

MAG 910 3

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General site information. Please provide the following information about the site:

a) Name of facility/site: COMBINED DPW FACILITY REMEDIATION		Facility/site address: 185 GUELPHWOOD ROAD	
Location of facility/site: longitude: 72-09-15W latitude: 42-05-03N	Facility SIC code(s):	Street: 185 GUELPHWOOD ROAD	
b) Name of facility/site owner: TOWN OF SOUTHBRIDGE MA		Town: SOUTHBRIDGE	
Email address of owner: CCLARK@SOUTHBRIDGEMASS.ORG	State: MA	Zip: 01550	County: WORCESTER
Telephone no. of facility/site owner: 508-764-5403			
Fax no. of facility/site owner: 508-764-5825		Owner is (check one): 1. Federal _____ 2. State/Tribal _____	
Address of owner (if different from site):		3. Private _____ 4. <u>other</u> if so, describe: MUNICIPAL	
Street: 41 ELM STREET			
Town: SOUTHBRIDGE	State: MA	Zip: 01550	County: WORCESTER
c) Legal name of operator: TOWN OF SOUTHBRIDGE MA		Operator telephone no: 508-764-5403	
		Operator fax no.: 508-764-5825 Operator email: KKALINOWSKI@SOUTHBRIDGE.MA	
Operator contact name and title: KEN KALINOWSKI, DIRECTOR OF PUBLIC WORKS			
Address of operator (if different from owner):		Street: SAME	
Town:	State:	Zip:	County:
d) Check "yes" or "no" for the following:			
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes _____ No <u>X</u> if "yes," number:			
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes _____ No <u>X</u> if "yes," date and tracking #:			
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes <u>X</u> No _____			
4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes _____ No <u>X</u>			

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes <u>X</u> No <u> </u> If "yes," please list: 1. site identification # assigned by the state of NH or <u>MA</u>: <u>RTN 2-13610</u> 2. permit or license # assigned: 3. state agency contact information: name, location, and telephone number: <u>JOSEPH LAUGHTON, MA DEP, 627 MAIN ST, WORCESTER MA 508-849-4018</u>	f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y <u> </u> N <u>X</u>, if Y, number: 2. phase I or II construction storm water general permit? Y <u>X</u> N <u> </u>, if Y, number: <u>NOT YET RECEIVED - NOT SUBMITTED</u> 3. individual NPDES permit? Y <u> </u> N <u>X</u>, if Y, number: 4. any other water quality related permit? Y <u>X</u> N <u> </u>, if Y, number: <u>UNKNOWN</u> <u>M54 coverage for Southbridge @ URBAN AREA.</u>
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2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage: <u>EXCAVATION AND REMOVAL OF CONTAMINATED SEDIMENT FROM COTTON POND WILL GENERATE WATER WHILE SEDIMENT STOCKPILES GRAVITY DRAIN. IT IS NOT KNOWN IF WATER GENERATED WILL BE CONTAMINATED.</u>		
b) Provide the following information about each discharge:	1) Number of discharge points: <u>EACH STOCKPILE WITHIN POND AREA</u>	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft³/s)? Max. flow <u>UNKNOWN</u> Average flow <u> </u> Is maximum flow a design value? Y <u> </u> N <u> </u> For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.
3) Latitude and longitude of each discharge within 100 feet: pt.1: long. <u>72-01-15W</u> lat. <u>42-05-03N</u>; pt.2: long. <u> </u> lat. <u> </u>; pt.3: long. <u> </u> lat. <u> </u>; pt.4: long. <u> </u> lat. <u> </u>; pt.5: long. <u> </u> lat. <u> </u>; pt.6: long. <u> </u> lat. <u> </u>; pt.7: long. <u> </u> lat. <u> </u>; pt.8: long. <u> </u> lat. <u> </u>; etc.		
4) If hydrostatic testing, total volume of the discharge (gals): <u>UNKNOWN</u>		5) Is the discharge intermittent <u>X</u> or seasonal <u> </u>? <u>only during stockpile dewatering.</u> Is discharge ongoing Yes <u> </u> No <u>X</u>
c) Expected dates of discharge (mm/dd/yy): start <u>JAN 2010</u> end <u>FEB 2010</u>		
d) Please attach a line drawing or flow schematic showing water flow through the facility including: 1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s). <u>NA</u>		

3. Contaminant information. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for all of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to: i. Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

Gasoline Only	VOC Only	Primarily Metals	Urban Fill Sites	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and Other Oils) only	VOC with Other Contaminants	Petroleum with Other Contaminants	Listed Contaminated Sites	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids		X								
2. Total Residual Chlorine	X									
3. Total Petroleum Hydrocarbons		X								
4. Cyanide	X									
5. Benzene	X									
6. Toluene	X									
7. Ethylbenzene	X									
8. (m,p,o) Xylenes	X									
9. Total BTEX ⁴	X									

⁴BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide ⁵ (1,2- Dibromo-methane)	X									
11. Methyl-tert-Butyl Ether (MtBE)	X									
12. tert-Butyl Alcohol (TBA)	X									
13. tert-Amyl Methyl Ether (TAME)	X									
14. Naphthalene		X								
15. Carbon Tetra-chloride	X									
16. 1,4 Dichlorobenzene	X									
17. 1,2 Dichlorobenzene	X									
18. 1,3 Dichlorobenzene	X									
19. 1,1 Dichloroethane	X									
20. 1,2 Dichloroethane	X									
21. 1,1 Dichloroethylene	X									
22. cis-1,2 Dichloro-ethylene	X									
23. Dichloromethane (Methylene Chloride)	X									
24. Tetrachloroethylene	X									

⁵ EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	X									
26. 1,1,2 Trichloroethane	X									
27. Trichloroethylene	X									
28. Vinyl Chloride	X									
29. Acetone	X									
30. 1,4 Dioxane	X									
31. Total Phenols	X									
32. Pentachlorophenol	X									
33. Total Phthalates ⁶ (Phthalate esters)	X									
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	X									
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)										
a. Benzo(a) Anthracene		X								
b. Benzo(a) Pyrene		X								
c. Benzo(b) Fluoranthene		X								
d. Benzo(k) Fluoranthene		X								
e. Chrysene		X								

⁶The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene		X								
g. Indeno(1,2,3-cd) Pyrene		X								
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)										
h. Acenaphthene		X								
i. Acenaphthylene		X								
j. Anthracene		X								
k. Benzo(ghi) Perylene		X								
l. Fluoranthene		X								
m. Fluorene		X								
n. Naphthalene-		X								
o. Phenanthrene		X								
p. Pyrene		X								
37. Total Polychlorinated Biphenyls (PCBs)		X								
38. Antimony										
39. Arsenic		X								
40. Cadmium		X								
41. Chromium III		X								
42. Chromium VI										

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper	X									
44. Lead		X								
45. Mercury		X								
46. Nickel	X									
47. Selenium	X									
48. Silver	X									
49. Zinc	X									
50. Iron		X								
Other (describe):										

c) For discharges where **metals** are believed present, please fill out the following:

Step 1: Do any of the metals in the influent have a reasonable potential to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y <u>X</u> N _____	If yes, which metals? <u>LEAD, CHROMIUM possibly</u>
Step 2: For any metals which have reasonable potential to exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c) (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metals: _____ <u>NO DATA TO DO THIS</u> DF: _____	Look up the limit calculated at the corresponding dilution factor in Appendix IV. Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y _____ N _____ If "Yes," list which metals: <u>UNKNOWN</u>

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:					
b) Identify each applicable treatment unit (check all that apply):	☒ Frac. tank	☐ Air stripper	☐ Oil/water separator	☐ Equalization tanks	☒ Bag filter
	☐ Chlorination	☐ Dechlorination	☐ Other (please describe):		
c) Proposed average and maximum flow rates (gallons per minute) for the discharge and the design flow rate(s) (gallons per minute) of the treatment system: Average flow rate of discharge _____ Maximum flow rate of treatment system _____ Design flow rate of treatment system <u>UNKNOWN</u>					
d) A description of chemical additives being used or planned to be used (attach MSDS sheets): <u>None planned.</u>					

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	☐ Direct	☐ Within facility	☐ Storm drain	☒ River/brook	☐ Wetlands	☐ Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: <u>UNNAMED brook flows from north through site into Cotton Pond then out of pond into ~3000 Ft DOWN stream.</u> <u>QUINEBAGG RIVER</u>						
c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: 1. For multiple discharges, number the discharges sequentially. 2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.						
d) Provide the state water quality classification of the receiving water <u>NA</u>						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water <u>NA</u> cfs Please attach any calculation sheets used to support stream flow and dilution calculations.						
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes ☒ No ☐ If yes, for which pollutant(s)? <u>QUINEBAGG RIVER BASIN</u> Is there a TMDL? Yes ☐ No ☒ If yes, for which pollutant(s)?						

6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes ___ No <u>X</u> Has any consultation with the federal services been completed? Yes ___ No <u>X</u> or is consultation underway? Yes ___ No <u>X</u> What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one): a "no jeopardy" opinion? ___ or written concurrence ___ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?	Massachusetts provides resources to ID areas of endangered species + AEC. none present.
b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge? Yes ___ No <u>X</u> Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes ___ No <u>X</u>	

↳ Notice sent to MA. HISTORICAL COMMISSION

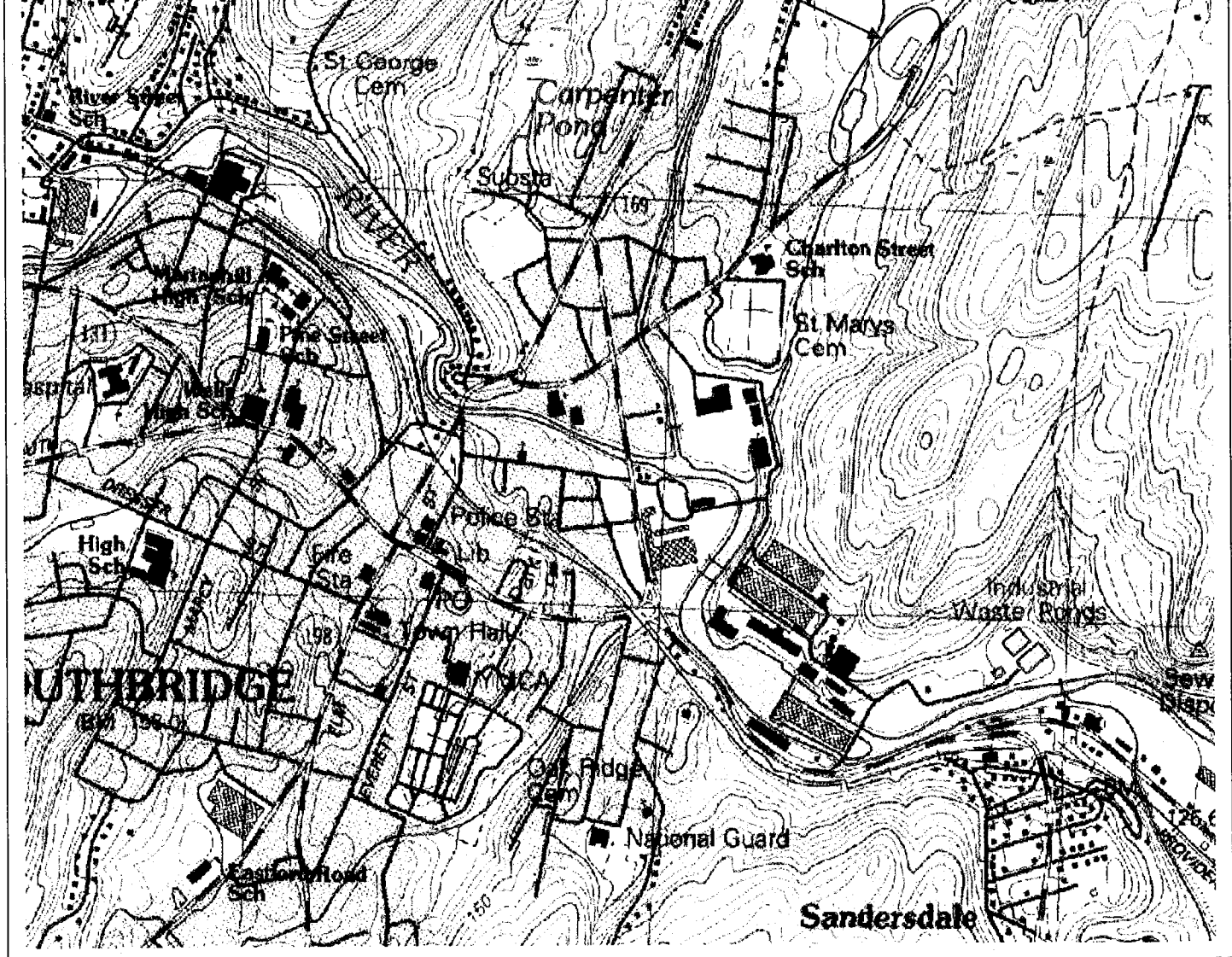
7. Supplemental information. :

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.
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8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility/Site Name:	COMBINED DPW FACILITY REMEDIATION
Operator signature:	
Title:	TOWN MANAGER
Date:	12/23/08

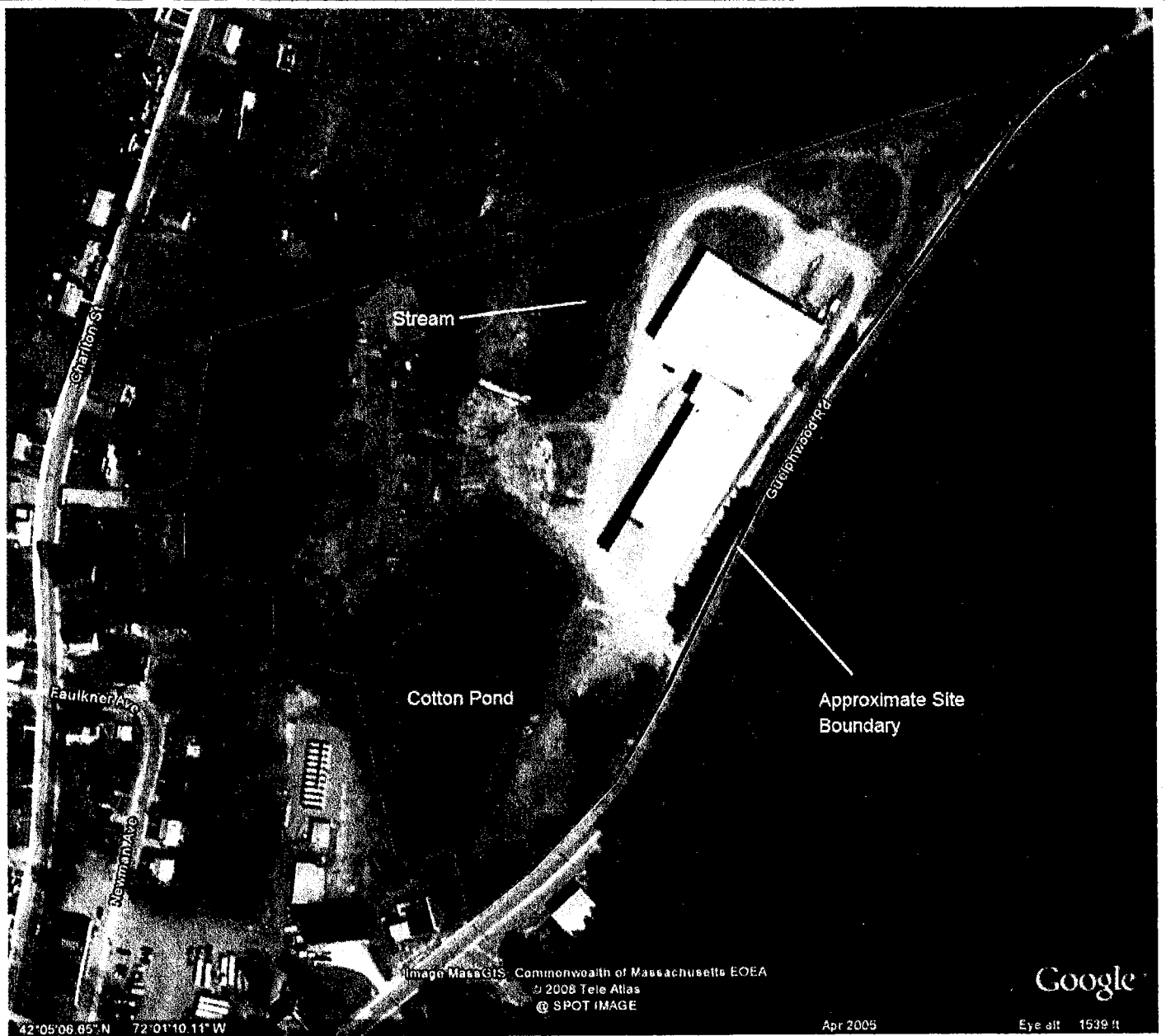


Gannett Fleming

199 Wells Avenue
Suite 210
Newton, Massachusetts 02459
(617) 527-7822

Figure 1: Area Topographic Map

**Location: Future Site of the Southbridge DPW
185 Guelphwood Road
Southbridge, Massachusetts**

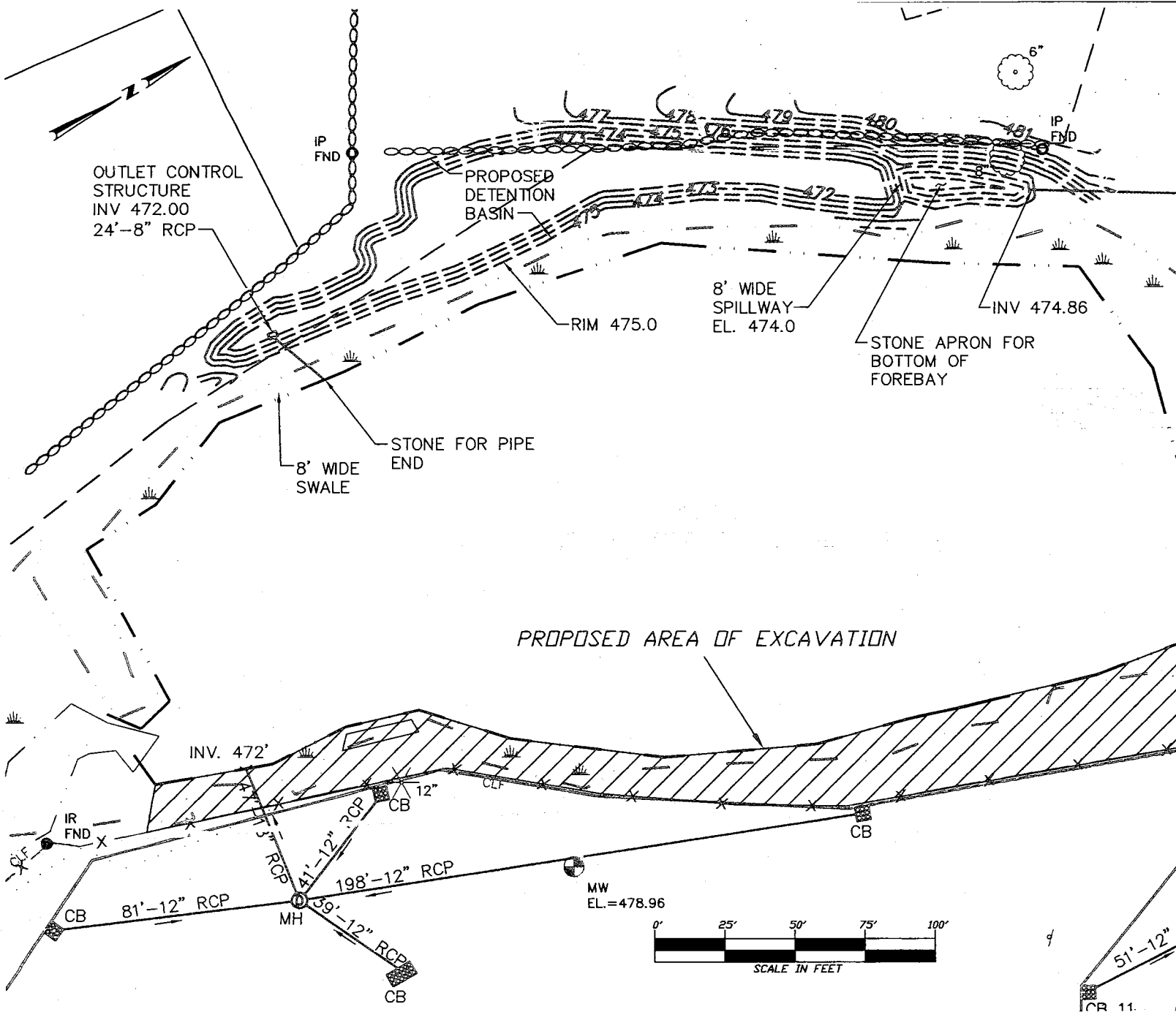


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Figure 2: Aerial Photograph

**Location: Future Site of the Southbridge DPW
185 Guelphwood Road
Southbridge, Massachusetts**



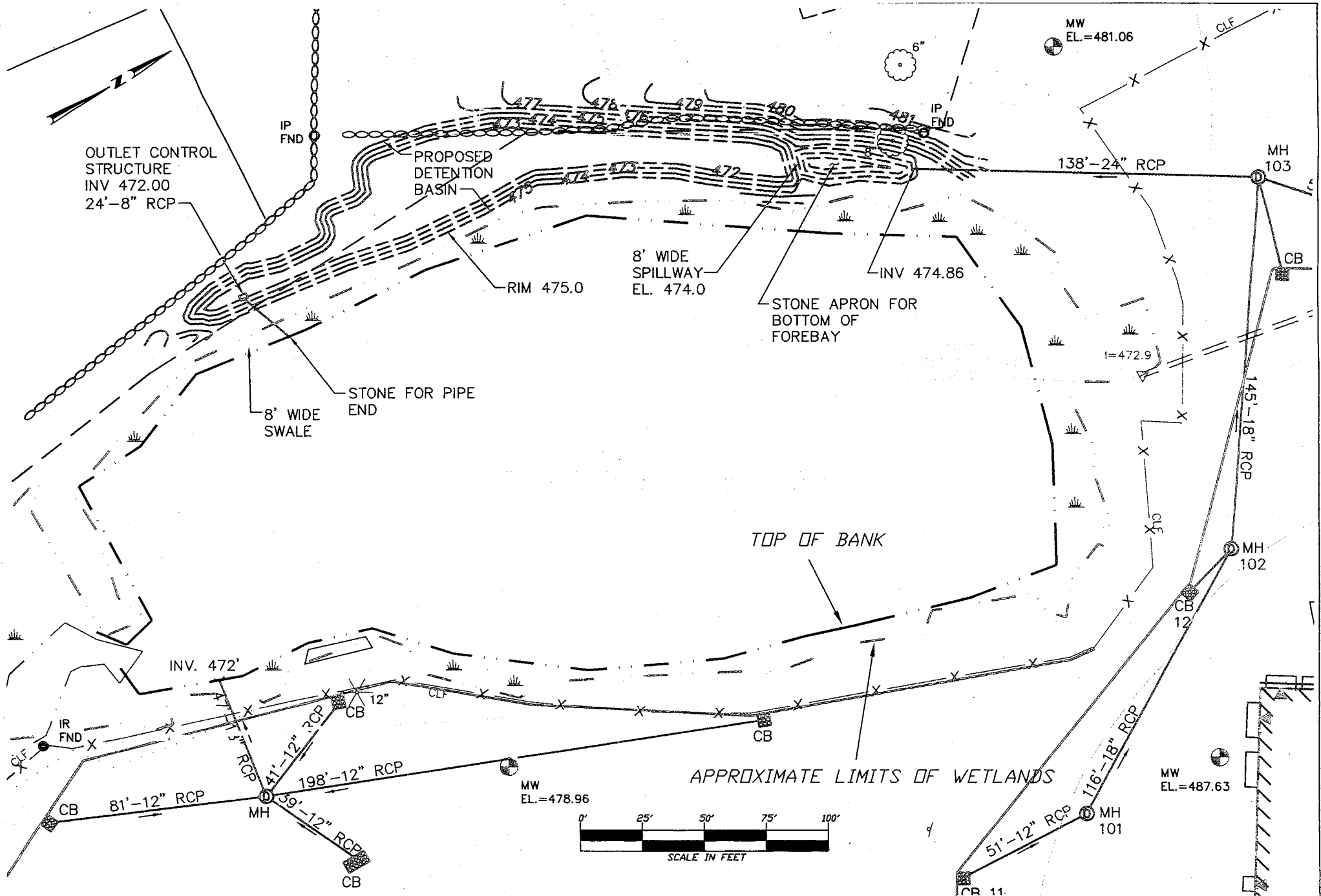
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PROPOSED COTTON POND
BANK EXCAVATION AREA

TOWN OF SOUTHBRIDGE DPW
185 GUELPHWOOD ROAD
SOUTHBRIDGE, MASSACHUSETTS

DATE: 12/24/08	NO.
SCALE: 1" = 50'	
DRAWN BY: BET	
UPDATE BY:	
CHECKED BY: GK	
GF PROJ #: 043221	



Gannett Fleming

199 Wells Avenue
Suite 210
Newton, MA 02459
(617) 527-7822

COTTON POND
WETLANDS PLAN

TOWN OF SOUTHBRIDGE DPW
185 GUELPHWOOD ROAD
SOUTHBRIDGE, MASSACHUSETTS

DATE	NO.	DATE	REVISIONS	
			DESCRIPTION	
12/06	1	12/24/08	ADDED BANK AND WETLANDS TEXT	
SCALE: 1" = 50'				
DRAWN BY: BET				
UPDATE BY:				
CHECKED BY: GK				
GF PROJ #: 043221				

5

3050B/6000/7000 Total Metals

MA - S1GW1

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Arsenic	ND	mg/kg dry	6.8	6010B	20	1	JP	06/12/07	2.15	100
Barium	185	mg/kg dry	34.2	6010B	1000	5	JP	06/12/07	2.15	100
Cadmium	ND	mg/kg dry	1.37	6010B	2	1	JP	06/12/07	2.15	100
Chromium	97.5	mg/kg dry	2.7	6010B	30	1	JP	06/12/07	2.15	100
Lead	89.4	mg/kg dry	13.7	6010B	300	1	JP	06/12/07	2.15	100
Mercury	0.130	mg/kg dry	0.079	7471A	20	1	EEM	06/12/07	0.74	40
Selenium	ND	mg/kg dry	13.7	6010B	400	1	JP	06/12/07	2.15	100
Silver	ND	mg/kg dry	1.37	6010B	100	1	JP	06/12/07	2.15	100

ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Gannett Fleming
Client Project ID: Southbridge
Client Sample ID: SED-12-0001
Date Sampled: 06/08/07 16:45
Percent Solids: 34
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 0706160
ESS Laboratory Sample ID: 0706160-03
Sample Matrix: Soil
Analyst: SEP
Prepared: 06/12/07

8082 Polychlorinated Biphenyls (PCB)

MA - S1GW1

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	mg/kg dry	0.15	2	1	06/13/07
Aroclor 1221	ND	mg/kg dry	0.15	2	1	06/13/07
Aroclor 1232	ND	mg/kg dry	0.15	2	1	06/13/07
Aroclor 1242	ND	mg/kg dry	0.15	2	1	06/13/07
Aroclor 1248	ND	mg/kg dry	0.15	2	1	06/13/07
Aroclor 1254	ND	mg/kg dry	0.15	2	1	06/13/07
Aroclor 1260	1.17	mg/kg dry	0.15	2	1	06/13/07
Aroclor 1262	ND	mg/kg dry	0.15	2	1	06/13/07
Aroclor 1268	ND	mg/kg dry	0.15	2	1	06/13/07

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	71 %		30-150
Surrogate: Decachlorobiphenyl [2C]	58 %		30-150
Surrogate: Tetrachloro-m-xylene	72 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	71 %		30-150

ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Gannett Fleming
Client Project ID: Southbridge
Client Sample ID: SED-12-0001
Date Sampled: 06/08/07 16:45
Percent Solids: 34
Initial Volume: 15.2
Final Volume: 0.5
Extraction Method: 3541

ESS Laboratory Work Order: 0706160
ESS Laboratory Sample ID: 0706160-03
Sample Matrix: Soil
Analyst: VSC
Prepared: 06/12/07

8270C Polynuclear Aromatic Hydrocarbons

MA - SIGW1

Analyte	Results	Units	MRL	Limit	DF	Analyzed
2-Methylnaphthalene	ND	mg/kg dry	0.967	4	1	06/13/07
Acenaphthene	ND	mg/kg dry	0.967	20	1	06/13/07
Acenaphthylene	ND	mg/kg dry	0.967	100	1	06/13/07
Anthracene	ND	mg/kg dry	0.967	1000	1	06/13/07
Benzo(a)anthracene	ND	mg/kg dry	0.967	7	1	06/13/07
Benzo(a)pyrene	ND	mg/kg dry	0.967	2	1	06/13/07
Benzo(b)fluoranthene	ND	mg/kg dry	0.967	7	1	06/13/07
Benzo(g,h,i)perylene	ND	mg/kg dry	0.967	1000	1	06/13/07
Benzo(k)fluoranthene	ND	mg/kg dry	0.967	70	1	06/13/07
Benzo(e)pyrene	ND	mg/kg dry	0.967	7	1	06/13/07
Benzo(a,h)Anthracene	ND	mg/kg dry	0.967	0.7	1	06/13/07
Fluoranthene	ND	mg/kg dry	0.967	1000	1	06/13/07
Fluorene	ND	mg/kg dry	0.967	400	1	06/13/07
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	0.967	7	1	06/13/07
Naphthalene	ND	mg/kg dry	0.967	4	1	06/13/07
Phenanthrene	ND	mg/kg dry	0.967	700	1	06/13/07
Pyrene	ND	mg/kg dry	0.967	1000	1	06/13/07

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	60 %		30-130
Surrogate: 2-Fluorobiphenyl	57 %		30-130
Surrogate: Nitrobenzene-d5	65 %		30-130
Surrogate: p-Terphenyl-d14	67 %		30-130

ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Gannett Fleming
Client Project ID: Southbridge
Client Sample ID: SED-16-0001
Date Sampled: 06/08/07 11:35
Percent Solids: 28

ESS Laboratory Work Order: 0706160
ESS Laboratory Sample ID: 0706160-04
Sample Matrix: Soil

3050B/6000/7000 Total Metals

MA - S1GW1

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Arsenic	ND	mg/kg dry	10.1	6010B	20	1	JP	06/12/07	1.77	100
Barium	58.1	mg/kg dry	10.1	6010B	1000	1	JP	06/12/07	1.77	100
Cadmium	ND	mg/kg dry	2.02	6010B	2	1	JP	06/12/07	1.77	100
Chromium	30.4	mg/kg dry	4.0	6010B	30	1	JP	06/12/07	1.77	100
Lead	33.6	mg/kg dry	20.2	6010B	300	1	JP	06/12/07	1.77	100
Mercury	0.137	mg/kg dry	0.110	7471A	20	1	EEM	06/12/07	0.65	40
Selenium	ND	mg/kg dry	20.2	6010B	400	1	JP	06/12/07	1.77	100
Silver	ND	mg/kg dry	2.02	6010B	100	1	JP	06/12/07	1.77	100

ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Gannett Fleming
Client Project ID: Southbridge
Client Sample ID: SED-16-0001
Date Sampled: 06/08/07 11:35
Percent Solids: 28
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 0706160
ESS Laboratory Sample ID: 0706160-04
Sample Matrix: Soil
Analyst: SEP
Prepared: 06/12/07

8082 Polychlorinated Biphenyls (PCB)

MA - S1GW1

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	mg/kg dry	0.18	2	1	06/13/07
Aroclor 1221	ND	mg/kg dry	0.18	2	1	06/13/07
Aroclor 1232	ND	mg/kg dry	0.18	2	1	06/13/07
Aroclor 1242	ND	mg/kg dry	0.18	2	1	06/13/07
Aroclor 1248	ND	mg/kg dry	0.18	2	1	06/13/07
Aroclor 1254	ND	mg/kg dry	0.18	2	1	06/13/07
Aroclor 1260	3.85	mg/kg dry	0.88	2	5	06/13/07
Aroclor 1262	ND	mg/kg dry	0.18	2	1	06/13/07
Aroclor 1268	ND	mg/kg dry	0.18	2	1	06/13/07

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	51 %		30-150
Surrogate: Decachlorobiphenyl [2C]	46 %		30-150
Surrogate: Tetrachloro-m-xylene	46 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	44 %		30-150

ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Gannett Fleming
Client Project ID: Southbridge
Client Sample ID: SED-16-0001
Date Sampled: 06/08/07 11:35
Percent Solids: 28
Initial Volume: 15
Final Volume: 0.5
Extraction Method: 3541

ESS Laboratory Work Order: 0706160
ESS Laboratory Sample ID: 0706160-04
Sample Matrix: Soil
Analyst: VSC
Prepared: 06/12/07

8270C Polynuclear Aromatic Hydrocarbons

MA - S1GW1

Analyte	Results	Units	MRL	Limit	DF	Analyzed
2-Methylnaphthalene	ND	mg/kg dry	1.19	4	1	06/13/07
Acenaphthene	ND	mg/kg dry	1.19	20	1	06/13/07
Acenaphthylene	ND	mg/kg dry	1.19	100	1	06/13/07
Anthracene	ND	mg/kg dry	1.19	1000	1	06/13/07
Benzo(a)anthracene	ND	mg/kg dry	1.19	7	1	06/13/07
Benzo(a)pyrene	ND	mg/kg dry	1.19	2	1	06/13/07
Benzo(b)fluoranthene	ND	mg/kg dry	1.19	7	1	06/13/07
Benzo(g,h,i)perylene	ND	mg/kg dry	1.19	1000	1	06/13/07
Benzo(k)fluoranthene	ND	mg/kg dry	1.19	70	1	06/13/07
Chrysene	ND	mg/kg dry	1.19	7	1	06/13/07
Dibenzo(a,h)Anthracene	ND	mg/kg dry	1.19	0.7	1	06/13/07
Fluoranthene	ND	mg/kg dry	1.19	1000	1	06/13/07
Fluorene	ND	mg/kg dry	1.19	400	1	06/13/07
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	1.19	7	1	06/13/07
Naphthalene	ND	mg/kg dry	1.19	4	1	06/13/07
Phenanthrene	ND	mg/kg dry	1.19	700	1	06/13/07
Pyrene	ND	mg/kg dry	1.19	1000	1	06/13/07

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	55 %		30-130
Surrogate: 2-Fluorobiphenyl	60 %		30-130
Surrogate: Nitrobenzene-d5	68 %		30-130
Surrogate: p-Terphenyl-d14	66 %		30-130

ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Gannett Fleming
Client Project ID: Southbridge
Client Sample ID: SED-16-0102
Date Sampled: 06/08/07 11:40
Percent Solids: 38

ESS Laboratory Work Order: 0706160
ESS Laboratory Sample ID: 0706160-05
Sample Matrix: Soil

3050B/6000/7000 Total Metals

MA - S1GW1

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Arsenic	ND	mg/kg dry	35.3	6010B	20	5	JP	06/12/07	1.86	100
Barium	131	mg/kg dry	35.3	6010B	1000	5	JP	06/12/07	1.86	100
Cadmium	ND	mg/kg dry	7.08	6010B	2	5	JP	06/12/07	1.86	100
Chromium	43.5	mg/kg dry	14.1	6010B	30	5	JP	06/12/07	1.86	100
Lead	ND	mg/kg dry	70.8	6010B	300	5	JP	06/12/07	1.86	100
Mercury	0.102	mg/kg dry	0.082	7471A	20	1	EEM	06/12/07	0.64	40
Selenium	ND	mg/kg dry	70.8	6010B	400	5	JP	06/12/07	1.86	100
Silver	ND	mg/kg dry	7.08	6010B	100	5	JP	06/12/07	1.86	100

ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Gannett Fleming
Client Project ID: Southbridge
Client Sample ID: SED-16-0102
Date Sampled: 06/08/07 11:40
Percent Solids: 38
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 0706160
ESS Laboratory Sample ID: 0706160-05
Sample Matrix: Soil
Analyst: SEP
Prepared: 06/12/07

8082 Polychlorinated Biphenyls (PCB)

MA - S1GW1

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	mg/kg dry	0.13	2	1	06/13/07
Aroclor 1221	ND	mg/kg dry	0.13	2	1	06/13/07
Aroclor 1232	ND	mg/kg dry	0.13	2	1	06/13/07
Aroclor 1242	ND	mg/kg dry	0.13	2	1	06/13/07
Aroclor 1248	ND	mg/kg dry	0.13	2	1	06/13/07
Aroclor 1254	ND	mg/kg dry	0.13	2	1	06/13/07
Aroclor 1260	ND	mg/kg dry	0.13	2	1	06/13/07
Aroclor 1262	ND	mg/kg dry	0.13	2	1	06/13/07
Aroclor 1268	ND	mg/kg dry	0.13	2	1	06/13/07

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	58 %		30-150
Surrogate: Decachlorobiphenyl [2C]	53 %		30-150
Surrogate: Tetrachloro-m-xylene	60 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	58 %		30-150

ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Gannett Fleming
Client Project ID: Southbridge
Client Sample ID: SED-16-0102
Date Sampled: 06/08/07 11:40
Percent Solids: 38
Initial Volume: 15
Final Volume: 0.5
Extraction Method: 3541

ESS Laboratory Work Order: 0706160
ESS Laboratory Sample ID: 0706160-05
Sample Matrix: Soil
Analyst: VSC
Prepared: 06/12/07

8270C Polynuclear Aromatic Hydrocarbons

MA - S1GW1

Analyte	Results	Units	MRL	Limit	DF	Analyzed
2-Methylnaphthalene	ND	mg/kg dry	0.877	4	1	06/13/07
Acenaphthene	ND	mg/kg dry	0.877	20	1	06/13/07
Acenaphthylene	ND	mg/kg dry	0.877	100	1	06/13/07
Anthracene	ND	mg/kg dry	0.877	1000	1	06/13/07
Benzo(a)anthracene	ND	mg/kg dry	0.877	7	1	06/13/07
Benzo(a)pyrene	ND	mg/kg dry	0.877	2	1	06/13/07
Benzo(b)fluoranthene	ND	mg/kg dry	0.877	7	1	06/13/07
Benzo(g,h,i)perylene	ND	mg/kg dry	0.877	1000	1	06/13/07
Benzo(k)fluoranthene	ND	mg/kg dry	0.877	70	1	06/13/07
Chrysene	ND	mg/kg dry	0.877	7	1	06/13/07
Benzo(a,h)Anthracene	ND	mg/kg dry	0.877	0.7	1	06/13/07
Fluoranthene	ND	mg/kg dry	0.877	1000	1	06/13/07
Fluorene	ND	mg/kg dry	0.877	400	1	06/13/07
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	0.877	7	1	06/13/07
Naphthalene	ND	mg/kg dry	0.877	4	1	06/13/07
Phenanthrene	ND	mg/kg dry	0.877	700	1	06/13/07
Pyrene	ND	mg/kg dry	0.877	1000	1	06/13/07

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	55 %		30-130
Surrogate: 2-Fluorobiphenyl	55 %		30-130
Surrogate: Nitrobenzene-d5	62 %		30-130
Surrogate: p-Terphenyl-d14	66 %		30-130

ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Gannett Fleming
Client Project ID: Southbridge
Client Sample ID: SED-17-0102
Date Sampled: 06/08/07 12:10
Percent Solids: 33

ESS Laboratory Work Order: 0706160
ESS Laboratory Sample ID: 0706160-06
Sample Matrix: Soil

3050B/6000/7000 Total Metals

MA - S1GW1

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Arsenic	ND	mg/kg dry	8.0	6010B	20	1	JP	06/12/07	1.89	100
Barium	21.7	mg/kg dry	8.0	6010B	1000	1	JP	06/12/07	1.89	100
Cadmium	ND	mg/kg dry	1.60	6010B	2	1	JP	06/12/07	1.89	100
Chromium	12.6	mg/kg dry	3.2	6010B	30	1	JP	06/12/07	1.89	100
Lead	ND	mg/kg dry	16.0	6010B	300	1	JP	06/12/07	1.89	100
Mercury	ND	mg/kg dry	0.096	7471A	20	1	EEM	06/12/07	0.63	40
Selenium	ND	mg/kg dry	16.0	6010B	400	1	JP	06/12/07	1.89	100
Silver	ND	mg/kg dry	1.60	6010B	100	1	JP	06/12/07	1.89	100

ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Gannett Fleming
Client Project ID: Southbridge
Client Sample ID: SED-17-0102
Date Sampled: 06/08/07 12:10
Percent Solids: 33
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 0706160
ESS Laboratory Sample ID: 0706160-06
Sample Matrix: Soil
Analyst: SEP
Prepared: 06/12/07

8082 Polychlorinated Biphenyls (PCB)

MA - S1GW1

Analyte	Results	Units	MRL	Limit	DF	Analyzed
Aroclor 1016	ND	mg/kg dry	0.15	2	1	06/13/07
Aroclor 1221	ND	mg/kg dry	0.15	2	1	06/13/07
Aroclor 1232	ND	mg/kg dry	0.15	2	1	06/13/07
Aroclor 1242	ND	mg/kg dry	0.15	2	1	06/13/07
Aroclor 1248	ND	mg/kg dry	0.15	2	1	06/13/07
Aroclor 1254	ND	mg/kg dry	0.15	2	1	06/13/07
Aroclor 1260	ND	mg/kg dry	0.15	2	1	06/13/07
Aroclor 1262	ND	mg/kg dry	0.15	2	1	06/13/07
Aroclor 1268	ND	mg/kg dry	0.15	2	1	06/13/07

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	76 %		30-150
Surrogate: Decachlorobiphenyl [2C]	69 %		30-150
Surrogate: Tetrachloro-m-xylene	85 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	82 %		30-150

ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Gannett Fleming
Client Project ID: Southbridge
Client Sample ID: SED-17-0102
Date Sampled: 06/08/07 12:10
Percent Solids: 33
Initial Volume: 15.1
Final Volume: 0.5
Extraction Method: 3541

ESS Laboratory Work Order: 0706160
ESS Laboratory Sample ID: 0706160-06
Sample Matrix: Soil
Analyst: VSC
Prepared: 06/12/07

8270C Polynuclear Aromatic Hydrocarbons

MA - S1GW1

Analyte	Results	Units	MRL	Limit	DF	Analyzed
2-Methylnaphthalene	ND	mg/kg dry	1.00	4	1	06/13/07
Acenaphthene	ND	mg/kg dry	1.00	20	1	06/13/07
Acenaphthylene	ND	mg/kg dry	1.00	100	1	06/13/07
Anthracene	ND	mg/kg dry	1.00	1000	1	06/13/07
Benzo(a)anthracene	ND	mg/kg dry	1.00	7	1	06/13/07
Benzo(a)pyrene	ND	mg/kg dry	1.00	2	1	06/13/07
Benzo(b)fluoranthene	ND	mg/kg dry	1.00	7	1	06/13/07
Benzo(g,h,i)perylene	ND	mg/kg dry	1.00	1000	1	06/13/07
Benzo(k)fluoranthene	ND	mg/kg dry	1.00	70	1	06/13/07
Chrysene	ND	mg/kg dry	1.00	7	1	06/13/07
Dibenzo(a,h)Anthracene	ND	mg/kg dry	1.00	0.7	1	06/13/07
Fluoranthene	ND	mg/kg dry	1.00	1000	1	06/13/07
Fluorene	ND	mg/kg dry	1.00	400	1	06/13/07
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	1.00	7	1	06/13/07
Naphthalene	ND	mg/kg dry	1.00	4	1	06/13/07
Phenanthrene	ND	mg/kg dry	1.00	700	1	06/13/07
Pyrene	ND	mg/kg dry	1.00	1000	1	06/13/07

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	44 %		30-130
Surrogate: 2-Fluorobiphenyl	40 %		30-130
Surrogate: Nitrobenzene-d5	57 %		30-130
Surrogate: p-Terphenyl-d14	45 %		30-130

ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Gannett Fleming
Client Project ID: Southbridge
Client Sample ID: SED-17-0001
Date Sampled: 06/08/07 12:05
Percent Solids: 28

ESS Laboratory Work Order: 0706160
ESS Laboratory Sample ID: 0706160-07
Sample Matrix: Soil

3050B/6000/7000 Total Metals

MA - S1GW1

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Arsenic	ND	mg/kg dry	9.5	6010B	20	1	JP	06/12/07	1.87	100
Barium	66.9	mg/kg dry	9.5	6010B	1000	1	JP	06/12/07	1.87	100
Cadmium	ND	mg/kg dry	1.91	6010B	2	1	JP	06/12/07	1.87	100
Chromium	26.8	mg/kg dry	3.8	6010B	30	1	JP	06/12/07	1.87	100
Lead	ND	mg/kg dry	19.1	6010B	300	1	JP	06/12/07	1.87	100
Mercury	ND	mg/kg dry	0.101	7471A	20	1	EEM	06/12/07	0.71	40
Selenium	ND	mg/kg dry	19.1	6010B	400	1	JP	06/12/07	1.87	100
Silver	ND	mg/kg dry	1.91	6010B	100	1	JP	06/12/07	1.87	100

ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Gannett Fleming
Client Project ID: Southbridge
Client Sample ID: SED-17-0001
Date Sampled: 06/08/07 12:05
Percent Solids: 28
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 0706160
ESS Laboratory Sample ID: 0706160-07
Sample Matrix: Soil
Analyst: VSC
Prepared: 06/15/07

8082 Polychlorinated Biphenyls (PCB)

MA - S1GW1

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	mg/kg dry	0.18	2	1	06/16/07
Aroclor 1221	ND	mg/kg dry	0.18	2	1	06/16/07
Aroclor 1232	ND	mg/kg dry	0.18	2	1	06/16/07
Aroclor 1242	ND	mg/kg dry	0.18	2	1	06/16/07
Aroclor 1248	ND	mg/kg dry	0.18	2	1	06/16/07
Aroclor 1254	ND	mg/kg dry	0.18	2	1	06/16/07
Aroclor 1260	ND	mg/kg dry	0.18	2	1	06/16/07
Aroclor 1262	ND	mg/kg dry	0.18	2	1	06/16/07
Aroclor 1268	ND	mg/kg dry	0.18	2	1	06/16/07

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	45 %		30-150
Surrogate: Decachlorobiphenyl [2C]	42 %		30-150
Surrogate: Tetrachloro-m-xylene	52 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	52 %		30-150

ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Gannett Fleming
Client Project ID: Southbridge
Client Sample ID: SED-17-0001
Date Sampled: 06/08/07 12:05
Percent Solids: 28
Initial Volume: 15
Final Volume: 0.5
Extraction Method: 3541

ESS Laboratory Work Order: 0706160
ESS Laboratory Sample ID: 0706160-07
Sample Matrix: Soil
Analyst: VSC
Prepared: 06/12/07

8270C Polynuclear Aromatic Hydrocarbons

MA - S1GW1

Analyte	Results	Units	MRL	Limit	DF	Analyzed
2-Methylnaphthalene	ND	mg/kg dry	1.19	4	1	06/13/07
Acenaphthene	ND	mg/kg dry	1.19	20	1	06/13/07
Acenaphthylene	ND	mg/kg dry	1.19	100	1	06/13/07
Anthracene	ND	mg/kg dry	1.19	1000	1	06/13/07
Benzo(a)anthracene	ND	mg/kg dry	1.19	7	1	06/13/07
Benzo(a)pyrene	ND	mg/kg dry	1.19	2	1	06/13/07
Benzo(b)fluoranthene	ND	mg/kg dry	1.19	7	1	06/13/07
Benzo(g,h,i)perylene	ND	mg/kg dry	1.19	1000	1	06/13/07
Benzo(k)fluoranthene	ND	mg/kg dry	1.19	70	1	06/13/07
Chrysene	ND	mg/kg dry	1.19	7	1	06/13/07
Benzo(a,h)Anthracene	ND	mg/kg dry	1.19	0.7	1	06/13/07
Fluoranthene	ND	mg/kg dry	1.19	1000	1	06/13/07
Fluorene	ND	mg/kg dry	1.19	400	1	06/13/07
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	1.19	7	1	06/13/07
Naphthalene	ND	mg/kg dry	1.19	4	1	06/13/07
Phenanthrene	ND	mg/kg dry	1.19	700	1	06/13/07
Pyrene	ND	mg/kg dry	1.19	1000	1	06/13/07

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	45 %		30-130
Surrogate: 2-Fluorobiphenyl	51 %		30-130
Surrogate: Nitrobenzene-d5	60 %		30-130
Surrogate: p-Terphenyl-d14	53 %		30-130

ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Gannett Fleming
Client Project ID: Southbridge
Client Sample ID: SED-14-0001
Date Sampled: 06/08/07 14:50
Percent Solids: 28
Initial Volume: 20.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 0706160
ESS Laboratory Sample ID: 0706160-08
Sample Matrix: Soil
Analyst: SEP
Prepared: 06/12/07

8082 Polychlorinated Biphenyls (PCB)

MA - S1GW1

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	mg/kg dry	0.17	2	1	06/13/07
Aroclor 1221	ND	mg/kg dry	0.17	2	1	06/13/07
Aroclor 1232	ND	mg/kg dry	0.17	2	1	06/13/07
Aroclor 1242	ND	mg/kg dry	0.17	2	1	06/13/07
Aroclor 1248	ND	mg/kg dry	0.17	2	1	06/13/07
Aroclor 1254	ND	mg/kg dry	0.17	2	1	06/13/07
Aroclor 1260	ND	mg/kg dry	0.17	2	1	06/13/07
Aroclor 1262	ND	mg/kg dry	0.17	2	1	06/13/07
Aroclor 1268	ND	mg/kg dry	0.17	2	1	06/13/07

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	79 %		30-150
Surrogate: Decachlorobiphenyl [2C]	72 %		30-150
Surrogate: Tetrachloro-m-xylene	82 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	80 %		30-150