ferrous Iron by SM 3500 Fe-D	0.02	0	0.128	0.07									
Fluoride by Ion Chromatography	0.1	1.42	2.25	1.89		9.2	4.6			ND	0.1	21.0	0.5
Hexavalent Chromium	0.075	0.007	0.234	0.14									
Nitrate as N by Ion Chromatography	0.1	0	0	0									
Nitrite as N by Ion Chromatography	0.1	0	0	0						ND	0.1	0.51	0.1
Oil and Grease (HEM)	5	1.818	2.1	1.98	100					ND	5.0	5.5	5.0
Silica Dissolved	calculation	9.1	7.7	8.30									
Silica, Total	calculation	9.1	7.7	8.30									
Solids, Total	10	1,000	1,300	1171.00									
Sulfate by Ion Chromatography	12	31.66	25.80	28.32		(2)	(2)			2.4	1.0	4,600	60
TDS-Total Dissolved Solids	10	983	1,277	1150.58				1300 (RL=20)	1400 (RL=20)	ND	20.0	9,800	200
TOC, Total Organic Carbon	30	81.49	185	140.53						16	3.0	260	15
TSS-Total Suspended Solids	10	17	23	20.42	10,000			ND	ND	ND	10	44	16
VSS	10							ND	ND	ND	10	20	16
cBOD	2							61 (RL=10)	130 (RL=20)	6.7	2	170	2
TKN	0.5							12	14	0.6	0.5	91	1.1
Orthophosphate	0.1							ND	ND	ND	0.01	0.47	0.01

Field Parameters	Units	DSCG-LL-111709-PS1A	DSCG-LL-111709-PS1B	DSC 1A&1B	SHUVA Limits for CWLF U	MDEQ NPDES DSC <0.02 MGD	Target Discharge DSC <0.02 MGD
pH	su	13.19	13.19		5 - 11.5	6.5 - 9	6.5 - 9
Temperature	°C	13.08	12.44	12.72			
Conductivity	uS/cm	3230	3740	3520.70			
Dissovled Oxygen	mg/L	10.75	10.86	10.81			
ORP	mV	-239	-220	-228.17			
Salinity	%	0.16	0.19	0.18			
Turbidity	NTU	0	19.3	11.00			
Air Temperature	°F	52	50				

Toxicity		DSCG-LL-111709-PS1A TUa	DSCG-LL-111709-PS1B TUa	
Daphnia Magna		5.4	7.4	
Fathead Minnow		6.6	11.5	

State 061509, 071409,0122009 are samples believed to have been collected from the 30K gallon tank at CWLF, collected by pond sampler.

(1) Monthly grab sample, analyzed by USEPA approved method, 1 mg/L quantification level.
(2) Monthly grab sample, analyzed by USEPA approved method, 2 mg/L quantification level.

Mercury:Higher limits provided for in 1/20/10 Draft DSC-Countwide Memo. Also include Theoretical water quality based effluent limits for Hg at 1.3 ng/L, NEED CLARIFICATION
Where Theoretical water quality based effluent limits provided, Monthly Average input as it is more stringent that Daily Max.

No analysis performed for this method/analyte