3IHSSF1044

DocumentID	NONCD0002873
Site Name	NELLO TEER QUARRY-DENFIELD
DocumentType	Correspondence (C)
RptSegment	1
DocDate	1/3/2012
DocRcvd	1/3/2012
Box	SF1044
AccessLevel	PUBLIC
Division	WASTE MANAGEMENT
Section	SUPERFUND
Program	IHS (IHS)
DocCat	FACILITY

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

January 3, 2012

Julius & Cheri Bartell
4911 Denfield St
Durham, NC 27704

RE: Water Supply Well Sampling Results – Nello Teer (NONCD0002873)
4911 Denfield St – Well ID NT-C1 & C2
Durham, NC 27704

Dear Mr. or Ms. Bartell:

Please find attached the Sample Analytical Results for a water sample collected from your well located at the address referenced above, on Dec 14, 2011. The sample was submitted for laboratory analyses for Volatile Organic Compounds (VOCs). VOCs were detected in the water sample as shown on the attached sheets.

Because VOCs were detected in the water sample, a Health Risk Evaluation (HRE) of the water supply was performed by our toxicologist. The HRE, which is enclosed, compares the concentration of detected contaminants to acceptable concentrations and provides a recommendation for acceptable uses of the water.

In accordance with the residential property disclosure act, it is your responsibility to disclose this contamination as part of the property sale. You should also notify all current and future tenants of your property of the contamination detected in your well.

If you have any questions regarding the Health Risk Evaluation, please contact Hanna Assefa at (919) 508-8445 or me at (919) 508-8573.

Sincerely,

Vincent Antrilli, Jr.
Environmental Specialist
Inactive Hazardous Sites Branch
Superfund Section

Enclosure

CC: Durham County Health Department

January 3, 2012

MEMORANDUM

TO: Vince Antrilli
Inactive Hazardous Sites Branch
Superfund Section

FROM: Hanna Assefa, Industrial Hygiene Consultant
Inactive Hazardous Sites Branch
Superfund Section

RE: Health Risk Evaluation
Nello-Teer Site
4911 Denfield St.
Durham, Durham County
NONCD 0002873

A water sample was collected from the subject well on December 14, 2011. Chloromethane was detected at a concentration below applicable standards. The standards used to determine if the water is suitable for drinking and cooking are the federal drinking water standards (USEPA MCL), or where there is no MCL, the North Carolina Groundwater Quality Standard (NC 2L).

If contaminant concentrations exceed the applicable standards for using the water for drinking and cooking, the contaminant concentrations are further analyzed to determine if the water is suitable for other household uses, such as showering, bathing, washing dishes, flushing toilets, and hand washing. **Therefore, based on this evaluation the water from this well can be used for drinking, cooking and all other residential purposes listed above.** The table below compares the detected contaminant concentrations with the applicable standards:

Sample #	Contaminant	Concentrations ug/l	USEPA MCL ug/l	15A NCAC 2L ug/l
ML15014-003	Chloromethane	0.61	*	3

*Not Available
ug/l = Micrograms of contaminant per liter of water.

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **NCDENR - DWM - DSCA**
Description: **NT-C1**
Date Sampled: **12/14/2011 0925**
Date Received: **12/15/2011**

Laboratory ID: **ML15014-002**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	12/29/2011 0002	JJG		74608

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM iso.)	ND	H	3.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4	H	105	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N.= Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **ML15014-002**
Description: **NT-C1**
Matrix: **Aqueous**
Date Sampled: **12/14/2011 0925**
Date Received: **12/15/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/22/2011 0351	JJG		74287

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		0.50	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0.50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **ML15014-002**
Description: **NT-C1**
Matrix: **Aqueous**
Date Sampled: **12/14/2011 0925**
Date Received: **12/15/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/22/2011 0351	JJG		74287

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **ML15014-003**
Description: **NT-C2**
Matrix: **Aqueous**
Date Sampled: **12/14/2011 0940**
Date Received: **12/15/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	12/29/2011 0049	JJG		74608

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM iso.)	ND	H	3.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4	H	122	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **ML15014-003**
Description: **NT-C2**
Matrix: **Aqueous**
Date Sampled: **12/14/2011 0940**
Date Received: **12/15/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/22/2011 0412	JJG		74287

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	**74-87-3**	**8260B**	**0.61**		**0.50**	**ug/L**	**1**
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		0.50	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0.50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **ML15014-003**
Description: **NT-C2**
Matrix: **Aqueous**
Date Sampled: **12/14/2011 0940**
Date Received: **12/15/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/22/2011 0412	JJG		74287

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

January 3, 2012

Harvey Harris
125 Chattelton Ct.
Durham, NC 27712

RE: Water Supply Well Sampling Results – Nello-Teer Site (NONCD0002873)
1003 Communication Dr – Well ID NT-E
Durham, NC 27704

Dear Mr. Harris:

Please find attached the Sample Analytical Results for a water sample collected from your well located at the address referenced above, on December 14, 2011. The sample was submitted for laboratory analyses for Volatile Organic Compounds (VOCs). There were no VOCs detected in your water supply well sample. As such, the use of your well water is considered safe and should not result in any adverse health effects.

If you have any questions or if I can be of any further assistance, please contact me at (919) 508-8573.

Sincerely,

Vincent Antrilli, Jr.
Environmental Specialist
Inactive Hazardous Sites Branch
Superfund Section

Enclosure

CC: Durham County Health Department

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **ML15014-004**
Description: **NT-E**
Matrix: **Aqueous**
Date Sampled: **12/14/2011 1015**
Date Received: **12/15/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	12/29/2011 0135	JJG		74608

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM iso.)	ND	H	3.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4	H	123	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **NT-E**
Date Sampled: **12/14/2011 1015**
Date Received: **12/15/2011**

Laboratory ID: **ML15014-004**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/22/2011 0433	JJG		74287

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		0.50	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0.50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **NT-E**
Date Sampled: **12/14/2011 1015**
Date Received: **12/15/2011**

Laboratory ID: **ML15014-004**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/22/2011 0433	JJG		74287

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

January 3, 2012

MEMORANDUM

TO: Vince Antrilli
Inactive Hazardous Sites Branch
Superfund Section

FROM: Hanna Assefa, Industrial Hygiene Consultant
Inactive Hazardous Sites Branch
Superfund Section

RE: Health Risk Evaluation
Nello-Teer Site
4911 Denfield St.
Durham, Durham County
NONCD 0002873

A water sample was collected from the subject well on December 14, 2011. Chloromethane was detected at a concentration below applicable standards. The standards used to determine if the water is suitable for drinking and cooking are the federal drinking water standards (USEPA MCL), or where there is no MCL, the North Carolina Groundwater Quality Standard (NC 2L).

If contaminant concentrations exceed the applicable standards for using the water for drinking and cooking, the contaminant concentrations are further analyzed to determine if the water is suitable for other household uses, such as showering, bathing, washing dishes, flushing toilets, and hand washing. **Therefore, based on this evaluation the water from this well can be used for drinking, cooking and all other residential purposes listed above.** The table below compares the detected contaminant concentrations with the applicable standards:

Sample #	Contaminant	Concentrations ug/l	USEPA MCL ug/l	15A NCAC 2L ug/l
ML15014-003	Chloromethane	0.61	*	3

*Not Available
ug/l = Micrograms of contaminant per liter of water.

REMIT TO **Invoice**

FIN: 57-0831507

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, SC 29172

Phone (803) 791-9700
Fax (803) 791-9111

Invoice Number	130516	Date	12/30/2011
Quote	12496	Customer Number	2182
Terms	Net 30 days	Project Manager	NMS

BILL TO:

NCDENR - DWM - DSCA
401 Oberlin Rd
Suite 210
Raleigh, NC 27605

Vincent Antrilli

Lot Number:ML15014
P.O. Number:
Project Number:NONCD0002873
Project Name:Nello-Teer
Sample Receipt Date:12/15/2011

Quantity	Matrix	Description	Analytical Method	Unit Price	Extended Price
4	Aqueous	1,4-Dioxane (SIM with isotope dilution)	8260B (SIM iso.)	$70.00	$280.00
4	Aqueous	TCL VOCs (OLM04.3) XLL To use with 1,4 Dioxane SIM Only	8260B	$0.00	$0.00

Approved for Payment

Vincent Antrilli Jr
Bernard Allen Fund 2054

Invoice Total: $280.00

January 3, 2012

MEMORANDUM

TO: Hanna Assefa, Industrial Hygienist
Superfund Section, IHSB

FROM: Vince Antrilli
Superfund Section, Inactive Hazardous Sites Branch (IHSB)

RE: Health Risk Evaluation Request
Nello-Teer Site
Durham, Durham County
NONCD 0002873

Please find attached a copy of the laboratory analytical results for one water supply well sample. This sample was collected from a water supply well located at 4911 Denfield St. This sample was collected on December 14, 2011. Because this sample was collected from a water supply well, the IHSB requests a health risk evaluation and a recommendation for the continued use of this well. This information will be provided to the well user. The following table summarizes the detected compounds and the corresponding concentrations.

Well ID	Compound	Concentration (µg/L)	US EPA MCL (µg/L)	NC 2L (µg/L)
NT-C2	Chloromethane	0.61	n/a	3

If you have any questions, please contact me at 707-8353.

Attachment

Nello Teer - NONCD0002873

Well Address	Sample Date	Sample By	Well ID#	PCE 2L= 0.7 MCL= 5 RAL= 12	TCE 2L= 3 MCL= 5 RAL= 300	1,4-Dioxane 2L= 3 MCL= RAL= 611	Chloromethane 2L= 3 MCL= RAL= 563	Toluene 2L= 600 MCL= 1000 RAL=	Xylenes 2L= 500 MCL= 10000 RAL= 10000	Acetone 2L= 6000 MCL= RAL= 55500	1,2 Dichloropropane 2L= 0.6 MCL= 5 RAL=	MTBE 2L= 20 MCL= RAL= 1250	HRE Sent	Comments
4918 Denfield St	**5/21/2010**		WSW-A							**5.1**				
5010 Denfield St	**5/21/2010**		WSW-B				**0.41**			**9.2**		**0.78**		
4911 Denfield St	**5/21/2010**		WSW-C				**0.33**			**2.7**				
	11/15/2011		NT-C			**7.4**								
	12/14/2011		NT-C1	No Detections										NT-C1:Sample collected from kitchen faucet
	12/14/2011		NT-C2				**0.61**							NT-C2:Sample collected from faucet at pump house
1002 Communication Dr	**6/3/2010**		WSW-D				**0.28**	**1**	**0.38**	**9.3**		**0.15**		
1003 Communication Dr	**5/21/2010**		WSW-E							**11.8**	**1.3**	**0.59**		
	12/14/2011		NT-E	No Detections										
1006 Communication Dr	**5/21/2010**		WSW-F				**0.35**			**6.1**		**1.7**		
	11/15/2011		NT-F									**0.68**		

Notes:
All units in ug/l (ppb)
Above MDL Limt = **BOLD**
Above 2L Limit = **BOLD**
Above MCL Limit = **BOLD**
Above RAL = **BOLD**
Chloroform Below 2L = NOT BOLD
HRE Sent =
*=Sample collected after filter system
(T) or (t) = Total

1,1-DCA = 1,1-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
Chloromethane (AKA - Methyl Chloride)
PCE = Tetrachloroethene
TCE = Trichloroethene

Nello Teer - NONCD0002873

Well Address	Sample Date	Sample By	Well ID#	PCE 2L= 0.7 MCL= 5 RAL= 12	TCE 2L= 3 MCL= 5 RAL= 300	1,4-Dioxane 2L= 3 MCL= RAL= 611	Chloromethane 2L= 3 MCL= RAL= 563	Toluene 2L= 600 MCL= 1000 RAL=	Xylenes 2L= 500 MCL= 10000 RAL= 10000	Acetone 2L= 6000 MCL= RAL= 55500	1,2 Dichloropropane 2L= 0.6 MCL= 5 RAL=	MTBE 2L= 20 MCL= RAL= 1250	HRE Sent	Comments
4918 Denfield St	**5/21/2010**		WSW-A							**5.1**				
5010 Denfield St	**5/21/2010**		WSW-B				**0.41**			**9.2**		**0.78**		
4911 Denfield St	**5/21/2010**		WSW-C				**0.33**			**2.7**				
	11/15/2011		NT-C			**7.4**								
	12/14/2011		NT-C1	No Detections										NT-C1:Sample collected from kitchen faucet
	12/14/2011		NT-C2				**0.61**							NT-C2:Sample collected from faucet at pump house
1002 Communication Dr	**6/3/2010**		WSW-D				**0.28**	**1**	**0.38**	**9.3**		**0.15**		
1003 Communication Dr	**5/21/2010**		WSW-E							**11.8**	**1.3**	**0.59**		
	12/14/2011		NT-E	No Detections										
1006 Communication Dr	**5/21/2010**		WSW-F				**0.35**			**6.1**		**1.7**		
	11/15/2011		NT-F									**0.68**		

Notes:
All units in ug/l (ppb)
Above MDL Limt = **BOLD**
Above 2L Limit = **BOLD**
Above MCL Limit = **BOLD**
Above RAL = **BOLD**
Chloroform Below 2L = NOT BOLD
HRE Sent =
*=Sample collected after filter system
(T) or (t) = Total

1,1-DCA = 1,1-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
Chloromethane (AKA - Methyl Chloride)
PCE = Tetrachloroethene
TCE = Trichloroethene

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

NCDENR - DWM - DSCA
401 Oberlin Rd
Suite 210
Raleigh, NC 27605
Attention: Vincent Antrilli

Project Name: **Nello-Teer**

Project Number: **NONCD0002873**

Lot Number: **ML15014**

Date Completed: **12/29/2011**

Nisreen Saikaly
Project Manager

This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

• • • • • • • • • •

Case Narrative
NCDENR - DWM - DSCA
Lot Number: ML15014

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Volatile Organic Compounds

Samples for 1,4-Dioxane were analyzed outside the holding time due to analyst error.

Volatile Organic Compounds

The LCS recovery for Methylcyclohexane and 1,1,2-Trichloro-1,2,2-Trifluoroethane exceeded method control limits in batch 74287; however, all other QA/QC criteria for the LCS/LCSD were within acceptance criteria and method control limits. The associated sample results were non-detect, therefore the results were reported and no corrective action was required.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary
NCDENR - DWM - DSCA
Lot Number: ML15014

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TRIP BLANK	Aqueous	12/14/2011	12/15/2011
002	NT-C1	Aqueous	12/14/2011 0925	12/15/2011
003	NT-C2	Aqueous	12/14/2011 0940	12/15/2011
004	NT-E	Aqueous	12/14/2011 1015	12/15/2011

(4 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary
NCDENR - DWM - DSCA
Lot Number: ML15014

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TRIP BLANK	Aqueous	Toluene	8260B	0.67		ug/L	6
003	NT-C2	Aqueous	Chloromethane (Methyl chloride)	8260B	0.61		ug/L	12

(2 detections)

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **NCDENR - DWM - DSCA**
Description: **TRIP BLANK**
Date Sampled: **12/14/2011**
Date Received: **12/15/2011**

Laboratory ID: **ML15014-001**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	12/28/2011 2339	JJG		74608

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM iso.)	ND		3.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **ML15014-001**
Description: **TRIP BLANK**
Matrix: **Aqueous**
Date Sampled: **12/14/2011**
Date Received: **12/15/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/23/2011 2349	JJG		74440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		0.50	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0.50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	**108-88-3**	**8260B**	**0.67**		**0.50**	**ug/L**	**1**
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **TRIP BLANK**
Date Sampled: **12/14/2011**
Date Received: **12/15/2011**

Laboratory ID: **ML15014-001**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/23/2011 2349	JJG		74440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		102	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **ML15014-002**
Description: **NT-C1**
Matrix: **Aqueous**
Date Sampled: **12/14/2011 0925**
Date Received: **12/15/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	12/29/2011 0002	JJG		74608

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM iso.)	ND	H	3.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4	H	105	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **NT-C1**
Date Sampled: **12/14/2011 0925**
Date Received: **12/15/2011**

Laboratory ID: **ML15014-002**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/22/2011 0351	JJG		74287

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		0.50	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0.50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **ML15014-002**
Description: **NT-C1**
Matrix: **Aqueous**
Date Sampled: **12/14/2011 0925**
Date Received: **12/15/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/22/2011 0351	JJG		74287

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **ML15014-003**
Description: **NT-C2**
Matrix: **Aqueous**
Date Sampled: **12/14/2011 0940**
Date Received: **12/15/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	12/29/2011 0049	JJG		74608

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM iso.)	ND	H	3.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4	H	122	40-170

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA** Laboratory ID: **ML15014-003**
Description: **NT-C2** Matrix: **Aqueous**
Date Sampled: **12/14/2011 0940**
Date Received: **12/15/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/22/2011 0412	JJG		74287

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	**74-87-3**	**8260B**	**0.61**		**0.50**	**ug/L**	**1**
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		0.50	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0.50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **ML15014-003**
Description: **NT-C2**
Matrix: **Aqueous**
Date Sampled: **12/14/2011 0940**
Date Received: **12/15/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/22/2011 0412	JJG		74287

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **NCDENR - DWM - DSCA**
Description: **NT-E**
Date Sampled: **12/14/2011 1015**
Date Received: **12/15/2011**
Laboratory ID: **ML15014-004**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	12/29/2011 0135	JJG		74608

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM iso.)	ND	H	3.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4	H	123	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **ML15014-004**
Description: **NT-E**
Matrix: **Aqueous**
Date Sampled: **12/14/2011 1015**
Date Received: **12/15/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/22/2011 0433	JJG		74287

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		0.50	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0.50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **ML15014-004**
Description: **NT-E**
Matrix: **Aqueous**
Date Sampled: **12/14/2011 1015**
Date Received: **12/15/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/22/2011 0433	JJG		74287

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: MQ74287-001
Batch: 74287
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/22/2011 0004
Benzene	ND		1	0.50	ug/L	12/22/2011 0004
Bromodichloromethane	ND		1	0.50	ug/L	12/22/2011 0004
Bromoform	ND		1	0.50	ug/L	12/22/2011 0004
Bromomethane (Methyl bromide)	ND		1	0.50	ug/L	12/22/2011 0004
2-Butanone (MEK)	ND		1	10	ug/L	12/22/2011 0004
Carbon disulfide	ND		1	0.50	ug/L	12/22/2011 0004
Carbon tetrachloride	ND		1	0.50	ug/L	12/22/2011 0004
Chlorobenzene	ND		1	0.50	ug/L	12/22/2011 0004
Chloroethane	ND		1	0.50	ug/L	12/22/2011 0004
Chloroform	ND		1	0.50	ug/L	12/22/2011 0004
Chloromethane (Methyl chloride)	ND		1	0.50	ug/L	12/22/2011 0004
Cyclohexane	ND		1	0.50	ug/L	12/22/2011 0004
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	0.50	ug/L	12/22/2011 0004
Dibromochloromethane	ND		1	0.50	ug/L	12/22/2011 0004
1,2-Dibromoethane (EDB)	ND		1	0.50	ug/L	12/22/2011 0004
1,2-Dichlorobenzene	ND		1	0.50	ug/L	12/22/2011 0004
1,4-Dichlorobenzene	ND		1	0.50	ug/L	12/22/2011 0004
1,3-Dichlorobenzene	ND		1	0.50	ug/L	12/22/2011 0004
Dichlorodifluoromethane	ND		1	0.50	ug/L	12/22/2011 0004
1,2-Dichloroethane	ND		1	0.50	ug/L	12/22/2011 0004
1,1-Dichloroethane	ND		1	0.50	ug/L	12/22/2011 0004
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/22/2011 0004
1,1-Dichloroethene	ND		1	0.50	ug/L	12/22/2011 0004
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/22/2011 0004
1,2-Dichloropropane	ND		1	0.50	ug/L	12/22/2011 0004
cis-1,3-Dichloropropene	ND		1	0.50	ug/L	12/22/2011 0004
trans-1,3-Dichloropropene	ND		1	0.50	ug/L	12/22/2011 0004
Ethylbenzene	ND		1	0.50	ug/L	12/22/2011 0004
2-Hexanone	ND		1	10	ug/L	12/22/2011 0004
Isopropylbenzene	ND		1	0.50	ug/L	12/22/2011 0004
Methyl acetate	ND		1	1.0	ug/L	12/22/2011 0004
Methyl tertiary butyl ether (MTBE)	ND		1	0.50	ug/L	12/22/2011 0004
4-Methyl-2-pentanone	ND		1	10	ug/L	12/22/2011 0004
Methylcyclohexane	ND		1	5.0	ug/L	12/22/2011 0004
Methylene chloride	ND		1	0.50	ug/L	12/22/2011 0004
Styrene	ND		1	0.50	ug/L	12/22/2011 0004
1,1,2,2-Tetrachloroethane	ND		1	0.50	ug/L	12/22/2011 0004
Tetrachloroethene	ND		1	0.50	ug/L	12/22/2011 0004
Toluene	ND		1	0.50	ug/L	12/22/2011 0004
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	0.50	ug/L	12/22/2011 0004
1,2,4-Trichlorobenzene	ND		1	0.50	ug/L	12/22/2011 0004
1,1,2-Trichloroethane	ND		1	0.50	ug/L	12/22/2011 0004
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/22/2011 0004

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: MQ74287-001
Batch: 74287
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Trichloroethene	ND		1	0.50	ug/L	12/22/2011 0004
Trichlorofluoromethane	ND		1	0.50	ug/L	12/22/2011 0004
Vinyl chloride	ND		1	0.50	ug/L	12/22/2011 0004
Xylenes (total)	ND		1	0.50	ug/L	12/22/2011 0004

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		90	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: MQ74287-002
Batch: 74287
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	100	46-153	12/21/2011 2240
Benzene	50	58		1	116	70-130	12/21/2011 2240
Bromodichloromethane	50	50		1	100	70-130	12/21/2011 2240
Bromoform	50	46		1	92	70-130	12/21/2011 2240
Bromomethane (Methyl bromide)	50	58		1	116	60-140	12/21/2011 2240
2-Butanone (MEK)	100	110		1	115	60-140	12/21/2011 2240
Carbon disulfide	50	55		1	110	60-140	12/21/2011 2240
Carbon tetrachloride	50	55		1	109	70-130	12/21/2011 2240
Chlorobenzene	50	58		1	116	70-130	12/21/2011 2240
Chloroethane	50	54		1	108	42-163	12/21/2011 2240
Chloroform	50	54		1	109	70-130	12/21/2011 2240
Chloromethane (Methyl chloride)	50	50		1	100	20-158	12/21/2011 2240
Cyclohexane	50	53		1	106	70-130	12/21/2011 2240
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	95	70-130	12/21/2011 2240
Dibromochloromethane	50	50		1	100	70-130	12/21/2011 2240
1,2-Dibromoethane (EDB)	50	52		1	104	70-130	12/21/2011 2240
1,2-Dichlorobenzene	50	60		1	120	70-130	12/21/2011 2240
1,4-Dichlorobenzene	50	58		1	115	70-130	12/21/2011 2240
1,3-Dichlorobenzene	50	60		1	120	70-130	12/21/2011 2240
Dichlorodifluoromethane	50	51		1	101	60-140	12/21/2011 2240
1,2-Dichloroethane	50	49		1	99	70-130	12/21/2011 2240
1,1-Dichloroethane	50	56		1	112	70-130	12/21/2011 2240
trans-1,2-Dichloroethene	50	57		1	115	70-130	12/21/2011 2240
1,1-Dichloroethene	50	57		1	114	70-130	12/21/2011 2240
cis-1,2-Dichloroethene	50	58		1	117	70-130	12/21/2011 2240
1,2-Dichloropropane	50	58		1	117	70-130	12/21/2011 2240
cis-1,3-Dichloropropene	50	52		1	105	70-130	12/21/2011 2240
trans-1,3-Dichloropropene	50	50		1	101	70-130	12/21/2011 2240
Ethylbenzene	50	61		1	121	70-130	12/21/2011 2240
2-Hexanone	100	100		1	103	60-140	12/21/2011 2240
Isopropylbenzene	50	58		1	116	70-130	12/21/2011 2240
Methyl acetate	50	51		1	102	15-128	12/21/2011 2240
Methyl tertiary butyl ether (MTBE)	50	51		1	103	70-130	12/21/2011 2240
4-Methyl-2-pentanone	100	100		1	102	60-140	12/21/2011 2240
Methylcyclohexane	50	65	N	1	131	70-130	12/21/2011 2240
Methylene chloride	50	56		1	111	70-130	12/21/2011 2240
Styrene	50	59		1	118	70-130	12/21/2011 2240
1,1,2,2-Tetrachloroethane	50	60		1	119	70-130	12/21/2011 2240
Tetrachloroethene	50	58		1	117	70-130	12/21/2011 2240
Toluene	50	58		1	115	70-130	12/21/2011 2240
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	66	N	1	132	70-130	12/21/2011 2240
1,2,4-Trichlorobenzene	50	60		1	120	70-130	12/21/2011 2240
1,1,2-Trichloroethane	50	56		1	112	70-130	12/21/2011 2240
1,1,1-Trichloroethane	50	53		1	106	70-130	12/21/2011 2240

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: MQ74287-002
Batch: 74287
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	58		1	116	70-130	12/21/2011 2240
Trichlorofluoromethane	50	51		1	102	60-140	12/21/2011 2240
Vinyl chloride	50	54		1	108	60-140	12/21/2011 2240
Xylenes (total)	100	120		1	120	70-130	12/21/2011 2240

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		93	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: MQ74287-003
Batch: 74287
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	100		1	101	0.56	46-153	20	12/21/2011 2301
Benzene	50	58		1	115	1.1	70-130	20	12/21/2011 2301
Bromodichloromethane	50	50		1	99	0.41	70-130	20	12/21/2011 2301
Bromoform	50	46		1	91	1.1	70-130	20	12/21/2011 2301
Bromomethane (Methyl bromide)	50	57		1	114	1.6	60-140	20	12/21/2011 2301
2-Butanone (MEK)	100	120		1	115	0.38	60-140	20	12/21/2011 2301
Carbon disulfide	50	55		1	110	0.28	60-140	20	12/21/2011 2301
Carbon tetrachloride	50	55		1	109	0.057	70-130	20	12/21/2011 2301
Chlorobenzene	50	57		1	114	1.6	70-130	20	12/21/2011 2301
Chloroethane	50	54		1	108	0.21	42-163	20	12/21/2011 2301
Chloroform	50	54		1	108	0.67	70-130	20	12/21/2011 2301
Chloromethane (Methyl chloride)	50	49		1	98	2.2	20-158	20	12/21/2011 2301
Cyclohexane	50	53		1	106	0.70	70-130	20	12/21/2011 2301
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	95	0.92	70-130	20	12/21/2011 2301
Dibromochloromethane	50	49		1	99	1.1	70-130	20	12/21/2011 2301
1,2-Dibromoethane (EDB)	50	52		1	104	0.76	70-130	20	12/21/2011 2301
1,2-Dichlorobenzene	50	58		1	116	2.7	70-130	20	12/21/2011 2301
1,4-Dichlorobenzene	50	56		1	113	2.2	70-130	20	12/21/2011 2301
1,3-Dichlorobenzene	50	59		1	117	2.7	70-130	20	12/21/2011 2301
Dichlorodifluoromethane	50	51		1	101	0.083	60-140	20	12/21/2011 2301
1,2-Dichloroethane	50	49		1	98	0.90	70-130	20	12/21/2011 2301
1,1-Dichloroethane	50	56		1	112	0.15	70-130	20	12/21/2011 2301
trans-1,2-Dichloroethene	50	57		1	114	0.40	70-130	20	12/21/2011 2301
1,1-Dichloroethene	50	57		1	115	0.22	70-130	20	12/21/2011 2301
cis-1,2-Dichloroethene	50	58		1	116	0.37	70-130	20	12/21/2011 2301
1,2-Dichloropropane	50	58		1	116	0.65	70-130	20	12/21/2011 2301
cis-1,3-Dichloropropene	50	52		1	103	1.2	70-130	20	12/21/2011 2301
trans-1,3-Dichloropropene	50	50		1	99	1.5	70-130	20	12/21/2011 2301
Ethylbenzene	50	60		1	120	1.0	70-130	20	12/21/2011 2301
2-Hexanone	100	100		1	102	1.1	60-140	20	12/21/2011 2301
Isopropylbenzene	50	56		1	113	2.6	70-130	20	12/21/2011 2301
Methyl acetate	50	51		1	101	0.67	15-128	20	12/21/2011 2301
Methyl tertiary butyl ether (MTBE)	50	51		1	101	1.6	70-130	20	12/21/2011 2301
4-Methyl-2-pentanone	100	100		1	101	1.1	60-140	20	12/21/2011 2301
Methylcyclohexane	50	63		1	126	3.6	70-130	20	12/21/2011 2301
Methylene chloride	50	56		1	111	0.074	70-130	20	12/21/2011 2301
Styrene	50	58		1	115	2.0	70-130	20	12/21/2011 2301
1,1,2,2-Tetrachloroethane	50	59		1	118	1.3	70-130	20	12/21/2011 2301
Tetrachloroethene	50	58		1	115	1.1	70-130	20	12/21/2011 2301
Toluene	50	57		1	114	1.2	70-130	20	12/21/2011 2301
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	65		1	130	1.9	70-130	20	12/21/2011 2301
1,2,4-Trichlorobenzene	50	56		1	113	5.9	70-130	20	12/21/2011 2301
1,1,2-Trichloroethane	50	55		1	110	1.5	70-130	20	12/21/2011 2301
1,1,1-Trichloroethane	50	53		1	105	0.21	70-130	20	12/21/2011 2301

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: MQ74287-003
Batch: 74287
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	57		1	114	1.1	70-130	20	12/21/2011 2301
Trichlorofluoromethane	50	50		1	101	0.78	60-140	20	12/21/2011 2301
Vinyl chloride	50	54		1	108	0.32	60-140	20	12/21/2011 2301
Xylenes (total)	100	120		1	118	1.8	70-130	20	12/21/2011 2301

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: MQ74440-001
Batch: 74440
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/23/2011 2316
Benzene	ND		1	0.50	ug/L	12/23/2011 2316
Bromodichloromethane	ND		1	0.50	ug/L	12/23/2011 2316
Bromoform	ND		1	0.50	ug/L	12/23/2011 2316
Bromomethane (Methyl bromide)	ND		1	0.50	ug/L	12/23/2011 2316
2-Butanone (MEK)	ND		1	10	ug/L	12/23/2011 2316
Carbon disulfide	ND		1	0.50	ug/L	12/23/2011 2316
Carbon tetrachloride	ND		1	0.50	ug/L	12/23/2011 2316
Chlorobenzene	ND		1	0.50	ug/L	12/23/2011 2316
Chloroethane	ND		1	0.50	ug/L	12/23/2011 2316
Chloroform	ND		1	0.50	ug/L	12/23/2011 2316
Chloromethane (Methyl chloride)	ND		1	0.50	ug/L	12/23/2011 2316
Cyclohexane	ND		1	0.50	ug/L	12/23/2011 2316
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	0.50	ug/L	12/23/2011 2316
Dibromochloromethane	ND		1	0.50	ug/L	12/23/2011 2316
1,2-Dibromoethane (EDB)	ND		1	0.50	ug/L	12/23/2011 2316
1,4-Dichlorobenzene	ND		1	0.50	ug/L	12/23/2011 2316
1,3-Dichlorobenzene	ND		1	0.50	ug/L	12/23/2011 2316
1,2-Dichlorobenzene	ND		1	0.50	ug/L	12/23/2011 2316
Dichlorodifluoromethane	ND		1	0.50	ug/L	12/23/2011 2316
1,2-Dichloroethane	ND		1	0.50	ug/L	12/23/2011 2316
1,1-Dichloroethane	ND		1	0.50	ug/L	12/23/2011 2316
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/23/2011 2316
1,1-Dichloroethene	ND		1	0.50	ug/L	12/23/2011 2316
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/23/2011 2316
1,2-Dichloropropane	ND		1	0.50	ug/L	12/23/2011 2316
trans-1,3-Dichloropropene	ND		1	0.50	ug/L	12/23/2011 2316
cis-1,3-Dichloropropene	ND		1	0.50	ug/L	12/23/2011 2316
Ethylbenzene	ND		1	0.50	ug/L	12/23/2011 2316
2-Hexanone	ND		1	10	ug/L	12/23/2011 2316
Isopropylbenzene	ND		1	0.50	ug/L	12/23/2011 2316
Methyl acetate	ND		1	1.0	ug/L	12/23/2011 2316
Methyl tertiary butyl ether (MTBE)	ND		1	0.50	ug/L	12/23/2011 2316
4-Methyl-2-pentanone	ND		1	10	ug/L	12/23/2011 2316
Methylcyclohexane	ND		1	5.0	ug/L	12/23/2011 2316
Methylene chloride	ND		1	0.50	ug/L	12/23/2011 2316
Styrene	ND		1	0.50	ug/L	12/23/2011 2316
1,1,2,2-Tetrachloroethane	ND		1	0.50	ug/L	12/23/2011 2316
Tetrachloroethene	ND		1	0.50	ug/L	12/23/2011 2316
Toluene	ND		1	0.50	ug/L	12/23/2011 2316
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	0.50	ug/L	12/23/2011 2316
1,2,4-Trichlorobenzene	ND		1	0.50	ug/L	12/23/2011 2316
1,1,2-Trichloroethane	ND		1	0.50	ug/L	12/23/2011 2316
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/23/2011 2316

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: MQ74440-001
Batch: 74440
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Trichloroethene	ND		1	0.50	ug/L	12/23/2011 2316
Trichlorofluoromethane	ND		1	0.50	ug/L	12/23/2011 2316
Vinyl chloride	ND		1	0.50	ug/L	12/23/2011 2316
Xylenes (total)	ND		1	0.50	ug/L	12/23/2011 2316

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		91	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: MQ74440-002
Batch: 74440
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	79		1	79	46-153	12/23/2011 2152
Benzene	50	53		1	106	70-130	12/23/2011 2152
Bromodichloromethane	50	48		1	96	70-130	12/23/2011 2152
Bromoform	50	45		1	90	70-130	12/23/2011 2152
Bromomethane (Methyl bromide)	50	54		1	109	60-140	12/23/2011 2152
2-Butanone (MEK)	100	98		1	98	60-140	12/23/2011 2152
Carbon disulfide	50	58		1	116	60-140	12/23/2011 2152
Carbon tetrachloride	50	53		1	107	70-130	12/23/2011 2152
Chlorobenzene	50	52		1	103	70-130	12/23/2011 2152
Chloroethane	50	50		1	100	42-163	12/23/2011 2152
Chloroform	50	52		1	103	70-130	12/23/2011 2152
Chloromethane (Methyl chloride)	50	46		1	91	20-158	12/23/2011 2152
Cyclohexane	50	48		1	96	70-130	12/23/2011 2152
1,2-Dibromo-3-chloropropane (DBCP)	50	41		1	83	70-130	12/23/2011 2152
Dibromochloromethane	50	47		1	95	70-130	12/23/2011 2152
1,2-Dibromoethane (EDB)	50	46		1	93	70-130	12/23/2011 2152
1,4-Dichlorobenzene	50	51		1	102	70-130	12/23/2011 2152
1,3-Dichlorobenzene	50	52		1	105	70-130	12/23/2011 2152
1,2-Dichlorobenzene	50	53		1	106	70-130	12/23/2011 2152
Dichlorodifluoromethane	50	49		1	99	60-140	12/23/2011 2152
1,2-Dichloroethane	50	46		1	91	70-130	12/23/2011 2152
1,1-Dichloroethane	50	51		1	101	70-130	12/23/2011 2152
trans-1,2-Dichloroethene	50	54		1	108	70-130	12/23/2011 2152
1,1-Dichloroethene	50	54		1	108	70-130	12/23/2011 2152
cis-1,2-Dichloroethene	50	55		1	109	70-130	12/23/2011 2152
1,2-Dichloropropane	50	53		1	106	70-130	12/23/2011 2152
trans-1,3-Dichloropropene	50	43		1	87	70-130	12/23/2011 2152
cis-1,3-Dichloropropene	50	47		1	94	70-130	12/23/2011 2152
Ethylbenzene	50	54		1	109	70-130	12/23/2011 2152
2-Hexanone	100	84		1	84	60-140	12/23/2011 2152
Isopropylbenzene	50	50		1	101	70-130	12/23/2011 2152
Methyl acetate	50	41		1	83	15-128	12/23/2011 2152
Methyl tertiary butyl ether (MTBE)	50	47		1	94	70-130	12/23/2011 2152
4-Methyl-2-pentanone	100	87		1	87	60-140	12/23/2011 2152
Methylcyclohexane	50	58		1	115	70-130	12/23/2011 2152
Methylene chloride	50	51		1	102	70-130	12/23/2011 2152
Styrene	50	51		1	103	70-130	12/23/2011 2152
1,1,2,2-Tetrachloroethane	50	50		1	100	70-130	12/23/2011 2152
Tetrachloroethene	50	53		1	106	70-130	12/23/2011 2152
Toluene	50	53		1	106	70-130	12/23/2011 2152
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	62		1	125	70-130	12/23/2011 2152
1,2,4-Trichlorobenzene	50	51		1	101	70-130	12/23/2011 2152
1,1,2-Trichloroethane	50	49		1	98	70-130	12/23/2011 2152
1,1,1-Trichloroethane	50	52		1	103	70-130	12/23/2011 2152

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of cnteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: MQ74440-002
Batch: 74440
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	55		1	110	70-130	12/23/2011 2152
Trichlorofluoromethane	50	50		1	100	60-140	12/23/2011 2152
Vinyl chloride	50	51		1	101	60-140	12/23/2011 2152
Xylenes (total)	100	110		1	107	70-130	12/23/2011 2152

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: MQ74440-003
Batch: 74440
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	87		1	87	8.8	46-153	20	12/23/2011 2213
Benzene	50	53		1	105	0.59	70-130	20	12/23/2011 2213
Bromodichloromethane	50	47		1	95	0.99	70-130	20	12/23/2011 2213
Bromoform	50	44		1	88	2.0	70-130	20	12/23/2011 2213
Bromomethane (Methyl bromide)	50	52		1	104	4.8	60-140	20	12/23/2011 2213
2-Butanone (MEK)	100	99		1	99	1.6	60-140	20	12/23/2011 2213
Carbon disulfide	50	57		1	114	2.1	60-140	20	12/23/2011 2213
Carbon tetrachloride	50	52		1	105	1.8	70-130	20	12/23/2011 2213
Chlorobenzene	50	52		1	103	0.12	70-130	20	12/23/2011 2213
Chloroethane	50	49		1	97	2.8	42-163	20	12/23/2011 2213
Chloroform	50	51		1	102	1.4	70-130	20	12/23/2011 2213
Chloromethane (Methyl chloride)	50	44		1	89	3.0	20-158	20	12/23/2011 2213
Cyclohexane	50	48		1	96	0.62	70-130	20	12/23/2011 2213
1,2-Dibromo-3-chloropropane (DBCP)	50	42		1	83	0.74	70-130	20	12/23/2011 2213
Dibromochloromethane	50	47		1	94	1.1	70-130	20	12/23/2011 2213
1,2-Dibromoethane (EDB)	50	46		1	92	0.90	70-130	20	12/23/2011 2213
1,4-Dichlorobenzene	50	51		1	102	0.59	70-130	20	12/23/2011 2213
1,3-Dichlorobenzene	50	53		1	107	1.8	70-130	20	12/23/2011 2213
1,2-Dichlorobenzene	50	53		1	106	0.60	70-130	20	12/23/2011 2213
Dichlorodifluoromethane	50	49		1	98	0.38	60-140	20	12/23/2011 2213
1,2-Dichloroethane	50	45		1	90	2.1	70-130	20	12/23/2011 2213
1,1-Dichloroethane	50	51		1	103	1.5	70-130	20	12/23/2011 2213
trans-1,2-Dichloroethene	50	53		1	106	1.8	70-130	20	12/23/2011 2213
1,1-Dichloroethene	50	53		1	107	1.2	70-130	20	12/23/2011 2213
cis-1,2-Dichloroethene	50	54		1	108	0.81	70-130	20	12/23/2011 2213
1,2-Dichloropropane	50	52		1	105	1.1	70-130	20	12/23/2011 2213
trans-1,3-Dichloropropene	50	42		1	84	3.2	70-130	20	12/23/2011 2213
cis-1,3-Dichloropropene	50	46		1	91	2.8	70-130	20	12/23/2011 2213
Ethylbenzene	50	55		1	109	0.58	70-130	20	12/23/2011 2213
2-Hexanone	100	85		1	85	1.2	60-140	20	12/23/2011 2213
Isopropylbenzene	50	51		1	102	1.6	70-130	20	12/23/2011 2213
Methyl acetate	50	43		1	86	4.3	15-128	20	12/23/2011 2213
Methyl tertiary butyl ether (MTBE)	50	47		1	94	0.86	70-130	20	12/23/2011 2213
4-Methyl-2-pentanone	100	88		1	88	0.47	60-140	20	12/23/2011 2213
Methylcyclohexane	50	59		1	118	2.4	70-130	20	12/23/2011 2213
Methylene chloride	50	51		1	102	0.34	70-130	20	12/23/2011 2213
Styrene	50	52		1	104	1.6	70-130	20	12/23/2011 2213
1,1,2,2-Tetrachloroethane	50	50		1	100	0.50	70-130	20	12/23/2011 2213
Tetrachloroethene	50	54		1	107	0.78	70-130	20	12/23/2011 2213
Toluene	50	53		1	106	0.21	70-130	20	12/23/2011 2213
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	62		1	123	1.3	70-130	20	12/23/2011 2213
1,2,4-Trichlorobenzene	50	51		1	102	0.22	70-130	20	12/23/2011 2213
1,1,2-Trichloroethane	50	49		1	98	0.39	70-130	20	12/23/2011 2213
1,1,1-Trichloroethane	50	51		1	101	1.9	70-130	20	12/23/2011 2213

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: MQ74440-003
Batch: 74440
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	55		1	109	0.77	70-130	20	12/23/2011 2213
Trichlorofluoromethane	50	49		1	98	2.2	60-140	20	12/23/2011 2213
Vinyl chloride	50	49		1	98	2.9	60-140	20	12/23/2011 2213
Xylenes (total)	100	110		1	107	0.91	70-130	20	12/23/2011 2213

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - MB

Sample ID: MQ74608-001
Batch: 74608
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
1,4-Dioxane	ND		1	3.0	ug/L	12/28/2011 2315

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		82	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - LCS

Sample ID: MQ74608-002
Batch: 74608
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,4-Dioxane	50	53		1	105	43-173	12/28/2011 2140

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		96	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - LCSD

Sample ID: MQ74608-003
Batch: 74608
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,4-Dioxane	50	46		1	92	14	43-173	20	12/28/2011 2204

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		88	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

SHEALY

Chain of Custody Record

Number 02086

Client: NCDENR-DWM	Report to Contact: Vince Antelli	Sampler (Printed Name): Vincent Antelli	Quote No.
Address: 217 W. Jones St	Telephone No. / Fax No. / E-mail: 919-707-8353	Waybill No.	Page of
City: Raleigh; State: NC; Zip Code: 27603	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio 7. NaOH		Number of Containers
Project Name: Nello Teer			Bottle (See Instructions on back)
			Preservative
Project Number: NONCD0002873	PO Number		Lot No. PK15014

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix GW	DW	WW	S	Other	Analysis VOC's	1,4 Dioxane (SOP)	Remarks / Cooler ID
Trip Blank	12-14-11								2	2	
NT-C1		9:25		✓					3	3	
NT-C2		9:40		✓					3	3	
NT-E		10:15		✓					3	3	

Turn Around Time Required (Prior to approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Dispose by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☐Non Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler: Vincent Antelli	12-14-11	7:10 pm	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by: FedEx	12/15/11	0850	4. Laboratory Received by	12/15/11	0850

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Receipt Under Chain ☑ Yes ☐ No ☐ Ice Pack; Receipt Temp. 6.4 °C; Temp. Blank ☑ Y / ☐ N

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Receipt Checklist (SRC)

Client: NC DENR - DWM Cooler Inspected by/date: [illegible] 12/17/14 Lot #: M-L15014

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☒ FedEx ☐ Airborne Exp ☐ Other

Yes ☒	No ☐	1. Were custody seals present on the cooler?
Yes ☒	No ☐	2. If custody seals were present, were they intact and unbroken?

Cooler ID/temperature upon receipt 2.6 °C / °C / °C / °C
Method: ☐ Temperature Blank ☒ Against Bottles
Method of coolant: ☒ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

Yes ☐	No ☐	NA ☒	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____. (for coolers received via commercial courier, PMs are to be notified immediately.
Yes ☐	No ☐	NA ☒	4. Is the commercial courier's packing slip attached to this form?
Yes ☒	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☐	NA ☒	5a Were samples relinquished by client to commercial courier?
Yes ☒	No ☐		6. Were sample IDs listed?
Yes ☒	No ☐		7. Was collection date & time listed?
Yes ☒	No ☐		8. Were tests to be performed listed on the COC?
Yes ☒	No ☐		9. Did all samples arrive in the proper containers for each test?
Yes ☒	No ☐		10. Did all container label information (ID, date, time) agree with COC?
Yes ☒	No ☐		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☒	No ☐		12. Was adequate sample volume available?
Yes ☒	No ☐		13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☒		14. Were any samples containers missing?
Yes ☐	No ☒		15. Were there any excess samples not listed on COC?
Yes ☒	No ☐	NA ☐	16. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☒	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☒	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☒	19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☒	NA ☐	20. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☒	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc.) correctly transcribed from the COC into the comment section in LIMS?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4, HNO_3, HCL, NaOH) with the SR # (number)

Sample(s) 001 (2) were received with bubbles >6 mm in diameter.

Sample(s) _____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb.

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐ Did client respond: Yes ☐ No ☐
SESI employee: _____ Date of response: _____
Comments: _____

NCDENR

North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director | Division of Waste Management | Beverly Eaves Purdue, Governor
Dee Freeman, Secretary

MEMORANDUM

Date: December 14, 2011

To: File

From: Vince Antrilli
Raleigh Regional Office
Inactive Hazardous Sites Branch

Re: Nello-Teer Quarry-Denfield – Sampling Trip Summary
NONCD0002873

- On December 14, 2011, Larry Rose and I visited the site to sample water supply wells in the area. We samples wells located at:
  - 4911 Denfield St.
  - 1003 Communication Dr
- The samples collected from 4911 Denfield were to follow up and verify results from samples taken Nov 15, 2011 which detected 1,4 Dioxane at 7.4 ug/L.
- Samples @ 4911 Denfield were collected from the pump house and inside the residence. The inside samples were collected at the request of the property owner.
- During the collection of the sample from the kitchen faucet we observed a reaction in the voa that caused a white smoke.
- Property owner stated that they do not intend to return the Bernard Allen Affidavit until the results of this recent test are known.
- Samples collected from 1003 Communication were because of a late approval from our previous request.

WELL LOG SHEET

Site Name: Nello Teer ID Number: NONCD 000 2873

Owner: Bartell Address: 4911 Denfield St

Sample Team: Antilli, Rose Well #: NT-C

Comments (well construction, etc): _____

Time interval	5 mins	10 mins	15 mins	____ mins	____ mins	____ mins
Temp (°C)	14.9					15.9
pH	7.04					7.33
S. C.	552					543
Turbidity	0.95					1.16
	9:40					9:25

Inside House water Running Grab Sample

Sample Information

Sample Date: 12-14-11 Sample Time: _____

Sample Equipment: _____

Water Condition (turbidity, odor, etc.): _____

Samples Collected (✓):

- ✓ VOCs (3 - 40 ml vials)
- ____ SVOCs/PCBs (1 - 2L Amber bottle)
- ____ Metals (1 - 1L HDPE bottle)
- ____ Dioxin (1 - 1L bottle)
- ____ Pest./Herb. (1 - 2L amber bottle)
- ✓ 1,4 Dioxane (3 - 40 ml vial)

Temp(°C): _____ pH: _____ SC(umhos): _____ DO(ppm): _____ Turb(NTUs): _____

Comments: _____

WELL LOG SHEET

Site Name: Nello Teer ID Number: _____

Owner: _____ Address: 1003 Communication

Sample Team: Antrilli, Rose Well #: NT-E

Comments (well construction, etc): _____

Time interval	5 mins	10 mins	15 mins	____ mins	____ mins	____ mins
Temp (°C)	12.8	12.9	12.8			
pH	6.89	7.01	6.86			
S. C.	590	610	613			
Turbidity	1.72	2.60	2.47			

Sample Information

Sample Date: 12-14-11 Sample Time: 10:15

Sample Equipment: _____

Water Condition (turbidity, odor, etc.): _____

Samples Collected (✓):

- ✓ VOCs (3 - 40 ml vials)
- ____ SVOCs/PCBs (1 - 2L Amber bottle)
- ____ Metals (1 - 1L HDPE bottle)
- ____ Dioxin (1 - 1L bottle)
- ____ Pest./Herb. (1 - 2L amber bottle)
- ✓ 1,4 Dioxane (3 - 40 ml vial)

Temp(°C): _____ pH: _____ SC(umhos): _____ DO(ppm): _____ Turb(NTUs): _____

Comments: Site formerly communications bus does some auto repair.

Prop on corner of Comm Dr. & Denfield does welding & auto repair.

Prop to S of ↑ is paving contractor (no material stored on site)

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 02086

Client: NCDENR-DWM	Report to Contact: Vince Antrilli	Sampler (Printed Name): Vincent Antrilli	Quote No.
Address: 217 W. Jones St.	Telephone No. / Fax No. / Email: 919-707-8353	Waybill No.	Page ___ of ___
City: Raleigh; State: NC; Zip Code: 27603	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		
Project Name: Nello-Teer			
Project Number: NONCD0002873	P.O Number:		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: VOCs	1,4 Dioxane (3ppb)											Remarks / Cooler ID
Number of Containers									11	11											
Bottle (See Instructions on back)									A	A											
Preservative									5	5											
Lot No.																					
Trip Blank	12-14-11								2	2											
NT-C1		9:25		✓					3	3											
NT-C2		9:40		✓					3	3											
NT-E		10:15		✓					3	3											

Turn Around Time Required (Prior lab approval required for expedited TAT)	Sample Disposal	QC Requirements (Specify)	Possible Hazard Identification
☐ Standard ☐ Rush (Please Specify)	☐ Return to Client ☐ Disposal by Lab		☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

1. Relinquished by / Sampler: Vincent Antrilli	Date: 12-14-11	Time: 7:10 pm	1. Received by	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by	Date	Time

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack
Receipt Temp. _____ °C
Temp. Blank ☐ Y / ☐ N

Instructions

Please complete as many fields possible. Contact your lab Project Manager with any questions reagrding Chain of Custody completion.

Bottle Types (Insert letter code for bottle type submitted)

A - 40ml Vial Clear

B - 40ml Vial Amber

C - 125ml Plastic

D - 250ml Plastic

E - 250ml Amber

F - 500ml Plastic

G - 500ml Amber

H - 1L Plastic

I - 1L Amber

J - 1L Widemouth

K - 2L Plastic

L - 2 oz. jar

M - 4 oz. jar

N - 9 oz jar

O - 100ml sterile

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

NCDENR - DWM - DSCA
401 Oberlin Rd
Suite 210
Raleigh, NC 27605
Attention: Vincent Antrilli

Project Name: **Nello-Teer**

Lot Number: **MK16009**
Date Completed: **11/30/2011**

Nisreen Saikaly
Project Manager

This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

• • • • • • • • • •

Case Narrative
NCDENR - DWM - DSCA
Lot Number: MK16009

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

Shealy is not NELAC certified for Phosphorus by 365.1 but is certified in SC and NC.

Shealy is not NELAC certified for VPH, but is certified for VPH in NC.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary
NCDENR - DWM - DSCA
Lot Number: MK16009

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	Trip Blank	Aqueous	11/15/2011	11/16/2011
002	NT-C	Aqueous	11/15/2011 1145	11/16/2011
003	NT-F	Aqueous	11/15/2011 1205	11/16/2011

(3 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary
NCDENR - DWM - DSCA
Lot Number: MK16009

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	NT-C	Aqueous	1,4-Dioxane	8260B (SIM	7.4		ug/L	8
003	NT-F	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	0.68		ug/L	12

(2 detections)

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **NCDENR - DWM - DSCA**
Description: **Trip Blank**
Date Sampled: **11/15/2011**
Date Received: **11/16/2011**

Laboratory ID: **MK16009-001**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	11/28/2011 1353	SAS		72536

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM iso.)	ND		3.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MK16009-001**
Description: **Trip Blank**
Matrix: **Aqueous**
Date Sampled: **11/15/2011**
Date Received: **11/16/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/21/2011 1141	BM		72202

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		0.50	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0.50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **Trip Blank**
Date Sampled: **11/15/2011**
Date Received: **11/16/2011**
Laboratory ID: **MK16009-001**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/21/2011 1141	BM		72202

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MK16009-002**
Description: **NT-C**
Matrix: **Aqueous**
Date Sampled: **11/15/2011 1145**
Date Received: **11/16/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	11/28/2011 2015	SAS		72536

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	**123-91-1**	**8260B (SIM iso.)**	**7.4**		**3.0**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MK16009-002**
Description: **NT-C**
Matrix: **Aqueous**
Date Sampled: **11/15/2011 1145**
Date Received: **11/16/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/21/2011 1202	BM		72202

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		0.50	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0.50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MK16009-002**
Description: **NT-C**
Matrix: **Aqueous**
Date Sampled: **11/15/2011 1145**
Date Received: **11/16/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/21/2011 1202	BM		72202

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MK16009-003**
Description: **NT-F**
Matrix: **Aqueous**
Date Sampled: **11/15/2011 1205**
Date Received: **11/16/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	11/28/2011 2037	SAS	·	72536

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM iso.)	ND		3.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		117	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MK16009-003**
Description: **NT-F**
Matrix: **Aqueous**
Date Sampled: **11/15/2011 1205**
Date Received: **11/16/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/21/2011 1223	BM		72202

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**0.68**		**0.50**	**ug/L**	**1**
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0.50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MK16009-003**
Description: **NT-F**
Matrix: **Aqueous**
Date Sampled: **11/15/2011 1205**
Date Received: **11/16/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/21/2011 1223	BM		72202

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: MQ72202-001
Batch: 72202
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	11/21/2011 1023
Benzene	ND		1	0.50	ug/L	11/21/2011 1023
Bromodichloromethane	ND		1	0.50	ug/L	11/21/2011 1023
Bromoform	ND		1	0.50	ug/L	11/21/2011 1023
Bromomethane (Methyl bromide)	ND		1	0.50	ug/L	11/21/2011 1023
2-Butanone (MEK)	ND		1	10	ug/L	11/21/2011 1023
Carbon disulfide	ND		1	0.50	ug/L	11/21/2011 1023
Carbon tetrachloride	ND		1	0.50	ug/L	11/21/2011 1023
Chlorobenzene	ND		1	0.50	ug/L	11/21/2011 1023
Chloroethane	ND		1	0.50	ug/L	11/21/2011 1023
Chloroform	ND		1	0.50	ug/L	11/21/2011 1023
Chloromethane (Methyl chloride)	ND		1	0.50	ug/L	11/21/2011 1023
Cyclohexane	ND		1	0.50	ug/L	11/21/2011 1023
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	0.50	ug/L	11/21/2011 1023
Dibromochloromethane	ND		1	0.50	ug/L	11/21/2011 1023
1,2-Dibromoethane (EDB)	ND		1	0.50	ug/L	11/21/2011 1023
1,4-Dichlorobenzene	ND		1	0.50	ug/L	11/21/2011 1023
1,3-Dichlorobenzene	ND		1	0.50	ug/L	11/21/2011 1023
1,2-Dichlorobenzene	ND		1	0.50	ug/L	11/21/2011 1023
Dichlorodifluoromethane	ND		1	0.50	ug/L	11/21/2011 1023
1,2-Dichloroethane	ND		1	0.50	ug/L	11/21/2011 1023
1,1-Dichloroethane	ND		1	0.50	ug/L	11/21/2011 1023
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	11/21/2011 1023
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	11/21/2011 1023
1,1-Dichloroethene	ND		1	0.50	ug/L	11/21/2011 1023
1,2-Dichloropropane	ND		1	0.50	ug/L	11/21/2011 1023
trans-1,3-Dichloropropene	ND		1	0.50	ug/L	11/21/2011 1023
cis-1,3-Dichloropropene	ND		1	0.50	ug/L	11/21/2011 1023
Ethylbenzene	ND		1	0.50	ug/L	11/21/2011 1023
2-Hexanone	ND		1	10	ug/L	11/21/2011 1023
Isopropylbenzene	ND		1	0.50	ug/L	11/21/2011 1023
Methyl acetate	ND		1	1.0	ug/L	11/21/2011 1023
Methyl tertiary butyl ether (MTBE)	ND		1	0.50	ug/L	11/21/2011 1023
4-Methyl-2-pentanone	ND		1	10	ug/L	11/21/2011 1023
Methylcyclohexane	ND		1	5.0	ug/L	11/21/2011 1023
Methylene chloride	ND		1	0.50	ug/L	11/21/2011 1023
Styrene	ND		1	0.50	ug/L	11/21/2011 1023
1,1,2,2-Tetrachloroethane	ND		1	0.50	ug/L	11/21/2011 1023
Tetrachloroethene	ND		1	0.50	ug/L	11/21/2011 1023
Toluene	ND		1	0.50	ug/L	11/21/2011 1023
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	0.50	ug/L	11/21/2011 1023
1,2,4-Trichlorobenzene	ND		1	0.50	ug/L	11/21/2011 1023
1,1,2-Trichloroethane	ND		1	0.50	ug/L	11/21/2011 1023
1,1,1-Trichloroethane	ND		1	0.50	ug/L	11/21/2011 1023

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: MQ72202-001
Batch: 72202
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Trichloroethene	ND		1	0.50	ug/L	11/21/2011 1023
Trichlorofluoromethane	ND		1	0.50	ug/L	11/21/2011 1023
Vinyl chloride	ND		1	0.50	ug/L	11/21/2011 1023
Xylenes (total)	ND		1	0.50	ug/L	11/21/2011 1023

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: MQ72202-002
Batch: 72202
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	98		1	98	46-153	11/21/2011 0859
Benzene	50	45		1	90	70-130	11/21/2011 0859
Bromodichloromethane	50	53		1	106	70-130	11/21/2011 0859
Bromoform	50	47		1	94	70-130	11/21/2011 0859
Bromomethane (Methyl bromide)	50	31		1	62	60-140	11/21/2011 0859
2-Butanone (MEK)	100	100		1	101	60-140	11/21/2011 0859
Carbon disulfide	50	44		1	89	60-140	11/21/2011 0859
Carbon tetrachloride	50	50		1	100	70-130	11/21/2011 0859
Chlorobenzene	50	48		1	95	70-130	11/21/2011 0859
Chloroethane	50	37		1	75	42-163	11/21/2011 0859
Chloroform	50	48		1	97	70-130	11/21/2011 0859
Chloromethane (Methyl chloride)	50	36		1	71	20-158	11/21/2011 0859
Cyclohexane	50	45		1	90	70-130	11/21/2011 0859
1,2-Dibromo-3-chloropropane (DBCP)	50	46		1	91	70-130	11/21/2011 0859
Dibromochloromethane	50	47		1	94	70-130	11/21/2011 0859
1,2-Dibromoethane (EDB)	50	51		1	102	70-130	11/21/2011 0859
1,4-Dichlorobenzene	50	47		1	94	70-130	11/21/2011 0859
1,3-Dichlorobenzene	50	49		1	97	70-130	11/21/2011 0859
1,2-Dichlorobenzene	50	49		1	97	70-130	11/21/2011 0859
Dichlorodifluoromethane	50	33		1	65	60-140	11/21/2011 0859
1,2-Dichloroethane	50	47		1	95	70-130	11/21/2011 0859
1,1-Dichloroethane	50	45		1	90	70-130	11/21/2011 0859
trans-1,2-Dichloroethene	50	45		1	89	70-130	11/21/2011 0859
cis-1,2-Dichloroethene	50	46		1	92	70-130	11/21/2011 0859
1,1-Dichloroethene	50	43		1	87	70-130	11/21/2011 0859
1,2-Dichloropropane	50	48		1	97	70-130	11/21/2011 0859
trans-1,3-Dichloropropene	50	47		1	95	70-130	11/21/2011 0859
cis-1,3-Dichloropropene	50	54		1	108	70-130	11/21/2011 0859
Ethylbenzene	50	50		1	100	70-130	11/21/2011 0859
2-Hexanone	100	110		1	112	60-140	11/21/2011 0859
Isopropylbenzene	50	50		1	101	70-130	11/21/2011 0859
Methyl acetate	50	45		1	91	15-128	11/21/2011 0859
Methyl tertiary butyl ether (MTBE)	50	46		1	93	70-130	11/21/2011 0859
4-Methyl-2-pentanone	100	120		1	115	60-140	11/21/2011 0859
Methylcyclohexane	50	48		1	96	70-130	11/21/2011 0859
Methylene chloride	50	46		1	91	70-130	11/21/2011 0859
Styrene	50	50		1	101	70-130	11/21/2011 0859
1,1,2,2-Tetrachloroethane	50	49		1	99	70-130	11/21/2011 0859
Tetrachloroethene	50	47		1	95	70-130	11/21/2011 0859
Toluene	50	48		1	96	70-130	11/21/2011 0859
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	53		1	106	70-130	11/21/2011 0859
1,2,4-Trichlorobenzene	50	51		1	103	70-130	11/21/2011 0859
1,1,2-Trichloroethane	50	48		1	96	70-130	11/21/2011 0859
1,1,1-Trichloroethane	50	48		1	96	70-130	11/21/2011 0859

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: MQ72202-002
Batch: 72202
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	98	70-130	11/21/2011 0859
Trichlorofluoromethane	50	42		1	84	60-140	11/21/2011 0859
Vinyl chloride	50	37		1	74	60-140	11/21/2011 0859
Xylenes (total)	100	100		1	100	70-130	11/21/2011 0859

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		107	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: MQ72202-003
Batch: 72202
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	91		1	91	6.5	46-153	20	11/21/2011 0920
Benzene	50	45		1	91	0.94	70-130	20	11/21/2011 0920
Bromodichloromethane	50	53		1	106	0.29	70-130	20	11/21/2011 0920
Bromoform	50	46		1	92	2.4	70-130	20	11/21/2011 0920
Bromomethane (Methyl bromide)	50	35		1	70	11	60-140	20	11/21/2011 0920
2-Butanone (MEK)	100	94		1	94	7.5	60-140	20	11/21/2011 0920
Carbon disulfide	50	44		1	89	0.17	60-140	20	11/21/2011 0920
Carbon tetrachloride	50	49		1	99	1.4	70-130	20	11/21/2011 0920
Chlorobenzene	50	48		1	96	0.71	70-130	20	11/21/2011 0920
Chloroethane	50	37		1	74	0.46	42-163	20	11/21/2011 0920
Chloroform	50	49		1	97	0.060	70-130	20	11/21/2011 0920
Chloromethane (Methyl chloride)	50	35		1	71	0.92	20-158	20	11/21/2011 0920
Cyclohexane	50	44		1	88	1.5	70-130	20	11/21/2011 0920
1,2-Dibromo-3-chloropropane (DBCP)	50	44		1	88	3.2	70-130	20	11/21/2011 0920
Dibromochloromethane	50	47		1	93	0.85	70-130	20	11/21/2011 0920
1,2-Dibromoethane (EDB)	50	51		1	101	0.96	70-130	20	11/21/2011 0920
1,4-Dichlorobenzene	50	47		1	95	0.88	70-130	20	11/21/2011 0920
1,3-Dichlorobenzene	50	48		1	96	1.2	70-130	20	11/21/2011 0920
1,2-Dichlorobenzene	50	48		1	95	2.2	70-130	20	11/21/2011 0920
Dichlorodifluoromethane	50	32		1	64	1.4	60-140	20	11/21/2011 0920
1,2-Dichloroethane	50	47		1	93	2.0	70-130	20	11/21/2011 0920
1,1-Dichloroethane	50	45		1	89	0.41	70-130	20	11/21/2011 0920
trans-1,2-Dichloroethene	50	44		1	88	1.5	70-130	20	11/21/2011 0920
cis-1,2-Dichloroethene	50	45		1	91	0.64	70-130	20	11/21/2011 0920
1,1-Dichloroethene	50	43		1	87	0.021	70-130	20	11/21/2011 0920
1,2-Dichloropropane	50	49		1	98	1.1	70-130	20	11/21/2011 0920
trans-1,3-Dichloropropene	50	47		1	94	1.1	70-130	20	11/21/2011 0920
cis-1,3-Dichloropropene	50	54		1	108	0.86	70-130	20	11/21/2011 0920
Ethylbenzene	50	50		1	100	0.64	70-130	20	11/21/2011 0920
2-Hexanone	100	110		1	106	5.8	60-140	20	11/21/2011 0920
Isopropylbenzene	50	51		1	102	1.2	70-130	20	11/21/2011 0920
Methyl acetate	50	43		1	86	5.5	15-128	20	11/21/2011 0920
Methyl tertiary butyl ether (MTBE)	50	45		1	91	2.0	70-130	20	11/21/2011 0920
4-Methyl-2-pentanone	100	110		1	110	4.7	60-140	20	11/21/2011 0920
Methylcyclohexane	50	48		1	96	0.46	70-130	20	11/21/2011 0920
Methylene chloride	50	45		1	90	0.65	70-130	20	11/21/2011 0920
Styrene	50	51		1	101	0.56	70-130	20	11/21/2011 0920
1,1,2,2-Tetrachloroethane	50	49		1	98	0.98	70-130	20	11/21/2011 0920
Tetrachloroethene	50	48		1	96	1.5	70-130	20	11/21/2011 0920
Toluene	50	48		1	96	0.10	70-130	20	11/21/2011 0920
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	104	1.6	70-130	20	11/21/2011 0920
1,2,4-Trichlorobenzene	50	50		1	101	2.1	70-130	20	11/21/2011 0920
1,1,2-Trichloroethane	50	47		1	95	1.2	70-130	20	11/21/2011 0920
1,1,1-Trichloroethane	50	48		1	96	0.12	70-130	20	11/21/2011 0920

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: MQ72202-003
Batch: 72202
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	48		1	96	1.7	70-130	20	11/21/2011 0920
Trichlorofluoromethane	50	42		1	84	0.77	60-140	20	11/21/2011 0920
Vinyl chloride	50	37		1	73	1.5	60-140	20	11/21/2011 0920
Xylenes (total)	100	100		1	100	0.39	70-130	20	11/21/2011 0920

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - MB

Sample ID: MQ72536-001
Batch: 72536
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
1,4-Dioxane	ND		1	3.0	ug/L	11/28/2011 1316

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		82	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of cnteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - LCS

Sample ID: MQ72536-002
Batch: 72536
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,4-Dioxane	50	47		1	95	43-173	11/28/2011 1213

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		73	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - LCSD

Sample ID: MQ72536-003
Batch: 72536
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,4-Dioxane	50	47		1	94	0.83	43-173	20	11/28/2011 1234

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		78	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Level 1 Report v2.1

SHEALY ENVIRONMENTAL SERVICES, INC.

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111

Number 13437

Client: NCDENR-Dwm	Report to Contact: Vince Antrilli	Sampler (Printed Name): Vince Antrilli	C.O.C. No.:
Address: 217 West Jones St	Telephone No. / Fax No. / E-mail: 919-707-5353	Work Order No.:	Page: of
City: Raleigh; State: NC; Zip Code: 27603	Preservative: 1. None 4. HNO3 7. HCl; 2. H2SO4 5. NaOH 8. ; 3. HCl 6. Na2S2O3	Analysis: VOCs 8 A 5; 1,4 Dioxane 8 A 5	Project Contact: Sales Representative Contact: Sample Type: Lot No.: MKL009
Project Name: Mello-Teer			
Project Number:			

Sample ID / Description (Sample ID must be unique and not exceed 10 alpha/numeric characters)	Date	Time	Grab	Composite	Matrix: DW	GW	WW	S	O	VOCs	1,4 Dioxane	Sample Lot / Sample ID
Trip Blank	11-15-11									2	2	
NT-C	↓	11:45			✓					3	3	
NT-F	↓	12:05			✓					3	3	

Turnaround Time Requested (all times are subject to confirmation): Standard / Rush (Please specify)

Sample Disposal: Return to Client / Dispose of for $

Special Requirements (Please list):

Preliminary Results Needed: No Rush / Phone / Fax / E-mail / Other

	Date	Time		Date	Time
1. Relinquished by: Vincent Antrilli	11-15-11	2:00 pm	1. Received by:		
2. Relinquished by:			2. Received by:		
3. Relinquished by:			3. Received by:		
4. Relinquished by: FedEx	11-16-11	0945	4. Laboratory Received by:	11/16/11	0915

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

Received for Laboratory by: Received Temp: 2.2°C

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Receipt Checklist (SRC)

Client: UCDENR Cooler Inspected by/date: EW 8/16/11 Lot #: 1K1409

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Airborne Exp ☐ Other

Yes ☑	No ☐	1. Were custody seals present on the cooler?
Yes ☑	No ☐	2. If custody seals were present, were they intact and unbroken?

Cooler ID/temperature upon receipt 2.2 °C / °C / °C / °C
Method: ☐ Temperature Blank ☑ Against Bottles
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☑	No ☐	NA ☐	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☑	NA ☐	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed?
Yes ☑	No ☐		7. Was collection date & time listed?
Yes ☑	No ☐		8. Were tests to be performed listed on the COC?
Yes ☑	No ☐		9. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with COC?
Yes ☑	No ☐		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		12. Was adequate sample volume available?
Yes ☑	No ☐		13. Were all samples received within ¾ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		14. Were any samples containers missing?
Yes ☐	No ☑		15. Were there any excess samples not listed on COC?
Yes ☐	No ☑	NA ☐	16. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	17. Were all metals/O&G/TRM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number)

Sample(s) _____ were received with bubbles >6 mm in diameter.

Sample(s) _____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb.

Corrective Action taken, if necessary:
Was client notified: Yes ☐ No ☐ Did client respond. Yes ☐ No ☐
SESI employee: _____ Date of response. _____
Comments: _____

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Receipt Checklist (SRC)

Client: NCDENR Cooler Inspected by/date: EW 11/16/11 Lot #: MK16009

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Airborne Exp ☐ Other

Yes ☑ No ☐	1. Were custody seals present on the cooler?
Yes ☑ No ☐	2. If custody seals were present, were they intact and unbroken?

Cooler ID/temperature upon receipt 2 - 2 °C ___ / ___ °C ___ / ___ °C ___ / ___ °C
Method: ☐ Temperature Blank ☑ Against Bottles
Method of coolant: ☐ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: ___ . (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☑	No ☐	NA ☐	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☑	NA ☐	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed?
Yes ☑	No ☐		7. Was collection date & time listed?
Yes ☑	No ☐		8. Were tests to be performed listed on the COC?
Yes ☑	No ☐		9. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with COC?
Yes ☑	No ☐		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		12. Was adequate sample volume available?
Yes ☑	No ☐		13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		14. Were any samples containers missing?
Yes ☐	No ☑		15. Were there any excess samples not listed on COC?
Yes ☑	No ☑	NA ☐	16. Were bubbles present >"pea-size" (~6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.3mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?

EW 11/16/11

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) ___ were received incorrectly preserved and were adjusted accordingly in sample receiving with ___ (H_2SO_4, HNO_3, HCl, NaOH) with the SR # (number)

Sample(s) 001 TB (2) were received with bubbles >6 mm in diameter.

Sample(s) ___ were received with TRC >0.3 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb.

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐ Did client respond: Yes ☐ No ☐
SESI employee ___ Date of response: ___
Comments: ___

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

December 6, 2011

CERTIFIED MAIL
Return Receipt Requested

Julius and Cheri Bartell
4911 Denfield St
Durham, NC 27704

Re: Water Service Connection to Municipal System
411 Denfield St

Dear Mr. or Mrs.Bartell:

Based on our records, the contamination detected in your drinking water supply well is at concentrations exceeding safe levels for human consumption. The Bernard Allen Memorial Fund ("Fund") was established to help provide alternate water sources for home owners throughout North Carolina who might otherwise not able to afford to provide alternate water for themselves in situations where the primary drinking water source well has become contaminated. Where public water is available, the Fund will pay for connection to the public water main. It appears that municipal water lines are present in your area so we will contact the municipality regarding the process of providing water to your residence. The Division of Waste Management ("Division") will use its contractors to conduct this work.

Qualification for use of the Fund is required for each site. Attached you will find a Household Income Verification Affidavit to be completed and returned to our office. Upon receipt of the affidavit the Division will schedule its contractor to install the system. If you do not meet the requirements in the affidavit, please notify this office in writing and provide appropriate documentation. In the event this office receives your documentation indicating that you do not qualify for assistance through the Bernard Allen Fund, our office will evaluate whether other funds are available to pay for installation.

If the current owner refuses to accept the alternate water offer the Branch may file a "Notice of Inactive Hazardous Substance or Waste Disposal Site" ("Notice") for your property in the Durham County Register of Deeds' office in accordance with N.C.G.S. 130A-310.8 of the Inactive Hazardous Sites Response Act. The purpose of the Notice is to notify any prospective purchaser of the property of the groundwater contamination in your drinking water supply well. We would prepare and record the Notice and pay for any expenses related to the recordation of the Notice. This Notice would not relieve you, or a subsequent owner, of your responsibilities to disclose this contamination to any purchasers of the property in accordance with the Residential Property Disclosure Act, N.C.G.S. 47E.

Antrilli, Vincent

To: east coast supplies
Subject: RE: 4911 dendield-well id nt-c nello teer noncd002873

Mr. Bartell,
Thank you for your email. Our department was provided a list of wells that required sampling. This list did not include 4811 Denfield. The most likely reason for this is distance from the primary site. We are scheduled to go back out to resample your well next Wednesday to verify this last sample result since it was not something detected in previous sampling events. We will be glad to collect samples from your Aunt's house with her permission. She will need to contact me by phone or email giving us permission to collect the sample.

Please note that while our primary reason for monitoring wells within 1500ft from the quarry incident location is due to the incident at the quarry, there is no indication that the contamination detected in your well is related. 1,4 Dioxane is not a contaminant that is related to any of the previously detected contaminants in the area. For Health Implications you may refer to the EPA website http://www.epa.gov/ttn/atw/hlthef/dioxane.html. There are filter systems available to address various contaminants.

We understand your concern with the findings and welcome your interest in obtaining copies of the files related to the quarry incident. While we cannot make a copy of the complete file and send it to you, you may schedule an appointment with our file clerk to view the files. At that time you may ~~request~~ make a copy of whatever you need.

With regard to the Barnard Allen Affidavit, your household income as reported on the 2010 tax return form 1040 or 1040E is used to determine qualification. The income on the 2010 tax return cannot exceed 3 times the amount listed on the affidavit. If you still believe that you do not qualify, we request that you send us a copy of your 2010 tax return form 1040 and/or any other information that we may use to evaluate your income so that we may review it and look for alternate funding for the water service connection. The 1040 form as well as any other financial documents you send to us will be returned to you by certified mail as it is not the policy of the State of North Carolina Department of Environmental and Natural Resources to retain this information in our records.

Our primary focus at this time is the health and welfare of your family. The toxicity levels which make the water unsafe for human consumption may not be the same for wildlife so issues with that in mind will need to be addressed by the Department of Agriculture http://www.ncagr.gov/. If there is a concern that the fruit trees you describe may be contaminated we can arrange to have them tested. Based on the outcome of the testing, if they are determined to be contaminated to levels unsafe for human consumption we will arrange for them to be removed. Regardless of the above, NCDENR cannot issue any waiver to irrigate plants in time of drought.

I hope that this has answered your questions and addressed your concerns, should you have any additional questions or concerns, please do not hesitate to contact our office.

Sincerely,
Vincent Antrilli, Jr

Environmental Specialist
Inactive Hazardous Sites Branch
NC Division of Waste Management
Vincent.Antrilli@ncdenr.gov

Physical address:
217 West Jones Street
Raleigh, NC 27603

Mailing address:
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

Tel: 919-707-8353
Main: 919-707-8200
Fax: 919-707-8353 [same as Tel]

-----Original Message-----
From: east coast supplies [mailto:matador304@juno.com]
Sent: Wednesday, December 07, 2011 3:43 PM
To: Antrilli, Vincent
Subject: 4911 dendield-well id nt-c nello teer noncd002873

Our pets and us have been drinking this water for several years since it was last tested because of the quarry problem. My AUNT AND COUSIN WITH HER 3 KIDS AT 4811 ALSO DRINK THE WATER. wHAT ARE THEIR RESULTS? It checked out fine then.Even though there was mtbe contamination on Communications drive between us and quarry and chloroform contamination on Mayo farm property adjacent to quarry we were informed that due to underground water flow patterns we would be fine. Now we have contamination? What are the HEALTH IMPLICATIONS of 1,4dioxane? Also are there certain filters that filter out 1,4 dioxane and mtbe and chloroform?

We are officially requesting ALL INFORMATION including maps,water flow patterns,progression flow maps of contaminants, charts, test results,future plans, and all correspondence between Hanson Aggregates, the city and county of Durham, DENR, and any other groups you have info on. Also we are requesting the FULL RESULTS of water tests from INSIDE the quarry and ALL OTHER PROPERTIES TESTED - CHURCH,COMMERCIAL,INDUSTRIAL,AND OTHER RESIDENCES. wE WOULD ALSO LIKE INFO ON THE FUTURE PLANS FOR THE QUARRY AS A WATER RESERVOIR FOR THE CITY OF dURHAM. The letter suggests we should not use water for consumption and suggests we may qualify financially to be hooked to city lines. We have too much income to qualify. Also this property has been in the family since 1931 way before quarry and STATE OF N.C.TESTING LAB. Many fruit and nut trees have been planted over the years for benefit of wildlife. During several droughts we have done some watering of them to keep them healthy. This cost would be prohibitive for us. We do not have that much money! Also we would need a permanent waiver in times of drought to water the trees if needed.

Julius Bartell

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

MEMORANDUM

Date: July 15, 2010

To: Dewayne Peterson – NCDENR/DWM/SF/IHSB

From: Wade Kirby – NCDENR/DWM/SF/IHSB WK

RE: Nello Teer – Denfield, Durham, Durham County - NONCD0002873

Highland Environmental Solutions recently sampled six water supply wells within 1500 feet of the Nello Teer Denfield Quarry, one of our priority sites. Volatile Organic Compounds were detected in all six wells; one well had a detection above 15A NCAC 2L groundwater standards. We would like to resample the wells to verify the detections. Could you include this on you list? The samples should analyzed for VOCs by EPA Method 6210.

I have attached a Table with the well owner name and contact, a table with the original detections and a map showing the locations of the wells.

The site is in north Durham off of N Roxboro Street.

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone: 919-508-8400 \ FAX: 919-715-4061 \ Internet: www.wastenotnc.org

An Equal Opportunity \ Affirmative Action Employer

One NorthCarolina Naturally

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

December 6, 2011

Douglas & Kimberly Robbins
7408 Blalock Rd
Bahama, NC 27503

RE: Water Supply Well Sampling – Nello Teer site (NONCD 000 2873)
4918 & 5010 Denfield St
Durham, NC 27704

Dear Mr. & Mrs. Robbins:

My name is Vincent Antrilli with North Carolina Department of Environment and Natural Resources, Division of Waste Management. The purpose of this letter is to contact you pursuant to ground water contamination detected in your area. On December 14st, 2011, I will be in Durham County area collecting additional groundwater samples related to the groundwater contamination in your area. Recent sampling perfomed in November 2011 has found contamination levels in nearby wells that exceed safe levels for human consumption. I would like to sample your well(s) at the above referenced address during that time. You do not have to be present to have your well sampled and there is no cost to you. The laboratory results will be forwarded to you as soon as possible.

Please contact me by one of the following ways to confirm that ***you would*** or ***would not*** like your well sampled. You can reach me by calling (919) 707-8353, emailing me at Vincent.Antrilli@ncdenr.gov or respond to this letter stating you do wish or do not wish to have your well sampled. I will be happy to answer any questions you may have at that time.

Sincerely,

Vincent Antrilli, Jr.
Environmental Specialist
Inactive Hazardous Sites Branch
Superfund Section

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

December 6, 2011

Julius & Cheri Bartell
4911 Denfield St
Durham, NC 27704

RE: Water Supply Well Sampling Results – Nello Teer (NONCD0002873)
4911 Denfield St – Well ID NT-C
Durham, NC 27704

Dear Mr. or Ms. Bartell:

Please find attached the Sample Analytical Results for a water sample collected from your well located at the address referenced above, on Nov 15, 2011. The sample was submitted for laboratory analyses for Volatile Organic Compounds (VOCs). VOCs were detected in the water sample as shown on the attached sheets.

Because VOCs were detected in the water sample, a Health Risk Evaluation (HRE) of the water supply was performed by our toxicologist. The HRE, which is enclosed, compares the concentration of detected contaminants to acceptable concentrations and provides a recommendation for acceptable uses of the water.

In accordance with the residential property disclosure act, it is your responsibility to disclose this contamination as part of the property sale. You should also notify all current and future tenants of your property of the contamination detected in your well.

If you have any questions regarding the Health Risk Evaluation, please contact Hanna Assefa at (919) 508-8445 or me at (919) 508-8573.

Sincerely,

Vincent Antrilli, Jr.
Environmental Specialist
Inactive Hazardous Sites Branch
Superfund Section

Enclosure

CC: Durham County Health Department

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

December 6, 2011

TO: Vince Antrilli
NC UST Section

FROM: David Lilley
Environmental Toxicologist
NC Division of Waste Management

RE: Health Risk Evaluation
NONCD 000 2873
Nello-Teer Well Sampling Results
4911 Denfield St
Durham, NC

During this sampling event, one contaminant was detected in the well water. The contaminant, 1,4-dioxane, was detected at a concentration exceeding the applicable water standard. The standards used to determine if the water is suitable for drinking and cooking are the United States Environmental Protection Agency's Maximum Contaminant Levels (MCLs) or, if no MCLs exist, North Carolina Groundwater Standards (2L).

If the contaminant concentration exceeds the applicable standard for using the water for drinking and cooking, the contaminant concentration is further analyzed to determine if the water is suitable for other non-ingestive uses, such as showering, bathing, washing dishes, flushing toilets, and hand washing. The chart below compares the detected contaminant concentration with the applicable standards:

Sample ID	Contaminant	Concentration (ug/l)*	MCL (ug/l)	2L (ug/l)
MK16009-002	1,4-Dioxane	7.4		3

Shaded boxes indicate a standard has been exceeded.

* The abbreviation ug/l stands for micrograms of contaminant per liter of water and is roughly equivalent to parts per billion.

RECOMMENDATION: The 1,4-dioxane concentration in this well exceeds 2L standard, therefore, this water is not recommended for drinking or cooking at this time. No restrictions are recommended for using the water for other non-ingestive uses, such as showering, bathing, washing dishes, flushing toilets, and hand washing.

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **NCDENR - DWM - DSCA**
Description: **NT-C**
Date Sampled: **11/15/2011 1145**
Date Received: **11/16/2011**

Laboratory ID: **MK16009-002**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	11/28/2011 2015	SAS		72536

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM iso.)	7.4		3.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **NT-C**
Date Sampled: **11/15/2011 1145**
Date Received: **11/16/2011**

Laboratory ID: **MK16009-002**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/21/2011 1202	BM		72202

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		0.50	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0.50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **NT-C**
Date Sampled: **11/15/2011 1145**
Date Received: **11/16/2011**

Laboratory ID: **MK16009-002**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/21/2011 1202	BM		72202

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

December 6, 2011

Donald Ward
1202 Crystal Forest Dr
Semora, NC 27343

RE: Water Supply Well Sampling Results – Nello Teer (NONCD0002873)
1006 Communications Dr – Well ID NT-F
Durham, NC 27704

Dear Mr. Ward:

Please find attached the Sample Analytical Results for a water sample collected from your well located at the address referenced above, on Nov 15, 2011. The sample was submitted for laboratory analyses for Volatile Organic Compounds (VOCs). VOCs were detected in the water sample as shown on the attached sheets.

Because VOCs were detected in the water sample, a Health Risk Evaluation (HRE) of the water supply was performed by our toxicologist. The HRE, which is enclosed, compares the concentration of detected contaminants to acceptable concentrations and provides a recommendation for acceptable uses of the water.

In accordance with the residential property disclosure act, it is your responsibility to disclose this contamination as part of the property sale. You should also notify all current and future tenants of your property of the contamination detected in your well.

If you have any questions regarding the Health Risk Evaluation, please contact Hanna Assefa at (919) 508-8445 or me at (919) 508-8573.

Sincerely,

Vincent Antrilli, Jr.
Environmental Specialist
Inactive Hazardous Sites Branch
Superfund Section

Enclosure

CC: Durham County Health Department

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

December 6, 2011

TO: Vince Antrilli
NC UST Section

FROM: David Lilley
Environmental Toxicologist
NC Division of Waste Management

RE: Health Risk Evaluation
NONCD 000 2873
Nello-Teer Well Sampling Results
1006 Communications Dr
Durham, NC

During this sampling event, one contaminant was detected in the well water. The standards used to determine if the water is suitable for drinking and cooking are the United States Environmental Protection Agency's Maximum Contaminant Levels (MCLs) or, if no MCLs exist, North Carolina Groundwater Standards (2L).

If the contaminant concentration exceeds the applicable standard for using the water for drinking and cooking, the contaminant concentration is further analyzed to determine if the water is suitable for other household uses, such as showering, bathing, washing dishes, flushing toilets, and hand washing. The chart below compares the detected contaminant concentration with the applicable standard:

Sample ID	Contaminant	Concentration (ug/l)*	MCL (ug/l)	2L (ug/l)
MK16009-003	Methyl tertiary butyl ether	0.68		20

* The abbreviation ug/l stands for micrograms of contaminant per liter of water and is roughly equivalent to parts per billion.

RECOMMENDATION: The detected contaminant did not exceed the applicable water standard. Therefore, no restrictions on the use of this water are recommended at this time.

Hinton, Sherron

From: Lane, George
Sent: Monday, December 05, 2011 1:23 PM
To: Hinton, Sherron
Subject: CD/DVD 4x4 Binder Sheets

Hi Sherron,

I would like to order the same CD Binder Sheets I did before we left the Oberlin Road office. The information follows:

Fellows CD/DVD Binder Sheets, 25 pack/200 Capacity. CRC95321

Thank you,

George Lane
State Environmental Project Manager
Super Fund Section, Federal Remediation Branch
NCDENR
(919) 707-8338
(336) 202-8665 (cell)

***Effective October 24th, 2011, my new phone and fax #'s will be (919) 707-8338
Physical Address: Green Square Complex DENR Office Building 217 W Jones St Raleigh, NC 27603
Mailing Address: 1646 Mail Service Center Raleigh, NC 27699***

****
E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties.
****

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **NCDENR - DWM - DSCA**
Description: **NT-F**
Date Sampled: **11/15/2011 1205**
Date Received: **11/16/2011**

Laboratory ID: **MK16009-003**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	11/28/2011 2037	SAS		72536

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM iso.)	ND		3.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		117	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)
H = Out of holding time
N = Recovery is out of criteria

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **NT-F**
Date Sampled: **11/15/2011 1205**
Date Received: **11/16/2011**

Laboratory ID: **MK16009-003**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/21/2011 1223	BM		72202

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**0.68**		**0.50**	**ug/L**	**1**
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0.50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MK16009-003**
Description: **NT-F**
Matrix: **Aqueous**
Date Sampled: **11/15/2011 1205**
Date Received: **11/16/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/21/2011 1223	BM		72202

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 13437

Client: NCDENR-DWM	Report to Contact: Vince Antrilli	Sampler (Printed Name): Vince Antrilli	Quote No.
Address: 217 West Jones St	Telephone No. / Fax No. / Email: 917-707-8353	Waybill No.	Page ___ of ___
City: Raleigh; State: NC; Zip Code: 27603	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		
Project Name: Hello-Teer			
Project Number	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix GW	DW	WW	S	Other	Analysis: VOCs	1,4 Dioxane 3 prb											Remarks / Cooler ID
Number of Containers									8	8											
Bottle (See Instructions on back)									A	A											
Preservative									5	5											
Lot No.																					
Trip Blank	11-15-11								2	2											
NT-C	↓	11:45		✓					3	3											
NT-F	↓	12:05		✓					3	3											

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

1. Relinquished by / Sampler: Vincent Antrilli Jr	Date: 11-15-11	Time: 2:00 pm	1. Received by	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by	Date	Time

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack
Receipt Temp. _____ °C
Temp. Blank ☐ Y / ☐ N

Instructions

Please complete as many fields possible. Contact your lab Project Manager with any questions reagrding Chain of Custody completion.

Bottle Types (Insert letter code for bottle type submitted)

A - 40ml Vial Clear

B - 40ml Vial Amber

C - 125ml Plastic

D - 250ml Plastic

E - 250ml Amber

F - 500ml Plastic

G - 500ml Amber

H - 1L Plastic

I - 1L Amber

J - 1L Widemouth

K - 2L Plastic

L - 2 oz. jar

M - 4 oz. jar

N - 9 oz jar

O - 100ml sterile

NCDENR

North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director | Division of Waste Management | Beverly Eaves Purdue, Governor
Dee Freeman, Secretary

MEMORANDUM

Date: November 15, 2011

To: File

From: Vince Antrilli
Raleigh Regional Office
Inactive Hazardous Sites Branch

Re: Nello-Teer Quarry-Denfield – Sampling Trip Summary
NONCD0002873

- On November 15, 2011, Larry Rose and I visited the site to sample water supply wells in the area. We samples wells located at:
  - 4911 Denfield St.
  - 1006 Communication Dr

  No one else responded to sample requests nor were home at the time of our field investigation.
- We observed that a residential neighborhood to the south was supplied by public water.
- Samples were sent to Shealey Labs on 11/15/11.

127 Cardinal Drive Ext., Wilmington, North Carolina 28405
Phone 910-796-7215 \ FAX 910-350-2004 \ Internet http://wastenotnc.org
An Equal Opportunity / Affirmative Action Employer – Printed on Dual Purpose Recycled Paper

One NorthCarolina Naturally

SITE HEALTH AND SAFETY PLAN

A. General Information

Site Name Nello Teer Denfield ID # NONCD0002873

Location 4918 Denfield Street, Durham, Durham County, NC

Proposed Date of Investigation 11/22/11 to 12/22/11

Date of Briefing 11/3/11

Date of Debriefing 1/2/12

Nature of Visit (check one):

On-Site Reconnaissance	
Off-Site Reconnaissance	
Sampling	X
Sampling Overview	
Remediation Overview	

Health Department Official Contacted Robert Brown's voice mail

Date of Contact 11/3/11

Site Investigation Team: All site personnel have read the Site Health and Safety Plan and are familiar with its provisions.

	Personnel	Responsibilities	Signature
Team 1	Vince Antrilli	team leader, sampling	
Team 1	Larry Rose	sampling	

Plan Preparation:

Prepared By: David Lilley, Industrial Hygiene Consultant

Reviewed By: Jack Butler, Superfund Section Chief

B. SITE/WASTE CHARACTERISTICS

Waste Type(s) __X__ Liquid _____ Solid _____ Sludge __X__ Gas __X__ Vapor

Characteristics _____ Corrosive _____ Ignitable _____ Radioactive

__X__ Volatile __X__ Toxic _____ Reactive _____ Other

List Known or Suspected Hazards (physical, chemical biological or radioactive) on Site and their toxicological effects. Also, if known, list chemical amounts

HAZARD	WARNING PROPERTIES	EXPOSURE LIMIT
1,2-Dichloropropane	Odor Threshold = 0.25 ppm	10 ppm
Acetone	Odor Threshold = 13-20 ppm	500 ppm
Chloroform	Odor Threshold = 85 ppm	10 ppm
Methyl tert-butyl Ether	Odor Threshold = unknown	50 ppm
Methyl Chloride	Odor Threshold = 10 ppm	50 ppm
Toluene	Odor Threshold = 2.9 ppm	20 ppm
Xylenes	Odor Threshold = 1 ppm	100 ppmm

UNDERGROUND UTILITIES CHECKLIST

Utility Location	Locator/Contact Person	Phone #	Date of
Power			
Telephone			
Gas			
Water			
Sewer			

Call made by:

ID # NONCD 000 2047

Facility Description: Size unknown Buildings unknown

Disposal Methods Being Investigated No disposal of material or methods of disposal have been reported.

Unusual Features on Site (dike integrity, power lines, terrain, etc.): None known

History of the Site: Area wide groundwater contamination near quarry

C. HAZARD EVALUATION

The site can be toured and sampled in level D protection. PVC gloves will be worn while collecting water samples. Chemically resistant knee length boots will be worn on site if the potential for surface soil contamination exists.

D. WORK PLAN INSTRUCTION

Map or Sketch Attached? yes

Perimeter Identified? no

Command Post Identified? no

Zones of Contamination Identified? no

Personal Protective Equipment/Level of Protection: _____C ___X_D

Modifications Wear goggles, face shield, and PVC gloves while preparing acid preserved samples, goggles and PVC gloves while collecting acid preserved samples. Avoid breathing acid vapors.

ID # NONCD0002873

Surveillance Equipment:

_____	HNU	_____	Detector Tubes and Pumps
_____	OVA	_____	02 Meter
_____	Explosimeter	_____	Radiation Monitor

Decontamination Procedures

_____Level C Respirator wash, respirator removal, suit wash (if needed), suit removal, boot wash, boot removal and glove removal.

___X___Level D Boot wash and rinse and boot removal, suit removal, glove and goggle removal.

Modifications Dispose of trash properly, on-site if possible.

Work Schedule/Visit Objectives The purpose of this visit is to determine if the site poses a threat to the public health or environment because of releases of contaminants to soil, surface water, groundwater, or air. Sampling may consist of groundwater sampling.

EMERGENCY PRECAUTIONS

Route of Exposure	First Aid
Eyes	irrigate immediately
Skin	soap and water wash
Inhalation	fresh air and artificial respiration
Ingestion	get medical attention immediately

ID # NONCD0002873

Location of Nearest Phone: nearby residences

Hospital (Address and Phone Number)

Durham Regional Hospital, 3643 North Roxboro Road, Durham, NC (919) 470-6547

Emergency Transportation Systems (Phone Numbers)

Fire 911

Ambulance 911

Rescue Squad 911

Emergency Route to Hospital see next page

PREVAILING WEATHER CONDITIONS AND FORECAST

		EQUIPMENT CHECKLIST	
	Air purifying respirator	X	First Aid Kit
	Cartridges for respirator	X	3 gal. Deionized H20
X	Eye Wash Unit	X	Rain suit
	HNU	X	Gloves (PE/PVC/nitrile/cloth)
	OVA	X	Boots/Boot Covers
	Explosimeter	X	Coveralls (tyvek/saranex)
	Radiation Monitor	X	Eye Protection (goggles/shield)
X	Decontamination Materials	X	Hard Hat

STATE POISON CONTROL CENTER
1-800-848-6946

North Carolina OSHA
1-800-LABOR-NC

Please complete the Air Monitoring and Injury Report Form.

mapquest

Trip to:
3643 N Roxboro St
Durham, NC 27704-2702
2.10 miles
4 minutes

Notes

To investors who want to retire comfortably.

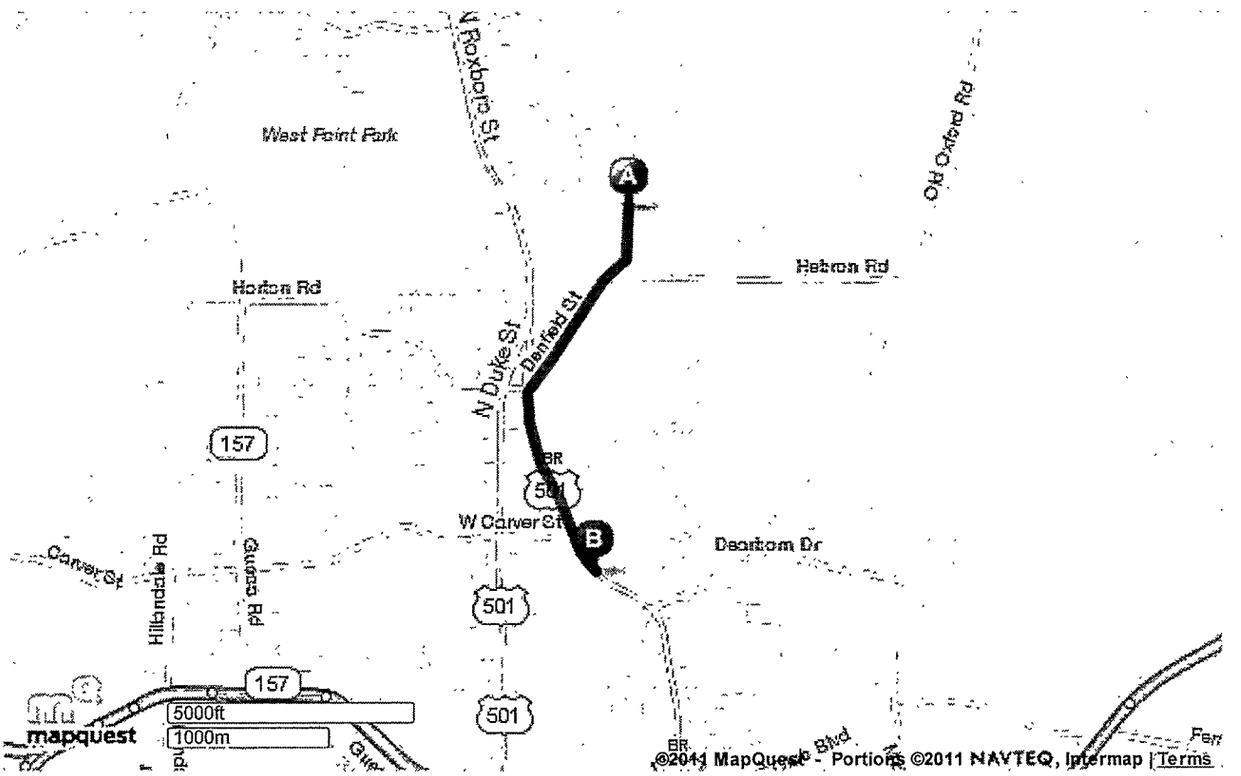
If you have a $500,000 portfolio, download the guide written by *Forbes* columnist and money manager Ken Fisher's firm. It's called **"The 15-Minute Retirement Plan."** Even if you have something else in place right now, it *still* makes sense to request your guide!

Click Here to Download Your Guide!

FISHER INVESTMENTS

		Miles Per Section	Miles Driven
A	**4918 Denfield St** Durham, NC 27704-1348		
	1. Start out going **southwest** on **Denfield St** toward **Weeping Willow Dr.**	**Go 1.1 Mi**	1.1 mi
501 BR	2. Turn **left** onto **N Roxboro St / US-501-BR.** *N Roxboro St is just past Bobs Ln* *Carter Bank & Trust is on the corner* *If you are on Horton Rd and reach N Duke St you've gone about 0.1 miles too far*	**Go 1.0 Mi**	2.1 mi
	3. **3643 N ROXBORO ST** is on the **right.** *Your destination is just past Crutchfield St* *If you reach Olympic Ave you've gone a little too far*		2.1 mi
B	**3643 N Roxboro St** Durham, NC 27704-2702	**2.1 mi**	**2.1 mi**

Total Travel Estimate: **2.10 miles - about 4 minutes**



©2011 MapQuest, Inc. Use of directions and maps is subject to the MapQuest Terms of Use. We make no guarantee of the accuracy of their content, road conditions or route usability. You assume all risk of use. View Terms of Use

Get Directions even quicker! features.mapquest.com/toolbar/

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: 1,2-Dichloropropane

I. PHYSICAL/CHEMICAL PROPERTIES

	Reference
Chemical Formula C3 H6 Cl2	1
Natural Physical State at 25°C liquid	2
Vapor Pressure 40 mm Hg at 20°C	3
Melting Point -149 °F/°C Boiling Point 206 °F/°C	3
Flash Point (open or closed cup) 60 °C/°F	3
Solubility - H_2O 0.3 %	3
Other miscible with organic solvents	1

Physical Features: (odor, color, etc.) colorless, stable liquid with an odor like chloroform (2) IP = 10.87 eV

II. TOXICOLOGICAL DATA

Standards: 10 ppm (4) TLV 75ppm (5) PEL 2,000ppm (3) IDLH

Routes of Exposure: Inhalation, Eye/Skin contact, Ingestion

Acute/Chronic Symptoms: Eye and skin irritation, drowsiness, light-headedness carcinogenic in animals, liver and kidney disease (3)

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately

Chemical Name: 1,2-Dichloropropane

III. HAZARDOUS CHARACTERISTICS | Reference

A. Combustibility Yes X No ____ | 3

Toxic by-products toxic and irritating gases may be generated | 6

B. Flammability LEL 3.4% UEL 14.5% | 3

C. Reactivity Hazard no reaction with common materials | 6

incompatible with strong oxidizers and acids | 3

D. Corrosivity Hazard yes/no pH: _____

Neutralizing agent: _____

E. Radioactive Hazard

		Exposure Rate	
Background	yes/no		
Alpha particles	yes/no		
Beta particles	yes/no		
Gamma radiation	yes/no		

IV. REFERENCES

1. The Merck Index, 11th Edition, Sax, 1989.
2. The Condensed Chemical Dictionary, Sax, 11th Edition, 1987.
3. Pocket Guide to Chemical Hazards, NIOSH, 1990.
4. Threshold Limit Values and Biological Exposure Indices for 2007, ACGIH.
5. 29 CFR 1910.1000.
6. Chemical Hazard Response Information System, US Department of Transportation, 1987.

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Acetone

I. PHYSICAL/CHEMICAL PROPERTIES

	Reference
Chemical Formula CH3COCH3	1,2
Natural Physical State at 25EC liquid	1,2
Vapor Pressure 180 mm Hg at 20EC	2
Melting Point -140EF/EC Boiling Point 133EF/EC	2
Flash Point (open or closed cup) 0 EC/EF	2
Solubility - H_2O miscilbe Other	2

Physical Features: (odor, color, etc.) colorless liquid with a fragrant, mint-like odor. IP=9.69 eV (2) HNU Relative Response = 6.3 with the 10.2 eV probe. OVA Relative Response = 60%.

II. TOXICOLOGICAL DATA

Standards: 500 ppm (3) TLV 1000 ppm (4) PEL

20,000 ppm (2) IDLH

Routes of Exposure: Inhalation, contact with skin will cause dryness.

Acute/Chronic Symptoms: Irritation of eyes, nose and throat. Headaches, dizziness, and dermatitis. (2)

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately.

Chemical Name: Acetone

III. HAZARDOUS CHARACTERISTICS Reference

A. Combustibility Yes X No ___ 2
Toxic by-products

B. Flammability LEL 2.5% UEL 13% 2

C. Reactivity Hazard oxidizing material and acids

D. Corrosivity Hazard yes/no pH:

Neutralizing agent:

E. Radioactive Hazard Exposure Rate
Background yes/no
Alpha particles yes/no

Beta particles yes/no
Gamma radiation yes/no

IV. REFERENCES

1. Chemical Safety Data Guide, BNA - 1985.
2. Pocket Guide to Chemical Hazards, NIOSH - 1990.
3. Threshold Limit Values and Biological Exposure Indices for 2007
4. 29 CFR 1910..

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Chloroform

I. PHYSICAL/CHEMICAL PROPERTIES

	Reference
Chemical Formula $CH\ Cl_3$	1
Natural Physical State at 25°C liquid	2
Vapor Pressure 160 mm Hg at 20°C	2
Melting Point -82 °F/°C Boiling Point 143 °F/°C	2
Flash Point (open or closed cup) NA °C/°F	2
Solubility - H_2O 1 ml dissolves in 200 ml H_2O at 25° C	1
Other miscible with alcohol, benzene, ether, petroleum ether, carbon tetrachloride, carbon disulfide, oils	1

Physical Features: (odor, color, etc.) colorless liquid with a pleasant, sweet odor IP = 11.42 eV (2) HNU sensitivity with 11.7 eV probe=6.0 OVA Relative Response=65%

II. TOXICOLOGICAL DATA

Standards: 10 ppm(3) TLV 50 ppm (ceiling)(4) PEL suspect human carcinogen IDLH 3

Routes of Exposure: Eye contact, skin contact, ingestion, inhalation (2)

Acute/Chronic Symptoms: Dizziness, mental dullness, nausea, headache, fatigue, anesthesia, eye and skin irritation, enlargement of the liver (2)

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately

Chemical Name: Chloroform

III. HAZARDOUS CHARACTERISTICS — Reference

A. Combustibility Yes ___ No X ___ — 2
Toxic by-products _____

B. Flammability LEL _____ UEL _____

C. Reactivity Hazard Incompatible with strong caustics, chemically active metals such as Al, Mg powder, Na, K — 2

D. Corrosivity Hazard yes/no pH: _____

Neutralizing agent: _____

E. Radioactive Hazard — Exposure Rate

Background	yes/no	
Alpha particles	yes/no	
Beta particles	yes/no	
Gamma radiation	yes/no	

IV. REFERENCES

(1) The Merck Index, 11th Edition, 1989
(2) The Pocket Guide to Chemical Hazards, NIOSH, 1990
(3) Threshold Limit Values and Biological Indices for 2007 ACGIH
(4) 29 CFR 1910.1000

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Methyl-tert-butyl ether

I. PHYSICAL/CHEMICAL PROPERTIES

	Reference
Chemical Formula $C_5H_{12}O$	1
Natural Physical State at 25°C liquid	2
Vapor Pressure 245 mm Hg at 20°C	1
Melting Point _____ °F/°C Boiling Point 55.2 °F/°C	1
Flash Point (open or closed cup) -109 °C/°F	1
Solubility - H_2O 4.8g/100g	1
Other _____	_____

Physical Features: (odor, color, etc.) Colorless liquid, used as an octane booster in gasoline (1,2)

II. TOXICOLOGICAL DATA

Standards: 50 ppm (4) TLV _____ PEL _____ IDLH _____

Routes of Exposure: Inhalation, Ingestion, Skin and/or Eye contact

Acute/Chronic Symptoms: Skin and eye irritation, sleepiness, loss of appetite, dizziness, excitation (inhalation). Skin contact can cause dryness and cracking. (3)

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Skin contact: irrigate immediately; Skin contact: soap and water wash immediately.

Chemical Name: Methyl-tert-butyl ether

III. HAZARDOUS CHARACTERISTICS — Reference

A. Combustibility Yes X No ____ — 2

Toxic by-products When heated to decomposition, emits acrid smoke and irritating fumes — 3

B. Flammability LEL _____ UEL _____ — _____

C. Reactivity Hazard Unstable in acid solution, exposure of ethers to sunlight causes formation of explosive peroxides — 2,3

D. Corrosivity Hazard yes/no pH: _____ — _____

Neutralizing agent: _____ — _____

E. Radioactive Hazard

		Exposure Rate	
Background	yes/no	_____	_____
Alpha particles	yes/no	_____	_____
Beta particles	yes/no	_____	_____
Gamma radiation	yes/no	_____	_____

IV. REFERENCES

1. The Merck Index, 10th Edition.
2. The Condensed Chemical Dictionary, Hawley, 11th Edition, 1987.
3. Encyclopaedia of Occupational Health and Safety, International Labor Office, 3rd Edition, 1983.
4. Threshold limit Values, ACGIH, 2007

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Chloromethane

I. PHYSICAL/CHEMICAL PROPERTIES

	Reference
Chemical Formula CH_3Cl	1
Natural Physical State at 25°C gas	1
Vapor Pressure > 1 atm mm Hg at 20°C	1
Melting Point -144 °F/°C Boiling Point -12 °F/°C	1
Flash Point (open or closed cup) NA (gas) °C/°F	1
Solubility - H_2O 0.5%	
Other	

Physical Features: (odor, color, etc.) Colorless gas with a faint, sweet odor which is not noticeable at dangerous concentrations. (1)

II. TOXICOLOGICAL DATA

Standards: 50 ppm (2) TLV 100 ppm (3) PEL 10,000 ppm (1) IDLH

Routes of Exposure: Inhalation

Acute/Chronic Symptoms: Dizziness, nausea, vomiting, visual disturbances, staggering, slurred speech, convulsions, coma, liver and kidney damage, frostbite, carcinogenic

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately

Chemical Name: Chloromethane

III. HAZARDOUS CHARACTERISTICS

		Reference
A.	Combustibility Yes X No ____	
	Toxic by-products _____	_____
B.	Flammability LEL 8.1% UEL 17.4%	1
C.	Reactivity Hazard Chemically-active metals such as potassium, powdered aluminum, zinc & magnesium; water	1
D.	Corrosivity Hazard yes/no pH: _____	_____
	Neutralizing agent: _____	

E. Radioactive Hazard

			Exposure Rate
Background	yes/no	_____	_____
Alpha particles	yes/no	_____	_____
Beta particles	yes/no	_____	_____
Gamma radiation	yes/no	_____	_____

IV. REFERENCES

1. Pocket Guide to Chemical Hazards, NIOSH, 1990
2. Threshold Limit Values and Biological Exposure Indices, ACGIH, 2007
3. 29 CFR 1910.1000

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Toluene (Methyl benzene, toluol)

I. PHYSICAL/CHEMICAL PROPERTIES

Reference

Chemical Formula C7H8 1,2,3,4

Natural Physical State at 25EC liquid 1,2,3,4

Vapor Pressure 20 mm Hg at 20EC 3

Melting Point -95EF/EC Boiling Point 110.6EF/EC 1,3,4

Flash Point (open or closed cup) 40 EC/EF 1,2,3,4

Solubility - H_2O slightly soluble 1,3,4

Other miscible with alcohol, chloroform, ether, acetone, glacial acetic acid, carbon disulfide 1,3,4

Physical Features: (odor, color, etc.) colorless liquid with an aromatic odor, IP 8.82 eV, (3) derived from coal tar oil or petroleum Relative response on HNU = 10

II. TOXICOLOGICAL DATA

Standards: 20 ppm (5) TLV 200 ppm (6) PEL

2000 ppm (4) IDLH

Routes of Exposure: inhalation; ingestion, skin contact, eye contact

Acute/Chronic Symptoms: Narcotic in high concentrations, headache, lassitude, and nausea. Chronic: anemia and dermatitis. (2)

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately

Chemical Name: Toluene

III. HAZARDOUS CHARACTERISTICS Reference

A. Combustibility Yes X No __ 4
Toxic by-products

B. Flammability LEL 1.0% UEL 7.0% 4

C. Reactivity Hazard strong oxidizers 3

D. Corrosivity Hazard yes/no pH:

Neutralizing agent:

E. Radioactive Hazard Exposure Rate
Background yes/no
Alpha particles yes/no
Beta particles yes/no
Gamma radiation yes/no

IV. REFERENCES

(1) The Merck Index, 11th Edition, 1989
(2) Documentation of the TLV, 4th Edition, 1980
(3) NIOSH Pocket Guide for Chemical Hazards, 1990
(4) NEPA, Protection Guide on Hazardous Materials, 8th Edition, 1984
(5) Threshold Limit Values and Biological Exposure Indices for 2007
(6) 29 CFR 1910.1000

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Xylene, O, M, & P (Dimethyl benzene)

I. PHYSICAL/CHEMICAL PROPERTIES

	Reference
Chemical Formula $C_8 H_{10}$	1
Natural Physical State at 25EC liquid	1
Vapor Pressure 7-9 mm Hg at 20EC	1
Melting Point 13-14EF/EC Boiling Point 137-140EF/EC	1
Flash Point (open or closed cup) 90/84/81EC/EF	1
Solubility - H_2O insoluble	1
Other soluble in alcohol, ether and most other organic solvents.	1

Physical Features: (odor, color, etc.) colorless liquid with aromatic/ benzene odor. Common solvent for paints and coatings. IP = 8.5 eV. HNU relative response with 10.2 eV probe = 11.3, OVA relative response = 111 - 116%

II. TOXICOLOGICAL DATA

Standards: 100 ppm (2) TLV 100 ppm (3) PEL 1,000 ppm (4) IDLH

Routes of Exposure: Inhalation, Ingestion, Skin and/or Eye contact

Acute/Chronic Symptoms: headache, fatigue, dizziness, lassitude, narcotic effects in high concentrations (5,6). Chronic effects not well defined (1).

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately.

Chemical Name: Xylene, O, M, & P

III. HAZARDOUS CHARACTERISTICS Reference

A. Combustibility Yes X No ___ 1,2,3,4

Toxic by-products

B. Flammability LEL 1.4% UEL 6.7% 2

C. Reactivity Hazard strong oxidizers 4

D. Corrosivity Hazard yes/no pH:

Neutralizing agent:

E. Radioactive Hazard Exposure Rate

Background	yes/no
Alpha particles	yes/no
Beta particles	yes/no
Gamma radiation	yes/no

IV. REFERENCES

(1) The Merck Index, 11th Edition, 1989.
(2) Threshold Limit Values and Biological Exposure Indices for 2007

(3) 29 CFR 1910.1000
(4) NIOSH Pocket Guide to Chemical Hazards, 1990.
5) NFPA, Fire Protection Guide on Hazardous Materials, 8th Edition, 1984.

(6) Documentation of the TLV, 4th Edition, 1980

CORVEL

WC Authorization | Physician's Report | Pharmacy Guide

MAILING ADDRESS: P.O. Box 77880, Charlotte, NC 28271
800-365-5998 www.corvel.com

EMPLOYER: Please complete the top section and give to the injured employee to take with them to their authorized treating physician. If you already have transitional duty job descriptions available, please attach a copy for the treating physician's review.

Name of Employee: **Last:**	**First:**
Date of Injury:	
Name of Employer:	
Employer Signature:	Treating Physician:

EMPLOYEE: Please take this form with you to an authorized treating physician. Please have the physician complete the middle section and return this immediately to your employer. The bottom section is for you to show the pharmacist should you need to have any prescriptions filled as prescribed by your authorized treating physician for this work related injury.

AUTHORIZED PHYSICIAN, PLEASE COMPLETE

Diagnosis: _____

A post accident drug test (check one) ( ) **has** been completed ( ) **has not** been completed

In accordance with this patient's physical capability, check all that apply:

( ) May resume work immediately, no restriction.
( ) May resume work immediately with the following restrictions:
- ( ) Sedentary work (sitting, occasional walking, standing, lifting less than 10 pounds)
- ( ) Light work (lifting less than 20 pounds)
- ( ) Medium work (lifting less than 50 pounds)
- ( ) Heavy work (lifting less than 100 pounds)
- ( ) Normal shift
- ( ) Limited hours: ____ hrs, _____hrs, _____hrs per day
- ( ) Other: _____

( ) Repetitive Motion Restrictions (specific to hand/arm injuries):

Frequency	**Left**	**Right**
No Use		
Occasional <33% of time		
Frequent 34-66% of time		
Regular 67-100% of time		

( ) Patient may return to work at full duty on (date) _____
( ) Patient has a return appointment on (date) _____at (time) _____

Please indicate any referrals that are required: _____

_____	_____	_____
Physician's Signature	**Date**	**Physician's Name (type or print)**

Physician Offices – Be sure to contact CorVel's Claim Department at 800-365-5998 for authorization for the referral.

PHARMACIST: Please use the Injured Worker's **SSN and Date of Injury (SSN+MMDDYYYY)** as their 17 digit Identification Number when entering information to process an online claim to CorVel on behalf of Department of Environmental and Natural Resources injured employees. Pharmacies can contact the **CorVel Customer Service at 800-563-8438 or CVS/Caremark Pharmacy Help Desk at 877-876-7216,** for assistance with claims processing.

DO NOT CHARGE THE PATIENT FOR THE PRESCRIPTION.

CHAIN NAME	CHAIN NAME	CHAIN NAME	CHAIN NAME
Bi-Lo Pharmacy	Honzon Pharmacy	Revco drugs	VIX Pharmacy
Bi-Mart	HyVee Drugtown	Rite-Aid drugs	Walgreen's
Brooks Drugs	J & J Pharmacy	RX Discount Pharmacy	Wal-Mart Pharmacy
Brookshire Brothers	Joel & Jerry's	Sack-n-Save	Wegman Pharmacy
Cub Pharmacy	Kash N Karry	Sav-A-Lot	Winn-Dixie
CVS Drugs	Kerr Drugs	Sams Club Pharmacy	
Drug Emporium	K-mart phcy	Save Mart	
Eckerds(all others)	Long's Phcy	Stop N Shop	
Franck's Pharmacy	Medicine Shoppe	Super D	
Fred Meyer	Medistat Phcy	Super Valu	
Fred's Pharmacy	Milner-Rushing Drugs	Super X (HSI)	
Giant Pharmacy	Pathmark Pharmacy	Tom Thumb Phcy	
Goodings	Perry Drg Str	Tops Pharmacy	
Hannaford Food &	Phar-Mor	Tri Daly Drugs	

Group Number: RXFFWC311
CCRx BIN: 004336
PCN: ADV Rev. 6/10
Dept. of Environ. & Natural Res.

CORVEL

*** All participating pharmacies have not been included on this list. Please have your pharmacy call regarding any questions/ authorizations 800-563-8438.**

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

RECEIVED
NOV 09 2011
SUPERFUND SECTION

October 31, 2011

Donald Ward
1220 Crystal Forest Dr
Semora, NC 27343

RE: Water Supply Well Sampling – Nello Teer site (NONCD 000 2873)
1006 Communication Dr
Durham, NC 27704

Dear Mr. Ward:

My name is Vincent Antrilli with North Carolina Department of Environment and Natural Resources, Division of Waste Management. The purpose of this letter is to contact you pursuant to ground water contamination detected in your area. During the week of November 21st, 2011, I will be in the Alamance County area collecting groundwater samples related to the groundwater contamination in your area. I would like to sample your well at the above referenced address during that time. You do not have to be present to have your well sampled and there is no cost to you. The laboratory results will be forwarded to you as soon as possible. Please provide the following information, *if you know it*, when you contact me.

- The number of wells on your property are one
- The depth of the well(s) are ? ft.
- The well(s) are being used for the following purposes: washing bowls & flushing commodes only.
- The well water goes through a filtration system before the water enters the house. YES / NO
- Is there a tap at the well head or outside wall spigot of the residence? YES / NO
  - If YES which one? outside wall spigot (left side)
- Your contact information:
  - Phone # 336-234-8419 or 919-477-0471 ext. 103 – Andy Ward at the site.
  - Email Address granny glenda@centurylink.net

Please contact me by one of the following ways to confirm that ***you would*** or ***would not*** like your well sampled. You can reach me by calling (919) 707-8353, emailing me at Vincent.Antrilli@ncdenr.gov or respond to this letter stating you do wish or do not wish to have your well sampled. I will be happy to answer any questions you may have at that time.

Sincerely,

Vincent Antrilli, Jr.
Environmental Specialist
Inactive Hazardous Sites Branch
Superfund Section

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

July 19, 2010

Mr. Harvey L. Harris
1003 Communications Drive
Durham, NC 27704

RE: Health Risk Evaluation (HRE)
Nello Teer - Denfield
Durham, Durham Co
NONCD0002873

Dear Mr. Harris:

On May 21, 2010, samples were collected from your water supply well at the reference site. The laboratory analytical results were forward to Ms. Hanna Assefa, Environmental Toxicologist with the NC Department of Environment and Natural Resources, Superfund Section, Inactive Hazardous Sites Branch for a Health Risk Evaluation (HRE) based on the analytical results. Please find enclosed, a copy of the HRE.

Should you have any questions, you may contact me at (919) 508-8469.

Sincerely,

S. Wade Kirby, PE, PG, Environmental Engineer II
Inactive Hazardous Sites Branch
Superfund Section

enclosure: Health Risk Evaluation

July 16, 2010

MEMORANDUM

TO: Wade Kirby, Environmental Engineer
Inactive Hazardous Sites Branch
Superfund Section

FROM: Hanna Assefa, Industrial Hygiene Consultant
Inactive Hazardous Sites Branch
Superfund Section

RE: Health Risk Evaluation
Harris Harvey L.Well
Well ID -WSW-E
1003 Communications Dr.
Durham, Durham County
NONCD0002873
Nello Teer-Denfield

A water sample was collected from the water supply well at the subject address on May 21, 2010. The concentration of contaminants detected in the water from this well does not exceed applicable standards. The standards used to determine if the water is suitable for drinking and cooking are the federal drinking water standards (USEPA MCL), or where there is no MCL, the North Carolina Groundwater Quality Standard (NC 2L).

If contaminant concentrations exceed the applicable standards for using the water for drinking and cooking, the contaminant concentrations are further analyzed to determine if the water is suitable for other household uses, such as showering, bathing, washing dishes, flushing toilets, and hand washing. **Therefore, based on this evaluation the water from this well can be used for drinking, cooking and all other residential purposes described above.** The table below compares the detected contaminant concentrations with the applicable standards:

Sample #	Chemical	05/21/2010 Concentrations Ug/l	MCL Ug/l	15A NCAC 2L Ug/l
F73898-4	Chloroform	1.2 J	80	
	1,2-Dichloropropane	1.2	5	
	Methyl Tertiary-butyl Ether	0.59		20

The abbreviation Ug/l stands for micrograms of contaminant per liter of water

J = Estimated concentration.

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

CERTIFIED MAIL

July 15, 2010

Mr. Steve Edgerton
Lehigh Hanson, Inc.
2300 Gateway Center Blvd.
Morrisville, NC 27560

Re: **NOTICE OF REC PROGRAM ELIGIBILITY**

Nello L. Teer Co. (Durham Quarry)
Durham, Durham County, NC
NONCD 0002873
GW Incident #: 9357

Dear Mr. Edgerton:

Thank you for submitting the additional information for the above subject site ("Site") as requested in the Inactive Hazardous Sites Branch ("the Branch") correspondence dated May 4, 2010. The Branch has completed review of this information and determined that the Site can be cleaned up through the REC ("Registered Environmental Consultant") Program without direct oversight by Branch Staff. This site is also being regulated through the NCDENR Underground Storage Tank Section. Please note proof or certification of abandonment of the onsite water supply well will be necessary before the site can be moved to No Further Action status.

Note that, if you have not already done so, you must take the initial abatement actions required under 15A NCAC 2L. Pursuant to 15A NCAC 2L .0106(b), any person conducting or controlling an activity which results in the discharge of a waste or hazardous substance to the groundwaters of the State, or in proximity thereto, shall take immediate action to terminate and control the discharge, and mitigate any hazards resulting from exposure to the pollutants. Pursuant to 15A NCAC 2L .0106(c), if groundwater standards have been exceeded, you must take immediate action to eliminate the source or sources of contamination. Beyond initial abatement actions, all assessment and remediation will be done through the Inactive Hazardous Sites Response Act ("IHSRA").

Under the IHSRA, to receive approval of the assessment and clean up at the Site, you must enter into an administrative agreement with the Branch. Since the Branch has determined that the Site can be cleaned up through the REC Program, execution of an REC-Administrative Agreement (AA) is required. The procedures for entering into an REC-AA are attached. If you have any questions regarding these procedures or the REC Program, please contact the REC Program Manager, Kim Caulk, at (919)508-8451 or visit the REC Program website at http://portal.ncdenr.org/web/wm/sf/ihs/recprogram.

If we do not receive a response from you within the next 60 days indicating you willingness to enter an REC-AA, the Branch will take further action to prioritize the Site. Failure to take the initial abatement steps required in 15A NCAC 2L may result in the assessment of a civil penalty against you. In addition, the Branch may seek an injunction compelling compliance with the initial abatement steps required in 15A NCAC 2L. For future work beyond the initial abatement steps required pursuant to 15A NCAC 2L, a unilateral Order may be issued pursuant to § 130A-310.3 to compel assessment and cleanup. In addition, if you choose not to conduct a cleanup voluntarily, the site may be referred to the United States Environmental Protection Agency ("EPA"). If so referred, EPA will screen the site for Federal enforcement action under the Federal Superfund Program, established under the Comprehensive Environmental Responsibility, Compensation, and Liability Act ("CERCLA").

If you have additional questions about the requirements that apply to your site, please contact me at (919) 508-8469.

Sincerely,

S. Wade Kirby, PE, PG, Environmental Engineer
Inactive Hazardous Sites Branch
Superfund Section

Enclosure: REC-AA Procedures

cc: Joe Beaman, Highlands Environmental Solutions, Inc.
Wayne Randolph, UST Section, Raleigh Regional Office

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management
Dexter R. Matthews
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

May 4, 2010

Mr. Steve Edgerton
Lehigh Hanson, Inc.
2300 Gateway Center Blvd.
Morrisville, NC 27560

Re: **REQUEST FOR ADDITIONAL INFORMATION**

Nello L. Teer Co. (Durham Quarry)
Durham, Durham County, NC
NONCD 0002873
GW Incident #: 9357

Dear Mr. Edgerton:

I have completed review of the Site Clean-Up Questionnaire submitted to the Inactive Hazardous Sites Branch ("the Branch") by your consultant, Highland Environmental Solutions, Inc., on April 5, 2010. The Underground Storage Tank Section has been responsible for oversight of this site because of petroleum contamination related to the former USTs. Because chlorinated solvents have been detected in soil and groundwater, this site also falls under the Branch's regulations. Before the Branch can assess if this site is eligible for the REC Program, additional information is needed as follows:

1. Have all the onsite water supply wells been abandoned? Files transferred to the Branch from the Division of Water Quality's Aquifer Protection Section (APS) did not contain well abandonment reports for the water supply wells. Please forward this information to the Branch for review.

2. The February 22, 2010 Groundwater Monitoring Report indicates six water supply wells are within 1500 feet of the site and still in use. Have these well been sampled by Hanson Aggregates? If not, the wells will need to be sampled and the data provided to the Branch.

The requested information is necessary to determine this site's eligibility for the REC Program. Please submit the requested information by **June 8, 2010** to:

S. Wade Kirby
Inactive Hazardous Sites Branch
401 Oberlin Road, Suite 150
Raleigh, NC 27699-1646

If you have additional questions about the requirements that apply to your site, please contact me at (919) 508-8469.

Sincerely,

S. Wade Kirby, PE, PG, Environmental Engineer
Inactive Hazardous Sites Branch
Superfund Section

cc: Joe Beaman, Highlands Environmental Solutions, Inc.

Kirby, Wade

From: Randolph, Wayne
Sent: Monday, May 03, 2010 9:16 AM
To: Kirby, Wade
Subject: RE: Nello Teer - Denfield, Durham, Durham County

Hi Wade,

From the information I could find, the on-site WSW is not in used but we do not have record of it being abandoned. Also, the off site wells have not been sampled.

Wayne Randolph
Hydrogeologist II
UST Section, DWM, NCDENR
Raleigh Regional Office

Wayne.Randolph@ncdenr.gov
Voice (919) 791-4220
Fax (919) 571-4718

NOTE: E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties.

From: Kirby, Wade
Sent: Thursday, April 29, 2010 3:04 PM
To: Randolph, Wayne
Subject: Nello Teer - Denfield, Durham, Durham County

Hi Wayne,

Do you know if all the onsite water supply wells have been abandoned for the subject site? Our files do not have anything indicating they have been. A August 14, 2000 correspondence to Eric Rice at APS indicated the quarry owner was intending to abandon water supply well "W-2"; however, our files do not have any documentation showing this was done.

Also, there are 5 to 6 offsite water supply wells within 1500 feet of the site. Do you if these wells have every been sampled?

Thank You,

Stephen Wade Kirby, PE, PG
Environmental Engineer II
Inactive Hazardous Sites Branch
Superfund Section
NC Division of Waste Management
(919) 508-8469

Highlands Environmental Solutions, Inc.
8410-D Falls of Neuse Road; Raleigh, NC 27615
Phone: 919-848-3155 / Fax: 919-848-4265 / www.highlandsenvironmental.com

RECEIVED
APR 07 2010
SUPERFUND SECTION

April 5, 2010

Mr. Stephen Wade Kirby
NCDENR – Inactive Hazardous Sites Branch
401 Oberlin Road, Suite 150
Raleigh, NC 27699-1646

Subject: Submittal of Site Clean-up Questionnaire and Supporting Documentation
Former Nello Teer Quarry – Hanson Aggregates; Durham, Durham County, North Carolina
NCDENR Site ID#NONCD0002873
NCDENR Groundwater Incident #9357
HES Project #57002

Dear Mr. Kirby:

On behalf of our client, Lehigh Hanson, Inc., attached, please find a completed Site Clean-up Questionnaire and associated supporting documentation. This information is being submitted to you in accordance with correspondence from your office dated December 15, 2009. Environmental assessment and remediation activities are on-going at this site, as related to petroleum releases from former underground storage tanks (USTs), and a former asphalt testing laboratory.

If there are any questions regarding this correspondence, or the project in general, please contact Joe Beaman at (919) 848-3155.

Sincerely,

Highlands Environmental Solutions, Inc.

Joe Beaman, P.G., RSM
Principal Geologist

Attachments

cc: Mr. Steve Edgerton – Lehigh Hanson, Inc.
File

Site Cleanup Questionnaire

Remediating parties interested in volunteering should prepare this form with the assistance of an environmental consultant. All cooperative parties are eligible for Branch-approved remedial actions. Answer all questions, based on current information, and provide writtendescriptions where needed.

NCDENR Site Name, City and County **Hanson Aggregates Former Nello Teer Quarry; Durham, Durham County**

1. Is the site located on or immediately adjacent to residential property, schools, day-care centers or other sensitive populations? ☐ Y ☒ N

   If yes, please explain on a separate page.

2. What is the distance (from site property line) to the nearest residence, school or day-care center? Please attach a map showing the site and nearest residence, school or daycare center. 650 feet

3. Is the site completely surrounded by a locked fence? ☒ Y ☐ N
   If no, please explain security measures at the site on a separate page.

4. Are site surface soils known to be contaminated? ☐ Y ☐ N Unknown

   If yes, or unknown, describe briefly on a separate page.

5. Is site groundwater known to be contaminated? ☒ Y ☐ N

   If yes, or unknown, describe briefly on a separate page.

6. Is site sediment or surface water known to be contaminated? ☐ Y ☒ N

   If yes, or unknown, describe briefly on a separate page.

7. Has groundwater contamination affected any drinking water wells? ☐ Y ☒ N

   If yes, or unknown, please explain on a separate page.

8. What is the distance to the nearest downgradient drinking water well? 390 feet

9. What is the distance to the nearest downstream surface water intake? see attached

10. Are hazardous vapors, air emissions or contaminated dust migrating into occupied residential, commercial or industrial areas? ☐ Y ☒ N

    If yes, or unknown, please explain on a separate page.

11. Have hazardous substances known to have migrated off property at concentrations in excess of Branch unrestricted-use remediation goals? ☐ Y ☒ N

    If yes, or unknown, please explain on a separate page.

12. Has the local community expressed concerns about contamination at the site? ☐ Y ☒ N

    If yes, or unknown, please explain on a separate page.

13. Based on current information, are there any sensitive environments located on the property (sensitive environments are identified in the Remedial Investigation Work Plans section of the IHSB " Guidelines forAssessment and Cleanup "at www.wastenotnc.org/sfhome/ stateleadguidance.pdf)? ☐ Y ☐ N Unknown

    If yes, or unknown, please explain on a separate page.

14. Based on current information, has contamination from the site migrated into any sensitive environments? ☐ Y ☒ N

If yes, or unknown, please explain on a separate page.

15. Do site contaminants include radioactive or mixed radioactive and chemical wastes? ☐ Y ☒ N

If yes, or unknown, please explain on a separate page.

Remediating Party Certification Statement

After first being duly sworn or affirmed, I, Steven S. Edgerton, hereby state that: I am over the age of eighteen, I am competent to make this certification based upon my own personal knowledge and belief, and, to the best of my knowledge and belief, after thorough investigation, the information contained herein is accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information.

Steven S. Edgerton — 3-24-2010

(Signature of Remediating Party Representative) (Date)

Steven S. Edgerton, VP CCM

(Printed Name and Title of Remediating Party Representative)

Lehigh Hanson Inc.

(Printed Name of Company)

STATE OF Texas

COUNTY OF Dallas

I, Donna G. Oliver, a Notary Public of said County and State, do hereby certify that Steven S Edgerton personally appeared before me this day, produced proper identification in the form of drivers license, was duly sworn and/or affirmed, and declared that he or she is the owner of the property referenced above or is a duly authorized agent of said owner and that, to the best of his or her knowledge and belief, after thorough investigation, the information contained in the above certification is accurate and complete, and he or she then signed this Certification in my presence.

WITNESS my hand and official seal the 24th day of March, ~~200~~ 2010.

Donna G Oliver

Notary Public (signature)

(OFFICIAL SEAL)

My commission expires: DONNA G OLIVER NOTARY PUBLIC State of Texas Comm. Exp. 11-23-2013

Environmental Consultant Certification Statement

After first being duly sworn or affirmed, I, Bobby J. Beaman, hereby state that: I am over the age of eighteen, I am competent to make this certification based upon my own personal knowledge and belief, and, to the best of my knowledge and belief, after thorough investigation, the information contained herein is accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information.

(Signature) 4/5/2010 (Date)

Bobby J. Beaman
(Printed Name)

Highlands Environmental Solutions, Inc
(Printed Name of Environmental Consultant)

STATE OF North Carolina

COUNTY OF Franklin

I, Kelligrace Earle, a Notary Public of said County and State, do hereby certify that Bobby J. Beaman personally appeared before me this day, produced proper identification in the form of Drivers License, was duly sworn and/or affirmed, and declared that he or she is an environmental consultant for the property referenced above and that, to the best of his or her knowledge and belief, after thorough investigation, the information contained in the above certification is accurate and complete, and he or she then signed this Certification in my presence.

WITNESS my hand and official seal the 5th day of April, 2010.

Kelligrace Earle
Notary Public (signature)

(OFFICIAL SEAL)

My commission expires: 10/6/2014

KELLIGRACE EARLE
NOTARY PUBLIC
FRANKLIN COUNTY, NC

IHSB Site Cleanup Questionnaire – Supplemental Information

Hanson Aggregates (former Nello Teer Quarry); Durham, North Carolina
Site Identification Number – NONCD0002873

The subject site is owned by Hanson Aggregates, and is located at 5113 Denfield Street, in Durham, Durham County, North Carolina. The site location is depicted on **Figure 1**, attached. The site operated as a quarry (former Nello Teer Quarry) beginning in the 1940's continuing into the 1980s. A gasoline station, with petroleum underground storage tanks (USTs), was formerly located along the Southern perimeter of the property, South of the quarry pit. An asphalt plant, including an NCDOT asphalt testing laboratory, was formerly located adjacent to the South side of the quarry pit. Please refer to **Figure 2** for additional general site details. Quarrying activities have been discontinued at the site; however, a crushed stone sales yard is operational on the North side of the former quarry pit.

In the late 1980s, the former USTs associated with the former gasoline station were removed. In 1993, petroleum-impacted groundwater was discovered in a site water supply well, and the NCDENR issued a subsequent Notice of Violation (NOV). During environmental assessment activities following receipt of the NOV, other water supply wells were identified within 1/4 mile of the facility. However, subsequent testing indicated that none of the surrounding water supply wells were impacted by regulated chemical constituents from the site. Recent residential development activity in the area near the quarry has extended City of Durham municipal water lines to within 800 feet of the quarry gate.

Additional environmental assessment activities have been performed at the site, and soil and groundwater impacted by regulated chemical constituents have been discovered at the site. Based on the classes of regulated chemicals detected in soil and groundwater at the site, the impacted areas have been subdivided into two general areas: Area #1 - the former gas station, and Area #2 - the former asphalt plant. In Area #1, the chemical constituents of concern are primarily residual petroleum compounds. In Area #2, the chemical constituents of concern are primarily residual chlorinated solvent compounds.

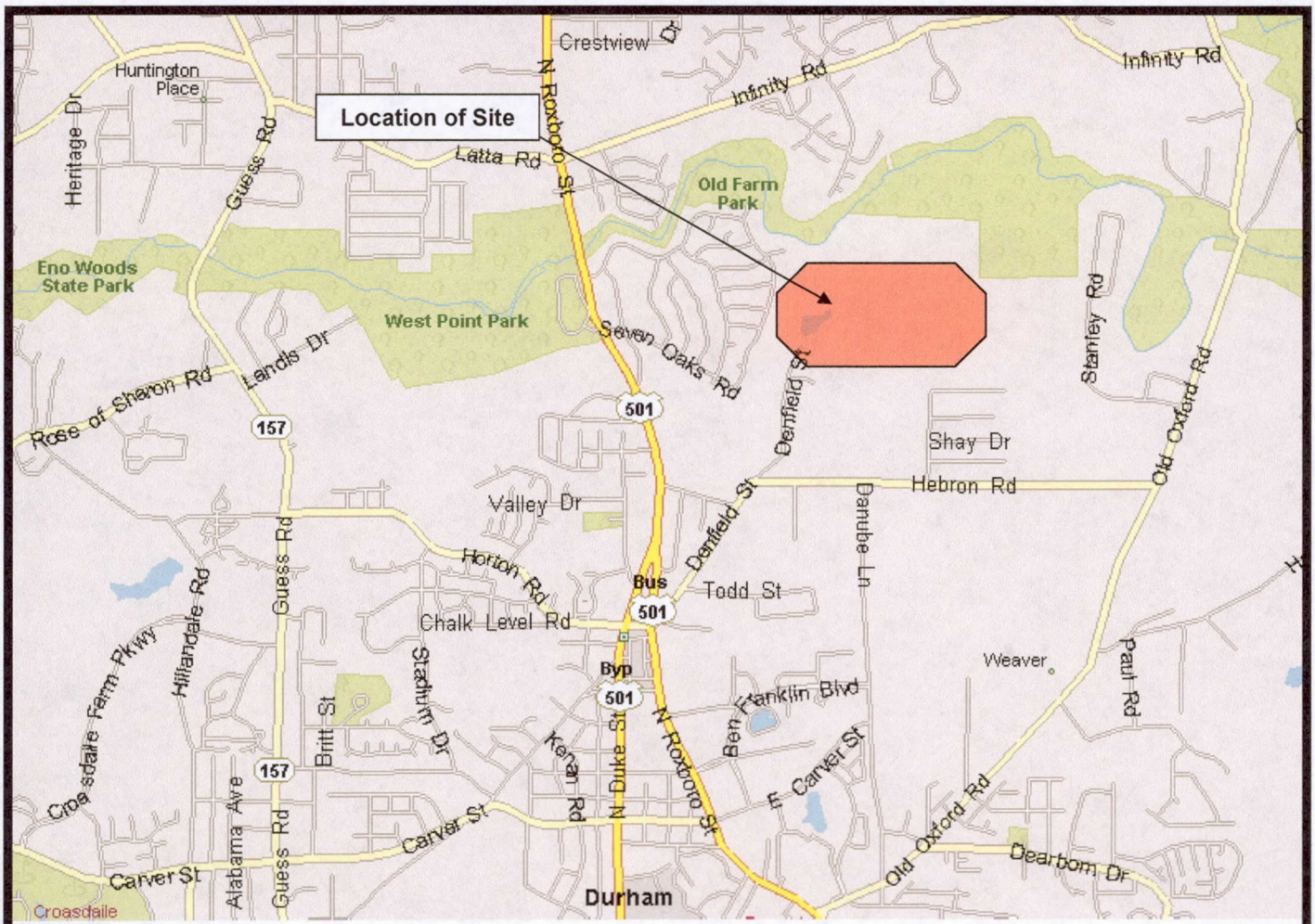
Previous environmental consultants (Front Royal Environmental Services and Quantum Environmental) installed and operated environmental remediation systems (i.e. a groundwater pump and treat system, and soil vapor extraction system) at the site. These systems were shut-down in 2006 when Highlands Environmental Solutions, Inc. (HES) became involved with the site. Semi-annual groundwater monitoring has continued at the site.

The most recent groundwater monitoring event was conducted at the site in December 2009. Low concentrations of dissolved-phase petroleum hydrocarbons were detected in groundwater samples collected from monitoring wells within Area #1, with the highest concentrations of dissolved-phase petroleum constituents being detected in monitoring well RW-3 (benzene at a concentration of 33.9 ug/L). Low concentrations of dissolved-phase chlorinated solvent constituents were detected in groundwater samples collected from monitoring wells within Area #2, with the highest concentrations of *total* VOCs being detected in monitoring well MW-25i. Additional, limited groundwater assessment activities are anticipated at the site.

While subsurface soil impacts have been documented, the presence of surface soil contamination at the site has not been confirmed. It is reasonable to suspect that areas of stained surface soils exist at the site; however, data regarding the extent and concentrations of regulated constituents in these potential areas is not currently available. Additional soil assessment activities are anticipated at the site.

In November 2007, the City of Durham acquired the property parcel encompassing the former quarry pit. The City of Durham intends to utilize the former quarry pit as a storage reservoir for

raw water. This reservoir is situated within approximately 660 feet of Area #1, and within approximately 220 feet of the center of Area #2. Based on groundwater monitoring data, it does not appear that the groundwater contaminant plumes have migrated to the subject reservoir.



Approximate Scale

0 3425 6850

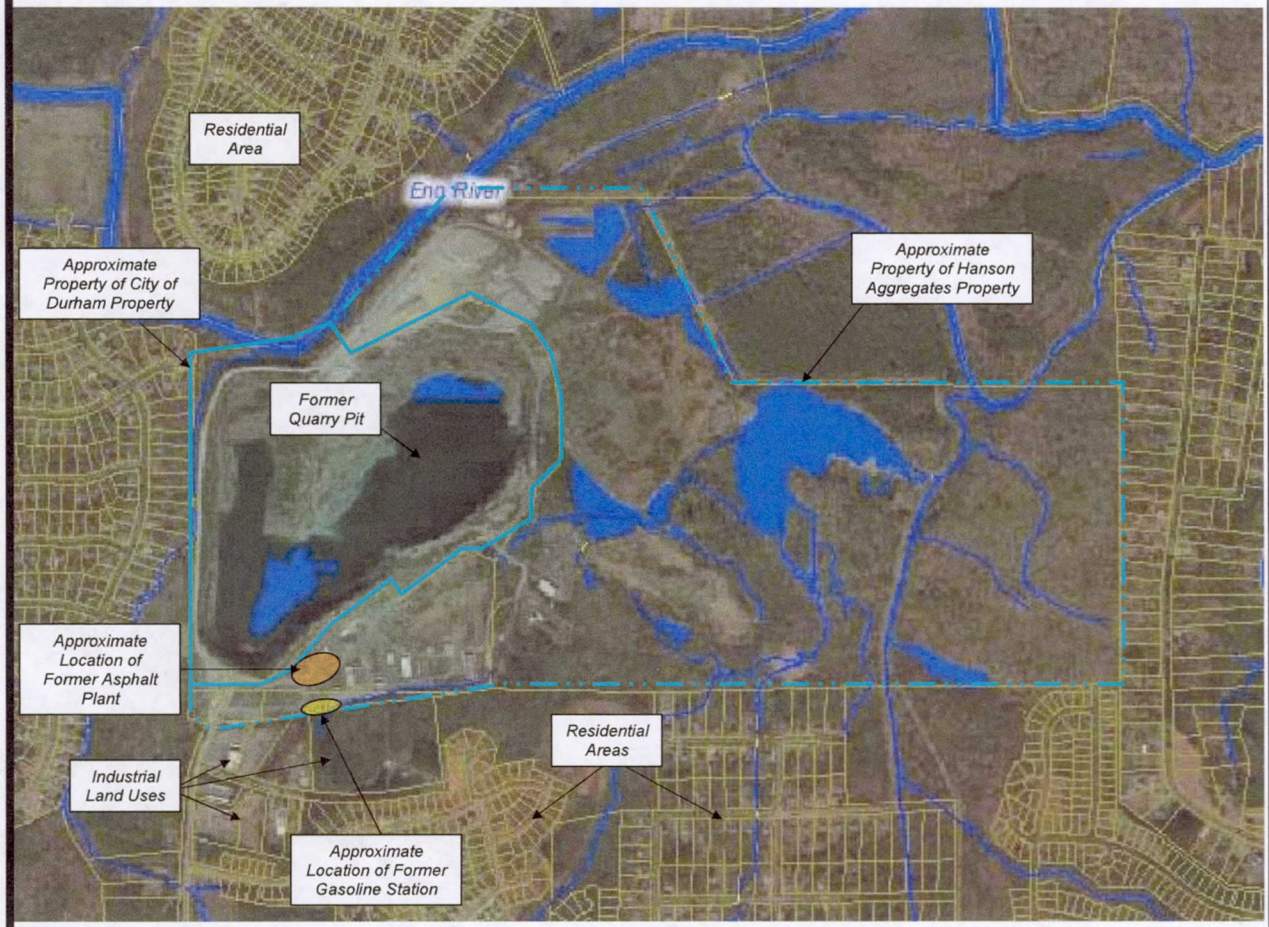
feet

N

Base diagram from Microsoft Streets and Trips Plus

Highlands Environmental Solutions, Inc.

Drawing / Project Name **Site Location Diagram Hanson Aggregates – Denfield Street Site**				
Client Hanson Aggregates of the Southeast, Inc.				
Project # 57001		*DB* JB	*PM* JB	*Fig.* 1
Scale As Shown	*Date* 02-04-2010	*PG* JB	*PM* JB	



N

Approximate Scale

0 975 1950

feet

Highlands Environmental Solutions, Inc.

Drawing/Project Name: Generalized Site Diagram Hanson Aggregates – Denfield Street Site				
Client Name: Hanson Aggregates of the Southeast, Inc.				
Project # 57001	DR JB	PG JB		Fig.
Date 02-04-2010	PM JB	PE		2

NCDENR
North Carolina Department of Environment and Natural Resources

Dexter Matthews, Director | Division of Waste Management | Beverly Eaves Perdue, Governor
Dee Freeman, Secretary

MEMORANDUM

April 29, 2010

To: John Walch, NCDENR/DWM/SF/IHSB

From: Wade Kirby, NCDENR/DWM/SF/IHSB

RE: Nello Teer Denfield, Durham, Durham County - NCD 0002873

The former Nello Teer Quarry is an inactive crushed stone mining and processing facility located in Durham County. Quarry activities are no longer occurring; however, a crush stone sales yard is in operation. The quarry has been filled with water and used as an auxiliary water supply for the City of Durham.

Site has two areas of concern:

1. Gasoline station with leaking USTs resulted in petroleum contamination.

2. Chlorinated solvents from old NCDOT asphalt testing laboratory

Investigation Associated with Asphalt Plant

Soil investigation was completed in the area of the former asphalt plant in June 2004 with 15 soil borings as part of a CAP Addendum. Vinyl chloride, tetrachloroethene, trichloroethene, 1, 1-dichloroethene, 1, 2-dichloroethene, and 1, 1, 2-trichlorethene. The CAP recommended natural attenuation of the chlorinated solvents in the soil with samples to be collected every 2 years. Nothing in our files indicates the sampling is occurring per the CAP. Groundwater monitoring wells were previously installed and are being monitored per a previous CAP.

History of Remediation

A pump and treat system was installed at the site and operations begun in October 1997. This system included nine recovery wells and was originally designed to address contamination from both areas of concern. The system worked intermittently until September 2003 when it was shut down.

Pilot Study was completed for injection of Hydrogen Release Compound (HRC®). The pilot test suggested this would be a viable remedial method to address the chlorinated solvents; however, costs were prohibitive so this never was implemented.

A soil vapor extraction system was installed in 2005 to address petroleum contamination but it apparently was taken offline shortly afterwards because of needed maintenance and repair. The system was not installed in the area of the old asphalt laboratory.

Highland Environmental Services (HES) became the environmental consultant in 2006. They have been coordinating the project with Wayne Randolph with Raleigh Regional UST Section but we were not getting the monitoring reports. HES submitted the Site Cleanup Questionnaire upon our NORR. HES also submitted the latest Groundwater Monitoring Report dated February 22, 2010.

Regulatory Agencies

The site was being regulated by both the Aquifer Protection Section and the UST Section. Apparently because of the file transfer and new consultant, IHSB has not been receiving any information until we sent out the NORR. We requested and received the most recently Groundwater Monitoring Report from HES.

Potential Receptors

Water Supply Wells

The onsite water supply well was sampled on July 17, 2000 at two locations. PCE was detected in samples at both locations; 9.2 µg/L from a tap inside the building and 8.7 µg/L at the wellhead. The well should have been abandoned; however, I have not found the Well Abandonment Report in our files or any follow up confirmational correspondence.

Six residential water supply wells have been identified within 1500 feet of the source area and these wells are still in use (as of the Groundwater Monitoring Report). The owners reportedly have expressed interest in connecting to the public water supply. Based on Durham County GIS mapping, these residences are outside the City of Durham; therefore, water is probably not available. No sample data for these water sample wells were found in the files or report. The CAP Addendum dated September 29, 1995 addressed the supply wells but indicated they were located outside the contaminant plume and the direction of groundwater was in the opposite direction.

Durham Auxiliary Water Supply

The quarry is used as an Auxiliary Water supply by the City of Durham. It reportedly does not serve as a primary water supply but as an emergency supply. Since the quarry is used as a public water supply, abandonment of the private water supply wells will not lower the site risk.

Ongoing Monitoring

Groundwater is being monitored annually. The chlorinated solvents concentrations are low, but do not appear to be decreasing. Vinyl chloride is the predominant contaminant of concern in the groundwater associated with the former asphalt plant. Three intervals are being monitored, and vinyl chloride has been detected in all three intervals. Concentrations of 0.72 µg/L to 52 µg/L in the shallow interval, 1.9 µg/L to 62.5 µg/L in the intermediate interval, and 0.58 µg/L to 3.72 µg/L in the deeper interval.

The February 22, 2010 Groundwater Monitoring report recommends installing a permanent sampling point in the quarry for determining water elevations and collecting samples.

Since the UST Section is overseeing this site, does this site need to be considered in our volunteer program also?

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

December 15, 2009

Mr. Steve Edgerton
Hanson Aggregates
2300 Gateway Center Blvd.
Morrisville, NC 27560

Re: **NOTICE OF REGULATORY REQUIREMENTS FOR CONTAMINANT ASSESSMENT AND CLEANUP**

Nello Teer Quarry – Denfield
Durham, Durham County, NC
NONCD0002873
GW Incident #: 9357

Dear Mr. Edgerton:

It is our understanding that you have provided information about the above-referenced site and may have been performing assessment and cleanup activities under the supervision of the Division of Water Quality Aquifer Protection Section ("APS"). Regulatory oversight for the assessment and cleanup of this site has been transferred from APS to the Division of Waste Management. Future oversight at this site will be the responsibility of the Division of Waste Management's Superfund Section, Inactive Hazardous Sites Branch ("Branch").

Based on information provided to date, we understand that this site has been contaminated by one or more hazardous substances. The Inactive Hazardous Sites Response Act ("IHSRA"), codified under N.C. Gen. Stat. § 130A-310, et seq., applies to the site. In addition, 15A NCAC 2L, Groundwater Classifications and Standards, applies to this site.

The change in oversight responsibility is designed to achieve consistency by addressing all contaminated media at the site with one approval process. The APS dealt with primarily enforcing 15A NCAC 2L, which requires that all contaminants in groundwater, or in soils to the extent that they could contaminate groundwater, be addressed. The cleanup requirements under IHSRA are broader. Under IHSRA all contaminated media must be addressed. In addition to requiring cleanup for the protection of groundwater and surface water, IHSRA

requires that soils and sediment be remediated to meet direct contact levels protective of public health and ecological receptors. Consolidating all the contaminant remediation authorities will provide for one comprehensive cleanup, eliminating the need to work with multiple Divisions in resolving the various contaminated media at the site.

Additional information regarding the reorganization may be found on the Branch's web site located at http://wastenotnc.org/sfhome/ihsbrnch.htm.

I. ACTIONS REQUIRED AT THIS TIME:

Complete the Site Cleanup Questionnaire.
To comply with the requirements of State law, a Site Cleanup Questionnaire, available at the above website address, must be completed and returned to this office. The information you provide will be reviewed along with other information to prioritize the site, so please make certain that the information you provide is complete and accurate. Please note that your failure to inform the Branch of any nearby potable wells or other high risk conditions may adversely affect the Branch's ability to identify this site as a higher-risk site.

Take Initial Abatement Actions Required Under 15A NCAC 2L.
If you have not already done so, you must take the initial abatement actions required under 15A NCAC 2L. Pursuant to 15A NCAC 2L .0106(b), any person conducting or controlling an activity which results in the discharge of a waste or hazardous substance to the groundwaters of the State, or in proximity thereto, shall take immediate action to terminate and control the discharge, and mitigate any hazards resulting from exposure to the pollutants. Pursuant to 15A NCAC 2L .0106(c), if groundwater standards have been exceeded, you must take immediate action to eliminate the source or sources of contamination. Beyond initial abatement actions, all assessment and remediation will be done through the IHSRA.

II. FUTURE ASSESSMENT AND CLEANUP ACTIVITIES:

All correspondence regarding this site should be sent to the Branch. Future assessment and cleanup activities (activities conducted after the initial abatement steps required in 15A NCAC 2L) may be conducted through the Voluntary Cleanup Program (discussed below) or pursuant to an Order issued under N.C. Gen. Stat. § 130A-310.3. In addition, if you choose not to conduct a cleanup through the Voluntary Cleanup Program, the site may be referred to the United States Environmental Protection Agency ("EPA"). If so referred, EPA will screen the site for Federal enforcement action under the Federal Superfund Program, established under the Comprehensive Environmental Responsibility, Compensation, and Liability Act ("CERCLA").

Please note, you are not expected to repeat work. However, if there are known or suspected areas of concern, contaminated media, or contaminants that were not investigated in the previous work, those items would need to be addressed. This would include any media, areas or contaminants to which there is evidence (such as, but not limited to, allegations or indications of spills, visual observations, field instrument readings, laboratory data, and chemical odors) of releases of contaminants or materials likely to contain contaminants. You and your consultant should evaluate whether there are additional items that are required to be addressed. PLEASE NOTE: If you have an approved corrective action plan, please complete the Site Cleanup Questionnaire, note that you have a corrective action plan prominently at the top of the Questionnaire, and staff will be in contact with you with further instructions.

III. VOLUNTARY CLEANUP PROGRAM:

Under the IHSRA, persons who move forward to assess and remediate contamination, without being compelled to do so through formal legal action filed against them, are called "volunteers." To participate in the voluntary cleanup program, you will be required to enter into an administrative agreement with the Branch. The voluntary cleanup will proceed through the Registered Environmental Consultant Program or under direct oversight by the Branch Staff, as discussed below:

Agreement to Conduct Assessment and Remediation Through the Registered Environmental Consultant Program.

The Branch has a privatized oversight arm of the voluntary cleanup program known as the Registered Environmental Consultant ("REC") program. Based on the responses provided on the questionnaire (degree of hazard and public interest in the site), the Branch will determine whether a staff person or an REC will perform the oversight and approval of your assessment and cleanup action. Please note that having one or more of the conditions identified on the questionnaire does not necessarily preclude the site for qualifying for an REC-directed cleanup action.

Under the REC program, the volunteer hires an environmental consulting firm, which the State has approved as having met certain qualifications, to implement a cleanup and certify that the work is being performed in compliance with regulations. In other words, the REC's certifications of compliance are in place of direct oversight by the Branch. Details of the REC program can be found at http://www.wastenotnc.org/sfhome/recprog.htm. If you have any questions specific to the REC Program, including how to participate, please contact the REC Program Manager, Kim Caulk, at (919) 508-8451.

Agreement to Conduct Assessment and Remediation Under State Oversight.

If the Branch determines that the site should be assessed and remediated pursuant to direct State oversight, it will not be eligible for a REC-directed cleanup. Rather, the remedial action will receive direct oversight by Branch staff.

IV. FAILURE TO RESPOND:

If we do not receive a completed questionnaire within sixty (60) days of receipt of this letter, the Branch will take further action to prioritize the site without your input. Failure to take the initial abatement steps required in 15A NCAC 2L may result in the assessment of a civil penalty against you. In addition, the Branch may seek an injunction compelling compliance with the initial abatement steps required in 15A NCAC 2L. For future work beyond the initial abatement steps required pursuant to 15A NCAC 2L, a unilateral Order may be issued pursuant to § 130A-310.3 to compel assessment and cleanup.

V. ADDITIONAL INFORMATION REGARDING THE IHSRA AND THE BRANCH:

People are often confused by the name of the Inactive Hazardous Sites Response Act and the Branch. By definition, "Inactive Hazardous Sites" are any areas where hazardous substances have come to be located and would include active and inactive facilities and a variety of property types. The term "inactive" simply refers to the fact that cleanup was inactive at large numbers of sites at the time of program enactment. Additional information about the Branch may be found at http://www.wastenotnc.org/sfhome/ihsbrnch.htm.

Submit completed questionnaire to: S. Wade Kirby
Inactive Hazardous Sites Branch
401 Oberlin Road, Suite 150
Raleigh, NC 27699-1646

If you have additional questions about the requirements that apply to your site, please contact me at (919) 508-8469.

Sincerely,

S. Wade Kirby, PE, PG, Environmental Engineer
Inactive Hazardous Sites Branch
Superfund Section

cc: Joe Beaman, Highlands Environmental Solutions, Inc.
Wayne Randolph, DWM UST -RRO

Kirby, Wade

From: Randolph, Wayne
Sent: Monday, December 14, 2009 2:20 PM
To: Kirby, Wade
Subject: RE: Nello Teer - Denfield, Durham, Durham

Hi Wade,

The consultant for the site is:

Highlands Environmental Solutions, Inc.
Joe Beaman, PG, RSM
8410-D Falls of Neuse
Raleigh, NC 27615
919.848.3155

My contact for the site is:

Hanson Aggregates
Mr. Steve Edgerton
2300 Gateway Center Blvd
Morrisville, NC 27560
(919) 380-2600

Let me know if you need anything else.

Thanks,
Wayne

Wayne Randolph
Hydrogeologist II
UST Section, DWM, NCDENR
Raleigh Regional Office

wayne.randolph@ncdenr.gov (Note new address)
Voice (919) 791-4220
Fax (919) 571-4718

NOTE: E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties.

From: Kirby, Wade
Sent: Monday, December 14, 2009 1:49 PM
To: Randolph, Wayne
Subject: Nello Teer - Denfield, Durham, Durham

Wayne,

John Walch requested me to look into the files for the subject project. We have not issued a NORR for this site and the last monitoring report in our files is dated January 17. 2006. Could you send us the latest contact information for this project so we can send out the NORR to the proper people?

Also, have you been getting the latest groundwater monitoring reports? What is the contact for the new consultant?