

Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

January 19, 2005

Mr. Jerry Wagner 7902 USH 14 Cross Plains, WI 53528 File Ref: 113112010
Dane County

SUBJECT:

Results of Drinking Water Quality Testing, November 2004

Dear Mr. Wagner:

Drinking water samples were collected from your home in November 2004 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, only one VOC, chloromethane, was detected in your well water. The laboratory has indicated that the sample was contaminated with this compound after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Hank Kuchling

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

enclosure

cc:

Dr. Henry Anderson - DHFS Steven Smith – BT², Inc.





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January 19, 2005

Arvid & Margaret Sather 7911 Deer Run Road Cross Plains, WI 53528 File Ref: 113112010
Dane County

SUBJECT:

Results of Drinking Water Quality Testing, November 2004

Dear Mr. and Ms. Sather:

Drinking water samples were collected from your home in November 2004 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, only one VOC, chloromethane, was detected in your well water. The laboratory has indicated that the sample was contaminated with this compound after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

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January 19, 2005

Wayne Rounds 7785 Low Road Middleton, WI 53562 File Ref: 113112010

Dane County

SUBJECT:

Results of Drinking Water Quality Testing, November 2004

Dear Mr. Rounds:

Drinking water samples were collected from your home in November 2004 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, no VOCs were detected in your well water. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

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January 19, 2005

Daniel & Patricia Sommers 7892 Deer Run Road Cross Plains, WI 53528 File Ref: 113112010

Dane County

SUBJECT:

Results of Drinking Water Quality Testing, November 2004

Dear Mr. and Ms. Sommers:

Drinking water samples were collected from your home in November 2004 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, only one VOC, chloromethane, was detected in your well water. The laboratory has indicated that the sample was contaminated with this compound after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Hank Kuchlin

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January 19, 2005

George & Joanne Weber 7873 Deer Run Road Cross Plains, WI 53528 File Ref: 113112010
Dane County

SUBJECT:

Results of Drinking Water Quality Testing, November 2004

Dear Mr. and Ms. Weber:

Drinking water samples were collected from your home in November 2004 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill,

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, only one VOC, chloromethane, was detected in your well water. The laboratory has indicated that the sample was contaminated with this compound after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Remediation and Redevelopment Hydrogeologist

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January 19, 2005

Loyal & Bernice Durand 4314 Fawn Court Cross Plains, WI 53528 File Ref: 113112010

Dane County

SUBJECT:

Results of Drinking Water Quality Testing, November 2004

Dear Mr. and Ms. Durand:

Drinking water samples were collected from your home in November 2004 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, only one VOC, chloromethane, was detected in your well water. The laboratory has indicated that the sample was contaminated with this compound after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Hank Kuchling

Remediation and Redevelopment Hydrogeologist

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January 19, 2005

Ed & Virginia Matush 4310 Fawn Court Cross Plains, WI 53528 File Ref: 113112010
Dane County

SUBJECT:

Results of Drinking Water Quality Testing, November 2004

Dear Mr. and Ms. Matush:

Drinking water samples were collected from your home in November 2004 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, only one VOC, chloromethane, was detected in your well water. The laboratory has indicated that the sample was contaminated with this compound after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Hank Kuchling

Remediation and Redevelopment Hydrogeologist

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January 19, 2005

Al and Jean Stoppleworth 7750 U.S.H. 14 Middleton, WI 53562 File Ref: 113112010 Dane County

Subject: Results of Drinking Water Quality Testing, November 2004

Dear Mr. and Ms. Stoppleworth:

Drinking water samples were collected from your house in November 2004 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill. The samples were collected from the part of your water supply system that is not treated by your point-of-entry treatment system.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, VOCs were detected in your untreated well water. Note that the laboratory has indicated that the sample was contaminated with one of the VOCs detected, chloromethane, after it was collected. It is unlikely that this contaminant is in your well water.

VOC Name	Result (ug/L)	Health Advisory Standard (ug/L)
1,1-Dichloroethane	0.25	850
cis-1,2-Dichloroethene	1.6	70
Tetrachloroethene	2.6	5
Trichloroethene	0.67	5
Dichlorodifluoromethane	0.60	1000
1,2-Dichloropropane	0.066	5

The detected VOCs were all found to be at levels below the associated health advisory standards. Because this sample was taken from the untreated portion of your water supply, these results are not as pertinent to human health concerns as the results from samples that have been collected by Hellenbrand Water Center from the treated portion of your water supply. My records from Hellenbrand indicate that analysis of their treated water sample did not detect tetrachloroethene above the detection limit of 2 micrograms/liter (ug/L) of sample water.

I recommend that you continue to treat your water supply for household use as you have in the past. The semi-annual testing of the untreated portion of your water supply will continue to take place in May and November as part of the State of Wisconsin's routine groundwater monitoring program for Refuse Hideaway Landfill.



If you have any questions or comments about the arrangements noted above, the enclosed drinking water quality results, or our work at the landfill, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Hank Keehling

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

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Dr. Henry Anderson - DHFS Steven Smith - BT^2 , Inc.



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January 19, 2005

Steve and Shirley Noles 7734 U.S.H. 14 Middleton, WI 53562 File Ref: 113112010 Dane County

Subject: Results of Drinking Water Quality Testing, November 2004

Dear Mr. and Ms. Noles:

Drinking water samples were collected from your home in November 2004 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill. The samples were collected from the part of your water supply system that is not treated by your point-of-entry treatment system.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, no VOCs were detected in your untreated well water. This absence of detected VOCs is a continuation of the spring monitoring results and is a change from the results of the past several years in which VOCs were detected in the untreated well water. Note that the occurrence of VOCs in your well water is possible again in the future because the groundwater contaminant plume from the landfill is still present near your well, although groundwater quality in the plume continues to slowly improve over time. Because of this possibility, I recommend that you continue to treat your water supply for household use as you have in the past. My records from Hellenbrand Water Center indicate that analyses of the treated water samples have not detected tetrachloroethene above the detection limit of 2 micrograms/liter (ug/L) of sample water. These results imply that you can rely on your treated water supply for water with no VOCs, regardless of the variations in the untreated groundwater quality of your well.

The DNR will continue to routinely collect an untreated sample from your water supply in May and November of each year to determine if contaminant concentrations are changing or remaining stable over time. This semi-annual testing will continue to take place as part of the State of Wisconsin's routine groundwater monitoring program for Refuse Hideaway Landfill. If you have any questions or comments about the information noted above, the enclosed drinking water quality results, or our work at the landfill, please contact me at the address listed above, or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Hank Kuelling

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us



enclosure

cc: Dr. Henry Anderson - DHFS
Steven Smith - BT², Inc.
DG/SCR



LIESCH ENVIRONMENTAL SERVICES, INC. 6000 GISHOLT DRIVE, SUITE 203 MADISON, WI 53713 608/223-1532 FAX: 608/223-1534

March 22, 2005

Ralph Erickson Madison Metropolitan Sewerage District 1610 Moorland Road Madison, Wisconsin 53713-3398

RE:

Wastewater Discharge Laboratory Results

Wisconsin Department of Natural Resources

Refuse Hideaway Landfill

Permit #: NTO-5I

Mr. Erickson:

Per wastewater discharge permit requirements for the above referenced site, Liesch Environmental Services, Inc. (Liesch) is submitting the enclosed analytical summary table and laboratory reports. All analyzed parameters were below permitted levels.

Please call me at (608) 223-1532 if you need additional information or have any questions.

Sincerely,

LIESCH ENVIRONMENTAL SERVICES, INC.

Brandon C. Nikolish

Staff Engineer

BCN/bm

Enclosure

cc: Mr. Hank Kuehling, WDNR - South Central Region, 3911 Fish Hatchery Road

Fitchburg, WI 53711

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Table 1 Leachate Tank Laboratory Analytical Results Refuse Hideaway Landfill Middleton, Wisconsin

					PAR	AMETE	R				
DATE	Cadmium (ug/L)	Total Chromium (ug∕L)	Hexavalent Chromium (ug/L)	Copper (ug/L.)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L.)	Zinc (ug/L)	Cyanide (ug/L)
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100
9/30/2003 10/9/2003	<0.88	54	<260000	8	<2.2	<0.030	150	<8.0	<1.8	54	5.8
2/23/2004	<0.53	30	<270	24	<1.3	<0.030	93	<4.8	6.5	40	16
8/5/2004	<0.17	21	<27	4.1	1.9	<0.028	54	6.5	0.21	19	15
11/4/2004	<1.7	33	<2.7		2.8	<0.30		13	<0.49		5.4
12/21/2004	<1.7	52	<2.7	8.6	5.4	<0.028	180	21	<0.49	36	9.1

Notes

Results in **bold** indicate levels above permit limitations.

Blank cell indicates parameter not analyzed.

mg/l = parts per million ug/l = parts per billion

J = Analyte detected between limit of detection and limit of quantitation.



A Division of Pace Analytical Services, Inc.

1241 Bellevue Street, Suite 9 Green Bay, WI 54302 920-469-2436, Fax: 920-469-8827

Analytical Report Number: 854719

Lab Contact: Eric Bullock

Project Name: REFUSE LANDFILL

Client: LIESCH ENVIRONMENTAL

Project Number: 59056.00

Lab Sample

Collection

Field ID Number

Matrix Date

854719-001 LEECHATE TANK

WATER 12/21/04

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample comments. Release of this final report is authorized by Laboratory management, as is verified by the following signature. This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc. The sample results relate only to the analytes of interest tested.

Approval Signature

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· En Chem

Analytical Report Number: 854719

1241 Bellevue Street Green Bay, WI 54302 920-469-2436

A Division of Pace Analytical Services, Inc.

Client: LIESCH ENVIRONMENTAL

Project Name: REFUSE LANDFILL

Project Number: 59056.00

Field ID: LEECHATE TANK

Matrix Type: WATER

Collection Date: 12/21/04 Report Date: 03/15/05

Lab Sample Number: 854719-001

INORGANICS											
Test		Result	LOD	LOQ	EQL	Dil.	Units	Code	Ani Date	Prep Method	Anl Method
Cadmium	<	1.7	1.7	5.6		10	ug/L	С	01/14/05	SW846 3020A	SW846 6020
Chromium		52	2.1	6.9		10	ug/L	•	01/14/05	SW846 3020A	SW846 6020
Chromium, Hexavalent	<	2.7	2.7	9.0		1	ug/L		12/22/04	SM 3500 Cr-D	SM 3500 Cr-D
Copper		8.6	2.8	9.3	•	10	ug/L	Q	01/14/05	SW846 3020A	SW846 6020
Lead		5.4	0.67	2.2		10	ug/L		01/14/05	SW846 3020A	SW846 6020
Mercury	<	0.028	0.028	0.093		1	ug/L		12/28/04	SW846 7470A	SW846 7470A
Nickel		180	0.82	2.7		10	ug/L		01/14/05	SW846 3020A	SW846 6020
Selenium		21	4.7	16		10 .	ug/L		01/14/05	SW846 3020A	SW846 6020
Silver	<	0.49	0.49	1.6		10	ug/L	С	01/14/05	SW846 3020A	SW846 6020
Zinc		36	19	63		10	ug/L	Q	01/14/05	SW846 3020A	SW846 6020
Cyanide, Total		0.0091	0.0037	0.012		1	mg/L	Q	12/27/04	EPA 335.4	EPA 335.4

En Chem

A Division of Pace Analytical Services, Inc.

1241 Bellevue Street Green Bay, WI 54302 920-469-2436 Fax: 920-469-8827

Lab Number	TestGroupID	Field ID	Comment
854719-001	M-AG-W	LEECHATE	C - Elevated detection limit due to matrix effect.
854719-001	M-CD-W	LEECHATE	C - Elevated detection limit due to matrix effect.

Qualifier Codes

Ā	Inorganic	Analyte is detected in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and
		are evaluated on a sample by sample basis.
В	Inorganic	The analyte has been detected between the method detection limit and the reporting limit.
3	Organic	Analyte is present in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
0	All	Elevated detection limit,
)	All	Analyte value from diluted analysis or surrogate result not applicable due to sample dilution.
E	Inorganic	Estimated concentration due to matrix interferences. During the metals analysis the serial dilution failed to meet the established control limits of 0-10%. The sample concentration is greater than 50 times the IDL for analysis done on the ICP or 100 times the IDL for analysis done on the ICP-MS. The result was flagged with the E qualifier to indicate that a physical interference was observed.
E	Organic	Analyte concentration exceeds calibration range.
F	Inorganic	Due to potential interferences for this analysis by Inductively Coupled Plasma techniques (SW-846 Method 6010), this analyte has been confirmed by and reported from an alternate method.
F	Organic	Surrogate results outside control criteria.
G	All	The result is estimated because the concentration is less than the lowest calibration standard concentration utilized in the initial calibration. The method detection limit is less than the reporting limit specified for this project.
Н	All	Preservation, extraction or analysis performed past holding time.
HF	Inorganic	This test is considered a field parameter, and the recommended holding time is 15 minutes from collection. The analysis was performed in the laboratory beyond the recommended holding time.
J	All	Concentration detected equal to or greater than the method detection limit but less than the reporting limit.
K	Inorganic	Sample received unpreserved. Sample was either preserved at the time of receipt or at the time of sample preparation.
<	Organic	Detection limit may be elevated due to the presence of an unrequested analyte.
-	All	Elevated detection limit due to low sample volume.
VI	Organic	Sample pH was greater than 2
N	All	Spiked sample recovery not within control limits.
)	Organic	Sample received overweight.
>	Organic	The relative percent difference between the two columns for detected concentrations was greater than 40%.
Q	All	The analyte has been detected between the limit of detection (LOD) and limit of quantitation (LOQ). The results are qualified due to the uncertainty of analyte concentrations within this range.
3	Organic	The relative percent difference between quantitation and confirmation columns exceeds internal quality control criteria. Because the result is unconfirmed, it has been reported as a non-detect with an elevated detection limit.
J	All	The analyte was not detected at or above the reporting limit.
V	All	Sample received with headspace.
N	All	A second aliquot of sample was analyzed from a container with headspace.
X	All	See Sample Narrative.
&	All	Laboratory Control Spike recovery not within control limits.
t	All	Precision not within control limits.
<	All	The analyte was not detected at or above the reporting limit.
1 .	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses passed QC based on precision criteria.
2	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses failed QC based on precision criteria.
3	Inorganic	BOD result is estimated due to the BOD blank exceeding the allowable oxygen depletion.
4	Inorganic	BOD duplicate precision not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
5	Inorganic	BOD result is estimated due to insufficient oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
5	Inorganic	BOD laboratory control sample not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
7	Inorganic	BOD result is estimated due to complete oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
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. En Chem

A Division of Pace Analytical Services, Inc.

Analysis Summary by Laboratory

1241 Bellevue Street Green Bay, WI 54302

1090 Kennedy Avenue Kimberly, WI 54136

	854719-001					
Test Group Name	9-001	·				
CADMIUM	G					
CHROMIUM .	G		٠		•	
CHROMIUM, HEXAVALENT	G					
COPPER	G					
CYANIDE, TOTAL	G					
LEAD	G					•
MERCURY	G					
NICKEL	G	·				
SELENIUM	G					•
SILVER	G					
ZINC	G					

Wis	consin Certification	
G = En Chem Green Bay	405132750 / DATCP: 105-444	
K = En Chem Kimberly	445134030	
S = En Chem Superior	Not Applicable	
C = Subcontracted Analysis		
I = Other Pace Lab Analysis		

En Chem, Inc. Cooler Receipt Log

Batch No. 85 4719			•			•
Project Name or ID leften	u CF	No. of Coolers:_		_Temps	:_ NOT	
A. Receipt Phase: Date cooler	was opened: $\frac{12/22/0}{}$	<u>У</u> ву:	2.1	Mou	1_	
1: Were samples received on ice	? (Must be ≤ 6 C)		YES?	NO ²	NA ·	
2. Was there a Temperature Blar	ık?		YES	6		
3: Were custody seals present ar	nd intact on cooler? (Record on COC)	YES	NO.	·	
4: Are COC documents present?			YES	NO ²		
5: Does this Project require quick	turn around analysis?		YES	©		
6: Is there any sub-work?	•		YES	60		
7: Are there any short hold time t	ests?		YES	NO	.	
8: Are any samples nearing expir	ation of hold-time? (Within 2 days)		(ES)	NO	Contacted by/Who	
9: Do any samples need to be Fil	Itered or Preserved in the lab?	 }	YES ¹	NO	Contacted by/Who	· .
B. Check-in Phase: Date sample	es were Checked-in: 12/22	<i>/оЧ</i> ву:	\mathcal{A}	TUS	un.	
1: Were all sample containers lis	ted on the COC received and intact?		(ES)	NO ²	NA	
2: Sign the COC as received by B	En Chem. Completed		.YES	NO		
3: Do sample labels match the C	OC?	((YES)	NO ²		
	rved samplesv to water: VOC, O&G, TOC, DRO, T			NO	NA	
5: Do samples have correct chem	nical preservation?	Tanan Japan Is	YES	(NO ²)	NA	
6: Are dissolved parameters field	filtered?	otal Nec, Filenolic.	YES	NO ²	(NA)	
7: Are sample volumes adequate	for tests requested?		:YES	NO ²		
8: Are VOC samples free of bubb	oles >6mm		YES	NO ²	NA	
9: Enter samples into logbook. C	ompleted		(ES)	NO		
10: Place laboratory sample num	ber on all containers and COC. Com	pleted	ES	NO	_	
11: Complete Laboratory Trackin	g Sheet (LTS). Completed	• • • • • • • • • • • • • • • • • • • •	YES	NO	MA	·
12: Start Nonconformance form.			(ES	NO	NA	
13: Initiate Subcontracting proce	dure. Completed	······································	YES	NO	NA	
14: Check laboratory sample nur	mber on all containers and COC	<u>025</u> .	(YES	NO	NA	
Short Hold-time tests:						
24 Hours or less Coliform	48 Hours BOD	7 days Ash			Footnotes 1 Notify proper lab group	
Corrosivity = pH	Color	Aqueous Extracta	able Orgar	nics- ALL	immediately.	
Dissolved Oxygen	Nitrite or Nitrate	Flashpoint	-		2 Complete nonconformance	
Hexavalent Chromium HPC	Ortho Phosphorus Surfactants	Free Liquids Sulfide			memo.	
Ferrous Iron	Turbidity	TDS				
Eh	En Core Preservation	TSS				Ì
Odor Residual Chlorine	Power stop preservation	Total Solids TVS				
Sulfite		TVSS				1
		Unpreserved VO	C's		<u> </u>	

Rev. 2/05/04, Attachment to 1-REC-5. Subject to QA Audit.

Reviewed by/date & 1 23/04

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Kuehling, Harlan H.

To:

Steven Smith

Subject:

RE: RHL GW Monitoring - Spring Sampling Round & MapPreparation

Thanks for the call this morning, Steven. The due date of the maps one month following the completion of this spring's round of sampling is OK with me. We also discussed the iso-concentration map and you offered to include both colored iso-concentration contours for total VOCs and individual VOC concentrations in small tables for each well, all for the same price of \$890. This is a great idea. Thanks.

Hank

----Original Message-----

From: Steven Smith [mailto:ssmith@bt2inc.com]

Sent: Wednesday, March 30, 2005 9:03 AM To: Leslie Busse; Kuehling, Harlan H.

Subject: RE: RHL GW Monitoring - Spring Sampling Round & MapPreparation

Hank,

Thanks for approving our Year 2 proposal. We're glad to continue working with you. Here are the answers to your questions:

- 1. Rental cost increase. The may round is the big round requiring 2 guys, 2 sets of rental equipment, for 4 days. The Nov. round is also included.
- 2. Map due dates. Sampling is in May, analytical about 2-3 weeks later, prepare tables and maps. Say approx. 1 month after the sampling.
- 3. Color maps? Yes, we can create color maps just like the ones you sent us, only better because BT2 will have made them.
- 4. PCE or Total VOCs for iso-conc. map. Not really a question. We would need to know by the time we received the lab report (2-3 weeks after sampling).

Let me know if you have any more questions. How is Liesch doing on the LFG O&M? Do you need BT2 to take over that part of the project yet? Thanks, Steven

Steven B. Smith
Environmental Specialist
BT2, Inc.
2830 Dairy Drive
Madison, WI 53718
Office # (608) 224-2830 ext. 239
Mobile # (608) 225-2972
Fax # (608) 224-2839
E-Mail: ssmith@bt2inc.com

>>> "Kuehling, Harlan H." <Harlan.Kuehling@dnr.state.wi.us> 3/29/2005

3:5/:U0 E

Steven,

Last week I received your proposed costs for the GW monitoring program for 2005. These are acceptable so I will start the process of getting a purchase order issued for \$16,916.90. But I'm curious about one

thing:

why the significant increase for the equipment rental line item?

On the second topic of the maps, please plan to go ahead with this project, for the price you have noted below (\$890), when the analytical results and the water level elevations from this spring's monitoring round are available. What would a reasonable due-date be for the maps?

The product will be two maps: a watertable contour map and an iso-concentration map with the area and edge (solid where known and dashed where inferred) of the plume represented. Could this be a color map with the different zones of concentration ranges represented in different colors? Regarding the quality of the maps, we see a range of quality from different consultants, from rather simple and plain line drawings to more detailed and

visually pleasing maps, such as those I have seen from BT2. I assume that the maps for this project will be of the higher quality variety, which shouldn't be a problem if you are using the base map from Montgomery Watson. I can't remember whether or not you have a copy of one of the color iso-concentration maps from a 1998 report from MW, so I'm attaching an e-mail here that includes two color iso-concentration maps as examples of maps that have worked well in the past. I will give more thought to whether PCE or total VOCs would be a more useful criteria for the iso-concentration/plume map.

Thanks.

Hank

----Original Message----

From: Steven Smith [mailto:ssmith@bt2inc.com]

Sent: Friday, March 18, 2005 9:52 AM To: Leslie Busse; Kuehling, Harlan H.

Subject: RE: RHL GW Monitoring - Spring Sampling Round

Hank

We've put together costs for the preparation of the contaminant plume/isoconcentration line map for PCE and a water table contour map based on this spring's GW monitoring information.

Our cost would be \$890 which would include preparation of the necessary tables, conversion of the AutoCAD drawings, drafting, hydro. review, and submittal.

Thanks.

Steven

Steven B. Smith
Environmental Specialist
BT2, Inc.
2830 Dairy Drive
Madison, WI 53718
Office # (608) 224-2830 ext. 239
Mobile # (608) 225-2972
Fax # (608) 224-2839
E-Mail: ssmith@bt2inc.com

>>> "Kuehling, Harlan H." <Harlan.Kuehling@dnr.state.wi.us> 3/17/2005 10:35:50 AM >>>

Great! Assuming this work will cost a relatively small amount of money, just send the cost to me in an e-mail reply. I can have the work paid for with nothing more complicated than an invoice from BT2.

Hank

----Original Message----

From: Steven Smith [mailto:ssmith@bt2inc.com]

Sent: Thursday, March 17, 2005 10:27 AM To: Leslie Busse; Kuehling, Harlan H.

Subject: RE: RHL GW Monitoring - Spring Sampling Round

Hank,

Hold up a minute... I'm a bonehead. I checked with our Drafter and found that we already have all the e-files from Montgomery Watson. We received them 12/1/04.

So, back to your original question- Yes, we can put together costs to prepare the 2 maps you requested.

Do you want us to include the costs on the cover letter for the 2005 Bid Price Sheet as Additional Services (a proposal) or would you rather have us send you a Change Order to do the work?

Thanks,

Steven

Steven B. Smith Environmental Specialist BT2, Inc.



HYDROGEOLOGISTS . ENGINEERS . ENVIRONMENTAL SCIENTISTS

May 23, 2005

Ralph Erickson Madison Metropolitan Sewerage District 1610 Moorland Road Madison, Wisconsin 53713-3398

RE:

Wastewater Discharge Laboratory Results

Refuse Hideaway Landfill, Dane County, Wisconsin (License #1953)

Permit #: NTO-5I

Dear Mr. Erickson:

Per wastewater discharge permit requirements for the above referenced site, please find attached the analytical summary table and laboratory report for the most recent leachate analysis of March 31, 2005. All analyzed parameters were below permitted levels.

Please call me at 223-1532 (ext. 21) if you need additional information or have any questions.

Sincerely,

LIESCH ENVIRONMENTAL SERVICES, INC.

David Nemetz, P.G.

Project Manager

Attachments: table, lab report

cc: Mr. Hank Kuehling, WDNR, 3911 Fish Hatchery Road, Fitchburg, WI 53711

J:\5905600\Discharge Permit\Discharge Results-2005-Mar.doc

Table 1
Leachate Tank Laboratory Analytical Results
Refuse Hideaway Landfill
Middleton, Wisconsin

				<u>.</u>	PAR	AMETE	R				
DATE	Cadmium (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (ug/L)	Copper (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L)	Zinc (ug/L)	Cyanide (ug/L)
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100
9/30/2003 10/9/2003	<0.88	54	<260,000	8	<2.2	<0.030	150	<8.0	<1.8	54	5.8
2/23/2004	<0.53	30	<270	24	<1.3	<0.030	93	<4.8	6.5	40	16
8/5/2004	<0.17	21	<27	4.1	1.9	<0.028	54	6.5	0.21	19	15
11/4/2004	<1.7	33	<2.7		2.8	<0.30		13	<0.49		5.4
12/21/2004	<1.7	52	<2.7	8.6	5.4	<0.028	180	21	<0.49	36	9.1
3/31/2005	0.68	15	<2.7	6.9*	12	<0.028					5.5*
											•

Notes

Results in **bold** indicate levels above permit limitations.

Blank cell indicates parameter not analyzed.

ug/l = micrograms per liter

^{* =} Analyte detected between limit of detection and limit of quantitation.



A Division of Pace Analytical Services, Inc.

1241 Bellevue Street, Suite 9 Green Bay, WI 54302 920-469-2436, Fax: 920-469-8827

Analytical Report Number: 857668

Client: LIESCH ENVIRONMENTAL SERVICES - MAD.

Lab Contact: Eric Bullock

Project Name: REFUSE LANDFILL

Project Number: 59056.00

Lab Sample

Collection

Number

Field ID

Matrix Date

857668-001 LEACHATE TANK

WATER 03/31/05

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample comments. Release of this final report is authorized by Laboratory management, as is verified by the following signature. This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc. The sample results relate only to the analytes of interest tested.

Approval Signature

En Chem

Analytical Report Number: 857668

1241 Bellevue Street Green Bay, WI 54302 920-469-2436

A Division of Pace Analytical Services, Inc.

Client: LIESCH ENVIRONMENTAL SERVICES - MAD

Project Name: REFUSE LANDFILL

Project Number: 59056.00

Field ID: LEACHATE TANK

Matrix Type: WATER

Collection Date: 03/31/05

Report Date: 04/19/05

Lab Sample Number: 857668-001

INORGANICS			٠								
Test		Result	LOD	LOQ	EQL	Dil.	Units	Code	Ani Date	Prep Method	Anl Method
Cadmium ,		0.68	0.17	0.56		1	ug/L		04/18/05	SW846 3020A	SW846 6020
Chromium		15	2.1	6.9		10	ug/L		04/18/05	SW846 3020A	SW846 6020
Chromium, Hexavalent	<	2.7	2.7	9.0		1	ug/L		04/01/05	SM 3500 Cr-D	SM 3500 Cr-D
Copper		6.9	2.8	9.3		10	ug/L	Q	04/18/05	SW846 3020A	SW846 6020
Lead		12	0.067	0.22		1	ug/L		04/18/05	SW846 3020A	SW846 6020
Mercury	<	0.028	0.028	0.093		1	ug/L		04/05/05	SW846 7470A	SW846 7470A
· Cyanide, Total		0.0055	0.0037	0.012	•	1	mg/L	Q	04/08/05	EPA 335.4	EPA 335.4

Qualifier Codes

Flag Applies To Explanation

9	Applies 10	Explanation
A	Inorganic	Analyte is detected in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
В	Inorganic	The analyte has been detected between the method detection limit and the reporting limit.
В	Organic	Analyte is present in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
С	All	Elevated detection limit.
D	All	Analyte value from diluted analysis or surrogate result not applicable due to sample dilution.
Ε	Inorganic	Estimated concentration due to matrix interferences. During the metals analysis the serial dilution failed to meet the established control limits of 0-10%. The sample concentration is greater than 50 times the IDL for analysis done on the ICP or 100 times the IDL for analysis done on the ICP-MS. The result was flagged with the E qualifier to indicate that a physical interference was observed.
E	Organic	Analyte concentration exceeds calibration range.
F	Inorganic	Due to potential interferences for this analysis by Inductively Coupled Plasma techniques (SW-846 Method 6010), this analyte has been confirmed by and reported from an alternate method.
F	Organic	Surrogate results outside control criteria.
G	All	The result is estimated because the concentration is less than the lowest calibration standard concentration utilized in the initial calibration. The method detection limit is less than the reporting limit specified for this project.
Н	All	Preservation, extraction or analysis performed past holding time.
HF	Inorganic	This test is considered a field parameter, and the recommended holding time is 15 minutes from collection. The analysis was performed in the laboratory beyond the recommended holding time.
J	All	Concentration detected equal to or greater than the method detection limit but less than the reporting limit.
K	Inorganic	Sample received unpreserved. Sample was either preserved at the time of receipt or at the time of sample preparation.
K	Organic	Detection limit may be elevated due to the presence of an unrequested analyte.
L	All	Elevated detection limit due to low sample volume.
M.	Organic	Sample pH was greater than 2
N	All	Spiked sample recovery not within control limits.
0	Organic	Sample received overweight.
P	Organic	The relative percent difference between the two columns for detected concentrations was greater than 40%.
Q	All	The analyte has been detected between the limit of detection (LOD) and limit of quantitation (LOQ). The results are qualified due to the uncertainty of analyte concentrations within this range.
S	Organic	The relative percent difference between quantitation and confirmation columns exceeds internal quality control criteria. Because the result is unconfirmed, it has been reported as a non-detect with an elevated detection limit.
Τ.	All.	Inadequate sample volume received to perform the method required MS/MSD.
U	All	The analyte was not detected at or above the reporting limit.
V	Ali	Sample received with headspace.
W	All	A second aliquot of sample was analyzed from a container with headspace.
Χ	All	See Sample Narrative.
&	All	Laboratory Control Spike recovery not within control limits.
*	All	Precision not within control limits.
<	All	The analyte was not detected at or above the reporting limit.
1	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses passed QC based on precision criteria.
2	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses failed QC based on precision criteria.
3	Inorganic	·BOD result is estimated due to the BOD blank exceeding the allowable oxygen depletion.
4 .	Inorganic	BOD duplicate precision not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
5	Inorganic	BOD result is estimated due to insufficient oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
6	Inorganic	BOD laboratory control sample not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
7	Inorganic	BOD result is estimated due to complete oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.

En Chem

A Division of Pace Analytical Services, Inc.

Analysis Summary by Laboratory

1241 Bellevue Street Green Bay, Wi 54302

1090 Kennedy Avenue Kimberly, WI 54136

Test Group Name	857668-001			<i>.</i>		
CADMIUM	G		 		 	
CHROMIUM	G					
CHROMIUM, HEXAVALENT	G				•	
COPPER	G					
CYANIDE, TOTAL	G	•		•		
LEAD	G					
MERCURY	G					

Wisconsin Certification										
G = En Chem Green Bay `	405132750 / DATCP: 105-444									
K = En Chem Kimberly	445134030									
S = En Chem Superior	Not Applicable									
C = Subcontracted Analysis										
I = Other Pace Lab Analysis										

En Chem, Inc. Cooler Receipt Log

Batch No. 857668
Project Name or ID 59056:00 No. of Coolers: / Temps: RJT
A. Receipt Phase: Date cooler was opened: $\frac{\mathcal{H}-1-0.5}{}$ By: $\boxed{\&\mathcal{O}}$
1: Were samples received on ice? (Must be ≤ 6 C)YES NO² NA
2. Was there a Temperature Blank?YES
3: Were custody seals present and intact on cooler? (Record on COC)YES NO
4: Are COC documents present?
5: Does this Project require quick turn around analysis?YES
6: Is there any sub-work?YES NO
7: Are there any short hold time tests?YES NO
8: Are any samples nearing expiration of hold-time? (Within 2 days)
9: Do any samples need to be Filtered or Preserved in the lab?
B. Check-in Phase: Date samples were Checked-in: 4-1-05 By: 60
1: Were all sample containers listed on the COC received and intact?YES NO ² NA
2: Sign the COC as received by En Chem. CompletedYES NO
3: Do sample labels match the COC?
4: Completed pH check on preserved samples
7: Are sample volumes adequate for tests requested?
8: Are VOC samples free of bubbles >6mmYES NO ² NA
9: Enter samples into logbook. Completed
10: Place laboratory sample number on all containers and COC. CompletedYES NO
11: Complete Laboratory Tracking Sheet (LTS). CompletedYES NO NA
12: Start Nonconformance form.
13: Initiate Subcontracting procedure. CompletedYES NO NA
14: Check laboratory sample number on all containers and COC (17//017YES) NO NA
Short Hold-time tests:
24 Hours or less 48 Hours 7 days Footnotes Coliform BOD Ash 1 Notify proper lab group
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Dissolved Oxygen Nitrite or Nitrate Flashpoint 2 Complete nonconformance
Hexavalent Chromium Ortho Phosphorus Free Liquids memo.
HPC Surfactants Sulfide Ferrous Iron Turbidity TDS
Eh En Core Preservation TSS
Odor Power stop preservation Total Solids
Residual Chlorine TVS
Sulfite TVSS Unpreserved VOC's

Rev. 2/05/04, Attachment to 1-REC-5. Subject to QA Audit.

Reviewed by/date 554 19 05

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Kuehling, Harlan H.

From: Dave Nemetz [Dnemetz@madison.liesch.com]

Sent: Thursday, May 26, 2005 1:20 PM

To: Kuehling, Harlan H. **Subject:** RHL--March invoice

Hank,

The sampling of leachate occurred on 8/5/04, 11/4/04, 12/21/04, and 3/31/05. A quarter was skipped earlier in 2004 (perhaps the result of waiting on a contract—I don't know), so the November sample was a makeup one—in the end, leachate was sampled 4 times in 2004, just not at regular quarterly intervals. Leachate sampling for the second quarter of 2005 will occur in June, complying with the MMSD permit. Let me know if you have any further questions regarding leachate sampling.

Thanks,
Dave Nemetz
Liesch Environmental Services, Inc.

Kuehling, Harlan H.

From: Sent: Steven Smith [ssmith@bt2inc.com] Tuesday, June 07, 2005 2:25 PM Leslie Busse; Kuehling, Harlan H.

To: Subject:

Refuse Hideaway LF

Hank,

I've been on the lab about the data disks; they are a couple of weeks over due. Apparently, the lab, TestAmerica, has just installed a new computer system and its not playing nice with the new WDNR GEMS system.

They are working on the data disks now and we should have them soon. On another topic, the lab also informed me that they had a problem with 2 trip blanks and well P-32S. They ran the samples on the same run as another clients samples. The other clients samples were hot for heavy chlorinated solvents. The 2 trip blanks and well P-32S experienced carry-over contamination and the lab had to re-run the samples past their hold times. We'll be receiving a narration outlining this problem in the data package.

We're also working on the iso-concentration and water table maps. Talk to you soon,

Steven

Steven B. Smith
Environmental Specialist
BT2, Inc.
2830 Dairy Drive
Madison, WI 53718
Office # (608) 224-2830 ext. 239
Mobile # (608) 225-2972
Fax # (608) 224-2839
E-Mail: ssmith@bt2inc.com



HYDROGEOLOGISTS . ENGINEERS . ENVIRONMENTAL SCIENTISTS

July 18, 2005

Ralph Erickson Madison Metropolitan Sewerage District 1610 Moorland Road Madison, WI 53713-3398

RE:

Wastewater Discharge Laboratory Results

Refuse Hideaway Landfill, Dane County, Wisconsin (License #1953)

Permit #: NTO-5I

Dear Mr. Erickson:

Per wastewater discharge permit requirements for the above referenced site, please find attached the analytical summary table and laboratory report for the most recent leachate analysis of June 30, 2005. All analyzed parameters were below permitted levels.

Please call me at 223-1532 (ext. 21) if you need additional information or have any questions.

Sincerely,

LIESCH ENVIRONMENTAL SERVICES, INC.

David Nemetz, P.G.

Project Manager

Attachments: table, lab report

cc: Mr. Hank Kuehling, WDNR, 3911 Fish Hatchery Road, Fitchburg, WI 53711

J:\5905600\Discharge Permit\Results0605.doc

Table 1
Leachate Tank Laboratory Analytical Results
Refuse Hideaway Landfill
Middleton, Wisconsin

					PAR	AMETE	R				
DATE	Cadmium (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (ug/L)	Copper (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L)	Zinc (ug/L)	Cyanide (ug/L)
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100
9/30/2003 10/9/2003	<0.88	54	<260,000	8	<2.2	<0.030	150	<8.0	<1.8	54	5.8
2/23/2004	<0.53	30	<270	24	<1.3	<0.030	93	<4.8	6.5	40	16
8/5/2004	<0.17	21	<27	4.1	1.9	<0.028	54	6.5	0.21	19	15
11/4/2004	<1.7	33	<2.7		2.8	<0.30		13	<0.49		5.4
12/21/2004	<1.7	52	<2.7	8.6	5.4	<0.028	180	21	<0.49	36	9.1
3/31/2005	0.68	15	<2.7	6.9*	12	<0.028					5.5*
6/30/2005	<1.00	12.8	<40	6.20	1.70	<0.07	40.5	16.7	<1.00	458	7
·											

Notes

Results in **bold** indicate levels above permit limitations.

Blank cell indicates parameter not analyzed.

ug/l = micrograms per liter

^{* =} Analyte detected between limit of detection and limit of quantitation.

REQUEST FOR SERVICES SEEDING

ENVIROSCAN SEIREPORT TO: Name:lesch Company: Address:6000 Had Phone: (60%) P. O. # Project # _5905 Location Refuse Sample Typ (Check all that all Groundwate Wastewater Soil/Solid Drinking Wa Oil Vapor Other Leace		BILL TO Name: Compa Addres	D: (if d	iffere	ANA (bs	om R	lepor	t To inf	QUEST	TS				
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ENVIROSCAN SERVICES 301 WEST MILITARY ROAD ROTHSCHILD, WI 54474

TELEPHONE FACSIMILE WEBSITE

800-338-7226 715-355-3221 www.usfilter.com

HSFiher

7, 2005 July

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, Wi 53713

Attn: Eric Ellestad

REPORT NO.: 180466

PROJECT NO.: 59056.00

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received July 1, 2005.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using USFilter, Enviroscan Services for your analytical needs.

Sincerely,

USFilter, Enviroscan Services

James R. Salkowski

Laboratory Director

I certify that the data contained in this report has been generated and reviewed in accordance with the USFilter, Enviroscan Services Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. Enviroscan Services reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Approved by:

Certifications:

Wisconsin 737053130 Minnesota 055-999-302 Illinois 100317



A Siemens Business

ENVIROSCAN SERVICES 301 WEST MILITARY ROAD-ROTHSCHILD, WI 54474

TELEPHONE FACSIMILE : WEBSITE 800-338-7226 715-355-3221 www.usfilter.com

180466.2

Sample Summary

Lab Id 180466 Client Sample ID LEACHATE

Date/Time 06/30/05 12:50

Matrix LEACHATE

Sample Narrative/Sample Status

LOGIN:

GENERAL:

ANALYSES:

QA/QC:

REPORTING:

Definitions

LOD = Limit of Detection (Not dilution corrected)
LOQ = Limit of Quantitation (Not dilution corrected)
< = Less Than
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pCi/l = picocurie per liter
ml/l = milliters/Liter
mg = milligrams

μg/l = Micrograms per liter = parts per billion (ppb)
μg/kg = Micrograms per kilogram = parts per billion (ppb)
mg/l = Milligrams per liter = parts per million (ppm)
mg/kg = Milligrams per kilogram = parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
(\$) = Surrogate Compound
mg/m3 = Milligrams/meter cube
ng/l = Nanograms per liter



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ENVIROSCAN SERVICES 301 WEST MILITARY ROAD ROTHSCHILD, WI 54474

TELEPHONE FACSIMILE WEBSITE

800-338-7226 715-355-3221 www.usfilter.com

Liesch Environmental Services, Inc. PROJECT NO.: 59056.00 REPORT NO. : 180466.3 DATE REC'D : 07/01/05

REPORT DATE: 07/07/05 PREPARED BY: JRS

Attn: Eric Ellestad

Madison, Wi 53713

6000 Gisholt Drive Suite 203

Sample ID: LEACHATE	Matri	x: LEACH	Sam	ple Date/Ti	ime: 06/30/05 12:50	Lab No. 18	80466
	<u>Result</u>	<u>Units</u>	LOD	LOQ	Dilution <u>Factor</u> <u>Qualifiers</u>	Date <u>Analyzed</u>	Analyst
EPA 245.1 Total Mercury	<0.07	μg/l	0.07	0.23	1	07/07/05	MPM
EPA 335.3 Total Cyanide	0.007	mg/l	0.005	0.017	1	07/05/05	LCK
EPA 6020 Total Cadmium	<1.00	u a til	.	0.67	E	07/06/05	JCH
Total Chromium	12.8	μg/l μg/l	0.2 1.6	5.33	5 . 5 5 5	07/06/05	JCH
Total Copper	6.20	μg/l	0.6	2.0	Ś	07/06/05	JCH
Total Lead	1.70	μg/l	0.3	1.0	5	07/06/05	JCH
Total Nickel	40.5	μg/l	0.3	1.0	5	07/06/05	JCH
Total Selenium	16.7	μg/l	0.6	2.0	5	07/06/05	JCH
Total Silver	<1.00	μg/l	0.2	0.67	5	07/06/05	JCH
Total Zinc	458.	μg/l	2.0	6.66	5	07/06/05	JCH
ICP-MS METAL PREP	COMP		-	•	-	07/05/05	JCH
EPA 7196							
Hexavalent Chromium	<0.04	mg/l	0.004	0.013	10 S1L S2L	07/01/05	BMS
Hexavalent Chromium Time	08:45		-	-	•	07/01/05	BMS

Qualifier Descriptions

S1L				recovery	was	low.	Sample result
	may be	hisead	Lou				

S2L Sample matrix spike duplicate recovery was low. Sample

result may be biased low.



Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

August 19, 2005

Arvid & Margaret Sather 7911 Deer Run Road Cross Plains, WI 53528 File Ref: 113112010 Dane County

Subject: Results of Drinking Water Testing, May 2005

Dear Mr. and Ms. Sather:

Drinking water samples were collected from your home in May 2005 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, only one VOC, methylene chloride, was detected in your well water. All indications are that the sample was contaminated with this compound after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Hank Kuchling

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

enclosure

cc:

 $\begin{array}{l} Dr. \ Henry \ Anderson \ \text{--} \ DHFS \\ Steven \ Smith \ \text{--} \ BT^2, \ Inc. \end{array}$





Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

August 19, 2005

Ms. Shirley Noles 7734 USH 14 Middleton, WI 53562 File Ref: 113112010 Dane County

Subject: Results of Drinking Water Quality Testing, May 2005

Dear Ms. Noles:

Drinking water samples were collected from your home in May 2005 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill. The samples were collected from the part of your water supply system that is not treated by your point-of-entry treatment system.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, two VOCs, chloromethane and methylene chloride, were detected in the sample, but all indications are that the sample was contaminated with these compounds after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time. This absence of VOCs is a continuation of a recent trend and is a change from the results of past years in which VOCs were detected in the untreated well water. Note that the occurrence of VOCs in your well water is possible again in the future because the groundwater contaminant plume from the landfill is still present near your well, although groundwater quality in the plume continues to slowly improve over time. Because of this possibility, I recommend that you continue to treat your water supply for household use as you have in the past.

The DNR will continue to routinely collect an untreated sample from your water supply in May and November of each year to determine if contaminant concentrations are changing or remaining stable over time. This semi-annual testing will continue to take place as part of the State of Wisconsin's routine groundwater monitoring program for Refuse Hideaway Landfill. If you have any questions or comments about the information noted above, the enclosed drinking water quality results, or our work at the landfill, please contact me at the address listed above, or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us



enclosure

cc:

Dr. Henry Anderson - DHFS Steven Smith – BT², Inc. DG/SCR



Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

August 19, 2005

Al and Jean Stoppleworth 7750 USH 14 Middleton, WI 53562 File Ref.: 113112010 Dane County

Subject: Results of Drinking Water Quality Testing, May 2005

Dear Mr. and Ms. Stoppleworth:

Drinking water samples were collected from your house in May 2005 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill. The samples were collected from the part of your water supply system that is not treated by your point-of-entry treatment system.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, VOCs were detected in your untreated well water. Note that the sample was probably contaminated with two of the VOCs detected, chloromethane and methylene chloride, after it was collected. It is unlikely that these two contaminants are in your well water.

Result (ug/L)	Health Advisory Standard (ug/L)
0.26	850
1.7	70
3.0	5
0.65	5
1.3	1000
0.061	5 .
0.10	2000
	0.26 1.7 3.0 0.65 1.3 0.061

The detected VOCs were all found to be at levels below the associated health advisory standards. Because this sample was taken from the untreated portion of your water supply, these results are not as pertinent to human health concerns as are the results from samples that have been collected by Hellenbrand Water Center from the treated portion of your water supply. My records from Hellenbrand indicate that analysis last winter of their treated water sample did not detect tetrachloroethene above the detection limit of 2 micrograms/liter (ug/L) of sample water.

I recommend that you continue to treat your water supply for household use as you have in the past. The semi-annual testing of the untreated portion of your water supply will continue to take place in May and November as part of the State of Wisconsin's routine groundwater monitoring program for Refuse Hideaway Landfill.



If you have any questions or comments about the arrangements noted above, the enclosed drinking water quality results, or our work at the landfill, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

dank Keelling

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

enclosure

cc: Dr. Henry Anderson - DHFS

Steven Smith $-BT^2$, Inc.



Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

August 19, 2005

Jeanette Wheat & Daryl Krueger 4306 Fawn Court Cross Plains, WI 53528 File Ref.: 113112010

Dane County

Subject: Results of Drinking Water Quality Testing, May 2005

Dear Ms. Wheat and Mr. Krueger:

Drinking water samples were collected from your home in May 2005 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, one VOC, methylene chloride, was detected in your well water. All indications are that the sample was contaminated with this compound after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

Chenk Kuchling

enclosure ·

cc: He

Henry Nehls-Lowe - DHFS Steven Smith – BT², Inc.





Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

August 22, 2005

Mr. Jerry Trantow & Ms. Grace Thompson 4318 Fawn Court Cross Plains, WI 53528 File Ref: 113112010 Dane County

Subject: Results of Drinking Water Quality Testing, May 2005

Dear Mr. Trantow and Ms. Thompson:

Drinking water samples were collected from your home in May 2005 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, two VOCs, chloromethane and methylene chloride, were detected in your well water. All indications are that the sample was contaminated with these compounds after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Hank Kuchha

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

enclosure

cc:

Henry Nehls-Lowe - DHFS Steven Smith – BT², Inc.





Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

August 22, 2005

Mr. Richard Summers 4610 Rocky Dell Road, Route 1 Middleton, WI 53562 File Ref.: 113112010 Dane County

Subject: Results of Drinking Water Quality Testing, May 2005

Dear Mr. Summers:

Drinking water samples were collected from your home in May 2005 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, two VOCs, chloromethane and methylene chloride, were detected in your well water. All indications are that the sample was contaminated with these compounds after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Dank Kuchlin

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

enclosure

cc:

Henry Nehls-Lowe - DHFS Steven Smith – BT², Inc.





Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

August 22, 2005

Raymond & Mary Bula 7872 Deer Run Road Cross Plains, WI 53528 File Ref.: 113112010 Dane County

Subject: Results of Drinking Water Quality Testing, May 2005

Dear Mr. and Ms. Bula:

Drinking water samples were collected from your home in May 2005 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, two VOCs, chloromethane and methylene chloride, were detected in your well water. All indications are that the sample was contaminated with these compounds after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

Dank Kuelling

enclosure

cc:

Henry Nehls-Lowe - DHFS Steven Smith - BT², Inc.





Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

August 22, 2005

No forwarding address

William & Evelyn Plummer 7877 Deer Run Road Cross Plains, WI 53528 File Ref.: 113112010

Dane County

Subject: Results of Drinking Water Quality Testing, May 2005

Dear Mr. & Ms. Plummer:

Drinking water samples were collected from your home in May 2005 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, two VOCs, chloromethane and methylene chloride, were detected in your well water. All indications are that the sample was contaminated with these compounds after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

Hank Kuchling

enclosure

cc: Henry Nehls-Lowe - DHFS

Steven Smith - BT², Inc.





Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

September 8, 2005

Ms. Cindy Bonk 7877 Deer Run Road Cross Plains, WI 53528 File Ref.: 113112010

Dane County

Subject: Results of Drinking Water Quality Testing, May 2005

Dear Ms. Bonk:

Drinking water samples were collected from your home in May 2005 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, two VOCs, chloromethane and methylene chloride, were detected in your well water. All indications are that the sample was contaminated with these compounds after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

Dank Hullen

enclosure

cc:

Henry Nehls-Lowe - DHFS Steven Smith - BT², Inc.



Kuehling, Harlan H.

From: Kuehling, Harlan H.

Sent: Thursday, October 06, 2005 9:13 AM

To: Kalnicky, Richard A Cc: Schmoller, Michael R.

Subject: RE: Additional Work at Refuse Hideaway LF

The total cost will be \$2,800, well under \$5,000. As a result, I'll have BT2 merely send the invoice for the completed work to me and I'll have the SCR finance people pay it. And, with this approach, the pumps will be out of the wells, so all Mike has to contract out is the actual well abandonment. Thanks, Dick.

Hank

----Original Message----From: Kalnicky, Richard A

Sent: Thursday, October 06, 2005 8:35 AM

To: Kuehling, Harlan H. Cc: Kalnicky, Richard A

Subject: RE: Additional Work at Refuse Hideaway LF

Hank, the answer to both questions is yes. I'm assuming that the cost for removal and installation will be relatively small--under or close to \$5,000--and it doesn't make sense to get further quotes. For the budget codes, let's charge all of this to the Refuse Hideaway state funded response budget code. Thanks to you and Mike for working this out. It is a real service to state taxpayers if we can reuse equipment that is still in good condition.

----Original Message----From: Kuehling, Harlan H.

Sent: Thursday, October 06, 2005 8:03 AM

To: Kalnicky, Richard A

Subject: FW: Additional Work at Refuse Hideaway LF

Hi, Dick,

Mike Schmoller is in the process of abandoning the monitoring wells for Paul Kozol's former site, Madison Municipal Well #3. I have requested BT2, the current GW monitoring contractor for RHL, to give us a cost quote to remove all 19 of the pumps from the MMW#3 monitoring wells, transport them to the blower building at RHL for storage, and install 6 of them in deeper RHL monitoring wells that have not had dedicated pumps in the past. So, my first question for you is: can I give the "go-ahead" to BT2 to do this work, which will make sampling the 6 wells easier?

My second question is: should we pay the entire cost of this project under the RHL budget code? A negligible amount of the total cost would otherwise be associated with the well abandonment project, and a small part of the total cost will be clean-up of all of the pumps, some of which won't be used at RHL but will hopefully be used on another State-lead project somewhere else. I plan to keep a few extra pumps for RHL for pump replacement purposes; we can make the remainder available to our program. So, the bulk of the cost for this pump removal, clean-up, and installation project will be associated with RHL work. So, to keep the accounting simple, should we charge the entire cost to the RHL budget code or should we split the costs to two or more budget codes?

Thanks for giving these questions some attention, Dick.

Hank

----Original Message----

From: Steven Smith [mailto:ssmith@bt2inc.com] Sent: Wednesday, October 05, 2005 10:54 AM

To: Leslie Busse; Kuehling, Harlan H.

Subject: Additional Work at Refuse Hideaway LF

Hank

I finished the cost estimate for installing the 6 additional bladder pumps at Refuse Hideaway LF.

The costs include pulling all 19 bladder pumps from the Ist St.

location, removing and disposing of the pump tubing, cleaning the pumps, installing 6 pumps with new tubing at Refuse Hideaway, testing the pumps, and storing the extra pumps inside the blower building = \$1,345 for BT2 We need to order and replace both the air supply line and the discharge line because they come bonded together from the factory. Costs to buy the 700' of discharge and air supply line, including shipping = \$1,455 Total for the additional work = \$2,800

Let me know when we can go ahead and order the tubing. Thanks, Steven

Steven B. Smith
Environmental Specialist
BT2, Inc.
2830 Dairy Drive
Madison, WI 53718
Office # (608) 224-2830 ext. 239
Mobile # (608) 225-2972
Fax # (608) 224-2839
E-Mail : ssmith@bt2inc.com

Kuehling, Harlan H.

From: Kuehling, Harlan H.

Sent: Thursday, October 06, 2005 9:28 AM

To: 'Steven Smith'; Leslie Busse

Cc: Kalnicky, Richard A

Subject: RE: Additional Work at Refuse Hideaway LF

Steve,

Thanks for providing the price quote for the pump work. Please go ahead with this work for the \$2,800 as soon as possible (this month?). I can get you a map of the monitoring well locations and may be able to meet you at the site if you give me some advance notice of when you plan to do the work.

Thanks.

Hank

----Original Message-----

From: Steven Smith [mailto:ssmith@bt2inc.com] Sent: Wednesday, October 05, 2005 10:54 AM

To: Leslie Busse; Kuehling, Harlan H.

Subject: Additional Work at Refuse Hideaway LF

Hank,

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The costs include pulling all 19 bladder pumps from the Ist St.

location, removing and disposing of the pump tubing, cleaning the pumps, installing 6 pumps with new tubing at Refuse Hideaway, testing the pumps, and storing the extra pumps inside the blower building = \$1,345 for BT2 We need to order and replace both the air supply line and the discharge line because they come bonded together from the factory. Costs to buy the 700' of discharge and air supply line, including shipping = \$1,455 Total for the additional work = \$2,800

Let me know when we can go ahead and order the tubing. Thanks, Steven

Steven B. Smith
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2830 Dairy Drive
Madison, WI 53718
Office # (608) 224-2830 ext. 239
Mobile # (608) 225-2972
Fax # (608) 224-2839
E-Mail: ssmith@bt2inc.com

Kuehling, Harlan H.

From:

Kuehling, Harlan H.

Sent:

Monday, October 10, 2005 2:26 PM

To:

'Steven Smith'

Cc:

Schmoller, Michael R.

Subject:

RE: #3002 Sanitary Transfer & LF

OK, Steve. Mike, can you meet Steve at 8:00 a.m. and pick a place to meet?

I don't see any reason why I need to meet you at RHL, Steve, since you now know where all of the monitoring wells are located. And, to summarize, pumps will be installed in the following RHL monitoring wells that don't now have pumps:

P-8BR

P-18S

P-23D

P-25D

P-28S

P-33D

Thanks.

Hank

----Original Message----

From: Steven Smith [mailto:ssmith@bt2inc.com]

Sent: Monday, October 10, 2005 2:18 PM
To: Leslie Busse; Kuehling, Harlan H.
Subject: RE: #3002 Sanitary Transfer & LF

Hank,

I'll meet Mike at 8 am on 10/24 to pull the pumps.

I have the #2002 key and plan on installing the pumps at Refuse Hideaway the same day as I pull them at 1st St. (10/24).

Makes for one nice, long day - hopefully the weather cooperates.

Thanks, Steven

Steven B. Smith
Environmental Specialist
BT2, Inc.
2830 Dairy Drive
Madison, WI 53718
Office # (608) 224-2830 ext. 239
Mobile # (608) 225-2972
Fax # (608) 224-2839
E-Mail: ssmith@bt2inc.com

>>> "Kuehling, Harlan H." <Harlan.Kuehling@dnr.state.wi.us> 10/10/2005 2:01 PM >>>

Using the Ft. Atkinson WWTP certainly makes the project a little easier.

I'll send a map of the monitoring well locations in the First Street area where you'll be pulling the pumps. The map is in an 11"x17" format, so I will FAX it to you in 2 overlapping pages that you can tape together. On

October 24, Mike will meet you out at the site (I will skip it; no need for two DNR employees there). Let him know what time he should meet you there.

When you drop off the pumps at RHL, put them in the unlocked wooden blower building (farthest from the enclosure gate. The key to the enclosure gate lock is the same as the key for the main gate near USH 14

(key# 2002). Let me know if you don't have that key. And, when do you plan to install the pumps in the six wells for RHL?

Hank

----Original Message----

From: Steven Smith [mailto:ssmith@bt2inc.com]

Sent: Monday, October 10, 2005 12:30 PM
To: Leşlie Busse; Kuehling, Harlan H.
Subject: #3002 Sanitary Transfer & LF

Hank.

I received permission from Paul Christianson at the Ft. Atkinson WWTP to dispose of the purge water from the well sampling. See you on the 18th.

Also, I plan on pulling the bladder pumps for Refuse Hideaway LF on Mon. 10/24. I'll need a map of the well locations at 1st St. Thanks, Steven

Steven B. Smith
Environmental Specialist
BT2, Inc.
2830 Dairy Drive
Madison, WI 53718
Office # (608) 224-2830 ext. 239
Mobile # (608) 225-2972
Fax # (608) 224-2839
E-Mail: ssmith@bt2inc.com



HYDROGEOLOGISTS . ENGINEERS . ENVIRONMENTAL SCIENTISTS

October 10, 2005

Ralph Erickson Madison Metropolitan Sewerage District 1610 Moorland Road Madison, WI 53713-3398

RE:

Wastewater Discharge Laboratory Results

Refuse Hideaway Landfill, Dane County, Wisconsin (License #1953)

Permit #: NTO-5I

Dear Mr. Erickson:

Per wastewater discharge permit requirements for the above referenced site, please find attached the analytical summary table and laboratory report for the most recent leachate analysis of September 21, 2005. All analyzed parameters were below permitted levels.

Please call me at 223-1532 (extension 21) if you need additional information or have any questions.

Sincerely,

LIESCH ENVIRONMENTAL SERVICES, INC.

David Nemetz, P.G.

Project Manager

Attachments: table, lab report

cc: Mr. Hank Kuehling, WDNR, 3911 Fish Hatchery Road, Fitchburg, WI 53711

J:\5905600\Discharge Permit\Results0905.doc



Table 1
Leachate Tank Laboratory Analytical Results
Refuse Hideaway Landfill
Middleton, Wisconsin

		PARAMETER												
DATE	Cadmium (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (ug/L)	Copper (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L)	Zinc (ug/L)	Cyanide (ug/L)			
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100			
9/30/2003 10/9/2003	<0.88	54	<260,000	8	<2.2	<0.030	150	<8.0	<1.8	54	5.8			
2/23/2004	<0.53	30	<270	24	<1.3	<0.030	93	<4.8	6.5	40	16			
8/5/2004	<0.17	21	<27	4.1	1.9	<0.028	54	6.5	0.21	19	15			
11/4/2004	<1.7	33	<2.7		2.8	<0.30		13	<0.49		5.4			
12/21/2004	<1.7	52	<2.7	8.6	5.4	<0.028	180	21	<0.49	36	9.1			
3/31/2005	0.68	15	<2.7	6.9*	12	<0.028		-			5.5*			
6/30/2005	<1.00	12.8	· <40	6.20	1.70	<0.07	40.5	16.7	<1.00	458	.7			
9/21/2005	<1.00	17.8	<40	13.5	8.30	<0.07	46.5	20.1	4.20	95.1	< 5			
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Notes

Results in **bold** indicate levels above permit limitations.

Blank cell indicates parameter not analyzed.

ug/l = micrograms per liter

^{* =} Analyte detected between limit of detection and limit of quantitation.

REQUEST FOR SERVICES



A Siemens Business

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ENVIROSCAN SERVICES 301 WEST MILITARY ROAD ROTHSCHILD, WI 54474 FACSIMILE - WEBSITE

800-338-7226 715-355-3221 vww.usfilter.com

DE CENTRETHER THE

October 4, 2005

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, Wi 53713

Attn: Dave Nemetz

REPORT NO.: 186628

PROJECT NO.: 59056.00

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received September 22, 2005.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using USFilter, Environcean Services for your analytical needs.

Sincerely,

USFilter, Enviroscan Services

Cindy K. Varga

Quality Assurance Manager

I certify that the data contained in this report has been generated and reviewed in accordance with the USFilter, Enviroscan Services Quality Assurance Program.

Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner.

Enviroscan Services reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Approved by:

EniAfage

Certifications:

Wisconsin 737053130 Minnesota 055-999-302 Illinois 100317 USFilter.



A Siemens Business

ENVIROSCAN SERVICES 301 WEST MILITARY ROAD ROTHSCHILD, WI 54474 TELEPHONE FACSIMILE WEBSITE

800-338-7226 715-355-3221 www.usfilter.com

Sample Summary

186628.2

<u>Lab Id</u> 186628 Client Sample ID LEACHATE

Date/Time 09/21/05 13:30 Matrix LEACHATE

Sample Narrative/Sample Status

LOGIN:

GENERAL:

ANALYSES:

QA/QC:

REPORTING:

<u>Definitions</u>

LOD = Limit of Detection (Not dilution corrected)
LOQ = Limit of Quantitation (Not dilution corrected)
< = Less Than
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pCi/l = picocurie per liter
ml/l = milliters/Liter
mg = milligrams

μg/l = Micrograms per liter = parts per billion (ppb)
μg/kg = Micrograms per kilogram = parts per billion (ppb)
mg/l = Milligrams per liter = parts per million (ppm)
mg/kg = Milligrams per kilogram = parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
(S) = Surrogate Compound
mg/m3 = Milligrams/meter cube
ng/l = Nanograms per liter



A Siemens Business

ENVIROSCAN SERVICES 301 WEST MILITARY ROAD ROTHSCHILD, WI 54474

TELEPHONE FACSIMILE WEBSITE

800-338-7226 715-355-3221 www.usfilter.com

PROJECT NO.: 59056.00 REPORT NO.: 186628.3 DATE REC'D: 09/22/05 REPORT DATE: 10/04/05 PREPARED BY: CKV

Attn: Dave Nemetz

Liesch Environmental Services, Inc.

6000 Gisholt Drive Suite 203 Madison, Wi 53713

Sample ID: LEACHATE	Matrix	: LEACH	Sam	ple Date/Ti	me: 09/21/ 0	05 13:30	Lab No. 18	86628
	Result	<u>Units</u>	LOD	LOQ ·	Dilution <u>Factor</u>	Qualifiers	Date <u>Analyzed</u>	Analyst
EPA 245_1 Total Mercury	<0.07	μg/l	0.07	0.23	10		09/29/05	мрм
EPA 335.3 Total Cyanide	<0.005	mg/l	0.005	0.017	1		09/29/05	LCK
EPA 200.8 Total Cadmium Total Chromium Total Copper Total Lead Total Nickel Total Selenium Total Silver Total Zinc ICP-MS METAL PREP	<1.00 17.8 13.5 8.30 46.5 20.1 4.20 95.1 COMP	μg/l μg/l μg/l μg/l μg/l μg/l μg/l	0.2 1.6 0.6 0.3 0.3 0.6 0.2 2.0	0.67 5.33 2.0 1.0 1.0 2.0 0.67 6.66	5 5 5 5 5 5 5		10/03/05 10/03/05 10/03/05 10/03/05 10/03/05 10/03/05 10/03/05 10/03/05 09/29/05	10H 10H 10H 10H 10H 10H 10H
SM3500CRD Hexavalent Chromium Hexavalent Chromium Time	<0.04 08:45	mg/l	0.004	0.013	10		09/22/05 09/22/05	BMS BMS



Jim Doyle, Governor Scott Hassett, Secretary 101 S. Webster St.

Box 7921

Madison, Wisconsin 53707-7921

Telephone 608-266-2621

FAX 608-267-3579

TTY Access via relay - 711

October 10, 2005

The Honorable Peggy A. Lautenschlager Attorney General of Wisconsin 17 W. Main Street P. O. Box 7857 Madison, WI 53707-7857

Subject: Land and Water Use Restrictions for the Refuse Hideaway Landfill Superfund Site

Dear Attorney General Lautenschlager:

I am writing to request that your office represent the Department in an action to obtain land and water use restrictions for the Refuse Hideaway Landfill Superfund Site. The State of Wisconsin disposed of waste at the landfill and is the Settling Performing Party responsible for operation and maintenance of the remedy at the site. Under the Consent Decree for the site, the State is to obtain from the property owner any land use restrictions necessary to assure the protectiveness of the remedy. Due to development pressure in the vicinity of the landfill, it is now necessary to obtain such restrictions. The Consent Decree for this case was lodged in the U.S. District Court for the Western District of Wisconsin on August 29, 2001, Case No. 01C0394S.

The Refuse Hideaway Landfill is located at 7182 U.S. Hwy 14, Middleton, Wisconsin. The property consists of two parcels that were transferred from the landfill operator, John DeBeck and his son Thomas DeBeck to Refuse Hideaway, Inc., which remains the owner of record. The corporation was involuntarily dissolved in 1990 and property taxes have not been paid since 1991. John DeBeck is deceased.

There is no property owner to grant an easement to the State. Therefore, the Department is requesting that your office bring an action under ch. 841, Stats., or other applicable law, to obtain a declaration of interest in land for the purpose of imposing a restrictive easement. The Department is permitted to obtain an interest in land under s. 292.31(7)(am), Stats., to ensure that land and water use restrictions at a superfund site are enforceable.

Under the authority of Wis. Stat. § 165.25, the Department refers this matter to your office. Attorney Deborah Johnson, who will serve as Department liaison on this matter, will forward additional material.

Sincerely,

Scott Hassett

cc:

Deborah Johnson, LS/5
Harlan Kuehling, Fitchburg
Patrick McCutcheon, Fitchburg





Hydrogeologists # Engineers # Environmental Scientists

December 5, 2005

Ralph Erickson Madison Metropolitan Sewerage District 1610 Moorland Road Madison, WI 53713-3398

RE:

Wastewater Discharge Laboratory Results

Refuse Hideaway Landfill, Dane County, Wisconsin (License #1953)

Permit #: NTO-5I

Dear Mr. Erickson:

Per wastewater discharge permit requirements for the above referenced site, please find attached the analytical summary table and laboratory report for the most recent leachate analysis of November 16, 2005 (4th quarter). All analyzed parameters were below permitted levels.

Please call me at 223-1532 (extension 21) if you need additional information or have any questions.

Sincerely,

LIESCH ENVIRONMENTAL SERVICES, INC.

David Nemetz, P.G.

Project Manager

Attachments: table, lab report

cc: Mr. Hank Kuehling, WDNR, 3911 Fish Hatchery Road, Fitchburg, WI 53711

J:\5905600\Discharge Permit\Results1105.doc

Table 1
Leachate Tank Laboratory Analytical Results
Refuse Hideaway Landfill
Middleton, Wisconsin

		PARAMETER												
DATE	Cadmium (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (ug/L)	Copper (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L)	Zinc (ug/L)	Cyanide (ug/L)			
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100			
9/30/2003 10/9/2003	<0.88	54	<260,000	8	<2.2	<0.030	150	<8.0	<1.8	54	5.8			
2/23/2004	<0.53	30	<270	24	<1.3	<0.030	93	<4.8	6.5	40	16			
8/5/2004	<0.17	21	<27	4.1	1.9	<0.028	54	6.5	0.21	19	15			
11/4/2004	<1.7	33	<2.7		2.8	<0.30		13	<0.49		5.4			
12/21/2004	<1.7	52	<2.7	8.6	5.4	<0.028	180	21	<0.49	36	9.1			
3/31/2005	0.68	15	<2.7	6.9*	12	<0.028				,	5.5*			
6/30/2005	<1.00	12.8	<40	6.20	1.70	<0.07	40.5	16.7	<1.00	458	7			
9/21/2005	<1.00	17.8	<40	13.5	8.30	<0.07	46.5	20.1	4.20	95.1	<5			
11/16/2005	<1.00	14.2	<40	3:04	<1.50	<0.07	44.6	31.6	5.20	<10.0	10*			

Notes

Results in **bold** indicate levels above permit limitations.

Blank cell indicates parameter not analyzed.

ug/l = micrograms per liter

^{* =} Analyte detected between limit of detection and limit of quantitation.



ENVIROSCAN SERVICES 301 WEST MILITARY ROAD ROTHSCHILD, WI 54474

TELEPHONE WEBSITE

PROJECT NO.: 59056.000

800-338-7226 FACSIMILE 715-355-3221 www.usfilter.com

USFilter,

December 2, 2005

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, Wi 53713

Attn: Dave Nemetz

REPORT NO.: 190792

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received November 17, 2005.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using USFilter, Enviroscan Services for your analytical needs.

Sincerely,

USFilter, Enviroscan Services

James R. Salkowski

Laboratory Director

I certify that the data contained in this report has been generated and reviewed in accordance with the USFilter, Enviroscan Services Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner.

Enviroscan Services reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Approved by:

Certifications:

Wisconsin 737053130 Minnesota 055-999-302

andy Ellayo

Illinois 100317



A Siemens Business

ENVIROSCAN SERVICES 301 WEST MILITARY ROAD ROTHSCHILD, WI 54474 TELEPHONE
FACSIMILE
WEBSITE

800-338-7226 715-355-3221 www.usfilter.com

Sample Summary

190792.2

Lab Id 190792 Client Sample ID REFUSE LF Date/Time 11/16/05 14:00 Matrix LEACHATE

Sample Narrative/Sample Status

LOGIN:

GENERAL:

ANALYSES:

QA/QC:

REPORTING:

<u>Definitions</u>

LOD = Limit of Detection (Not dilution corrected)
LOQ = Limit of Quantitation (Not dilution corrected)
< = Less Than
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pCi/l = picocurie per liter
ml/l = milliters/Liter
mg = milligrams

μg/l = Micrograms per liter = parts per billion (ppb)
μg/kg = Micrograms per kilogram = parts per billion (ppb)
mg/l = Milligrams per liter = parts per million (ppm)
mg/kg = Milligrams per kilogram = parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
(S) = Surrogate Compound
mg/m3 = Milligrams/meter cube
ng/l = Nanograms per liter



A Siemens Business

ENVIROSCAN SERVICES 301 WEST MILITARY ROAD ROTHSCHILD, WI 54474 TELEPHONE FACSIMILE WEBSITE

800-338-7226 715-355-3221 www.usfilter.com

PROJECT NO.: 59056.000 REPORT NO.: 190792.3 DATE REC'D: 11/17/05 REPORT DATE: 12/02/05 PREPARED BY: JRS

Attn: Dave Nemetz

Madison, Wi 53713

Liesch Environmental Services, Inc.

6000 Gisholt Drive Suite 203

Sample ID: REFUSE LF	Matri	x: LEACH	Sam	ple Date/Ti	me: 11/16/ 0	5 14:00	Lab No. 19	90792
	Result	<u>Units</u>	LOD	LOQ ·	Dilution <u>Factor</u>	Qualifiers	Date <u>Analyzed</u>	Analyst
EPA 245.1 Total Mercury	<0.07	μg/l	0.07	0.23	1		12/01/05	MPM
EPA 335.3 Total Cyanide	0.01	mg/l	0.005	0.017	1	j	11/21/05	LCK
EPA 6020 Total Cadmium Total Chromium Total Copper Total Lead Total Nickel Total Selenium Total Silver Total Zinc ICP-MS METAL PREP	<1.00 14.2 3.04 <1.50 44.6 31.6 5.20 <10.0 COMP	μg/l μg/l μg/l μg/l μg/l μg/l	0.2 1.6 0.6 0.3 0.3 0.6 0.2	0.67 5.33 2.0 1.0 1.0 2.0 0.67 6.66	5 5 5 5 5 5 5 5		11/28/05 11/28/05 11/28/05 11/28/05 11/28/05 11/28/05 11/28/05 11/28/05	JCH JCH JCH JCH JCH JCH JCH
SM3500CRD Hexavalent Chromium Hexavalent Chromium Time		mg/l	0.004	0.013 -	10		11/17/05 11/17/05	BMS BMS

Qualifier Description

Estimated concentration below laboratory quantitation limit.

REQUEST FOR SERVICES



A Siemens Business

ENVIROSCAN SERVICES	ROTH	HSCHIL	_D, W	5447	⁷ 4	1-800-338-SCAN			
REPORT TO: Name: DAVE NEMET 7				BILL TO Name: _	D: (if diff	erent f	rom Re	eport T	ō info)
Company: Liesch Enviro	Schoon	Service		Compar	ny:				
Address: (000 5isholt 1) Madison, WI	rive Sov	to 203		Address	s:				
Phone: (408) 223-153	2			Phone:	()			
P.O.#	Quote :	# 17.2%	1632					-	L REQUESTS
Sample Type (Check all that apply) Groundwater Wastewater Soil/Solid Drinking Water Oil Vapor Other Lowkate	Date Nee				Constant To	7	7	parate	sheet if necessary)
LAB USE ONLY DATE	TIME	No. of Containers COMP GRAB	SAMPI		P 12				REMARKS
19190792 1/1/05	14:00	3	LE PUSE		X				1- 11-40 11 Marit
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CHAIN OF CUST	TODY	RECO.	RD		7	Sea	ils OK' d on i	? ₂₃ (N N/A 3 C
SAMPLERS: (Signature)	They						mmen		Crtle tolar
RELINQUISHED BY: (Signature)	, ,	/TIME	RECEIVED.B	Y: (Signatui	rent	<u> </u>			
RELINQUISHED BY: (Signature)		7TIME	RÉCEIVED B		<i>V</i> 'a ≟				
RELINQUISHED BY: (Signature)	DATE	/TIME	RECEIVED F	OR LABOR	ATORY		re/Time	. l	



Liesch Environmental Services, Inc. 6000 Gisholt Drive, Suite 203, Madison, WI 53713 608/223-1532; 608/223-1534 Fax

Telephone Memo
Name: Dave Nemetz Date: 2/10/06 Time: AMPM
Spoke With: John Gwinn of: Vulan
X I called Party called Telephone #: 562-823-4983
Proj. Name RHC-extras Proj. #: 59056-01
Subject: Flare adjustments
Notes:
How much range can the flere handle to operate as designed
once it is set for a methane cone? John said about
±10%. If methane concentrations Stay about the same +
don't rebound greatly in the spring, set point of -20% methore
don't rebound greatly in the spring, set point of -20% methane likely males sense.
Timer operation? John installed the timer. Can be programmed
Timer operation? John installed the timer. Can be programmed over wide range of options. Probably would run several hours
on + several off if conditions don't change greatly.
Weather? John said rain is the main issue yr to the work-
specifically 7 any welding needed in the flare - a tarp over the
top could be utilized if had to.
Decided best to wait until get some spring data before scheduling
Decided best to wait until get some spring dita before Scheduling work (coordinating 7 his conference probably would have sared \$200-Action to be Taken: at boost). Shoot for April or May.
Copies to:
e:\data\forms\telememo.wp

Vulcan

Flare & Mechanical Services

P.O. Box 39278

Downey, CA, 90239 Phone 562/622-2260

Fax: 562/622-2261

E-mail Vulcanfms@sol.com

DATE: February 7, 2006

FACSIMILE COVER SHEET

10: _	Liesch Environmental Services Inc.	FROM John Gwini
Attn.:	Dave Nemetz:	Fax: 608/ 223-1534
Re.:	Refuse Hideaway Flae Modification	Phone: 608/ 223-1532
l have o success	completed this proposal and I have tried to	PAGE INCLUDING COVER PAGE. cover all of the bases to be sure of completing the project makes it extremely important to be through and not to take it.

I discussed the testing of the Dampers and Temperature controller with your Electrician and he was going to follow it up. To be sure I do not like to assume anything in these cases.

I have not heard any negative reports so I am assuming at this point that the following is in good working order:

- Both Damper Motors work and will run full stroke without problems.
- The Honeywell Temperature Controller is in good working order and changes output properly with the change in Thermocouple input.
- The existing Thermocouple is also in good condition and working.

I will have some additional questions regarding the system, system operation and I will need to discuss the field operation further if the project becomes a go. My terms for the project will be the same as in the past net 30 days with an addition of 1.5% for all amounts not paid within 30 days.

I will be attending SWANA's 29' annual Landfill Gas Symposium in St. Petersburg, Florida. The Symposium runs from March 27 to 30, 2006. I would need to schedule around the symposium.

If I coordinated this project to follow the Symposium and fly to Chicago from Florida it might save some of the air are costs. The draw back is I will be booking my arrangements by the end of this week.

If you need any additional information, have any questions or if I can be of assistance in any way on this project or any other please do not hesitate to contact me.

Best regards,
John Gwim



Flare & Mechanical Services

P.O. Box 39278

Downey, CA, 90239

Phone 562/622-2260

Fax: 562/622-2261

E-mail: Vulcanfma@aol.com

February 7, 2006

Liesch Environmental Services, Inc.

6000 Gisbolt Dr.

Suite 203

Madison, WI 53713

Attn., Dave Nemetz

Re: Refuse Hideaway Flare System

Dear Dave:

I am proposing modifications to the Flare System to allow the Flare system to operate at the lowest possible BTU loading possible without physically modifying the Flare Stack it self.

This is based on the last information that was sent to me indicating an average of only 17.4% methane at 153.5 SCFM for the month of January. This equates to an average BTU loading of 1.46 mm/Btu per hour.

The original minimum design for this system was 2.0 mm/Btu per hour. The system has already been modified once to reduce the minimum operating capacity. This modification would once again reduce the minimum operating capacity, increase the current efficiency of the humor and increase the current operating temperature.

The following would be required to prepare for the modification:

- Engineering review of past modification to establish current Flare operating condition.
- Calculate current operating conditions to determine:
 - Required burner shutter setting for the current operation conditions.
 - Required burner orificing for maximum efficiency to use the available methane.
 - Re-calculate needed combustion and cooling air requirements to determine the needed damper size and operation needs for current conditions.
 - Calculate the retention time location for the current operating condition. Retention time calculation to be provided to document the new thermocouple location.
- Prepare for the modification:
 - Purchase needed parts and materials
 - Pack and ship needed tools, materials, instruments and parts to Madison.
 - Make all needed arrangements for transportation, lodging and local equipment.

I would expect to accomplish the following at site,

- Remove the burner air shutters and straighten them for maximum air gap control.
- Re-install the air shutters holding a close tolerance on the needed air gap for the current operating conditions
- Clean any debris from the burner and clean the burner orifices if needed.
- Re-work the damper control system for faster and more accurate temperature control
- Ro-program the Honeywell Temperature Controller.
- Check the electrical control system and the delay/automatic re-cycle operation timer.
- Test fires the burner to check for proper operation.
- Operate and tune the system for maximum turn down capability and Operator Training.

The following work may need to be accomplished to facilitate maximum turndown. This would have to be determined based on Flare operating calculations. These calculations would be based on the past operating modification and comparing current operating information:

- Modify the burner orifices to reduce operating flow and increase the burner pressure for maximum burner efficiency.
- Re-locate the lower thermocouple to a new lower level that would still comply with the required retention requirement of 0.6 second.

This would require 4 days on site and possibly 5 to complete all of the work and test run the flare.

Costs would be as follows:	
Engineering and preparation costs	\$ 800,00
1- Day Travel time	200.00
4-Days on site Technical Service @ \$400.00 per day	1,600.00
Materials, Parts and miscellaneous supplies	125.00
Air Fare to Chicago** (Madison \$1,250,00)	725.00
Hotel**	600.00
Meals**	270.00
Car Rental**	375.00
Local Equipment rental**	370.00
Shipping to & from Madison**	350.00
Miscellaneous daily expenses**	120.00
Total estimated costs	\$5,535.00

^{**} Items to be invoiced at my Cost plus 7.5%

This proposal has been based on a minimum of 3 weeks notice to take advantage of optimum air Fares and to run the needed calculations and properly prepare for the modification.

The shipping of my tools, instruments, parts and materials will require 6 full days to take advantage of the best available shipping rates.

If you have any questions, need additional information or clarifications please do not hesitate to contact me.

Best Regards



HYDROGEOLOGISTS - ENGINEERS - ENVIRONMENTAL SCIENTISTS

March 6, 2006

Ralph Erickson Madison Metropolitan Sewerage District 1610 Moorland Road Madison, WI 53713-3398

RE:

Wastewater Discharge Laboratory Results

Refuse Hideaway Landfill, Dane County, Wisconsin (License #1953)

Permit #: NTO-5I

Dear Mr. Erickson:

Per wastewater discharge permit requirements for the above referenced site, please find attached the analytical summary table and laboratory report for the most recent leachate analysis of February 9, 2006 (1st quarter). All analyzed parameters were below permitted levels.

Please call me at 223-1532 (extension 21) if you need additional information or have any questions.

Sincerely,

LIESCH ENVIRONMENTAL SERVICES, INC.

David Nemetz, P.G.

Project Manager

Attachments: table, lab report

cc: Mr. Hank Kuehling, WDNR, 3911 Fish Hatchery Road, Fitchburg, WI 53711

J:\5905600\Discharge Permit\Results0206.doc

Table 1
Leachate Tank Laboratory Analytical Results
Refuse Hideaway Landfill
Middleton, Wisconsin

					PAR	AMETE	R				
DATE	Cadmium (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (ug/L)	Copper (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L.)	Silver (ug/L.)	Zinc (ug/L)	Cyanide (ug/L)
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100
9/30/2003 10/9/2003	<0.88	54	<260,000	8	<2.2	<0.030	150	<8.0	<1.8	54	5.8
2/23/2004	<0.53	30	<270	24	<1.3	<0.030	93	<4.8	6.5	40	16
8/5/2004	<0.17	21	<27	4.1	1.9	<0.028	54	6.5	0.21	19	15
11/4/2004	<1.7	33	<2.7		2.8	<0.30		13	<0.49		5.4
12/21/2004	<1.7	52	<2.7	8.6	5.4	<0.028	180	21	<0.49	36	9.1
3/31/2005	0.68	15	<2.7	6.9*	12	<0.028					5.5*
6/30/2005	<1.00	12.8	<40	6.20	1.70	<0.07	40.5	16.7	<1.00	458	7
9/21/2005	<1.00	17.8	<40	13.5	8.30	<0.07	46.5	20.1	4.20	95.1	<5
11/16/2005	<1.00	14.2	<40	3.04	<1.50	<0.07	44.6	31.6	5.20	<10.0	10*
2/9/2006	<1.00	16.3	<40	<3.00	<1.50	<0.07	59.3	28.8	<1.00	17.9	17

Notes

Results in **bold** indicate levels above permit limitations.

Blank cell indicates parameter not analyzed.

ug/I = micrograms per liter

^{* =} Analyte detected between limit of detection and limit of quantitation.



ENVIROSCAN SERVICES	301 W. MIL	ITARY RD.	ROTHSC	HILD, WI	54474	1-800-338-SCAN
REPORT TO;			BILL TO: (if			
Name: DAVE NEME	<u> 72</u>		Name:			
Company: LIESCH FN:	13RUNENTAL	35.71	Company:			
Address: <u>UCOC 515hel</u>	107 SULTI	205	Address:			
Phone: (609) 202-15	32		Phone: (<u> </u>		
P. O. #		<u>-23</u>				
P. O. # Project # <u>5 90 56 : > 0</u> Location W 1	Quote #	17 · · · · · · · · · · · · · · · · · · ·				
		630190				AL REQUESTS sheet if necessary)
	Turnaround Time XI Normal		1			
☐ Groundwater	🕅 Normal 🗍 Rush (Pre-appro	oved by Lab)		/20 \$	"	/ / j
☐ Wastewater☐ Soil/Solid	Date Needed			12 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	//	REMARKS
Drinking Water	Approved By			/ t 4	/ /	No. 1 WE LOW
☐ Oil ☐ Vapor					/ /	1 9 Kr.
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LAB USE ONLY DATE	TIME Container		EID ∫	6/	/ / `	REMARKS
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RELINQUISHED BY: (Signature)	DATE HIVE	BY Stanature		UAIE	IVE .	



TELEPHONE FACSIMILE WEBSITE

PROJECT NO.: 59056.00

800-338-7226 715-355-3221 www.usfilter.com

March 3, 2006

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, Wi 53713

Attn: Dave Nemetz

REPORT NO.: 194868

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received February 10, 2006.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using USFilter, Enviroscan Services for your analytical needs.

Sincerely,

USFilter, Enviroscan Services

James R. Salkowsk Laboratory Director

I certify that the data contained in this report has been generated and reviewed in accordance with the USFilter, Enviroscan Services Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. USFilter, Enviroscan Services reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Certifications:

Wisconsin 737053130 Minnesota 055-999-302 Illinois 100317



A Siemens Business

ENVIROSCAN SERVICES 301 WEST MILITARY ROAD ROTHSCHILD, WI 54474 TELEPHONE FACSIMILE WEBSITE 800-338-7226 715-355-3221 www.usfilter.com

Sample Summary

194868.2

Lab Id 194868 Client Sample ID LEACHATE

Date/Time 02/09/06 15:16 <u>Matrix</u> LEACHATE

Sample Narrative/Sample Status

LOGIN:

GENERAL:

ANALYSES:

QA/QC:

REPORTING:

Definitions

LOD = Limit of Detection (Not dilution corrected)
LOQ = Limit of Quantitation (Not dilution corrected)
< = Less Than
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pCi/l = picocurie per liter
ml/l = milliters/Liter
mg = milligrams

μg/l = Micrograms per liter = parts per billion (ppb)
μg/kg = Micrograms per kilogram = parts per billion (ppb)
mg/l = Milligrams per liter = parts per million (ppm)
mg/kg = Milligrams per kilogram = parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
(\$\$) = Surrogate Compound
mg/m3 = Milligrams/meter cube
ng/l = Nanograms per liter



Liesch Environmental Services, Inc.

6000 Gisholt Drive Suite 203 Madison, Wi 53713

A Siemens Business

ENVIROSCAN SERVICES 301 WEST MILITARY ROAD ROTHSCHILD, WI 54474 TELEPHONE FACSIMILE WEBSITE 800-338-7226 715-355-3221 www.usfilter.com

PROJECT NO.: 59056.00 REPORT NO.: 194868.3 DATE REC'D: 02/10/06 REPORT DATE: 03/03/06 PREPARED BY: JRS

Attn: Dave Nemetz

Sample ID: LEACHATE	Matri:	x: LEACH	San	nple Date/Ti	Lab No. 194868			
	<u>Result</u>	<u>Units</u>	LOD	LOQ	Dilution <u>Factor</u>	Qualifiers	Date <u>Analyzed</u>	Analyst
EPA 200.8 ICP-MS METAL PREP	COMP		-	-	-		02/15/06	JCH
EPA 245.1 Total Mercury	<0.07	μg/l	0.07	0.23	1	•	03/02/06	мрм
EPA 335.3 Total Cyanide	0.017	mg/l	0.005	0.017	. 1	P	02/14/06	LCK
EPA 6020 Total Cadmium Total Chromium Total Copper Total Lead Total Nickel Total Selenium Total Silver Total Zinc	<1.00 16.3 <3.00 <1.50 59.3 28.8 <1.00 17.9	. µg/l µg/l µg/l µg/l µg/l µg/l µg/l	0.2 1.6 0.6 0.3 0.3 0.6 0.2	0.67 5.33 2.0 1.0 1.0 2.0 0.67 6.66	5 5 5 5 5 5 5		02/21/06 02/21/06 02/21/06 02/21/06 02/21/06 02/21/06 02/21/06 02/21/06	1CH 1CH 1CH 1CH 1CH 1CH
SM3500CRD Hexavalent Chromium Hexavalent Chromium Time	<0.04 13:00	mg/l	0.004	0.013	10		02/10/06 02/10/06	JCH JCH

Qualifier Descriptions

P Sample aliquot was preserved at the time of sampling, but the preservative added was not sufficient to meet the preservation level required. Preservative was added in the lab prior to analysis.



HYDROGEOLOGISTS . ENGINEERS ENVIRONMENTAL SCIENTISTS

June 27, 2006

Ralph Erickson Madison Metropolitan Sewerage District 1610 Moorland Road Madison, WI 53713-3398

RE:

Wastewater Discharge Laboratory Results

Refuse Hideaway Landfill, Dane County, Wisconsin (License #1953)

Permit #: NTO-5I

Dear Mr. Erickson:

Per wastewater discharge permit requirements for the above referenced site, please find attached the analytical summary table and laboratory report for the most recent leachate analysis for the 2nd quarter of 2006. All analyzed parameters were below permitted levels for the May 18, 2006 sample.

Please call me at 223-1532 (extension 21) if you need additional information or have any questions.

SOUTH CENTRAL REGION

Sincerely,

LIESCH ENVIRONMENTAL SERVICES, INC.

David Nemetz, P.G.

Project Manager

Attachments: table, lab report

cc: Mr. Hank Kuehling, WDNR, 3911 Fish Hatchery Road, Fitchburg, WI 53711

J:\5905600\Discharge Permit\Results0506.doc

Table 1
Leachate Tank Laboratory Analytical Results
Refuse Hideaway Landfill
Middleton, Wisconsin

					PAR	AMETE	R				
DATE	Cadmium (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (ug/L)	Соррег (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L)	Znc (ug/L)	Cyanide (ug/L)
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100
9/30/2003 10/9/2003	<0.88	54	<260,000	8	<2.2	<0.030	150	<8.0	<1.8	54	5.8
2/23/2004	<0.53	30	<270	24	<1.3	<0.030	93	<4.8	6.5.	40	16
8/5/2004	<0.17	21	<27	4.1	1.9	<0.028	54	6.5	0.21	19	15
11/4/2004	<1.7	33	<2.7		2.8	<0.30		13	<0.49		5.4
12/21/2004	<1.7	52	<2.7	8.6	5.4	<0.028	180	21	<0.49	36	9.1
3/31/2005	0.68	15	<2.7	6.9*	12	<0.028	q				5.5*
6/30/2005	<1.00	12.8	<40	6.20	1.70	<0.07	40.5	16.7	<1.00	458	7
9/21/2005	<1.00	17.8	<40	13.5	8.30	<0.07	46.5	20.1	4.20	95.1	<5
11/16/2005	<1.00	14.2	<40	3.04	<1.50	<0.07	44.6	31.6	5.20	<10.0	10*
2/9/2006	<1.00	16.3	<40	<3.00	<1.50	<0.07	59.3	28.8	<1.00	17.9	17
5/18/2006	<1.00	24.4*	<40	3.40*	<1.50	<0.07	38.3	21.1	1.32*	8.0*	9*

Notes

Results in **bold** indicate levels above permit limitations.

Blank cell indicates parameter not analyzed.

ug/l = micrograms per liter

^{* =} Analyte detected between limit of detection and limit of quantitation.



TELEPHONE FACSIMILE WEBSITE

800-338-7226 715-355-3221 www.enviroscan.usfilter.com

A Siemens Business

June 13, 2006

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, Wi 53713

Attn: Dave Nemetz

REPORT NO.: 0605281

PROJECT NO.: Refuse Landfill

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received May 19, 2006.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using USFilter, Enviroscan Services for your analytical needs.

Sincerely,

USFilter, Enviroscan Services

James Salkowski

Lab Director

I certify that the data contained in this report has been generated and reviewed in accordance with the USFilter, Enviroscan Services Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. USFilter, Enviroscan Services reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Approved by

Certifications:

Wisconsin 737053130 Minnesota 055-999-302

Illinois 100317

TO IN ACCORDANCE



A Siemens Business

ENVIROSCAN SERVICES 301 WEST MILITARY ROAD ROTHSCHILD, WI 54474

TELEPHONE FACSIMILE WEBSITE

800-338-7226 715-355-3221 www.enviroscan.usfilter.com

SAMPLE SUMMARY

Lab Id

Client Sample Id

0605281-01

Leachate

Date/Time

Matrix

05/18/06 14:00

Leachate



TELEPHONE FACSIMILE WEBSITE 800-338-7226 715-355-3221 www.enviroscan.usfilter.com

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Sample Narrative

distilled on the 1st of June and run on the 2nd for CN



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A Siemens Business

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, Wi 53713

REPORT NO.: 0605281 DATE REC'D: 05/19/06 09:16 REPORT DATE: 06/13/06 15:50

PREPARED BY: JRS

Attn: Dave Nemetz

Sample ID: Leachate

Matrix: Leachate

Sample Date/Time: 05/18/06 14:00

Lab No. 0605281-01

•				•				
	Results	<u>Units</u>	<u>LOD</u>	LOQ	Dilutior <u>Factor</u>	_	Date <u>Analyzed</u>	<u>Analyst</u>
EPA 200.7 - Total Total Zinc	0.0080	mg/L	0.0050	0.0500	1	1	06/13/06	BMS
EPA 200.8 - Total								
Total Cadmium	ND	ug/L	1.00	10.0	5		06/05/06	JCH
Total Chromium	24.4	ug/L	8.00	26.6	5	J	06/05/06	JCH
Total Copper	3.40	ug/L	3.00	10.0	5	J	06/05/06	JCH
Total Lead	ND	ug/L	1.50	10.0	5		06/05/06	JCH
Total Nickel	38.3	ug/L	1.50	10.0	5		06/05/06	JCH
Total Selenium	21.1	ug/L .	3.00 .	10.0	5		06/05/06	JCH
Total Silver	1.32	ug/L	1.00	10.0	5	J	06/05/06	JCH
EPA 200.8/6020 ICPMS Liquid Metal Prep	Completed	N/A			1		06/05/06	JCH
EPA 245.1 - Total Total Mercury	ND	ug/L	0.070	0.230	1		06/02/06	HG
EPA 335.4 Total Cyanide	0.009	mg/L	0.005	0.017	1	нт, ј	06/02/06	LCK
SM 3500 Cr D Hexavalent Chromium	ND	mg/L	0.040	0.200	10		05/19/06 13:30	BMS



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Qualifer Descriptions

S2H Second sample matrix spike recovery was high.

S1H First sample matrix spike recovery was high.

J Estimated concentration below laboratory quantitation level.

HT This result was analyzed outside of the EPA recommended holding time.

COMP Completed

Definitions

LOD = Limit of Detection (Dilution Corrected)
LOQ = Limit of Quanitation (Dilution Corrected)
ND = Not Detected
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pci/L = picocurie per Liter
mL/L = milliliters/Liter
mg = milligram

When the word "dry" follows the units on the result page the sample results are dry weight corrected.

LODs and LOQs are dry weight corrected for all soils except methanol and methylene chloride preserved soils.

ug/l = Microgram per Liter = parts per billion (ppb)
ug/kg = Microgram per kilogram = parts per billion (ppb)
mg/l = Millgram per liter parts per million (ppm)
mg/kg = Millgram per kilogram parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
* = Result outside established limits.
mg/m3 = Milligrams/ meter cubed
ng/L = Nanograms per Liter = Parts per trillion(ppt)
> = Greater Than

REQUEST FOR SERVICES



A Siemens Business

ENVIROSCAN S	SERVICES	3	01 W. MILIT	TARY RD.	ROTH	HSCHIL	_D, WI	5447	' 4,	₁-800-3	38-SCAN
REPORT TO: Name: DAVE	NEMET	2	San ass	11.90 mg	BILL TO						
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	AJS: N, L 223-15	32	53703								
P.O.#Project # FETUS 6 LocationMINI	LANDFILL WE TUN,	<u>〜</u> Quote ルエ	#							L REQU	
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Kuehling, Harlan H - DNR

From: Dave Nemetz [dnemetz@madison.liesch.com]

Sent: Thursday, September 14, 2006 3:16 PM

To: Kuehling, Harlan H - DNR

Subject: RE: August 2006 RHL O&M Contract Invoice

Hank,

To summarize the annual O&M performed, **leachate line** cleaning was performed on the central branch from **cleanout** (CO) #6 to the end of the line at GW-11, from CO#5 to CO#6, and from CO#4 to CO#5. In addition, cleaning was performed between the **leachate loadout station** cleanout to CO#4 and between **dripleg** DL-3 to DL-4. The **padlock** for the flare station is in good working order. With respect to the **air compressor** system, the air filter was still relatively clean (was changed last winter; will continue to be checked quarterly), the desiccants were checked and are fine (they were changed last winter), and the pressure was checked and is more than adequate. **Flame arrestor** cleaning was performed as noted.

Please let me know if you have any further questions.

Thanks, Dave

P.S. We need to talk the leachate pump issue soon and make a decision.

From: Kuehling, Harlan H - DNR [mailto:Harlan.Kuehling@Wisconsin.gov]

Sent: Thursday, September 14, 2006 11:54 AM

To: Dave Nemetz

Subject: RE: August 2006 RHL O&M Contract Invoice

Thanks for the "extras" details, Dave. Is there any information on the annual tasks that I asked for below? Thank you.

Hank

From: Dave Nemetz [mailto:dnemetz@madison.liesch.com]

Sent: Thursday, September 14, 2006 11:28 AM

To: Kuehling, Harlan H - DNR

Subject: RE: August 2006 RHL O&M Contract Invoice

Hours .01 breakdown:

replacing the broken gas sampling port at GW-13 (Krueger 0.25 hours) restoring the chart recorder to proper order (Krueger 0.5 hours, Rickard 0.5 hours) attempting to remove the leachate pump at GW-13 with Speedway (Krueger 2.5 hours, Nemetz 3 hours)

flare re-start attempts (Rickard 1.5 hours)

investigating a pressure anomaly at GW-10 (Krueger 1 hour, Nemetz 0.9 hour)

temporary field repair for the broken C.O. 5 riser (Krueger 0.5 hour)

Thanks, Dave

From: Kuehling, Harlan H - DNR [mailto:Harlan.Kuehling@Wisconsin.gov]

Sent: Thursday, September 14, 2006 11:07 AM

To: dnemetz@madison.liesch.com **Cc:** Kalnicky, Richard A - DNR

Subject: August 2006 RHL O&M Contract Invoice

Hi, Dave,

I reviewed the August invoice this morning and found several items for which I am requesting more information. As mentioned in the recent past, detailed information should be submitted on the work completed that is associated with the "extras" hours/costs. The second and last inquiry is related to the annual O&M tasks. The monthly report mentions the cleaning of the flame arrestors and the leachate line cleaning. Was anything done for the other required tasks that are associated with the air compressor, the leachate loadout station, and padlocks? (The other listed annual task is "well pumps", but this is an ongoing problem that we have to address soon.)

As usual, I'll process the August invoice for payment after the information mentioned above is received.

Thanks, Dave.

Hank



Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

September 14, 2006

Arvid & Margaret Sather 7911 Deer Run Road Cross Plains, WI 53528 File Ref: 113112010 Dane County

Subject: Results of Drinking Water Testing, May 2006

Dear Mr. and Ms. Sather:

Drinking water samples were collected from your home in May 2006 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, two VOCs, chloromethane and methylene chloride, were detected in one sample of your well water, and only one VOC, chloromethane, was detected in a second (duplicate) sample. All indications are that the sample was contaminated with these compounds after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

Hank Keekling

enclosure

cc: Henry Nehls-Lowe - DHFS

Steven Smith – BT², Inc.





Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

September 14, 2006

Raymond & Mary Bula 7872 Deer Run Road Cross Plains, WI 53528 File Ref.: 113112010

Dane County

Subject: Results of Drinking Water Quality Testing, May 2006

Dear Mr. and Ms. Bula:

Drinking water samples were collected from your home in May 2006 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, chloromethane was detected in your well water. All indications are that the sample was contaminated with this compound after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Hank Kuchling

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

enclosure

cc: Henry Nehls-Lowe - DHFS

Steven Smith - BT², Inc.





Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

September 14, 2006

Ms. Cindy Bonk 7877 Deer Run Road Cross Plains, WI 53528 File Ref.: 113112010 Dane County

Subject: Results of Drinking Water Quality Testing, May 2006

Dear Ms. Bonk:

Drinking water samples were collected from your home in May 2006 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, two VOCs, chloromethane and toluene, were detected in your well water. All indications are that the sample was contaminated with the chloromethane after it was collected. The concentration of toluene in the sample from your water system was found to be 0.21 micrograms/liter (ug/L). The health advisory level (HAL) for toluene is 1,000 ug/l, so the sample result is far below the HAL. Toluene has not been detected in any of the groundwater monitoring wells located between your well and the landfill that are routinely monitored. Therefore, it does not appear that the Refuse Hideaway Landfill has impacted the water quality of your well with VOC contamination at this time, but I have no information on the possible source of the toluene.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Hank Kuchling

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

enclosure

cc:

Henry Nehls-Lowe - DHFS Steven Smith – BT², Inc.





Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

September 14, 2006

Mr. Jerry Trantow & Ms. Grace Thompson 4318 Fawn Court Cross Plains, WI 53528

File Ref: 113112010 Dane County

Subject: Results of Drinking Water Quality Testing, May 2006

Dear Mr. Trantow and Ms. Thompson:

Drinking water samples were collected from your home in May 2006 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, one VOC, chloromethane, was detected in your well water. All indications are that the sample was contaminated with this compound after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Han K Kuchleng

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

enclosure

cc:

Henry Nehls-Lowe - DHFS Steven Smith – BT², Inc.





Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

September 14, 2006

Jeanette Wheat & Daryl Krueger 4306 Fawn Court Cross Plains, WI 53528 File Ref.: 113112010

Dane County

Subject: Results of Drinking Water Quality Testing, May 2006

Dear Ms. Wheat and Mr. Krueger:

Drinking water samples were collected from your home in May 2006 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, one VOC, chloromethane, was detected in your well water. All indications are that the sample was contaminated with this compound after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

Hank Kuchling

enclosure

cc:

Henry Nehls-Lowe - DHFS Steven Smith – BT², Inc.

Dayson





Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

September 14, 2006

Mr. Richard Summers 4610 Rocky Dell Road, Route 1 Middleton, WI 53562 File Ref.: 113112010

Dane County

Subject: Results of Drinking Water Quality Testing, May 2006

Dear Mr. Summers:

Drinking water samples were collected from your home in May 2006 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, no VOCs were detected in your well water. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

Hank Kuchling

enclosure

cc:

Henry Nehls-Lowe - DHFS Steven Smith – BT², Inc.





Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

September 14, 2006

Al and Jean Stoppleworth 7750 USH 14 Middleton, WI 53562 File Ref.: 113112010 Dane County

Subject: Results of Drinking Water Quality Testing, May 2006

Dear Mr. and Ms. Stoppleworth:

Drinking water samples were collected from your house in May 2006 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill. The samples were collected from the part of your water supply system that is not treated by your point-of-entry treatment system.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, VOCs were detected in your untreated well water. Note that the sample was probably contaminated with one of the VOCs detected, chloromethane, after it was collected. It is unlikely that this contaminant is in your well water.

VOC Name	Result (ug/L)	Health Advisory Standard (ug/L)
1,1-Dichloroethane	0.24	850
cis-1,2-Dichloroethene	1.5	70
Tetrachloroethene	2.9	. 5
Trichloroethene	0.63	5
Dichlorodifluoromethane	0.52	1000
Trichlorofluoromethane	0.083	2000

The detected VOCs were all found to be at levels below the associated health advisory standards. Because this sample was taken from the untreated portion of your water supply, these results are not as pertinent to human health concerns as are the results from samples that have been collected by Hellenbrand Water Center from the treated portion of your water supply. My records from Hellenbrand indicate that analysis last winter of their treated water sample did not detect tetrachloroethene above the detection limit of 2 micrograms/liter (ug/L) of sample water.

I recommend that you continue to treat your water supply for household use as you have in the past. The semi-annual testing of the untreated portion of your water supply will continue to take place in May and November as part of the State of Wisconsin's routine groundwater monitoring program for Refuse Hideaway Landfill.



If you have any questions or comments about the arrangements noted above, the enclosed drinking water quality results, or our work at the landfill, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

enclosure

cc:

Henry Nehls-Lowe - DHFS Steven Smith - BT², Inc.



Jim Doyle, Governor Scott Hassett, Secretary Ruthe E. Badger, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

September 14, 2006

Ms. Shirley Noles 7734 USH 14 Middleton, WI 53562 File Ref: 113112010 Dane County

Subject: Results of Drinking Water Quality Testing, May 2006

Dear Ms. Noles:

Drinking water samples were collected from your home in May 2006 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill. The samples were collected from the part of your water supply system that is not treated by your point-of-entry treatment system.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, two VOCs, chloromethane and methylene chloride, were detected in the sample, but all indications are that the sample was contaminated with these compounds after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time. This absence of VOCs is a continuation of a recent trend and is a change from the results of past years in which VOCs were detected in the untreated well water. Note that the occurrence of VOCs in your well water is possible again in the future because the groundwater contaminant plume from the landfill is still present near your well, although groundwater quality in the plume continues to slowly improve over time. Because of this possibility, I recommend that you continue to treat your water supply for household use as you have in the past.

The DNR will continue to routinely collect an untreated sample from your water supply in May and November of each year to determine if contaminant concentrations are changing or remaining stable over time. This semi-annual testing will continue to take place as part of the State of Wisconsin's routine groundwater monitoring program for Refuse Hideaway Landfill. If you have any questions or comments about the information noted above, the enclosed drinking water quality results, or our work at the landfill, please contact me at the address listed above, or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G. Remediation and Redevelopment Hydrogeologist (608) 275-3286 harlan.kuehling@dnr.state.wi.us



enclosure

Henry Nehls-Lowe - DHFS Steven Smith – BT², Inc. DG/SCR cc:



HYDROGEOLOGISTS . ENGINEERS . ENVIRONMENTAL SCIENTISTS

September 19, 2006

Ralph Erickson Madison Metropolitan Sewerage District 1610 Moorland Road Madison, WI 53713-3398

RE:

Wastewater Discharge Laboratory Results

Refuse Hideaway Landfill, Dane County, Wisconsin (License #1953)

Permit #: NTO-5I

Dear Mr. Erickson:

Per wastewater discharge permit requirements for the above referenced site, please find attached the analytical summary table and laboratory report for the most recent leachate analysis for the 3rd quarter of 2006. All analyzed parameters were below permitted levels for the August 28, 2006 sample.

Please call me at 223-1532 (extension 21) if you need additional information or have any questions.

Sincerely,

LIESCH ENVIRONMENTAL SERVICES, INC.

David Nemetz, P.G.

Project Manager

Attachments: table, lab report

cc: Mr. Hank Kuehling, WDNR, 3911 Fish Hatchery Road, Fitchburg, WI 53711

J:\5905600\Discharge Permit\Results0806.doc

Table 1
Leachate Tank Laboratory Analytical Results
Refuse Hideaway Landfill
Town of Middleton, Wisconsin

					PAR	AMETE	R				
DATE	Cadmium (ug/L)	Total Chromium (ug∕L)	Hexavalent Chromium (ug/L.)	Copper (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L)	Zinc (ug/L)	Cyanide (ug/L)
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100
9/30/2003 10/9/2003	<0.88	54	<260,000	8	<2.2	<0.030	150	<8.0	<1.8	54	5.8
2/23/2004	<0.53	30	<270	24	<1.3	<0.030	93	<4.8	6.5	.40	16
8/5/2004	<0.17	21	<27	4.1	1.9	<0.028	54	6.5	0.21	19	15
11/4/2004	<1.7	33	<2.7		2.8	<0.30		13	<0.49		5.4
12/21/2004	<1.7	52	<2.7	8.6	5.4	<0.028	180	21	<0.49	36	9.1
3/31/2005	0.68	15	<2.7	6.9*	12	<0.028					5.5*
6/30/2005	<1.00	12.8	<40	6.20	1.70	<0.07	40.5	16.7	<1.00	458	7
9/21/2005	<1.00	17.8	<40	13.5	8.30	<0.07	46.5	20.1	4.20	95.1	<5
11/16/2005	<1.00	14.2	<40	3.04	<1.50	<0.07	44.6	31.6	5.20	<10.0	10*
2/9/2006	<1.00	16.3	<40	<3.00	<1.50	<0.07	59.3	28.8	<1.00	17.9	17
5/18/2006	<1.00	24.4*	<40	3.40*	<1.50	<0.07	38.3	21.1	1.32*	8.0*	9*
8/28/2006	<1.00	19.2*	<40	5.10*	2.96*	<0.07	32.7	28.0	<1.00	36.6	6*

Notes

Results in **bold** indicate levels above permit limitations.

Blank cell indicates parameter not analyzed.

ug/l = micrograms per liter

^{* =} Analyte detected between limit of detection and limit of quantitation.

REQUEST FOR SERVICES

ENVIROSCAN S	ERVICES	30	o1 W. MILIT	TARY RD.	ROTH	HSCHIL	D, WI 5	54474	1-8	00-338-SCAN
REPORT TO: Name:	Da	we h	lemet?			O: (if diff		,		•
Company: L Address: 6	000 Gishol	t Drive,	Ste. 203	Inc _	Compa	iny:	· · · · · · · · · · · · · · · · · · ·			
Phone: (A P. O. # Project #				_ 	Phone:	()			
Location Ref	156,00 105C	- Quote	#							REQUESTS
Sample T (Check all tha Groundw Wastewa Soil/Solic Drinking Oil Vapor Other	ype t apply) rater ter i	Turnaro Nor Rus	und Time mal th (Pre-approveded ed By	ved by Lab)			(us		ate shee	t if necessary)
LAB USE ONLY	DATE	TIME	No. of Containers COMP GRAB	SAMP	LE ID	/*X/		///		REMARKS
-1	8/28/06	0940	3	leacher	te				٠,	1-11 ter Ambien
									<i>j-</i>	1-11-ter Ambien - 250p/ Nacil 500, 2/ 2/105
										·
										-
100 March 1980							Ship.	Cont. C	Кош	Y'N NA
CHAIN O	F CUST	TODY	RECO	RD	•	_	Seals	les leak OK? on ice		Y N N/A ;; Y N N/A ;; Y N N/A _°C
SAMPLERS: (Signa	ature) LC	ell	Rus	and			Com	nents:		-
RELINQUISHED BY	rusk	8386	E/TIME DG 1030	RECEIVED B	<u> </u>			- 0	r + (8	ts/al-
RELINQUISHED BY:			E/TIME	RECEIVED B						
RELINQUISHED BY:	(Signature)	DAT	E/TIME	RECEIVED F		ATORY	DATE/I	IME		

September 14, 2006

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Dave Nemetz

PROJECT NO.: 59056.00 Qrtly Refuse **REPORT NO.: 0608377**

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received August 29, 2006.

3 CE 1 8 5000

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using Siemens Water Technologies for your analytical needs.

Sincerely,

Siemens Water Technologies

Carolyn DeGroot

Client Services Chemist

Enviroscan Analytical[™] Services

arolm DeGroot

I certify that the data contained in this report has been generated and reviewed in accordance with the Siemens Water Technologies Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. Slemens Water Technologies Corp. reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Certifications:

Wisconsin 737053130 Minnesota 055-999-302

Illinois 100317

The total number of pages in this report, including this page is 5. -

SAMPLE SUMMARY

Lab Id 0608377-01

Client Sample Id

Leachate

Date/Time Matrix
08/28/06 09:40 Leachate

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

REPORT NO.: 0608377 DATE REC'D: 08/29/06 08:16 REPORT DATE 09/14/06 09:09

PREPARED BY CD

Attn: Dave Nemetz

Sample ID: Leachate Matrix: Leachate Sample Date/Time: 08/28/06 9:40 Lab No. 0608377-01

	•				Dilution	Date	
	Results	<u>Units</u>	LOD	LOQ	Factor Qualifiers	Analyzed	<u>Analyst</u>
EPA 200.8 - Total							
Total Cadmium	ND	ug/L	1.00	10.0	5	09/11/06	JCH
Total Chromium	19.2	ug/L	8.00	26.6	5 J	09/12/06	JCH
Total Copper	5.10	ug/L	3.00	10.0	5 · J	09/12/06	JCH
Total Lead	2.96	ug/L	1.50	10.0	5 J	09/11/06	JCH
Total Nickel	32.7	ug/L	1.50	10.0	5	09/12/06	JCH
Total Selenium	28.0 ~	ug/L	3.00	10.0	5	09/11/06	JCH
Total Silver	ND	ug/L	1.00	10.0	5 LCL	09/11/06	JCH
Total Zinc	36.6	ug/L	10.0	33.4	5	09/11/06	JCH
EPA 200.8/6020							
ICPMS Liquid Metal Prep	Completed	N/A			1	09/07/06	JCH
EPA 245.1 - Total					•		
Total Mercury	ND	ug/L	0.070	0.230	1	09/01/06	LMP
•							
EPA 335.4							
Total Cyanide	0.006	mg/L	0.005	0.017	1 J	08/29/06	LCK
-		-					
SM 3500 Cr D							
Hexavalent Chromium	ND	mg/L	0.040	0.200	10	08/29/06 9:0	0 JCH
EPA 335.4 Total Cyanide SM 3500 Cr D	0.006	-	0.005	0.017	1 J	08/29/06	LCK

Qualifier Descriptions

LCL Laboratory control sample exhibited a low bias. Sample results may also be biased low.

J Estimated concentration below laboratory quantitation level.

COMP Completed

Definitions

LOD = Limit of Detection (Dilution Corrected)
LOQ = Limit of Quanitation (Dilution Corrected)
ND = Not Detected
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pci/L = picocurie per Liter
mL/L = milliliters/Liter
mg = milligram

When the word "dry" follows the units on the result page the sample results are dry weight corrected.

LODs and LOQs are dry weight corrected for all soils except WI GRO and EPA 8021methanol and WI DNR methylene chloride preserved soils.

ug/l = Microgram per Liter = parts per billion (ppb)
ug/kg = Microgram per kilogram = parts per billion (ppb)
mg/l = Milligram per liter parts per million (ppm)
mg/kg = Milligram per kilogram parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
* = Result outside established limits.
mg/m3 = Milligrams/ meter cubed
ng/L = Nanograms per Liter = Parts per trillion(ppt)
> = Greater Than

Methanol Soils for WI GRO and EPA 8021 are reported to the LOQ.

Kuehling, Harlan H - DNR

From: Sent:

Subject:

Steven Smith [ssmith@bt2inc.com] Monday, November 13, 2006 5:23 PM Leslie Busse; Kuehling, Harlan H - DNR

To:

RE: #2785 Refuse Hideaway LF

Hank,

I wasn't able to collect a sample from the private well at 7902 Hwy. 14, known as "Wagner". The house is for rent and the power to the PW well pump has been shut off. The DNR won't be billed for the sampling of this well. Steven

Steven B. Smith Environmental Specialist BT2, Inc. 2830 Dairy Drive Madison, WI 53718 Main Desk # (608) 224-2830 Direct Office # (608) 216-7339 Mobile # (608) 225-2972 Fax # (608) 224-2839 E-Mail: ssmith@bt2inc.com

>>> "Kuehling, Harlan H - DNR" <Harlan.Kuehling@Wisconsin.gov> 11/13/2006 12:36 PM >>> Thanks, Steven. I'm glad you weren't out there last Friday afternoon.

Hank

----Original Message----

From: Steven Smith [mailto:ssmith@bt2inc.com] Sent: Thursday, November 09, 2006 8:57 AM To: Leslie Busse; Kuehling, Harlan H - DNR Subject: #2785 Refuse Hideaway LF

I've scheduled the semiannual GW monitoring for next week starting on Monday 11/13. I'll let you know how it goes. Thanks, Steven

Steven B. Smith Environmental Specialist BT2, Inc. 2830 Dairy Drive Madison, WI 53718 Main Desk # (608) 224-2830 Direct Office # (608) 216-7339 Mobile # (608) 225-2972 Fax # (608) 224-2839 E-Mail: ssmith@bt2inc.com

11/2006 Leachate Metals Results - RHL

SIEMENS

November 21, 2006

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Dave Nemetz

REPORT NO.: 0611140

PROJECT NO.: 59056.00 Leachate

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received November 9, 2006.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using Siemens Water Technologies for your analytical needs.

Sincerely,

Siemens Water Technologies

Carolyn DeGroot

Client Services Chemist

Enviroscan AnalyticalTM Services

I certify that the data contained in this report has been generated and reviewed in accordance with the Siemens Water Technologies Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. Siemens Water Technologies Corp. reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Approved by:

Certifications:

Wisconsin 737053130 Minnesota 055-999-302

Illinois 100317

Tel: 800-338-7226 Fax: 715-355-3221 www.enviroscan.usfilter.com

Siemens Water Technologies Corp.

301 West Military Road Rothschild, WI 54474

SAMPLE SUMMARY

<u>Lab Id</u> 0611140-01 Client Sample Id Leachate

<u>Date/Time</u> <u>Matrix</u> 11/08/06 14:30 Leachate

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Dave Nemetz

PROJECT NO.: 59056.00 Leachate REPORT NO.: 0611140 DATE REC'D: 11/09/06.08:44

REPORT DATE 11/21/06 15:31

PREPARED BY: CCD

Sample ID: Leachate	Matrix: Leach	nate	Sample	e Date/Tin	ne: 11	/08/06 14:30	Lab No. 06	311140-01
,	Results	<u>Units</u>	LOD	LOQ	Dilution Factor		Date <u>Analyzed</u>	Analyst
EPA 200.8 - Total	. itesuits	Onits	<u> </u>	LOW	1 actor	Qualifiers	Analyzeu	Anaiyse
Total Cadmium	ND	ug/L	1.00	10.0	5		11/17/06	JCH
Total Chromium	11.6	ug/L	8.00	26.6	5	J	11/17/06	JCH
Total Copper	ND	ug/L	3.00	10.0	5		11/17/06	JCH
Total Lead	ND	ug/L	1.50	10.0	5		11/17/06	JCH
Total Nickel	55.2	ug/L	1.50	10.0	, 5		11/17/06	JCH
Total Selenium	28.0	ug/L	3.00	10.0	5		11/17/06	JCH
Total Silver	5.81	ug/L	1.00	10.0	5	j	11/17/06	JCH
Total Zinc	10.9	ug/L	10.0	33.4	5	J	11/17/06	JCH
EPA 200.8/6020			•				,	
ICPMS Liquid Metal Prep	Completed	N/A			1		11/14/06	JCH
FDA 245.4 Total							· .	
EPA 245.1 - Total Total Mercury	ND	ug/L	0.070	0.230	1	•	11/16/06	JCH
55. 405.4	·					•		
EPA 335.4 Total Cyanide	0.015	mg/L	0.010	0.033	2	J	11/10/06	LCK
		•		•	•			
SM 3500 Cr D Hexavalent Chromium	ND	mg/L	0.020	0.100	5	DUP, S1L	11/09/06 10:0	0 BMS
	,,,,		2.320		-	· , - · -		

Qualifier Descriptions

S1L First sample matrix spike recovery was low.

J Estimated concentration below laboratory quantitation level.

DUP Result of duplicate analysis in this quality assurance batch exceeds the limits for precision.

COMP Completed

Definitions

LOD = Limit of Detection (Dilution Corrected)
LOQ = Limit of Quantitation (Dilution Corrected)
ND = Not Detected
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pci/L = picocurie per Liter
mL/L = milliliters/Liter
mg = milligram

When the word "dry" follows the units on the result page the sample results are dry weight corrected.

LODs and LOQs are dry weight corrected for all soils except WI GRO and EPA 8021methanol and WI DNR methylene chloride preserved soils.

ug/l = Microgram per Liter = parts per billion (ppb)
ug/kg = Microgram per kilogram = parts per billion (ppb)
mg/l = Milligram per liter parts per million (ppm)
mg/kg = Milligram per kilogram parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
* = Result outside established limits.
mg/m3 = Milligrams/ meter cubed
ng/L = Nanograms per Liter = Parts per trillion(ppt)
> = Greater Than

Methanol Soils for WI GRO and EPA 8021 are reported to the LOQ.

REQUEST FOR SERVICES US FILE

A Siemens Business

ENVIROSCAN S	SERVICES	30	91 W. MILI	TARY RD.	ROTH	ISCH	ILD, 1	WI 5	4474	1	1-800-338-SCAN
REPORT TO: Name: DAW Company: Lates Address: 600 c	E NEMET CH ENVIOLENT CH ENVIOLE	Quote Turnaro	#und Time	oved by Lab)	BILL TO Name: _ Compan	y:	fferen	ANA (use	LYT sepa	oort 1	o info)
LAB USE ONLY	DATE	TIME	No. of Containers	SAMPI	LE ID	/3			/		REMARKS
-(2:30	3	LEACHATE			X				-1-literamber NP
v	1B 1	1	2	LENHATE		X				\prec	-1-literambe NP i-scop1+lNc>
	V	V	2	TREE B	LWK	X					1.250 p. NaoH
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CHAIN OF	CUST	ODY	RECO	RD			Se	ample: eais O	s lea K?	King:	S N NA
SAMPLERS: (Signat	lugor)							nmme	ante:		
BELINQUISHED BY	ergnature)			RECEIVED BY	: (Signature)	,	-		M. J.	<u>u) c</u>	ustedy Seal inter
MELINQUISHED BY (S	Signature)	DATE	3:30	RECEIVED BY		:	_			C	the totalo
RELINQUISHED BY: (S	Signature)	DATE	TIME	RECEIVED FO BY: (Signature)	R LABORAT	FORY 2		ATE/TIA			

Dave Nemetz

From:

Salkowski, Jim [SalkowskiJ@USFil

Sent:

Monday, May 23, 2005 2:38 PM

To:

Dave Nemetz

Subject: RE: Price quote

Dave

Thanks for the inquiry. The following is our quotation including the methods and associated MDLs (method detection limits). Please note that these are subject to change due to annual reassessments, sample dilution due to matrix and other interferences.

· Malain

Inorganic Parameters

Compound	MDL, ug/L	Method	Qty	Unit	Price
Cadmium (Cd)	0.2	EPA 200.8	1	\$	9.00
Chromium (Cr)	1.6	EPA 200.8	1	\$	9.00
Copper (Cu)	0.6	EPA 200.8	1	\$	9.00
Cyanide (CN)	5	EPA 335.3	1	\$	30.00
Hexavalent Chromium	4	SM 3500 Cr D	1	\$	50.00
Lead (Pb)	0.3	EPA 200.8	1	\$	9.00
Mercury (Hg)	0.07	EPA 245.1	1	\$	25.00
Nickel (Ni)	0.3	EPA 200.8	1	\$	9.00
Selenium (Se)	0.6	EPA 200.8	1	\$	9.00
Silver (Ag)	0.2	EPA 200.8	1	\$	9.00
Zinc (Zn)	2	EPA 200.8	1	\$	9.00
Metals Prep/Digestion			1	\$	5.00

Total is \$182.00 per sample. The digestion price is waved if the sample does not require digestion (no suspended solids or color, and turbidity <2.0 NTU).

USFilter Enviroscan reserves the right to switch any or all of the metals from EPA Method 200.8 (ICP-MS) to EPA Method 200.7 (ICP-OES) if the sample contains significant concentrations of the metals and the quoted MDL is not required by regulations or permits. The price remains unchanged.

Jim Salkowski, Lab Director

From: Dave Nemetz [mailto:Dnemetz@madison.liesch.com]

Sent: Monday, May 23, 2005 1:56 PM

To: Salkowski, Jim Subject: Price quote

Jim,

Hi—I am looking for a price quote for the following parameters for leachate analysis from a landfill:

Cadmium

Hexavalent chromium

Total chromium

11/2006 RHL Leuchate VOCs Results

November 22, 2006

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Dave Nemetz

REPORT NO.: 0611140

PROJECT NO.: 59056.01

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received November 9, 2006.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using Siemens Water Technologies for your analytical needs.

Sincerely,

Siemens Water Technologies

Carolyn DeGroot

Client Services Chemist

Enviroscan Analytical[™] Services

I certify that the data contained in this report has been generated and reviewed in accordance with the Siemens Water Technologies Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. Siemens Water Technologies Corp. reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Approved by:

Certifications:

Wisconsin 737053130 Minnesota 055-999-302 Illinois 100317

¿nelacia

Siemens Water Technologies Corp.

301 West Military Road Rothschild, WI 54474 Tel: 800-338-7226 Fax: 715-355-3221 www.enviroscan.usfilter.com

SAMPLE SUMMARY

<u>Lab ld</u> 0611140-01 Client Sample Id

Leachate

0611140-02 Trip Blank

Date/Time Matrix
11/08/06 14:30 Leachate

11/08/06 00:00 Water

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Dave Nemetz

PROJECT NO.: 59056.01 REPORT NO.: 0611140 DATE REC'D: 11/09/06 08:44

REPORT DATE 11/22/06 08:19

PREPARED BY: CCD

Sample ID: Leachate Matrix: Leachate Sample Date/Time: 11/08/06 14:30 Lab No. 0611140-01

					Dilution			
	Results	<u>Units</u>	LOD	LOQ	Factor	Qualifiers	Analyzed	<u>Analyst</u>
EPA 8260B		 .						
1,1,1,2-Tetrachloroethane	ND	ug/L	1.00	5.00	10	PN	11/17/06	MRD
1,1,1-Trichloroethane	ND	ug/L	2.00	6.70	·10	PN	11/17/06	MRD
1,1,2,2-Tetrachloroethane	ND	ug/L	1.00	5.00	10	PN	11/17/06	MRD
1,1,2-Trichloroethane	ND	ug/L	1.00	5.00	10	PN	11/17/06	MRD
1,1-Dichloroethane	ND	ug/L	1.50	5.00	10	PN	11/17/06	MRD
1,1-Dichloroethylene	ND	ug/L	1.50	5.00	10	PN .	11/17/06	MRD
1,1-Dichloropropylene	ND	ug/L	3.00	10.0	10	PN	11/17/06	MRD
1,2,3-Trichlorobenzene	ND	ug/L	5.00	17.0	10	PN .	11/17/06	MRD
1,2,3-Trichloropropane	ND	ug/L	5.50	18.0	10	PN	11/17/06	MRD
1,2,4-Trichlorobenzene	ND	ug/L	5.00	17.0	10	PN	11/17/06	MRD
1,2,4-Trimethylbenzene	ND	ug/L	1.50	5.00	10	PN	11/17/06	MRD
1,2-Dibromo-3-chloropropane	ND	ug/L	3.50	11.7	10	PN	11/17/06	MRD
1,2-Dibromoethane	, ND	ug/L	1.00	5.00	10	PN '	11/17/06	MRD
1,2-Dichlorobenzene	ND	ug/L	7.50	25.0	10	PN	11/17/06	MRD
1,2-Dichloroethane	ND	ug/L	1.00	5.00	10	PN	11/17/06	MRD
1,2-Dichloropropane	ND	ug/L	1.00	5.00	. 10	PN ·	11/17/06	MRD
1,3,5-Trimethylbenzene	ND	ug/L	1.50	5.00	10	PN	11/17/06	MRD
1,3-Dichlorobenzene	ND	ug/L	1.50	5.00	10	PN	11/17/06	MRD
1,3-Dichloropropane	ND	ug/L	1.00	5.00	10	PN	11/17/06	MRD
1,4-Dichlorobenzene	ND	ug/L	7.50	25.0	10	PN	11/17/06	MRD
2,2-Dichloropropane	ND	ug/L	1.00	5.00	10	PN	11/17/06	MRD
2-Chlorotoluene	ND	ug/L	1.00	5.00	10	PN	11/17/06	MRD
4-Chlorotoluene	ND	ug/L	2.00	6.70	10	PN:	11/17/06	MRD
4-Isopropyltoluene	ND	ug/L	2.00	6.70	10	PN	11/17/06	MRD
Benzene	ND	ug/L	1.50	5.00	10	PN	11/17/06	MRD
Bromobenzene	ND	ug/L	1.00	5.00	10	PN	11/17/06	MRD
Bromochloromethane	ŃD	ug/L	1.00	5.00	10	PN	11/17/06	MRD
Bromodichloromethane	ND	ug/L	1.00	5.00	10	PN	11/17/06	MRD
Bromoform	ND	ug/L	2.00	6.70	10	PN	11/17/06	MRD
Bromomethane	ND	ug/L	1.50	5.00	10	PN '	11/17/06	MRD
Butylbenzene	ND	ug/L	2.00	6.70	10	PN	11/17/06	MRD
Carbon Tetrachloride	ND	ug/L	2.00	6.70	10	PN	11/17/06	MRD
Chlorobenzene	ND	ug/L ¹	1.00	5.00	10	PN 1	11/17/06	MRD
Chloroethane	ND	ug/L	6.00	20.0	10	PN	11/17/06	MRD
Chloroform	ND	ug/L	1.00	5.00	10	PN	11/17/06	MRD
Chloromethane	ND	ug/L	2.00	6.70	10	PN	11/17/06	MRD
cis-1,2-Dichloroethylene	ND	ug/L	2.00	6.70	10	PN	11/17/06	MRD
cis-1,3-Dichloropropylene	ND	ug/L	1.00	5.00	10	PN	11/17/06	MRD

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Dave Nemetz

PROJECT NO.: 59056.01 REPORT NO.: 0611140 DATE REC'D: 11/09/06 08:44 REPORT DATE 11/22/06 08:19

PREPARED BY: CCD

Sample ID: Leachate Matrix: Leachate Sample Date/Time: 11/08/06 14:30 Lab No. 0611140-01

					Dilutio	n '	Date	
	<u>Results</u>	<u>Units</u>	<u>LOD</u>	<u>LOQ</u>	Factor	<u>Qualifiers</u>	Analyzed	<u>Analyst</u>
EPA 8260B Continued						•		
Dibromochloromethane	ND	ug/L	1.00	5.00	10	PN	11/17/06	MRD
Dibromomethane	ND	ug/L	1.00	5.00	10	PN	11/17/06	MRD
Dichlorodifluoromethane	ND	ug/L	2.50	8.30	10	PN	11/17/06	MRD
Ethylbenzene	ND	ug/L	1.00	5.00	10	PN .	11/17/06	MRD
Hexachlorobutadiene	ND	ug/L	10.0	33.0	10	PN	11/17/06	MRD
Isopropylbenzene (Cumene)	ND	ug/L	1.00	5.00	10	PN	11/17/06	MRD
m,p-Xylenes	ND ·	ug/L	4.00	13.0	10	PN	11/17/06	MRD
Methylene Chloride	ND	ug/L	4.00	13.0	10	CSL, PN	11/17/06	MRD
Methyl-tert-Butyl Ether	ND	ug/L	1.00	5.00	10	PN	11/17/06	MRD
Naphthalene .	ND	ug/L	10.0	33.0	10	PN	11/17/06	MRD
o-Xylene	1.29	ug/L	1.00	5.00	10	J, PN	11/17/06	MRD
Propylbenzene	ND	ug/L	1.00	5.00	. 10	PN	11/17/06	MRD
sec-Butylbenzene	ND _.	ug/L	1.50	5.00	10	PN	11/17/06	MRD
Styrene	ND ,	ug/L	1.00	5.00	10	PN	11/17/06	MRD
tert-Butylbenzene	ND	ug/L	1.50	5.00	. 10	PN	11/17/06	MRD
Tetrachloroethene	ND	ug/L	1.00	5.00	.10	PN .	11/17/06	MRD
Toluene	ND	ug/L	4.00	13.0	10	PN	11/17/06	MRD
trans-1,2-Dichloroethylene	ND	ug/L	1.00	5.00	10	PN	11/17/06	MRD
trans-1,3-Dichloropropylene	ND	ug/L	1.00	5.00	10	PN	11/17/06	MRD
Trichloroethene	ND	ug/L	2.00	6.70	10	PN	11/17/06	MRD
Trichlorofluoromethane	ND	ug/L	2.00	6.70	10	PN	11/17/06	MRD
Vinyl chloride	ND	ug/L	1.50	5.00	10	PN	11/17/06	MRD

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Dave Nemetz

PROJECT NO.: 59056.01 REPORT NO.: 0611140 DATE REC'D: 11/09/06 08:44 REPORT DATE 11/22/06 08:19

PREPARED BY: CCD

Sample ID: Trip Blank	Matrix Water	Sample Date/Time:	11/08/06 0:00	Lab No. 0611140-02

•					Dilution	•	Date	
	Results	<u>Units</u>	<u>LÓD</u>	LOQ	Factor	Qualifiers	Analyzed	Analyst
EPA 8260B								
1,1,1,2-Tetrachloroethane	ND	ug/L	0.10	0.50	1		11/17/06	MRD
1,1,1-Trichloroethane	ND	ug/L	0.20	0.67	1		11/17/06	MRD
1,1,2,2-Tetrachloroethane	ND	ug/L	0.10	0.50	1		11/17/06	MRD
1,1,2-Trichloroethane	ND	ug/L	0.10	0.50	1		11/17/06	MRD
1,1-Dichloroethane	ND	ug/L	0.15	0.50	1		11/17/06	MRD
1,1-Dichloroethylene	ND	ug/L	0.15	0.50	1		11/17/06	MRD
1,1-Dichloropropylene	ND	ug/L	0.30	1.00	1	•	11/17/06	MRD
1,2,3-Trichlorobenzene	ND	ug/L	0.50	1.70	1		11/17/06	MRD
1,2,3-Trichloropropane	ND	ug/L	0.55	1.80	1		11/17/06	MRD
1,2,4-Trichlorobenzene	ND	ug/L	0.50	1.70	1		11/17/06	MRD
1,2,4-Trimethylbenzene	ND	ug/L	0.15	0.50	1		11/17/06	MRD
1,2-Dibromo-3-chloropropane	ND	ug/L	0.35	1.17	1		11/17/06	MRD
1,2-Dibromoethane	ND	ug/L	0.10	0.50	1		11/17/06	MRD
1,2-Dichlorobenzene	ND	ug/L	0.75	2.50	1 .		11/17/06	MRD
1,2-Dichloroethane	ND	ug/L	0.10	0.50	1		11/17/06	MRD
1,2-Dichloropropane	ND	ug/L	0.10	0.50	1		11/17/06	MRD
1,3,5-Trimethylbenzene	ND	ug/L	0.15	0.50	1 .		11/17/06	MRD
1,3-Dichlorobenzene	ND	ug/L	0.15	0.50	1	•	11/17/06	MRD
1,3-Dichloropropane	ND	ug/L	0.10	0.50	1		11/17/06	MRD
1,4-Dichlorobenzene	ND	ug/L	0.75	2.50	1		11/17/06	MRD
2,2-Dichloropropane	· ND	ug/L	0.10	0.50	1		11/17/06	MRD
2-Chlorotoluene	ND	ug/L	0.10	0.50	1		11/17/06	MRD
4-Chlorotoluene	ND	ug/L	0.20	0.67	1		11/17/06	MRD
4-Isopropyltoluene	ND	ug/L	0.20	0.67	1		11/17/06	MRD
Benzene	ND	ug/L	0.15	0.50	1		11/17/06	MRD
Bromobenzene	ND	ug/L	0.10	0.50	1		11/17/06	MRD
Bromochloromethane	ND	ug/L	0.10	0.50	1		11/17/06	MRD
Bromodichloromethane	ND	ug/L	0.10 .	0.50	1		11/17/06	MRD
Bromoform	ND	ug/L	0.20	0.67	1		11/17/06	MRD
Bromomethane	ND	ug/L	0.15	0.50	1		11/17/06	MRD
Butylbenzene	ND	ug/L	0.20	0.67	1		11/17/06	MRD
Carbon Tetrachloride	ND	ug/L	0.20	0.67	1		11/17/06	MŖD
Chlorobenzene	ND	ug/L	0.10	0.50	1		11/17/06	MRD
Chloroethane	ND	ug/L	0.60	2.00	1		11/17/06	MRD
Chloroform	ND	ug/L	0.10	0.50	1		11/17/06	MRD
Chloromethane	ND	ug/L	0.20	0.67	1		11/17/06	MRD
cis-1,2-Dichloroethylene	ND	ug/L	0.20	0.67	1		11/17/06	MRD
cis-1,3-Dichloropropylene	ND	ug/L	0.10	0.50	1		11/17/06	MRD

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Dave Nemetz

PROJECT NO.: 59056.01 REPORT NO.: 0611140 DATE REC'D: 11/09/06 08:44

DATE REC'D: 11/09/06 08:44 REPORT DATE 11/22/06 08:19

PREPARED BY: CCD

Sample ID: Trip Blank Matrix: Water Sample Date/Time: 11/08/06 0:00 Lab No. 0611140-02

					Dilution		Date	
	<u>Results</u>	<u>Units</u>	<u>LOD</u>	<u>LOQ</u>	<u>Factor</u>	Qualifiers	<u>Analyzed</u>	<u>Analyst</u>
EPA 8260B Continued		·						
Dibromochloromethane	, ND	ug/L	0.10	0.50	1		11/17/06	MRD
Dibromomethane	ND	ug/L	0.10	0.50	1		11/17/06	MRD
Dichlorodifluoromethane	· ND	ug/L	0.25	0.83	1		11/17/06	MRD
Ethylbenzene	ND	ug/L	0.10	0.50	1		11/17/06	MRD
Hexachlorobutadiene	ND	ug/L	1.00	3.30	1		11/17/06	MRD
Isopropylbenzene (Cumene)	ND	ug/L	0.10	0.50	1		11/17/06	, MRD
m,p-Xylenes	ND	ug/L	0.40	1.30	1		11/17/06	MRD
Methylene Chloride	ND	ug/L	0.40	1.30	1 (CSL	11/17/06	MRD
Methyl-tert-Butyl Ether	ND	ug/L	0.10	0.50	1		11/17/06	MRD
Naphthalene	ND	ug/L	1.00	3.30	1		11/17/06	MRD
· o-Xylene	ND	ug/L	0.10	0.50	1		11/17/06	MRD ·
Propylbenzene	ND	ug/L	0.10	0.50	1	÷	11/17/06	MRD
sec-Butylbenzene	ND	ug/L	0.15	0.50	1	· .	11/17/06	MRD
Styrene	ND	ug/L	∙0.10	0.50	1		11/17/06	MRD
tert-Butylbenzene	ND	ug/L	0.15	0.50	1 '		11/17/06	MRD :
Tetrachloroethene	ND	ug/L	0.10	0.50	1 ,		11/17/06	MRD .
Toluene	ND	ug/L	0.40	1.30	1		11/17/06	MRD
trans-1,2-Dichloroethylene	ND	ug/L	0.10	0.50	1		11/17/06	MRD
trans-1,3-Dichloropropylene	ND	ug/L	0.10	0.50	1		11/17/06	MRD
Trichloroethene	ND	ug/L	0.20	0.67	1		11/17/06	MRD
Trichlorofluoromethane	ND	ug/L	0.20	0.67	1		11/17/06	MRD
Vinyl chloride	ND	ug/L	0.15	0.50	1		11/17/06	MRD

REQUEST FOR SERVICES

USFilter

A Siemens Business

ENVIROSCAN SERVICES 301 W. MILITARY RD.								HSCH	ILD,	WI 8	5447	4	1-800-338-SCAN
REPORT TO:	JAVE	HEMET	7				BILL TO Name:						
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Phone: (648	<u>.</u>).	223-19	32				Phone:						
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Qualifier Descriptions

PN The physical nature (color, odor, phase separation, etc) indicated a potential problem and a dilution was taken to

protect the instrument.

J Estimated concentration below laboratory quantitation level.

CSL Check standard for this analyte exhibited a low bias. Sample results may also be biased low.

Definitions

LOD = Limit of Detection (Dilution Corrected)
LOQ = Limit of Quantitation (Dilution Corrected)
ND = Not Detected
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pci/L = picocurie per Liter
mL/L = milliliters/Liter
mg = milligram

When the word "dry" follows the units on the result page the sample results are dry weight corrected.

LODs and LOQs are dry weight corrected for all soils except WI GRO and EPA 8021methanol and WI DNR methylene chloride preserved soils.

ug/l = Microgram per Liter = parts per billion (ppb)
ug/kg = Microgram per kilogram = parts per billion (ppb)
mg/l = Milligram per liter parts per million (ppm)
mg/kg = Milligram per kilogram parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
* = Result outside established limits.
mg/m3 = Milligrams/ meter cubed
ng/L = Nanograms per Liter = Parts per trillion(ppt)
> = Greater Than

Methanol Soils for WI GRO and EPA 8021 are reported to the LOQ.



HYDROGEOLOGISTS E ENGINEERS ENVIRONMENTAL SCIENTISTS

November 27, 2006

Ralph Erickson Madison Metropolitan Sewerage District 1610 Moorland Road Madison, WI 53713-3398

RE:

Wastewater Discharge Laboratory Results

Refuse Hideaway Landfill, Dane County, Wisconsin (License #1953)

Permit #: NTO-5I

Dear Mr. Erickson:

Per wastewater discharge permit requirements for the above referenced site, please find attached the analytical summary table and laboratory report for the most recent leachate analysis for the 4th quarter of 2006. All analyzed parameters were below permitted levels for the November 8, 2006 sample.

Please call me at 223-1532 (extension 21) if you need additional information or have any questions.

Sincerely,

LIESCH ENVIRONMENTAL SERVICES, INC.

David Nemetz, P.G.

Project Manager

Attachments: table, lab report

cc: Mr. Hank Kuehling, WDNR, 3911 Fish Hatchery Road, Fitchburg, WI 53711

J:\5905600\Discharge Permit\Results1106.doc

Table 1
Leachate Tank Laboratory Analytical Results
Refuse Hideaway Landfill
Town of Middleton, Wisconsin

		PARAMETER											
DATE	Cadmium (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (ug/L)	Copper (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L)	Zinc (ug/L)	Cyanide (ug/L)		
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100		
9/30/2003 10/9/2003	<0.88	54	<260,000	8	<2.2	<0.030	150	<8.0	<1.8	54	5.8		
2/23/2004	<0.53	30	<270	24	<1.3	<0.030	93	<4.8	6.5	40	16		
8/5/2004	<0.17	21	<27	4.1	1.9	<0.028	54	6.5	0.21	19	15		
11/4/2004	<1.7	33	<2.7		2.8	<0.30		13	<0.49		5.4		
12/21/2004	<1.7	52	<2.7	8.6	5.4	<0.028	180	21	<0.49	36	9.1		
3/31/2005	0.68	15	<2.7	6.9*	12	<0.028	į				5.5*		
6/30/2005	<1.00	12.8	<40	6.20	1.70	<0.07	40.5	16.7	<1.00	458	7		
9/21/2005	<1.00	17.8	<40	13.5	8.30	<0.07	46.5	20.1	4.20	95.1	<5		
11/16/2005	<1.00	14.2	<40	3.04	<1.50	<0.07	44.6	31.6	5.20	<10.0	10*		
2/9/2006	<1.00	16.3	<40	<3.00	<1.50	<0.07	59.3	28.8	<1.00	17.9	17		
5/18/2006	<1.00	24.4*	<40	3.40*	<1.50	<0.07	38.3	21.1	1.32*	8.0*	9*		
8/28/2006	<1.00	19.2*	<40	5.10*	2.96*	<0.07	32.7	28.0	<1.00	36.6	6*		
11/8/2006	<1.00	11.6*	<20	<3.00	<1.50	<0.07	55.2	28.0	5.81*	10.9*	15*		

Notes

Results in **bold** indicate levels above permit limitations.

Blank cell indicates parameter not analyzed.

ug/I = micrograms per liter

^{* =} Analyte detected between limit of detection and limit of quantitation.

November 21, 2006

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Dave Nemetz

REPORT NO.: 0611140

PROJECT NO.: 59056.00 Leachate

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received November 9, 2006.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using Siemens Water Technologies for your analytical needs.

Sincerely,

Siemens Water Technologies

Carolyn DeGroot

Client Services Chemist

Enviroscan Analytical[™] Services

I certify that the data contained in this report has been generated and reviewed in accordance with the Siemens Water Technologies Quality Assurance Program. Exceptions, If any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. Siemens Water Technologies Corp. reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Approved by:

Certifications:

Wisconsin 737053130 Minnesota 055-999-302

Illinois 100317

Siemens Water Technologies Corp.

301 West Military Road Rothschild, WI 54474 Tel: 800-338-7226 Fax: 715-355-3221 www.enviroscan.usfilter.com

SAMPLE SUMMARY

<u>Lab ld</u>)611140-01 Client Sample Id

Leachate

<u>Date/Time</u> <u>Matrix</u> 11/08/06 14:30 Leachate

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Dave Nemetz

PROJECT NO.: 59056.00 Leachate REPORT NO.: 0611140

REPORT NO.: 0611140 DATE REC'D: 11/09/06 08:44 REPORT DATE 11/21/06 15:31

PREPARED BY: CCD

Sample ID: Leachate	Matrix: Leach	Matrix: Leachate			Sample Date/Time: 11/08/06 14:30					
•	ND	Date								
	<u>Results</u>	<u>Units</u>	LOD	LOQ	Factor	<u>Qualifiers</u>	Analyzed	<u>Analyst</u>		
EPA 200.8 - Total										
Total Cadmium	ND	ug/L	1.00	10.0	5		11/17/06	JCH		
Total Chromium	11.6	ug/L	8.00	26.6	5	J	11/17/06	JCH		
Total Copper	ND	ug/L	3.00	10.0	5		11/17/06	JCH		
Total Lead	. ND	ug/L	1.50	10.0	5		11/17/06	JCH		
Total Nickel	55.2	ug/L	1.50	10.0	5		11/17/06	JCH		
Total Selenium	28.0	ug/L	3.00	10.0	5		11/17/06	JCH		
Total Silver	5.81	ug/L	1.00	10.0	5	j	11/17/06	JCH		
Total Zinc	10.9	ug/L	10.0	33.4	5	J	11/17/06	JCH		
EPA 200.8/6020										
ICPMS Liquid Metal Prep	Completed	N/A			1		11/14/06	JCH		
EPA 245.1 - Total										
Total Mercury	ND	ug/L	0.070	0.230	1	•	11/16/06	JCH		
EPA 335.4 Total Cyanide	0.015	mg/L	0.010	0.033	2	J	11/10/06	LCK		
•		U .		•						
SM 3500 Cr D		(1)	0.000	0.400	_	DIID C41	44/00/00 40:00	, BMC		
Hexavalent Chromium	· ND	mg/L	0.020	0.100	5	DUP, S1L	11/09/06 10:00) BMS		

Qualifier Descriptions

S1L First sample matrix spike recovery was low.

J Estimated concentration below laboratory quantitation level.

DUP Result of duplicate analysis in this quality assurance batch exceeds the limits for precision.

COMP Completed

Definitions

LOD = Limit of Detection (Dilution Corrected)
LOQ = Limit of Quantitation (Dilution Corrected)
ND = Not Detected
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pci/L = picocurie per Liter
mL/L = milliliters/Liter
mg = milligram

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LODs and LOQs are dry weight corrected for all soils except WI GRO and EPA 8021methanol and WI DNR methylene chloride preserved soils.

ug/l = Microgram per Liter = parts per billion (ppb)
ug/kg = Microgram per kilogram = parts per billion (ppb)
mg/l = Milligram per liter parts per million (ppm)
mg/kg = Milligram per kilogram parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
* = Result outside established limits.
mg/m3 = Milligrams/ meter cubed
ng/L = Nanograms per Liter = Parts per trillion(ppt)
> = Greater Than

Methanol Soils for WI GRO and EPA 8021 are reported to the LOQ.

REQUEST FOR SERVICES US FILE

A Siemens Business

ENVIROSC	AN SE	RVICES	3	01 W. I	MILI	TARY RD.	ROTI	-ISCH	HLD,	WI	5447	4	1-800-338-SCAN
REPORT TO							BILL TO): (if d	liffere	nt fro	m Re	port -	To info)
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Dave Nemetz

From:

Salkowski, Jim [SalkowskiJ@USFil

Sent:

Monday, May 23, 2005 2:38 PM

To:

Dave Nemetz

Subject: RE: Price quote



Thanks for the inquiry. The following is our quotation including the methods and associated MDLs (method detection limits). Please note that these are subject to change due to annual reassessments, sample dilution due to matrix and other interferences.

· M. Dair

Inorganic Parameters

Compound	MDL, ug/L	Method	Qty	Unit Price	
Cadmium (Cd)	0.2	EPA 200.8	1	\$	9.00
Chromium (Cr)	1.6	EPA 200.8	1	\$	9.00
Copper (Cu)	0.6	EPA 200.8	1	\$	9.00
Cyanide (CN)	5	EPA 335.3	1	\$	30.00
Hexavalent Chromium	4	SM 3500 Cr D	1	\$	50.00
Lead (Pb)	0.3	EPA 200.8	1	\$	9.00
Mercury (Hg)	0.07	EPA 245.1	1	\$	25.00
Nickel (Ni)	0.3	EPA 200.8	1	\$	9.00
Selenium (Se)	0.6	EPA 200.8	1	\$	9.00
Silver (Ag)	0.2	EPA 200.8	1	\$	9.00
Zinc (Zn)	2	EPA 200.8	1	\$	9.00
Metals Prep/Digestion			1	\$	5.00

Total is \$182.00 per sample. The digestion price is waved if the sample does not require digestion (no suspended solids or color, and turbidity <2.0 NTU).

USFilter Enviroscan reserves the right to switch any or all of the metals from EPA Method 200.8 (ICP-MS) to EPA Method 200.7 (ICP-OES) if the sample contains significant concentrations of the metals and the quoted MDL is not required by regulations or permits. The price remains unchanged.

Jim Salkowski, Lab Director

From: Dave Nemetz [mailto:Dnemetz@madison.liesch.com]

Sent: Monday, May 23, 2005 1:56 PM

To: Salkowski, Jim Subject: Price quote

Jim.

Hi—I am looking for a price quote for the following parameters for leachate analysis from a landfill:

Cadmium Hexavalent chromium Total chromium

Kuehling, Harlan H - DNR

From:

Dave Nemetz [dnemetz@madison.liesch.com]

Sent:

Monday, November 27, 2006 8:56 AM

To:

Kuehling, Harlan H - DNR

Subject:

Refuse leachate - Fall 2006 VOC and Metals Analytical Results

Importance:

High

Attachments: 0611140_Liesch_59056.01_VOC.pdf; 0611140_Liesch_59056.00.pdf

Hank,

Good news on the leachate results—the only VOC detected was xylene at a very minimal trace level (see attached). The metal results (also attached) were low as well, in line with historical data. The leachate level in the tank was 58" on Wednesday and they were coming back on Friday to do at least one more hauling event, so it looks like things are well in hand.

Thanks, Dave

Based on the very low levels of metals and Vocs in the leachate, I decided that no sail dean-up from the vecent leachate tank overflow was necessary. Hank Kuchling 11/27/06

Kuehling, Harlan H - DNR

From:

Kuehling, Harlan H - DNR

Sent:

Tuesday, January 16, 2007 10:15 AM

To:

'Dave Nemetz'

Cc:

Kalnicky, Richard A - DNR

Subject:

RHL - Problem Solving at GW-5

Dave,

To summarize for Dick and the file, we just agreed on the phone that, after pumping leachate from the header between GW-5 and GW-4 last week, Liesch will try to soften the blockage thought to be in the header line with a citrus-based lime remover and will also try to find a company that has jetting equipment that can clean the line between GW-4 and GW-5. This work will be done as part of the extras (repairs) part of the contract.

Hank



Jim Doyle, Governor Scott Hassett, Secretary Lloyd L. Eagan, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

January 22, 2007

Mr. Al and Ms. Jean Stoppleworth 7750 USH 14 Middleton, WI 53562

Subject: Results of Drinking Water Quality, November 2006

Dear Mr. and Ms. Stoppleworth:

Drinking water samples were collected from your house in November 2006 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill. The samples were collected from the part of your water supply system that is not treated by your point-of-entry treatment system.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, VOCs were detected in your untreated well water. Note that the sample was probably contaminated with one of the VOCs detected, chloromethane, after it was collected. It is unlikely that this contaminant is in your well water.

VOC Name	Result (ug/L)	Health Advisory Standard (ug/L)
1,1-Dichloroethane	0.25	850
cis-1,2-Dichloroethene	1.4	70
Tetrachloroethene	3.0	5
Trichloroethene	0.64	5
Dichlorodifluoromethane	0.64	1000
Trichlorofluoromethane	0.088	2000

Note that detected VOCs were all found to be at levels below the associated health advisory standards, as have been all other results since DNR began monitoring your well water quality on a semi-annual basis in the fall of 2000. The semi-annual testing of the untreated portion of your water supply will continue to take place in May and November as part of the State of Wisconsin's routine groundwater monitoring program for Refuse Hideaway Landfill.

If you have any questions or comments about the enclosed drinking water quality results or our work at



the landfill, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@wisconsin.gov

enclosure

.. Henry Nehls-Lowe - DHFS Steven Smith – BT², Inc. DG/SCR



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January 22, 2007

Ms. Shirley Noles 7734 USH 14 Middleton, WI 53562

Subject: Results of Drinking Water Quality Testing, November 2006

Dear Ms. Noles:

Drinking water samples were collected from your home in November 2006 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill. The samples were collected from the part of your water supply system that is not treated by your point-of-entry treatment system.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, chloromethane was detected in the sample. All indications are that the sample was contaminated with these compounds after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time. This absence of VOCs is a continuation of similar results over the past several years. This semi-annual testing of the untreated portion of your water supply will continue to take place in May and November as part of the State of Wisconsin's routine groundwater monitoring program for Refuse Hideaway Landfill.

If you have any questions or comments about the enclosed drinking water quality results or our work at the landfill, please contact me at the address listed above, or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@wisconsin.gov

Acrok Kuebbing

enclosure

cc:

Henry Nehls-Lowe - DHFS Steven Smith – BT², Inc.





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January 22, 2007

Mr. Jerry Wagner 7902 USH 14 Cross Plains, WI 53528

Subject: Results of Drinking Water Quality Testing, November 2006

Dear Mr. Wagner:

Drinking water samples were not collected from your home in November 2006. This testing of your well water is scheduled to be performed annually at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill. DNR's water monitoring contractor was not able to collect a sample from your well in November because the well pump's electricity was shut off at the time of sampling.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Henk Kuchling

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@wisconsin.gov





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January 18, 2007

Mr. Arvid and Ms. Margaret Sather 7911 Deer Run Road Cross Plains, WI 53528

Subject: Results of Drinking Water Testing, November 2006

Dear Mr. and Ms. Sather:

Drinking water samples were collected from your home in November 2006 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, chloromethane was detected in the sample of your well water. All indications are that the sample was inadvertently contaminated with this compound after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@wisconsin.gov

Clark Kuching

enclosure

cc: Henry Nehls-Lowe - DHFS

Steven Smith $-BT^2$, Inc.





Jim Doyle, Governor Scott Hassett, Secretary Lloyd L. Eagan, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

January 18, 2007

Mr. Ed and Ms. Virginia Matush 4310 Fawn Court Cross Plains, WI 53528

Subject: Results of Drinking Water Quality Testing, November 2006

Dear Mr. and Ms. Matush:

Drinking water samples were collected from your home in November 2006 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, no VOCs were detected in the sample of your well water. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

Hank Kuchlin

enclosure

cc: Henry Nehls-Lowe - DHFS

Steven Smith $-BT^2$, Inc.





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January 18, 2007

Mr. Loyal and Ms. Bernice Durand 4314 Fawn Court Cross Plains, WI 53528

Subject: Results of Drinking Water Quality Testing, November 2006

Dear Mr. and Ms. Durand:

Drinking water samples were collected from your home in November 2006 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, no VOCs were detected in the sample of your well water. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Hank Kuchlin

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@dnr.state.wi.us

enclosure

cc: Henry

Henry Nehls-Lowe - DHFS Steven Smith – BT², Inc.





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January 18, 2007

Mr. Wayne Rounds 7785 Low Road Middleton, WI 53562

Subject: Results of Drinking Water Quality Testing, November 2006

Dear Mr. Rounds:

Drinking water samples were collected from your home in November 2006 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, chloromethane was detected in the sample of your well water. All indications are that the sample was inadvertently contaminated with this compound after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@wisconsin.gov

Hank Kuchling

enclosure

cc: Henry Nehls-Lowe - DHFS

Steven Smith – BT², Inc.





Jim Doyle, Governor Scott Hassett, Secretary Lloyd L. Eagan, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

January 18, 2007

Mr. Daniel and Ms. Patricia Sommers 7892 Deer Run Road Cross Plains, WI 53528

Subject: Results of Drinking Water Quality Testing, November 2006

Dear Mr. and Ms. Sommers:

Drinking water samples were collected from your home in November 2006 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, chloromethane was detected in the sample of your well water. All indications are that the sample was inadvertently contaminated with this compound after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@wisconsin.gov

Hank Kuchhij

enclosure

cc: Henry Nehls-Lowe - DHFS

Steven Smith – BT², Inc.





Jim Doyle, Governor Scott Hassett, Secretary Lloyd L. Eagan, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

January 18, 2007

Mr. George and Ms. Joanne Weber 7873 Deer Run Road Cross Plains, WI 53528

Subject: Results of Drinking Water Quality Testing, November 2006

Dear Mr. and Ms. Weber:

Drinking water samples were collected from your home in November 2006 by BT², Inc. and submitted to Test America laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, chloromethane was detected in the sample of your well water. All indications are that the sample was inadvertently contaminated with this compound after it was collected. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G.

Remediation and Redevelopment Hydrogeologist

(608) 275-3286

harlan.kuehling@wisconsin.gov

Hank Ku hling

enclosure

cc: Henry Nehls-Lowe - DHFS

Steven Smith – BT², Inc.





HYDROGEOLOGISTS . ENGINEERS . ENVIRONMENTAL SCIENTISTS

March 2, 2007

Ralph Erickson Madison Metropolitan Sewerage District 1610 Moorland Road Madison, WI 53713-3398

RE:

Wastewater Discharge Laboratory Results

Refuse Hideaway Landfill, Dane County, Wisconsin (License #1953)

Permit #: NTO-5I

Dear Mr. Erickson:

Per wastewater discharge permit requirements for the above referenced site, please find attached the analytical summary table and laboratory report for the most recent leachate analysis for the 1st quarter of 2007. All analyzed parameters were below permitted levels for the February 21, 2007 sample.

Please call me at 223-1532 (extension 21) if you need additional information or have any questions.

Sincerely,

LIESCH ENVIRONMENTAL SERVICES, INC.

David Nemetz, P.G.

Project Manager

Attachments: table, lab report

cc: Mr. Hank Kuehling, WDNR, 3911 Fish Hatchery Road, Fitchburg, WI 53711

J:\5905600\Discharge Permit\Results0207.doc

Table 1
Leachate Tank Laboratory Analytical Results
Refuse Hideaway Landfill
Town of Middleton, Wisconsin

	PARAMETER										
DATE	Cadmium (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (ug/L.)	Copper (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L.)	Silver (ug/L)	Zinc (ug/L)	Cyanide (ug/L)
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100
9/30/2003 10/9/2003	<0.88	54	<260,000	8	<2.2	<0.030	150	<8.0	<1.8	54	5.8
2/23/2004	<0.53	30	<270	24	<1.3	<0.030	93	<4.8	6.5	40	16
8/5/2004	<0.17	21	<27	4.1	1.9	<0.028	54	6.5	0.21	19	15
11/4/2004	<1.7	33	<2.7		2.8	<0.30		13	<0.49		5.4
12/21/2004	<1.7	52	<2.7	8.6	5.4	<0.028	180	21	<0.49	36	9.1
3/31/2005	0.68	15	<2.7	6.9*	12	<0.028					5.5*
6/30/2005	<1.00	12.8	<40	6.20	1.70	<0.07	40.5	16.7	<1.00	458	7
9/21/2005	<1.00	17.8	<40	13.5	8.30	<0.07	46.5	20.1	4.20	95.1	<5
11/16/2005	<1.00	14.2	<40	3.04	<1.50	<0.07	44.6	31.6	5.20	<10.0	10*
2/9/2006	<1.00	16.3	<40	<3.00	<1.50	<0.07	59.3	28.8	<1.00	17.9	17
5/18/2006	<1.00	24.4*	<40	3.40*	<1.50	<0.07	38.3	21.1	1.32*	8.0*	9*
8/28/2006	<1.00	19.2*	<40	5.10*	2.96*	<0.07	32.7	28.0	<1.00	36.6	6*
11/8/2006	<1.00	11.6*	<20	<3.00	<1.50	<0.07	55.2	28.0	5.81*	10.9*	15*
2/21/2007	<1.00	19.1*	<40	20.8	1.59*	<0.07	50.4	51.8	6.30*	<10	12*

Notes

Results in **bold** indicate levels above permit limitations.

Blank cell indicates parameter not analyzed.

ug/l = micrograms per liter

^{* =} Analyte detected between limit of detection and limit of quantitation.

March 02, 2007

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Dave Nemetz

REPORT NO.: 0702252

PROJECT NO.: 59056.00

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received February 22, 2007.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using Siemens Water Technologies for your analytical needs.

Sincerely,

Siemens Water Technologies

James Salkowski

Lab Director

Enviroscan Analytical™ Services

esk. Salkons /~

I certify that the data contained in this report has been generated and reviewed in accordance with the Siemens Water Technologies Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. Siemens Water Technologies Corp. reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Approved by

Certifications:

Wisconsin 737053130 Minnesota 055-999-302

Illinois 100317

Siemens Water Technologies Corp.

301 West Military Road Rothschild, WI 54474 Tel: 800-338-7226 Fax: 715-355-3221 www.enviroscan.usfilter.com

The total number of pages in this report, including this page is 6.

SAMPLE SUMMARY

<u>Lab ld</u>)702252-01 Client Sample Id

Leachate

Date/Time Matrix
02/21/07 11:30 Leachate

SIEMENS

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Dave Nemetz

PROJECT NO.: 59056.00 REPORT NO.: 0702252 DATE REC'D 02/22/07 08:28 REPORT DATE: 03/02/07 11:01 PREPARED BY: JRS

Sample ID: Leachate	Matrix: Leach	ate	Sample	e Date/Tir	me: 02/	21/07 11:30	Lab No. : 07 0	2252-01
	<u>Results</u>	<u>Units</u>	LOD	LOQ	Dilution Factor	Qualifiers	Date <u>Analyzed</u>	<u>Analyst</u>
EPA 200.8 - Total Total Cadmium	ND	ug/L	1.00	10.0	5		03/01/07	JCH
Total Chromium	19.1	ug/L	8.00	26.6	5	J	03/01/07	JCH
Total Copper	20.8	ug/L	3.00	10.0	5		03/01/07	JCH
Total Lead	1.59	ug/L	1.50	10.0	5	J	03/01/07	JCH
Total Nickel	50.4	ug/L	1.50	10.0	5		03/01/07	JCH
Total Selenium	51.8	ug/L	3.00	10.0	5		03/01/07	JCH
Total Silver	6.30	ug/L	1.00	10.0	5	J	03/01/07	JCH
Total Zinc	ND	ug/L	10.0	33.4	5		03/01/07	JCH
EPA 200.8/6020 ICPMS Liquid Metal Prep	Completed	N/A			1		02/26/07	JCH
EPA 245.1 - Total Total Mercury	. ND	ug/L	0.070	0.230	1		02/27/07	JCH
EPA 335.4 Total Cyanide	0.012	mg/L	0.005	0.017	1	J	02/27/07	LCK
SM 3500 Cr D Hexavalent Chromium	ND	mg/L	0.040	0.200	10 10		02/22/07 11:25	BMS

SIEMENS

Qualifier Descriptions

S2L Second sample matrix spike recovery was low.

S1L First sample matrix spike recovery was low.

J Estimated concentration below laboratory quantitation level.

COMP Completed

Definitions

LOD = Limit of Detection (Dilution Corrected)
LOQ = Limit of Quantitation (Dilution Corrected)
ND = Not Detected
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pci/L = picocuries per Liter
mL/L = milliliters per Liter
mg = milligram

When the word "dry" follows the units on the result page the sample results are dry weight corrected.

LODs and LOQs are dry weight corrected for all soils except WI GRO and EPA 8021 methanol and WI DNR methylene chloride preserved soils being reported to the State of Wisconsin.

ug/l = Micrograms per Liter = parts per billion (ppb)
ug/kg = Micrograms per kilogram = parts per billion (ppb)
mg/l = Milligrams per liter = parts per million (ppm)
mg/kg = Milligrams per kilogram = parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
* = Result outside established limits.
mg/m3 = Milligrams per meter cubed
ng/L = Nanograms per Liter = Parts per trillion(ppt)
> = Greater Than

Methanol Soils for WI GRO and EPA 8021 are reported to the LOQ.



A Siemens Business

ENVIROSCAN S	SERVICES	30	01 W. MILI	TARY RD.	ROT	HSCHII	D, WI	5447	4	1-800-	338-SCAN
REPORT TO: Name:	AUG NEME	72					erent fro			o info)	
Company: Lz					Compa	nv:					
Address: 6	مسدده ۱۵۵	10-16	Suzes 2	63	Address	s:					
Address: 60	MADESON,	WE 937	13		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-·					
Phone: (<u>‰ን</u>	<u> </u>	32			Phone:	(
P.O.#Project # 59	56.0=	Quote	#								
Location											UESTS
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LAB USE ONLY	DATE	TIME	No. of Containers COMP GRAB	SAMPI	LE ID					F	EMARKS
^	2/21/07	11:30	3	PENCHY	TE	V.				1-250	PINauth 1.HNO3 teranism
				` `						1-5001	PI HNOS
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SAMPLERS: (Signa	ture)	•					Rec'd Comr			۱. کا ۲+ له ۲	e lab
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RELINQUISHED BY: (Signature)	DATE	/TIME	RECEIVED FO BY: (Signature)	R LABORA	ATORY 2	DATE/	TIME	,28		
											



Jim Doyle, Governor Scott Hassett, Secretary Lloyd L. Eagan, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

March 30, 2007

Mr. Frank Perugini Environmental Sampling Corp. P.O. Box 12 Muskego, WI 53150

Subject: Refuse Hideaway Landfill Groundwater Monitoring Contract Bid

Dear Mr. Perugini:

Thank you for expressing interest in submitting a bid for the groundwater monitoring contract for Refuse Hideaway Landfill. Enclosed you will find information on the scope of work and other aspects of the monitoring program.

Please complete the bid price sheet and submit it to me as directed in the packet by 4:30 p.m. on April 17, 2007. The Department will award the contract to the lowest qualified bid. Note that I will be out of the office until Wednesday, April 11, but will then be available to answer your questions.

Sincerely,

Hank Kuehling, P.G.

Remediation & Redevelopment Program Hydrogeologist

(608) 275-3286

harlan.kuehling@wisconsin.gov

Hom X Keehling





Jim Doyle, Governor Scott Hassett, Secretary Lloyd L. Eagan, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

March 30, 2007

Ms. Gloria Chognacki Short, Elliott, Hendrickson, Inc. 6418 Normandy Lane Madison, WI 53719

Subject: Refuse Hideaway Landfill Groundwater Monitoring Contract Bid

Dear Ms. Chognacki:

Thank you for expressing interest in submitting a bid for the groundwater monitoring contract for Refuse Hideaway Landfill. Enclosed you will find information on the scope of work and other aspects of the monitoring program.

Please complete the bid price sheet and submit it to me as directed in the packet by 4:30 p.m. on April 17, 2007. The Department will award the contract to the lowest qualified bid. Note that I will be out of the office until Wednesday, April 11, but will then be available to answer your questions.

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March 30, 2007

Mr. Steve Smith BT², Inc. 2830 Dairy Drive Madison, WI 53718-6751

Subject: Refuse Hideaway Landfill Groundwater Monitoring Contract Bid

Dear Mr. Smith:

Thank you for expressing interest in submitting a bid for the groundwater monitoring contract for Refuse Hideaway Landfill. Enclosed you will find information on the scope of work and other aspects of the monitoring program.

Please complete the bid price sheet and submit it to me as directed in the packet by 4:30 p.m. on April 17, 2007. The Department will award the contract to the lowest qualified bid. Note that I will be out of the office until Wednesday, April 11, but will then be available to answer your questions.

Sincerely,

Hank Kuehling, P.G.

Remediation & Redevelopment Program Hydrogeologist

(608) 275-3286

harlan.kuehling@wisconsin.gov

Hank Kuchlm,



Kuehling, Harlan H - DNR

From:

Kuehling, Harlan H - DNR

Sent:

Friday, April 13, 2007 10:01 AM

To:

'escstaff@yahoo.com'

Subject:

Refuse Hideaway Landfill Groundwater Monitoring Contract Scope of Work and Bid Price

Sheet Revisions

This morning I will send via FAX some revised sheets to replace some pages of the RHL GW monitoring scope of work and bid price sheet that I recently sent to you that contained errors. I had not changed Tables 1, 2, and 3 to reflect that dedicated bladder pumps had been installed for the first time in six monitoring wells in late 2005. This well installation also resulted in the permanent removal of Churney ball plugs from two monitoring wells, so this necessitated changes to pages two and three of the text. The last sheet, the bid price sheet, has been revised to reflect all of these changes. I apologize for these errors that resulted from my rush to finish this before leaving on vacation.

Hank

AHank Kuehling, P.G.

Remediation & Redevelopment Hydrogeologist South Central Region 3911 Fish Hatchery Road, Fitchburg, WI 53711 Wisconsin Department of Natural Resources

(2) phone:

(608) 275-3286

(2) fax:

(608) 275-3338

(e-mail:

harlan.kuehling@wisconsin.gov

Also sent to BT Inc. and SEH, Inc., at the same time as this one.

Environmental Sampling Corp. (ESC) Field Status Report – May 2007

WDNR / Refuse Hideaway Landfill Middleton, Wisconsin

Page 1 of 1

Task	Sampling Period / Date	Sample Type / Description
I	05/21/07 - 05/25/07	Groundwater Monitoring Wells
II	05/23/07 - 05/24/07	Residential Wells
III	05/21/07 - 05/24/07	Ground Water Elevations
IV	Various Dates	Out of Scope Well Repairs

Project Status

- I. Groundwater Sampling: ESC staff was on site May 21 through May 25 to sample the groundwater monitoring wells. Monitoring wells: P-8D, P-8S, P-9D, P-9S, P-16D, P-16S, P17-S, P-18S, P-20SR, P-21BR, P-21S, P-21D, P-22D, P-22S, P-22E, P-23D, P-23S, P-24D, P-24E, P-25BR, P-25D, P-25S, P-26D, P-26S, P-27D, P-27S, P-28S, P-29S, P-30D, P-30I, P-31D, P-31IA, P-31IB, P-31S, P-32D, P-32S, P-33D, P-34D, P-34S, P-40D, P-40I, P-41D, P-43S, P-431 & P-43D were purged and sampled using either submersible electric pumps, dedicated bladder pumps or bailers. Two duplicate sample (DUP01 & DUP02) were collected at P-23D & P-40I in accordance with ESC's QA/QC procedures. A field blank (FB-01) was collected near P-29S. Several laboratory trip blanks also accompanied the samples. Groundwater elevations were also measured at 16 additional monitoring wells during the May 2007 event.
- II. <u>Residential Well Sampling:</u> ESC staff was on site May 23 and 24, 2007 to collect eight residential drinking water supply well samples (PW-Bula, PW-Wheat/Krueger, PW-Sather, PW-Bonk, PW-Summers, PW-Tantrow/Thompson, PW-Stoppleworth, & PW-Noles). One trip blank accompanied the samples in accordance with ESC's QA/QC procedures.
- III. <u>Groundwater Elevations:</u> ESC staff was on site May 4 through May 6 to collect the groundwater elevations from all of the remaining monitoring wells on site. Results were recorded on ESC's Groundwater Elevation Field Sheet.
- IV. Out of Scope Well Repairs: While conducting the semi-annual sampling event, ESC removed several pumps and conducted maintenance consisting of cleaning and inspecting the bladders, cleaning and repairing the check balls and draining the water from the air line which restricted the bladder pump from operating properly. Two bladder pumps were not able to be repaired in the field and were removed and were sent back to the manufacturer for evaluation and repair. ESC staff was able to replace and install several miscellaneous discharge and air-line fittings which allowed the bladder pumps to operate properly. The necessary repairs and maintenance conducted to the bladder pumps during the May 2007 sampling event resulted in an additional day of field work. ESC staff also installed 250 feet of dedicated tubing at P-24E, P-8D, P-9D, P-16D, P-21D and P-24D. Additional repaired still need to be conducted on site during the next event after repair materials are ordered.

Task Deviations and Reporting Turnaround

Test results will be available in approximately 30 days.

Field Observations

- Dup-01 = P-23D, DUP-02 = P-40I
- Packers leaking @ P-21D, P-31IA
- Dedicated 250 feet of tubing at P-24E, P-8D, P-9D, P-16D, P-21D & P-24D
- Break in well @ P-16S approximately 10.5 feet below ground surface.
- Protective casing/concrete repair needed at P-24D, P-31S, P-40I & P-26S
- Well caps needed at P-16S, P-16D, P-31D, P-31IA & P-31IB
- New bladder needed at P-40I
- Locks needed at P-9S & P-25S
- Brush removal needed around several wells.

Proposed Additional Actions

Well Repairs.

Other Observations

None.

Rev. 3/2006	- 		C	hain o	f Cust	odv						Page	: 1	of 5
Company: Tec Project Contact: Frank Purumini Telephone: 411-427-5133	CT Lab	ora			1230	Lange 08-356-2	2760 I	Baraboo Fax 608- ratories	356-276	913 6	Mail R Com _j	eport 7 pany:	10: 1955	9808 North Cape Pa
Company: Tex. Project Contact: Frank Puring Min. Telephone: 414-427-5033 Project Name: Robus Hideany LF Project Number: RHL-05070 Project Location: Mahan, MI Sampled By: TM TI Regulatory Program: UST RCRA SDWA NPDES Solid Waste Other	Turnar Norma Date Needed *Notify Lab prio samples 24 hr 200% 2-3 da subject to char	r to send Surcha ys 100% nge with	JSH* ling in R rges: 4-9 day out noti	ys 50%,	Lab Use Only Place Header Sticker Here:					A d d +	ess: 'State	WX Y	of	
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Rev. 3/2006		C	hain o	f Custo	ody					Page	=2	of	* 5
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5/23 1550 G P-33D	152 GW 3		3 B
5/23 1000 G P-22D	136 GW 3	/.	3 B
5/23 1050 G P-27E	174 GW 3x	/	3 6
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Rev. 3/2006 Company: Exproject Contact: Frank Pervision Telephone: 4/4 - 477 - 5033 Project Name: Refuse Hide away Project Number: RHL - 0507 Project Location: Madron, WI Sampled By: ST/TM	Turnaround T Normal RU Date Needed	ound Time Lab Use Only Place Header Sticker Here: To sending in RUSH						Invoice T	ີດ:		,
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Rev. 3/2006	Chain o	of Custody	Page	of
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Landfill License Number: #01953	#Matrix: NA-HC		otal	O=Other
Collection Grab/ Comp Sample ID Description	1 7 1 9	Fill in Spaces with Bottles per Test		Lab ID #
5/25/07 1220 G P-28S 5/25/07 1250 G P-29S 5/25/07 1330 G P-43D — — — Tup Blank — — — P-17S	N GW 3 N GW 3 N GW 1 - Insuffice	uent Volume to Sample	3 B 3 B 3 B 1 D	
Relinquished By: Date/Time Relinquished By:	Date/Time			
Received by: Date/Time Received for Lab	ratory by: Date/Time	Ice Present Yes Temperature Cooler #	GW-Grounds	**Matrix SI-Sludge M-Misc Waste water SW-Surface Water ater DW-Drinking Water

REFUSE HIDEAWAY LANDFILL DANE COUNTY, WI 2007 MONITORING SYSTEM SUMMARY - 05/07

GROUNDWATER

TASK	MONITORING POINTS	PARAMETERS	FREQUENCY
I.	P/D, P-15, P-38, P-48, P-88R,	groundwater elevation (ft MSL)	May 2007
	P-30S, P-33S, P-35S, P-35D,		(2009, 2010,
	P-36D, P-36S, P-38S, P-39S,		2012, 2013, etc.)
L	P-40S, P-41S, P-42S		14 0007
II.	P-8D, P-8S, P-9D, P-9S, P-16S, P-16D, P-17S, P-18S, P-20SR, P-21S, P-21D,	groundwater elevation (ft. MSL)	May 2007
	P-21BR, P-22D, P-22E, P-22S, P-23D,	field pH	(2009, 2010,
خ ا	P-28S P-23S, P-24D, P-24E, P-25S,	field conductivity field temperature	2012, 2013, etc.)
_	P-25D P-25BR, P-26S, P-26D, I	field observations	
	P-27D; P-27S; P-28S, P-29S; P-30D;	VOCs (8260)	i
	P-30I, P-31D, P-31IA, P-31IB, P-31S.	(0200)	
	P-32D, P-32S, P-33D, P-34S, P-34D,		
	P-40D, P-40I, P-41D, P-43D, P-43I, V	•	
	P-43S, DUP-01, DUP-02, FB-01		
	(48 samples)		
III.	P-1D, P-1S, P-3S, P-4S, P-8BR,	groundwater elevation (ft. MSL)	November
	P-8D, P-8S, P-9D, P-9S, P-16D, P-16S,	1	
	P-21BR, P-21D, P-21S, P-24D, P-24E,		
	P-25S, P-26D, P-28S, P-29S, P-30S,		
Į	P-31S, P-32D, P-32S, P-33D, P-33S,	4	
	P-34S, P-34D, P-35S, P-35D, P-36D,		
	P-36S, P-38S, P-39S, P-40S, P-41D,		
	P-41S, P-42S		
IV.	P-17S, P-18S, P-20SR, P-22D, P-22E,	groundwater elevation (ft. MSL)	November
\ \ /	P-22S, P-23D, P-25D, P-25BR,	field pH	
•	P-26S, P-27D, P-27S, P-30D, P-30I,	field conductivity	
	P-31D, P-31IA, P-31IB, P-40D, P-40I, P-43D, P-43I, P-43S, DUP-01, FB-01	field temperature field observations	
	(23 samples)	VOCs (8260)	
V.	P-1D, P-1S, P-3S, P-4S, P-30S,	groundwater elevation (ft MSL)	Every third year
۷.	P-36D, P-36S, P-38S, P-39S,	groundwater cicvation (it twos)	in May
	P-40S, P-41S, P-42S		(2008, 2011,
	,		2014, etc.)
VI.	P-8BR, P-8D, P-8S, P-9D, P-9S,	groundwater elevation (ft. MSL)	Every third year
,	P-16S, P-16D, P-17S, P-18S, P-20SR,	field pH	in May
	P-21S, P-21D, P-21BR, P-22D, P-22E,	field conductivity	(2008, 2011,
	P-22S, P-23D, P-23E, P-23S, P-24D,	field temperature	2014, etc.)
	P-24E, P-25S, P-25D, P-25BR, P-26S,	field observations	2014, 610.7
	P-26D, P-27D, P-27S, P-28S, P-29S,	VOCs (8260)	
	P-30D, P-30I, P-31D, P-31IA, P-31IB,	1 003 (0200)	
	P-31S, P-32D, P-32S, P-33D, P-33S,		
	P-34S, P-34D, P-35D, P-35S,		
i	P-40D, P-40I, P-41D, P-43D, P-43I,		
İ	P-43S, DUP-01, DUP-02, FB-01		1
	(52 samples)		,

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REFUSE HIDEAWAY LANDFILL DANE COUNTY, WI 2007 MONITORING SYSTEM SUMMARY - 05/07

GROUNDWATER (CONT.)

TASK	MONITORING POINTS	PARAMETERS	FREQUENCY
VII.	P-8BR, P-9D, P-24D, P-24E, P-33D, P-36S (Wells with water level control equip.)	Well equipment inspection (Inspect devices to ensure that the wells are protected from frost damage. When water levels are 3 ft. below ground surface, the inspection is no longer required)	December, January, February, March

PRIVATE WELLS

TASK	MONITORING POINTS	PARAMETERS	FREQUENCY
I.	PW-Sather, PW-Bonk, PW-Bula,	field pH	May
	PW-Wheat/Krueger,	field conductivity	
İ	PW-Tantrow/Thompson,	field temperature	
	PW-Summers, PW-Noles,	field observations	
	PW-Stoppleworth	VOCs (524.2)	
1	(8 samples)	1	
II.	PW-Sather, PW-Matush,	groundwater elevation (ft. MSL)	November
	PW-Sommers, PW-Weber,	field pH	
	PW-Durand, PW-Wagner,	field conductivity	
1	PW-Rounds, PW-Noles,	field temperature	
	PW-Stoppleworth	field observations	
	(23 samples)	VOCs (524.2)	

Contacts:

Pat Letterer - CT Laboratory: (800) 228-3012 Hank Kuehling - WDNR: (608) 275-3286

Directions to site:

194 west to the beltline (HWY 12-18). Exit at Hwy 14 (LaCrosse, Spring Green), turn left. Turn right into driveway before billboard (ShoeBox). 7562 Hwy 14

Reporting:

Groundwater and private well monitoring results including elevations (cover letter and analytical) to WDNR in January and July. (ESC)

Environmental Sampling Corporation

WDNR - REFUSE HIDEAWAY LANDFILL Middleton, WI Private Well Owners and Sample Locations

Frequency	Name	WDNR ID	Address	Phone (608)	Sample Location
	Arvid & Margaret Sather	300	7911 Deer Run Road	798-2262	backyard tap
	Cindy Bonk	301	7877 Deer Run Road	798-1153	back tap
Spring	Raymond & Mary Bula	302	RFD1, 7872 Deer Run East	798-3772	front tap
	Jeanette Wheat & Daryl Krueger	303	4306 Fawn Court	798-4701	side tap (past side door)
	Jerry Trantrow & Grace Thompson	304	4318 Fawn Court	798-3085	front tap
	Richard Summers	305	4610 Rocky Dell Rd., Rte 1	831-4414	under windmill
	Steve & Shirley Noles	312	7734 USH 14	831-1409	back tap
	Al & Jean Stoppleworth	311	7750 USH 14	831-6342 831-4214	back tap
	Arvid & Margaret Sather	300	7911 Deer Run Road	798-2262	backyard tap
	George & Joanne Weber		7873 Deer Run Road	798-0538	front tap
	Daniel & Patricia Sommers	307	7892 Deer Run Road	798-4665	pressure tank
	Ed & Virginia Matush	310	4310 Fawn Court	798-2766	front tap
Fall	Loyal & Bernice Durand	308	4314 Fawn Court	798-2943	front tap
	Beth Wagner		7902 USH 14	513-9705	tap by well pit
	Wayne Rounds	315	7785 Low Road	231-1063(h) 831-2240(f)	front yard of farm house
	Steve & Shirley Noles	312	7734 USH 14	831-1409	back tap
	Al & Jean Stoppleworth	311	7750 USH 14	831-6342 831-4214	back tap

Notes:

Residences on Fawn Court and Deer Run Road are located in Cross Plains, WI 53528. Residences on USH 14, Low Road, and Rocky Dell Road are located in Middleton, WI 53562.

All private well samples are analyzed according to US EPA method 524.2.

Address list updated May 2007.

	ENVIRONMENTAL SAMPLING CORPORATION GROUNDWATER MONITORING FIELD FORM MONTH: May 2007																				
				Purging	Phase						<u> </u>				Sampli	ng Phas	e				
Well ID	Date (2007)	Time (24hrs.)	Top of Well Elevation (ft.MSL)	Depth to Water (ft.)	Groundwater Elevation (ft.MSL)	Total Depth (ft.)	Height of Water Col. (ft.)	Req. Gal. to Purge (4 vol.)	Amount Purged (gal.)	:	Date (2007)	Time (24hrs.)	pH (s.u.)	Spec. Cond. (25C)	Temp. (deg.C)	Color before Filter	Color after Filter	Odor	Turb before Filter	Turb after Filter	Number of Filters Used
P-22D	05/23	0900	1088.94	176.20	912.74	217.2	41.00	PACKER 5.5	5.5		05/23	1000	7.40	495	12.6	clear		none	none	-	
P-22E	05/23	0900	1089.72	176.90	912.82	273.0	96.10	62.7	48.0 ^		05/23	1050	7.51	504	12.1	clear	-	none	none		
P-22S	05/23	0900	1088.20	175.10	913.10	184.7	9.60	6.3	6.5		05/23	1015	7.60	525	13.6	clear		none	none		-
P-26D	05/22	1250	1149.63	236.38	913.25	262.1	25.72	16.8	17.0		05/22	1530	5.63	636	14.0	clear		none	none		
P-26S	05/22	1250	1150.95	221.49	929.46	237.6	16.11	10.5	11.0		05/22	1515	5.15	898	13.6	clear		slight	very low		
P-27D	05/22	1245	1095.56	177.70	917.86	204.3	26.60	PACKER 8.0	8.0		05/22	1420	6.88	650	13.2	clear		none	none		
P-27S	05/22	1245	1095.23	177.20	918.03	188.8	11.60	7.6	8.0		05/22	1400	6.56	663	16.7	clear		none	none	-	
P-28S	05/25	1200	1124.33	202.40	921.93	207.4	5.00	3.3	4.0		05/25	1220	7.40	632	17.1	tan		none	high	·	
P-29S	05/25	0900	1163.10	240.31	922.79	257.2	16.89	11.0	11.0		05/25	1250	7.42	408	13.2	cloudy		none	moderate		
P-34D	05/22	1505	1090.98	167.98	923.00	276.1	108.12	PACKER 9.0	9.0		05/22	1745	5.14	571	12.4	clear		none	none		-
P-34S	05/22	1505	1091.10	165.85	925.25	186.0	20.15	13.1	13.5		05/22	1755	5.14	620	12.2	clear		none	none		-
P-35D	05/23		1087.70	169.00	918.70	252.6															
P-35S	05/23		1087.90	168.00	919.90	184.0					-		-								_
			per foot to g			411	. 0 652			ł	WEATHE		Wind Sp		10-25 mph		Direction:	SW		Temp.:	80
			0.163 gal.			4" Well	: 0.653 gal	<u></u>		1	Date:	5/22/		Overview:	/2007	partly su	nny				
	NOTES: ^ - Three well volumes purged prior to sample collection. Monitoring wells are located on the Sommers Farm property.								1	pH Meter:		Oakton			pH 7.0:	7.0	pH 4.0:	4.01	Slope:		
	P-27S needs discharge tube fittings.]		nd. Meter:		Oakton			Standard:	1413		Reading:	1413	
	P-21D packer is leaking. Ants in well/purge water at P-21D. P-26S needs a weep hole drilled. P-26D was unlocked upon arrival.								-	Temperat	ure:	27.8	<u> </u>				-				
Facility N			efuse Hideaw		o di nocked up	OII GIIIVA	·		ENVIR	ONN	MENTAL	Client:	WDNR					Page:	1	of	6
										ING			07 Event				501				
ESC Pers	ESC Personnel: SF, JM, TI CO											Prepared		TI		Date:	5/31/				
L									414	-427	-5033	Checked	by:	SF		Date:	6/4/2	2007			

Envaled to CT on 6/4/07 Spe

ENVIRONMENTAL SAMPLING CORPORATION GROUNDWATER MONITORING FIELD FORM MONTH: May 2007

Purging Phase													Samp	ling Phas	9						
Well ID	Date (2007)	Time (24hrs.)	Top of Well Elevation (ft.MSL)	Depth to Water (ft.)	Groundwater Elevation (ft.MSL)	Total Depth (ft.)	Height of Water Col. (ft.)	Req. Gal. to Purge (4 vol.)	Amount Purged (gal.)		Date (2007)	Time (24hrs.)	pH (s.u.)	Spec. Cond. (25C)	Temp. (deg.C)	Color before Filter	Color after Filter	Odor	Turb before Filter	Turb after Filter	Number of Filters Used
P-43D	05/25	1000	1109.92	194.25	915.67	283.6	89.35	58.3	59.0		05/25	1330	7.30	485	13.4	clear		none	none		-
P-431	05/22	1500	1110.24	194.60	915.64	233.3	38.7	25.2	25.5		05/22	1730	7.48	528	13.8	cloudy		none	low		-
P-43S	05/22	1500	1110.60	194.92	915.68	205.7	10.78	7.0	7.0		05/22	1700	7.66	543	13.9	clear		none	none		
P-30D	05/23	1415	932.97	23.19	909.78	289.5	266.31	PACKER 15.0_	15.0		05/23	1450	5.05	521	14.6	clear		none	none		-
P-30I	05/23	1250	930.94	20.26	910.68	142.3	122.04	PACKER 9.0	9.0		05/23	1410	5.59	596	13.4	clear		none	none		
P-31D	05/23	1000	915.72	NA	NA	258.2	NA	PACKER 8.0	8.0		05/23	1120	5.14	480	17.6	clear		none	none		
P-31IA	05/23	1125	916.77	NA	NA	95.6	NA	PACKER 8.0	8.0		05/23	1150	4.19	708	15.2	clear	-	none	none		
P-31IB	05/23	1125	916.49	NA	NA	135.7	NA	PACKER 8.0	8.0		05/23	1250	4.10	618	13.7	clear		none	none	-	
P-31S	05/23	1155	916.59	6.58	910.01	28.8	22.22	14.5	14.5		05/23	1225	4.49	434	16.3	clear	-	none	none		-
P-32D	05/23	0830	942.66	24.16	918.50	176.2	152.04	99.1	75.0 ^		05/24	1330	6.91	702	13.8	clear		none	very low		-
P-32S	05/23	0835	943.73	23.71	920.02	39.5	15.79	10.3	11.0		05/23	0900	6.11	1,055	11.5	tan		none	moderate		
P-40D	05/24	1350	922.98	13.09	909.89	255.2	242.11	PACKER 9.0	9.0		05/24	1420	7.25	589	13.1	clear		none	none	-	
P-40I	05/24	1425	922.28	11.96	910.32	104.8	92.84	PACKER 9.0	9.0		05/24	1450	7.68	694	11.3	clear		none	none		
			er foot to g							1	WEATHE		Wind Sp		5-15 mph		Direction:	SW		Temp.:	80
			.163 gal.				0.653 gal.				Date:	5/23/		Overview:	2007	Warm ai	nd sunny			_	
					ng. Purged o				e rate.	ł	Date Equi		ea: Oakton	5/23/	2007	pH 7.0:	7.0	pH 4.0:	4.01	Slope:	
along High		located on	the Sommer	S raini pic	perty. The rei	naming w	ciis are ioc	aleu		1	Spec. Cor			Oakton			Standard:		Reading:	1498	
		B well cove	rs/lids broke	n - need ca	ps. Packer tu	ibing at P-	31IA leaks			ĺ	Temperat		19.5								$\neg \neg$
	tinued belo	w.			•					<u> </u>											
Facility Na			fuse Hideaw									Client:	WDNR					Page:	2	of	6
Facility A		Highway 14, Middleton, WI							SAMPLING Project: RHL - 0507 Event CORPORATION Prepared by: TI Date: 5/31/2007												
ESC Pers	onnel:	SF, JM, T										Prepared		TI		Date:	5/31/				
									414	427	-5033	Checked	ру:	SF		Date:	6/4/2	2007			

CP263/ESC/Forms/Field Formuds

Notes (cont.):

Organic matter purged from P-32D.
P-31S concrete pad is raised from the ground.

P-31S concrete pad is raised from the ground.

Trimmed back trees and bushes near P-31IB and P-31S

Trimmed brush near P-30s.

P-25s need a long shank lock.

P-40I concrete pad is raised from the ground surface.

P-40I has a broken bladder.

Low pH readings at P-30 and P-31 wells - checked meter calibration two times.

ENVIRONMENTAL SAMPLING CORPORATION GROUNDWATER MONITORING FIELD FORM MONTH: May 2007

				Purging	Phase										Sampl	ling Phas	:0				
Well ID	Date (2007)	Time (24hrs.)	Top of Well Elevation (ft.MSL)	Depth to Water (ft.)	Groundwater Elevation (ft.MSL)	Total Depth (ft.)	Height of Water Col. (ft.)	Req. Gal. to Purge (4 vol.)	Amount Purged (gal.)		Date (2007)	Time (24hrs.)	pH (s.u.)	Spec. Cond. (25C)	Temp. (deg.C)	Color before Filter	Color after Filter	Odor	Turb before Filter	Turb after Filter	Number of Filters Used
P-41D	05/23	1520	924.82	18.28	906.54	104.5	86.22	PACKER 9.0	9.0		05/23	1550	5.43	667	16.7	clear		none	none		
P-30S	05/23		932.61	21.35	911.26			-											-		
P-36D	05/23		924.34	3.26	921.08										-	_			-		-
P-36S	05/23		924.49	4.82	919.67							<u></u>		_			-				
P-38S	05/23		923.21	7.76	915.45								-								
P-39S	05/23		946.08	36.59	909.49	-															-
P-40S	05/23		922.01	11.11	910.90	-															-
P-41S	05/23		925.58	11.22	914.36																-
P-42S	05/23		917.62	12.90	904.72											<u> </u>					
P-17S	05/24	1140	1081.75	158.58	923.17	158.8	0.22	0.1	NA			, <u></u>		Insuffic	cient volume	e - No sar	nple collec	ted			
P-18S	05/24	1220	1020.57	99.69	920.88	107.2	7.51	4.9	5.0		05/24	1245	6.89	593	18.6	cloudy	-	none	moderate		-
						ļ	ļ	ļ 			ļ 			<u> </u>		ļ 					
DUP-01									-		05/23	0855	7.29	644	11.8	clear		none	none		-
		¡ Gallons : 0 : 2" well : 0	per foot to g	et one well 3" well : 0		A" woll	: 0.653 gat.				WEATHEI Date:	₹	Wind Sp	Overview:	5-15 mph	partly su	Direction:	<u>w</u>		Temp.:	75
	DUP-01 =		7. 105 gai.	3 Well.	yaı.	4 Well	. 0.033 gai.			ł	Date Equi			5/24/	2007	partiy su	1111y				
2-17S and	P-18S are		the rock led	ges around	the site. The	remainin	g wells are	located		1	pH Meter:		Cole Par	mer		pH 7.0:		pH 4.0:			
₃long High	nway 14.									1	Spec. Co.			Cole Parme	r		Standard:	1500	Reading:	1504	\Box
5-36S con	tains a Ch	urnev bali	All other wat	er level cor	ntrol devices h	nave heen	removed		 -	{	Temperat	ure:	18.0	<u>. </u>							
Facility N			efuse Hideaw		III OI GOTIOGS I	1270 0001	. icinoved.		ENVIR	ONM	ENTAL	Client:	WDNR					Page:	3	of	6
Facility A		Highway 1	4, Middleton							MPL	ING	Project:		507 Event							
ESC Pers	onnel:	SF, JM, T	1									Prepared		Tf		Date:	5/31/				
`P263/ESC/E-	rms/Field Form.	vio.							414	-427-	5033	Checked	by:	SF		Date:	6/4/2	2007			
7F203/E3U/F0	marelo rom.	.Alb																			

ENVIRONMENTAL SAMPLING CORPORATION GROUNDWATER MONITORING FIELD FORM MONTH: May 2007 Sampling Phase Purging Phase Groundwater Number o Top of Well Depth to Height of Reg. Gal. to Color Time Cotal Depti Color after Turb before Turb afte Date Amount Date Time Spec. Cond. Well ID Temp. (deg.C) Odor Filters Elevation Elevation Water Col. Purge pH (s.u.) before (2007) (24hrs.) (24hrs.) Filter Filter Filter Purged (gal.) (2007)(25C) (ft.MSL) (ft.) (ft.MSL) (4 vol.) Filter Used (ft.) P-8D 05/22 1155 930.98 9.46 921.52 41.8 32.34 21.1 Dry @ 5.5 05/22 1230 6.76 654 13.6 tan none moderate P-8S 05/22 1200 932.50 9.24 923.26 18.4 9.16 6.0 Dry @ 2.0 05/22 1220 6.57 784 13.2 grey none moderate Dry @ P-9D 05/23 1020 930.43 9.39 921.04 43.0 33.61 21.9 05/23 1050 6.59 1,616 14.9 clear none none 15.0 P-9S 05/22 1600 932.09 10.05 922.04 16.0 5.95 7.61 3.9 5.0 05/22 1615 586 14.6 cloudy none low P-16D 05/22 1430 936.30 19.02 917.28 42.9 23.88 05/22 1520 6.98 1,667 16.3 15.6 Dry @ 7.0 cloudy none low P-16S 05/22 1430 935.96 13.20 922.76 17.2 4.00 2.6 3.0 05/22 1510 6.93 670 18.6 -high brown none P-20SR 05/23 1255 961.78 40.40 921.38 66.3 25.90 05/22 1320 7.68 12.7 16.9 17.0 648 clear none none P-21BR 05/23 0920 935.19 16.81 918.38 148.3 65.0 ^ 05/23 7.66 692 131.49 85.7 1245 15.0 clear none none P-21D 05/23 0950 935.81 14.64 921.17 41.6 26.96 17.6 05/23 6.77 1.086 20.0 1010 13.4 cloudy none low P-21S 05/23 0925 936.43 923.59 12.84 19.7 6.86 4.5 Dry @ 2.0 05/23 0940 7.35 1.258 15.8 cloudy -none low P-23D 05/23 0805 961.53 40.55 920.98 80.1 39.55 25.8 26.0 05/23 0855 7.29 11.8 644 clear none none P-23S 05/23 0830 961.71 40.99 920.72 48.1 7.11 Dry @ 2.0 05/23 0840 6.89 12.5 cloudy 4.6 652 none low P-24D 05/22 1305 927.25 6.61 920.64 25.2 18.59 12.1 13.0 05/22 1320 7.10 795 12.6 brown high none Casing I.D. (inches): Gallons per foot to get one well volume. WEATHER Wind Speed: 0-10 mph Direction: SW Temp.: 80 1.5" well : 0.092 gal. 2" well : 0.163 gal. 3" well : 0.377 gal. 4" well: 0.653 gal. Date: 5/22/2007 Overview: Sunny, warm NOTES: ^ - Three well volumes purged. Dedicated tubing at P-8D, P-9D, P-16D, P-21D, and P-24D. Date Equipment Used: 5/22/2007 Monitoring wells are located around the facility and along the adjacent farm fields. pH Meter: Oakton pH 7.0: 7.0 pH 4.0: 4.01 Slope: --DUP-01 = P-23D Spec. Cond. Meter: Oakton Standard: 1500 Reading: 1500 P-16S has a break at 10.5 ft., bailer will not pass. Filter pack sand in well. Temperature: 15.0 P-16S and P-16D need 2" caps. P-24D casing needs to be replaced. P-9S needs a new lock. WDNR Refuse Hideaway Landfill Facility Name: **ENVIRONMENTAL** WDNR 6 Client: Page: 4 of Highway 14, Middleton, WI Project: RHL - 0507 Event Facility Address: SAMPLING **ESC Personnel:** SF, JM, TI **CORPORATION** Prepared by: Date: 5/31/2007 Τſ 414-427-5033 Checked by: SF 6/4/2007 Date: CP263/ESC/Forms/Field Form.xls

	ENVIRONMENTAL SAMPLING CORPORATION GROUNDWATER MONITORING FIELD FORM MONTH: May 2007																				
				Purging	Phase				1			···			Sampl	ing Phas	e				
Well ID	Date (2007)	Time (24hrs.)	Top of Well Elevation (ft.MSL)	Depth to Water (ft.)	Groundwater Elevation (ft.MSL)	Total Depth (ft.)	Height of Water Col. (ft.)	Req. Gal. to Purge (4 vol.)	Amount Purged (gal.)		Date (2007)	Time (24hrs.)	pH (s.u.)	Spec. Cond. (25C)	Temp. (deg.C)	Color before Filter	Color after Filter	Odor	Turb before Filter	Turb after Filter	Number of Filters Used
P-24E	05/22	1250	927.39	7.21	920.18	52.5	45.29	29.5	Dry @ 7.5		05/22	1335	7.04	825	12.4	cloudy	-	none	low		
P-25BR	05/23	1200	943.27	27.51	915.76	140.3	112.79	73.5	56.0 ^		05/23	1400	7.36	674	13.9	clear		none	none		-
P-25D	05/23	1210	943.86	28.43	915.43	96.3	67.87	44.3	45.0		05/23	1345	6.83	879	14.6	clear		none	none		
P-25S	05/23	1215	943.14	24.09	919.05	29.4	5.31	3.5	3.5		05/23	1225	7.53	715	13.2	brown		none	moderate		
P-33D	05/23	1435	928.50	7.09	921.41	103.4	96.31	62.8	48.0 ^		05/23	1550	7.35	820	18.5	clear		none	none		-
P-1D	05/22		926.67	5.51	921.16	-							-							-	-
P-1S	05/22		924.39	6.03	918.36	<u>-</u>					_ <u></u>	_ -		-	_						
P-3S	05/22		932.79	10.94	921.85													-			
P-4S	05/22		929.89	7.06	922.83					1						-				<u></u>	
P-8BR	05/22		929.52	8.96	920.56	111.5		<u></u>						<u> </u>					-		-
P-33S	05/23		928.55	6.41	922.14	27.6								-		-	-			-	
DUP-02					-						05/24	1450	7.68	694	11.3	clear		none	none		
FB-01	-										05/24	1500	7.85	57.6	22.5	clear		clear	none		
			per foot to g	et one wel 3" well : (A" woll ∙	0.653 gal.				WEATHEI	₹ 5/23/	Wind Sp	oeed: Overview:	5-15 mph		Direction: nd sunny	sw		Temp.:	80
	vell : 0.092 gal. 2" well : 0.163 gal. 3" well : 0.377 gal. 4" well : 0.653 gal. S: ^- Three well volumes purged prior to sample collection.									Date Equi				/2007	waiiii di	ilu Suriily					
Monitoring	wells are I	ocated aro	und the facility	y and along	the adjacent	farm fields	S				pH Meter:		Oakton			pH 7.0:				Slope:	
DUP-02 =	trained tubing at P-Z4E.									Spec. Cor Temperat	nd. Meter: ure:	16.7	Oakton	. <u> </u>		Standard:	1500		Reading:	1503	
Facility N	ame:	WDNR R	efuse Hideawa	av Landfill					ENVIR	ONM	I IENTAL	Client:	WDNR					Page:	5	of	6
								MPL				507 Event			· · · · · ·	· ugu.					
ESC Pers	onnel:	SF, JM, T									ATION	Prepared		TI		Date:	5/31/				
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ENVIRONMENTAL SAMPLING CORPORATION GROUNDWATER MONITORING FIELD FORM MONTH: May 2007

				Purging	Phase										Samp	ling Phas	60				
Weil ID	Date (2007)	Time (24hrs.)	Top of Well Elevation (ft.MSL)	Depth to Water (ft.)	Groundwater Elevation (ft.MSL)	Total Depth (ft.)	Height of Water Col. (ft.)	Req. Gal. to Purge (4 vol.)	Amount Purged (gal.)		Date (2007)	Time (24hrs.)	pH (s.u.)	Spec. Cond. (25C)	Temp. (deg.C)	Color before Filter	Color after Filter	Odor	Turb before Filter	Turb after Filter	Number of Filters Used
PW-Sather	05/23	1530		-	-	-	-	•	+		05/23	1530	7.21	622	16.1	clear		none	none	-	
PW-Bonk	05/24	1300		-	-	1	•	-	15		05/24	1315	7.12	586	15.6	clear		none	none	-	
PW-Bula	05/24	1310				-	-	-	15		05/24	1325	7.11	578	14.8	clear	•	none	none	1	
PW-Wheat/ Krueger	05/23	1535	1		-				15		05/23	1550	7.24	660	15.0	clear	-	none	none	1	
PW-Tantrow/ Thompson	05/23	1545			-				15		05/23	1600	7.18	850	16.8	clear	*	none	none		-
PW- Summers	05/24	1345							15		05/24	1400	7.31	577	11.6	clear		none	none		
PW-Noles	05/24	1405							15		05/24	1420	7.42	650	14.2	clear		none	none		
PW- Stoppleworth	05/24	1440						-	15		05/24	1455	7.36	496	14.5	clear		none	none		-
PW-Matush																		L =		1	
PW- Sommers																					
PW-Durand																					
² W-Wagner																_					
PW-Weber																					
™-Rounds											:										
			per foot to g					· <u> </u>			WEATHE		Wind Sp	eed:	5-10 mph		Direction:	SW	<u> </u>	Temp.:	75
.5" well :	0.092 gal.	. 2" well : 0	.163 gal.	3" well : 0).377 gal.	4" well : ().653 gal.				Date:	5/24/		Overview:		partly su	nny				
NOTES:	umor had be	on gunnice	water for these	hours No	additional puro	100 000 000	di sala d	_		1	Date Equi	pment Us	ed: Oakton	5/24/2	2007	pH 7.0:	70	pH 4.0:	4.01	Slope:	
, - 110meo	Wilei Hau be	sen running	water for three	FIIOUIS. NO	additional purg	ing was con	auctea.	-			Spec. Co			Oakton	···		Standard:		Reading:	1505	
											Temperat		17.5		···						
acility N	ame:	WDNR Re	fuse Hideaw	ay Landfill	,				ENVIR	ONN	ENTAL	Client:	WDNR					Page:	6	of	6
acility A			4, Middleton,	, WI							ING	Project:	RHL - 05	07 Event							
SC Pers										ATION	Prepared	by:	TI		Date:	5/31/					
	rms/Field Form.								414-	427-	5033	Checked	by:	SF		Date:	6/4/2	007			
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HYDROGEOLOGISTS . ENGINEERS . ENVIRONMENTAL SCIENTISTS

May 8, 2007

Mr. Hank Kuehling Wisconsin Dept. of Natural Resources 3911 Fish Hatchery Road Fitchburg, WI 53711

RE: Staff Assignments, Refuse Hideaway Landfill – Project G-001-08

Dear Mr. Kuehling:

Liesch Environmental Services, Inc. (Liesch) is notifying the Wisconsin Department of Natural Resources of a transfer of project management responsibilities for Refuse Hideaway Landfill – Project G-001-08 to Scott Rickard, CHMM, Josh Davenport, MSEV, Jake Kruger, CST, and, Mike McCoy P.E.

Moving forward very little will change with regard to the day to day management of the landfill. Jake, Scott, and Josh have been performing the monitoring, gas and leachate sampling, and maintenance of the leachate and gas collection systems at the site. Dave Nemetz's role as liaison with the WDNR and project coordinator will be assumed by our staff engineer Josh Davenport, WSEV with senior oversight provided by Mike McCoy, PE. Josh has been performing sampling and maintenance activities at the site for 15 months and is very well versed in the operation and maintenance of the systems at the site as well as the reporting requirements required in our contract with the WDNR. Mike has over 22 years of engineering experience including designing and managing leachate collection projects at the Peoria Disposal Co. and methane collections systems at several Waste Management facilities in the Midwest.

To summarize, the professionals that have been performing the day to day activities at the site will not change, all of these individuals have at least 15 months experience at the site and Scott has over 4 years of experience at the site. The only staff change from the original proposal will be that two engineers will be performing the project coordination and reporting tasks for the site.

If you have any questions, please do not hesitate to call me at 608-223-1532 (x 16) or on my cell at 608-212-0212.

Respectfully,

LIESCH ENVIRONMENTAL SERVICES, INC.

Brian L. Hinrichs, PSS

Principal

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July 6, 2007

Mr. Hank Kuehling WDNR 3911 Fish Hatchery Drive Fitchburg, WI 53711

Dear Hank:

I am pleased to announce that I have joined NewFields, a national full-service environmental consulting and engineering firm. NewFields specializes in use of Geographic Information Systems (GIS), geostatistics, risk management, and decision analysis for environmental applications. NewFields has been an industry leader in GIS application, enabling rapid communication and understanding of large amounts of information. As such, it can be a powerful and persuasive tool, whether for stakeholders, regulators, grant reviewers, judges, or the public at large. Better comprehension of site characteristics and corresponding options for clients also translates to savings of time and money.

From Phase I investigations to Superfund sites, we have the capability and expertise to service a wide variety of client needs. The NewFields Madison staff has nearly 70 years of combined experience.

Please feel free to call me with any questions at (608) 442-5223, extension 506. I hope to be able to work with you again in the near future.

Sincerely,

David Nemetz, P.G.

NewFields

www.newfields.com



Jim Doyle, Governor
-Scott Hassett, Secretary
Lloyd L. Eagan, Regional Director

South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338

July 26, 2007

Mr. Arvid and Ms. Margaret Sather 7911 Deer Run Road Cross Plains, WI 53528

Subject: Results of Drinking Water Quality Testing, May 2007

Dear Mr. and Ms. Sather:

Drinking water samples were collected from your home in May 2007 by Environmental Sampling Corporation and submitted to CT Laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, no VOCs were detected in the sample of your well water. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G. Remediation and Redevelopment Hydrogeologist (608) 275-3286 harlan.kuehling@wisconsin.gov

enclosure

cc:

Henry Nehls-Lowe - DHFS DG/SCR





Jim Doyle, Governor Scott Hassett, Secretary Lloyd L. Eagan, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338

July 27, 2007

Ms. Shirley Noles 7734 USH 14 Middleton, WI 53562

Subject: Results of Drinking Water Quality Testing, May 2007

Dear Ms. Noles:

Drinking water samples were collected from your home in May 2007 by Environmental Sampling Corporation and submitted to CT Laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill. The samples were collected from the part of your water supply system that is not treated by your point-of-entry treatment system.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, VOCs were detected in your untreated well water.

•		Drinking Water (DW) or
VOC Name	Result (ug/L)	Health Advisory (HA) Standard (ug/L)
1,1-Dichloroethane	0.68	850 (DW)
cis-1,2-Dichloroethene	4.5	70 (DW)
Tetrachloroethene	5.2	5 (DW)
Trichloroethene	2.0	5 (DW)
Dichlorodifluoromethane	1.7	1000 (DW)
Trichlorofluoromethane	0.37	2000 (HA)

Note that five of the six detected VOCs were found to be at levels below the associated standards. Tetrachloroethene is the only contaminant that was present in the sample above the associated drinking water standard; the concentration is slightly above the standard. Because this sample was taken from the untreated portion of your water supply, these results are indicative of water quality from your well. However, the most recent results available for samples collected by Hellenbrand Water Center from the treated portion of your water supply indicate that analysis of the treated water sample did not detect tetrachloroethene above the detection limit of 2 micrograms/liter (ug/L).

The reappearance of the VOCs is a change from VOCs not being detected in your well water over the past several years. The Department will continue to routinely collect untreated samples from your water supply in May and November of each year to determine if or to what extent contaminant concentrations are changing over time.



If you have any questions or comments about the enclosed drinking water quality results or our work at the landfill, please contact me at the address listed above, or you can also contact me as indicated below.

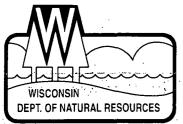
Sincerely,

Hank Kuehling, P.G.
Remediation and Redevelopment Hydrogeologist
(608) 275-3286
harlan.kuehling@wisconsin.gov

enclosure

cc:

Henry Nehls-Lowe - DHFS



Jim Doyle, Governor Scott Hassett, Secretary Lloyd L. Eagan, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

July 27, 2007

Mr. Al and Ms. Jean Stoppleworth 7750 USH 14 Middleton, WI 53562

Subject: Results of Drinking Water Quality, May 2007

Dear Mr. and Ms. Stoppleworth:

Drinking water samples were collected from your house in May 2007 by Environmental Sampling Corporation and submitted to CT Laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill. The samples were collected from the part of your water supply system that is not treated by your point-of-entry treatment system.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, VOCs were detected in your untreated well water.

•	Drinking Water (DW) or
Result (ug/L)	Health Advisory (HA) Standard (ug/L)
0.23	850 (DW)
1.4	70 (DW)
3.4	5 (DW)
0.61	5 (DW)
0.75	1000 (DW)
	0.23 1.4 3.4 0.61

Note that the detected VOCs were all found to be at levels below the associated standards, as have been all other results since DNR began monitoring your well water quality on a semi-annual basis in the fall of 2000. Because this sample was taken from the untreated portion of your water supply, these results are indicative of water quality from your well. However, the most recent results available for samples collected by Hellenbrand Water Center from the treated portion of your water supply indicate that analysis of the treated water sample did not detect tetrachloroethene above the detection limit of 2 micrograms/liter (ug/L). The semi-annual testing of the untreated portion of your water supply will continue to take place in May and November as part of the State of Wisconsin's routine groundwater monitoring program for Refuse Hideaway Landfill.

If you have any questions or comments about the enclosed drinking water quality results or our work at



the landfill, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G. Remediation and Redevelopment Hydrogeologist (608) 275-3286 harlan kuehling@wisconsin.gov

enclosure

cc: Henry Nehls-Lowe - DHFS DG/SCR



Jim Doyle, Governor Scott Hassett, Secretary Lloyd L. Eagan, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

July 27, 2007

Ms. Jeanette Wheat and Mr. Daryl Krueger 4306 Fawn Court Cross Plains, WI 53528

Subject: Results of Drinking Water Quality Testing, May 2007

Dear Ms. Wheat and Mr. Krueger:

Drinking water samples were collected from your home in May 2007 by Environmental Sampling Corporation and submitted to CT Laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, no VOCs were detected in the sample of your well water. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G. Remediation and Redevelopment Hydrogeologist (608) 275-3286 harlan.kuehling@wisconsin.gov

enclosure

cc:

Henry Nehls-Lowe - DHFS





Jim Doyle, Governor
Scott Hassett, Secretary
Lloyd L. Eagan, Regional Director

South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin: 53711-5397 Telephone 608-275-3266 FAX 608-275-3338

July 27, 2007

Mr. Jerry Trantow and Ms. Grace Thompson 4318 Fawn Court Cross Plains, WI 53528

Subject: Results of Drinking Water Quality Testing, May 2007

Dear Mr. Trantow and Ms. Thompson:

Drinking water samples were collected from your home in May 2007 by Environmental Sampling Corporation and submitted to CT Laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, no VOCs were detected in the sample of your well water. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G. Remediation and Redevelopment Hydrogeologist (608) 275-3286 harlan.kuehling@wisconsin.gov

enclosure

cc: Henry Nehls-Lowe - DHFS





Jim Doyle, Governor Scott Hassett, Secretary Lloyd L. Eagan, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338

July 27, 2007

Mr. Richard Summers 4610 Rocky Dell Road, Route 1 Middleton, WI 53562

Subject: Results of Drinking Water Quality Testing, May 2007

Dear Mr. Summers:

Drinking water samples were collected from your home in May 2007 by Environmental Sampling Corporation and submitted to CT Laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, no VOCs were detected in the sample of your well water. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G. Remediation and Redevelopment Hydrogeologist (608) 275-3286 harlan.kuehling@wisconsin.gov

enclosure

cc: Henry Nehls-Lowe - DHFS





Jim Doyle, Governor Scott Hassett, Secretary Lloyd L. Eagan, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

July 27, 2007

Mr. Raymond and Ms. Mary Bula 7872 Deer Run Road Cross Plains, WI 53528

Subject: Results of Drinking Water Quality Testing, May 2007

Dear Mr. and Ms. Bula:

Drinking water samples were collected from your home in May 2007 by Environmental Sampling. Corporation and submitted to CT Laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, no VOCs were detected in the sample of your well water. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G. Remediation and Redevelopment Hydrogeologist (608) 275-3286 harlan.kuehling@wisconsin.gov

enclosure

cc: Henry Nehls-Lowe - DHFS





State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor Scott Hassett, Secretary Lloyd L. Eagan, Regional Director South Central Region Headquarters 3911 Fish Hatchery Road Fitchburg, Wisconsin 53711-5397 Telephone 608-275-3266 FAX 608-275-3338 TTY Access via relay - 711

July 27, 2007

Ms. Cindy Bonk 7877 Deer Run Road Cross Plains, WI 53528

Subject: Results of Drinking Water Quality Testing, May 2007

Dear Ms. Bonk:

Drinking water samples were collected from your home in May 2007 by Environmental Sampling Corporation and submitted to CT Laboratories for analysis. This testing was performed at the request of the Department of Natural Resources (DNR) as part of the long-term groundwater monitoring associated with the Refuse Hideaway Landfill.

Your well water was tested for the presence of volatile organic compounds (VOCs). As you can see from the enclosed laboratory results sheet, no VOCs were detected in the sample of your well water. Therefore, it does not appear that the Refuse Hideaway Landfill or any other contaminant source has impacted the water quality of your well with VOC contamination at this time.

The Department will continue to monitor your well at the same frequency that it has in the past. If you have any questions about our work at the landfill or the enclosed drinking water quality results, please contact me at the address listed above or you can also contact me as indicated below.

Sincerely,

Hank Kuehling, P.G. Remediation and Redevelopment Hydrogeologist (608) 275-3286 harlan.kuehling@wisconsin.gov

enclosure

cc: Henry Nehls-Lowe - DHFS DG/SCR





HYDROGEOLOGISTS E ENGINEERS E ENVIRONMENTAL SCIENTISTS

August 15, 2007

Ralph Erickson Madison Metropolitan Sewerage District 1610 Moorland Road Madison, WI 53713-3398

RE:

Wastewater Discharge Laboratory Results

Refuse Hideaway Landfill, Dane County, Wisconsin (License #1953)

Permit #: NTO-5I

Dear Mr. Erickson:

Per wastewater discharge permit requirements for the above referenced site, please find attached the analytical summary table and laboratory report for the most recent leachate analysis for the 2nd quarter of 2007. All analyzed parameters were below permitted levels for the June 6, 2007 sample.

Please call me at 223-1532 (extension 22) if you need additional information or have any questions.

Sincerely,

LIESCH ENVIRONMENTAL SERVICES, INC.

Joshua Davenport, EIT Project Manager

Attachments: table, lab report

SOUTH CENTRAL REGION

cc: Mr. Hank Kuehling, WDNR, 3911 Fish Hatchery Road, Fitchburg, WI 53711

J:\5905600\Discharge Permit\Results0607.doc

Table 1
Leachate Tank Laboratory Analytical Results
Refuse Hideaway Landfill
Town of Middleton, Wisconsin

			<u>.</u>		PAR	AMETE	R				
DATE	Cadmium (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (ug/L)	Copper (ug/L)	Lead (ug/L)	Mercury (ug/L.)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L)	Zinc (ug/L)	Cyanide (ug/L.)
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100
9/30/2003 10/9/2003	<0.88	54	<260,000	8	<2.2	<0.030	150	<8.0	<1.8	54	5.8
2/23/2004	<0.53	30	<270	24	<1.3	<0.030	93	<4.8	6.5	40	16
8/5/2004	<0.17	21	<27	4.1	1.9	<0.028	54	6.5	0.21	19	15
11/4/2004	<1.7	33	<2.7		2.8	<0.30		13	<0.49		5.4
12/21/2004	<1.7	52	<2.7	8.6	5.4	<0.028	180	21	<0.49	36	9.1
3/31/2005	0.68	15	<2.7	6.9*	12	<0.028					5.5*
6/30/2005	<1.00	12.8	<40	6.20	1.70	<0.07	40.5	16.7	<1.00	458	7
9/21/2005	<1.00	17.8	<40	13.5	8.30	<0.07	46.5	20.1	4.20	95.1	<5
11/16/2005	<1.00	14.2	<40	3.04	<1.50	<0.07	44.6	31.6	5.20	<10.0	10*
2/9/2006	<1.00	16.3	<40	<3.00	<1.50	<0.07	59.3	28.8	<1.00	17.9	17
5/18/2006	<1.00	24.4*	<40	3.40*	<1.50	<0.07	38.3	21.1	1.32*	8.0*	9*
8/28/2006	<1.00	19.2*	<40	5.10*	2.96*	<0.07	32.7	28.0	<1.00	36.6	6*
11/8/2006	<1.00	11.6*	<20	<3.00	<1.50	<0.07	55.2	28.0	5.81*	10.9*	15*
2/21/2007	<1.00	19.1*	<40	20.8	1.59*	<0.07	50.4	51.8	6.30*	<10	12*
6/6/2007	<1.00	10.6*	<40	<3.00	2.92*	<0.07	41.3	10.2	6.77*	17.2*	7*

Notes

Results in **bold** indicate levels above permit limitations.

Blank cell indicates parameter not analyzed.

ug/l = micrograms per liter

^{* =} Analyte detected between limit of detection and limit of quantitation.

June 25, 2007

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Josh Davenport

REPORT NO.: 0706086

PROJECT NO.: 59056.00

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received June 7, 2007.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using Siemens Water Technologies for your analytical needs.

Sincerely,

Siemens Water Technologies

James Salkowski

Lab Director

Enviroscan Analytical™ Services

I certify that the data contained in this report has been generated and reviewed in accordance with the Siemens Water Technologies Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. Siemens Water Technologies Corp. reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Approved by:

Certifications:

Wisconsin 737053130 Minnesota 055-999-302

Illinois 100317

Siemens Water Technologies Corp.

301 West Military Road Rothschild, WI 54474

Tel: 800-338-7226 Fax: 715-355-3221 www.enviroscan.usfilter.com

The total number of pages in this report, including this page is 5.

SAMPLE SUMMARY

Lab Id 0706086-01

Client Sample Id

Leachate

Date/TimeMatrix06/06/07 11:30Leachate

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Josh Davenport

PROJECT NO.: 59056.00 REPORT NO.: 0706086 DATE REC'D 06/07/07 08:33 REPORT DATE: 06/25/07 10:16 PREPARED BY: JRS

Sample ID: Leachate	Matrix: Leach	ate	Sample	e Date/Tir	ne: 06/ (06/07 11:30	Lab No. : 0	706086-01
· ·	Results	<u>Units</u>	LOD	LOQ	Dilution <u>Factor</u>	Qualifiers	Date <u>Analyzed</u>	Analyst
EPA 200.8 - Total Total Cadmium	ND	//	4.00	40.0	•		06/20/07	1011
		ug/L	1.00	10.0	5			JCH
Total Chromium	10.6	ug/L	8.00	26.6	5	J	06/22/07	JCH
Total Copper	ND	ug/L	3.00	10.0	5		06/20/07	JCH
Total Lead	2.92	ug/L	1.50	10.0	5	j	06/20/07	JCH
Total Nickel	41.3	ug/L	1.50	10.0	5		06/20/07	JCH
Total Selenium	10.2	ug/L	3.00	10.0	5		06/20/07	JCH
Total Silver	6.77	ug/L	1.00	10.0	5	J	06/20/07	JCH
Total Zinc	17.2	ug/Ľ	10.0	33.4	5	J	06/22/07	JCH
EPA 200.8/6020 ICPMS Liquid Metal Prep	Completed	N/A			1		06/20/07	JCH
EPA 245.1 - Total Total Mercury	ND	ug/L	0.070	0.230	1		06/14/07	JCH
EPA 335.4 Total Cyanide	0.007	mg/L	0.005	0.017	1	J	06/11/07	AMR
SM 3500 Cr D Hexavalent Chromium	ND	mg/L	0.040	0.200	10	S1L, S 2L	06/07/07 9:25	5 BMS

Qualifier Descriptions

S2L Second sample matrix spike recovery was low.

S1L First sample matrix spike recovery was low.

J Estimated concentration below laboratory quantitation level.

Definitions

LOD = Limit of Detection (Dilution Corrected)
LOQ = Limit of Quantitation (Dilution Corrected)
ND = Not Detected
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pci/L = picocuries per Liter
mL/L = milliliters per Liter
mg = milligram

When the word "dry" follows the units on the result page the sample results are dry weight corrected.

LODs and LOQs are dry weight corrected for all soils except WI GRO and EPA 8021 methanol and WI DNR methylene chloride preserved soils being reported to the State of Wisconsin.

ug/l = Micrograms per Liter = parts per billion (ppb)
ug/kg = Micrograms per kilogram = parts per billion (ppb)
mg/l = Milligrams per liter = parts per million (ppm)
mg/kg = Milligrams per kilogram = parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
* = Result outside established limits.
mg/m3 = Milligrams per meter cubed
ng/L = Nanograms per Liter = Parts per trillion(ppt)
> = Greater Than

Methanol Soils for WI GRO and EPA 8021 are reported to the LOQ.

REQUEST FOR SERVICES



A Siemens Business

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Kuehling, Harlan H - DNR

From:

Henry Nehls-Lowe [NEHLSHL@dhfs.state.wi.us]

Sent:

Friday, October 12, 2007 11:11 AM

To:

Kuehling, Harlan H - DNR

Subject:

VOC Levels in a Private Well Near Refuse Hideaway

Attachments: Stoppleworth VOC Eval 10 2007.xls

Hank,

You requested my assistance regarding the current human health implications of VOCs (volatile organic comounds) in private well water at 7750 Highway 14, Crossplains, and near Refuse Hideaway Landfill, a Superfund site.

Starting in 1988, testing of this well showed elevated levels of tetrachloroethylene (PCE) and trichloroethylene (TCE) that consistently exceeded their respective NR140 Wisconsin Public Health Groundwater Qualtiy Enforcement Standards (ES). The first few rounds of sampling at this well also detected vinyl chloride above its ES, but vinyl chloride has not shown up since 1988. In response to these ES exceedances, early in the 1990s a treatment system was installed that effectively removed all detectable levels of VOCs from tap water in this home. Given the levels of PCE and TCE found in the well, this was appropriate action.

Since November 2000, 14 rounds of bi-annual monitoring of untreated water from this well continues to detect PCE, TCE, and several other VOCs. However, PCE and TCE are much lower than levels observed in the late 1980s and early 1990s, and now all VOCs are below their respective ES (see the attached spreadsheet). In one round of sampling (11/04/2003), the sum of PCE and TCE concentrations did exceeded 5.0 ug/L, but for the other 13 rounds the sum of PCE and TCE concentrations have been below 5.0 ug/L.

Based on the data collected since 2000, untreated drinking water from this well is safe to drink. Additionally, if another well had similar data, DHFS would not recommend the installation of a treatment system. Should DNR decide to discontinue to use of the existing drinking water treatment system at 7750 Highway 14, taking into account the entire history of VOC contamination at this residence, DHFS recommends continuing regular testing of the well.

Please let me know if I can be further assistance regarding this issue.

Henry Nehls-Lowe Bureau of Environmental and Occupational Health Division of Public Health Wisconsin Dept of Health & Family Services 608-266-3479 608-267-4853 (fax) Henry Nehls-Lowe@Wisconsin.gov

Visit the Bureau of Environmental and Occupational Health website at: www.dhfs.wisconsin.gov/eh/

Kuehling, Harlan H - DNR

From:

Sathasivam, Ananda - DOA

Sent:

Tuesday, November 13, 2007 8:24 AM

To:

Kuehling, Harlan H - DNR

Subject:

RE: LP Gas for Refuse Hideaway

Importance:

High

Hi Hank:

It is very disappointing to see that Ferrellgas is not responding to your request. Please proceed with a local vendor who could provide LP for your needs.

Thanks

Ananda Sathasivam **Enterprise Contract Officer** T# 608-266-2201

Fax: 608-266-2885

ananda.sathasivam@wisconsin.gov

From: Kuehling, Harlan H - DNR

Sent: Tuesday, November 13, 2007 8:02 AM

To: Sathasivam, Ananda - DOA Cc: Sanford, Renee M - DNR

Subject: RE: LP Gas for Refuse Hideaway

Hello, Ananda,

I spoke with Jamie at Farrellgas soon after receiving your e-mail below. In that conversation, she indicated that someone from Farrellgas would call me soon about directions to the LP gas tank and when the delivery would occur. After one to two weeks with no call from anyone from Farrellgas, I called Jamie again. She said that the manager is very busy and that he would call me soon. I have not yet received a call from anyone to schedule a delivery. It will soon be four weeks since my first contact with Farrellgas, with no delivery yet scheduled and no assurance that a delivery will ever be scheduled. With winter not that far away, this gas delivery should be completed sooner rather than later. What are my options?

Thank you.

Hank

From:

Sathasivam, Ananda - DOA

Sent:

Friday, October 19, 2007 10:26 AM

To:

Kuehling, Harlan H - DNR RE: LP Gas for Refuse Hideaway

Subject:

Importance: High

I talked to Jamie from Ferrellgas @ 608-222-1094 in reference to filling your tank at Middleton. Please talk to her and issue a purchase order before delivery.

Thanks

Ananda Sathasivam **Enterprise Contract Officer** T# 608-266-2201

Fax: 608-266-2885

ananda.sathasivam@wisconsin.gov

From: Kuehling, Harlan H - DNR

Sent: Friday, October 19, 2007 10:03 AM

To: Sathasivam, Ananda - DOA

Cc: Sanford, Renee M - DNR

Subject: RE: LP Gas for Refuse Hideaway

Hello.

Renee Sanford and I spoke with you last week to get the contact information for the current State of Wisconsin LP gas provider for the Middleton, WI area and were provided with the information included below. I called Farrellgas and the person I spoke with has no information about this contract with the State or about the contract number noted below.

Please contact me with information that will allow me to make arrangements to have a DNR LP gas tank to be refilled.

Thank you very much.

Hank

AHank Kuehling, P.G.

Remediation & Redevelopment Hydrogeologist South Central Region 3911 Fish Hatchery Road, Fitchburg, WI 53711 Wisconsin Department of Natural Resources

(**雹**) phone: (608) 275-3286

(☎) fax: (608) 275-3338 (⊡) e-mail: harlan.kuehling@wisconsin.gov

From: Sanford, Renee M - DNR

Sent: Thursday, October 11, 2007 9:13 AM

To: Kuehling, Harlan H - DNR **Subject:** LP Gas for Refuse Hideaway

Ferrellgas 300127- MN-SC	Tom Elliot
1301 S. Stoughton Rd	T#: 608-222-7711
Madison, WI 53716	Fax: 608-222-1094
	Cell:715-213-0335
•	

Contract Number:

15-40503-600 Ananda Sathasivam ADMIN., FUEL CONTRACT MGT 101 E. Wilson St Madison, WI

(608) 266-2201

E-mail Address: Ananda. Sathasivam@doa.state.wi.us

A Renée M Sanford

South Central Region Finance Wisconsin Department of Natural Resources 3911 Fish Hatchery Road Fitchburg, WI 53711

(室) phone: (608) 275-3213 (室) fax: (608) 275-7775

(| wi) e-mail: Renee.Sanford@wisconsin.gov



HYDROGEOLOGISTS . ENGINEERS . ENVIRONMENTAL SCIENTISTS

February 21, 2008

Ralph Erickson Madison Metropolitan Sewerage District 1610 Moorland Road Madison, WI 53713-3398

RE:

Wastewater Discharge Laboratory Results

Refuse Hideaway Landfill, Dane County, Wisconsin (License #1953)

Permit #: NTO-5I

Dear Mr. Erickson:

Per wastewater discharge permit requirements for the above referenced site, please find attached the analytical summary table and laboratory report for the most recent leachate analysis for the 3rd and 4th quarters of 2008. All analyzed parameters were below permitted levels for the September 4, 2007 and January 16, 2008 samples.

Please call me at 223-1532 (extension 22) if you need additional information or have any questions:

SOUTH CENTRAL REGION

Sincerely,

LIESCH ENVIRONMENTAL SERVICES, INC.

Joshua Davenport, EIT

Project Manager

Attachments: table, lab report

cc: Mr. Hank Kuehling, WDNR, 3911 Fish Hatchery Road, Fitchburg, WI 53711

J:\5905600\Discharge Permit\Results0108.doc

Table 1 Leachate Tank Laboratory Analytical Results Refuse Hideaway Landfill Town of Middleton, Wisconsin

					PAR	AMETE	R				
DATE	Cadmium (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (ug/L)	Copper (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L)	Zinc (ug/L)	Cyanide (ug/L)
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100
9/30/2003 10/9/2003	<0.88	54	<260,000	8	<2.2	<0.030	150	<8.0	<1.8	54	5.8
2/23/2004	<0.53	30	<270	24	<1.3	<0.030	93	<4.8	6.5	40	16
8/5/2004	<0.17	21	<27	4.1	1.9	<0.028	54	6.5	0.21	19	15
11/4/2004	<1.7	33	<2.7		2.8	<0.30		13	<0.49		5.4
12/21/2004	<1.7	52	<2.7	8.6	5.4	<0.028	180	21	<0.49	36	9.1
3/31/2005	0.68	15	<2.7	6.9*	12	<0.028	,				5.5*
6/30/2005	<1.00	12.8	<40	6.20	1.70	<0.07	40.5	16.7	<1.00	458	7
9/21/2005	<1.00	17.8	<40	13.5	8.30	<0.07	46.5	20.1	4.20	95.1	< 5
11/16/2005	<1.00	14.2	<40	3.04	<1.50	<0.07	44.6	31.6	5.20	<10.0	10*
2/9/2006	<1.00	16.3	<40	<3.00	<1.50	<0.07	59.3	28.8	<1.00	17.9	17
5/18/2006	<1.00	24.4*	<40	3.40*	<1.50	<0.07	38.3	21.1	1.32*	8.0*	9*
8/28/2006	<1.00	19.2*	<40	5.10*	2.96*	<0.07	32.7	28.0	<1.00	36.6	6*
11/8/2006	<1.00	11.6*	<20	<3.00	<1.50	<0.07	55.2	28.0	5.81*	10.9*	15*
2/21/2007	<1.00	19.1*	<40	20.8	1.59*	<0.07	50.4	51.8	6.30*	<10	12*
6/6/2007	<1.00	10.6*	<40	<3.00	2.92*	<0.07	41.3	10.2	6.77*	17.2*	7*

Table 1 Leachate Tank Laboratory Analytical Results Refuse Hideaway Landfill Town of Middleton, Wisconsin

	9/4/2007	<1.00	<8.00	<40	3.07*	2.53*	<.07	49.9	4.96*	7.42*	19.3*	<5
	1/16/2008	<1.00	17.7*	<40	8.80*	4.83*	<0.07	62.2	4.73*	7.30*	42.7	11*
ĺ												

Notes

Results in **bold** indicate levels above permit limitations.

Blank cell indicates parameter not analyzed.

ug/l = micrograms per liter

^{* =} Analyte detected between limit of detection and limit of quantitation.

September 19, 2007

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Josh Davenport

REPORT NO.: 0709010 PROJECT NO.: 59056.00 Leachate Testing

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received September 5, 2007.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using Siemens Water Technologies for your analytical needs.

Sincerely,

Siemens Water Technologies

Mariah Peronto

Client Services Chemist

Enviroscan Analytical™ Services

Mariah KRunt

I certify that the data contained in this report has been generated and reviewed in accordance with the Siemens Water Technologies Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. Siemens Water Technologies Corp. reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Approved by:

Certifications:

Wisconsin 737053130 Minnesota 055-999-302

Illinois 100317

helae

Siemens Water Technologies Corp.

301 West Military Road Rothschild, WI 54474 Tel: 800-338-7226 Fax: 715-355-3221 www.enviroscan.usfilter.com

The total number of pages in this report, including this page is 5.

SAMPLE SUMMARY

<u>Lab ld</u> 0709010-01

<u>Client Sample Id</u> Leachate

Date/Time Matrix
09/04/07 12:00 Leachate

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Josh Davenport

PROJECT NO.: 59056.00 Leachate Testing

REPORT NO.: 0709010 DATE REC'D 09/05/07 09:38 REPORT DATE: 09/19/07 13:26

PREPARED BY: MKP

Sample ID: Leachate	Matrix: Leach	ate	Sample	e Date/Tin	ne: 09/	04/07 12:00	Lab No.	0709010-01
	Results	<u>Units</u>	LOD	LOQ	Dilution <u>Factor</u>	Qualifiers	Date <u>Analyzed</u>	Analyst
EPA 200.8 - Total	Results	Ollica	LOD	LOG	<u>i actoi</u>	Qualifiers	Allalyzeu	<u>Analyst</u>
Total Cadmium	ND	ug/L	1.00	10.0	5		09/18/07	JCH
Total Chromium	ND	ug/L	8.00	26.6	5		09/18/07	JCH
Total Copper	3.07	ug/L	3.00	10.0	5	J	09/18/07	JCH
Total Lead	2.53	ug/L	1.50	10.0	5	J	09/18/07	JCH
Total Nickel	49.9	ug/L	1.50	10.0	5		09/18/07	JCH
Total Selenium	4.96	ug/L	3.00	10.0	5	J	09/18/07	JCH
Total Silver	7.42	ug/L	1.00	10.0	5	t	09/18/07	JCH
Total Zinc	19.3	ug/L	10.0	33.4	5	J	09/18/07	JCH
EPA 200.8/6020								4
ICPMS Liquid Metal Prep	Completed	N/A			1		09/12/07	JCH
								V.
EPA 245.1 - Total Total Mercury	ND	ug/L	0.070	0.230	1		09/10/07	JOH
EPA 335.4								
Total Cyanide	ND	mg/L	0 .005	0.017	1	LCH	09/11/07	AMR
SM 3500 Cr D								
Hexavalent Chromium	ND	mg/L	0.040	0.200	10		09/05/07	9:56 BMS

Qualifier Descriptions

LCH Laboratory control sample exhibited a high bias. Sample results may also be biased high.

J Estimated concentration below laboratory quantitation level.

COMP Completed

Definitions

LOD = Limit of Detection (Dilution Corrected)
LOQ = Limit of Quantitation (Dilution Corrected)
ND = Not Detected
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pci/L = picocuries per Liter
mL/L = milliliters per Liter
mg = milligram

When the word "dry" follows the units on the result page the sample results are dry weight corrected.

LODs and LOQs are dry weight corrected for all soils except WI GRO, EPA 8021 and WI DNR/EPA 8260B methanol and WI DNR methylene chloride preserved soils being reported to the State of Wisconsin.

ug/I = Micrograms per Liter = parts per billion (ppb)
ug/kg = Micrograms per kilogram = parts per billion (ppb)
mg/I = Milligrams per liter = parts per million (ppm)
mg/kg = Milligrams per kilogram = parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
* = Result outside established limits.
mg/m3 = Milligrams per meter cubed
ng/L = Nanograms per Liter = Parts per trillion(ppt)
> = Greater Than

. *!

State of Wisconsin Methanol Soils for WI GRO, WI DNR/EPA 8260B and EPA 8021 are reported to the LOQ.

REQUEST FOR SERVICES



A Siemens Business

ENVIROSCAN S	SERVICES	3	01 W. MILI	TARY RD.	ROTI	нѕсн	ILD, W	1 5447	' 4	1-800-338-SCAN
REPORT TO:	DAVEN	PORT			BILL TO Name:				-	To info)
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Phone: (Lobs P.O.# Project # _5fex) 223 -	1532	· #		Phone:	()			
Location 28	うらき									AL REQUESTS sheet if necessary)
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RELINQUISHED BY: ((Signatuře)	DATE	TIME	RECEIVED FO BY: (Signature)		7		E/TIME	38	

February 04, 2008

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Josh Davenport

REPORT NO.: 0801166

PROJECT NO.: 59056.00 Leachate Testing, Refuse Hideaway

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received January 16, 2008.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using Siemens Water Technologies for your analytical needs.

Sincerely,

Siemens Water Technologies

James Salkowski

Lab Director

Enviroscan Analytical™ Services

es f. Sakows 1

I certify that the data contained in this report has been generated and reviewed in accordance with the Siemens Water Technologies Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. Siemens Water Technologies Corp. reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Approved by:

Certifications:

Wisconsin 737053130 Minnesota 055-999-302

Illinois 100317

*helac

Siemens Water Technologies Corp.

301 West Military Road Rothschild, WI 54474 Tel: 800-338-7226 Fax: 715-355-3221 www.enviroscan.usfilter.com

The total number of pages in this report, including this page is 5.

SAMPLE SUMMARY

<u>Lab Id</u> 0801166-01

Client Sample Id

Leachate

Date/Time Matrix
01/15/08 11:30 Leachate

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Josh Davenport

PROJECT NO.: 59056.00 Leachate Testing, Refuse F

REPORT NO. : 0801166 DATE REC'D 01/16/08 09:33 REPORT DATE : 02/04/08 12:03

PREPARED BY: JRS

Sample ID: Leachate	Matrix: Leach	ate	Sample	e Date/Tim	ne: 01 /	15/08 11:30	Lab No. : 0	801166-01
	<u>Results</u>	<u>Units</u>	<u>LOD</u>	LOQ	Dilution Factor	Qualifiers	Date <u>Analyzed</u>	<u>Analyst</u>
EPA 200.8 - Total								
Total Cadmium	ND	ug/L	1.00	10.0	5		01/22/08	JCH
Total Chromium	17.7	ug/L	8.00	26.6	5	J	02/01/08	JCH
Total Copper	8.80	ug/L	3.00	10.0	5	J	01/22/08	JCH
Total Lead	4.83	ug/L	1.50	10.0	5	J	01/22/08	JCH
Total Nickel	62.2	ug/L	1.50	10.0	5		01/22/08	JCH
Total Selenium	4.73	ug/L	3.00	10.0	5	J	01/22/08	JCH
Total Silver	7.30	ug/L	1.00	10.0	5	J	01/22/08	JCH
Total Zinc	42.7	ug/L	10.0	33.4	5		01/22/08	JCH
							4	•
EPA 200.8/6020 ICPMS Liquid Metal Prep	Completed	N/A			1		01/22/08	JCH
			•					C. The second
EPA 245.1 - Total Total Mercury	ND	ug/L	0.070	0.230	1		01/17/08	JCH
EPA 335.4 Total Cyanide	0.011	mg/L	0.005	0.017	1	J	01/21/08	AMS
SM 3500 Cr D Hexavalent Chromium	ND	mg/L	0.040	0.200	10		01/16/08 10:1	5 BMS

Qualifier Descriptions

J Estimated concentration below laboratory quantitation level.

COMP Completed

Definitions

LOD = Limit of Detection (Dilution Corrected)
LOQ = Limit of Quantitation (Dilution Corrected)
ND = Not Detected
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pci/L = picocuries per Liter
mL/L = milliliters per Liter
mg = milligram

When the word "dry" follows the units on the result page the sample results are dry weight corrected.

LODs and LOQs are dry weight corrected for all soils except WI GRO, EPA 8021 and WI DNR/EPA 8260B methanol and WI DNR methylene chloride preserved soils being reported to the State of Wisconsin.

ug/l = Micrograms per Liter = parts per billion (ppb)
ug/kg = Micrograms per kilogram = parts per billion (ppb)
mg/l = Milligrams per liter = parts per million (ppm)
mg/kg = Milligrams per kilogram = parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
* = Result outside established limits.
mg/m3 = Milligrams per meter cubed
ng/L = Nanograms per Liter = Parts per trillion(ppt)
> = Greater Than

State of Wisconsin Methanol Soils for WI GRO, WI DNR/EPA 8260B and EPA 8021 are reported to the LOQ.

Invoice Addre	ch Environmental Savices elling Address enport@madison.liesch.com						Project DEFUSE HIME AY (59056 62) Contact Name, Phone, Fax, Email South AND PAPT GON - 223 - 1532 GON - 223 - 1534 (FAX) Purchase Order # Myoice Contact and Phone No.									
			_		Other: Leachate			Analy	ses R	eques	sted		Lab Use Only Delivered by: Walk-in Courier	Dunhau		
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Siemens Water Technologies 301 W. Military Rd. Rothschild, WI 54474 1-800-338-7226



HYDROGEOLOGISTS ENGINEERS ENVIRONMENTAL SCIENTISTS

April 7, 2008

Ralph Erickson Madison Metropolitan Sewerage District 1610 Moorland Road Madison, WI 53713-3398

RE:

Wastewater Discharge Laboratory Results

Refuse Hideaway Landfill, Dane County, Wisconsin (License #1953)

Permit #: NTO-5I

Dear Mr. Erickson:

Per wastewater discharge permit requirements for the above referenced site, please find attached the analytical summary table and laboratory report for the most recent leachate analysis for the 1st quarter of 2008. All analyzed parameters were below permitted levels for the March 31, 2008 sample.

Please call me at 223-1532 (extension 22) if you need additional information or have any questions.

Sincerely,

LIESCH ENVIRONMENTAL SERVICES, INC.

Joshua Davenport, EIT

Project Manager

Attachments: table, lab report

cc: Mr. Hank Kuehling, WDNR, 3911 Fish Hatchery Road, Fitchburg, WI 53711

W:\lf\59056\Results0308.doc



Table 1 Leachate Tank Laboratory Analytical Results Refuse Hideaway Landfill Town of Middleton, Wisconsin

					PAR	AMETE	R				
DATE	Cadmium (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (ug/L)	Copper (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L)	Zinc (ug/L)	Cyanide (ug/L)
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100
9/30/2003	<0.88	54		8	<2.2	<0.030	150	<8.0	<1.8	54	
10/9/2003			<260,000								5.8
2/23/2004	<0.53	30	<270	24	<1.3	<0.030	93	<4.8	6.5	40	16
8/5/2004	<0.17	21	<27	4.1	1.9	<0.028	54	6.5	0.21	19	15
11/4/2004	<1.7	33	<2.7		2.8	<0.30		13	<0.49		5.4
12/21/2004	<1.7	52	<2.7	8.6	5.4	<0.028	180	21	<0.49	36	9.1
3/31/2005	0.68	15	<2.7	6.9*	12	<0.028					5.5*
6/30/2005	<1.00	12.8	<40	6.20	1.70	<0.07	40.5	16.7	<1.00	458	7
9/21/2005	<1.00	17.8	<40	13.5	8.30	<0.07	46.5	20.1	4.20	95.1	<5
11/16/2005	<1.00	14.2	<40	3.04	<1.50	<0.07	44.6	31.6	5.20	<10.0	10*
2/9/2006	<1.00	16.3	<40	<3.00	<1.50	<0.07	59.3	28.8	<1.00	17.9	17
5/18/2006	<1.00	24.4*	<40	3.40*	<1.50	<0.07	38.3	21.1	1.32*	8.0*	9*
8/28/2006	<1.00	19.2*	<40	5.10*	2.96*	<0.07	32.7	28.0	<1.00	36.6	6*

Page 1 of 2

Table 1 Leachate Tank Laboratory Analytical Results Refuse Hideaway Landfill Town of Middleton, Wisconsin

					PAR	AMETE	R				
DATE	Cadmium (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (ug/L)	Copper (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L)	Zinc (ug/L)	Cyanide (ug/L)
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100
11/8/2006	<1.00	11.6*	<20	<3.00	<1.50	<0.07	55.2	28.0	5.81*	10.9*	15*
2/21/2007	<1.00	19.1*	<40	20.8	1.59*	<0.07	50.4	51.8	6.30*	<10	12*
6/6/2007	<1.00	10.6*	<40	<3.00	2.92*	<0.07	41.3	10.2	6.77*	17.2*	7*
9/4/2007	<1.00	<8.00	<40	3.07*	2.53*	<.07	49.9	4.96*	7.42*	19.3*	<5
1/16/2008	<1.00	17.7*	<40	8.80*	4.83*	<0.07	62.2	4.73*	7.30*	42.7	11*
3/31/2008	<1.00	13.4*	<40	<3.00	<1.50	<0.07	38.1	<3.00	<1.00	<10.0	6*
									·		

Notes

Results in **bold** indicate levels above permit limitations.

Blank cell indicates parameter not analyzed.

ug/l = micrograms per liter

^{* =} Analyte detected between limit of detection and limit of quantitation.

April 04, 2008

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Josh Davenport

REPORT NO.: 0804007

PROJECT NO.: 59056.00 Leachate Testing, Refuse Hideaway

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received April 1, 2008.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using Siemens Water Technologies for your analytical needs.

Sincerely,

Siemens Water Technologies

James Salkowski

Lab Director

Enviroscan Analytical™ Services

I certify that the data contained in this report has been generated and reviewed in accordance with the Siemens Water Technologies Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. Siemens Water Technologies Corp. reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Approved by:

Certifications:

Wisconsin 737053130 Minnesota 055-999-302

Illinois 100317

Siemens Water Technologies Corp.

301 West Military Road Rothschild, WI 54474

Tel: 800-338-7226 Fax: 715-355-3221 www.enviroscan.usfilter.com

The total number of pages in this report, including this page is 5.

SAMPLE SUMMARY

<u>Lab ld</u> 0804007-01

Client Sample Id Leachate

Date/Time Matrix
03/31/08 10:30 Leachate

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Josh Davenport

PROJECT NO.: 59056.00 Leachate Testing, Refuse F REPORT NO.: 0804007 DATE REC'D 04/01/08 09:07 DATE REC'D 04/01/08 09:07 REPORT DATE: 04/04/08 15:54

PREPARED BY: JRS

Sample ID: Leachate	Matrix: Leach	Matrix: Leachate			ne: 03/	31/08 10:30	Lab No.: 0	804007-01
		•			Dilution		Date	
	Results	<u>Units</u>	LOD	LOQ	<u>Factor</u>	Qualifiers	Analyzed	<u>Analyst</u>
EPA 200.8 - Total								
Total Cadmium	ND	ug/L	1.00	10.0	5		04/03/08	JCH
Total Chromium	13.4	ug/L	8.00	26.6	5	J	04/03/08	JCH
Total Copper	ND	ug/L	3.00	10.0	5		04/03/08	JCH
Total Lead	ND	ug/L	1.50	10.0	5		04/03/08	JCH
Total Nickel	38.1	ug/L	1.50	10.0	5		04/03/08	JCH
Total Selenium	ND	ug/L	3.00	10.0	5		04/03/08	JCH
Total Silver	ND	ug/L	1.00	10.0	5		04/03/08	JCH
Total Zinc	ND	ug/L	10.0	33.4	5		04/03/08	JCH
EPA 200.8/6020								
ICPMS Liquid Metal Prep	Completed	N/A			1		04/02/08	JCH
EPA 245.1 - Total								
Total Mercury	ND	ug/L	0.070	0.230	1		04/03/08	JCH
EPA 335.4								
Total Cyanide	0.006	mg/L	0.005	0.017	1	P, J	04/04/08	LNB
SM 3500 Cr D								
Hexavalent Chromium	ND	mg/L	0.040	0.200	10		04/01/08 9:3	5 BMS

Qualifier Descriptions

P Sample aliquot was preserved at the time of sampling, but the preservation added was not sufficient to meet

the preservation level required. Additional preservation was added in the lab prior to analysis.

J Estimated concentration below laboratory quantitation level.

COMP Completed

Definitions

LOD = Limit of Detection (Dilution Corrected)
LOQ = Limit of Quantitation (Dilution Corrected)
ND = Not Detected
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pci/L = picocuries per Liter
mL/L = milliliters per Liter
mg = milligram

When the word "dry" follows the units on the result page the sample results are dry weight corrected.

LODs and LOQs are dry weight corrected for all soils except WI GRO, EPA 8021 and WI DNR/EPA 8260B methanol and WI DNR methylene chloride preserved soils being reported to the State of Wisconsin.

ug/i = Micrograms per Liter = parts per billion (ppb)
ug/kg = Micrograms per kilogram = parts per billion (ppb)
mg/i = Milligrams per liter = parts per million (ppm)
mg/kg = Milligrams per kilogram = parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
* = Result outside established limits.
mg/m3 = Milligrams per meter cubed
ng/L = Nanograms per Liter = Parts per trillion(ppt)
> = Greater Than

State of Wisconsin Methanol Soils for WI GRO, WI DNR/EPA 8260B and EPA 8021 are reported to the LOQ.

Company Na	me					Proj	ect							
Report Mailing Address GOOD GLINOLT DE, SUITE 203 MAOISON, VI 53713 Invoice Address SAME					SAOSGOD REFUSE LEMONATE TESTING									
					Contact Name, Phone, Fax, Email JOSH DAVENPORT GOB-223-1532 GOB-223-1534					Invoice C	Contact and Phone No. H DAVENTORA SOG-113-1532			
Matrix: Drinking Water Groundwater Wastewater Soil/Solid Other: LEACHATE										ed	Lab Use Only Delivered by: Walk-in Courier			
Wis. PECFA P	Wis. PECFA Project subject to U&C? Yes (No									ГТ	-11-	Ship. Cont. OK? (Y' N NA		
For Compliance Monitoring? Tell No State: (If Yes, please specify Agency or Regulation) Agency/Reg.: Turnaround Request: Normal (10 Bus. Days) [] Rush (Must be pre-approved by Lab and is subject to surcharges) Date Needed: WO No.					5 AS WOLK	R # 0801166	}	ca	L +6		Samples Leaking? Y			
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HYDROGEOLOGISTS . ENGINEERS . ENVIRONMENTAL SCIENTISTS

July 14, 2008

Ralph Erickson Madison Metropolitan Sewerage District 1610 Moorland Road Madison, WI 53713-3398

RE:

Wastewater Discharge Laboratory Results

Refuse Hideaway Landfill, Dane County, Wisconsin (License #1953)

Permit #: NTO-5I

Dear Mr. Erickson:

Per wastewater discharge permit requirements for the above referenced site, please find attached the analytical summary table and laboratory report for the most recent leachate analysis for the 2nd quarter of 2008. All analyzed parameters were below permitted levels for the July 1, 2008 sample.

Please call me at (608) 223-1532 (extension 22) if you need additional information or have any questions.

Sincerely,

LIESCH ENVIRONMENTAL SERVICES, INC.

Joshua Davenport, EIT

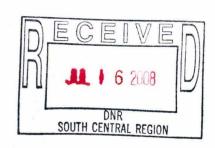
Project Manager

Attachments: table, lab report

cc: Mr. Hank Kuehling

WDNR 3911 Fish Hatchery Road Fitchburg, WI 53711

ritchburg, wr 55711



J:\5905600\Discharge Permit\Results0608.doc

Table 1
Leachate Tank Laboratory Analytical Results
Refuse Hideaway Landfill
Town of Middleton, Wisconsin

	PARAMETER											
DATE	Cadmium (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (ug/L)	Copper (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L)	Zinc (ug/L)	Cyanide (ug/L)	
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100	
9/30/2003	<0.88	54		8	<2.2	<0.030	150	<8.0	<1.8	54		
10/9/2003	,		<260,000								5.8	
2/23/2004	<0.53	30	<270	24	<1.3	<0.030	93	<4.8	6.5	40	16	
8/5/2004	<0.17	21	<27	4.1	1.9	<0.028	54	6.5	0.21	19	15	
11/4/2004	<1.7	33	<2.7		2.8	<0.30		13	<0.49		5.4	
12/21/2004	<1.7	52	<2.7	8.6	5.4	<0.028	180	21	<0.49	36	9.1	
3/31/2005	0.68	15	<2.7	6.9*	12	<0.028					5.5*	
6/30/2005	<1.00	12.8	<40	6.20	1.70	<0.07	40.5	16.7	<1.00	458	7	
9/21/2005	<1.00	17.8	<40	13.5	8.30	<0.07	46.5	20.1	4.20	95.1	<5	
11/16/2005	<1.00	14.2	<40	3.04	<1.50	<0.07	44.6	31.6	5.20	<10.0	10*	
2/9/2006	<1.00	16.3	<40	<3.00	<1.50	<0.07	59.3	28.8	<1.00	17.9	17	
5/18/2006	<1.00	24.4*	<40	3.40*	<1.50	<0.07	38.3	21.1	1.32*	8.0*	9*	
8/28/2006	<1.00	19.2*	<40	5.10*	2.96*	<0.07	32.7	28.0	<1.00	36.6	6*	
11/8/2006	<1.00	11.6*	<20	<3.00	<1.50	<0.07	55.2	28.0	5.81*	10.9*	15*	
2/21/2007	<1.00	19.1*	<40	20.8	1.59*	<0.07	50.4	51.8	6.30*	<10	12*	
6/6/2007	<1.00	10.6*	<40	<3.00	2.92*	<0.07	41.3	10.2	6.77*	17.2*	7*	
9/4/2007	<1.00	<8.00	<40	3.07*	2.53*	<0.07	49.9	4.96*	7.42*	19.3*	<5	
1/16/2008	<1.00	17.7*	<40 ·	8.80*	4.83*	<0.07	62.2	4.73*	7.30*	42.7	11*	
3/31/2008	<1.00	13.4*	<40	<3.00	<1.50	<0.07	38.1	<3.00	<1.00	<10.0	6*	
7/1/2008	<1.00	30.6	<40	<3.00	<1.50	<0.07	64.8	<3.00	1.13*	10.1*	19	

Notes: Results in **bold** indicate levels above permit limitations.

Blank cell indicates parameter not analyzed.

ug/l = micrograms per liter

^{* =} Analyte detected between limit of detection and limit of quantitation.

July 10, 2008

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Josh Davenport

REPORT NO.: 0807023

PROJECT NO.: 59056.00 Leachate Testing, Refuse

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received July 2, 2008.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using Siemens Water Technologies for your analytical needs.

Sincerely,

Siemens Water Technologies

Lawes L. Salkows

James Salkowski

Lab Director

Enviroscan Analytical™ Services

I certify that the data contained in this report has been generated and reviewed in accordance with the Siemens Water Technologies Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. Siemens Water Technologies Corp. reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Approved by:

Certifications:

Wisconsin 737053130 Minnesota 055-999-302

Illinois 100317

PACE ACT

Siemens Water Technologies Corp.

301 West Military Road Rothschild, WI 54474

Tel: 800-338-7226 Fax: 715-355-3221 www.enviroscan.usfilter.com

The total number of pages in this report, including this page is 5.

SAMPLE SUMMARY

Lab Id 0807023-01

Client Sample Id Leachate Date/Time Matrix
07/01/08 12:00 Leachate

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Josh Davenport

PROJECT NO.: 59056.00 Leachate Testing, Refuse

REPORT NO.: 0807023 DATE REC'D 07/02/08 09:07 REPORT DATE: 07/10/08 16:53

PREPARED BY: JRS

Sample ID: Leachate	Matrix: Leach	ate	Sample	e Date/Tin	ne: 07/	01/08 12:00	Lab No. : 08	07023-01
					Dilution		Date	
	<u>Results</u>	<u>Units</u>	<u>LOD</u>	LOQ	<u>Factor</u>	Qualifiers	<u>Analyzed</u>	<u>Analyst</u>
<u>EPA 200.8 - Total</u>								
Total Cadmium	, ND	ug/L	1.00	10.0	5		07/07/08	JCH
Total Chromium	30.6	ug/L	8.00	26.6	5		07/07/08	JCH
Total Copper	ND	ug/L	3.00	10.0	5		07/07/08	JCH
Total Lead	ND	ug/L	1.50	10.0	5		07/07/08	JCH
Total Nickel	64.8	ug/L	1.50	10.0	5		07/07/08	JCH
Total Selenium	ND	ug/L	3.00	10.0	5	CSH	07/07/08	JCH
Total Silver	1.13	ug/L	1.00	10.0	5	j	07/07/08	JCH
Total Zinc	10.1	ug/L	10.0	33.4	5	j	07/07/08	JCH
EPA 200.8/6020								
ICPMS Liquid Metal Prep	Completed	N/A			1		07/07/08	JCH
EPA 245.1 - Total								
Total Mercury	ND	ug/L	0.070	0.230	1		07/10/08	JCH
EPA 335.4								
Total Cyanide	0.019	mg/L	0.005	0.017	1	Р	07/09/08	LNB
SM 3500 Cr D								
Hexavalent Chromium	ND	mg/L	0.040	0.200	10	HT, S1L, S2L	07/02/08 13:00) JCH

Qualifier Descriptions

S₂L Second sample matrix spike recovery was low.

S₁L First sample matrix spike recovery was low.

Р Sample aliquot was preserved at the time of sampling, but the preservation added was not sufficient to meet

the preservation level required. Additional preservation was added in the lab prior to analysis.

Estimated concentration below laboratory quantitation level. J

HT This result was analyzed outside of the EPA recommended holding time.

CSH Check standard for this analyte exhibited a high bias. Sample results may also be biased high.

COMP Completed

Definitions

LOD = Limit of Detection (Dilution Corrected) LOQ = Limit of Quantitation (Dilution Corrected) ND = Not Detected COMP = Complete SUBCON = Subcontracted analysis mv = millivolts pci/L = picocuries per Liter

mL/L = milliliters per Liter mg = milligram

When the word "dry" follows the units on the result page the sample results are dry weight corrected.

LODs and LOQs are dry weight corrected for all soils except WI GRO, EPA 8021 and WI DNR/EPA 8260B methanol and WI DNR methylene chloride preserved soils being reported to the State of Wisconsin.

ug/l = Micrograms per Liter = parts per billion (ppb) ug/kg = Micrograms per kilogram = parts per billion (ppb) mg/l = Milligrams per liter = parts per million (ppm) mg/kg = Milligrams per kilogram = parts per million (ppm) NOT PRES = Not Present ppth = Parts per thousand * = Result outside established limits. mg/m3 = Milligrams per meter cubed ng/L = Nanograms per Liter = Parts per trillion(ppt) > = Greater Than

State of Wisconsin Methanol Soils for WI GRO, WI DNR/EPA 8260B and EPA 8021 are reported to the LOQ.

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Siemens Water Technologies 301 W. Military Rd. Rothschild, WI 54474 1-800-338-7226

Table 1 **Leachate Tank Laboratory Analytical Results** Refuse Hideaway Landfill Town of Middleton, Wisconsin

		PARAMETER									
DATE	Cadmium (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (ug/L)	Copper (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L)	Zinc (ug/L)	Cyanide (ug/L)
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100
9/30/2003	<0.88	54		8	<2.2	<0.030	150	<8.0	<1.8	54	. '
10/9/2003			<260,000								5.8
2/23/2004	<0.53	30	<270	24	<1.3	<0.030	93	<4.8	6.5	40	16
8/5/2004	<0.17	21	<27	4.1	1.9	<0.028	54	6.5	0.21	19	15
11/4/2004	<1.7	33	<2.7		2.8	<0.30		13	<0.49		5.4
12/21/2004	<1.7	52	<2.7	8.6	5.4	<0.028	180	21	<0.49	36	9.1
3/31/2005	0.68	15	<2.7	6.9*	12	<0.028					5.5*
6/30/2005	<1.00	12.8	<40	6.20	1.70	<0.07	40.5	16.7	<1.00	458	7
9/21/2005	<1.00	17.8	<40	13.5	8.30	<0.07	46.5	20.1	4.20	95.1	<5
11/16/2005	<1.00	14.2	<40	3.04	<1.50	<0.07	44.6	31.6	5.20	<10.0	10*
2/9/2006	<1.00	16.3	<40	<3.00	<1.50	<0.07	59.3	28.8	<1.00	17.9	17
5/18/2006	<1.00	24.4*	<40	3.40*	<1.50	<0.07	38.3	21.1	1.32*	8.0*	9*
8/28/2006	<1.00	19.2*	<40	5.10*	2.96*	<0.07	32.7	28.0	<1.00	36.6	6*
11/8/2006	<1.00	11.6*	<20	<3.00	<1.50	<0.07	.55.2	28.0	5.81*	10.9*	15*
2/21/2007	<1.00	19.1*	<40	20.8	1.59*	<0.07	50.4	51.8	6.30*	<10	12*
6/6/2007	<1.00	10.6*	<40	<3.00	2.92*	<0.07	41.3	10.2	6.77*	17.2*	7*
9/4/2007	<1.00	<8.00	<40	3.07*	2.53*	<0.07	49.9	4.96*	7.42*	19.3*	<5
1/16/2008	<1.00	17.7*	<40	8.80*	4.83*	<0.07	62.2	4.73*	7.30*	42.7	11*
3/31/2008	<1.00	13.4*	<40	<3.00	<1.50	<0.07	38.1	<3.00	<1.00	<10.0	6*
7/1/2008	<1.00	30.6	<40	<3.00	<1.50	<0.07	64.8	<3.00	1.13*	10.1*	19

Notes: Results in **bold** indicate levels above permit limitations.

Blank cell indicates parameter not analyzed.

ug/l = micrograms per liter

^{* =} Analyte detected between limit of detection and limit of quantitation.
Page 1 of 1 C:\Documents and S



HYDROGEOLOGISTS & ENGINEERS & ENVIRONMENTAL SCIENTISTS

October 9, 2008

Ralph Erickson Madison Metropolitan Sewerage District 1610 Moorland Road Madison, WI 53713-3398

RE: Wastewater Discharge Laboratory Results

Refuse Hideaway Landfill, Dane County, Wisconsin (License #1953)

Permit #: NTO-5I

Dear Mr. Erickson:

Per wastewater discharge permit requirements for the above referenced site, please find attached the analytical summary table and laboratory report for the most recent leachate analysis for the 3rd quarter of 2008. All analyzed parameters were below permitted levels for the September 17, 2008 sample.

Please call me at 223-1532 (extension 22) if you need additional information or have any questions.

Sincerely,

LIESCH ENVIRONMENTAL SERVICES, INC.

Joshua Davenport, EIT

Project Manager

Attachments: table, lab report

cc: Mr. Hank Kuehling, WDNR, 3911 Fish Hatchery Road, Fitchburg, WI 53711

J:\5905600\Discharge Permit\Results0908.doc

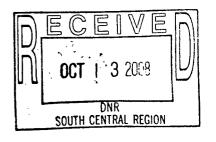


Table 1
Leachate Tank Laboratory Analytical Results
Refuse Hideaway Landfill
Town of Middleton, Wisconsin

		PARAMETER									
DATE	Cadmium (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (ug/L)	Copper (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L)	Znc (ug/L)	Cyanide (ug/L)
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100
9/30/2003 10/9/2003	<0.88	54	<260,000	8	<2.2	<0.030	150	<8.0	<1.8	54	5.8
2/23/2004	<0.53	30	<270	24	<1.3	<0.030	93	<4.8	6.5	40	16
8/5/2004	<0.17	21	<27	4.1	1.9	<0.028	54	6.5	0.21	19	15
11/4/2004	<1.7	33	<2.7		2.8	<0.30		13	<0.49		5.4
12/21/2004	<1.7	52	<2.7	8.6	5.4	<0.028	180	21	<0.49	36	9.1
3/31/2005	0.68	15	<2.7	6.9*	12	<0.028					5.5*
6/30/2005	<1.00	12.8	<40	6.20	1.70	<0.07	40.5	16.7	<1.00	458	7
9/21/2005	<1.00	17.8	<40	13.5	8.30	<0.07	46.5	20.1	4.20	95.1	<5
11/16/2005	<1.00	14.2	<40	3.04	<1.50	<0.07	44.6	31.6	5.20	<10.0	10*
2/9/2006	<1.00	16.3	<40	<3.00	<1.50	<0.07	59.3	28.8	<1.00	17.9	17
5/18/2006	<1.00	24.4*	<40	3.40*	<1.50	<0.07	38.3	21.1	1.32*	8.0*	9*
8/28/2006	<1.00	19.2*	<40	5.10*	2.96*	<0.07	32.7	28.0	<1.00	36.6	6*
11/8/2006	<1.00	11.6*	<20	<3.00	<1.50	<0.07	55.2	28.0	5.81*	10.9*	.15*
2/21/2007	<1.00	19.1*	<40	20.8	1.59*	<0.07	50.4	51.8	6.30*	<10	12*
6/6/2007	<1.00	10.6*	<40	<3.00	2.92*	<0.07	41.3	10.2	6.77*	17.2*	7*

Table 1
Leachate Tank Laboratory Analytical Results
Refuse Hideaway Landfill
Town of Middleton, Wisconsin

9/4/2007	<1.00	<8.00	<40	3.07*	2.53*	<0.07	49.9	4.96*	7.42*	19.3*	<5
1/16/2008	<1.00	17.7*	<40	8.80*	4.83*	<0.07	62.2	4.73*	7.30*	42.7	11*
3/31/2008	<1.00	13.4*	<40	<3.00	<1.50	<0.07	38.1	<3.00	<1.00	<10.0	6*
7/1/2008	<1.00	30.6	<40	<3.00	<1.50	<0.07	64.8	<3.00	1.13*	10.1*	19
9/17/2008	<1.00	30.7	<40	12.6	1.70*	<0.07	82.9	5.87*	1.54*	34.7	22

Notes

Results in bold indicate levels above permit limitations.

Blank cell indicates parameter not analyzed.

ug/l = micrograms per liter

^{* =} Analyte detected between limit of detection and limit of quantitation.

October 03, 2008

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Scott Rickard

REPORT NO.: 0809312

PROJECT NO.: [none]

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received September 18, 2008.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using Siemens Water Technologies for your analytical needs.

Sincerely,

Siemens Water Technologies

James Salkowski

Lab Director

Enviroscan Analytical™ Services

I certify that the data contained in this report has been generated and reviewed in accordance with the Siemens Water Technologies Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. Siemens Water Technologies Corp. reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Approved by:

Certifications:

Wisconsin 737053130 Minnesota 055-999-302

Illinois 100317

Siemens Water Technologies Corp.

301 West Military Road Rothschild, WI 54474

Tel: 800-338-7226 Fax: 715-355-3221 www.siemens.com/enviroscan

SAMPLE SUMMARY

<u>Lab Id</u> 0809312-01

Client Sample Id

Leachate

Date/Time Matrix
09/17/08 10:30 Leachate

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Scott Rickard

PROJECT NO.: [none] REPORT NO.: 0809312 DATE REC'D 09/18/08 09:11 REPORT DATE: 10/03/08 11:45

PREPARED BY: JRS

Sample ID: Leachate	Matrix: Leach	ate	Sample	e Date/Tim	ne: 09/	17/08 10:30	Lab No. : 08	09312-01
	Re <u>sults</u>	<u>Units</u>	LOD	LOQ	Dilution Factor	Qualifiers	Date <u>Analyzed</u>	<u>Analyst</u>
EPA 200.8 - Total								
Total Cadmium	ND	ug/L	1.00	10.0	5		10/02/08	JCH
Total Chromium	30.7	ug/L	8.00	26.6	5		09/29/08	JCH
Total Copper	12.6	ug/L	3.00	10.0	5		09/29/08	, JCH
Total Lead	1.70	ug/L	1.50	10.0	5	J	09/29/08	JCH
Total Nickel	82.9	ug/L	1.50	10.0	5		09/29/08	JCH
Total Selenium	5.87	ug/L	3.00	10.0	5	J	09/29/08	JCH
Total Silver	1.54	ug/L	1.00	10.0	5	J	09/29/08	JCH
Total Zinc	34.7	ug/L	10.0	33.4	5		09/29/08	JCH
EPA 200.8/6020 ICPMS Liquid Metal Prep	Completed	N/A			1		09/23/08	JCH
EPA 245.1 - Total Total Mercury	ND	ug/L	0.070	0.230	1		09/25/08	JCH
EPA 335.4 Total Cyanide	0.022	mg/L	0.005	0.017	1		09/24/08	LNB
SM 3500 Cr D Hexavalent Chromium	ND	mg/L	0.004	0.020	1	нт	09/18/08 13:00) JCH

Qualifier Descriptions

J Estimated concentration below laboratory quantitation level.

HT This result was analyzed outside of the EPA recommended holding time.

COMP Completed

Definitions

LOD = Limit of Detection (Dilution Corrected)
LOQ = Limit of Quantitation (Dilution Corrected)
ND = Not Detected
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pci/L = picocuries per Liter
mL/L = milliliters per Liter
mg = milligram

When the word "dry" follows the units on the result page the sample results are dry weight corrected.

LODs and LOQs are dry weight corrected for all soils except WI GRO, EPA 8021 and WI DNR/EPA 8260B methanol and WI DNR methylene chloride preserved soils being reported to the State of Wisconsin.

ug/I = Micrograms per Liter = parts per billion (ppb)
ug/kg = Micrograms per kilogram = parts per billion (ppb)
mg/I = Milligrams per liter = parts per million (ppm)
mg/kg = Milligrams per kilogram = parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
* = Result outside established limits.
mg/m3 = Milligrams per meter cubed
ng/L = Nanograms per Liter = Parts per trillion(ppt)
> = Greater Than

State of Wisconsin Methanol Soils for WI GRO, WI DNR/EPA 8260B and EPA 8021 are reported to the LOQ.

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Kuehling, Harlan H - DNR

From: Environmental Sampling Corp. [escstaff@yahoo.com]

Sent: Friday, November 07, 2008 8:55 AM

To: Kuehling, Harlan H - DNR

Subject: Re: DNR Staff Site Visit to RHL Sampling Event

Good morning Hank,

Since November is the shorter of the two semi-annual events, Wednesday will be the final field day. Depending on how cooperative the weather is on the first two days, there may not be many wells remaining to sample on the third day. If your crew is available on Tuesday you may be able to see more sampling throughout the day, than on Wednesday. However, if Wednesday is the best day for you we will save a few wells for the last day so that you can observe the sample collection. If that is the case, please let us know how long you will plan to be on site so that we can schedule the monitoring accordingly.

The 10:00am meeting time would be fine (on either day). Below are the field phone numbers. I will be on site with the guys on Monday for the private well monitoring. Scott and Jeremy will be on site from Monday through Wednesday.

Tracy: 608-415-0554 Junet Sausen 267-7570

Scott: 414-333-7382 Jeremy: 414-810-9123

When you get a chance let me know what day will work best.

Thanks, Tracy

Environmental Sampling Corporation

W125 S9808 North Cape Road Muskego, WI 53150 (414)427-5033 www.environmentalsamplingcorp.com

--- On Thu, 11/6/08, Kuehling, Harlan H - DNR < Harlan. Kuehling@Wisconsin.gov > wrote:

From: Kuehling, Harlan H - DNR < Harlan. Kuehling@Wisconsin.gov>

Subject: DNR Staff Site Visit to RHL Sampling Event

To: "Environmental Sampling Corp." <escstaff@yahoo.com>

Cc: "escfperugini@tds.net" <escfperugini@tds.net>

Date: Thursday, November 6, 2008, 3:32 PM

Hi, Tracy,

I would like to bring not just one but three DNR folks who are unfamiliar with groundwater sampling to see you all in action on Wednesday, November 19th, probably around 10:00 a.m. Will that time allow us to see some monitoring wells being purged and sampled? As we arrive at RHL, could I call one of you to find out where you are located? Is your field crew cell phone number still (608) 415-0554? And could one of you call me the afternoon before or that morning to give me a general idea of where we could find you? Thanks much.

Hank

Kuehling, Harlan H - DNR

From:

Environmental Sampling Corp. [escstaff@yahoo.com]

Sent:

Monday, December 22, 2008 12:05 PM

To:

Kuehling, Harlan H - DNR

Cc:

ESC Staff

Subject:

Refuse Hideaway Landfill - November 2008 results

Attachments: Nov-08 scanned PWs.pdf

Hi Hank,

Below is a summary of the November 2008 private well monitoring results for Refuse Hideaway Landfill. As usual, I will be providing a groundwater report to summarize the event and will also send a CD with the .pdf files of the laboratory analytical reports.

No VOCs Detected:

PW-Durand

PW-Wagner

PW-Weber

PW-Sommers

PW-Rounds

One VOC - Chloromethane (flagged value between the LOD and LOQ):

PW-Matush

PW-Sather

The low-level chloromethane detected in the samples collected from PW-Matush and PW-Sather are likely due to sample bottle/preservative contamination and do not represent the actual drinking water quality at these locations. I have contacted the lab to see what QA/QC data is available and I will get back to you with any additional information.

Several VOCs:

PW-Noles:

dichlorodifluoromethane, 1,1,-dichloroethane, cis-1,2-dichloroethene, tetrachloroethene (>MCL), trichloroethene

PW-Stoppleworth:

chloromethane, dichlorodifluoromethane, cis-1,2-dichloroethene, tetrachloroethene, trichloroethene

Note that the concentration of tetrachloroethene in the sample collected from PW-Noles (5.2 ug/L) was greater than the EPA MCL of 5.0 ug/L. All remaining VOC detections were below the MCLs.

I have attached the scanned VOC results for the private wells for your review. This data will also be included on the CD of laboratory analytical reports that you will receive with the groundwater monitoring report. Please let me know if you have any questions or need any additional information.

Thank you,

Tracy Ipavec

Environmental Sampling Corporation

W125 S9808 North Cape Road Muskego, WI 53150 (414)427-5033 www.environmentalsamplingcorp.com

January 20, 2009

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Josh Davenport

REPORT NO.: 0901045

PROJECT NO.: 59056.00 Leachate Testing, 1-6-09

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received January 7, 2009.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using Siemens Water Technologies for your analytical needs.

Sincerely,

Siemens Water Technologies

James Salkowski

Lab Director

Enviroscan Analytical™ Services

I certify that the data contained in this report has been generated and reviewed in accordance with the Siemens Water Technologies Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. Siemens Water Technologies Corp. reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Approved by

Certifications:

Wisconsin 737053130 Minnesota 055-999-302

Illinois 100317

* Ae ac

Siemens Water Technologies Corp.

301 West Military Road Rothschild, WI 54474

Tel: 800-338-7226 Fax: 715-355-3221 www.siemens.com/enviroscan

SAMPLE SUMMARY

Lab Id 0901045-01

Client Sample Id

Leachate

Date/Time Matrix
01/06/09 12:30 Leachate

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Josh Davenport

PROJECT NO.: 59056.00 Leachate Testing, 1-6-09

REPORT NO. : 0901045 DATE REC'D 01/07/09 09:59 REPORT DATE : 01/20/09 09:56

PREPARED BY: JRS

Sample ID: Leachate	Matrix: Leach	ate	Sample	e Date/Tir	ne: 01/	06/09 12:30	Lab No. : 0	901045-01
					Dilution		Date	
	<u>Results</u>	<u>Units</u>	LOD	LOQ	<u>Factor</u>	Qualifiers	<u>Analyzed</u>	<u>Analyst</u>
EPA 200.8 - Total								
Total Cadmium	ND	ug/L	1.00	10.0	5		01/12/09	JCH
Total Chromium	25.0	ug/L	8.00	26.6	5	j	01/12/09	JCH
Total Copper	7.96	ug/L	3.00	10.0	5	J	01/12/09	JCH
Total Lead	ND	ug/L	1.50	10.0	5		01/12/09	JCH
Total Nickel	70.6	ug/L	1.50	10.0	5		01/12/09	JCH
Total Selenium	ND	ug/L	3.00	10.0	5		01/12/09	JCH
Total Silver	ND	ug/L	1.00	10.0	5		01/12/09	JCH
Total Zinc	59.1	ug/L	10.0	33.4	5		01/12/09	JCH
EPA 200.8/6020 ICPMS Liquid Metal Prep	Completed	N/A			1		01/09/09	JCH
EPA 245.1 - Total Total Mercury	ND	ug/L	0.070	0.230	1		01/19/09	JCH
EPA 335.4 Total Cyanide	0.010	mg/L	0.005	0.017	1	P, J	01/13/09	LNB
SM 3500 Cr D Hexavalent Chromium	ND	mg/L	0.040	0.200	10	S1L, S2L	01/07/09 11:3	0 BMS

Qualifier Descriptions

S2L Second sample matrix spike recovery was low.

S1L First sample matrix spike recovery was low.

P Sample aliquot was preserved at the time of sampling, but the preservation added was not sufficient to meet

the preservation level required. Additional preservation was added in the lab prior to analysis.

J Estimated concentration below laboratory quantitation level.

COMP Completed

Definitions

LOD = Limit of Detection (Dilution Corrected)
LOQ = Limit of Quantitation (Dilution Corrected)
ND = Not Detected
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pci/L = picocuries per Liter
mL/L = milliliters per Liter
mg = milligram

When the word "dry" follows the units on the result page the sample results are dry weight corrected.

LODs and LOQs are dry weight corrected for all soils except WI GRO, EPA 8021 and WI DNR/EPA 8260B methanol and WI DNR methylene chloride preserved soils being reported to the State of Wisconsin.

ug/l = Micrograms per Liter = parts per billion (ppb)
ug/kg = Micrograms per kilogram = parts per billion (ppb)
mg/l = Milligrams per liter = parts per million (ppm)
mg/kg = Milligrams per kilogram = parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
* = Result outside established limits.
mg/m3 = Milligrams per meter cubed
ng/L = Nanograms per Liter = Parts per trillion(ppt)
> = Greater Than

State of Wisconsin Methanol Soils for WI GRO, WI DNR/EPA 8260B and EPA 8021 are reported to the LOQ.

REQUEST FOR SERVICES

REPORT TO: Josh Name: Company: Liesch Environm Address: 6000 Gisholt Dr Madison, WI 5 Phone: (Attn: P. O. # Project # 59056.00	Saven Post nental Services, Indive, Ste. 203 3713	BILL T Name: Composition Address Phone	THSCHILD, WI 54474 1-800-338-SCAN TO: (if different from Report To info) ESame any: Es: ()
Sample Type (Check all that apply) Groundwater Wastewater Soil/Solid Drinking Water Oil Vapor Other	Turnaround Time Normal Rush (Pre-appro Date Needed Approved By	oved by Lab)	ANALYTICAL REQUESTS (use separate sheet if necessary)
LABUSE ONLY DATE	No. of Containers COMP GRAB 1230 3	-	REMARKS 1-250 pt Holors 1-500 pt Holors 1-717-pt Nil'
CHAIN OF CUST SAMPLERS: (Signature) RELINQUISHED BY: (Signature) RELINQUISHED BY: (Signature)	DATE/TIME ILLO 9 1300 DATE/TIME		ura)

Kuehling, Harlan H - DNR

From: Kuehling, Harlan H - DNR

Sent: Monday, February 02, 2009 7:40 AM

To: 'Josh Davenport'

Subject: RE: December 2008 RHL O&M Information

OK. Thanks.

From: Josh Davenport [mailto:Josh.Davenport@liesch.com]

Sent: Friday, January 30, 2009 10:06 AM

To: Kuehling, Harlan H - DNR

Subject: RE: December 2008 RHL O&M Information

Hank,

The intention was to conduct the leachate line cleaning this spring along the other annual O&M activities.

Josh

From: Kuehling, Harlan H - DNR [mailto:Harlan.Kuehling@Wisconsin.gov]

Sent: Tue 1/27/2009 12:17 PM

To: Josh Davenport

Subject: RE: December 2008 RHL O&M Information

Liesch has always completed the leachate line cleaning in the late summer or fall of each year that it has had the contract. Why was 2008 the exception? Thanks, Josh.

From: Josh Davenport [mailto:Josh.Davenport@liesch.com]

Sent: Tuesday, January 27, 2009 10:12 AM

To: Kuehling, Harlan H - DNR

Subject: RE: December 2008 RHL O&M Information

Hank,

According to my records the leachate lines were jetted on October 23, 2007.

Josh

From: Kuehling, Harlan H - DNR [mailto:Harlan.Kuehling@Wisconsin.gov]

Sent: Tue 1/27/2009 9:55 AM

To: Josh Davenport

Subject: RE: December 2008 RHL O&M Information

I hope that this is my last question, but no promises. What is the date of the leachate lines cleaning in 2008? I didn't see a reference to this in the invoices or monthly reports. Thanks.

Hank

From: Josh Davenport [mailto:Josh.Davenport@liesch.com]

Sent: Tuesday, January 27, 2009 8:42 AM

To: Kuehling, Harlan H - DNR

Subject: RE: December 2008 RHL O&M Information

Hi Hank,

The gas extraction system ran 75% of the month and the leachate extraction system ran 100% of the month. Approximately 9,871 gallons of leachate was hauled to MMSD in December.

Josh

From: Kuehling, Harlan H - DNR [mailto:Harlan.Kuehling@Wisconsin.gov]

Sent: Tue 1/27/2009 8:13 AM

To: Josh Davenport

Subject: December 2008 RHL O&M Information

Hi, Josh,

I have to finish an annual report for EPA by Thursday of this week and need a few information items that will be in the December monthly report not yet received. What percentage of the month of December did the gas extraction system operate and did the leachate collection system operate? How many gallons of leachate were hauled to MMSD in December?

Please send this information as quickly as possible. Thanks, Josh.

Hank

MADISON METROPOLITAN SEWERAGE DISTRICT

1610 Moorland Road Madison, Wi 53713-3398 Telephone (608) 222-1201 Fax (608) 222-2703

> Jon W. Schellpfeffer Chief Engineer & Director



COMMISSIONERS

Edward V. Schten President Thomas D. Hovel Vice President P. Mac Berthouex Secretary Caryl E. Terrell Commissioner John E. Hendrick Commissioner

February 9, 2009

Mr. Joshua Davenport Liesch Environmental Services, Inc. 6000 Gisholt Dr, Suite 203 Madison, WI 53713

Mr. Davenport:

Enclosed is the permit that allows continued discharge of leachate from the Refuse Hideaway Landfill. The permit is valid for five years. Although the permit format is different from the previous permit, the key monitoring and reporting requirements remain the same. One change to note is that I have inserted some very standard BTEX limits into this permit. These BTEX limits appear in many of our contaminated groundwater permits. Certainly, let me know if there is any problem with the sampling requirements for BTEX.

You can reach me at extension 362; I'd be glad to discuss these permit matters with you.

Ralph Erickson

Pretreatment and Waste Acceptance Coordinator

Enclosure:

Cc: Hank Kuehling, WDNR

Respiration of the all metals in tenchate are well helow Ess, and that a rece teachate sample (from the tonk?) had only I vec delect (barely above the rep for or tho-xylene)

WASTEWATER DISCHARGE PERMIT NTO-5.10

In compliance with the provisions of section 66.24(1)(d) and 66.25(3) of the Wisconsin Statutes, Articles 5 and 6 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, and the District's Policy on Acceptance of Wastewater Containing Non-Typical Organic and Inorganic Constituents.

Wisconsin Department of Natural Resources
BOX 7921 Madison, WI 53707
for the site
Refuse Hideaway Landfill
US Highway 14, Middleton, WI

is hereby authorized to discharge leachate from the **Refuse Hideaway Landfill** located at the above address, via a permitted waste hauler, to the Nine Springs Wastewater Treatment Plant in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in this permit.

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

This permit shall be effective for five years. It shall become effective on February 9, 2009 and shall expire at midnight, February 8, 2014. Any appeals to the conditions of this permit must be made to the Chief Engineer and Director within thirty days of the signature date.

The permittee shall not discharge after the date of expiration. If the permittee wishes to continue to discharge after this expiration date an application shall be filed for reissuance of this permit in accordance with the requirements of Article 5 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, at least 30 days prior to the expiration date.

In accordance with Articles 5 and 6 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, the District reserves the right to amend this permit from time to time.

Jon W. Schellpfeffer

Dated this 2th day of February 2009.

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Part 1 - LIMITS

1.01 INTRODUCTION

- (1) Discharges from the outfalls regulated by this permit are subject to the local limits established by the District in the Sewer Use Ordinance 84-001 (Revised February 26, 2007). Based upon these requirements, the District has established the pretreatment standards set forth in secs. 1.02 to 1.03 of this permit.
- (2) The permittee shall comply with all requirements imposed by federal, state, and local municipal governments relating to operation of the licensed landfill.

1.02 OUTFALL NTO-5A

- (1) Outfall NTO-5A is the discharge point of the leachate collection system serving the Refuse Hideaway Landfill. The permittee has constructed facilities to allow for collection of a representative sample from the on-site 25,000 gallon storage tank. Grab samples will be collected from the discharge point per the requirements of sec. 2.04. Outfall NTO-5A shall contain only leachate.
- (2) The Refuse Hideaway Landfill is located outside of the District's sewer service area. Therefore, all leachate from the site must be hauled to the Nine Springs Wastewater Treatment Plant. The waste hauler shall have a Septage Disposal Permit, as issued annually by the District.
- (3) The following MMSD limits apply to discharges from Outfall NTO-5A:

Outfall NTO-5A
Applicable Local Limits

Parameter	Local Ordinance	POTW maximum
	Effluent Limitations	allowance per
	(daily maximum)	landfill site
	(mg/L)	
Cadmium (T)	0.25	
Chromium (T)	10.0	
Copper (T)	1.5	
Lead (T)	5.0	
Nickel (T)	2.0	
Selenium (T)	0.3	
Silver (T)	3.0	
Zinc (T)	8.0	
Molybdenum (T)	None set	
Mercury (T)	0.02	
Benzene		0.5 lb/day
Ethyl benzene		0.5 lb/day
Toluene		0.5 lb/day
Xylene		0.5 lb/day

1.03 OTHER OUTFALLS

The Permittee may not discharge groundwater to any location other than as described for the outfalls listed in sub.(1.02). Domestic wastewater shall only flow into any outfalls after the sampling points for process wastewater.

Part 2 - SAMPLING

2.01 SAMPLING FREQUENCY PER MMSD REQUIREMENTS

The Permittee shall sample (self-monitor) at least once each calendar quarter for leachate volume and the pollutants shown in the following table.

Outfall	Required Parameters and Measurements
Outfall	volume
NTO-5A	ICP metals (9)
	Mercury
	Benzene
	Toluene
	Ethyl benzene
	Xylene

2.02 REPRESENTATIVE SAMPLES

The Permittee's self-monitoring shall represent discharges normally occurring during the reporting period.

2.03 SAMPLE COLLECTION AND ANALYSIS

(1) The Permittee shall use the following primary devices for flow measurement:

Outfall	Primary Device
NTO-	In-line meter or
5 A	Pumping runtime records

- (2) The Permittee shall collect, preserve, and analyze samples using techniques that provide sufficient precision and accuracy to measure the regulated pollutants at or below the applicable limit to a reasonable degree of scientific certainty, using analytical methods included in 40 CFR Part 136 or ch. NR 219, Wis. Adm. Code, or other methods approved by the Department of Natural Resources. For analysis, the Permittee, whenever possible, shall use a laboratory certified or registered by the Department of Natural Resources, according ch. NR 149, Wis. Adm. Code, for the parameter being analyzed. With prior District approval, per NR 211.15(8), the permittee may be allowed to use a laboratory not certified or registered in Wisconsin.
- (3) The District will randomly collect and analyze samples of leachate, taken from the hauling vehicle, to verify leachate quality and treatability.
- (4) Samples collected by the Permittee shall be independent of samples collected by the District. The permittee is allowed split samples from District sampling events; however the permittee must collect its own independent samples on a different date per sub. (2.01).

Part 3 - REPORTING

3.01 SELF-MONITORING REPORTS

All self-monitoring results must be submitted to the District within thirty (30) days of the end of a semi-annual monitoring period.

- (1) All monitoring data is to be reported if the Permittee monitors a pollutant more frequently than required by this permit using the sample type and the sample collection, preservation, and the analytical techniques set forth in sec. 2.03 to 2.04.
- (2) Self-monitoring Reporting Format
 - (a) The Permittee shall report to the District the results of all sampling required by sec. 2.01 to 2.04.
 - (b) Reports shall include:
 - 1. The place, date, type, and time of the sample or sub-samples;
 - 2. The names of the persons collecting the samples, the persons doing the analyses, and the laboratory performing the analyses;
 - 3. The dates the analyses were performed;
 - 4. The analytical techniques used; and
 - 5. The analytical results.

3.02 REPORT OF VIOLATION AND RESAMPLING

- (1) If sampling performed by the Permittee identifies a violation of any applicable pretreatment standard or requirement, the Permittee shall:
 - (a) Notify the District within 24-hours of becoming aware of the violation,
 - (b) Provide a written report with sample results to the District within five (5) days after becoming aware of the violation, and
 - (c) Repeat the sampling and analysis of the violation-parameter(s) and submit the results of the repeat analysis to the District within thirty (30) days after becoming aware of the violation.
- (2) The reports required by sub. (1) shall be signed by the responsible corporate officer according to sub. (3.04) and sec. (2.1)(44) of the District Sewer Use Ordinance.

3.03 NOTICE OF INTENT TO CHANGE DISCHARGE

Before any activity that would result in a 25 percent long-term increase or decrease in the volume of non-domestic wastewater discharged by the Permittee or that would significantly change the characteristics of the discharge, the Permittee shall submit a written Notice of Intent to the District (sec. 5.13).

3.04 SIGNATURE BY RESPONSIBLE CORPORATE OFFICER

All reports shall be signed and sworn by a principal executive officer, or his/her designee.

3.05 REPORTING ADDRESSES

The Permittee shall submit all reports required by this permit to the District and the City of Madison Engineering Department at the following addresses:

Madison Metropolitan Sewerage District 1610 Moorland Road Madison, Wisconsin 53713-3398

Part 4 - SPECIAL CONDITIONS

4.01 DISTRICT RATE DETERMINATIONS AND BILLING

- (1) The District will track each load delivered and will prepare quarterly bills for treatment costs. The rate for disposal is based on samples drawn at the Nine Springs Wastewater Treatment Plant for the parameters CBOD, TSS, TKN, and TP. The rate is adjusted annually, in December, based on service charge rates set for the following year.
- (2) The primary contact for the Refuse Hideaway Landfill is Liesch Environmental Services. Discharges made to the Nine Springs Wastewater Treatment Plant under the provisions of this permit, will be billed quarterly to:

Mr. Joshua Davenport Liesch Environmental Services 6000 Gisholt Dr. Madison, WI 53713

Part 5 - GENERAL CONDITIONS

5.01 COMPLIANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS

The Permittee shall comply with all applicable pretreatment standards and requirements set forth in the District Sewer Use Ordinance, the Wisconsin Administrative Code, and the Code of Federal Regulations, regardless of their enumeration in this permit.

5.02 SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

5.03 DUTY TO COMPLY

The permittee must comply with all conditions of this permit. Failure to comply with the requirements of this permit may be grounds for administrative action, or enforcement proceedings including civil or criminal penalties, injunctive relief, and summary abatements.

5.04 DUTY TO MITIGATE

The Permittee shall take all reasonable actions necessary to minimize and correct any adverse impacts to the sewerage system or the environment resulting from noncompliance with this permit. The Permittee shall notify the District within 24-hours of its first awareness of the commencement of the adverse impact (upset) in accordance with sec. 5.6.5 of the District Sewer Use Ordinance.

5.05 DUTY TO REAPPLY

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must submit an application for a new permit at least 180-days before the expiration date of this permit.

5.06 CONTINUATION OF EXPIRED PERMIT

An expired permit will continue to be effective and enforceable until the permit is reissued if:

- (1) The permittee has submitted a complete permit application at least 180-days prior to the expiration date of the user's existing permit.
- (2) The failure to reissue the permit, prior to expiration of the previous permit, is not due to any act or failure to act on the part of the permittee.

5.07 PERMIT MODIFICATION

The District may modify this wastewater discharge permit at any time to reflect changes in federal, state, or local law, to incorporate the terms of an order, or to reflect changed circumstances. Any modifications which result in new conditions in the permit shall include a reasonable time schedule for compliance if necessary.

5.08 PERMIT TRANSFER

Wastewater discharge permits are issued to a specific user for a specific operation and are not assignable to another user or transferable to any other location without prior written approval of the District. Sale of a user shall obligate the purchaser to seek prior written approval of the District for continued discharge to the District sewerage system. If an owner or operator changes without the prior approval of the District, then this permit is void.

5.09 SAMPLING LOCATION

The Permittee may change sampling locations only after receiving approval from the District. The District shall ensure that any change in the Permittee's sampling location will not allow the Permittee to substitute dilution for adequate treatment.

5.10 SAMPLING FACILITIES

- (1) The Permittee shall provide sampling facilities that will be accessible and that will provide representative samples of the process wastewater.
- (2) The Permittee shall allow the District access to all sampling facilities according to the requirements of sub. (5.11).

5.11 RIGHT OF ENTRY

The Permittee consents to inspection and sampling by the District according to the requirements and limitations set forth in sec. 11.1 of the Sewer Use Ordinance. The permittee shall, after reasonable notification by the District, allow the District or its representatives, exhibiting proper credentials and identification, to enter upon the premises of the permittee at all reasonable hours, for the purposes of inspection, sampling, or records inspection. Reasonable hours in the context of inspection and sampling includes any time the permittee is operating any process which results in a process wastewater discharge to the District sewerage system.

5.12 NO PROPERTY RIGHTS CREATED

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

5.13 NOTICE OF INTENT

If the permittee is planning to alter or change any activity at the Permittee's facility that would significantly increase or decrease the volume or alter the content of any existing source of wastewater discharge into the District sewerage system must file a written Request to Discharge Form in accordance with Article 5 of the District Sewer Use Ordinance. A significant increase or decrease shall be defined as a 25 percent increase or decrease in the volume of industrial wastewater currently being discharged by a permittee.

5.14 REVIEW OF PROPOSED TREATMENT FACILITIES

(1) If the Permittee is planning to install or modify treatment facilities or operations to comply with a categorical pretreatment standard, a pretreatment standard set forth in sec. 5.2.2 of the District Sewer Use Ordinance, a permit condition, or an order of the District, then the Permittee

shall provide the District with plans, specifications, and operating procedures for the proposed facilities. The District may approve, conditionally approve, or disapprove the plans, specifications, and operating procedures. The Permittee may not begin discharging from the treatment facilities until the Permittee has satisfied the requirements of the District.

(2) The Wisconsin Department of Natural Resources has separate requirements for the review of plans, specifications, and operating procedures of proposed pretreatment facilities, such as the requirements set forth in sec. 144.04, Wis. Stats., and ch. NR 108, Wis. Admin. Code. The Permittee shall comply with these requirements before commencing discharges to the sewerage system.

5.15 ADDITIONAL REPORTS

In addition to the reports required by this permit and the reports specifically required by the District Sewer Use Ordinance, the District may require other reports, management plans, or other information whenever the District finds that such a requirement is necessary to fulfill the District's responsibilities under the Sewer Use Ordinance, or any other local, state, or federal law.

5.16 HAZARDOUS WASTE NOTIFICATION

The permittee shall notify the District, the Department of Natural Resources, and the EPA Regional Waste Management Division Director in writing of any discharge to the sanitary sewer system of a substance which, if otherwise disposed of, would be a hazardous water under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge. If the permittee discharges to the sanitary sewer more than 100 kilograms of such waste per calendar month, the additional notification requirements of 40 CFR sec. 403.12(p) apply. In the case of any notification made under this section, the permittee shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

5.17 PUBLIC INFORMATION

All written information submitted to the District shall be available upon request to any person for public inspection at the headquarters of the District, according to sec. 19.35, Wis. Stats., unless:

- (1) The Permittee provides, at the time the Permittee submits the information, a written notice to the District that the Permittee claims that all or part of the information is exempt from disclosure according to sec. 19.36(5), Wis. Stats.; and
- (2) The Permittee demonstrates to the District's satisfaction that the information is a trade secret according to sec. 134.90(1)(c), Wis. Stats.

July 26, 1996
Mr. Larry D. Nelson
City Engineer
City-County Building, Room 115
210 Martin Luther King, Jr. Blvd.
Madison, WI 53710
Enclosed is the renewed permit for the

Enclosed is the renewed permit for the Mineral Point Landfill leachate discharges. The major change made is the reduction of the monitoring frequency to an annual basis for all parameters including zinc. Past results have all shown compliance with the permit limits. Please note that we request that the total and average flows for each calendar quarter be reported with the annual monitoring report.

If you have any questions please contact me at 222-1201 ext:362.

June 11, 1998 Mr. Larry D. Nelson City Engineer City-County Building, Room 115 210 Martin Luther King, Jr. Blvd. Madison, WI 53710

Enclosed are permits for leachate discharges from four City of Madison landfill sites. In all four permits, we have eliminated the limitation on the maximum daily discharge volume.

Demetral Landfill

This is a new permit for the remediation activities which are on-going a the site. Since this is a new site with little analytical history, we are requiring quarterly sampling for the parameters of concern in Part 1. The permit requires sampling for compatible pollutants with the report being provided to Jim Grey. We have also included authorization for the discharge of water which infiltrates excavations during the remediation with the requirement that Jim Grey is provided with a report of the volume.

Mineral Point Landfill

This permit was current, having been issued about two years ago. We are reissuing the permit today to reflect the changes made to the other permits. Considering the analytical history, sampling frequency for the parameters of concern in Part 1 has been reduced to once per year. The permit requires sampling for compatible pollutants with the report being provided to Jim Grey.

Sycamore Landfill

This permit was to expire on June 15, 1998 and is being reissued today. Considering the analytical history, sampling frequency for the parameters of concern in Part I has been reduced to once per year. The permit requires sampling for compatible pollutants with the report being provided to Jim Grey.

Greentree Landfill

This permit had expired about one year ago and is being reissued today. Considering the analytical history, particularly regarding zinc levels, sampling frequency for the parameters of concern in Part 1 remains quarterly. The permit requires sampling for compatible pollutants with the report being provided to Jim Grey.

Truax Landfill

We request an update on the activities at the Truax Landfill. We issued a five-year permit to the City of Madison on August 10, 1994, but we have received no reports or analytical data.

If you have any questions please contact me at 222-1201 ext:362.

April 14, 2009

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Josh Davenport

REPORT NO.: 0904109

PROJECT NO.: Refuse LF 59056.00

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received April 7, 2009.

All analyses were performed in accordance with NELAC Standards using approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using Siemens Water Technologies for your analytical needs.

Sincerely,

Siemens Water Technologies

James Salkowski

Lab Director

Enviroscan Analytical™ Services

osk. Saltows 1

I certify that the data contained in this report has been generated and reviewed in accordance with the Siemens Water Technologies Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. Siemens Water Technologies Corp. reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Approved by

Certifications:

Wisconsin 737053130 Minnesota 055-999-302

Illinois 100317

Siemens Water Technologies Corp.

301 West Military Road Rothschild, WI 54474 Tel: 800-338-7226 Fax: 715-355-3221 www.siemens.com/enviroscan

Liesch Environmental Services, Inc. 6000 Gisholt Drive Suite 203 Madison, WI 53713

Attn: Josh Davenport

PROJECT NO.: Refuse LF 59056.00

REPORT NO.: 0904109 DATE REC'D 04/07/09 08:42 REPORT DATE: 04/14/09 12:53

PREPARED BY: JRS

Sample ID: Leachate	Matrix: Leach	ate	Sample	e Date/Tin	ne: 04/ 0	06/09 12:30	Lab No. : 0	904109-01
					Dilution		Date	
	<u>Results</u>	<u>Units</u>	LOD	<u>LOQ</u>	<u>Factor</u>	Qualifiers	Analyzed	<u>Analyst</u>
EPA 200.8 - Total								
Total Cadmium	ND	ug/L	1.00	10.0	5		04/10/09	JCH
Total Chromium	21.1	ug/L	8.00	26.6	5	J	04/10/09	JCH
Total Copper	7.93	ug/L	3.00	10.0	5	J	04/10/09	JCH
Total Lead	ND	ug/L	1.50	10.0	5		04/10/09	JCH
Total Nickel	56.6	ug/L	1.50	10.0	5		04/10/09	JCH
Total Selenium	ND	ug/L	3.00	10.0	5		04/10/09	JCH
Total Silver	ND	ug/L	1.00	10.0	5		04/10/09	JCH
Total Zinc	17.4	ug/L	10.0	33.4	5	J	04/10/09	JCH
EPA 200.8/6020								
ICPMS Liquid Metal Prep	Completed	N/A			1		04/08/09	JCH
FDA 045.4 Total								
EPA 245.1 - Total Total Mercury	ND	ug/L	0.070	0.230	1		04/13/09	JCH
EPA 335.4 Total Cyanide	0.008	mg/L	0.005	0.017	4		04/44/00	LND
Total Oyulluc	0.000	mg/c	0.003	0.017	1	J	04/14/09	LNB
SM 3500 Cr D						S1L		
Hexavalent Chromium	ND	mg/L	0.040	0.200	10	S2L	04/07/09	BMS

Qualifier Descriptions

S2L Second sample matrix spike recovery was low.

S1L First sample matrix spike recovery was low.

J Estimated concentration below laboratory quantitation level.

COMP Completed

Definitions

LOD = Limit of Detection (Dilution Corrected)
LOQ = Limit of Quantitation (Dilution Corrected)
ND = Not Detected
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pci/L = picocuries per Liter
mL/L = milliliters per Liter
mg = milligram

When the word "dry" follows the units on the result page the sample results are dry weight corrected.

LODs and LOQs are dry weight corrected for all soils except WI GRO, EPA 8021 and WI DNR/EPA 8260B methanol and WI DNR methylene chloride preserved soils being reported to the State of Wisconsin.

ug/l = Micrograms per Liter = parts per billion (ppb)
ug/kg = Micrograms per kilogram = parts per billion (ppb)
mg/l = Milligrams per liter = parts per million (ppm)
mg/kg = Milligrams per kilogram = parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
* = Result outside established limits.
mg/m3 = Milligrams per meter cubed
ng/L = Nanograms per Liter = Parts per trillion(ppt)
> = Greater Than

State of Wisconsin Methanol Soils for WI GRO, WI DNR/EPA 8260B and EPA 8021 are reported to the LOQ.

			APA			····										
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(If Yes, please	specify Ager	ncy or Hegulai	tion) A	Agency/Heg.:	<u>wpnie</u>	1 1	ခွ်	1	1	1	Recd on Ice? * Y N N N NA					
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Siemens Water Technologies 301 W. Military Rd. Rothschild, WI 54474 1-800-338-7226



HYDROGEOLOGISTS . ENGINEERS . ENVIRONMENTAL SCIENTISTS

April 24, 2009

Ralph Erickson Madison Metropolitan Sewerage District 1610 Moorland Road Madison, WI 53713-3398

RE: Wastewater Discharge Laboratory Results

Refuse Hideaway Landfill, Dane County, Wisconsin (License #1953)

Permit #: NTO-5.10

Dear Mr. Erickson:

Per wastewater discharge permit requirements for the above referenced site, please find attached the analytical summary table and laboratory report for the most recent leachate analysis for the first quarter of 2009. All analyzed parameters were below permitted levels for the April 6, 2009 sample.

Please call me at 608-295-6230 if you need additional information or have any questions.

Sincerely,

LIESCH ENVIRONMENTAL SERVICES, INC.

Joshua Davenport, PE

Project Manager

Attachments: table, lab report

cc: Mr. Hank Kuehling, WDNR, 3911 Fish Hatchery Road, Fitchburg, WI 53711

J:\5905600\Discharge Permit\Results0309.doc

Table 1
Leachate Tank Laboratory Analytical Results
Refuse Hideaway Landfill
Town of Middleton, Wisconsin

	PARAMÈTER											
DATE	Cadmium (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (ug/L)	Copper (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L)	Zinc (ug/L)	Cyanide (ug/L)	
Permitted Levels	250	10000	500	1500	5000	20	2000	300	3000	8000	100	
9/30/2003 10/9/2003	<0.88	54	<260,000	8	<2.2	<0.030	150	<8.0	<1.8	54	5.8	
2/23/2004	<0.53	30	<270	24	<1.3	<0.030	93	<4.8	6.5	40	16	
8/5/2004	<0.17	21	<27	4.1	1.9	<0.028	54	6.5	0.21	19	15	
11/4/2004	<1.7	33	<2.7		2.8	<0.30		13	<0.49		5.4	
12/21/2004	<1.7	52	<2.7	8.6	5.4	<0.028	180	21	<0.49	36	9.1	
3/31/2005	0.68	15	<2.7	6.9*	12	<0.028					5.5*	
6/30/2005	<1.00	12.8	<40	6.20	1.70	<0.07	40.5	16.7	<1.00	458	7	
9/21/2005	<1.00	17.8	<40	13.5	8.30	<0.07	46.5	20.1	4.20	95.1	<5	
11/16/2005	<1.00	14.2	<40	3.04	<1.50	<0.07	44.6	31.6	5.20	<10.0	10*	
2/9/2006	<1.00	16.3	<40	<3.00	<1.50	<0.07	59.3	28.8	<1.00	17.9	17	
5/18/2006	<1.00	24.4*	<40	3.40*	<1.50	<0.07	38.3	21.1	1.32*	8.0*	9*	
8/28/2006	<1.00	19.2*	<40	5.10*	2.96*	<0.07	32.7	28.0	<1.00	36.6	6*	
11/8/2006	<1.00	11.6*	<20	<3.00	<1.50	<0.07	55.2	28.0	5.81*	10.9*	15*	
2/21/2007	<1.00	19.1*	<40	20.8	1.59*	<0.07	50.4	51.8	6.30*	<10	12*	
6/6/2007	<1.00	10.6*	<40	<3.00	2.92*	<0.07	41.3	10.2	6.77*	17.2*	7*	

Table 1
Leachate Tank Laboratory Analytical Results
Refuse Hideaway Landfill
Town of Middleton, Wisconsin

	PARAMETER											
DATE	Cadmium (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (ug/L)	Copper (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Silver (ug/L)	Zinc (ug/L)	Cyanide (ug/L)	
Permitted Levels 9/4/2007	250 <1.00	10000 <8.00	500 <40	1500 3.07*	5000 2.53*	20 <0.07	2000 49.9	300 4.96*	3000 7.42*	8000 19.3*	100 <5	
1/16/2008	<1.00	17.7*	<40	8.80*	4.83*	<0.07	62.2	4.73*	7.30*	42.7	11*	
3/31/2008	<1.00	13.4*	<40	<3.00	<1.50	<0.07	38.1	<3.00	<1.00	<10.0	6*	
7/1/2008	<1.00	30.6	<40	<3.00	<1.50	<0.07	64.8	<3.00	1.13*	10.1*	19	
9/17/2008	<1.00	30.7	<40	12.6	1.70*	<0.07	82.9	5.87*	1.54*	34.7	22	
1/6/2009	<1.00	25.0*	<40	7.96*	<1.50	<0.07	70.6	<3.00	<1.00	59.1	10*	
4/7/2009	<1.00	21.1*	<40	7.93*	<1.50	<0.07	56.6	<3.00	<1.00	17.4*	8*	

Notes

Results in **bold** indicate levels above permit limitations.

Blank cell indicates parameter not analyzed.

ug/l = micrograms per liter

^{* =} Analyte detected between limit of detection and limit of quantitation.

Kuehling, Harlan H - DNR

Brad Brown [bbrown@andersonenveng.com] From:

Monday, May 18, 2009 3:32 PM Sent:

To: Kuehling, Harlan H - DNR Subject: RE: Refuse Hideaway Landfill

Another question:

Will the DNR issue a summary of the testing equipment that the Site has for use and what monitoring equipment is built into the system? For Example:

Flare Inlet Port - Pressure reading

System Gauge? Flow Measurement System Gauge?

Branch Monitoring Station - Pressure

System Gauge?

- Gas Composition

On site equipment or consultant supplied?

Blower Inlet Pipe - Pressure

Extraction Wells - Temp

System Gauge?

Gas Flow

System or consultant supplied?

Applied Pressure

Thanks! Brad

Bradley A. Brown, P.E. Office (815)962-9000 Mobile (815)708-5141

From: Kuehling, Harlan H - DNR [mailto:Harlan.Kuehling@Wisconsin.gov]

Sent: Monday, May 18, 2009 3:01 PM

To: Brad Brown

Subject: RE: Refuse Hideaway Landfill

Yes. It will be included in a Q&A document that Dick Straub will issue later this week.

Hank

A Hank Kuehling, P.G.

Remediation & Redevelopment Program Hydrogeologist

South Central Region

3911 Fish Hatchery Road, Fitchburg, WI 53711 Wisconsin Department of Natural Resources

(22) phone:

(608) 275-3286

(當) fax:

(608) 275-3338

(E1) e-mail:

harlan.kuehling@wisconsin.gov

From: Brad Brown [mailto:bbrown@andersonenveng.com]

Sent: Monday, May 18, 2009 2:40 PM

To: Kuehling, Harlan H - DNR **Subject:** Refuse Hideaway Landfill

Hi Harlan,

Is it possible to get a copy of a typical or recent monthly report for the facility? I believe the information would be valuable to the prospective bidders on the Maintenance Contract.

Thanks for your consideration.

Brad

Bradley A. Brown
Bradley A. Brown, P.E.
Anderson Environmental & Engineering, Co.
124 North Water Street, Suite 206
Rockford, IL 61107
(815)962-9000 Office
(815)962-7978 Fax
(815)708-5141 Mobile
www.andersonenveng.com

Environmental Sampling Corp. (ESC) Field Status Report – May 2009

WDNR / Refuse Hideaway Landfill Middleton, Wisconsin

COPY

Page 1 of 1

Task	Sampling Period / Date	Sample Type / Description
Ī	05/26/09 - 05/28/09	Groundwater Monitoring Wells
II	05/28/09	Residential Wells
III	05/26/09 - 05/28/09	Ground Water Elevations

Project Status

- I. <u>Groundwater Sampling:</u> ESC staff was on site May 26 through May 28 to sample the groundwater the following groundwater monitoring wells: P-8D, P-8S, P-9D, P-9S, P-16D, P-16S, P-17S, P-18S, P-20SR, P-21S, P-21D, P-21BR, P-22D, P-22S, P-22E, P-23D, P-23S, P-24D, P-24E, P-25BR, P-25D, P-25S, P-26S, P-26D, P-27D, P-27S, P-28S, P-29S, P-30D, P-30I, P-31D, P-31IA, P-31IB, P-31S, P-32D, P-32S, P-33D, P-34S, P-34D, P-40D, P-40I, P-41D, P-43S, P-43I & P-43D. The wells were purged and sampled using submersible electric pumps, dedicated bladder pumps or bailers. Two duplicate samples (DUP-GW= P-32D and DUP-02 = P-23D) were collected in accordance with ESC's QA/QC procedures. A field blank (FB-01) was collected near P-18S. Several laboratory trip blanks also accompanied the samples. Groundwater elevations were also measured at 16 additional monitoring wells during the May 2009 event.
- II. <u>Residential Well Sampling:</u> ESC staff was on site May 28, 2009 to collect nine residential drinking water supply well samples (PW-Sather, PW-Bonk, PW-Summers, PW-Bula, PW-Wheat/Krueger, PW-Tantrow/Thompson, PW-Stoppleworth, & PW-Noles). One trip blank accompanied the samples in accordance with ESC's QA/QC procedures.
- III. <u>Groundwater Elevations:</u> ESC staff was on site May 26 through May 28 to collect the groundwater elevations from all of the remaining monitoring wells on site. Results were recorded on ESC's Field Sheet.

Task Deviations and Reporting Turnaround

Test results will be available in approximately 30 days.

Field Observations

- Dup-GW = P-32D
- Dup-02 = P-23D

Proposed Additional Actions

New locks.

Other Observations

None.

Rev. 3/2	2006		, -			C	hain o	f Custo	dy						Page	2	_ of _ 5
Compar Project	ny: Esc Contact: F	rant 1	Peryini	CTLab	ora			1230 I	Lange 3-356-2		Fax 608-	o, WI 53 -356-276 c.com	913 6	Mail Ro Comp Addro	eport Toany:	0: Fn	ant Perugini SISOS North Case
Regulat	RCRA S	<i>y Me</i> am: SDWA	509 509 509 MANE SALTYE NPDES	Turnaround Time Normal RUSH* Date Needed *Notify Lab prior to sending in RUSH samples. Surcharges: 24 hr 200% 2-3 days 100% 4-9 days 50% subject to change without notice.				Lab Use Only Place Header Sticker Here:						Mail Report To: Frank Pervyini Company: Les SISOS North Address: W/25 SISOS North City/State/Zip: Mukego US Invoice To: Company: Address: City/State/Zip: PO No.			
	ecial Instruct			<u> </u>	Filt?	Y/N	N				Γ				Ι	T	<u> </u>
	License Nu	umber: Grab/ Comp	Sample	ID Description	WDNR Well ID#	**Matrix:	7HA	Eill in	Sana	oo yyith	Pottl	es per	Foot		Total # of Containers	Preservation*	* Preservation Code A=None B=HCL C=H2SO4 D=HNO3 E=Encore F=Methanol G=NaOH O=Other Lab ID #
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Rev. 3/2006		C	hain o	Custod	ly					Page	2	2 of 5
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Rev. 3/2006			С	hain of	Custod	v				Page	2	2 of <u>5</u>	
Company: From Perusini Project Contact: From Perusini Telephone: 44-437-569 Project Name: RHV 05/69 Project Number: 05/09 Project Location: Modison, WS	Turnaro Normal Date Needed	ound T	tor ime SH*	ies	1230 Lange Court, Baraboo, WI 53913 608-356-2760 Fax 608-356-2766 www.ctlaboratories.com Lab Use Only Place Header Sticker Here:					Mail Report To: Frank Pervyini Company: Frank Pervyini Company: Address: #125 57808 North Care City/State/Zip: Musicy U.S. 59 Invoice To: Company: Address: Address:			
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	Relinquished By: Received for Laboratory	y by:	Date/			Ice Pres Temper Cooler #	ature _	Yes	No S-Soil A-Air SI-Sludge M-Misc Waste GW-Groundwater SW-Surface Water WW-Wastewater DW-Drinking Water			SI-Sludge M-Misc Waste water SW-Surface Water	

Rev. 3/2006	_	C	hain o	f Custod	у				Page	e <i>U</i>	of		
Company: Frank Peruini CTLab Telephone: 44-1127 Exercises	CTLaboratories Turnaround Time						o, WI 53913 356-2766 .com	Mail I Com Add	Mail Report To: Frank Pervyini Company: Frank Pervyini Address: WISS SYSOS North Capeny City/State/Zip: Muskeyo US SISS Invoice To: Company: Jan US Abare Address:				
Project Number: 65/04 Date Needed	RL	JSH*			Lab Us Place Header		ere:	City Invoid Com	/State ce To: npany:	/Zip:/	nuxego ws szes a ws dbar		
Regulatory Program: Sample 24 hr 200% 2-3 da	rior to sending in RUSH vles. Surcharges: days 100% 4-9 days 50%, hange without notice.							City/State/Zip:					
Selid Waste Other							1	PON	PO No.				
Client Special Instructions: Landfill License Number:	Filt?	*Matrix:	2 17H-A						Total # of Containers	Preservation*	* Preservation Code A=None B=HCL C=H2SO4 D=HNO3 E=Encore F=Methanol G=NaOH O=Other		
Collection Grab/ Sample ID Description		<u> </u>	L	Fill in S	oaces with	ı Bottle	es per Tes	<u></u> t	1	1	Lab ID#		
5/26 1820 60 1-300		16W	3										
1770 p-301			7 .										
1615 - P-31D			3 .										
1640 - D-314	<u> </u>	<u> </u>	3.						<u> </u>	<u> </u>			
165° 0 P-31 1B	<u> </u>	 	3 ·				ļ				<u> </u>		
16 6 B-31 S		↓	2	<u> </u>					-	 	_		
125° 2 P-325		- -	3.	ļ		ļ	 						
177	<u> </u>		3.	<u> </u>			_			J			
526 1442 p-401		├-	3	 		 							
5/27 0930 P-41D		- -	3.	ļ ·		 	 		4				
5/23 1520 0 p-135	-]	3.			 				-	+		
5/27 1350 V d P-8D	 	1.4	3 -	 -		 	++			+			
Relinquished By: Date/Time Relinquished By:		GW Date/1	1	<u> </u>		J							
Received by: Date/Time Received for Laborato	ory by:	Date/		Ice Present Yes No **Matrix Temperature S-Soil A-Air SI-Sludge M-Misc Wast				SI-Sludge M-Misc Waste dwater SW-Surface Water					

Rev. 3/2006	······································	·	C	hain o	f Custo	ody				·····		Page	<u> S</u>	of
Company: From Peruini Telephone: 414-437-5055	CTLabo	TLaboratories					Court, E 2760 F v.ctlabor	ax 608-	356-2766	913 5	Mail R Comp Addr	eport Toany:	O: FR	ene pervaini Essos North Care R Mukeyo Wis 5325 O or Alme
Project Name: RHV 05/09 Project Number: 05/09	Turnard Normal Date Needed		ime ISH*		Lab Use Only Place Header Sticker Here:						City/	State,	/Zip://	MUKEYO WISZA
Project Location: Modern WS Sampled By Freman Regulatory Program:	*Notify Lab prior samples	Surcha	rges:				ļ ·				Comp Addr City/	a of allow		
UST RCRA SDWA NPDES Solid Waste Other	subject to char	ys 100% 4-9 days 50%, nge without notice. City / PO N												
Client Special Instructions:		Filt?	Y/N	2	T T									
Landfill License Number:		WDNR Well ID#	**Matrix:	V-HCI								Total # of Containers	Preservation*	* Preservation Code A=None B=HCL C=H2SO4 D=HNO3 E=Encore F=Methanol G=NaOH O=Other
Collection Grab/ Sample I	D Description		JJ		Fill in	Space	es with	Bottle	es per T	Cest		L	<u> </u>	Lab ID#
5/27 1150 G & P-24	E		CL	3.								Ţ		
5/27 1310 1 · P-25	BR		1	3.										
5/27 1300 P-25	5 P			3.										
5/27 1055 V. P-25	5			3.										
5/28 1400 G P-3	3D		V	3.]		
TRIP	BLANK		6W								<u> </u>			
5/28 1130 G DUP-1		-	GW	3			ļ		<u> </u>		<u> </u>	<u> </u>	<u> </u>	
8/28 1235 1) DII-	Notes e		DW	30	7									·
5/296 1013 6 T	W-SAMBUNT	1 .	Til)	34	þ									
	10	[
MSD 5/28/29/1702	Relinquished By: Received for Laborator	Ice Present Yes No **Matrix Temperature S-Soil A-Air SI-Sludge M-Misc Waste												
]											İ			

REFUSE HIDEAWAY LANDFILL DANE COUNTY, WI (WDNR LICENSE #01953) 2009 MONITORING SYSTEM SUMMARY - 02/09

GROUNDWATER

TASK	MONITORING POINTS	PARAMETERS	FREQUENCY
l.	P-1D, P-1S, P-3S, P-4S, P-8BR +, P-30S, P-33S +, P-35S +, P-35D +, P-36D, P-36S, P-38S, P-39S, P-40S, P-41S, P-42S	groundwater elevation (ft MSL)	May
	(+ - Select wells are sampled every third year) P-8D, P-8S, P-9D, P-9S, P-16S, P-16D, P-17S, P-18S, P-20SR, P-21S, P-21D, P-21BR, P-22D, P-22E, P-22S, P-23D, P-23S, P-24D, P-24E, P-25S, P-25D, P-25BR, P-26S, P-26D, P-27D, P-27S, P-28S, P-29S, P-30D, P-30I, P-31D, P-31IA, P-31IB, P-31S, P-32D, P-32S, P-33D, P-34S, P-34D, P-40D, P-40I, P-41D, P-43D, P-43I, P-43S, DUP-01, DUP-02, FB-01	groundwater elevation (ft. MSL) field pH field conductivity field temperature field observations VOCs (8260)	May
III.	P-8BR, P-33S, P-35S, P-35D	groundwater elevation (ft. MSL) field pH field conductivity field temperature field observations VOCs (8260)	Every third year in May (2011, 2014, 2017, etc.)
lv.	P-1D, P-1S, P-3S, P-4S, P-8BR, P-8D, P-8S, P-9D, P-9S, P-16D, P-16S, P-21BR, P-21D, P-21S, P-24D, P-24E, P-25S, P-26D, P-28S, P-29S, P-30S, P-31S, P-32D, P-32S, P-33D, P-33S, P-34S, P-34D, P-35S, P-35D, P-36D, P-36S, P-38S, P-39S, P-40S, P-41D, P-41S, P-42S	groundwater elevation (ft. MSL)	November
V.	P-17S, P-18S, P-20SR, P-22D, P-22E, P-22S, P-23D, P-23S, P-25D, P-25BR, P-26S, P-27D, P-27S, P-30D, P-30I, P-31D, P-31IA, P-31IB, P-40D, P-40I, P-43D, P-43I, P-43S, DUP-01, FB-01 (23 samples)	groundwater elevation (ft. MSL) field pH field conductivity field temperature field observations VOCs (8260)	November
VI.	P-8BR, P-9D, P-24D, P-24É, P-33D, P-36S (Wells with water level control equip.)	Well equipment inspection (Inspect devices to ensure that the wells are protected from frost damage. When water levels are 3 ft. below ground surface, the inspection is no longer required)	December, January, February, March

REFUSE HIDEAWAY LANDFILL DANE COUNTY, WI (WDNR LICENSE #01953) 2009 MONITORING SYSTEM SUMMARY - 02/09

PRIVATE WELLS

TASK	MONITORING POINTS	PARAMETERS	FREQUENCY
1.	PW-Sather, PW-Bonk, PW-Bula)	field pH	May
	PW-Wheat/Krueger,	field conductivity	
	PW-Tantrow/Thompson,	field temperature	
	PW-Summers, PW-Noles,	field observations	
	PW-Stoppleworth	VOCs (524.2)	
	(8 samples)		
II.	PW-Sather, PW-Matush,	groundwater elevation (ft. MSL)	November
	PW-Sommers, PW-Weber,	field pH	
	PW-Durand, PW-Wagner,	field conductivity	
	PW-Rounds, PW-Noles,	field temperature	
	PW-Stoppleworth	field observations	
	(9 samples)	VOCs (524.2)	

Source: Specifications/Scope of Work (Revised 03/2007), Refuse Hideaway Landfill

Contacts:

Pat Letterer - CT Laboratory: (800) 228-3012 Hank Kuehling - WDNR: (608) 275-3286

Directions to site:

194 west to the beltline (HWY 12-18). Exit at Hwy 14 (LaCrosse, Spring Green), turn left. Turn right into driveway before billboard (ShoeBox). 7562 Hwy 14

Reporting:

Summary of groundwater and private well monitoring results and exceedances to WDNR in January and July. Send data CD with .pdf files of the laboratory analytical data with summary. (ESC)

Environmental Sampling Corporation

WDNR - REFUSE HIDEAWAY LANDFILL Middleton, WI Private Well Owners and Sample Locations

Frequency	Name	WDNR ID	Address	Phone (608)	Sample Location
	Arvid & Margaret Sather	300	7911 Deer Run Road	798-2262	backyard tap
	Cindy Bonk	301	7877 Deer Run Road	798-1153	back tap
Spring	Raymond & Mary Bula	302	RFD1, 7872 Deer Run East	798-3772	front tap
	Jeanette Wheat & Daryl Krueger	303	4306 Fawn Court	798-4701	side tap (past side door)
	Jerry Trantrow & Grace Thompson	304	4318 Fawn Court	798-3085	front tap
	Richard Summers	305	4610 Rocky Dell Rd., Rte 1	831-4414	under windmill
	Steve & Shirley Noles	312	7734 USH 14	831-1409	back tap
	Al & Jean Stoppleworth	311	7750 USH 14	831-6342 831-4214	back tap
	Arvid & Margaret Sather	300	7911 Deer Run Road	798-2262	backyard tap
	George & Joanne Weber	306	7873 Deer Run Road	798-0538	front tap
	Daniel & Patricia Sommers	307	7892 Deer Run Road	798-4665	outside tap by garage
	Ed & Virginia Matush	310	4310 Fawn Court	798-2766	side tap
Fall	Loyal & Bernice Durand	308	4314 Fawn Court	798-2943	front tap
	Beth Wagner	309	7902 USH 14	513-9705	tap by well pit
	Wayne Rounds	315	7785 Low Road	231-1063(h) 831-2240(f)	front yard of farm house
	Steve & Shirley Noles	312	7734 USH 14	831-1409	back tap
	Al & Jean Stoppleworth	311	7750 USH 14	831-6342 831-4214	back tap

Notes:

Residences on Fawn Court and Deer Run Road are located in Cross Plains, WI 53528. Residences on USH 14, Low Road, and Rocky Dell Road are located in Middleton, WI 53562.

All private well samples are analyzed according to US EPA method 524.2.

ENVIRONMENTAL SAMPLING CORPORATION GROUNDWATER MONITORING FIELD FORM MONTH: May 2009 **Purging Phase** Sampling Phase Depth to Top of Well Groundwater Height of Reg. Gal. to Color Number of Date Total Spec. Cond. Color after Turb after Turb before Well ID Elevation Time (24hrs.) Elevation Water Col. pH (s.u.) Temp. (deg.C) Odor Water Purge before Filters (2009) (24hrs.) Depth (ft.) Purged (gal.) (2009)(25C) Filter Filter Filter (fLMSL) (ft.) (ft.MSL) (ft.) (4 vol.) Filter Used PACKER P-22D 1088.94 05/27 1300 170.00 918.94 217.2 47.20 5.5 05/27 1420 7.59 823 12.4 clear __ none none 5.5 P-22E 05/27 1450 1089.72 170.80 918.92 273.0 102.20 66.6 17.5^ 05/27 1600 7.48 660 12.2 none clear none --P-22S 05/27 1300 1088.20 169.00 919.20 184.7 15.70 10.2 10.5 05/27 1445 7.57 721 13.4 clear none none P-26D 05/26 1520 1149.63 218.00 931.63 262.1 44.10 7.5^ 05/26 867 28.8 1730 7.13 11.2 clear none none P-26S 05/26 1520 1150.95 217.10 237.6 20.50 933.85 13.4 5.0^ 05/26 1700 6.92 968 10.3 __ clear none none PACKER P-27D 05/26 1345 1095.56 171.00 924.56 204.3 33.30 05/26 1500 967 12.1 8.0 6.49 clear none none 8.0 P-27S 05/26 1345 1095.23 170.30 924.93 188.8 18.50 12.5 05/26 1425 6.57 905 13.1 12.1 clear none none P-28S 05/27 0950 1124.33 207.4 13.25 194.15 930.18 8.6 9.0 05/27 1030 7.39 746 10.5 cloudy low none P-29S 05/27 1035 1163.10 232.20 930.90 257.2 25.00 16.3 16.5 05/27 1200 7.56 728 11.5 __ clear none none PACKER P-34D 1215 1090.98 276.1 116.90 05/26 159.20 931.78 9.0 05/26 1340 641 6.60 11.2 clear -none none 9.0 P-34S 05/26 1215 1091.10 156.00 935.10 186.0 30.00 19.6 20.0 05/26 1315 6.34 674 10.9 clear -none none P-35D 05/26 1087.70 252.6 1600 161.25 926.45 P-35S 05/26 1600 1087.90 159.50 928.40 184.0 Casing I.D. (inches): Gallons per foot to get one well volume. WEATHER 5-15 mph Wind Speed: Temp.: 55 Direction: 1.5" well : 0.092 gal. 2" well : 0.163 gal. 3" well : 0.377 gal. 4" well: 0.653 gal. Date: 5/26/2009 Overview: cloudy, drizzle Date Equipment Used: 5/26/2009 Monitoring wells are located on the Sommers Farm property. pH Meter: Oakton pH 7.0: 7.00 pH 4.0: 4.01 Slope: NA Spec. Cond. Meter: ^ - Micropurge Oakton 1413 Reading: Standard: 1406 Temperature: 20 Facility Name: WDNR Refuse Hideaway Landfill **ENVIRONMENTAL** Client: WDNR Page: of 6 SAMPLING Facility Address: Highway 14, Middleton, WI Project: RHL 0509 ESC Personnel: CORPORATION 6/2/2009 JM. SF Prepared by: Date: 414-427-5033 Checked by: Date:

New In Date (2009) Tim)9	H: MAY 200	MON.									
Well D 10 10 10 10 10 10 10			e	ling Phas	Samp							•		g Phase	Purging				
P-431 05/27 1605 1110.24 187.10 923.14 233.3 46.20 30.1 8.0^ 05/27 1730 7.44 731 13.0 clear — none P-43S 05/27 1605 1110.60 187.30 923.30 205.7 18.40 12.0 4.0^ 05/27 1720 7.39 766 13.7 clear — none P-30D 05/26 1745 932.97 18.30 914.67 289.5 271.20 15.0 15.0 05/26 1820 7.68 549 11.3 clear — none P-30I 05/26 1715 930.94 16.40 914.54 142.3 125.90 PACKER 9.0 05/26 1740 7.67 680 12.1 clear — none P-31D 05/26 1535 915.72 0.70 915.02 258.2 257.50 PACKER 8.0 8.0 05/26 1615 7.38 574 12.6 clear — none P-31IA 05/27 1620 916.77 NA NA NA 95.6 NA PACKER 8.0 8.0 05/26 1640 7.21 837 13.6 clear — none P-31IB 05/28 1630 916.49 NA NA 135.7 NA PACKER 8.0 05/26 1660 7.23 847 12.0 clear — none P-31S 05/29 1540 916.59 4.97 911.62 28.8 23.83 15.5 16.0 05/26 1610 8.07 462 11.8 clear — none P-32D 05/28 0940 942.66 18.72 923.94 176.2 157.48 102.7 105.0 05/26 1250 7.20 1,731 11.2 clear — none P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 05/26 1440 7.50 314 11.6 clear — none P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 05/26 1440 7.50 314 11.6 clear — none	Turb before Turb after Filter Filter Use			before	Temp. (deg.C)		pH (s.u.)	Time (24hrs.)			Purge	Water Col.		Elevation	Water	Elevation			Weil ID
P-43S 05/27 1605 1110.60 187.30 923.30 205.7 18.40 12.0 4.0^ 05/27 1720 7.39 766 13.7 clear — none P-30D 05/26 1745 932.97 18.30 914.67 289.5 271.20 PACKER 15.0 15.0 05/26 1820 7.68 549 11.3 clear — none P-30I 05/26 1715 930.94 16.40 914.54 142.3 125.90 PACKER 9.0 9.0 05/26 1740 7.67 680 12.1 clear — none P-31D 05/26 1535 915.72 0.70 915.02 258.2 257.50 PACKER 8.0 8.0 05/26 1615 7.38 574 12.6 clear — none P-31IA 05/27 1620 916.77 NA NA 95.6 NA PACKER 8.0 05/26 1640 7.21 837 13.6 clear — none P-31IB 05/28 1630 916.49 NA NA 135.7 NA PACKER 8.0 05/26 1650 7.23 847 12.0 clear — none P-31S 05/29 1540 916.59 4.97 911.62 28.8 23.83 15.5 16.0 05/26 1610 8.07 462 11.8 clear — none P-32D 05/28 0940 942.66 18.72 923.94 176.2 157.48 102.7 105.0 05/26 1250 7.20 1,731 11.2 clear — none P-32D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 9.0 05/26 1440 7.50 314 11.6 clear — none P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 9.0 05/26 1440 7.50 314 11.6 clear — none	none	none		clear	14.8	689	7.68	0930	05/28	17.5^	63.2	96.95	283.6	923.27	186.65	1109.92	1745	05/27	P-43D
P-30D 05/26 1745 932.97 18.30 914.67 289.5 271.20 PACKER 15.0 15.0 05/26 1820 7.68 549 11.3 clear — none P-30I 05/26 1715 930.94 16.40 914.54 142.3 125.90 PACKER 9.0 05/26 1740 7.67 680 12.1 clear — none P-31D 05/26 1535 915.72 0.70 915.02 258.2 257.50 PACKER 8.0 05/26 1615 7.38 574 12.6 clear — none P-31IA 05/27 1620 916.77 NA NA 95.6 NA PACKER 8.0 05/26 1640 7.21 837 13.6 clear — none P-31IB 05/28 1630 916.49 NA NA 135.7 NA PACKER 8.0 05/26 1650 7.23 847 12.0 clear — none P-31S 05/29 1540 916.59 4.97 911.62 28.8 23.83 15.5 16.0 05/26 1610 8.07 462 11.8 clear — none P-32D 05/28 0940 942.66 18.72 923.94 176.2 157.48 102.7 105.0 05/28 1300 7.37 713 12.9 clear — none P-32S 05/26 1225 943.73 17.43 926.30 39.5 22.07 14.4 20.0 05/26 1250 7.20 1,731 11.2 clear — none P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 9.0 05/26 1440 7.50 314 11.6 clear — none P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 9.0 05/26 1440 7.50 314 11.6 clear — none P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 9.0 05/26 1440 7.50 314 11.6 clear — none P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 9.0 05/26 1445 7.48 701 11.7 clear — none	none	none	-	clear	13.0	731	7.44	1730	05/27	8.0^	30.1	46.20	233.3	923.14	187.10	1110.24	1605	05/27	P-43I
P-301 05/26 1745 932.97 18.30 914.67 289.5 271.20 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.	none	none		clear	13.7	766	7.39	1720	05/27	4.0^	12.0	18.40	205.7	923.30	187.30	1110.60	1605	05/27	P-43S
P-31D 05/26 1535 915.72 0.70 915.02 258.2 257.50 PACKER 8.0 05/26 1615 7.38 574 12.6 clear none P-31IA 05/27 1620 916.77 NA NA 95.6 NA PACKER 8.0 05/26 1640 7.21 837 13.6 clear none P-31IB 05/28 1630 916.49 NA NA 135.7 NA PACKER 8.0 05/26 1650 7.23 847 12.0 clear none P-31S 05/29 1540 916.59 4.97 911.62 28.8 23.83 15.5 16.0 05/26 1610 8.07 462 11.8 clear none P-32D 05/28 0940 942.66 18.72 923.94 176.2 157.48 102.7 105.0 05/26 1250 7.20 1,731 11.2 clear none P-32S 05/26 1225 943.73 17.43 926.30 39.5 22.07 14.4 20.0 05/26 1250 7.20 1,731 11.2 clear none P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 05/26 1445 7.48 701 10.7 clear none	none	none		clear	11.3	549	7.68	1820	05/26	15.0		271.20	289.5	914.67	18.30	932.97	1745	05/26	P-30D
P-31IA 05/27 1620 916.77 NA NA NA 95.6 NA PACKER 8.0 05/26 1640 7.21 837 13.6 clear none P-31IB 05/28 1630 916.49 NA NA 135.7 NA PACKER 8.0 05/26 1650 7.23 847 12.0 clear none P-31S 05/29 1540 916.59 4.97 911.62 28.8 23.83 15.5 16.0 05/26 1610 8.07 462 11.8 clear none P-32D 05/28 0940 942.66 18.72 923.94 176.2 157.48 102.7 105.0 05/26 1250 7.20 1,731 11.2 clear none P-32S 05/26 1225 943.73 17.43 926.30 39.5 22.07 14.4 20.0 05/26 1250 7.20 1,731 11.2 clear none P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 05/26 1440 7.50 314 11.6 clear none	none	none		clear	12.1	680	7.67	1740	05/26	9.0		125.90	142.3	914.54	16.40	930.94	1715	05/26	P-301
P-31IB 05/28 1630 916.49 NA NA 135.7 NA PACKER 8.0 05/26 1650 7.23 847 12.0 clear none P-31S 05/29 1540 916.59 4.97 911.62 28.8 23.83 15.5 16.0 05/26 1610 8.07 462 11.8 clear none P-32D 05/28 0940 942.66 18.72 923.94 176.2 157.48 102.7 105.0 05/28 1300 7.37 713 12.9 clear none P-32S 05/26 1225 943.73 17.43 926.30 39.5 22.07 14.4 20.0 05/26 1250 7.20 1,731 11.2 clear none P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 05/26 1440 7.50 314 11.6 clear none P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 05/26 1445 7.48 701 10.7 clear none	none	none		clear	12.6	574	7.38	1615	05/26	8.0		257.50	258.2	915.02	0.70	915.72	1535	05/26	P-31D
P-318 05/29 1540 916.59 4.97 911.62 28.8 23.83 15.5 16.0 05/26 1650 7.23 847 12.0 clear none P-32D 05/28 0940 942.66 18.72 923.94 176.2 157.48 102.7 105.0 05/28 1300 7.37 713 12.9 clear none P-32S 05/26 1225 943.73 17.43 926.30 39.5 22.07 14.4 20.0 05/26 1250 7.20 1,731 11.2 clear none P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 05/26 1440 7.50 314 11.6 clear none P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 05/26 1445 7.48 701 10.7 clear none	none	none		clear	13.6	837	7.21	1640	05/26	8.0		NA	95.6	NA	NA	916.77	1620	05/27	P-31IA
P-32D 05/28 0940 942.66 18.72 923.94 176.2 157.48 102.7 105.0 05/28 1300 7.37 713 12.9 clear none P-32S 05/26 1225 943.73 17.43 926.30 39.5 22.07 14.4 20.0 05/26 1250 7.20 1,731 11.2 clear none P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 05/26 1440 7.50 314 11.6 clear none P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 05/26 1445 7.48 701 10.7 clear none	none	none		clear	12.0	847	7.23	1650	05/26	8.0		NA	135.7	NA	NA	916.49	1630	05/28	P-31IB
P-32S 05/26 1225 943.73 17.43 926.30 39.5 22.07 14.4 20.0 05/26 1250 7.20 1,731 11.2 clear - none P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 05/26 1440 7.50 314 11.6 clear - none P-40L 05/26 1405 922.88 6.80 915.48 104.8 98 PACKER 9.0 05/26 1445 7.48 701 10.7 clear - none	none	none		clear	11.8	462	8.07	1610	05/26	16.0	15.5	23.83	28.8	911.62	4.97	916.59	1540	05/29	P-31S
P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 PACKER 9.0 05/26 1440 7.50 314 11.6 clear none	none	none		clear	12.9	713	7.37	1300	05/28	105.0	102.7	157.48	176.2	923.94	18.72	942.66	0940	05/28	P-32D
P-40D 05/26 1405 922.98 8.06 914.92 255.2 247.14 9.0 9.0 05/26 1440 7.50 314 11.6 clear none	low – -	none	_	clear	11.2	1,731	7.20	1250	05/26	20.0	14.4	22.07	39.5	926.30	17.43	943.73	1225	05/26	P-32S
	none	none		clear	11.6	314	7.50	1440	05/26	9.0		247.14	255.2	914.92	8.06	922.98	1405	05/26	P-40D
	none	none		clear	10.7	701	7.48	1445	05/26	9.0	PACKER 9.0	98	104.8	915.48	6.80	922.28	1405	05/26	P-40I
Casing I.D. (inches): Gallons per foot to get one well volume. WEATHER Wind Speed: 5-15 mph Direction:	S Temp.: 55	S	Direction:																
1.5" well : 0.092 gal. 2" well : 0.163 gal. 3" well : 0.377 gal. 4" well : 0.653 gal. Date: 5/26/2009 Overview: cloudy, drizzle NOTES: 5/26/2009 Overview: cloudy, drizzle Date Equipment Used: 5/26/2009				zie								U.653 gal.	4" well :).377 gal.	3" well : 0).163 gal.	. 2" well : 0	0.092 gal.	
	4.01 Slope: NA	pH 4.0:	7.00	pH 7 0			iu:				ated	ells are loc	maining w	nerty The re-	's Farm pro	the Sommer	located on	vell nest is	
	Reading: 1406			p., ,						·	<u> </u>	uio iou	naming W	po.ty. 1110 101	o . ann pro	COMMING	.coated Off		
^ - Micropurge Temperature: 20)	20		ture:	Tempera										
TOWN TOWN THE STATE OF THE STAT							14/5015	Ton: 4	NIMENIA!	LENNE							1410110 =		
Facility Name: WDNR Refuse Hideaway Landfill ENVIRONMENTAL Client: WDNR Page:	2 of 6	rage:				10													
Facility Address: Highway 14, Middleton, WI ESC Personnel: JM, SF SAMPLING Project: RHL 0509 CORPORATION Prepared by: JM Date: 6/2/2009			6/2/2009	Date:						_				 -	, vvI	14, Midaleton			
414-427-5033 Checked by: SF Date:			0/2/2009														UIVI, UI	011101.	EGO FBIS

ENVIRONMENTAL SAMPLING CORPORATION GROUNDWATER MONITORING FIELD FORM MONTH: MAY 2009 **Purging Phase** Sampling Phase Top of Well Depth to Groundwater Height of Req. Gal. to Number of Total Date Amount Date Spec. Cond. Color after Turb before Turb after Well ID Time (24hrs. Elevation Water Elevation Water Col. Purge Time (24hrs.) pH (s.u.) Temp. (deg.C) before Odor Filters (2009) Depth (ft.) (2009) Purged (gal.) (25C) Filter Filter Filter (ft.MSL) (ft.) (ft.MSL) (4 vol.) (ft.) Filter Used PACKER P-41D 05/27 0900 924.82 13.66 911.16 104.5 90.84 9.0 05/27 0930 7.63 752 10.1 clear none none 9.0 P-30S 05/26 932.61 17.62 914.99 --P-36D 05/26 924.34 NA P-36S 05/26 924.49 0.85 923.64 --__ --P-38S 923.21 05/26 6.50 916.71 P-39S 05/26 946.08 31.70 914.38 ----P-40S 05/26 922.01 8.08 913.93 P-41S 05/26 925.58 6.92 918.66 P-42S 05/26 917.62 7.89 909.73 ----P-17S 1081.75 05/28 1425 153.10 928.65 158.8 5.70 3.7 4.0 05/28 1510 7.28 1129 12.0 clear none none P-18S 05/28 1420 1020.57 92.60 927.97 107.2 05/28 14.60 9.5 10.0 1520 7.30 648 13.2 clear none none DUP-GW 05/28 05/28 1300 7.37 713 12.9 clear none none Casing I.D. (inches): Gallons per foot to get one well volume. WEATHER Wind Speed: 0-10 mph Direction: W Temp.: 60 1.5" well : 0.092 gal. 2" well : 0.163 gal. 3" well : 0.377 gal. 4" well : 0.653 gal. Date: 5/28/2009 Overview: mostly cloudy NOTES: Date Equipment Used: 5/28/2009 P-17S and P-18S are located on the rock ledges around the site. The remaining wells are located pH Meter: Oakton pH 7.0: 7.00 pH 4.0: Slope: NA along Highway 14. Spec. Cond. Meter: Oakton Standard: 1413 Reading: 1412 Flowing Temperature: 13.8 ENVIRONMENTAL Facility Name: WDNR Refuse Hideaway Landfill Client: WDNR Page: 3 of 6 Facility Address: Highway 14, Middleton, WI SAMPLING RHL 0509 Project: ESC Personnel: JM. SF CORPORATION Prepared by: JM Date: 6/2/2009 414-427-5033 Checked by: SF Date:

	·			-	EN	VIRONME	NTAL SA	MPLING (TION GRO TH: MAY 2	UNDWATER	MONITO	RING FIEL	D FORM						
				Purgin	g Phase						_		· · · · · · · · · · · · · · · · · · ·	Samp	ling Pha	se			-	
Well ID	Date (2009)	Time (24hrs.)	Top of Well Elevation (ft.MSL)	Depth to Water (ft.)	Groundwater Elevation (ft.MSL)	Total Depth (ft.)	Height of Water Col. (ft.)	Req. Gal. to Purge (4 vol.)	Amount Purged (gal.)	Date (2009		s.) pH (s.u.)	Spec. Cond. (25C)	Temp. (deg.C)	Color before Filter	Color after Filter	Odor	Turb before Filter	Turb after Filter	Number of Filters Used
P-8D	05/27	1335	930.98	4.59	926.39	42.2	37.6	24.5	Dry @ 8.0	05/2	7 1355	7.04	933	11.3	cloudy		none	low		
P-8S	05/27	1335	932.50	6.76	925.74	20.5	13.7	9.0	Dry @ 2.0	05/2	7 1405	6.52	1217	9.7	cloudy	-	none	none		-
P-9D	05/27	1450	930.43	3.74	926.69	43.0	39.3	25.6	26.0	05/2	7 1520	6.59	3000	10.9	clear		slight	none	-	-
P-9S	05/27	1455	932.09	5.45	926.64	16.0	10.6	6.9	7.0	05/2	7 1510	7.08	1068	10.3	clear	-	none	none	_	
P-16D	05/27	1215	936.30	10.78	925.52	42.9	32.1	20.9	Dry @ 5.0	05/2	7 1630	6.80	1953	11.2	cloudy	_	none	none	_	
P-16S	05/27	1215	935.96	10.42	925.54	17.2	6.8	4.4	Dry @ 2.0	05/2	7 1640	6.77	849	9.3	tan		none	none		-
P-20SR	05/28	1030	961.78	33.95	927.83	66.3	32.4	21.1	21.5	05/2	8 1110	7.35	606	11.9	clear	_	none	none		
P-21BR	05/27	1530	935.19	70.16	865.03	148.3	78.1	50.9	51.0	05/2	7 1730	7.21	677	11.7	clear		none	low		
P-21D	05/27	1540	935.81	9.66	926.15	41.6	31.9	20.8	21.0	05/2	7 1620	6.49	2920	11.4	clear		none	none		
P-21S	05/27	1545	936.43	9.00	927.43	19.7	10.7	7.0	Dry @ 3.0	05/2	7 1610	7.46	1343	9.8	clear		none	none		
P-23D	05/28	0905	961.53	34.18	927.35	80.1	45.9	29.9	30.0	05/2	8 1130	7.35	569	11.8	clear		none	none		
P-23S	05/28	0940	961.71	34.40	927.31	48.1	13.7	8.9	9.0	05/2	8 1010	7.37	617	12.5	clear		none	none		
P-24D	05/27	1120	927.25	1.25	926.00	25.2	23.95	15.6	16.0	05/2		7.2	755	9.4	clear		none	none	_	
) : Gallons p . 2" well : 0.	er foot to g	et one wel 3" well : (A" well :	0.653 gal.	_		WEAT Date:	HER 5/26/200	Wind S		5-15 mph cloudy, drizz		Direction:		S	Temp.:	55
NOTES:	U.UUL gai	. 2 4011 . 0	100 gai.	J Well . (.orr gai.	4 WCH.	v.033 gai.				quipment Us		5/26/2009		LIC					
					the adjacent	farm field:	S			рН Ме	ter:		Oakton		pH 7.0:					
P-8D, P-9	s, P-21S a	ind 23D - org	ganic matter	in purge w	ater						Cond. Meter		Oakton			Standard:	1413	Reading:	1406	
					-					Tempo	erature:		20	<u>'</u>			 			
Facility N	ame:	WDNR Re	fuse Hideaw	ay Landfill					ENVIR	ONMENTAL	Client:	WDNR					Page:	4	of	6
Facility A	dress:	Highway 1	4, Middleton							MPLING	Project:	RHL 05								
ESC Pers	onnel:	JM, SF								ORATION	Prepared		JM		Date:	6/2/2009				
									į 414-	427-5033	Checked	by:	SF		Date:					

					ENV	IRONME	NTAL SA	MPLING		_	N GROUN MAY 200		MONITO	RING FIEL	DFORM		<u>-</u>				
				Purging	g Phase	_					Γ.				Samp	ling Phas	se				
Well ID	Date (2009)	Time (24hrs.)	Top of Well Elevation (ft.MSL)	Depth to Water (ft.)	Groundwater Elevation (ft.MSL)	Total Depth (ft.)	Height of Water Col. (ft.)	Req. Gal. to Purge (4 vol.)	Amount Purged (gal.)		Date (2009)	Time (24hrs.)	pH (s.u.)	Spec. Cond. (25C)	Temp. (deg.C)	Color before Filter	Color after Filter	Odor	Turb before Filter	Turb after Filter	Number of Filters Used
P-24E	05/27	1115	927.39	0.70	926.69	52.5	51.80	33.8	Dry @ 15.0		05/27	1150	7.21	790	10.9	clear	<u>-</u>	none	none		
P-25BR	05/27	1030	943.27	21.42	921.85	140.3	118.88	77.5	78.0		05/27	1310	7.51	629	11.1	clear		none	none		
P-25D	05/27	1030	943.86	22.44	921.42	96.3	73.86	48.2	49.0		05/27	1300	7.15	890	11.8	clear		none	none		
P-25S	05/27	1040	943.14	17.75	925.39	29.4	11.65	7.6	8.0		05/27	1055	7.19	886	9.3	clear		none	none		
P-33D	05/28	1140	928.50	1.10	927.40	103.4	102.30	66.7	67.0		05/28	1400	7.57	658	12.1	clear		none	none	<u>-</u>	-
P-1D	05/26		926.67	0.30	926.37	-	-		-			-				<u></u>				-	-
P-1S	05/27	-	924.39	2.98	921.41		_		-			-		-							
P-3S	05/28		932.79	6.40	926.39	-	_		-		-		<u></u>						-		
P-4S	05/29		929.89	3.17	926.72			-				-		-	-				-		
P-8BR	05/30	-	929.52	2.00	927.52	111.5	109.50		- -					-			-				-
P-33S	05/31		928.55	4.34	924.21	27.6	23.26		ļ <u>-</u>							<u></u>			-	-	-
DUP-02	05/28				-	-			-		05/28	1130	7.35	569	11.8	clear		none	none		-
FB-01	05/28		-		-	_		_	-		05/28	1500	7.99	31.1	14.1	clear		none	none	-	
			er foot to g	et one wei 3" well : (A" wall :	0.653 gal.				WEATHE Date:	R5/26/2009	Wind Sp		5-15 mph cloudy, drizz	ıla	Direction:		S	Temp.:	55
NOTES:	v.va∠ gai	. 2" well : 0	. 103 gai.	3 Well: (J.STT gal.	4 Well:	v.oss gal.					ipment Use		5/26/2009		.ie					
	wells are	located arou	ind the facilit	y and along	g the adjacent	farm field	S.				pH Meter	:		Oakton		pH 7.0:				Slope:	
										1		nd. Meter:		Oakton			Standard:	1413	Reading:	1406	
										l	Tempera	ture:		20							
Facility Na	me:	WDNR PA	fuse Hideaw	av Landfill		_		-	ENVIR	ONI	MENTAL	Client:	WDNR					Page:	- 5	of	6
Facility Ac			4. Middleton								LING		RHL 050	9						<u> </u>	
ESC Perso		JM, SF									RATION	Prepared		JM		Date:	6/2/2009				
									414	427	-5033	Checked b	oy:	SF		Date:					

					EN	VIRONME	NTAL SAI	MPLING C		H: MAY 20	INDWATER 09	MONITO	RING FIELI	DFORM						
	_		•	Purgin	g Phase	_			1					Samp	ling Phas	ie				
Well ID	Date (2009)	Time (24hrs.)	Top of Well Elevation (ft.MSL)	Depth to Water (ft.)	Groundwater Elevation (ft.MSL)	Total Depth (fL)	Height of Water Col. (ft.)	Req. Gal. to Purge (4 vol.)	Amount Purged (min.)	Date (2009	Time (24hrs.) pH (s.u.)	Spec. Cond. (25C)	Temp. (deg.C)	Color before Filter	Color after Filter	Odor	Turb before Filter	Turb after Filter	Number of Filters Used
PW-Sather	05/28	1030	-	-			-		15 min	05/28	1045	7.64	771	14.5	clear		none	none		
PW-Bonk	05/28	1055		-		-	1	-	15 min	05/28	1110	7.23	632	15.9	clear		none	none	-	
PW-Bula	05/28	1100	_	-		-	1		15 min	05/28	1115	7.59	679	14.0	clear		none	none	-	
PW-Wheat/ Krueger	05/28	1120		-	-		-	-	15 min	05/28	1135	7.41	1024	12.9	clear		none	none		<u> </u>
PW-Tentrow/ Thempson	05/28	1125	-				-		15 min	05/28	1140	7.51	1045	14.7	clear		none	none		
PW-Summers	05/28	1000	-				_		15 min	05/28	1015	7.38	627	15.1	clear		none	none		
PW-Noles	05/28	1220	-		_		-		15 min	05/28	1235	7.02	808	14.5	clear		none	none		
PW- Stoppleworth	05/28	1200	-			-		_	15 min	05/28	1215	7.89	695	14.1	cloudy		none	low		
			L																	
																			<u> </u>	
																			_	
			er foot to g			49					HEI 5/26/2009	Wind S	peed: 5/26/2009	cloudy, driz	zle	Direction:			Temp.:	
NOTES:	U.U9Z gai	. 2" well : 0	. 163 gai.	3" well : 0	1.377 gai.	4" well : 0	.053 gai.			Date:	quipment Us	ed.	Oakton)		7.00		4.01		NA
										pH Me	ter:		Oakton		pH 7.0:		1413		1406	
											Cond. Meter:		20)	•	Standard:		Reading:		
			_							Tempe	rature:									
Facility Na	me:	WDNR Re	fuse Hideaw	av Landfill					ENVIR	ONMENTAL	Client:	RHL 05	09		·		Page:	6	of	6
Facility Ac		JM, SF		<u>.,</u>		···				MPLING	Project:		JM			6/2/2009		_ 		-
ESC Perso	onnel:									PORATION	Prepared	by:	SF		Date:					
									414-	427-5033	Checked				Date:					

TABLE 3

Location	Date	CH₄	O ₂	CO2	Balance Gas*	Well Pressure	Valve P	osition	Gas Velocity	Gas Flow**	Gas Temp
		(%)	(%)	(%)	(%)	(in WC)	Initial (%)	After (%)	(fpm)	(cfm)	(deg F)
GW1	7/31/2009	0.0	20.6	0.0	79.4	0.0	0	0	0	0.0	
GW1	8/3/2009						0	0 -			
GW1	8/25/2009	39.0	0.0	28.0	33.0	0.0	0	50	100	4.5	72.8
GW1	9/2/2009						50	50	l		
GW1	9/8/2009						50	50	- 1		
GW1	9/14/2009						50	50			
GW1	9/18/2009						50	50			
GW1	9/25/2009	50	0.3	36.8	12.9	0.0	50	100	100	4.5	70.1
GW1	10/30/2009	28	0.0	30.2	41.8	0.15.	100	100	100	4.5	68.1
GW2	7/31/2009	0.0	19.8	0.2	80.0	-0.5	0	0			
GW2	8/3/2009						0	.0			
GW2	8/25/2009	14.5	8.0	12.0	65.5	-13.5	- 0	0			73.5
GW2	9/2/2009						0	0			
GW2	9/8/2009						0	0			
GW2	9/14/2009						0	0			
GW2	9/18/2009						0	0			1
GW2	9/25/2009	17	1.0	22.4	59.6	-1.3	0	0			66.9
GW2	10/30/2009	4.15	3.9	19.2	72.8	-0.9	0	0			66.5
GW3	7/31/2009	22.5	16.4	11.3	49.8	-0.5	0	0 .			
GW3	8/3/2009	'					0	0			İ I
GW3	8/25/2009	0.0	20.9	0.0	79.1	0	0	0			72.1
GW3	9/2/2009						0	0			
GW3	9/8/2009			٠			0	0			
GW3	9/14/2009						0	0]
· GW3	9/18/2009						0	0			
GW3	9/25/2009	0.45	20.5	0.2	78.9	0.0	0	0			69.0
GW3	10/30/2009	1.65	17.6	4.4	76.4	0.0	0	0			66.5

TABLE 3

Location	Date	CH₄	O ₂	CO2	Balance Gas*	Well Pressure	Valve P	osition	Gas Velocity	Gas Flow**	Gas Temp
		(%)	(%)	(%)	(%)	(in WC)	Initial (%)	After (%)	(fpm)	(cfm)	(deg F)
GW4	7/31/2009	64.0	0.8	28.2	7.0	0.0	25	25	100	4.5	89.3
GW4	8/3/2009					` 	25	50			
GW4	8/25/2009	79.0	0.0	27.2	-6.2	0	50	100	120	5.4	75.0
GW4	9/2/2009						100	100			
GW4	9/8/2009						100	100			
GW4	9/14/2009						100	100	-		
GW4	9/18/2009						100	100			
GW4	9/25/2009	74.5	0.1	28.4	-3.0	0	100	100	140	6.3	66.9
GW4	10/12/2009	68.0	0.5	27.0	4.5		100	100			
GW4	10/16/2009	69.5	0.1	26.8	3.6		100	100			
GW4	10/30/2009	36.5	0.0	31.4	32.1	1.85	100	100	120	5.4	64.5
GW5	7/31/2009	62.0	0.0	35.6	2.4	0.0	25	25	100	4.5	79.1
GW5	8/3/2009						25	50			-
GW5	8/25/2009	74.0	0.0	34.8	-8.8	0	50	100	120	5.4	74.8
GW5	9/2/2009						100	100			
GW5	9/8/2009						100	100			
GW5	9/14/2009						100	100			
GW5	9/18/2009				'		100	100			
GW5	9/25/2009	51.5	4.5	26.0	18.0	0.35	100	100	125	5.6	68.1
GW5	10/16/2009	63.5	0.0	33.4	3.1		100	100			
GW5	10/30/2009	35.5	0.0	35.6	28.9	1.85	100	100	300	13.5	64.5
GW5 - Lateral East	7/31/2009										
GW5 - Lateral East	8/3/2009										
GW5 - Lateral East	8/25/2009	73.0	0.0	35.4	-8.4	0					73.8
GW5 - Lateral East	9/2/2009						·				
GW5 - Lateral East	9/8/2009										
GW5 - Lateral East	9/14/2009										
GW5 - Lateral East	9/18/2009										
GW5 - Lateral East	9/25/2009	64.5	0.0	39.6	-4 .1	0.05	 .	-			
GW5 - Lateral East	10/30/2009	37.0	0.0	34.8	28.2	9.5	`	-			

TABLE 3

Location	Date	CH₄	O ₂	CO2	Balance Gas*	Well Pressure	Valve P	osition	Gas Velocity	Gas Flow**	Gas Temp
		(%)	(%)	(%)	(%)	(in WC)	Initial (%)	After (%)	(fpm)	(cfm)	(deg F)
GW5 - Lateral West	7/31/2009										
GW5 - Lateral West	8/3/2009										
GW5 - Lateral West	8/25/2009	68.5	0.0	40.2	-8.7	0					72.4
GW5 - Lateral West	9/2/2009										
GW5 - Lateral West	9/8/2009										
GW5 - Lateral West	9/14/2009					}			l		
GW5 - Lateral West	9/18/2009] 1
GW5 - Lateral West	9/25/2009	68.0	0.0	36.2	-4.2	0.05					
GW5 - Lateral West	10/30/2009	36.0	0.0	35.8	28.2	9		-			
GW6	7/31/2009	32.5	1.0	34.8	31.7	-25.0	100	100	3000	135	
GW6	8/3/2009						100	100			
GW6	8/25/2009	28.5	3.8	26.0	41.7	-26.5	100	100	2500	113	72.1
GW6	9/2/2009	26.5	3.0	25.2	45.3	Į <u></u> ·	100	100			
GW6	9/8/2009	25.5	3.9	25.0	45.6		100	100			
GW6	9/14/2009	25.5	3.9	24.8	45.8		100	100			
GW6	9/18/2009	30.0	3.8	25.6	40.6		100	100			
GW6	9/25/2009	32.0	3.8	26.8	37.4	-26	100	100	3250	146.3	64.8
GW6	10/12/2009	36.5	2.6	29.2	31.7		100	100			
GW6	10/16/2009	39.5	2.0	30.6	27.9		100	100			
GW6	10/30/2009	22.5	0.9	33.6	43.0	-25.5	100	100	2500	112.5	56.6
GW7	7/31/2009	68.0	0.0	29.8	2.2	-14.5	25	25	2000	90	80.1
GW7	8/3/2009						25	50			
GW7	8/25/2009	28.5	2.8	23.2	45.5	-25	50	50	750	34	72.3
GW7	9/2/2009	21.0	4.3	19.0	55.7		50	50			<u></u>
GW7	9/8/2009	19.5	6.4	18.6	55.5		50	0			
GW7	9/14/2009	20.5	6.0	18.8	54.7		100	50			
GW7	9/18/2009	28.5	4.3	20.4	46.8	- :	50	50			
GW7	9/25/2009	24.0	5.9	20.0	50.1	-27	50	50	1500	67.5	64.5
GW7	10/12/2009	47.5	1.7	24.6	26.2		50	100			
GW7	10/16/2009	35.5	3.9	22.8	37.8		100	0			
GW7	10/30/2009	32.5	1.5	28.2	37.8	-22.5	0	100	1600	72.0	62.2

TABLE 3

Location	Date	CH₄	O ₂	CO2	Balance Gas*	Well Pressure	Valve P	osition	Gas Velocity	Gas Flow**	Gas Temp
		(%)	(%)	(%)	(%)	(in WC)	Initial (%)	After (%)	(fpm)	(cfm)	(deg F)
GW8	7/31/2009	20.0	10.1	11.8	58.1	-25.0	30	· 30	750	34	85.2
GW8	8/3/2009						30	50			
GW8	8/25/2009	28.5	10.7	12.8	48.0	-25	50	25	750	34	73.2
GW8	9/2/2009	17.5	9.2	7.8	65.5		25	0			
GW8	9/8/2009	12.5	16.5	3.6	67.4		0	0			
GW8	9/14/2009	64.5	2.1	27.6	5.8		0	100			
GW8	9/18/2009	41.0	7.1	17.4	34.5		100	100			
GW8	9/25/2009	39.0	8.8	15.6	36.6	-27	100	100	950	42.8	67.4
GW8	10/12/2009	34.5	8.2	15.4	41.9		100	25	-		
GW8	10/16/2009	36.5	7.4	17.4	38.7		25	0			
GW8	10/30/2009	33.0	2.2	26.4	38.4	-22	0	0			64.2
GW9	7/31/2009	38.5	7.6	11.0	42.9	-24.5	50	50	750	34	80.0
GW9	8/3/2009						50	50			
GW9	8/25/2009	30.5	12.8	7.4	49.3	-15	50	50	600	27	74.6
GW9	9/2/2009	37.5	6.6	9.6	46.3		50	50			
GW9	9/8/2009	40.0	9.5	10.0	40.5		50	50			
GW9	9/14/2009	28.0	12.1	7.2	52.7		100	100			
GW9	9/18/2009	63.0	4.1	14.6	18.3		100	100			
GW9	9/25/2009	37.5	9.9	9.4	43.2	-27	100	100	750	33.8	66.3
GW9	10/1/2009						100	0			
GW9	10/30/2009						0	0			

TABLE 3

Location	Date	CH₄	O ₂	CO2	Balance Gas*	Well Pressure	Valve P	Position	Gas Velocity	Gas Flow**	Gas Temp
		(%)	(%)	(%)	(%)	(in WC)	Initial (%)	After (%)	(fpm)	(cfm)	(deg F)
GW10	7/31/2009	9.0	5.9	15.8	69.3	-22.0	50	0			86.3
GW10	8/3/2009				·		0	0			
GW10	8/25/2009	52.0	1.1	25.0	21.9	-22.5	0	50	3000	135	73.5
GW10	9/2/2009	11.0	4.4	17.4	67.2		50	0			
GW10	9/8/2009						0	0			
GW10	9/14/2009	52.0	0.8	27.0	20.2		0	100			
GW10	9/18/2009	13.0	2.3	18.4	66.3		100	0			
GW10	9/25/2009	53.5	1.0	26.2	19.3	-23	0	50	3000	135.0	65.4
GW10	10/12/2009	20.5	1.5	20.8	57.2		50	50			
GW10	10/16/2009	27.5	1.4	23.0	48.1		50	50			
GW10	10/30/2009	4.8	3.9	18.0	73.3	-22	50	0			88.8
GW11	7/31/2009	49.5	5.5	13.6	31.4	0.0	0	0			88.7
GW11	8/3/2009						0	50	1		
GW11	8/25/2009	14.5	15.4	6.8	63.3	-26.5	50	0	1		74.8
GW11	9/2/2009	75.0	1.2	17.6	6.2		0	100			
GW11	9/8/2009	11.0	16.6	5.4	67.0	 '	100	0			
GW11	9/14/2009	70.5	1.6	20.0	7.9		0	100			
GW11	9/18/2009	31.5	9.5	10.0	49.0		100	50			
GW11	9/25/2009	21.0	13.5	8.6	56.9	-27	50	0			66.5
GW11	10/12/2009	34.5	6.0	12.6	46.9		0	50			
GW11	10/16/2009	30.0	8.6	11.0	50.4		50	0			
GW11	10/30/2009	44.5	0.0	19.2	36.3	-3	0	100	700	31.5	63.8
GW12	7/31/2009	34.5	0.3	35.0	30.2	-26.0	25	25	1500	68	72.0
GW12	8/3/2009						25	25			
GW12	8/25/2009	18.0	1.7	22.8	57.5	-27	20	10	1250	56	72.1
GW12	9/2/2009	45.0	0.6	26.9	27.5		10	100			
GW12	9/8/2009	16.0	2.3	22.2	59.5		100	0			
GW12	9/14/2009	44.5	0.9	26.8	27.8		0	100			
GW12	9/18/2009	32.0	1.5	26.0	40.5		100	100			
GW12	9/25/2009	22.0	2.1	24.0	51.9	-27	100	50	1900	85.5	72.6
GW12	10/12/2009	32.0	2.0	25.4	40.6		50	100			-
GW12	10/16/2009	33.5	1.4	26.6	38.5		100	100			
GW12	10/30/2009	9.5	1.6	23.8	65.1	-24	100	0			72.1

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GAS WELL MONITORING RESULTS

Location	Date	CH₄	O ₂	CO2	Balance Gas*	Well Pressure	Valve P	osition	Gas Velocity	Gas Flow**	Gas Temp
		(%)	(%)	(%)	(%)	(in WC)	Initial (%)	After (%)	. (fpm)	(cfm)	(deg F)
GW13	7/31/2009	47.0	1.8	36.6	14.6	-25.5	100	100	1250	56	79.8
GW13	8/3/2009	- C 2-					100	100			i I
GW13	8/25/2009	52.0	. 1.3 ·	35.6	11.1	-26.5	100	100	1000	.45	71.8
GW13	9/2/2009	52.5 -	1.0	36.4	10.1		100	100			·
GW13	9/8/2009	, <u>+</u> -					100	100			
GW13	9/14/2009	52.0	1.0	36.6	10.4		100	100			
GW13	9/18/2009	54.0	1.1	34.2	10.7		100	100			
GW13	9/25/2009	52.5	1.2	36.0	10.3	-27	100	100	1100	. 49.5	64.0
GW13	10/12/2009	49.5	2.1	32.0	16.4		100	100			
GW13	10/16/2009	52.0	1.2	33.6	13.2		100	100			
GW13	10/30/2009	28.0	1.0	35.4	35.6	-23	. 100	100	800	36.0	62.0
October Minimum		1.7	0.0			-25.5					
October Maximum		44.5	17.6	,		9.50					ı
October Average	•					-8.6					
October Total	•									275	

*: Balance gas calculated as 100% - (%CH₄-%CO₂-%O₂)

**: Gas Flow (cfm) calculated by multiplying gas velocity (fpm) by pipe area 0.045 (3" diameter).

--: Not measured

-6.2: Bold font indicates questionable results.

fpm: Feet per minute.

cfm: Cubic feet per minute. -

in WC: Inches of water column.

deg F: Degrees Fahrenheit.

TABLE 4

Location	Date	Pressure	CH	l ₄	O ₂	CO ₂	Balance Gas	Valve Position	Gas Velocity	Gas Flow**	Gas Temp
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)	(% open)	(fpm)	(cfm)	(deg F)
GROUND FLARE					Sam	ole Port A	4				
	7/14/2009	1.50		21.5	9.9	15.0	53.6	50	2,000	370	NM
	7/16/2009	0.00		33.0	3.1	29.0	34.9	50	1,500	278	NM
	7/23/2009	1.00		26.5	5.7	22.4	45.4	30	1,500	278	NM
	7/31/2009	1.75		25.0	3.2	25.4	46.4	40	1,600	296	92.4
	8/6/2009	1.00		29.5	2.3	29.8	38.4	40	1,250	231	93.1
	8/10/2009	NM		30.5	1.9	29.4	38.2	NM	NM		NM
•	8/13/2009	0.75		29.0	2.0	29.4	39.6	50	1,250	231	88.3
	8/20/2009	0.90		33.5	1.9	28.0	36.6	40	1,250	231	87.4
	8/25/2009	0.90		33.5	1.9	27.8	36.8	40	1,250	231	77.9
	9/2/2009	1.50		26.0	3.6	24.6	45.8	70	1,500	278	95.2
•	9/11/2009	0.90		38.0	1.7	27.8	32.5	50	1,500	278	83.4
	9/18/2009	2.00		29.0	4.3	21.8	44.9	50	2,500	463	82.4
	9/24/2009	2.50		NM	NM	NM	NM	45	NM	NM	NM
	9/25/2009	1.60		33.0	3.1	26.6	37.3	45	1,600	296	88.8
	10/1/2009	3.25		32.0	3.5	24.0	40.5	45	1,700	315	84.8
	10/9/2009	2.60		22.0	4.0	23.0	51.0	50	1,900	352	80.2
	10/16/2009	5.00		43.0	0.9	29.2	26.9	15	2,500	463	66.5
	10/23/2009	2.50		31.5	0.9	27.4	40.2	50	2,000	370	57.7
	10/30/2009	2.50		17.0	1.6	27.0	54.4	25	1,800	333	78.2
					Sam	ole Port E	3		r		,
	7/14/2009	1.50		21.5	13.2	14.0	51.3		1,500	278	NM
	7/16/2009	0.00		33.0	3.2	28.8	35.0		1,250	231	NM
	7/23/2009	1.00		26.0	4.0	25.4	44.6	,	1,250	231	NM
	7/31/2009	1.00	-	21.0	5.5	21.4	52.1		1,400	259	91.6
	8/6/2009	0.60		29.5	2.4	29.6	38.5		1,100	204	91.8
	8/10/2009	NM		29.0	2.2	28.8	40.0		NM	NM	NM
	8/13/2009	0.50	:	29.0	2.1	29.2	39.7	,	1,000	185	90.8
	8/20/2009	0.50		33.0	1.9	27.8	37.3		1,000	185	83.6
	8/25/2009	0.50		33.5	1.9	27.8	36.8	·	1,250	231	81.3
	9/2/2009	1.50		26.5	3.4	25.0	45.1		1,250	231	95.2
*	9/11/2009	0.75		35.5	2.7	25.8	36.0		1,250	231	85.1
	9/18/2009	1.00		29.0	4.6	21.4	45.0		2,400	444	82.4
	9/24/2009	1.40		46.0	1.1	28.6	24.3		NM	NM	NM
	9/25/2009	0.95		33.0	3.1	26.6	37.3		1,400	259	85.6
	10/1/2009	1.20		32.0	3.6	23.8	40.6	4	1,900	352	77.7
	10/9/2009	1.30	•	22.0	3.9	23.0	51.1		1,500	278	75.9
	10/16/2009	1.80		43.0	1.0	29.0	27.0	,,	3,000	555	65.1
	10/23/2009	1.50		32.0	0.8	27.2	40.0		1,900	352	54.8
	10/30/2009	1.25		16.0	1.7	27.0	55.3		1,800	333	76.2
	7/44/2222	 		4-0		ole Port C		. •			
1	7/14/2009			17.0	12.1	11.8	59.1	.			İ
	7/16/2009			33.0	3.2	29.0	34.8				
	7/23/2009			26.0	4.1	25.2	44.7	,	-		
	7/31/2009	·	-	25.0	3.1	25.6	46.3				
	8/6/2009			29.5	2.4	29.4	38.7	"			
	8/10/2009	* .		29.0	2.3	28.6	40.1	•			
	8/13/2009			29.0	2.2	29.0	39.8		ا ا	-	P
	8/20/2009		14	32.5	1.9	27.8	37.8		**	,	·
	8/25/2009			33.5	1.9	27.8	36.8				

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Location	Date	Pressure	CH₄		O ₂	CO2	Balance Gas	Valve Position	Gas Velocity	Gas Flow**	Gas Temp
	•	(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)	(% open)	(fpm)	(cfm)	(deg F)
	9/2/2009			26.0	3.3	24.8	45.9				
-	9/11/2009	1		35.5	2.6	25.8	36.1				
	9/18/2009			29.5	4.8	21.6	44.1				-
	9/24/2009	1.15		NM	NM	NM	NM				
	9/25/2009	0.75		33.0	3.1	26.6	37.3				
	10/1/2009	0.90		32.0	3.6	23.6	40.8		-		
	10/9/2009	1.05		22.5	3.6	23.6	50.3				
•	10/16/2009	1.40		43.5	0.8	29.0	26.7				
	10/23/2009	1.00		31.5	0.8	27.2	40.5				
•	10/30/2009	1.00		15.5	1.7	27.0	55.8				
BLOWER	·	<u> </u>			Nort	h Branch	1		L	L	
	7/14/2009	-25.0		12.5	7.1	9.2	71.2	100	1,700	133	NM
	7/16/2009	-26.8 .		18.5	5.4	20.0	56.1	100	1,600	125	NM
	7/23/2009	-26.8		20.5	7.0	16.2	56.3	100	2,000	156	NM
•	7/31/2009	-26.5		16.0	5.5	18.6	59.9	100	2,000	156	79.1
	8/6/2009	-26.5		23.0	5.0	23.6	48.4	100	1,250	98	73
	8/10/2009	NM		24.5	4.4	23.0	48.1	100	NM		NM
	8/13/2009	-26.5		18.0	7.7	18.0	56.3	100	1,750	137	. 78.9
	8/20/2009	-26.5		21.5	6.3	19.2	53	100	1,500	117	73.7
	8/25/2009	-26.5		23.0	6.2	20.2	50.6	100	1,500	117	71.9
	9/2/2009	-30.0		15.0	6.2	17.8	61	100	2,000	156	80
	9/11/2009	-26.5		38.5	7.2	19.8	34.5	100	1,000	78	74.6
:	9/18/2009	-24.5		19.0	6.5	15.6	58.9	100	4,000	312	66.7
,	9/24/2009	-26.0		39.0	2.5	24.6	33.9	100	NM	NM	NM
	9/25/2009	-27.0		25.0	5.3	21.4	48.3	100	1,400	109	65.4
	10/1/2009	-23.0	•	20.0	5.7	18.4	55.9	100	1,900	148	59.1
, ,	10/9/2009	-26.5		15.0	5.5	18.6	60.9	100	2,250	176	60.8
	10/16/2009	-20.5		39.5	1.4	25.8	33.3	100	2,800	218	54.6
	10/23/2009	-24.0		28.0	1.3	23.4	47.3	100	2,600	203	46.0
	10/30/2009	-25.5		15.0	3.0	21.2	60.8	100	2,500	195	58.6
					Centi	al Branci	h				
	7/14/2009	-25.0		50.0	2.7	. 34.4	12.9	100	3,000	234	NM
	7/16/2009	-26.0		47.0	1.9	36.0	15.1	- 100	2,000	156	NM
	7/23/2009	-26.8		48.0	1.7	33.6	16.7	100	2,000	156	NM
	7/31/2009	-26.5		31.0	2.5	29.2	37.3	100	2,250	176	79.9
•	8/6/2009	-26.5		30.0	2.2	30.4	37.4	100	2,000	156	71.9
	8/10/2009	NM		31.5	2.2	29.2	37.1	100	NM		NM
	8/13/2009	-26.5		29.0	2.3	29.4	39.3	100	2,000	156	78.2
	8/20/2009	-26.5		34.0	1.9	28.4	35.7	100	2,000	156	73.4
	8/25/2009	-26.5	. ,	34.5	1.9	28.2	35.4	100	2,000	156	73
	9/2/2009	-30.0		31.5	2.5	27.6	38.4	100	2,100	164	75.8
	9/11/2009	-26.5		37.0	1.5	27.4	34.1	100	2,750	215	65.6
	9/18/2009	-24.5		39.5	1.8	27.0	31.7	100	2,600	203	64.5
	9/24/2009	-26.0		44.0	1.9	28.2	25.9	100	NM	NM	NM
	9/25/2009	-27.0		34.0	3.7	26.4	35.9	100	2,400	187	64.5
	10/1/2009	-23.0		35.5	3.4	24.8	36.3	100	2,600	203	57.5
	10/9/2009	-26.5		27.0	3.8	25.8	43.4	100	2,500	195	55.7
	10/16/2009	-20.5	2 %	43.0	2.1	29.0	25.9	100	2,950	230	53.9
	10/23/2009	-24.0		38.5	1.0	31.0	29.5	100	2,500	195	46.5
	10/30/2009	-25.5	•	31.0	2.5	30.2	36.3	100	2,250	176	59.1

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Location	Date	Pressure	Cŀ	I ₄	O ₂	CO2	Balance Gas	Valve Position	Gas Velocity	Gas Flow**	Gas Temp
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)	(% open)	(fpm)	(cfm)	(deg F)
					Sout	h Branch	1				
	7/14/2009	-25.0	72.0	3.6 *	16.9	3.4	76.1	5	200	16	NM
	7/16/2009	-26.0	85.0	4.3 *	16.2	3.8	75.75	5	200	16	NM
	7/23/2009	-26.4	59.0	3.0 *	18.3	1.4	77.35	5	200	16	NM
	7/31/2009	-26.5	90.0	4.5 *	16.2	4.6	74.7	5	300	23	80.9
	8/6/2009	-27.0	11.0	0.6 *	19.3	0.6	79.55	5	300	23	73.1
İ	8/10/2009	NM	89.0	4.5 *	17.1	3.6	74.85	5	NM	NM	NM
	8/13/2009	-26.5	12.0	0.6 *	19.3	0.8	79.3	5	300	23	77.3
	8/20/2009	-26.5	75.0	3.8 *	18.4	3.2	74.65	5	200	16	73.2
	8/25/2009	-26.5	43.0	2.2 *	20.9	1.8	75.15	5	200	16	71.2
	9/2/2009	-18.0	25.0	1.3 *	16.6	1.6	80.55	5	750	59	90.5
	9/11/2009	-26.5	50.0	2.5 *	17.8	3.2	76.5	5	500	39	73.2
	9/18/2009	-24.5		11.0	13.5	8.8	66.7	5	450	35	66.4
ļ	9/24/2009	-23.5		11.5	13.4	9.0	66.1	5	NM	NM	NM
	9/25/2009	-27.0		5.0	17.6	3.6	73.8	5	600	47	70.1
	10/1/2009	-21.5	76.0	3.8 *	17.9	2.4	75.9	5	450	35	55.5
	10/9/2009	-24.5	8.0	0.4 *	20.4	0.0	79.2	5	700	55	48.7
İ	10/16/2009	-19.3	1	5.5	16.3	5.6	72.6	5	600	47	43.3
	10/23/2009	-24.0		23.0	18.0	1.8	57.2	5	600	47	45.6
	10/30/2009	-23.5	72.0	3.6 *	17.0	4.6	74.8	5	600	47	65.8
BLOWER	•				Branche	s-Total F	low				
	7/14/2009									382	
	7/16/2009									296	İ
	7/23/2009	1							,	328	l.
	7/31/2009	1								355	1.
	8/6/2009									277	3
	8/10/2009	1								NM	. ₹
	8/13/2009									316	i
	8/20/2009					·				289	1
	8/25/2009]								289	i
	9/2/2009									378	ı
	9/11/2009									332	
	9/18/2009]								550	ı
	9/24/2009]			- 1	l				NM	
	9/25/2009									343	
	10/1/2009	-								386	
	10/9/2009			1						425	
	10/16/2009									495	
	10/23/2009				.					445	
	10/30/2009									417	

WISCONSIN DEPARTMENT OF NATURAL RESOURCES REFUSE HIDEAWAY LANDFILL MIDDLETON, WISCONSIN

Location	Date	Pressure	Cŀ	14	O₂	CO2	Balance Gas	Valve Position	Gas Velocity	Gas Flow**	Gas Temp
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)	(% open)	(fpm)	(cfm)	(deg F)
					Inlet Sa	mple Poi	t A				
	7/14/2009	-25.5		30.5	4.7	22.4	42.4				
	7/16/2009	-26.0		30.5	3.9	27.2	38.4				
	7/23/2009	-26.8		30.0	4.5	24.0	41.5				
	7/31/2009	-26.5		23.5	3.7	24.4	48.4				
	8/6/2009	-27.0		27.5	3.2	28.2	41.1				
	8/10/2009	NM		28.5	3.0	27.2	41.3				
	8/13/2009	-26.5		26.0	3.4	26.8	43.8				
	8/20/2009	-26.5		30.5	3.8	25.2	40.5				
	8/25/2009	-26.5		30.5	3.5	25.4	40.6				
	9/2/2009	-30.0		23.0	4.4	22.6	50	,			
	9/11/2009	-26.5		37.0	2.2	26.4	34.4				
	9/18/2009	-24.5		29.5	3.6	21.8	45.1				
	9/24/2009	-26.0		NM	NM	NM	NM				
	9/25/2009	-27.0		30.5	4.2	24.4	40.9				
	10/1/2009	-23.3		27.5	4.7	21.6	46.2				
	10/9/2009	-26.5		21.0	4.5	22.0	52.5				
	10/16/2009	-21.0		39.5	2.1	26.6	31.8				
	10/23/2009	-25.0		32.0	1.3	26.6	40.1				
	10/30/2009	-25.5		18.5	2.7*	25.0	53.8				
					Inlet Sa	mple Por	t B				
	7/14/2009	-25.5		31.0	4.5	22.8	41.7				
	7/16/2009	-26.4		31.0	3.7	27.4	37.9				
	7/23/2009	-26.8		29.5	4.3	24.4	41.8				
	7/31/2009	-26.5		23.5	3.6	24.8	48.1				
	8/6/2009	-27.0		27.5	3.2	28.2	41.1				
	8/10/2009	NM		28.5	3.0	27.2	41.3				
	8/13/2009	-26.5		26.0	3.2	27.0	43.8				
	8/20/2009	-26.5		30.5	3.3	25.6	40.6				
	8/25/2009	-26.5		30.5	3.7	25.2	40.6				
	9/2/2009	-30.0		23.0	4.4	22.8	49.8				
	9/11/2009	-26.5		37.5	2.2	26.6	33.7				
•	9/18/2009	-25.0		29.0	3.6	21.8	45.6				
	9/24/2009	-26.5		41.0	2.0	27.0	30.0				
	9/25/2009	-27.0		30.5	4.2	24.4	40.9				
	10/1/2009	-23.3		27.5	4.3	21.8	46.4				
	10/9/2009	-27.0		20.5	4.4	22.0	53.1				
	10/16/2009	-21.5		39.0	2.2	26.6	32.2				
	10/23/2009	-25.5		31.5	1.5	26.4	40.6				
	10/30/2009	-26.0		17.5	2.9	24.8	54.8				,

TABLE 4

BLOWER AND FLARE STATION GAS MONITORING

Location	Date	Pressure	CH₄		O ₂	CO ₂	Balance Gas	Valve Position	Gas Velocity	Gas. Flow**	Gas Temp
		(in. WC)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)	(% open)	(fpm)	(cfm)	(deg F)
BLOWER			Outlet Sample Port A								
	7/14/2009	1.5		34.5	3.3	24.8	37.4				
	7/16/2009	0.01		33.0	3.0	29.2	34.8				
	7/23/2009	1.0		29.5	3.7	25.8	41.0				
	7/31/2009	0.5		25.0	2.9	26.4	45.7				
	8/6/2009	0.0		29.5	2.3	30.2	38				
	8/10/2009	NM		30.0	1.8	29.6	38.6				
	8/13/2009	0.0		28.5	1.8	29.6	40.1				
	8/20/2009	0.0		33.5	2.1	27.4	37				
	8/25/2009	0.0		33.5	2.0	27.8	36.7				
	9/2/2009	1.5		26.5	3.4	23.8	46.3				
	9/11/2009	0.0		40.5	1.1	29.0	29.4				
	9/18/2009	3.0		31.5	2.5	23.8	42.2				
·	9/24/2009	3.0		44.0	1.2	29.0	25.8				
	9/25/2009	1.75		33.0	3.2	26.6	37.2				
	10/1/2009	3.50		29.5	3.6	23.8	43.1				
	10/9/2009	3.00		22.5	3.3	23.8	50.4				
	10/16/2009	5.75		42.5	1.3	28.4	27.8				
·	10/23/2009	3.00		34.0	0.4	28.4	37.2				
	10/30/2009	2.50		18.0	1.7	27.0	53.3				
July Monthly Average				30.5	3.2						
August Monthly Average				31.0	2.0						
September Monthly Average				35.1	2.3						
October Monthly Average]		29.3	2.1						

*: Balance gas calculated as 100% - (%CH₄-%CO₂-%O₂).

**: Gas flow (cfm) calculated by multiplying gas velocity (fpm) by 0.045 (3" diameter), 0.078 (4" blower inlet), or 0.185 (6" flare inlet).

in WC: Inches of water column.

% Vol: Percent volume.

% LEL: Percent of lower explosive limit.

NM: Not measured.

fpm: Feet per minute.

cfm: Cubic feet per minute.

in WC: Inches of water column.

deg F: Degrees Fahrenheit.

Kuehling, Harlan H - DNR

From:

Jennifer Shelton [jshelton@lbgmad.com]

Sent:

Friday, June 05, 2009 4:03 PM

To:

Kuehling, Harlan H - DNR

Cc:

Straub, Richard M - DNR

Subject:

Follow-up Questions on the LBG Bid

Attachments: Flare-Oxidizer Experience.pdf

Hello Hank,

We appreciate the opportunity to provide additional information regarding LBG's experience and organizational structure. As you may be aware, LBG has successfully provided services to the WDNR during the past two decades and we look forward to continuing that relationship with the Refuse Hideaway Landfill project. LBG has a well established Landfill Practice Group comprised of select professionals in each of our Midwestern offices. The projects listed in our SOQ reflect the experience of current members of this LBG group. The LBG Landfill Practice Group collaborates closely on our numerous active landfill projects located throughout the Midwest. For the Refuse Hideaway Project, professionals from the Madison office and our satellite field office in Michigan will be intimately involved.

As listed in the SOQ, current LBG professionals in our Michigan satellite field office have experience with ground flares at the Junker Landfill and Fargo Landfill (more information on these sites is presented below). In addition to this specific landfill experience, LBG professionals in both the Madison office and our satellite field office have extensive experience designing, implementing, operating and troubleshooting low-emission, gas combustion systems that are similar to the enclosed thermal oxidizer type flare at the Refuse Hideaway for numerous remediation sites. A list of this experience has been attached. We have successfully integrated remediation system off-gas into existing terminal ground flares. We have also provided ground flare troubleshooting services for these projects. Our experience operating flame and catalytic oxidizers is comparable to operational requirements of the enclosed thermal oxidizer type flare at the Refuse Hideaway. The systems have similar components (spark rods/pilot light, combustion chambers, thermocouples, solenoid valves, air control actuators, temperature recorders, control panels, relief valves, flame arrestors, and supplemental fuel supplies.) Furthermore, operating the systems is comparable in that both involve gas quality and flow monitoring activities. rebalancing of the well field to improve system functionality, in-depth knowledge of control systems, and an understanding of potential hazards.

In addition to this experience, LBG has a long standing working relationship with a mechanical contractor (Bob Kruck of R3 Contracting). Bob has extensive construction and operation and maintenance experience with both landfill leachate collection systems and landfill gas blower and flare systems. More specifically, he has installed complete landfill gas piping networks, blower systems and enclosures, and installed ground flares. He has provided rehabilitation services for integral flare system components. A brief listing of his landfill projects involving leachate collection and/or landfill gas systems is attached. The attachment also illustrates the LBG gas treatment projects that Bob has been involved with. LBG would solicit a bid from R3 if flare rehabilitation services become warranted on this project.

Included below are responses (in blue font) to your direct questions regarding LBG's Refuse Hideaway proposal. We would appreciate the opportunity to further discuss our qualifications either by a teleconference or during a meeting at your convenience to ensure that we have addressed all of your questions. I look forward to discussing LBG's role in this project with you.

Thank you and have a great weekend.

Jennifer Shelton, P.E. Leggette, Brashears & Graham, Inc. 6409 Odana Road, Suite C Madison, WI 53719 Direct Line: 608.310.7672 Cell: 608.332.4116 lbgweb.com



From: Kuehling, Harlan H - DNR [mailto:Harlan.Kuehling@Wisconsin.gov]

Sent: Thursday, June 04, 2009 3:03 PM

To: jshelton@lbgmad.com Cc: Straub, Richard M - DNR

Subject: Follow-up Questions on the LBG Bid

Hi, Jennifer,

I have a few questions regarding the LBG experience with enclosed flares of gas treatment systems. The LBG bid indicates that the firm's experience is with two enclosed (ground) flares - Junker Landfill and the Fargo Landfill. My plan is to contact the Fargo Landfill reference; is there a reference for the Junker Landfill? Junker Landfill is a closed solid waste facility and has been a WDNR state lead site. A current LBG professional in our satellite field office conducted the tasks indicated in the SOQ from approximately 1995 to 1996 for his previous employer. My colleague was tasked with the field activities and did not have extensive contact with the WDNR manager during that time; therefore, reference contact information for Junker Landfill or the WDNR project manager has not been provided.

Are the LBG staff members who have the experience with the Junker and Fargo ground flares still with LBG? Yes, the work at Junker and Fargo was conducted by current LBG professionals from our satellite field office. What were the years in which LBG was involved with these two landfills? As stated above, the work at Junker Landfill was conducted from approximately 1995 to 1996. The work at the Fargo Landfill was conducted from 2002 to 2004.

Who in the LBG Madison office has experience, and how much, with enclosed flares and the associated gas collection systems? With pneumatic leachate collection pump systems? Or would the Madison office be reliant on staff in other offices for expertise? To what extent?

LBG's approach on this project is to conduct an orientation meeting with you, our most experienced consultants with enclosed flare systems and leachate collection systems, and our Madison staff in order to familiarize the project team with the system. Our plan is to initially combine professionals from our satellite field office with our local staff to ensure that the system will maintain the highest levels of system operations. Eventually, over the course of the contract, local professionals will acquire more responsibility for system operations. Site visits and alarm responses will be conducted at the unit cost rates identified in our proposal; therefore, WDNR will not incur travel costs for professionals from our satellite field office. These mobilization costs will be born by LBG.

Within the LBG Madison office, we have professionals with up to 15 years of experience operating and maintaining fluid collection and gas combustion equipment. Personally speaking, I have experience designing, operating and troubleshooting pneumatic product recovery systems at petroleum contaminated sites. My Madison colleagues and I have experience operating catalytic and thermal oxidizers at the sites identified on the attachment.

But not a Cheres

Thank you.

Hank

Hank Kuehling, P.G.

Remediation & Redevelopment Program Hydrogeologist South Central Region 3911 Fish Hatchery Road, Fitchburg, WI 53711 Wisconsin Department of Natural Resources

(**a**) phone: (608) 275-3286

(圖) fax:

(608) 275-3338

() e-mail: harlan.kuehling@wisconsin.gov

LBG Flare Oxidizer/Experience Table

Type of Flare	Size	Site	Location
Ground Flare		Des Moines Terminal	Des Moines, Iowa
Ground Flare		Sioux City Terminal	Sioux City, Iowa
Catalytic Oxidizer-Propane	500 cfm	Skoglund Site	New Richmond, Wisconsin
Catalytic Oxidizer-Natural Gas	2000 cfm	Domain Site	New Richmond, Wisconsin
Catalytic Oxidizer-Natural Gas	1000 cfm	Bark River Site	Hartland, Wisconsin
Catalytic Oxidizer-Natural Gas	2000 cfm	Service Station	Tomah, Wisconsin
Catalytic Oxidizer-Natural Gas-	2000 cfm	Keck Farm	Watertown, Wisconsin
Catalytic Oxidizer-Electric	250 cfm	Newark Assembly Plan	t Newark, Delaware
Flame Oxidizer-Natural Gas**	3500 cfm	Kansas City Terminal	Kansas City, Kansas
Flame Oxidizer-Natural Gas**	5000 cfm	Des Moines Terminal	Des Moines, Iowa
Catalytic Oxidizer-Propane	500 cfm	Des Moines Terminal	Des Moines, Iowa
Catalytic Oxidizer-Natural Gas	200 cfm	Mankato Terminal	Mankato, Minnesota
Regenerative Thermal Oxidizer	7500 cfm	Mandan Site	Mandan, North Dakota

^{*}O&M services for projects in red font were provided by LBG Madison staff. Remaining projects were completed by current LBG professionals in our Michigan satellite field office.

Bob Kruck Leachate Collection/Landfill Gas Project Listing (Bob Kruck was the mechanical contractor for LBG's projects underlined in the above list.)

Cedar Rapids Landfill, Iowa

Augusta Landfill, Georgia

BFI Landfill, Eden Prairie Minnesota

Elk River Landfill, Minnesota

Superior Landfill, Monitcello, Minnesota

And landfills in Boston, New York and Chicago.

^{**} Flame Oxidizer is a unit that can be operated as a catalytic oxidizer, a thermal oxidizer, or for flare application.

Kuehling, Harlan H - DNR

From: Kuehling, Harlan H - DNR

Sent: Tuesday, June 09, 2009 3:19 PM

To: 'Jennifer Shelton'

Cc: Straub, Richard M - DNR

Subject: RE: Follow-up Questions on the LBG Bid

Thanks for sending the additional reference information, Jennifer. To summarize what I have gleaned from the information submitted on LBG experience, Ken Kytta of your Michigan office has operated two flares in the past (Junker and Fargo) and Matt Peramaki has operated flares not associated with landfills or low landfill gas generation rates. So the LBG landfill experience is limited to the Junker and Fargo sites. I called the two references, one for each of these two sites. Both references report that the two landfills have candlestick flares, not ground/enclosed flares like the one at RHL. In addition, the Fargo landfill contact reported that most of their landfill gas is utilized as an energy source for an industry and to heat the municipal buildings, such that the candlestick flare has been operated less than 50 hours per year for many years, including the time period that Ken was reportedly working for Wenck Associates (2002-2004).

At this point, the experience of LBG does not appear to meet the requirements of the RFB bidder qualifications. These include:

a minimum of 3 years of experience in operating & maintaining a gas extraction and combustion system with components similar to those found at the Refuse Hideaway Landfill, including the enclosed ground flare...... The successful bidder shall also have experience operating a ground flare system at the flare's minimum-required gas volume threshold (necessitated by low landfill gas generation rates).

Let me know if any of this information or conclusions are in error.

Hank

From: Jennifer Shelton [mailto:jshelton@lbgmad.com]

Sent: Tuesday, June 09, 2009 11:08 AM

To: Kuehling, Harlan H - DNR

Subject: FW: Follow-up Questions on the LBG Bid

Hi Hank

I just wanted to pass along Patrick Collin's phone number: (715) 684-2914. Ken operated the flare on Pat's Junker Landfill project and Matt operated catalytic oxidizers on two other projects managed by Pat. I'll try to give you a call later today regarding the RHL project.

Thanks, Jennifer

From: Jennifer Shelton [mailto:jshelton@lbgmad.com]

Sent: Monday, June 08, 2009 3:49 PM

To: Harlan Kuehling

Cc: Straub, Richard M - DNR

Subject: FW: Follow-up Questions on the LBG Bid

Hi Hank,

I am pleased to address your following inquiries regarding the RHL. Our responses are highlighted in green font below.

Also to reiterate, LBG staff that would be involved in this project would be happy to meet with you at a convenient time to discuss this project and to ensure that your concerns have been sufficiently addressed.

Time and expenses associated with this meeting would be born by LBG.

Thanks, Jennifer

From: Kuehling, Harlan H - DNR [mailto:Harlan.Kuehling@Wisconsin.gov]

Sent: Monday, June 08, 2009 12:43 PM

To: Jennifer Shelton

Cc: Straub, Richard M - DNR

Subject: RE: Follow-up Questions on the LBG Bid

Thanks much for your responses, Jennifer. Distilling down to the essence of the response, my impression is that LBG has no staff members in the Madison office that have experience in operating ground flares like the one at RHL. However, one person in the LBG Michigan office has experience operating an enclosed flare, similar to the one at RHL, at the Junker Landfill (13 years ago) and at the Fargo Landfill (5 years ago). What firm was this person working for at the time, and who was the DNR's project manager? Ken Kytta, of LBG's MI office, was previously employed by Wenck Associates. The Wenck project manager for Junker Landfill was Mr. Joe Grabowski. He can be reached at 763-479-4202. The WDNR project manager for the Junker Landfill was, and continues to be Mr. Patrick Collins. And was it that same person or another person in the LBG Michigan office that also has experience operating a ground flare at both the Des Moines Terminal and at the Sioux City Terminal? Matt Peramaki, also from the Michigan office, has experience with the ground flares at the Des Moines and Sioux City terminals. Mr. Kytta has not been involved on these two specific projects but he does have experience with thermal and catalytic oxidizers at petroleum facilities in addition to the documented landfill flare experience. Are these two facilities landfills or something different than a landfill? The facilities are active petroleum pipeline terminals.

Your e-mail is also indicating that the Michigan office person with the pertinent experience will travel to Madison to train this office's personnel on the operation of the gas collection and combustion system, with the travel being at no expense to the State. The personnel cost of this training would not and could not be passed on to the State for any of the specific bid line items (tasks occurring weekly, monthly, and quarterly, for example) with fixed bid prices. But I can imagine a potential for personnel cost increases as the line between training and problem solving becomes blurred for the extra expenses of repairs are on a time and materials basis. Do you have any suggestions on how LBG would avoid this problem?

LBG highly promotes the cross-training of its staff. In order to track internal labor costs associated with this practice, internal charge codes are routinely set up for training purposes in our internet-based labor tracking system. Time charged to these internal codes is not billed to a client. The internal training code associated with the RHL will be readily available for LBG professionals to report time spent training staff on this project. A monthly report of the labor assessed to the internal LBG training code will automatically be sent to me as the LBG PM for review and can be made available to the WDNR as well.

LBG will clearly distinguish on our monthly invoice any problem solving time incurred by our personnel from the Michigan office. Sufficient invoice detail will be provided to define the labor charges associated with problem solving activities incurred by Madison staff and, if necessary, Michigan staff. If you would ever have any concerns regarding the level of effort put forth for problem solving activities during the review and approval of our invoices, those concerns would certainly be open for discussion.

What role do you envision Bob Kruck playing in the O&M of RHL?

Bob Kruck's expertise is in building and repairing enclosed flare system components. It is not anticipated that he will have any significant role in the normal O&M activities at the landfill. However, if a considerable out-of-scope repair item becomes warranted during the course of the project, he would be called upon to provide a quote due to our confidence in his expertise. Obviously, Bob's proposal would be one of several bids solicited in order to ensure that any necessary out-of-scope repairs are conducted using the most qualified and cost competitive flare repair contractor.

Thank you.

Hank

From: Jennifer Shelton [mailto:jshelton@lbgmad.com]

Sent: Friday, June 05, 2009 4:03 PM

To: Kuehling, Harlan H - DNR **Cc:** Straub, Richard M - DNR

Subject: Follow-up Questions on the LBG Bid

Hello Hank.

We appreciate the opportunity to provide additional information regarding LBG's experience and organizational structure. As you may be aware, LBG has successfully provided services to the WDNR during the past two decades and we look forward to continuing that relationship with the Refuse Hideaway Landfill project. LBG has a well established Landfill Practice Group comprised of select professionals in each of our Midwestern offices. The projects listed in our SOQ reflect the experience of current members of this LBG group. The LBG Landfill Practice Group collaborates closely on our numerous active landfill projects located throughout the Midwest. For the Refuse Hideaway Project, professionals from the Madison office and our satellite field office in Michigan will be intimately involved.

As listed in the SOQ, current LBG professionals in our Michigan satellite field office have experience with ground flares at the Junker Landfill and Fargo Landfill (more information on these sites is presented below). In addition to this specific landfill experience, LBG professionals in both the Madison office and our satellite field office have extensive experience designing, implementing, operating and troubleshooting low-emission, gas combustion systems that are similar to the enclosed thermal oxidizer type flare at the Refuse Hideaway for numerous remediation sites. A list of this experience has been attached. We have successfully integrated remediation system off-gas into existing terminal ground flares. We have also provided ground flare troubleshooting services for these projects. Our experience operating flame and catalytic oxidizers is comparable to operational requirements of the enclosed thermal oxidizer type flare at the Refuse Hideaway. The systems have similar components (spark rods/pilot light, combustion chambers, thermocouples, solenoid valves, air control actuators, temperature recorders, control panels, relief valves, flame arrestors, and supplemental fuel supplies.) Furthermore, operating the systems is comparable in that both involve gas quality and flow monitoring activities, rebalancing of the well field to improve system functionality, in-depth knowledge of control systems, and an understanding of potential hazards.

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Included below are responses (in blue font) to your direct questions regarding LBG's Refuse Hideaway proposal. We would appreciate the opportunity to further discuss our qualifications either by a teleconference or during a meeting at your convenience to ensure that we have addressed all of your questions. I look forward to discussing LBG's role in this project with you.

Thank you and have a great weekend.

Jennifer Shelton, P.E. Leggette, Brashears & Graham, Inc. 6409 Odana Road, Suite C Madison, WI 53719 Direct Line: 608.310.7672 Cell: 608.332.4116 lbaweb.com From: Kuehling, Harlan H - DNR [mailto:Harlan.Kuehling@Wisconsin.gov]

Sent: Thursday, June 04, 2009 3:03 PM

To: jshelton@lbgmad.com **Cc:** Straub, Richard M - DNR

Subject: Follow-up Questions on the LBG Bid

Hi, Jennifer,

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Who in the LBG Madison office has experience, and how much, with enclosed flares and the associated gas collection systems? With pneumatic leachate collection pump systems? Or would the Madison office be reliant on staff in other offices for expertise? To what extent? LBG's approach on this project is to conduct an orientation meeting with you, our most experienced consultants with enclosed flare systems and leachate collection systems, and our Madison staff in order to familiarize the project team with the system. Our plan is to initially combine professionals from our satellite field office with our local staff to ensure that the system will maintain the highest levels of system operations. Eventually, over the course of the contract, local professionals will acquire more responsibility for system operations. Site visits and alarm responses will be conducted at the unit cost rates identified in our proposal; therefore, WDNR will not incur travel costs for professionals from our satellite field office. These mobilization costs will be born by LBG.

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Thank you.

Hank

A Hank Kuehling, P.G.

Remediation & Redevelopment Program Hydrogeologist South Central Region 3911 Fish Hatchery Road, Fitchburg, WI 53711 Wisconsin Department of Natural Resources

(室) phone: (608) 275-3286 (室) fax: (608) 275-3338

(E) e-mail: harlan.kuehling@wisconsin.gov

Kuehling, Harlan H - DNR

From: Jennifer Shelton [jshelton@lbgmad.com]

Sent: Wednesday, June 10, 2009 8:49 AM

To: Kuehling, Harlan H - DNR

Cc: Straub, Richard M - DNR

Subject: Refuse Hideaway Proposal

Importance: High

Good morning Hank,

In response to your email yesterday, LBG maintains that we have experience in operating gas combustion equipment in similar situations to that of the RHL(minimum thresholds for gas content and/or flowrate are prevalent).

I would like to offer some clarification on Ken's experience at the Fargo Landfill. The Fargo flare is an enclosed ground flare, not a candlestick flare. Ken has indicated that City of Fargo personnel were mistaken on the type of flare utilized. To substantiate Ken's position, I have enclosed the Drawing Transmittal Sheet dated 10/18/01 from James Horna, LFG&E to Bruce Grubb, City of Fargo with cc: to Ken Kytta, Wenck Associates. This submittal contains the shop drawing of the Triton GF-1200 ground flare used at the City of Fargo. The flare was operated for many months at startup by Ken, to balance the well field and stabilize the gas flow, prior to the gas being sent to Cargill. Startup time is critical to the understanding the operation of flare. Cargill's shut down period is typically for two weeks a year so the flare was typically operated up to two weeks per year.

That being said, we acknowledge your position that a bidder must demonstrate the required duration of experience with such similar combustion equipment at a landfill in order to be deemed qualified for this contract. Therefore, LBG will retain the services of Mr.Bob Kruck as a contract employee for this project. At no cost to the state, Mr. Kruck will attend the intial project orientation meeting with the WDNR staff and local LBG staff. Mr. Kruck will be intimately involved in the project throughout the contract duration. LBG will clearly distinguish on our monthly invoice any problem solving time incurred by Bob Kruck. Sufficient invoice detail will be provided to define the labor charges associated with problem solving activities incurred by Madison staff and, as necessary, Bob Kruck. Site visits and alarm responses will be conducted at the unit cost rates identified in our proposal; therefore, WDNR will not incur travel costs for Mr. Kruck. These mobilization costs will be born by LBG. If you would ever have any concerns regarding the level of effort put forth for problem solving activities during the review and approval of our invoices, those concerns would certainly be open for discussion.

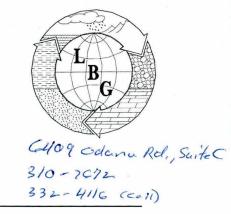
We would appreciate the opportunity to provide, in a timely manner, an expanded list of Bob's landfill experience for your review. If you are willing to consider this modification to our project approach, please let me know.

Given the opportunity, we will demonstrate that we can not only successfully maintain the flare and leachate collection equipment but that we will attend to the minor aspects of the project as well (i.e. mowing and removing vegetation from fences).

I look forward to your response. Thank you.

Jennifer Shelton, P.E. Leggette, Brashears & Graham, Inc. 6409 Odana Road, Suite C Madison, WI 53719 Office: (608) 441-5544 ext. 213

Cell: (608) 332-4116



MEMORANDUM

SUBJECT:

9:00 am October 8, 2009 at LBG Madison Office

FROM:

Jennifer Shelton, P.E.

Senior Environmental Engineer

TO:

Hank Kuehling

WDNR

DATE:

October 2, 2009

PROJECT:

Refuse Hideaway Landfill

We are looking forward to your visit to our office next week. The following is a preliminary agenda that we wanted to forward to you in advance of our meeting. Let me know if you have any additional items that you would like to discuss.

AGENDA

- 1) Review of LBG's performance on RHL to date
- 2) LBG general observations on RHL
 - A.) Leachate Recovery System Status
 - B.) Landfill Gas Recovery and Combustion System Status
- 3) Opportunities to improve system operation and maintenance
- 4) Solar panel installation
- 5) Other matters

2) A.) - Will reachate pump flouts need asitation frequently?

- What is involved in the asitation process, and how long does it to ke? - What is causing the flowts to stick?

- Were Guy, Gw12, & Gw13 pumpt cleaned? Pumps in GW12 & GW13 may he stuck!!

- Go through Table 5 to highlight individual pumps problems

2) B.) - Assist in locating gas probe met GP-115/11D.

Because the telemetry system (auto-dialer?) is off-line because of low operating temperatures Cresulting in many calls!?), the blaver can

LBG-RHL OZEM contract meeting - termitor Sheitan,

Rick Stoor, Brian Kinpel

#5 - meeds a getation

#11 =

#49 - meeds a word repair

#13 - now fixed

Part underwarte fine

#7 - 50% of bookate Stuck? Now mut producing

- Poul a pump on top of the stuck one?

- Down-hate camera to see if repairs

to well interior

Methano. No racum at 6W 5, but positive pressure at 6P-11, GP-2 > LEZ

Trauble sharting - see an long to blow out
the bracker?

Use Ail to rockum loachate lines.

- Paryers spot welded.

- Pilot carrenply needs

- Propose could be drained

& Fear. Study on & cost / benefits to repair

system to the point that it can van itself 1954 privileg - get the bluver to shit clown when place goes down 2 nd VV server at burner flame would bely Tele mitery system can be modified in various Next 86 ps. - Pilat assembly. - head bute purapo - Blaver stutdown capability - South brach issee Polential in la femence of solar pavels electric lines à léachate beauters What activities should LBG

GM13



GW12



6 W/11



FLACE PILOT:









