03-02
1-31-96

GeoChem, Incorporated

Environmental Laboratories

Allegheny County

Larry,
Call if you need anything.
Thanks
Pam Atwood
910-372-4179

MW-4 ?

Data ok

Analytical Laboratory

C # 336, NC # 461, EPA ID # 155

Allegheny County
136 S. Main Street
Sparta NC
28675

Report Date
Thursday, February 22, 1996
PO #
Date Received in lab:
Thursday, February 01, 1996

GCI Project #: 9602-001

Summary of requested analytical work

Sample type code #s :	1 = solid samples;	2 = liquid samples;	3 = Air samples;	4 = sludges/unknowns
Field Number: MW2	Lab ID 327	Sample Type: 2	Date Analyzed: 2/7/96	for Appendix I metals
Date Sampled 1/31/96	at 1:00			
Field Number: MW2	Lab ID 327	Sample Type: 2	Date Analyzed: 2/13/96	for Appendix I voc
Date Sampled 1/31/96	at 1:00			
Field Number: MW1	Lab ID 328	Sample Type: 2	Date Analyzed: 2/7/96	for Appendix I metals
Date Sampled 1/31/96	at 1:00			
Field Number: MW1	Lab ID 328	Sample Type: 2	Date Analyzed: 2/13/96	for Appendix I voc
Date Sampled 1/31/96	at 1:00			
Field Number: DN2	Lab ID 329	Sample Type: 2	Date Analyzed: 2/7/96	for Appendix I metals
Date Sampled 1/31/96	at 1:00			
Field Number: DN2	Lab ID 329	Sample Type: 2	Date Analyzed: 2/13/96	for Appendix I voc
Date Sampled 1/31/96	at 1:00			
Field Number: UP2	Lab ID 330	Sample Type: 2	Date Analyzed: 2/7/96	for Appendix I metals
Date Sampled 1/31/96	at 1:00			
Field Number: UP2	Lab ID 330	Sample Type: 2	Date Analyzed: 2/13/96	for Appendix I voc
Date Sampled 1/31/96	at 1:00			
Field Number: MW3	Lab ID 331	Sample Type: 2	Date Analyzed: 2/7/96	for Appendix I metals
Date Sampled 1/31/96	at 3:00			

Kevin Bell

Here by certify that I have Reviewed and approve this data set

2500 Gate Way Centre Blvd., Suite 300 • Morrisville, NC 27560
Telephone: 919-460-8093 • FAX: 919-460-0167

GeoChem, Incorporated

Environmental Laboratories

Certified Analytical Laboratory

NC # 37745 ,NC # 336, NC # 461, EPA ID # 155

Client Project Manager
Mr. Mark Poindexter
Site Name:
Alleghany County

Alleghany County
136 S. Main Street
Sparta NC
28675

Report Date
Thursday, February 22, 1996
PO #
Date Received in lab:
Thursday, February 01, 1996

GCI Project #: 9602-001

Summary of requested analytical work

Sample type code #s : *1 = solid samples;* *2 = liquid samples;* *3 = Air samples;* *4 = sludges/unknowns*

Field Number: MW3 *Lab ID* 331 *Sample Type:* 2 *Date Analyzed:* 2/13/96 *for Appendix I voc*

Date Sampled 1/31/96 *at 3:00*

I Kevin Bell Here by certify that I have Reviewed and approve this data set

2500 Gate Way Centre Blvd., Suite 300 • Morrisville, NC 27560
Telephone: 919-460-8093 • FAX: 919-460-0167

ALLEGHANY COUNTY LANDFILL, SPARTA, NC

GROUNDWATER SAMPLE COLLECTION - FIELD DATA SHEET

Date: 1/31/96
Well ID # [redacted]
Sampler's Name and Company: Mark A. Creel, GeoChem, Inc.
Sample sequence Number: 2
Evacuation method: Bailer
Sample Collection Method: Bailer

Field observations

Weather and Temperature: 28°F/[redacted]
Was well locked upon arrival: Yes
Any unusual conditions: No

Well Evacuation Data

Elevation of top of Inner Casing (ft above MSL)
*Reference all other measurements from this point:
Well Diameter: 2 inch
Depth to Groundwater (ft): 4.59
Elevation of Groundwater (ft): ?
Depth to Bottom of Well (ft): 118.0
Height of Water column in Well (ft): 113.41
Volume of Water in Well (L): 69.97
Number of Well Volumes to Evacuate before Sampling: 3
Volume of Water to Evacuate Before Sampling (L): 210
Actual volume Evacuated From Well (L): 210
Did well Go Dry (yes/no): No
Number of Hours Between Purdging and Sampling: 0
pH 5.24 Temp. 12°C Spec Cond. in umhos: 97
Appearance of Sample: Clear
Chemical Analyses to be Performed: 8260/15 Metals

List Sample Bottles Filled: 2-40ml, VOA's/1-500ml, Plastic

Comments: N/A

ALLEGHANY COUNTY LANDFILL, SPARTA, NC

GROUNDWATER SAMPLE COLLECTION - FIELD DATA SHEET

Date: 1/31/96
Well ID # [redacted]
Sampler's Name and Company: Mark A. Creel, GeoChem, Inc.
Sample sequence Number: 1
Evacuation method: Bailer
Sample Collection Method: Bailer

Field observations

Weather and Temperature: Snow/28° F
Was well locked upon arrival: Yes
Any unsual conditions: No

Well Evacuation Data

Elevation of top of Inner Casing (ft above MSL)
*Reference all other measurements from this point:
Well Diameter: 2 inch
Depth to Groundwater (ft): 9.19
Elevation of Groundwater (ft): ?
Depth to Bottom of Well (ft): 97.7
Height of Water column in Well (ft): 88.51
Volume of Water in Well (L): 54.61
Number of Well Volumes to Evacuate before Sampling: 3
Volume of Water to Evacuate Before Sampling (L): 164
Actual volume Evacuated From Well (L): 164
Did well Go Dry (yes/no): No
Number of Hours Between Purging and Sampling: 0
pH 5.9 Temp. 12°C Spec Cond. in umhos: 29
Appearance of Sample: Cloudy
Chemical Analyses to be Performed: 8260/15 Metals

List Sample Bottles Filled: 2-40ml,VOA's/1-500ml, Plastic

Comments: N/A

ALLEGHANY COUNTY LANDFILL, SPARTA, NC

GROUNDWATER SAMPLE COLLECTION - FIELD DATA SHEET

Date: 1/31/96
Well ID # [redacted]
Sampler's Name and Company: Mark A. Creel, GeoChem, Inc.
Sample sequence Number: [redacted]
Evacuation method: N/A
Sample Collection Method: Grab

Field observations

Weather and Temperature: 28^{0}F/Snow
Was well locked upon arrival: N/A
Any unusual conditions: No

Well Evacuation Data

Elevation of top of Inner Casing (ft above MSL)
*Reference all other measurements from this point: N/A
Well Diameter: 2 inch
Depth to Groundwater (ft):
Elevation of Groundwater (ft):
Depth to Bottom of Well (ft):
Height of Water column in Well (ft):
Volume of Water in Well (L):
Number of Well Volumes to Evacuate before Sampling:
Volume of Water to Evacuate Before Sampling (L):
Actual volume Evacuated From Well (L):
Did well Go Dry (yes/no):
Number of Hours Between Purdging and Sampling:
pH 5.02 Temp. 6^{0}C Spec Cond. in umhos: 13.5
Appearance of Sample: Clear
Chemical Analyses to be Performed: 8260/15 Metals

List Sample Bottles Filled: 2-40ml, VOA's/1-500ml, Plastic

Comments: N/A

ALLEGHANY COUNTY LANDFILL, SPARTA, NC

GROUNDWATER SAMPLE COLLECTION - FIELD DATA SHEET

Date: 1/31/96
Well ID #[redacted]
Sampler's Name and Company: Mark A. Creel, GeoChem, Inc.
Sample sequence Number: [redacted]
Evacuation method: N/A
Sample Collection Method: Grab

Field observations

Weather and Temperature: 28^{0}F/Snow
Was well locked upon arrival: N/A
Any unusual conditions: No

Well Evacuation Data

Elevation of top of Inner Casing (ft above MSL)
*Reference all other measurements from this point: N/A
Well Diameter: 2 inch
Depth to Groundwater (ft):
Elevation of Groundwater (ft):
Depth to Bottom of Well (ft):
Height of Water column in Well (ft):
Volume of Water in Well (L):
Number of Well Volumes to Evacuate before Sampling:
Volume of Water to Evacuate Before Sampling (L):
Actual volume Evacuated From Well (L):
Did well Go Dry (yes/no):
Number of Hours Between Purging and Sampling:
pH 5.12 Temp. 8^{0}C Spec Cond. in umhos: 14.5
Appearance of Sample: Clear
Chemical Analyses to be Performed: 8260/15 Metals

List Sample Bottles Filled: 2-40ml, VOA's/1-500ml, Plastic

Comments: N/A

ALLEGHANY COUNTY LANDFILL, SPARTA, NC

GROUNDWATER SAMPLE COLLECTION - FIELD DATA SHEET

Date: 1/31/96
Well ID #[redacted]
Sampler's Name and Company: Mark A. Creel, GeoChem, Inc.
Sample sequence Number: [redacted]
Evacuation method: Bailer
Sample Collection Method: Bailer

Field observations

Weather and Temperature: 28^{0}F/Snow
Was well locked upon arrival: Yes
Any unsual conditions: No

Well Evacuation Data

Elevation of top of Inner Casing (ft above MSL)
*Reference all other measurements from this point:
Well Diameter: 2 inch
Depth to Groundwater (ft): 31.82
Elevation of Groundwater (ft):
Depth to Bottom of Well (ft): 170.5
Height of Water column in Well (ft): 138.68
Volume of Water in Well (L): 85.57
Number of Well Volumes to Evacuate before Sampling: 3
Volume of Water to Evacuate Before Sampling (L): 257
Actual volume Evacuated From Well (L): 257
Did well Go Dry (yes/no): No
Number of Hours Between Purdging and Sampling: 0
pH 5.68 Temp. 13^{0}C Spec Cond. in umhos: 138
Appearance of Sample: Clear
Chemical Analyses to be Performed: 8260/15 Metals

List Sample Bottles Filled: 2-40ml, VOA's/1-500ml, Plastic

Comments: N/A

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

'e Name:

leghany County

:I Project # 9602-001

Field ID [redacted] *Date Analyzed:*

Lab ID 327 *2/7/96*

Appendix I metals

	Conc. in mg/l	*lowest detect on sample* PQL in mg/l	Dilution Factor	NCAC 2L in mg/l
Antimony	BQL	0.02	1.	NA
Arsenic	BDL	0.01	1.	NA
Barium	BQL	0.5	20.	2.0
Beryllium	BQL	0.001	1.	NA
Cadmium	0.003	0.001	1.	0.005
Chromium	BQL	0.01	1.	NA
Cobalt	BDL	0.01	1.	NA
Copper by Fl	BQL	0.05	1.	NA
Lead	BQL	0.01	1.	0.015
Nickel	BDL	0.0125	1.	0.1
Selenium	BDL	0.02	1.	0.05
Silver	BQL	0.01	1.	0.018
Thallium	BDL	0.0025	1.	NA
Vanadium	BDL	0.025	1.	NA
Zinc by Fl	0.05	0.05	1.	NA

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

Site Name:

Alleghany County

GCI Project # 9602-001

Field ID [redacted] *Date Analyzed:*

Lab ID 328 *2/7/96*

Appendix I metals

	Conc. in mg/l	*lowest detect on sample* PQL in mg/l	Dilution Factor	NCAC 2L in mg/l
Antimony	BDL	0.02	1.	NA
Arsenic	BQL	0.01	1.	NA
Barium	BQL	0.5	20.	2.0
Beryllium	BQL	0.001	1.	NA
Cadmium	BQL	0.001	1.	0.005
Chromium	BQL	0.01	1.	NA
Cobalt	BQL	0.01	1.	NA
Copper by Fl	BQL	0.05	1.	NA
Lead	BQL	0.01	1.	0.015
Nickel	BDL	0.0125	1.	0.1
Selenium	BQL	0.02	1.	0.05
Silver	BQL	0.01	1.	0.018
Thallium	BQL	0.0025	1.	NA
Vanadium	BDL	0.025	1.	NA
Zinc by Fl	0.078	0.05	1.	NA

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

te Name:
leghany County
:I Project # 9602-001

Field ID [redacted] *Date Analyzed:*
Lab ID 329 *2/7/96*

Appendix I metals

	Conc. in mg/l	*lowest detect on sample* PQL in mg/l	Dilution Factor	NCAC 2L in mg/l
Antimony	BDL	0.02	1.	NA
Arsenic	BQL	0.01	1.	NA
Barium	BQL	0.5	20.	2.0
Beryllium	BQL	0.001	1.	NA
Cadmium	BQL	0.001	1.	0.005
Chromium	BQL	0.01	1.	NA
Cobalt	BDL	0.01	1.	NA
Copper by Fl	BQL	0.05	1.	NA
Lead	BQL	0.01	1.	0.015
Nickel	BDL	0.0125	1.	0.1
Selenium	BQL	0.02	1.	0.05
Silver	BQL	0.01	1.	0.018
Thallium	BQL	0.0025	1.	NA
Vanadium	BDL	0.025	1.	NA
Zinc by Fl	BQL	0.05	1.	NA

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

ite Name:

lleghany County

CI Project # 9602-001

Field ID [redacted] *Date Analyzed:*

Lab ID 330 *2/7/96*

Appendix I metals

	Conc. in mg/l	*lowest detect on sample* PQL in mg/l	Dilution Factor	NCAC 2L in mg/l
Antimony	**BDL**	0.02	1.	NA
Arsenic	**BDL**	0.01	1.	NA
Barium	**BQL**	0.5	20.	2.0
Beryllium	**BQL**	0.001	1.	NA
Cadmium	**BQL**	0.001	1.	0.005
Chromium	**BQL**	0.01	1.	NA
Cobalt	**BDL**	0.01	1.	NA
Copper by Fl	**BQL**	0.05	1.	NA
Lead	**BQL**	0.01	1.	0.015
Nickel	**BQL**	0.0125	1.	0.1
Selenium	**BDL**	0.02	1.	0.05
Silver	**BQL**	0.01	1.	0.018
Thallium	**BDL**	0.0025	1.	NA
Vanadium	**BDL**	0.025	1.	NA
Zinc by Fl	**0.523**	0.05	1.	NA

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

'e Name:

'eghany County

:I Project # 9602-001

Field ID [redacted] *Date Analyzed:*

Lab ID 331 *2/7/96*

Appendix I metals

	Conc. in mg/l	*lowest detect on sample* PQL in mg/l	Dilution Factor	NCAC 2L in mg/l
Antimony	**BQL**	0.02	1.	NA
Arsenic	**BDL**	0.01	1.	NA
Barium	**BQL**	0.5	20.	2.0
Beryllium	**BDL**	0.001	1.	NA
Cadmium	**BQL**	0.001	1.	0.005
Chromium	**BQL**	0.01	1.	NA
Cobalt	**BDL**	0.01	1.	NA
Copper by Fl	**BQL**	0.05	1.	NA
Lead	**BQL**	0.01	1.	0.015
Nickel	**BDL**	0.0125	1.	0.1
Selenium	**BQL**	0.02	1.	0.05
Silver	**BQL**	0.01	1.	0.018
Thallium	**BDL**	0.0025	1.	NA
Vanadium	**BDL**	0.025	1.	NA
Zinc by Fl	**0.059**	0.05	1.	NA

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

CI Project 9602-001

te Name: Alleghany County

ld ID [redacted] *Date Analyzed:*

Lab ID 327 *2/13/96*

	Conc. in ug/l	lowest detect on sample PQL in ug/l	Dilution Factor	NCAC 2L in ug/l
Appendix I voc				
Vinyl Chloride	BDL	10	1.	N/A
Bromomethane	BDL	10	1.	N/A
Chloroethane	BDL	10	1.	N/A
Trichlorofluoromethane	BDL	5	1.	2,100.0
Acetone	BDL	50	1.	700.0
1,1-Dichloroethene	BDL	5	1.	7.0
Iodomethane	BDL	5	1.	N/A
Carbon Disulfide	BDL	5	1.	700.0
Methylene Chloride	BDL	5	1.	5.0
Acrylonitrile	BDL	5	1.	N/A
trans-1,2-Dichloroethene	BDL	5	1.	70.0
1,1-Dichloroethane	BDL	5	1.	700.0
Vinyl Acetate	BDL	10	1.	N/A
cis-1,2-Dichloroethene	BDL	5	1.	70.0
2-Butanone	BDL	50	1.	170.0
Bromochloromethane	BDL	5	1.	N/A
Chloroform	BDL	5	1.	0.2
1,1,1-Trichloroethane	BDL	5	1.	200.0
Carbon Tetrachloride	BDL	5	1.	0.3
Benzene	BDL	5	1.	1.0
1,2-Dichloroethane	BDL	5	1.	0.4
Trichloroethene	BDL	5	1.	2.8
1,2-Dichloropropane	BDL	5	1.	0.6
Bromodichloromethane	BDL	5	1.	0.6
cis-1,3-Dichloropropene	BDL	5	1.	0.2
4-Methyl-2-pentanone	BDL	50	1.	N/A
Toluene	BDL	5	1.	1,000.0
trans-1,3-Dichloropropene	BDL	5	1.	0.2
1,1,2-Trichloroethane	BDL	5	1.	N/A
Tetrachloroethene	BDL	5	1.	0.7
2-Hexanone	BDL	50	1.	N/A
Chlorodibromomethane	BDL	5	1.	N/A
1,2-Dibromoethane	BDL	5	1.	N/A
Chlorobenzene	BDL	5	1.	50.0

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

:I Project 9602-001

te Name: Alleghany County

lowest detect on sample

	Conc. in ug/l	PQL in ug/l	Dilution Factor	NCAC 2L in ug/l
1,1,1,2-Tetrachloroethane	BDL	5	1.	N/A
Ethylbenzene	BDL	5	1.	29.0
m,p-Xylene	BDL	5	1.	530.0
o-Xylene	BDL	5	1.	530.0
Styrene	BDL	5	1.	100.0
Bromoform	BDL	5	1.	0.2
1,2,3-Trichloropropane	BDL	15	1.	N/A
1,1,2,2-Tetrachloroethane	BDL	5	1.	N/A
1,4-Dichloro-2-butene	BDL	10	1.	N/A
1,4-Dichlorobenzene	BDL	5	1.	75.0
1,2-Dichlorobenzene	BDL	5	1.	620.0
1,2-Dibromo-3-chloropropane	BDL	5	1.	N/A

End of Appendix I voc

End **MW2**

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

CI Project 9602-001

te Name: Alleghany County

eld ID [redacted] *Date Analyzed:*

Lab ID 328 *2/13/96*

	Conc. in ug/l	PQL in ug/l (lowest detect on sample)	Dilution Factor	NCAC 2L in ug/l
Appendix I voc				
Vinyl Chloride	BDL	10	1.	N/A
Bromomethane	BDL	10	1.	N/A
Chloroethane	BDL	10	1.	N/A
Trichlorofluoromethane	BDL	5	1.	2,100.0
Acetone	BDL	50	1.	700.0
1,1-Dichloroethene	BDL	5	1.	7.0
Iodomethane	BDL	5	1.	N/A
Carbon Disulfide	BDL	5	1.	700.0
Methylene Chloride	BDL	5	1.	5.0
Acrylonitrile	BDL	5	1.	N/A
trans-1,2-Dichloroethene	BDL	5	1.	70.0
1,1-Dichloroethane	BDL	5	1.	700.0
Vinyl Acetate	BDL	10	1.	N/A
cis-1,2-Dichloroethene	BDL	5	1.	70.0
2-Butanone	BDL	50	1.	170.0
Bromochloromethane	BDL	5	1.	N/A
Chloroform	BDL	5	1.	0.2
1,1,1-Trichloroethane	BDL	5	1.	200.0
Carbon Tetrachloride	BDL	5	1.	0.3
Benzene	BDL	5	1.	1.0
1,2-Dichloroethane	BDL	5	1.	0.4
Trichloroethene	BDL	5	1.	2.8
1,2-Dichloropropane	BDL	5	1.	0.6
Bromodichloromethane	BDL	5	1.	0.6
cis-1,3-Dichloropropene	BDL	5	1.	0.2
4-Methyl-2-pentanone	BDL	50	1.	N/A
Toluene	BDL	5	1.	1,000.0
trans-1,3-Dichloropropene	BDL	5	1.	0.2
1,1,2-Trichloroethane	BDL	5	1.	N/A
Tetrachloroethene	BDL	5	1.	0.7
2-Hexanone	BDL	50	1.	N/A
Chlorodibromomethane	BDL	5	1.	N/A
1,2-Dibromoethane	BDL	5	1.	N/A
Chlorobenzene	BDL	5	1.	50.0

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

CI Project 9602-001

ite Name: Alleghany County

lowest detect on sample

	Conc. in ug/l	PQL in ug/l	Dilution Factor	NCAC 2L in ug/l
1,1,1,2-Tetrachloroethane	**BDL**	5	1.	N/A
Ethylbenzene	**BDL**	5	1.	29.0
m,p-Xylene	**BDL**	5	1.	530.0
o-Xylene	**BDL**	5	1.	530.0
Styrene	**BDL**	5	1.	100.0
Bromoform	**BDL**	5	1.	0.2
1,2,3-Trichloropropane	**BDL**	15	1.	N/A
1,1,2,2-Tetrachloroethane	**BDL**	5	1.	N/A
1,4-Dichloro-2-butene	**BDL**	10	1.	N/A
1,4-Dichlorobenzene	**BDL**	5	1.	75.0
1,2-Dichlorobenzene	**BDL**	5	1.	620.0
1,2-Dibromo-3-chloropropane	**BDL**	5	1.	N/A

End of Appendix I voc

End **MW1**

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

GCI Project 9602-001

Site Name: Alleghany County

Field ID [redacted] *Date Analyzed:*

Lab ID 329 *2/13/96*

	Conc. in ug/l	PQL in ug/l (lowest detect on sample)	Dilution Factor	NCAC 2L in ug/l
Appendix I voc				
Vinyl Chloride	BDL	10	1.	N/A
Bromomethane	BDL	10	1.	N/A
Chloroethane	BDL	10	1.	N/A
Trichlorofluoromethane	BDL	5	1.	2,100.0
Acetone	BDL	50	1.	700.0
1,1-Dichloroethene	BDL	5	1.	7.0
Iodomethane	BDL	5	1.	N/A
Carbon Disulfide	BDL	5	1.	700.0
Methylene Chloride	BDL	5	1.	5.0
Acrylonitrile	BDL	5	1.	N/A
trans-1,2-Dichloroethene	BDL	5	1.	70.0
1,1-Dichloroethane	BDL	5	1.	700.0
Vinyl Acetate	BDL	10	1.	N/A
cis-1,2-Dichloroethene	BDL	5	1.	70.0
2-Butanone	BDL	50	1.	170.0
Bromochloromethane	BDL	5	1.	N/A
Chloroform	BDL	5	1.	0.2
1,1,1-Trichloroethane	BDL	5	1.	200.0
Carbon Tetrachloride	BDL	5	1.	0.3
Benzene	BDL	5	1.	1.0
1,2-Dichloroethane	BDL	5	1.	0.4
Trichloroethene	BDL	5	1.	2.8
1,2-Dichloropropane	BDL	5	1.	0.6
Bromodichloromethane	BDL	5	1.	0.6
cis-1,3-Dichloropropene	BDL	5	1.	0.2
4-Methyl-2-pentanone	BDL	50	1.	N/A
Toluene	BDL	5	1.	1,000.0
trans-1,3-Dichloropropene	BDL	5	1.	0.2
1,1,2-Trichloroethane	BDL	5	1.	N/A
Tetrachloroethene	BDL	5	1.	0.7
2-Hexanone	BDL	50	1.	N/A
Chlorodibromomethane	BDL	5	1.	N/A
1,2-Dibromoethane	BDL	5	1.	N/A
Chlorobenzene	BDL	5	1.	50.0

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

GCI Project 9602-001

lowest detect on sample

Site Name: Alleghany County	Conc. in ug/l	PQL in ug/l	Dilution Factor	NCAC 2L in ug/l
1,1,1,2-Tetrachloroethane	BDL	5	1.	N/A
Ethylbenzene	BDL	5	1.	29.0
m,p-Xylene	BDL	5	1.	530.0
o-Xylene	BDL	5	1.	530.0
Styrene	BDL	5	1.	100.0
Bromoform	BDL	5	1.	0.2
1,2,3-Trichloropropane	BDL	15	1.	N/A
1,1,2,2-Tetrachloroethane	BDL	5	1.	N/A
1,4-Dichloro-2-butene	BDL	10	1.	N/A
1,4-Dichlorobenzene	BDL	5	1.	75.0
1,2-Dichlorobenzene	BDL	5	1.	620.0
1,2-Dibromo-3-chloropropane	BDL	5	1.	N/A

End of ***Appendix I voc***

End **DN2**

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

CI Project 9602-001

ite Name: Alleghany County

ield ID [redacted] *Date Analyzed:*

Lab ID 330 *2/13/96*

	Conc. in ug/l	lowest detect on sample PQL in ug/l	Dilution Factor	NCAC 2L in ug/l
Appendix I voc				
Vinyl Chloride	BDL	10	1.	N/A
Bromomethane	BDL	10	1.	N/A
Chloroethane	BDL	10	1.	N/A
Trichlorofluoromethane	BDL	5	1.	2,100.0
Acetone	BDL	50	1.	700.0
1,1-Dichloroethene	BDL	5	1.	7.0
Iodomethane	BDL	5	1.	N/A
Carbon Disulfide	BDL	5	1.	700.0
Methylene Chloride	BDL	5	1.	5.0
Acrylonitrile	BDL	5	1.	N/A
trans-1,2-Dichloroethene	BDL	5	1.	70.0
1,1-Dichloroethane	BDL	5	1.	700.0
Vinyl Acetate	BDL	10	1.	N/A
cis-1,2-Dichloroethene	BDL	5	1.	70.0
2-Butanone	BDL	50	1.	170.0
Bromochloromethane	BDL	5	1.	N/A
Chloroform	BDL	5	1.	0.2
1,1,1-Trichloroethane	BDL	5	1.	200.0
Carbon Tetrachloride	BDL	5	1.	0.3
Benzene	BDL	5	1.	1.0
1,2-Dichloroethane	BDL	5	1.	0.4
Trichloroethene	BDL	5	1.	2.8
1,2-Dichloropropane	BDL	5	1.	0.6
Bromodichloromethane	BDL	5	1.	0.6
cis-1,3-Dichloropropene	BDL	5	1.	0.2
4-Methyl-2-pentanone	BDL	50	1.	N/A
Toluene	BDL	5	1.	1,000.0
trans-1,3-Dichloropropene	BDL	5	1.	0.2
1,1,2-Trichloroethane	BDL	5	1.	N/A
Tetrachloroethene	BDL	5	1.	0.7
2-Hexanone	BDL	50	1.	N/A
Chlorodibromomethane	BDL	5	1.	N/A
1,2-Dibromoethane	BDL	5	1.	N/A
Chlorobenzene	BDL	5	1.	50.0

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

GCI Project 9602-001

lowest detect on sample

Site Name: Alleghany County	Conc. in ug/l	PQL in ug/l	Dilution Factor	NCAC 2L in ug/l
1,1,1,2-Tetrachloroethane	BDL	5	1.	N/A
Ethylbenzene	BDL	5	1.	29.0
m,p-Xylene	BDL	5	1.	530.0
o-Xylene	BDL	5	1.	530.0
Styrene	BDL	5	1.	100.0
Bromoform	BDL	5	1.	0.2
1,2,3-Trichloropropane	BDL	15	1.	N/A
1,1,2,2-Tetrachloroethane	BDL	5	1.	N/A
1,4-Dichloro-2-butene	BDL	10	1.	N/A
1,4-Dichlorobenzene	BDL	5	1.	75.0
1,2-Dichlorobenzene	BDL	5	1.	620.0
1,2-Dibromo-3-chloropropane	BDL	5	1.	N/A

End of ***Appendix I voc***

End **UP2**

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

GCI Project 9602-001

Site Name: Alleghany County

Field ID [redacted] *Date Analyzed:*

Lab ID 331 *2/13/96*

	Conc. in ug/l	PQL in ug/l (lowest detect on sample)	Dilution Factor	NCAC 2L in ug/l
Appendix I voc				
Vinyl Chloride	BDL	10	1.	N/A
Bromomethane	BDL	10	1.	N/A
Chloroethane	BDL	10	1.	N/A
Trichlorofluoromethane	BDL	5	1.	2,100.0
Acetone	BDL	50	1.	700.0
1,1-Dichloroethene	BDL	5	1.	7.0
Iodomethane	BDL	5	1.	N/A
Carbon Disulfide	BDL	5	1.	700.0
Methylene Chloride	BDL	5	1.	5.0
Acrylonitrile	BDL	5	1.	N/A
trans-1,2-Dichloroethene	BDL	5	1.	70.0
1,1-Dichloroethane	BDL	5	1.	700.0
Vinyl Acetate	BDL	10	1.	N/A
cis-1,2-Dichloroethene	BDL	5	1.	70.0
2-Butanone	BDL	50	1.	170.0
Bromochloromethane	BDL	5	1.	N/A
Chloroform	BDL	5	1.	0.2
1,1,1-Trichloroethane	BDL	5	1.	200.0
Carbon Tetrachloride	BDL	5	1.	0.3
Benzene	BDL	5	1.	1.0
1,2-Dichloroethane	BDL	5	1.	0.4
Trichloroethene	BDL	5	1.	2.8
1,2-Dichloropropane	BDL	5	1.	0.6
Bromodichloromethane	BDL	5	1.	0.6
cis-1,3-Dichloropropene	BDL	5	1.	0.2
4-Methyl-2-pentanone	BDL	50	1.	N/A
Toluene	BDL	5	1.	1,000.0
trans-1,3-Dichloropropene	BDL	5	1.	0.2
1,1,2-Trichloroethane	BDL	5	1.	N/A
Tetrachloroethene	BDL	5	1.	0.7
2-Hexanone	BDL	50	1.	N/A
Chlorodibromomethane	BDL	5	1.	N/A
1,2-Dibromoethane	BDL	5	1.	N/A
Chlorobenzene	BDL	5	1.	50.0

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

GCI Project 9602-001

Site Name: Alleghany County

lowest detect on sample

	Conc. in ug/l	PQL in ug/l	Dilution Factor	NCAC 2L in ug/l
1,1,1,2-Tetrachloroethane	BDL	5	1.	N/A
Ethylbenzene	BDL	5	1.	29.0
m,p-Xylene	BDL	5	1.	530.0
o-Xylene	BDL	5	1.	530.0
Styrene	BDL	5	1.	100.0
Bromoform	BDL	5	1.	0.2
1,2,3-Trichloropropane	BDL	15	1.	N/A
1,1,2,2-Tetrachloroethane	BDL	5	1.	N/A
1,4-Dichloro-2-butene	BDL	10	1.	N/A
1,4-Dichlorobenzene	BDL	5	1.	75.0
1,2-Dichlorobenzene	BDL	5	1.	620.0
1,2-Dibromo-3-chloropropane	BDL	5	1.	N/A

End of Appendix I voc

End MW3

GeoChem Incorporated Quality Control Results

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

Site Name:

Alleghany County

GCI Project # 9602-001

	Percent Recovery	Lab Blank:	lowest detection limit @ ideal conditions MDL. in mg/l
Antimony	**92**	0	0.001
Arsenic	**98**	0	0.005
Barium	**91**	0	0.005
Beryllium	**111**	0	0.0008
Cadmium	**88**	0	0.0005
Chromium	**92**	0	0.0005
Cobalt	**94**	0	0.005
Copper by Fl	**105**	0	0.05
Lead	**96**	0	0.001
Nickel	**88**	0	0.005
Selenium	**100**	0	0.005
Silver	**102**	0	0.0005
Thallium	**86**	0	0.005
Vanadium	**89**	0	0.001
Zinc by Fl	**99**	0	0.05

GeoChem Incorporated Quality Control Results

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

Site Name:

Allegheny County

GCI Project # 9602-001

Appendix I voc

	Percent Recovery	Lab Blank:	lowest detection @ ideal conditions MDL. in ug/l
1,1-Dichloroethene	**99**	0	3.91
Benzene	**106**	0	0.72
Trichloroethene	**102**	0	0.37
Toluene	**110**	0	6.51
Chlorobenzene	**101**	0	0.51

Report To:
Dan McMillian
Alleghany Co Mgr
P.O Box 336
Sparta NC 28675

Copy of Report to:
Mark Poindexter
NC Dept of Env. Health + Nat. Res.
PO Box 27687 Raleigh 27611-7639

GeoChem, Incorporated

Environmental Laboratories

2500 Gate Way Centre Blvd., Suite 300
Morrisville, NC 27560

Bill To:

Chain of Custody Record

Page 1 of _____

PROJECT SITE NUMBER:
PO#:
SITE NAME: Alleghany County
COLLECTED BY (Signature): (Mark A Goel)
GEOCHEM PROJECT #: 9602-001
DATE DUE: 2-7-96
VERBAL/FAX/HARDCOPY:

FIELD SAMPLE ID	TURNAROUND IN DAYS	SAMPLE MATRIX	DATE AND TIME COLLECTED	NO. OF CONTAINERS PER LOCATION	Appendix 8260 VOCs	Appendix I Metals									REMARKS	LAB ID NO. (for lab use only)
MW2		H_2O	1/31/96 1:00	3	X	X										0327
MW1		"	"	3	X	X										0328
DW2		"	"	3	X	X										0329
UP2		"	"	3	X	X										0330
MW3		"	" 3:00	3	X	X										0331

REMARKS

RELINQUISHED BY: DATE TIME

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
						Mark Moyer	2/1/96	12:30			

MEMO

DATE:

TO: Alleghany Co LF 1-31-96 Sampling

SUBJECT:

	Total	To H_2O	Total SWS
MW-1	97.7	9.19	36.0
2	118	4.59	29.5
3	170.5	31.82	51.2
4	—	—	42.0

- Well depths do no match SWS measurements
- MW-4 - new well not sampled?
  - no field measurements or data.

GeoChem to visit LF, measure wells and sample MW-4.

Per Dean Gokel

3-11-96 - P.M.
- Called Geochem - Mark Creel 4-4-96 LR
- Not in
- Asked for return call - explained reason for call. LR

3-18-96 PM
- called Dean Gokel @ Geochem. Out
- Asked for return call Friday.

3-21-96 - PM called - out 4-2-96 PM. Called - out

From:

THE GREAT SEAL OF THE STATE OF NORTH CAROLINA
North Carolina Department of Environment, Health, and Natural Resources
Printed on Recycled Paper

M Poindexter

GeoChem, Incorporated

Environmental Laboratories

03-02
1-31-96

Certified Analytical Laboratory

NC # 37745 ,NC # 336, NC # 461, EPA ID # 155

ient Project Manager
r. Dan McMillian
te Name:
leghany County

Alleghany County
136 S. Main Street
Sparta NC
28675

Report Date
Thursday, February 22, 1996
PO #
Date Received in lab:
Thursday, February 01, 1996

GCI Project #: 9602-001

Summary of requested analytical work

Sample type code #s : ***1 = solid samples;*** ***2 = liquid samples;*** ***3 = Air samples;*** ***4 = sludges/unknowns***

Field Number: MW2	*Lab ID* 327	*Sample Type:* 2	*Date Analyzed:* 2/7/96	*for Appendix I metals*
Date Sampled 1/31/96	*at 1:00*			
Field Number: MW2	*Lab ID* 327	*Sample Type:* 2	*Date Analyzed:* 2/13/96	*for Appendix I voc*
Date Sampled 1/31/96	*at 1:00*			
Field Number: MW1	*Lab ID* 328	*Sample Type:* 2	*Date Analyzed:* 2/7/96	*for Appendix I metals*
Date Sampled 1/31/96	*at 1:00*			
Field Number: MW1	*Lab ID* 328	*Sample Type:* 2	*Date Analyzed:* 2/13/96	*for Appendix I voc*
Date Sampled 1/31/96	*at 1:00*			
Field Number: DN2	*Lab ID* 329	*Sample Type:* 2	*Date Analyzed:* 2/7/96	*for Appendix I metals*
Date Sampled 1/31/96	*at 1:00*			
Field Number: DN2	*Lab ID* 329	*Sample Type:* 2	*Date Analyzed:* 2/13/96	*for Appendix I voc*
Date Sampled 1/31/96	*at 1:00*			
Field Number: UP2	*Lab ID* 330	*Sample Type:* 2	*Date Analyzed:* 2/7/96	*for Appendix I metals*
Date Sampled 1/31/96	*at 1:00*			
Field Number: UP2	*Lab ID* 330	*Sample Type:* 2	*Date Analyzed:* 2/13/96	*for Appendix I voc*
Date Sampled 1/31/96	*at 1:00*			
Field Number: MW3	*Lab ID* 331	*Sample Type:* 2	*Date Analyzed:* 2/7/96	*for Appendix I metals*
Date Sampled 1/31/96	*at 3:00*			

Here by certify that I have Reviewed and approve this data set

2500 Gate Way Centre Blvd., Suite 300 • Morrisville, NC 27560
Telephone: 919-460-8093 • FAX: 919-460-0167

GeoChem, Incorporated

Environmental Laboratories

Certified Analytical Laboratory

NC # 37745 ,NC # 336, NC # 461, EPA ID # 155

lient Project Manager
r. Dan McMillian
te Name:
leghany County

Alleghany County
136 S. Main Street
Sparta NC
28675

Report Date
Thursday, February 22, 1996
PO #
Date Received in lab:
Thursday, February 01, 1996

GCI Project #: 9602-001

Summary of requested analytical work

Sample type code #s : **1 = solid samples;** **2 = liquid samples;** **3 = Air samples;** **4 = sludges/unknowns**

Field Number: MW3 *Lab ID* 331 *Sample Type:* 2 *Date Analyzed:* 2/13/96 *for Appendix I voc*

Date Sampled 1/31/96 *at 3:00*

Here by certify that I have Reviewed and approve this data set

2500 Gate Way Centre Blvd., Suite 300 • Morrisville, NC 27560
Telephone: 919-460-8093 • FAX: 919-460-0167

ALLEGHANY COUNTY LANDFILL, SPARTA, NC

GROUNDWATER SAMPLE COLLECTION - FIELD DATA SHEET

Date: 1/31/96
Well ID # MW-2
Sampler's Name and Company: Mark A. Creel, GeoChem, Inc.
Sample sequence Number: 2
Evacuation method: Bailer
Sample Collection Method: Bailer

Field observations

Weather and Temperature: 28^{0}F/Snow
Was well locked upon arrival: Yes
Any unsual conditions: No

Well Evacuation Data

Elevation of top of Inner Casing (ft above MSL)
*Reference all other measurements from this point:
Well Diameter: 2 inch
Depth to Groundwater (ft): 4.59
Elevation of Groundwater (ft):
? — Depth to Bottom of Well (ft): 118.0
Height of Water column in Well (ft): 113.41
Volume of Water in Well (L): 69.97
Number of Well Volumes to Evacuate before Sampling: 3
Volume of Water to Evacuate Before Sampling (L): 210
Actual volume Evacuated From Well (L): 210
Did well Go Dry (yes/no): No
Number of Hours Between Purdging and Sampling: 0
pH 5.24 Temp. 12^{0}C Spec Cond. in umhos: 97
Appearance of Sample: Clear
Chemical Analyses to be Performed: 8260/15 Metals

List Sample Bottles Filled: 2-40ml, VOA's/1-500ml, Plastic

Comments: N/A

ALLEGHANY COUNTY LANDFILL, SPARTA, NC

GROUNDWATER SAMPLE COLLECTION - FIELD DATA SHEET

Date: 1/31/96

Well ID # MW-1

Sampler's Name and Company: Mark A. Creel, GeoChem, Inc.

Sample sequence Number: 1

Evacuation method: Bailer

Sample Collection Method: Bailer

Field observations

Weather and Temperature: Snow/28°F

Was well locked upon arrival: Yes

Any unsual conditions: No

Well Evacuation Data

Elevation of top of Inner Casing (ft above MSL)

Reference all other measurements from this point:

Vell Diameter: 2 inch

epth to Groundwater (ft): 9.19

levation of Groundwater (ft):

epth to Bottom of Well (ft): 97.7

eight of Water column in Well (ft): 88.51

olume of Water in Well (L): 54.61

umber of Well Volumes to Evacuate before Sampling: 3

olume of Water to Evacuate Before Sampling (L): 164

tual volume Evacuated From Well (L): 164

d well Go Dry (yes/no): No

mber of Hours Between Purging and Sampling: 0

5.9 Temp. 12°C Spec Cond. in umhos: 29

pearance of Sample: Cloudy

mical Analyses to be Performed: 8260/15 Metals

Sample Bottles Filled: 2-40ml,VOA's/1-500ml, Plastic

uments: N/A

ALLEGHANY COUNTY LANDFILL, SPARTA, NC

GROUNDWATER SAMPLE COLLECTION - FIELD DATA SHEET

Date: 1/31/96

Well ID # DOWN-2

Sampler's Name and Company: Mark A. Creel, GeoChem, Inc.

Sample sequence Number: 3

Evacuation method: N/A

Sample Collection Method: Grab

Field observations

Weather and Temperature: 28^{0}F/Snow

Was well locked upon arrival: N/A

Any unusual conditions: No

Well Evacuation Data

Elevation of top of Inner Casing (ft above MSL)

*Reference all other measurements from this point: N/A

Well Diameter: 2 inch

Depth to Groundwater (ft):

Elevation of Groundwater (ft):

Depth to Bottom of Well (ft):

Height of Water column in Well (ft):

Volume of Water in Well (L):

Number of Well Volumes to Evacuate before Sampling:

Volume of Water to Evacuate Before Sampling (L):

Actual volume Evacuated From Well (L):

Did well Go Dry (yes/no):

Number of Hours Between Purdging and Sampling:

pH 5.02 Temp. 6^{0}C Spec Cond. in umhos: 13.5

Appearance of Sample: Clear

Chemical Analyses to be Performed: 8260/15 Metals

List Sample Bottles Filled: 2-40ml, VOA's/1-500ml, Plastic

Comments: N/A

ALLEGHANY COUNTY LANDFILL, SPARTA, NC

GROUNDWATER SAMPLE COLLECTION - FIELD DATA SHEET

Date: 1/31/96
Well ID # UP-2
Sampler's Name and Company: Mark A. Creel, GeoChem, Inc.
Sample sequence Number: 4
Evacuation method: N/A
Sample Collection Method: Grab

Field observations

Weather and Temperature: 28^{0}F/Snow
Was well locked upon arrival: N/A
Any unusual conditions: No

Well Evacuation Data

Elevation of top of Inner Casing (ft above MSL)
*Reference all other measurements from this point: N/A
Well Diameter: 2 inch
Depth to Groundwater (ft):
Elevation of Groundwater (ft):
Depth to Bottom of Well (ft):
Height of Water column in Well (ft):
Volume of Water in Well (L):
Number of Well Volumes to Evacuate before Sampling:
Volume of Water to Evacuate Before Sampling (L):
Actual volume Evacuated From Well (L):
Did well Go Dry (yes/no):
Number of Hours Between Purging and Sampling:
pH 5.12 Temp. 8^{0}C Spec Cond. in umhos: 14.5
Appearance of Sample: Clear
Chemical Analyses to be Performed: 8260/15 Metals

List Sample Bottles Filled: 2-40ml, VOA's/1-500ml, Plastic

Comments: N/A

ALLEGHANY COUNTY LANDFILL, SPARTA, NC

GROUNDWATER SAMPLE COLLECTION - FIELD DATA SHEET

Date: 1/31/96
Well ID # MW-3
Sampler's Name and Company: Mark A. Creel, GeoChem, Inc.
Sample sequence Number: 5
Evacuation method: Bailer
Sample Collection Method: Bailer

Field observations

Weather and Temperature: 28^{0}F/Snow
Was well locked upon arrival: Yes
Any unusual conditions: No

Well Evacuation Data

Elevation of top of Inner Casing (ft above MSL)
*Reference all other measurements from this point:
Well Diameter: 2 inch
Depth to Groundwater (ft): 31.82
Elevation of Groundwater (ft):
? – Depth to Bottom of Well (ft): 170.5
Height of Water column in Well (ft): 138.68
Volume of Water in Well (L): 85.57
Number of Well Volumes to Evacuate before Sampling: 3
Volume of Water to Evacuate Before Sampling (L): 257
Actual volume Evacuated From Well (L): 257
Did well Go Dry (yes/no): No
Number of Hours Between Purdging and Sampling: 0
pH 5.68 Temp. 13^{0}C Spec Cond. in umhos: 138
Appearance of Sample: Clear
Chemical Analyses to be Performed: 8260/15 Metals

List Sample Bottles Filled: 2-40ml, VOA's/1-500ml, Plastic

Comments: N/A

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

Site Name:

Alleghany County

GCI Project # 9602-001

Field ID **MW2** *Date Analyzed:*

Lab ID 327 *2/7/96*

Appendix I metals

	Conc. in mg/l	*lowest detect on sample* PQL in mg/l	Dilution Factor	NCAC 2L in mg/l
Antimony	BQL	0.02	1.	NA
Arsenic	BDL	0.01	1.	NA
Barium	BQL	0.5	20.	2.0
Beryllium	BQL	0.001	1.	NA
Cadmium	0.003	0.001	1.	0.005
Chromium	BQL	0.01	1.	NA
Cobalt	BDL	0.01	1.	NA
Copper by Fl	BQL	0.05	1.	NA
Lead	BQL	0.01	1.	0.015
Nickel	BDL	0.0125	1.	0.1
Selenium	BDL	0.02	1.	0.05
Silver	BQL	0.01	1.	0.018
Thallium	BDL	0.0025	1.	NA
Vanadium	BDL	0.025	1.	NA
Zinc by Fl	0.05	0.05	1.	NA

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

Site Name:

Alleghany County

GCI Project # 9602-001

Field ID DN2 *Date Analyzed:*

Lab ID 329 *2/7/96*

Appendix I metals

	Conc. in mg/l	*lowest detect on sample* PQL in mg/l	Dilution Factor	NCAC 2L in mg/l
Antimony	**BDL**	0.02	1.	NA
Arsenic	**BQL**	0.01	1.	NA
Barium	**BQL**	0.5	20.	2.0
Beryllium	**BQL**	0.001	1.	NA
Cadmium	**BQL**	0.001	1.	0.005
Chromium	**BQL**	0.01	1.	NA
Cobalt	**BDL**	0.01	1.	NA
Copper by Fl	**BQL**	0.05	1.	NA
Lead	**BQL**	0.01	1.	0.015
Nickel	**BDL**	0.0125	1.	0.1
Selenium	**BQL**	0.02	1.	0.05
Silver	**BQL**	0.01	1.	0.018
Thallium	**BQL**	0.0025	1.	NA
Vanadium	**BDL**	0.025	1.	NA
Zinc by Fl	**BQL**	0.05	1.	NA

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

Site Name:

Alleghany County

GCI Project # 9602-001

Field ID UP2 *Date Analyzed:*

Lab ID 330 *2/7/96*

Appendix I metals

	Conc. in mg/l	PQL in mg/l (*lowest detect on sample*)	Dilution Factor	NCAC 2L in mg/l
Antimony	**BDL**	0.02	1.	NA
Arsenic	**BDL**	0.01	1.	NA
Barium	**BQL**	0.5	20.	2.0
Beryllium	**BQL**	0.001	1.	NA
Cadmium	**BQL**	0.001	1.	0.005
Chromium	**BQL**	0.01	1.	NA
Cobalt	**BDL**	0.01	1.	NA
Copper by Fl	**BQL**	0.05	1.	NA
Lead	**BQL**	0.01	1.	0.015
Nickel	**BQL**	0.0125	1.	0.1
Selenium	**BDL**	0.02	1.	0.05
Silver	**BQL**	0.01	1.	0.018
Thallium	**BDL**	0.0025	1.	NA
Vanadium	**BDL**	0.025	1.	NA
Zinc by Fl	**0.523**	0.05	1.	NA

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

Site Name:

Alleghany County

GCI Project # 9602-001

Field ID **MW3** *Date Analyzed:*

Lab ID 331 *2/7/96*

Appendix I metals

	Conc. in mg/l	PQL in mg/l (*lowest detect on sample*)	Dilution Factor	NCAC 2L in mg/l
Antimony	**BQL**	0.02	1.	NA
Arsenic	**BDL**	0.01	1.	NA
Barium	**BQL**	0.5	20.	2.0
Beryllium	**BDL**	0.001	1.	NA
Cadmium	**BQL**	0.001	1.	0.005
Chromium	**BQL**	0.01	1.	NA
Cobalt	**BDL**	0.01	1.	NA
Copper by Fl	**BQL**	0.05	1.	NA
Lead	**BQL**	0.01	1.	0.015
Nickel	**BDL**	0.0125	1.	0.1
Selenium	**BQL**	0.02	1.	0.05
Silver	**BQL**	0.01	1.	0.018
Thallium	**BDL**	0.0025	1.	NA
Vanadium	**BDL**	0.025	1.	NA
Zinc by Fl	**0.059**	0.05	1.	NA

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

GCI Project 9602-001

Site Name: Alleghany County

Field ID MW2 *Date Analyzed:*

Lab ID 327 *2/13/96*

lowest detect on sample

Appendix I voc	Conc. in ug/l	PQL in ug/l	Dilution Factor	NCAC 2L in ug/l
Vinyl Chloride	BDL	10	1.	N/A
Bromomethane	BDL	10	1.	N/A
Chloroethane	BDL	10	1.	N/A
Trichlorofluoromethane	BDL	5	1.	2,100.0
Acetone	BDL	50	1.	700.0
1,1-Dichloroethene	BDL	5	1.	7.0
Iodomethane	BDL	5	1.	N/A
Carbon Disulfide	BDL	5	1.	700.0
Methylene Chloride	BDL	5	1.	5.0
Acrylonitrile	BDL	5	1.	N/A
trans-1,2-Dichloroethene	BDL	5	1.	70.0
1,1-Dichloroethane	BDL	5	1.	700.0
Vinyl Acetate	BDL	10	1.	N/A
cis-1,2-Dichloroethene	BDL	5	1.	70.0
2-Butanone	BDL	50	1.	170.0
Bromochloromethane	BDL	5	1.	N/A
Chloroform	BDL	5	1.	0.2
1,1,1-Trichloroethane	BDL	5	1.	200.0
Carbon Tetrachloride	BDL	5	1.	0.3
Benzene	BDL	5	1.	1.0
1,2-Dichloroethane	BDL	5	1.	0.4
Trichloroethene	BDL	5	1.	2.8
1,2-Dichloropropane	BDL	5	1.	0.6
Bromodichloromethane	BDL	5	1.	0.6
cis-1,3-Dichloropropene	BDL	5	1.	0.2
4-Methyl-2-pentanone	BDL	50	1.	N/A
Toluene	BDL	5	1.	1,000.0
trans-1,3-Dichloropropene	BDL	5	1.	0.2
1,1,2-Trichloroethane	BDL	5	1.	N/A
Tetrachloroethene	BDL	5	1.	0.7
2-Hexanone	BDL	50	1.	N/A
Chlorodibromomethane	BDL	5	1.	N/A
1,2-Dibromoethane	BDL	5	1.	N/A
Chlorobenzene	BDL	5	1.	50.0

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

GCI Project 9602-001

Site Name: Alleghany County

	Conc. in ug/l	lowest detect on sample PQL in ug/l	Dilution Factor	NCAC 2L in ug/l
1,1,1,2-Tetrachloroethane	**BDL**	5	1.	N/A
Ethylbenzene	**BDL**	5	1.	29.0
m,p-Xylene	**BDL**	5	1.	530.0
o-Xylene	**BDL**	5	1.	530.0
Styrene	**BDL**	5	1.	100.0
Bromoform	**BDL**	5	1.	0.2
1,2,3-Trichloropropane	**BDL**	15	1.	N/A
1,1,2,2-Tetrachloroethane	**BDL**	5	1.	N/A
1,4-Dichloro-2-butene	**BDL**	10	1.	N/A
1,4-Dichlorobenzene	**BDL**	5	1.	75.0
1,2-Dichlorobenzene	**BDL**	5	1.	620.0
1,2-Dibromo-3-chloropropane	**BDL**	5	1.	N/A

End of Appendix I voc

End **MW2**

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

GCI Project 9602-001

Site Name:Alleghany County

Field ID MW1 *Date Analyzed:*

Lab ID 328 *2/13/96*

	Conc. in ug/l	lowest detect on sample PQL in ug/l	Dilution Factor	NCAC 2L in ug/l
Appendix I voc				
Vinyl Chloride	**BDL**	10	1.	N/A
Bromomethane	**BDL**	10	1.	N/A
Chloroethane	**BDL**	10	1.	N/A
Trichlorofluoromethane	**BDL**	5	1.	2,100.0
Acetone	**BDL**	50	1.	700.0
1,1-Dichloroethene	**BDL**	5	1.	7.0
Iodomethane	**BDL**	5	1.	N/A
Carbon Disulfide	**BDL**	5	1.	700.0
Methylene Chloride	**BDL**	5	1.	5.0
Acrylonitrile	**BDL**	5	1.	N/A
trans-1,2-Dichloroethene	**BDL**	5	1.	70.0
1,1-Dichloroethane	**BDL**	5	1.	700.0
Vinyl Acetate	**BDL**	10	1.	N/A
cis-1,2-Dichloroethene	**BDL**	5	1.	70.0
2-Butanone	**BDL**	50	1.	170.0
Bromochloromethane	**BDL**	5	1.	N/A
Chloroform	**BDL**	5	1.	0.2
1,1,1-Trichloroethane	**BDL**	5	1.	200.0
Carbon Tetrachloride	**BDL**	5	1.	0.3
Benzene	**BDL**	5	1.	1.0
1,2-Dichloroethane	**BDL**	5	1.	0.4
Trichloroethene	**BDL**	5	1.	2.8
1,2-Dichloropropane	**BDL**	5	1.	0.6
Bromodichloromethane	**BDL**	5	1.	0.6
cis-1,3-Dichloropropene	**BDL**	5	1.	0.2
4-Methyl-2-pentanone	**BDL**	50	1.	N/A
Toluene	**BDL**	5	1.	1,000.0
trans-1,3-Dichloropropene	**BDL**	5	1.	0.2
1,1,2-Trichloroethane	**BDL**	5	1.	N/A
Tetrachloroethene	**BDL**	5	1.	0.7
2-Hexanone	**BDL**	50	1.	N/A
Chlorodibromomethane	**BDL**	5	1.	N/A
1,2-Dibromoethane	**BDL**	5	1.	N/A
Chlorobenzene	**BDL**	5	1.	50.0

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

GCI Project 9602-001

Site Name: Alleghany County

lowest detect on sample

	Conc. in ug/l	PQL in ug/l	Dilution Factor	NCAC 2L in ug/l
1,1,1,2-Tetrachloroethane	**BDL**	5	1.	N/A
Ethylbenzene	**BDL**	5	1.	29.0
m,p-Xylene	**BDL**	5	1.	530.0
o-Xylene	**BDL**	5	1.	530.0
Styrene	**BDL**	5	1.	100.0
Bromoform	**BDL**	5	1.	0.2
1,2,3-Trichloropropane	**BDL**	15	1.	N/A
1,1,2,2-Tetrachloroethane	**BDL**	5	1.	N/A
1,4-Dichloro-2-butene	**BDL**	10	1.	N/A
1,4-Dichlorobenzene	**BDL**	5	1.	75.0
1,2-Dichlorobenzene	**BDL**	5	1.	620.0
1,2-Dibromo-3-chloropropane	**BDL**	5	1.	N/A

*End of **Appendix I voc***

End **MW1**

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

GCI Project 9602-001

Site Name: Alleghany County

Field ID DN2 *Date Analyzed:*

Lab ID 329 *2/13/96*

lowest detect on sample

Appendix I voc	Conc. in ug/l	PQL in ug/l	Dilution Factor	NCAC 2L in ug/l
Vinyl Chloride	BDL	10	1.	N/A
Bromomethane	BDL	10	1.	N/A
Chloroethane	BDL	10	1.	N/A
Trichlorofluoromethane	BDL	5	1.	2,100.0
Acetone	BDL	50	1.	700.0
1,1-Dichloroethene	BDL	5	1.	7.0
Iodomethane	BDL	5	1.	N/A
Carbon Disulfide	BDL	5	1.	700.0
Methylene Chloride	BDL	5	1.	5.0
Acrylonitrile	BDL	5	1.	N/A
trans-1,2-Dichloroethene	BDL	5	1.	70.0
1,1-Dichloroethane	BDL	5	1.	700.0
Vinyl Acetate	BDL	10	1.	N/A
cis-1,2-Dichloroethene	BDL	5	1.	70.0
2-Butanone	BDL	50	1.	170.0
Bromochloromethane	BDL	5	1.	N/A
Chloroform	BDL	5	1.	0.2
1,1,1-Trichloroethane	BDL	5	1.	200.0
Carbon Tetrachloride	BDL	5	1.	0.3
Benzene	BDL	5	1.	1.0
1,2-Dichloroethane	BDL	5	1.	0.4
Trichloroethene	BDL	5	1.	2.8
1,2-Dichloropropane	BDL	5	1.	0.6
Bromodichloromethane	BDL	5	1.	0.6
cis-1,3-Dichloropropene	BDL	5	1.	0.2
4-Methyl-2-pentanone	BDL	50	1.	N/A
Toluene	BDL	5	1.	1,000.0
trans-1,3-Dichloropropene	BDL	5	1.	0.2
1,1,2-Trichloroethane	BDL	5	1.	N/A
Tetrachloroethene	BDL	5	1.	0.7
2-Hexanone	BDL	50	1.	N/A
Chlorodibromomethane	BDL	5	1.	N/A
1,2-Dibromoethane	BDL	5	1.	N/A
Chlorobenzene	BDL	5	1.	50.0

GeoChem Incorporated Certified Analytical Laboratory

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GCI Project 9602-001

Site Name: Alleghany County

	Conc. in ug/l	PQL in ug/l (lowest detect on sample)	Dilution Factor	NCAC 2L in ug/l
1,1,1,2-Tetrachloroethane	BDL	5	1.	N/A
Ethylbenzene	BDL	5	1.	29.0
m,p-Xylene	BDL	5	1.	530.0
o-Xylene	BDL	5	1.	530.0
Styrene	BDL	5	1.	100.0
Bromoform	BDL	5	1.	0.2
1,2,3-Trichloropropane	BDL	15	1.	N/A
1,1,2,2-Tetrachloroethane	BDL	5	1.	N/A
1,4-Dichloro-2-butene	BDL	10	1.	N/A
1,4-Dichlorobenzene	BDL	5	1.	75.0
1,2-Dichlorobenzene	BDL	5	1.	620.0
1,2-Dibromo-3-chloropropane	BDL	5	1.	N/A

End of Appendix I voc

End **DN2**

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

GCI Project 9602-001

Site Name: Alleghany County

Field ID **UP2** *Date Analyzed:*

Lab ID 330 *2/13/96*

	Conc. in ug/l	PQL in ug/l (lowest detect on sample)	Dilution Factor	NCAC 2L in ug/l
Appendix I voc				
Vinyl Chloride	BDL	10	1.	N/A
Bromomethane	BDL	10	1.	N/A
Chloroethane	BDL	10	1.	N/A
Trichlorofluoromethane	BDL	5	1.	2,100.0
Acetone	BDL	50	1.	700.0
1,1-Dichloroethene	BDL	5	1.	7.0
Iodomethane	BDL	5	1.	N/A
Carbon Disulfide	BDL	5	1.	700.0
Methylene Chloride	BDL	5	1.	5.0
Acrylonitrile	BDL	5	1.	N/A
trans-1,2-Dichloroethene	BDL	5	1.	70.0
1,1-Dichloroethane	BDL	5	1.	700.0
Vinyl Acetate	BDL	10	1.	N/A
cis-1,2-Dichloroethene	BDL	5	1.	70.0
2-Butanone	BDL	50	1.	170.0
Bromochloromethane	BDL	5	1.	N/A
Chloroform	BDL	5	1.	0.2
1,1,1-Trichloroethane	BDL	5	1.	200.0
Carbon Tetrachloride	BDL	5	1.	0.3
Benzene	BDL	5	1.	1.0
1,2-Dichloroethane	BDL	5	1.	0.4
Trichloroethene	BDL	5	1.	2.8
1,2-Dichloropropane	BDL	5	1.	0.6
Bromodichloromethane	BDL	5	1.	0.6
cis-1,3-Dichloropropene	BDL	5	1.	0.2
4-Methyl-2-pentanone	BDL	50	1.	N/A
Toluene	BDL	5	1.	1,000.0
trans-1,3-Dichloropropene	BDL	5	1.	0.2
1,1,2-Trichloroethane	BDL	5	1.	N/A
Tetrachloroethene	BDL	5	1.	0.7
2-Hexanone	BDL	50	1.	N/A
Chlorodibromomethane	BDL	5	1.	N/A
1,2-Dibromoethane	BDL	5	1.	N/A
Chlorobenzene	BDL	5	1.	50.0

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

GCI Project 9602-001

lowest detect on sample

Site Name: Alleghany County	Conc. in ug/l	PQL in ug/l	Dilution Factor	NCAC 2L in ug/l
1,1,1,2-Tetrachloroethane	BDL	5	1.	N/A
Ethylbenzene	BDL	5	1.	29.0
m,p-Xylene	BDL	5	1.	530.0
o-Xylene	BDL	5	1.	530.0
Styrene	BDL	5	1.	100.0
Bromoform	BDL	5	1.	0.2
1,2,3-Trichloropropane	BDL	15	1.	N/A
1,1,2,2-Tetrachloroethane	BDL	5	1.	N/A
1,4-Dichloro-2-butene	BDL	10	1.	N/A
1,4-Dichlorobenzene	BDL	5	1.	75.0
1,2-Dichlorobenzene	BDL	5	1.	620.0
1,2-Dibromo-3-chloropropane	BDL	5	1.	N/A

End of Appendix I voc

End **UP2**

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

GCI Project 9602-001

Site Name: Alleghany County

Field ID MW3 *Date Analyzed:*

Lab ID 331 *2/13/96*

lowest detect on sample

	Conc. in ug/l	PQL in ug/l	Dilution Factor	NCAC 2L in ug/l
Appendix I voc				
Vinyl Chloride	**BDL**	10	1.	N/A
Bromomethane	**BDL**	10	1.	N/A
Chloroethane	**BDL**	10	1.	N/A
Trichlorofluoromethane	**BDL**	5	1.	2,100.0
Acetone	**BDL**	50	1.	700.0
1,1-Dichloroethene	**BDL**	5	1.	7.0
Iodomethane	**BDL**	5	1.	N/A
Carbon Disulfide	**BDL**	5	1.	700.0
Methylene Chloride	**BDL**	5	1.	5.0
Acrylonitrile	**BDL**	5	1.	N/A
trans-1,2-Dichloroethene	**BDL**	5	1.	70.0
1,1-Dichloroethane	**BDL**	5	1.	700.0
Vinyl Acetate	**BDL**	10	1.	N/A
cis-1,2-Dichloroethene	**BDL**	5	1.	70.0
2-Butanone	**BDL**	50	1.	170.0
Bromochloromethane	**BDL**	5	1.	N/A
Chloroform	**BDL**	5	1.	0.2
1,1,1-Trichloroethane	**BDL**	5	1.	200.0
Carbon Tetrachloride	**BDL**	5	1.	0.3
Benzene	**BDL**	5	1.	1.0
1,2-Dichloroethane	**BDL**	5	1.	0.4
Trichloroethene	**BDL**	5	1.	2.8
1,2-Dichloropropane	**BDL**	5	1.	0.6
Bromodichloromethane	**BDL**	5	1.	0.6
cis-1,3-Dichloropropene	**BDL**	5	1.	0.2
4-Methyl-2-pentanone	**BDL**	50	1.	N/A
Toluene	**BDL**	5	1.	1,000.0
trans-1,3-Dichloropropene	**BDL**	5	1.	0.2
1,1,2-Trichloroethane	**BDL**	5	1.	N/A
Tetrachloroethene	**BDL**	5	1.	0.7
2-Hexanone	**BDL**	50	1.	N/A
Chlorodibromomethane	**BDL**	5	1.	N/A
1,2-Dibromoethane	**BDL**	5	1.	N/A
Chlorobenzene	**BDL**	5	1.	50.0

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

GCI Project 9602-001

lowest detect on sample

Site Name: Alleghany County	Conc. in ug/l	PQL in ug/l	Dilution Factor	NCAC 2L in ug/l
1,1,1,2-Tetrachloroethane	**BDL**	5	1.	N/A
Ethylbenzene	**BDL**	5	1.	29.0
m,p-Xylene	**BDL**	5	1.	530.0
o-Xylene	**BDL**	5	1.	530.0
Styrene	**BDL**	5	1.	100.0
Bromoform	**BDL**	5	1.	0.2
1,2,3-Trichloropropane	**BDL**	15	1.	N/A
1,1,2,2-Tetrachloroethane	**BDL**	5	1.	N/A
1,4-Dichloro-2-butene	**BDL**	10	1.	N/A
1,4-Dichlorobenzene	**BDL**	5	1.	75.0
1,2-Dichlorobenzene	**BDL**	5	1.	620.0
1,2-Dibromo-3-chloropropane	**BDL**	5	1.	N/A

*End of **Appendix I voc***

End **MW3**

GeoChem Incorporated Quality Control Results

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

Site Name:

Alleghany County

GCI Project # 9602-001

	Percent Recovery	Lab Blank:	lowest detection limit @ ideal conditions MDL. in mg/l
Antimony	92	0	0.001
Arsenic	98	0	0.005
Barium	91	0	0.005
Beryllium	111	0	0.0008
Cadmium	88	0	0.0005
Chromium	92	0	0.0005
Cobalt	94	0	0.005
Copper by Fl	105	0	0.05
Lead	96	0	0.001
Nickel	88	0	0.005
Selenium	100	0	0.005
Silver	102	0	0.0005
Thallium	86	0	0.005
Vanadium	89	0	0.001
Zinc by Fl	99	0	0.05

GeoChem Incorporated Quality Control Results

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Tuesday, February 20, 1996

Site Name:

Alleghany County

GCI Project # 9602-001

Appendix I voc

	Percent Recovery	Lab Blank:	lowest detection @ ideal conditions MDL. in ug/l
1,1-Dichloroethene	**99**	0	3.91
Benzene	**106**	0	0.72
Trichloroethene	**102**	0	0.37
Toluene	**110**	0	6.51
Chlorobenzene	**101**	0	0.51

Report To:
Dan McMillian
Alleghany Co Mgr
P.O Box 336
Sparta NC 28675

Copy of Report to:
Mark Poindexter
NC Dept of Env. Health + Nat. Res.
PO Box 27687 Raleigh 27611-7639

GeoChem, Incorporated

Environmental Laboratories

2500 Gate Way Centre Blvd., Suite 300
Morrisville, NC 27560

Bill To:

Chain of Custody Record

Page 1 of _____

PROJECT SITE NUMBER:
PO#:
SITE NAME: Alleghany County
COLLECTED BY (Signature): (Mark A Goel)
GEOCHEM PROJECT #: 9602-001
DATE DUE: 2-7-96
VERBAL/FAX/HARDCOPY:

ANALYSES: Appendix 8260 VOCs; Appendix I Metals

FIELD SAMPLE ID	TURNAROUND IN DAYS	SAMPLE MATRIX	DATE AND TIME COLLECTED	NO. OF CONTAINERS PER LOCATION	Appendix 8260 VOCs	Appendix I Metals									REMARKS	LAB ID NO. (for lab use only)
MW2		H_2O	1/31/96 1:00	3	X	X										0327
MW1		"	"	3	X	X										0328
DN2		"	"	3	X	X										0329
UP2		"	"	3	X	X										0330
MW3		"	" 3:00	3	X	X										0331

REMARKS

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
						Mark Moyer	2/1/96	12:30 pm			

This Chain of Custody is considered a written contract to perform the services requested in the analyses section of this document.