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P. O. BOX 248, 1186 LOWER RIVER ROAD, NW, CHARLESTON, TN 37310-0248

(423) 336-4000 FAX: (423) 336-4166

February 6, 2002

Mr. Michael J. Hinton, P.E. Environmental Engineer II New York State Department of Environmental Conservation 270 Michigan Avenue Buffalo, New York 14203-2999

Subject: Charles Gibson Site NYSDEC Registry No. 9-32-063 Ninth Annual Report – 2001 Revised Tables

Dear Mr. Hinton:

As we discussed on January 28, 2002, enclosed are revised Table 3, Analytical Summary Cayuga Creek Annual Downstream Sediment Sampling and revised Table 8, Annual Manhole B Sampling for the Ninth Annual Report – 2001. Discussion in the original reports is not affected by these revisions.

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Sincerely, OLIN CORPORATION orraine M. Miller

Lorraine M. Miller Principal Environmental Specialist

cc: C. M. Richards via e-mail M. L. Fries via e-mail Ryan Armasu via e-mail B. H. Brayley

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dm:sites/P&T(Gibson)/ENV4060/Annual Repoint/Ninth Annual Report 2001 revised tables 02062002

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Table 3 (revised 2/6/2002)Analytical SummaryCayuga CreekAnnual Downstream Sediment Sampling

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Parameter	1993 September	1994 June	1994 September	1995 August	1996 September	1997 September	1998 October	1999 October	2000 October	2001* October
alpha-BHC	2,200	5,300	720	790	5000	330	4800J/80000J	4800J	9600/13000	16
beta-BHC	390	1,800	82	83 J	600	580	1300J/12000J	1800	3000J/2700J	52
gamma-BHC	40 U	690	67 U	250 U	35J	44J	300UJ/690J	52J	1200U/1400U	65
delta-BHC	27 J	80 J	67 U	250 U	41J	60J	53J/5500UJ	190J	1200U/1400U	1.4J
НСВ	800 U	570 UR	550 U	420 U	330U	330U	520U/550U	510U	NR	NR

Notes:

Concentration in microgram/kilogram (ug/kg)

BHC = Hexachlorocyclohexane

HCB = Hexachlorobenzene

J = Estimated value.

U = Undetected at the concentration level specified

R = Sample result rejected due to low surrogate recoveries caused by matrix interference

NR = No longer required for this event

* Sediment Traps Installed April 2001

Charles Gibson Site NYSDEC Registry No. 9-32-063 Ninth Annual Report -2001



Table 8 (revised 2/6/2002)

Annual Manhole B Sampling

October 16, 2001

Parameter	Concentration (ug/l)
alpha – BHC	.61
beta - BHC	1.3
delta - BHC	2.5
gamma - BHC	.061J
Hexachlorobenzene	NR

Notes:

J = estimated Value

NR = Not required

Data Has been validated and judged acceptable as qualified

Next sampling for hexachlorobenzene is scheduled for October 2005.

alpha - BHC



beta - BHC



gamma - BHC



Gibson Site #932063 delta -BHC



OLIN GIBSON SITE #932063

UPSTREAM SEDIMENT



OLIN GIBSON SITE #932063 DOWNSTREAM SEDIMENT













P. O. BOX 248, 1186 LOWER RIVER ROAD, NW, CHARLESTON, TN 37310-0248

(423) 336-4000 FAX: (423) 336-4166

January 17, 2002



NYSDEC - REG. 9 FOIL X REL UNREL

932063 2001 GROWING Water

Mr. Michael J. Hinton, P.E. Environmental Engineer II New York State Department of Environmental Conservation 270 Michigan Avenue Buffalo, New York 14203-2999

Subject: Charles Gibson Site NYSDEC Registry No. 9-32-063 Ninth Annual Report - 2001

Dear Mr. Hinton:

Enclosed are three copies of the Ninth Annual Report - 2001 for the referenced site. This report summarizes the activities performed during 2001 for the operations and maintenance of the containment remedy for the site and the ground water monitoring program outside of the containment area.

The following is a summary of major activities that occurred during 2001.

- Semi-annual groundwater sampling events were performed during April and October 2001.
- Sediment traps were installed for the first time during the April 2001 sampling event. Annual sediment sampling was performed in October.
- The annual sampling and analysis of leachate was completed in October. Discharges to the City of Niagara Falls Wastewater Treatment Facility totaled 20,855 gallons.
- The NYSDEC conducted a site inspection on May 24, 2001.

Based on data summarized in this report, Olin requests modifying ground water monitoring from a semi-annual event to an annual event.

CORPORA

TION

Please call me at 423/336-4381 to discuss any information concerning this report.

Sincerely. OLIN CORPORATION areaine M. Miller

Lorraine M. Miller Principal Environmental Specialist

cc: C. M. Richards via e-mail M. L. Fries via e-mail Ryan Armasu via e-mail B. H. Brayley via e-mail

dm:sites/P&T(Gibson)/ENV4060/O&M/Ninth Annual Report 2001

OLIN.

NINTH ANNUAL REPORT

2001

CHARLES GIBSON SITE

(PINE AND TUSCARORA SITE)

NIAGARA FALLS, NEW YORK NYSDEC REGISTRY NO. 9-32-063

PREPARED BY OLIN CORPORATION

JANUARY 2002





Introduction

This is the Ninth Annual Report from Olin Corporation (Olin) for the Charles Gibson Site (Pine and Tuscarora Site), located in Niagara Falls, New York. This report summarizes the activities performed during 2001 for the operations and maintenance of the containment remedy for the Site and the ground water monitoring program outside of the containment area.

Background

The Charles Gibson Site (Site) is located approximately four miles east of downtown Niagara Falls, New York. The Site comprises an area of approximately two acres of land in Niagara County bordered on the south by private property, on the west by Tuscarora Road and on the north and east by Cayuga Creek. The Site is a fully remediated waste site currently surrounded by a fence.

Construction of the remedy on the Site concluded in 1990. The remedy consisted of rerouting Cayuga Creek around and away from the waste, installation of a fully circumscribed soilbentonite slurry wall barrier and installation of a double flexible membrane liner cap with a perimeter collection drain system. The first year of operations and maintenance (O&M) of the containment remedy for the Site and the ground water monitoring program began in 1993.

Waters collected in the Site perimeter collection drain system are managed by direct discharge to the City of Niagara Falls Wastewater Treatment Facility. The Site is classified as a commercial/small industrial/residential user (CSIRU) and does not require a permit.

Reports are submitted as appropriate to the New York State Department of Environmental Conservation (NYSDEC). Records of all environmental monitoring are maintained by Olin Corporation. These records are available for review and inspection by the State upon reasonable notice.

Discussion

The Stipulation and Consent Judgment, CIV 83-1400, and its modification, CIV 83-1400C, (the Agreement) listed the following elements to be included in the required remediation plan for the Site (Plan C):

- 1. Quarterly ground water monitoring for 30 years (revised in 1997 to semiannual);
- 2. Sample collection and analysis of creek water during high and low water periods annually and of creek sediments annually for 30 years;
- 3. Establishment of an upward hydraulic gradient within the containment area, unless Olin can demonstrate by clear and convincing evidence the establishment of the same is unnecessary or inappropriate to the accomplishment of the goals set forth in paragraph 4(a) of the stipulation;
- 4. Acquisition by Olin of easements which would permit the required monitoring;
- 5. Provisions for protection of the Site from disturbance which might increase the threat of contamination migration, including regular inspection of the site;
- 6. Provisions for the design and implementation of a contingency plan in the event that migration of the contaminants occurs despite the implementation of the containment remediation plan;
- 7. Containment or removal of the contaminants deposited or caused to be deposited by Olin which have migrated off-Site consistent with the goals of paragraph 4(a);
- 8. Fiscal arrangements, guarantees, or the provision of financial assurances sufficient to ensure that Olin possess the financial ability to perform the containment remedial plan and monitoring.



The Agreement includes a provision in the event that after seven years following the delivery of a Release of Liability (issued December 15, 1992), Olin demonstrates that conditions at the Site are such that the stated frequency or duration of the requirements of elements 1, 2, or 5 are no longer necessary to determine whether the remediation is effective, Olin may reduce the frequency and duration of such monitoring or inspections. Additionally, if after seven years following the Release of Liability, Olin is able to demonstrate that element 8 is no longer necessary to ensure performance, Olin may alter the fiscal arrangements appropriately.

The approved Operation and Maintenance Manual (O&M Manual (June 2000) provides details on the O&M of the containment remedy on the northern portion of the site and includes provisions for site control and environmental monitoring. The O&M Manual (June 2000) reflects current activities being performed for the operation and maintenance of the containment remedy for the Site and the ground water monitoring program outside the containment area. The yearly inspection and sampling schedule for the Site is attached for reference (Attachment 1).

The O&M Manual (2000) addresses the required elements as set forth in the Agreement. Element 4, acquisition of easements, is a completed task. Element 6, a contingency plan, is addressed in the O&M Manual. Element 7, containment of the contaminants, has been achieved and is being monitored for effectiveness. Element 8, provision of financial assurance, is being met. This report discusses elements 1, 2, 3, and 5 of the Agreement.

Element 1) <u>Semi-annual ground water monitoring.</u> Monitor wells MW-A3, MW-1R, MW-2, MW-4, and MW-5 were sampled for the site compounds alpha-BHC, beta-BHC, gamma-BHC, delta-BHC on April 24 and October 16, 2001. Analyses were performed using SW-846 Method 8080. Sampling results indicate that concentrations of site compounds being monitored are similar to previous results. Monitor wells are sampled for hexachlorobenzene every other year. The next HCB sampling is scheduled for October 2002.

The semi-annual ground water monitoring data summary from 1997 through 2001 is provided in Table 1. This time period represents the start of the semi-annual events.

Element 2) Annual creek sediment monitoring. Sediment monitoring was modified in 2001 from collecting a grab sample to placement of sediment traps at the upstream and downstream locations. Sediment traps were installed for the first time during the April 2001 sampling event. Annual sediment sampling was performed on October 16th. Upstream data were elevated from previous sampling events for the alpha, beta, and gamma BHC isomers. Downstream data were substantially lower than previous sampling events. Analytical results for the sediment samples collected were included in the Semi-Annual Ground Water Sampling and Annual Sediment Sampling Report, October 2001. This report was submitted to NYSDEC on December 13, 2001. Annual upstream and downstream sediment sampling results for the project-to-date are summarized in Tables 2 and 3. Results from 2001 sampling should not be directly compared to previous years because of the different sampling methodologies utilized. Evaluating results from sediment trap monitoring will require collecting additional data over the next few monitoring events.

Element 3) Establishment of an upward (inward) hydraulic gradient. Quarterly ground water elevations were monitored at piezometer pairs P1/P2, P3/P4, and P5/P6 to maintain an inward hydraulic gradient in the containment area of the site. The data collected during each event is recorded on the Sampling Field Form. An evaluation of data from the piezometer pairs at the Site indicates that an inward hydraulic gradient is generally being maintained in the containment area of the site (Table 4). Water level elevations in Manhole A and Manhole B are monitored guarterly (Table 5).





Site discharges to the POTW totaled 20,855 gallons during 2001 (Table 6). A summary of yearly discharge volumes for the Site is provided in Table 7. Annual leachate sampling and analysis for BHC's began in 2000 to replace the POTW sampling that was previously performed. HCB will be monitored every five years starting in 2000. The sampling location is Manhole B. Analytical results for 2001 are provided in Table 8.

Element 5) <u>Site protection.</u> Quarterly site inspections were conducted to identify any potential problems with the physical structures and to ensure that the remedial measure components are operating effectively. Routine site maintenance included fertilizing, mowing and weeding the cap area. General site conditions and security status were noted on the Site Inspection Form and addressed as appropriate.

Conclusions/Recommendations:

The work performed for the Site during 2001 was reviewed and found to be in accordance with the approved O&M Manual (2000). Ground water monitoring indicates there are no increased concentrations of the Site compounds being monitored. Evaluation of the ground water data generated during the 2001monitoring year indicates that the containment remedy is effective. An evaluation of data from the piezometer pairs at the Site indicates that an inward hydraulic gradient is generally being maintained in the containment area of the site. Evaluating results from sediment trap monitoring will require collecting additional data over the next few monitoring events.

Based on ground water data summarized in this report, Olin recommends the ground water monitoring schedule be reduced from a semi-annual event to an annual event.

Table 1

Semi-annual Ground Water Summary

Monitor Well: MW-A3

	1997	19	98	19	99	20	00	20	01
Parameter	September (*)	April	October	April	October	May	October	April	October
Alpha-BHC	.059	.016J	.12	.0043J	-	.050U	.050U	.050U	.029J
Beta-BHC	.028J	.012J	.0092J	.053U	-	.012J	.050U	.050U	.016J
Gamma-BHC	.050U	.050U	.024J	.053U	-	.050U	.050U	.050U	.050U
Delta-BHC	.050U	.050U	.053U	.053U	-	.050U	.050U	.050U	.050U
Hexachlorobenzene	10U	10U	-	11U	-	11U	NR	NR	NR

Monitor Well: MW-1R

	1997	19	98	19	99	20	00	20	D1
Parameter	September (*)	April	October	April	October	May	October	April	October
Alpha-BHC	.058	.085	.18	.072	.057	.028J	.099/.060	.070/.061	.055/.030J
Beta-BHC	.053	.14	.20	.13	.080	.12	.19/.15	.10/.050U	.13/.095
Gamma-BHC	.050U	.050U	.028J	.053U	.050UJ	.051U	.063J/.058U	.050U/.050U	.055U
Delta-BHC	.050U	.0042J	.053U	.0054J	.050U	.051U	.061U/.058U	.050U/.053	.055U
Hexachlorobenzene	10U	100	11U	110	10U	10U	NR	NR	NR

Monitor Well: MW-2

	1997	199	98	19	99	20	00	20)1
Parameter	September (*)	April	October	April	October	May	October	April	October
Alpha-BHC	.050U	.0 5 0U	.053U	.053U	.050U	.029J	.054U	.050U	.050U
Beta-BHC	.050U	.050U	.053U	.053U	050U	.098	.054U	.050U	.050U
Gamma-BHC	.050U	.050U	.053U	.053U	.050UJ	.052U	.054U	.050U	.050U
Delta-BHC	.050U	.050U	.053U	.053U	.050U	.052U	.054U	.050U	.050U
Hexachlorobenzene	10UJ	10U	11U	10U	10U	10U	NR	NR	NR

Notes: Concentrations in ug/l

(*) Start of semi annual monitoring program

Ú Not detected

J Estimated value

/ Field Duplicates

- Not enough water for analysis

NR No longer required

Table 1 (cont.)

Semi-annual Ground Water Summary

Monitor Well: MW-4

	1997	. 19	98	19	99	20	00	200)1
Parameter	September (*)	April	October	April	October	May	October	April	October
Alpha-BHC	.050/.060	.0030J	.053U	.0031J	.050U/.050U	.051U/.052U	.0069J	.050U	.050U
Beta-BHC	.055/.069	.016J	.045J	.017J	.066/.068	.045J/.062_	.047J	.041J	.033J
Gamma-BHC	.050U/.050U	.050U	.053U	.053U	.050U/.050UJ	.051U/.052U	.050U	.071J	.050U
Delta-BHC	.050U/.050U	.050U	.053U	.053U	.050U/.050U	.051U/.052U	.050U	.050U	.050U
Hexachlorobenzene	10U/10U	10U	10U	10U	10U/10U	10U/10U	NR	NR	NR

Monitor Well: MW-5

	1997	19	98	1999		20	00	20	01
Parameter	September (*)	April	October	April	October	May	October	April	October
Alpha-BHC	.059	.050U/.0066J	.053U/.053U	.0071J/.0071J	.045J	.010J	.013J	.050U	.050U
Beta-BHC	.050U	.0080J/.0084J	.053U/.053U	.053U/.053U	.050	.031J	.022J	.050U	.050U
Gamma-BHC	.050U	.050U/.050U	.053U/.053U	.053U/.053U	.0065J	.052U	.055U	.050U	.050U
Delta-BHC	.050U	.050U/.050U	.053U/.053U	.053U/.053U	.050U	.052U	.055U	.050U	.050U
Hexachlorobenzene	10U	10U/10U	11U/10U	110/110	10U	10U	NR	NR	NR

Notes: Concentrations in ug/l

- (*) Start of semi annual monitoring program
- **U** Not detected
- J Estimated value
- / Field Duplicates
- Not enough water for analysis
- NR No longer required

Table 2 Analytical Summary Cayuga Creek **Annual Upstream Sediment Sampling**

				•						\sim
Parameter	1993	1994	1994	1995	1996	1997	1998	1999	2000	2001*
	September	June	September	August	September	September	October	October	October	October
alpha-BHC	1.5 J	NS	6.1 U	8.1J	2.7J	5.3J	2.1J	8.9/7.4	3.5	55
beta-BHC	2.3 J	NS	2.2 J	12	6.1U	11	5.2	28/19	4.5J	49
gamma-BHC	6.0 U	NS	6.1 U	12 U	6.1U	2.5J	.31UJ	2.9J/.42J	2.3U	24
delta-BHC	6.0 U	NS	6.1 U	21	6.1U	4.0J	5.5	37/31	2.3U	3.3J
HCB	500 U	NS	510 U	480 U	500U	330U	470U	480U/480U	NR	
										\vdash

Notes:

Concentration in microgram/kilogram (ug/kg)

BHC = Hexachlorocyclohexane

HCB = Hexachlorobenzene

J = Estimated value

U = Undetected at the concentration level specified

NS = Not sampled

NR = No longer required for this event * Sediment Traps Installed April 2001

Table 3 Analytical Summary Cayuga Creek Annual Downstream Sediment Sampling

Parameter	1993 September	1994 June	1994 September	1995 August	1996 September	1997 September	1998 October	1999 October	2000 October	2001*
alpha-BHC	2,200	5,300	720	790	5000	330	4800J/80000J	4800J	9600/13000	.61
beta-BHC	390	1,800	82	83 J	600	580	1300J/12000J	1800	3000J/2700J	/ 1.3
gamma-BHC	40 U	690	67 U	250 U	35J	44J	300UJ/690J	52J	1200U/1400U	2.5
delta-BHC	27 J	80 J	67 U	250 U	41J	60J	53J/5500UJ	190J	1200U/1400U	.061J
НСВ	800 U	570 UR	550 U	420 U	330U	330U	520U/550U	510U	NR	\ NR

Notes:

Concentration in microgram/kilogram (ug/kg)

BHC = Hexachlorocyclohexane

HCB = Hexachlorobenzene

J = Estimated value.

U = Undetected at the concentration level specified

R = Sample result rejected due to low surrogate recoveries caused by matrix interference

NR = No longer required for this event

* Sediment Traps Installed April 2001

Table 4

MH-4	563.69		564.02	Ster 102
Piezometer Pair	3/22/01	6/27/01	9/29/01	10/16/01
P1	565.47 1	566.32	564.85 A	564.73 1
P2	565.57		565.14	565.23
P3	567.46 	566.91	564.70 ¥	564.95
P4	565.50 	565.27		565.04
P5	569.70	568.55	567.44	567.71
P6	568.02	567.58 ₽	567.37 \$	567.51 4

2001 Quarterly Groundwater Elevations Summary

Note: Measurement units are in feet.

Piezometers P1, P3, P5 are outside the slurry wall. Piezometers P2, P4, P6 are located within the containment area. Discharge system pumped on 1/2-3/2001 Charles Gibson Site NYSDEC Registry No. 9-32-063 Ninth Annual Report - 2001

Table 5

Manhole Monitoring 2001 Water Elevations (ft.)

Date	Manhole A	Manhole B	Comments
3/22/01	563.69	563.79	
6/27/01	563.39	563.44	
9/29/01	564.02	564.06	
10/16/01	564.02	564.04	Semi annual ground water sampling

Notes:

Manhole monitoring:

- Maintain water level below 565 feet to prevent hydrostatic pressure buildup under concrete slab.
- Pump Manhole B as required to maintain an inward gradient. (This pumping requirement is addressed by the operation of the direct discharge system which became operational in March 1997.)



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Table 6

Direct Discharges from the Site – 2001 (gallons)

Monitoring Period	Date of Flow	Discharge Volume (Gallons)
1 QTR 01 (JAN - MAR)	1/2/2001 1/3/2001	9,765 11,090
2 QTR 01 (APR - JUN)		No discharge
3 QTR 01 (JUL - SEP)		No discharge
4 QTR 01 (OCT – DEC)		No discharge
TOTALS		20,855

Notes:

City of Niagara Falls reclassified site wastewater discharge permit from significant industrial user (SIU) to commercial /small industrial/residential user (CSIRU). SIU permit was rescinded by City of Niagara Falls on September 14, 1999. POTW Monitoring and reporting requirements are terminated.



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Table 7

Summary of Yearly Discharge Volumes (gallons)

Date	Volume
	(gallons)
1991	104,120
1992	76,562
1993	77,797
1994	69,724
1995	56,940
1996	77,512
1997(*)	64,687
1998	51,070
1999	140,860
2000	67,236
2001	20,855
TOTALS	807,363

(*) Represents start of operation of direct discharge system

Table 8

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table

Annual Manhole B Sampling

October 16, 2001

Parameter	Concentration (ug/l) /
alpha – BHC	/ .61
beta - BHC	1.3
delta - BHC	.2.5
gamma - BHC	.061J
Hexachlorobenzene	NR

Notes:

J = estimated Value

NR = Not required

Data Has been validated and judged acceptable as qualified

Next sampling for hexachlorobenzene is scheduled for October 2005.

ATTACHMENT 1

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INSPECTION AND SAMPLING SCHEDULE GIBSON SITE NIAGARA FALLS, NEW YORK

Quarterly	Site Inspection (including Site Cover/Cap, Site Fence, Creek Riprap, Site Structures, CPVC Drain/Sump System).
Quarterly	Piezometer and sump groundwater level elevation measurements.
Semi-Annually	Groundwater monitoring well sampling (April and October) for BHC isomers.
Annually	Cayuga Creek sediment sampling (October) for BHC isomers.
Annually	Leachate sample collection and analysis (Manhole B) for BHC isomers (starting in 2000).
Annually	Annual report to NYSDEC (January).
Biennially	Groundwater monitoring well sampling (starting in April 2000) for HCB. The biennial sampling events following 2000 will alternate seasonally between April and October sampling. Next HCB sampling is October 2002.
Every Five Years in 2000).	Leachate sample collection and analysis (Manhole B) (for HCB) (starting

alpha - BHC



beta - BHC



Non-detects plotted as 1/10th of detection limit

gamma - BHC



Non-detects plotted as 1/10th of detection limit

Gibson Site #932063 delta -BHC



OLIN GIBSON SITE #932063 UPSTREAM SEDIMENT



OLIN GIBSON SITE #932063 DOWNSTREAM SEDIMENT




P. O. BOX 248, 1186 LOWER RIVER ROAD, NW, CHARLESTON, TN 37310-0248

(423) 336-4000 FAX: (423) 336-4166

December 13, 2001

Mr. Michael J. Hinton, P.E. Environmental Engineer New York State Department of Environmental Conservation 270 Michigan Avenue Buffalo, NY 14203-2999

Subject: Charles Gibson Site (Pine and Tuscarora Site) Niagara Falls, New York NYSDEC Registry No. 9-32-063 Semi-Annual Ground Water and Sediment Sampling Report October 2001

Dear Mr. Hinton:

In accordance with the approved sampling plan for the referenced Site, enclosed are three copies of the second Semi-Annual Ground Water and Sediment Sampling Report, October 2001. The analytical data summary for ground water is listed in Table 1. The analytical data summary for the annual sediment sampling is listed in Table 2. Results from the annual sampling of Manhole B (leachate) are presented in Table 3. The laboratory data summary package (Appendix A), and the field logs (Appendix B) for this sampling event are also attached. The Quarterly Site Inspection Forms and the Quarterly Ground Water Elevation Forms are included in Appendices C and D respectively. The analytical data has been validated and found to be acceptable.

If you have any questions, please call me at 423/ 336-4381.

Sincerely, OLIN CORPORATION

name M. Miller

Lorraine M. Miller Principal Environmental Specialist

cc: R. K. Hall (e-mail) C.M. Richards (e-mail) M. Walker (email)

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dm:sites/P&T Gibson//ENV 4060/O&M/SemiAnnual Sampling October 2001 OLINCORPORATION

TABLE 1

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CHARLES GIBSON SITE NIAGARA FALLS, NEW YORK

ANALYTICAL RESULTS SUMMARY SEMI-ANNUAL GROUND WATER SAMPLING

October 16, 2001

	MW-1R	MW-1R (dup)	MW-2	MW-4	MW-5	MW-A3
PARAMETER						
alpha-BHC	.055	.030J	.050U	.050U	.050U	.029J
beta-BHC	.13	.095	.050U	.033J	.056	.016J
delta-BHC	.055U	.055U	.050U	.050U	.050U	.050U
gamma-BHC	.055U	.055U	.050U	.050U	.050U	, .050U
Hexachlorobenzene	NR	NR	NR	NR	NR	NR

Notes:

Concentration in ug/I

U Undetected at associated value

J Estimated value

Field blank was non-detect for all parameters of interest. Data has been validated and judged acceptable as qualified.

NR Not required for this event. Next sampling for hexachlorobenzene is scheduled for October 2002.

TABLE 2

CHARLES GIBSON SITE NIAGARA FALLS, NEW YORK

ANALYTICAL RESULTS SUMMARY ANNUAL SEDIMENT SAMPLING

October 16, 2001

	Upstream	Downstream
PARAMETER		
alpha-BHC	55	.16
beta-BHC	49	52
delta-BHC	24	65
gamma-BHC	3.3J	1.4J

Notes:

Concentration in ug/kg

J = Estimated value

Data has been validated and judged acceptable as qualified.

TABLE 3

CHARLES GIBSON SITE NIAGARA FALLS, NEW YORK

ANALYTICAL RESULTS SUMMARY ANNUAL MANHOLE B SAMPLING

October 16, 2001

	Manhole B
PARAMETER	
alpha-BHC	.61
beta-BHC	1.3
delta-BHC	2.5
gamma-BHC	.061J
Hexachlorobenzene	NR

Notes:

Concentration in ug/l

J = Estimated value

Data has been validated and judged acceptable as qualified.

Next sampling for hexachlorobenzene is scheduled for October 2005.

APPENDIX A

LABORATORY DATA SUMMARY PACKAGE

SEMI-ANNUAL GROUND WATER ANNUAL SEDIMENT ANNUAL LEACHATE

OCTOBER 2001

CHARLES GIBSON SITE (PINE AND TUSCARORA SITE) NIAGARA FALLS, NEW YORK NYSDEC Registry No. 9-32-063

dm:sites/P&T Gibson//ENV 4060/O&M/SemiAnnual Sampling October 2001





October 31, 2001

STL Connecticut 128 Long Hill Cross Road Shelton, CT 06484

Tel: 203 929 8140 Fax: 203 929 8142 www.stl-inc.com

Ms. Lorraine M. Miller OLIN CORPORATION P.O Box 248 1186 Lower River Road Nw Charleston, TN 37310-0248

Dear Ms. M. Miller :

Please find enclosed the analytical results of 13 sample(s) received at our laboratory on October 17-18, 2001. This report contains sections addressing the following information at a minimum:

•	sample summary	•	definition of data	qualifiers	and	terminology
•	analytical methodology	•	analytical results			
	state certifications		chain-of-custodv			

STL Report # 7001-2673A	Purchase Order #8143-20
Project ID: Semiannaul GW Sampling	

Copies of this analytical report and supporting data are maintained in our files for a minimum of five years unless special arrangements have been made. Unless specifically indicated, all analytical testing was performed at this laboratory location and no portion of the testing was subcontracted.

We appreciate your selection of our services and welcome any questions or suggestions you may have relative to this report. Please contact your customer service representative at (203) 929-8140 for any additional information. Thank you for utilizing our services; we hope you will consider us for your future analytical needs.

I have reviewed and approved the enclosed data for final release.

itruly, yours Jeffrey C. Curran Laboratory Manager

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This report contains \underline{H} pages.

cc: M. WALKER

7001-2673A OLIN

Case Narrative

Sample Receipt – All samples were received in good condition and at 6°C and 9 °C.

Misc.Pesticides - Pesticide samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8081A. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

Samples US-101601 and DS-101601 required sulfur cleanup and reanalysis. These samples contained a great deal of sulfur.

Sample MW-4 also required sulfur cleanup and reanalysis.

The surrogate, Decachlorobiphenyl, was outside of QC criteria in samples US-101601 and DS-101601. Sample matrix was the cause.

The beta-BHC detected in sample US-101601 was reported from the DB-1701 column due to matrix interference present on the RTX-35 column.

The delta-BHC detected in sample US-101601 was reported from the RTX-35 column due to matrix interference present on the DB-1701 column.

The gamma-BHC detected in sample MANHOLE B was reported from the RTX-35 column due to matrix interference present on the DB-1701 column.

The matrix of samples US-101601 and DS-101601, caused almost complete breakdown of 4,4'-DDT. Due to these samples, the IBS analyzed on 10/30/01 at 00:45 and the INDB3 analyzed on 10/30/01 at 02:04 on the DB-1701 column, did not meet QC criteria. This was the end-bracketing standard for samples MW-2, MW-1R, MW-7, MW-A3, MW-2FMS, MW-2FMSD, PBLK01, PBLK01QC1, PBLK03, PBLK03QC1, PBLK08, PBLK08QC1, US-101601 and DS-101601. The beta-BHC detected in any of these samples was reported from the RTX-35 column, except as previously noted.

The matrix of samples US-101601 and DS-101601, caused almost complete breakdown of 4,4'-DDT. Due to these samples, the IBS analyzed on 11/06/01 at 19:45 on the RTX-35 column did not meet QC criteria. This was the nd-bracketing standard for samples US-101601 and DS-101601.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initialed by the analyst that performed the integration.

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Sample Calculation:

Sample ID -DS-101602 Compound - beta-BHC (272371area)(10000ul) = 51.7ug/kg (5359402area/ng)(30.7g)(.32)(1ul)

Aqueous

TABLE GC-1.0 7001-2673A OLIN CORPORATION 8081A PESTICIDES

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank 102201-B04 PBLK08 1.00	MW-2 FMS 012673A-01 FMS PBLK08 1.00	MW-2 FMSD 012673A-01 FMSD PBLK08 1.10	Quant. Limits with no Dilution
alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane)	บ บ บ บ	0.18X 0.19X 0.17X 0.18X	0.20X 0.22X 0.18X 0.21X	0.050 0.050 0.050 0.050
Date Received Date Extracted Date Analyzed	10/22/01 11/06/01	10/17/01 10/22/01 11/06/01	10/17/01 10/22/01 11/06/01	

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Aqueous

TABLE GC-1.1 7001-2673A OLIN CORPORATION 8081A PESTICIDES

All values are ug/L.

Client Sample I.D.	MW-A3	MW - 5	MW - 8	
Lab Sample I.D.	012673A-07	012673A-09	012673A-10	Quant. Limits
Method Blank I.D.	PBLK08	PBLK08	PBLK08	with no
Quant. Factor	1.00	1.00	1.00	Dilution
alpha-BHC	0.029J	υ	U	0.050
beta-BHC	0.016J	0.056	U	0.050
delta-BHC gamma-BHC (Lindane)	U U	U U	U บ	0.050
Date Received				
Date Analyzed	11/06/01	11/06/01	11/06/01	
-	1	·	-	

Aqueous

TABLE GC-1.2 7001-2673A OLIN CORPORATION 8081A PESTICIDES

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	PBLK08 QC1 102201-B04 QC1 PBLK08 1.00		Quant. Limits with no Dilution
alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane)	0.17X 0.18X 0.16X 0.18X		0.050 0.050 0.050 0.050
Date Received Date Extracted Date Analyzed	10/22/01 11/06/01		

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TABLE GC-1.3 7001-2673A OLIN CORPORATION **8081A PESTICIDES**

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank 101801-B02 PBLK01 1.00	MW-2 012673A-01 PBLK01 1.00	MW-1R 012673A-02 PBLK01 1.10	Quant. Limits with no Dilution
alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane)	ប ច ប ប	ប ម ប ប	0.055 0.13 ປັ	0.050 0.050 0.050 0.050
Date Received Date Extracted Date Analyzed	10/18/01 11/06/01	10/17/01 10/18/01 11/06/01	10/17/01 10/18/01 11/06/01	

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TABLE GC-1.4 7001-2673A OLIN CORPORATION 8081A PESTICIDES

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	MW-7 012673A-03 PBLK01 1.10	MANHOLE B 012673A-06 PBLK01 5.00	PBLK01 QC1 101801-B02 QC1 PBLK01 1.00	Quant. Limits with no Dilution
alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane)	0.030J 0.095 U U	0.61 1.3 2.5 0.061J	0.20X 0.21X 0.19X 0.20X	0.050 0.050 0.050 0.050
Date Received Date Extracted Date Analyzed	10/17/01 10/18/01 11/06/01	10/17/01 10/18/01 11/06/01	10/18/01 11/06/01	

See Appendix for qualifier definitions Note: Compound detection limit = quantitation limit x quantitation factor Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

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TABLE GC-1.5 7001-2673A OLIN CORPORATION **8081A PESTICIDES**

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank 102201-S04 PCBLK08 1.00	MW-4 012673A-08 PCBLK08 1.00	Quant. Limits with no Dilution
alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane)	ប ម ប ប	บ 0.033J บ บ	0.050 0.050 0.050 0.050
Date Received Date Extracted Date Analyzed	10/22/01 11/07/01	10/18/01 10/22/01 11/07/01	

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Soil

TABLE GC-1.6 7001-2673A OLIN CORPORATION 8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank 101801-B06 PBLK03 1.00	US-101601 012673A-04 PBLK03 3.60	DS-101602 012673A-05 PBLK03 3.05	Quant. Limits with no Dilution
alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane)	ប ប ប ប	55. 49. 24. 3.3J	16. 52. 65. 1.4J	1.7 7.5 1.7 1.7
Date Received Date Extracted Date Analyzed	10/18/01 11/06/01	10/17/01 10/18/01 11/06/01	10/17/01 10/18/01 11/06/01	

/U Soil

TABLE GC-1.7 7001-2673A OLIN CORPORATION 8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	PBLK03 QC1 101801-B06 QC1 PBLK03 1.00		Quant. Limits with no Dilution
alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane)	6.0X 6.4JX 6.3X 6.2X		1.7 7.5 1.7 1.7
Date Received Date Extracted Date Analyzed	10/18/01 11/06/01		

See Appendix for qualifier definitions



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ORGANICS APPENDIX

U – Indicates that the compound was analyzed for but not detected.

J-Indicates that the compound was analyzed for and determined to be present in the sample. The mass spectrum of the compound meets the identification criteria of the method. The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

B - This flag is used when the analyte is found in the blanks as well as the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte.

N- Indicates that the compound was analyzed for but not requested as an analyte. Value will not be listed on tabular result sheet.

S – Estimated due to surrogate outliers.

X – Matrix spike compound.

(1) - Cannot be separated

(2) - Decomposes to azobenzene. Measured and calibrated as azobenzene.

A – This flag indicates that a TIC is a suspected aldol condensation product.

E – Indicates that it exceeds calibration curve range.

D – This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C – Confirmed by GC/MS.

T – Compound present in TCLP blank.

P – This flag is used for a pesticide/aroclor target analyte when there is a greater than 25 percent difference for detected concentrations between the two GC columns (see Form X).

STATE CERTIFICATIONS

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In some instances it may be necessary for environmental data to be reported to a regulatory authority with reference to a certified laboratory. For your convenience, the laboratory identification numbers for the STL-Connecticut laboratory are provided in the following table. Many states certify laboratories for specific parameters or tests within a category (i.e. method 325.2 for wastewater). The information in the following table indicates the lab is certified in a general category of testing such as drinking water or wastewater analysis. The laboratory should be contacted directly if parameter-specific certification information is required.

State	Responsible Agency	Certification	Lab Number
Connecticut	Department of Health Services	Drinking Water, Wastewater	PH-0497
Maine	Department of Health and Environmental Services	ulth and Environmental Drinking Water, ervices Wastewater/Solid, Hazardous Waste	
Massachusetts	Department of Environmental Protection	Potable/Non-Potable Water	CT023
New Hampshire	Department of Environmental Services	Drinking Water, Wastewater	2528
New Jersey	Department of Environmental Protection	Drinking Water, Wastewater	46410
New York	New York Department of Health W		10602
North Carolina	Division of Environmental Management	Wastewater	388
Rhode Island	Department of Health	ChemistryNon- Potable Water and Wastewater	A43
Utah	Department of Health	RCRA	2032614458
Washington	Department of Ecology	Wastewater/Hazardous Waste	C231
Wisconsin	Department of Natural Resources	Wastewater	998355710

STL-Connecticut Certification Summary (as of February 2001)

7001-2673A OLIN CORPORATION SAMPLE SUMMARY

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CLIENT ID	LAB ID	MATRIX	DATE COLLECTED	DATE RECEIVED
MW-2	012673A-01	WATER	10/16/01	10/17/01
MW-2	012673A-01FMS	WATER	10/16/01	10/17/01
MW-2	012673A-01FMSB	WATER	10/16/01	10/17/01
MW-2	012673A-01FMSD	WATER	10/16/01	10/17/01
MW-1R	012673A-02	WATER	10/16/01	10/17/01
MW-7 ·	012673A-03	WATER	10/16/01	10/17/01
US-101601	012673A-04	SOIL	10/16/01	10/17/01
DS-101602	012673A-05	SOIL	10/16/01	10/17/01
MANHOLE B	012673A-06	WATER	10/16/01	10/17/01
MW-A3	012673A-07	WATER	10/17/01	10/18/01
MW-4	012673A-08	WATER	10/17/01	10/18/01
MW-5	012673A-09	WATER	10/17/01	10/18/01
MW - 8	012673A-10	WATER	10/17/01	10/18/01

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Page:1	STL CT AN	ALYTICAL SUMMARY	
		<u>,</u>	
		· · · ·	
Client ID: DS A3	-101602, MANHOLE B, M , US-101601	W-1R, MW-2, MW-4, MW-5,	MW-7, MW-8, MW-
Job Number: 7	001-2673A		
Date: 11/10/1	01		
			· · · · · · · · · · · · · · · · · · ·
Qty Matrix	Analysis	Description	
1 None	DISK	Diskette Prep.	
2 SOIL 1 WATER	PST-N8081-MISC PST-N8081A-MISC	Miscellaneous Pestic Miscellaneous Pestic	
10 WATER	PST-N808IA-MISC	Miscellaneous Pestic	
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APPENDIX B

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FIELD LOGS

SEMI-ANNUAL GROUND WATER ANNUAL SEDIMENT AND ANNUAL LEACHATE

SAMPLING

OCTOBER 2001

CHARLES GIBSON SITE

(PINE AND TUSCARORA SITE)

NIAGARA FALLS, NEW YORK

NYSDEC Registry No. 9-32-063

dm:sites/P&T Gibson//ENV 4060/O&M/SemiAnnual Sampling October 2001

RECORDED BY:	M Walker		SAMPLE ID:	MW1R	+ Dup. MW7
SAMPLED BY:	M Walker	-	SAMPLING EVENT/DA	TE:	SemiAnn.Fall 10-17-01
COMPANY:	Sevenson Environmer	ntal	MONITORING WELL:	MW1R	
		-	CONDITION:	Good	
GROUNDWATER P	URGE DATA	PURGE DAT	E: 10/16/2001		
				NOTE: /	ALL GIBSON SITE
DEPTH TO BOTTO	M FROM TOP OF RISER	R:	12.1 (FT.)	MONITO	ORING WELLS ARE
DEPTH TO WATER	FROM TOP OF RISER:		<u>4.48</u> (FT.)	2-INCH	DIAMETER STAIN-
	WATER COLUMN:		7.62 (FT.)	LESS S	TEEL. WELL DEPTHS:
	2" DIA. WELL CONST	ANT:	0.16	MW-1R	12.10'
	ONE WELL VOLUME	=	1.21 (GALS)	MW-2 MW-A3	12.13' 11.95'
PURGE METHOD: BOTTOM OF WELL PURGE START TIM PURGE OBSERVAT	Parastaltic Pump w/ de /SILT BUILDUP: E: 1:00 TONS: clear, no of	edicated hose none STOP TIME: dor	1:25	MW-4 MW-5	13.75' 15.28'
FIELD PARAMETER	R MEASUREMENTS:				
WELL		SPECIFIC CONDUCTIV	/ITY TEMP.		NOTES
VOLUME	<u>pH</u>	umnos/cm)	<u>(C OR F)</u>	-	<u>NUTES:</u>
2		1090	62.4	<u> </u>	1.25 gal
2	7.6	1157	60.0		1.25 gal
<u>3</u>	7.5	1137	00.9		1.20 gai
5					
TOTAL VOLUME PU	JRGED: 3.75 gallon	IS			
GROUNDWATER C	R SEDIMENT SAMPLIN	IG DATA:	SAMPLE DA	ATE:	10/16/2001
MEDIA: GROUNI CREEK S	DWATER <u>X</u> SEDIMENT		SAMPLE T	ME:	1330
	MW 1R	- 			
SAMPLE METHOD:	Low Flow w/ Parastal	tic Pump			
SAMPLING OBSER	VATIONS: <u>Clear, No (</u>	Odor	2000.		
QC SAMPLES TAKE	EN: Duplicate s	samples taken	i, 4 x 1 Liter btls. Total		
OTHER OBSERVAT	IONS/COMMENTS:	Duplicate sar and sample t	mples taken at this well a ime is "1630".	and label	ed "MW-7"
Note: specific condu	ctivity formula to 25 degr	ees Celcius: S	SC measure SC(25)= {{T-25}(0.02	ed	-

RECORDED BY:	M Walker		SAMPLE ID:	MW 2	(MS/MSD)
SAMPLED BY:	M Walker	SAMPLING EVE		TE:	SemiAnn.Fall 10-17-01
COMPANY:	Sevenson Environmer	- ntal	MONITORING WELL:	MW 2	
		_	CONDITION:	Good	
GROUNDWATER PU	RGE DATA	PURGE DAT	E: 10/16/2001		
				NOTE: /	ALL GIBSON SITE
DEPTH TO BOTTOM	FROM TOP OF RISEF	र:	12.13 (FT.)	MONITO	ORING WELLS ARE
DEPTH TO WATER F	ROM TOP OF RISER:		<u>4.75</u> (FT.)	2-INCH	DIAMETER STAIN-
	WATER COLUMN:		7.38 (FT.)	LESS S	TEEL. WELL DEPTHS:
	2" DIA. WELL CONST	ANT:	0.16	MW-1R	12.10'
	ONE WELL VOLUME	=	1.18 (GALS)	MW-2 MW-A3	12.13' 11.95'
PURGE METHOD:	Parastaltic Pump w/ d	edicated hose	•	MW-4	13.75'
BOTTOM OF WELL/S		none STOP TIME	2.25	MW-5	15.28
PURGE OBSERVATI	ONS: Clear, No	odor, some ea	arly sediment, black chur	nks or flal	kes
FIELD PARAMETER	MEASUREMENTS:	00501510			
WELL					
VOLUME	рН	umhos/cm)	<u>(C OR F)</u>	_	NOTES:
1	7.3	1395	60.9F		1.25 gal
2	7.1	1131	60.8F		1.25 gal
3	7.2	1271	60.5F		1.25 gal
4					
5					
TOTAL VOLUME PUI	RGED: 3.75 gallor	IS			
GROUNDWATER OF	R SEDIMENT SAMPLIN	IG DATA:	SAMPLE D	ATE:	10/16/2001
MEDIA: GROUND CREEK SI		-	SAMPLE TI	I <u>ME:</u>	1430
LOCATION <u>:</u>	MW 2				
SAMPLE METHOD:	Low Flow w/ Parastal	tic Pump	·		
SAMPLING OBSERV	ATIONS: Clear and	no odor			
QC SAMPLES TAKE	N: MS/MSD,	Total of 6, 1 lit	ter glass btls.		
OTHER OBSERVATI	ONS/COMMENTS:				
Note: specific conduc	tivity formula to 25 degr	ees Celcius: S	SC(25)= <u>SC measure</u> SC(25)= <u>{</u> {T-25}(0.02	ed 2)}+1	-

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RECORDED BY:	M Walker	_	SAMPLE ID:	MW3A	<u>_</u>
SAMPLED <u>BY:</u>	M Walker	_	SAMPLING EVENT/	DA <u>TE:</u>	SemiAnn.Fall 10-17-01
COMPANY:	Sevenson Environme	ntal	MONITORING WEL	L: <u>MW3A</u>	
· · · · · · · · · · · · · · · · · · ·			CONDITION:	Good	······
GROUNDWATER PU	RGE DATA	PURGE DAT	E: 10/16/20	01	
		_		NOTE: /	ALL GIBSON SITE
DEPTH TO BOTTOM	FROM TOP OF RISE	R:	11.95 (FT.)	MONITO	ORING WELLS ARE
DEPTH TO WATER F	ROM TOP OF RISER		10.85 (FT.)	2-INCH	DIAMETER STAIN-
	WATER COLUMN:		1.1 (FT.)	LESS S	TEEL. WELL DEPTHS:
	2" DIA. WELL CONS	TANT:	0.16	MW-1R	12.10'
	ONE WELL VOLUME	:=	0.176 (GALS)	MW-2 MW-A3	12.13' 11.95'
PURGE METHOD: BOTTOM OF WELL/S	Parastaltic Pump w/ c SILT BUILDUP:	ledicated hose none		MW-4 MW-5	13.75' 15.28'
PURGE START TIME	: 10:52 ONS: clear. no c	STOP TIME:	11:00		
FIELD PARAMETER	MEASUREMENTS:				
		SPECIFIC			
VOLUME	pН	umhos/cm)	(C OR F)		NOTES:
1	7.6	1206	5;	3.7	1liter
2	7.5	1157	5:	3.8	1liter
3	7.6	1211	53	3.7	1liter
4					
5					
TOTAL VOLUME PUP	RGED: 3 Liters (3+ well volume	es)		
GROUNDWATER OR	R SEDIMENT SAMPLI	NG DATA:	SAMPLE	DATE:	10/17/2001
MEDIA: GROUND	WATER <u>X</u>	-	SAMPLE	TI <u>ME:</u>	1105 and 1320
LOCATION:					
SAMPLE METHOD:	Low Flow w/ Parasta	Itic Pump			
SAMPLING OBSERV	ATIONS: Very smal	l yeild from this	s well		
QC SAMPLES TAKEN	N: no				
OTHER OBSERVATIO	ONS/COMMENTS:	This well wer I came back I could only e	nt dry after the first 20 2.5 hours later and go extract enough water t	0ml of samp ot the rest at o fill 1 liter f	ble water was drawn, fter it recharged. or the lab.
Note: specific conduct	tivity formula to 25 deg	rees Celcius: S	SC(25)= {{T-25)(0	.02)}+1	-



RECORDED BY:	M Walker	_	SAMPLE ID:	MW 4	
SAMPLED BY:	M Walker	_	SAMPLING EVENT/DA	TE:	SemiAnn.Fall 10-17-01
COMPANY:	Sevenson Environme	ntal	MONITORING WELL:	MW 4	
		_	CONDITION:	Good	
GROUNDWATER PU	IRGE DATA	PURGE DAT	E: 10/17/2001		
				NOTE: A	ALL GIBSON SITE
DEPTH TO BOTTOM	FROM TOP OF RISE	ર :	13.75 (FT.)	MONITO	ORING WELLS ARE
DEPTH TO WATER F	FROM TOP OF RISER:		<u>6.01</u> (FT.)	2-INCH	DIAMETER STAIN-
	WATER COLUMN:		7.74 (FT.)	LESS S	TEEL. WELL DEPTHS:
	2" DIA. WELL CONST	ANT:	0.16	MW-1R	12.10'
	ONE WELL VOLUME	=	1.24 (GALS)	MW-2	12.13'
	Parastaltic Pump w/ d	edicated hose		MW-A3	11.95' 13.75'
BOTTOM OF WELL/S	SILT BUILDUP:	none		MW-5	15.28'
PURGE START TIME	: 11:25	STOP TIME:	11:50	16	
PURGE OBSERVATI	UNS: Black inky	water at first,	then turning greyish, Su	itur odor	
FIELD PARAMETER	MEASUREMENTS:				
		SPECIFIC			
WELL	~ L		/ITY TEMP.		NOTES
	<u>pn</u> 77	<u>umnos/cm)</u> 1600	<u>(CORP)</u> 55.3E	-	1.25 gal
2	77	1707			1.25 gal
3	75	1759	<u>53.4F</u>		1.25 gal
4	1.5	1700			1.20 gai
5					
TOTAL VOLUME PU	RGED: 3 75 gallor	ns			
GROUNDWATER OF	R SEDIMENT SAMPLIN	IG DATA:	SAMPLE D	ATE:	10/17/2001
MEDIA: GROUND	WATER X	_	SAMPLE TI	ME:	1150
CREEK SI		_			
LOCATION:	MW 2				
SAMPLE METHOD	I ow Flow w/ Parastal	tic Pump			
SAMPLING OBSERV	ATIONS: Blackish w	ater, but not a	s bad as beginning of p	urge.	
QC SAMPLES TAKE	N: No				
OTHER OBSERVATIO	ONS/COMMENTS:				
			SC moasur	h	
Note: specific conduct	tivity formula to 25 degr	ees Celcius: S	SC(25)= {{T-25}(0.02	20 <u></u> 2)}+1	-
·····					

CRA 8143 (1) AppD-GwsdForm

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RECORDED BY:	M Walker		SAMPLE I	D:	MW 5		
SAMPLED BY:	M Walker		SAMPLING	G EVENT/D	ATE:	SemiAnn.Fal	10-17-01
COMPANY:	Sevenson Environme	ental	MONITOR	ING WELL:	MW 5		
			CONDITIC	DN:	Good		
GROUNDWATER I	PURGE DATA	PURGE DAT	E:	10/17/200	1		
		- D.	45.00		NOTE: /	ALL GIBSON S	SITE
	M FROM TOP OF RISE	-K:	15.28	(FT.)	MONIT		ARE
DEPTH TO WATEF	R FROM TOP OF RISEF	R:	7.55	(FT.)	2-INCH	DIAMETER S	TAIN-
	WATER COLUMN:		7.73	(FT.)	LESS S	TEEL. WELL (DEPTHS:
	2" DIA. WELL CONS	STANT:	0.16	-	MW-1R	12.10'	
	ONE WELL VOLUM	E=	1.23	(GALS)	MW-2 MW-A3 MW-4	12.13' 11.95' 13.75'	
BOTTOM OF WELL	L/SILT BUILDUP: ME: 12:12	none STOP TIME:	12:53		MW-5	15.28'	
PURGE OBSERVA	TIONS: No odor,	Cloudy grey co	for then clea	aring			
FIELD PARAMETE	R MEASUREMENTS:						
		SPECIFIC					
	ъН		ΊΤΥ			NOTES	
1	<u>69</u>	<u>unnos/cm)</u> 2 41		55 7F		1 25 gal	
2	6.9	2.11		55.2E		1 25 gal	
3	6.9	2.23		53.2F		1.3 dal	
4							
5		· ·					
	URGED: 3.80 gallo					10/17/2001	
GROUNDWATER		NO DATA.				10/11/2001	
MEDIA: GROUN	IDWATER X			SAMPLE T	I <u>ME:</u>	1255	
CREEK							
LOCATION:	MW 5						
SAMPLE METHOD	: Low Flow w/ Parasta	altic Pump					
SAMPLING OBSEF		·					
QC SAMPLES TAK	EN: No		<u> </u>				
OTHER OBSERVA	TIONS/COMMENTS:						
				SC measur	red		
ivote: specific condi	uctivity formula to 25 dec	grees Celcius: S		{{1-25)(0.0	<i>∠)}+</i> 1		

RECORDED BY:	M Walker		SAMPLE I	D:	MW 8		
SAMPLED BY:	M Walker	_	SAMPLING	SEVENT/C	DATE:	SemiAnn.Fall	10-17-01
COMPANY:	Sevenson Environme	- ntal	MONITOR	ING WELL	: Field Bla	ank	
			CONDITIO	N:	N/A		
GROUNDWATER PU	RGE DATA	PURGE DAT	E:				
		_		•	NOTE: /	ALL GIBSON S	ITE
	FROM TOP OF RISEF	र:		(FT.)	MONITO	DRING WELLS	ARE
DEPTH TO WATER P	ROM TOP OF RISER:			(FT.)	2-INCH	DIAMETER ST	AIN-
	WATER COLUMN:			(FT.)	LESS S	TEEL. WELL D	EPTHS:
	2" DIA. WELL CONST	ANT:	0.16		MW-1R	12.10'	
	ONE WELL VOLUME	=		(GALS)	MW-2	12.13'	
PURGE METHOD:					MW-A3 MW-4	11.95 [°] 13.75'	
BOTTOM OF WELL/S	SILT BUILDUP:				MW-5	15.28'	
PURGE START TIME		STOP TIME:					
	0140.						
FIELD PARAMETER	MEASUREMENTS:						
		SPECIFIC	(1 -T) (
VOLUME	рH	umhos/cm)	/11 Y	(C OR F)		NOTES:	
1	<u></u>		-	<u>(; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; </u>	-		
2	· · · · · · · · · · · · · · · · · · ·						
3							
4							
5							
GROUNDWATER OF	SEDIMENT SAMPLIN	IG DATA:		SAMPLE I	DATE:	10/17/2001	
MEDIA: GROUND	WATER N/A			SAMPLE -	TIME:	1200	
CREEK SI	EDIMENT N/A	-					
LOCATION <u>:</u>	Field Blank collected	on site near N	1W 4				
SAMPLE METHOD:	Poured water into sam	nple bottles					
SAMPLING OBSERV	ATIONS:						
QC SAMPLES TAKE	N: No						
OTHER OBSERVATIO	ONS/COMMENTS:	The lab did'n bought locall	t send D.I. V y for the field	Vater, so I d blank.	used Dist	illed Water that	t I
Note: specific conduct	ivity formula to 25 deor	ees Celcius: S	SC(25)=	SC measu {{T-25}(0.0	red)2)}+1	-	

RECORDED BY:	M Walker		SAMPLE	ID:	Manhole	e "B"
SAMPLED BY:	M Walker		SAMPLIN	G EVENT/C	ATE:	SemiAnn.Fa II 10-16-
COMPANY:	Sevenson Environme	ental	MONITOR		Manhole	e "B"
			CONDITIC	DN:	good	
GROUNDWATER PU	RGE DATA	PURGE DAT	E:			
			40.00		NOTE: /	ALL GIBSON SITE
	FROM TOP OF RISE	R:	13.26	i (⊢1.)	MONIT	JRING WELLS ARE
DEPTH TO WATER F	ROM TOP OF RISER	···		_(FT.)	2-INCH	DIAMETER STAIN-
	WATER COLUMN:	T 4 5 1 T	0.40	(FT.)	LESS S	TEEL. WELL DEPTHS
	2" DIA. WELL CONS	1 <u>AN1:</u>	0.16		MW-1R	12.10
PURGE METHOD: BOTTOM OF WELL/S PURGE START TIME PURGE OBSERVATI		STOP TIME:		(GALS)	MW-2 MW-A3 MW-4 MW-5	12.13' 11.95' 13.75' 15.28'
FIFI D PARAMETER	MEASUREMENTS.					
	<u>pH</u>	SPECIFIC CONDUCTIN umhos/cm)	/ITY -	TEMP. (C OR F)	_	NOTES:
3		. .				
4						
5						
	RGED:					10/16/2001
GROUNDWATER OF		NO DATA.				10/10/2001
MEDIA: Leachate	Water			SAMPLE	TIME:	1230
		_				
LOCATION:	Manhole "B"					
SAMPLE METHOD:	Grab Sample					
SAMPLING OBSERV	ATIONS: <u>pH=7.5, C</u>	Cond.=717, Ter	mperature=	57.8F		
QC SAMPLES TAKE	N: No					
OTHER OBSERVATI	ONS/COMMENTS:			· · .		
Note: specific conduc	livity formula to 25 deg	rees Celcius: S	SC(25)=	SC measu {{T-25)(0.0	ired)2)}+1	

RECORDED BY:	M Walker	-	SAMPLE I	D:	US-10160	1
SAMPLED BY:	M Walker	_	SAMPLING	EVENT/D	ATE:	Fall 10-16-01
COMPANY:	Sevenson	_	CREEK SE	DIMENT:	Upstream	location
			CONDITIO	N:	low water l	evel
GROUNDWATER PU	RGE DATA	PURGE D	ATE:			
					NOTE: AL	L GIBSON SITE
DEPTH TO BOTTOM	FROM TOP OF RISEF	R:		(FT.)	MONITOR	ING WELLS ARE
DEPTH TO WATER F	ROM TOP OF RISER:			(FT.)	2-INCH DI	AMETER STAIN-
	WATER COLUMN:			(FT.)	LESS STE	EL. WELL DEPTHS:
	2" DIA. WELL CONST	ANT:	0.16		MW-1R	12.10'
	ONE WELL VOLUME	=		(GALS)	MW-2	12.13'
PURGE METHOD: BOTTOM OF WELL/S PURGE START TIME PURGE OBSERVATIO	ILT BUILDUP: : DNS:	STOP TIM	E:		MW-A3 MW-4 MW-5	13.75' 15.28'
FIELD PARAMETER I	MEASUREMENTS:					
WELL VOLUME	рН	SPECIFIC CONDUCT umhos/cm	ΓΙVΙΤΥ <u>)</u>	TEMP. (C OR F)	. .	NOTES:
2						
3						,
4	····					
5						
	RGED:					40/46/2004
GROUNDWATER OR	SEDIMENT SAMPLIN	IG DATA:		SAMPLEL		10/16/2001
MEDIA: GROUND CREEK SE		-		SAMPLE 1	IME:	1115
	Creek center, upstrea	m of the site	<u> </u>			
SAMPLE METHOD:	Stainless Steel sedime	ent trap, 6"	high x 8" de	ер		
SAMPLING OBSERV	ATIONS: Not much	sediment in	the trap			
QC SAMPLES TAKEN	l: no					
OTHER OBSERVATIO	ONS/COMMENTS:	<u></u>				<u> </u>
Note: specific conduct	ivity formula to 25 degr	ees Celcius	: SC(25)=	SC measu {{T-25)(0.0	red 2)}+1	

RECORDED BY:	M Walker	_	SAMPLE I	D:	DS-10160	2 gm
SAMPLED BY:	M Walker	_	SAMPLING	SEVENT/D	ATE:	Fall 10-16-01
COMPANY:	Sevenson	_	CREEK SE	EDIMENT:	Downstrea	am location
			CONDITIC	N:	low water	level
GROUNDWATER P	URGE DATA	PURGE D	ATE:			
		_			NOTE: AL	L GIBSON SITE
DEPTH TO BOTTON	I FROM TOP OF RISEF	र:		(FT.)	MONITOF	RING WELLS ARE
DEPTH TO WATER	FROM TOP OF RISER:			(FT.)	2-INCH D	IAMETER STAIN-
	WATER COLUMN:			(FT.)	LESS STE	EEL. WELL DEPTHS:
	2" DIA. WELL CONST	ANT:	0.16	-	MW-1R	12.10'
	ONE WELL VOLUME	=		(GALS)	MW-2 MW-A3	12.13' 11.95'
PURGE METHOD: BOTTOM OF WELL/ PURGE START TIM PURGE OBSERVAT	SILT BUILDUP: E: IONS:	STOP TIM	E:		MW-4 MW-5	13.75' 15.28'
FIELD PARAMETER	MEASUREMENTS:					
WELL		SPECIFIC CONDUCT				NOTES
	<u>pn</u>	umnos/cm	2		-	NOTES.
2						<u> </u>
3						
4						
5				-		
TOTAL VOLUME PU	IRGED:					
GROUNDWATER O	R SEDIMENT SAMPLIN	IG DATA:		SAMPLE (DATE:	10/16/2001
MEDIA: GROUNE CREEK S		-		SAMPLE 1	IME:	1145
LOCATION <u>:</u>	Creek center, Downst	ream of site				
SAMPLE METHOD:	Stainless Steel sedime	ent trap, 6"	high x 8" de	ер		
SAMPLING OBSER	ATIONS: More clay	like than the	U/S sampl	e		
QC SAMPLES TAKE	N: no	_				
OTHER OBSERVAT	IONS/COMMENTS:	Reset the t	rap in wate	r that will be	e deeper ne	ext Oct.
Note: specific conduc	ctivity formula to 25 degr	ees Celcius	: <u>SC(25)</u> =	SC measu {{T-25)(0.0	red 2)}+1	

CHARLES GIBSON SITE NIAGARA FALLS, NEW YORK NYSDEC REGISTRY NO. 9-32-063 GROUNDWATER SAMPLING FIELD PARAMETERS FIELD INSTRUMENTATION CALIBRATION FORM

DATE: 10/16/200	1SEMI-AN	NUAL SAMPLING EVENT: Fall
PERSON CALIBRATI	NG METERS:	M. Walker
PH METER USED:		Oakton pH Testr 2
	IDENTIFICATION/CO	UNTROL NUMBER: E706pH
	CALIBRATION STAN	NDARDS USED:
	STANDA	RD 7.00 METER READ:7
	SIANDAI	RD 4.00 METER READ: 4
METER CA		NTS:
SPECIFIC CONDUCT	IVITY METER USED: MANUFACTURER: MODEL: IDENTIFICATION/CO	Oakton Conductivity/Temp. Meter ONTROL NUMBER: WD 35607-10
	CALIBRATION STAN	NDARDS USED:
METER CA	STANDAI STANDAI STANDAI ALIBRATION COMMEN	RD 0 READ:0 (STANDARD 0 USED:AIR,WATER) RD 1413 READ: <u>1413</u> RD 448448 NTS:
THERMOMETER USE	ED: TYPE:	Fisher Scientific
	MANUFA	
	COMMENTS: (DOES SPECIFIC OTHER:	S THERMOMETER TEMPERATURE AGREE WITH C CONDUCTIVITY METER TEMPERATURE ?) <u>yes</u>
OTHER INSTRUMEN	TS USED: TYPE: MANUFA IDENTIFI	CTURER: CATION/CONTROL NUMBER:
	CALIBRATIONS PER	RFORMED:
OTHER CALIBRATIO	N COMMENTS:	



CHARLES GIBSON SITE (PINE AND TUSCARORA SITE) NIAGARA FALLS, NEW YORK NYSDEC Registry No. 9-32-063

CHARLES GIBSON SITE NIAGARA FALLS, NEW YORK NYSDEC REGISTRY NO. 9-32-063 SITE INSPECTION FORM

DATE: 9/29/2001	TIME:	10:00AM	<u> </u>	_
INSPECTOR: M. Walker	-	COMPANY	/:	Sevenson
			<u> </u>	
WEATHER:				
			9).	Quarterly Inspection of Site
REASON FOR INSPECTION (Q	UARTERET	OROTILI	<u>y. </u>	duarterry inspection of one
GENERAL SITE CONDITIONS: (Note: For general sit	e conditions	U=UNACC note exister	EPTABLE	A=ACCEPTABLE areas (number.size), cracks,
subsidence (sinking),	ponded wa	ter, stressed	vegetation	, soil discoloration or seeps,
and rodent burrows. missing signs or evid	⊢or site sec ence of van	urity, note al dalism. Note	osence of lo any other ι	DCKS, gates open or damaged, unusual occurences.)
			COMMEN [®]	TS
ACCESS ROAD	Α			
COVER VEGETATION	A	_	-	
TREES	Α	_		
LITTER	Α	_		
EROSION (CAP)	Α	_	i 	· · · · · · · · · · · · · · · · · · ·
EROSION (BANK)	A	_		
SECURITY:				
FENCE/LOCKS				:
PIEZOMETERS/LOCKS	A	-		
MONITORING WELLS/LOCKS	A	-		
MANHOLES/LIDS/LOCKS	А	_		
ELECTRICAL PANEL	A	_		
ADDITIONAL COMMENTS:	The site lo	ooks good		,
		<u>×</u>		····
				•
			······	· · ·

CHARLES GIBSON SITE NIAGARA FALLS, NEW YORK NYSDEC REGISTRY NO. 9-32-063 SITE INSPECTION FORM

THIS FORM TO BE USED FO	OR QUARTER	LY AND ALL OTHE	R SITE INSPECTIONS
DATE: <u>10/16/2001</u>	TIME:	1800	
INSPECTO <u>R: M.</u> W	alker	COMPANY:	Sevenson Environmental Services
WEATHER: High	Winds, Rain, 5	0 F	
REASON FOR INSPECTION	(QUARTERLY	OR OTHER):	Fall Semi-Annual Sampling Event
GENERAL SITE CONDITION (Note: For genera subsidence (sinkir and rodent burrow missing signs or e	IS: I site conditions ng), ponded wa vs. For site sec vidence of van	U=UNACCEPTA s note existence of b ter, stressed vegeta curity, note absence dalism. Note any oth	BLE A=ACCEPTABLE bare areas (number,size), cracks, ation, soil discoloration or seeps, of locks, gates open or damaged, her unusual occurences.)
		СОМ	MENTS
ACCESS ROAD	A		
COVER VEGETATION	A		
TREES	<u>A</u>		
LITTER	<u>A</u>		
EROSION (CAP)	Α		
EROSION (BANK)	<u>A</u>		
SECURITY:			
FENCE/LOCKS	A		
PIEZOMETERS/LOCKS	<u>A</u>		
MONITORING WELLS/LOCK	S <u>A</u>	<u></u>	· · · · · · · · · · · · · · · · · · ·
MANHOLES/LIDS/LOCKS	<u>A</u>	. <u></u>	
ELECTRICAL PANEL	<u>A</u>	<u> </u>	
ADDITIONAL COMMENTS:			
		<u>-</u>	



QUARTERLY GROUNDWATER ELEVATION /PUMPING FORMS

JULY - DECEMBER 2001

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CHARLES GIBSON SITE (PINE AND TUSCARORA SITE) NIAGARA FALLS, NEW YORK NYSDEC Registry No. 9-32-063

dm:sites/P&T Gibson//ENV 4060/O&M/SemiAnnual Sampling October 2001

CHARLES GIBSON SITE NIAGARA FALLS, NEW YORK NYSDEC REGISTRY NO. 9-32-063 GROUNDWATER ELEVATION FORM

DATE: 9/29/20	001	_TIME: _1	1:00 AM		
	M. Walker	_COMPANY:		Sevenson	
WEATHER:	P/C 72F				
PIEZOMETER	RISER ELEVATION (INSIDE CASING)	DEPTH TO W (FT.)	ATER	WATER ELEVATION	COMMENTS
P-1	572.72	7.87		564.85	OK
P-2	574.89	9.75		565.14	OK
P-3	574.16	9.46		564.7	<u>OK</u>
P-4	576.14	11		565.14	OK
P-5	575.05	7.61		567.44	OK
	578 28	10.91	·	567.37	OK
P-6	010.20		1		
P-6 MANHOLE A	575.22	11.2	1	564.02	ОК
P-6 MANHOLE A MANHOLE B (Note: Manhole A	575.22 577.34 empties into Manhole B b	<u>11.2</u> <u>13.28</u> y gravity feed a	nd Mant	564.02 564.06 nole B is pumped	OK OK automatically to t
P-6 MANHOLE A MANHOLE B (Note: Manhole A Niagara Tuscarora in Manhole B (and water distance fro (Note: riser elevat ADDITIONAL CO	575.22 577.34 empties into Manhole B b a Road sanitary sewer line by extension Manhole A) m the manhole rim should ions (re)surveyed Septem	<u>11.2</u> <u>13.28</u> y gravity feed a by a float cont below an eleva not be <u>less</u> tha ber, 1999 by W	nd Mant rolled su ation of 5 an 12.41 'endel S ite looks	564.02 564.06 565 ft. above mea ft. at Manhole B urveyors) 5 good.	OK OK automatically to t maintains ground in sea level. The and 10.22 ft. at N
P-6 MANHOLE A MANHOLE B (Note: Manhole A Niagara Tuscarora in Manhole B (and water distance fro (Note: riser elevat ADDITIONAL CO	575.22 577.34 empties into Manhole B b a Road sanitary sewer line by extension Manhole A) m the manhole rim should ions (re)surveyed Septem MMENTS/OBSERVATION	<u>11.2</u> <u>13.28</u> y gravity feed a by a float cont below an eleva not be <u>less</u> tha ber, 1999 by W	nd Manł rolled su ation of 5 an 12.41 'endel S ite looks	564.02 564.06 nole B is pumped imp pump which 565 ft. above mea ft. at Manhole B urveyors) s good.	OK OK automatically to t maintains ground in sea level. The and 10.22 ft. at N
P-6 MANHOLE A MANHOLE B (Note: Manhole A Niagara Tuscarora in Manhole B (and water distance fro (Note: riser elevat ADDITIONAL CO	575.22 577.34 empties into Manhole B b a Road sanitary sewer line by extension Manhole A) m the manhole rim should ions (re)surveyed Septem MMENTS/OBSERVATION	<u>11.2</u> <u>13.28</u> y gravity feed a by a float cont below an eleva not be <u>less</u> tha ber, 1999 by W	nd Mant rolled su ation of 5 an 12.41 /endel S ite looks	564.02 564.06 nole B is pumped imp pump which 565 ft. above mea ft. at Manhole B urveyors) s good.	OK OK automatically to f maintains ground in sea level. The and 10.22 ft. at M
P-6 MANHOLE A MANHOLE B (Note: Manhole A Niagara Tuscarora in Manhole B (and water distance fro (Note: riser elevat ADDITIONAL CO	575.22 577.34 empties into Manhole B b a Road sanitary sewer line by extension Manhole A) m the manhole rim should ions (re)surveyed Septem MMENTS/OBSERVATION	<u>11.2</u> <u>13.28</u> y gravity feed a by a float cont below an eleva not be <u>less</u> tha ber, 1999 by W NS: <u>S</u>	nd Mant rolled su ation of 5 an 12.41 Vendel S ite looks	564.02 564.06 nole B is pumped imp pump which 565 ft. above mea ft. at Manhole B urveyors) s good.	OK OK automatically to t maintains ground in sea level. The and 10.22 ft. at M
P-6 MANHOLE A MANHOLE B (Note: Manhole A Niagara Tuscarora in Manhole B (and water distance fro (Note: riser elevat ADDITIONAL CO	575.22 577.34 empties into Manhole B b a Road sanitary sewer line by extension Manhole A) m the manhole rim should ions (re)surveyed Septem MMENTS/OBSERVATION	<u>11.2</u> <u>13.28</u> y gravity feed a by a float cont below an eleva not be <u>less</u> tha ber, 1999 by W	nd Manł rolled su ation of 5 an 12.41 /endel S ite looks	564.02 564.06 nole B is pumped imp pump which 565 ft. above mea ft. at Manhole B urveyors) 5 good.	OK OK automatically to t maintains ground in sea level. The and 10.22 ft. at M

CHARLES GIBSON SITE NIAGARA FALLS, NEW YORK NYSDEC REGISTRY NO. 9-32-063 **GROUNDWATER ELEVATION FORM**

DATE: <u>10/16/2</u>	001	_TIME: 1500)				
INSPECTO <u>R:</u>	M. Walker	COMPANY:	Sevenson Enviro	Environmental Services			
WEATHER:	High Winds, Rain, 48	High Winds, Rain, 48 F					
PIEZOMETER	RISER ELEVATION (INSIDE CASING)	DEPTH TO WATER (FT.)	WATER ELEVATION	COMMENTS			
P-1	572.72	7.99	564.73	ОК			
P-2	574.89	9.66	565.23	ОК			
P-3	574.16	9.21	564.95	ОК			
P-4	576.14	11.1	565.04	ОК			
P-5	575.05	7.34	567.71	ОК			
P-6	578.28	10.77	567.51	ОК			
MANHOLE A	575.22	11.2	564.02	ОК			
MANHOLE B	577.34	13.3	564.04	ОК			

(Note: Manhole A empties into Manhole B by gravity feed and Manhole B is pumped automatically to the Town of Niagara Tuscarora Road sanitary sewer line by a float controlled sump pump which maintains groundwater elevations in Manhole B (and by extension Manhole A) below an elevation of 565 ft. above mean sea level. Therefore, Depth to water distance from the manhole rim should not be less than 12.41 ft. at Manhole B and 10.22 ft. at Manhole A. (Note: riser elevations (re)surveyed September, 1999 by Wendel Surveyors)

ADDITIONAL COMMENTS/OBSERVATIONS: All piezometers looked good

These levels taken during the Semi-Annual Fall sampling event.
Gibson Site #932063

alpha - BHC



Gibson Site #932063

beta - BHC



Gibson Site #932063 delta -BHC



Gibson Site #932063

gamma - BHC



Non-detects plotted as 1/10th of detection limit



P. O. BOX 248, 1186 LOWER RIVER ROAD, NW, CHARLESTON, TN 37310-0248

(423) 336-4000 FAX: (423) 336-4166

June 29,2001

WHAT RECEIVED

Mr. Michael J. Hinton, P.E. Environmental Engineer New York State Department of Environmental Conservation 270 Michigan Avenue Buffalo, NY 14203-2999 JUL 06 2001 NYSDEC-REG. 9 KRELFOIL

Subject: Charles Gibson Site (Pine and Tuscarora Site) Niagara Falls, New York NYSDEC Registry No. 9-32-063 Semi-Annual Ground Water Sampling Report April 2001

Dear Mr. Hinton:

In accordance with the approved sampling plan for the above referenced Site, enclosed are three copies of the first Semi-Annual Ground Water Report, April 2001. The analytical data summary for ground water is listed in Table 1. The laboratory data summary package (Appendix A), and the field logs (Appendix B) for this sampling event are also attached. The Quarterly Site Inspection Forms and the Quarterly Ground Water Elevation Forms are included in Appendices C and D respectively. The analytical data has been validated and found to be acceptable.

Sediment traps (1 each) were placed at the upstream and downstream sampling locations. Sediment collection is scheduled for the October sampling event.

If you have any questions, please call me at 423/ 336-4381.

Sincerely, OLIN CORPORATION

m. Millen

Lorraine M. Miller Principal Environmental Specialist

cc: R. K. Hall (letter only, via e-mail) B. H. Brayley (1 copy) C.M. Richards (letter only, via e-mail)

dm:sites/P&T Gibson//ENV 4060/O&M/SemiAnnual Sampling April 2001 O L I N C O R P O R A T I O N bcc: M. Walker (1 copy) F.Garbe (1 copy)

TABLE 1

CHARLES GIBSON SITE NIAGARA FALLS, NEW YORK

ANALYTICAL RESULTS SUMMARY SEMI-ANNUAL GROUND WATER SAMPLING

April 24, 2001

	MW-1R	MW-1R (dup)	MW-2	MW-4	MW-5	MW-A3
PARAMETER						
alpha-BHC	.070	.061	.050U	.050U	.050U	.050U
beta-BHC	.10	.050U	.050U	.041J	.050U	.050U
deita-BHC	.050U	.050U	.050U	.071J	.050U	.050U
gamma-BHC	.050U	.053	.050U	.050U	.050U	.050U
Hexachlorobenzene	NR	NR	NR	NR	NR	NR

.

.

Notes:

Concentration in ug/l

-

U Undetected at associated value

J Estimated value

Field blank was non-detect for all parameters of interest. Data has been validated and judged acceptable as qualified.

NR Not required for this event. Next sampling for hexachlorobenzene is scheduled for October 2002.

APPENDIX A

LABORATORY DATA SUMMARY PACKAGE SEMI-ANNUAL GROUND WATER SAMPLING

APRIL 2001

CHARLES GIBSON SITE

(PINE AND TUSCARORA SITE)

NIAGARA FALLS, NEW YORK

NYSDEC Registry No. 9-32-063



STL Connecticut

SAMPLE DATA SUMMARY PACKAGE

Client: Project ID: P.O. SDG #: STL ID: OLIN CORPORATION SEMI-ANNUAL GW SAMPLING 8143-20 A0963 7001-0963A

7001-0963A OLIN CORPORATION

Case Narrative

SEVERN TRENT SERVICES

Sample Receipt – All samples were received in good condition and at proper temperature.

Pesticides - Pesticide samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/8081A. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

All samples were extracted and concentrated without any apparent problems.

Sample MW-4 required sulfur clean up and reanalysis.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initialed by the analyst that performed the integration.

Sample Calculation:

Sample ID –MW-1R

Compound – beta-BHC

(84020area)(10000ul) = .103ug/L (8140224area/ng)(1000ml)(1ul)

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Jeffrey C/JCurran Laboratory Manager

104 10, 2001

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

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•				Analytical F	Requirements		
Customer	Laboratory	+1/03	+ DNA	+1/02	*Post	tMotale	tOther
Sample	Code	-VOA	-BINA	GC	PCBe	-mecals	ocher
, code	coue	Method #	Method #	Method #	Method #		
	· · · · · · · · · · · · · · · · · · ·						
MW-A3	0109638-01				x		
1077-A	0109633-02				x		
A4-3	010963#-02				<u></u>		
207-5	010963A-03				· X		
¥97-2	0109638-04				x		
M04-2	010963A-04MS				x		
MW-2	010963A-04MSB				x		
)m/_ 2	0109633-04WSD				T		
		-					
NN7-8	010963A-05				x		
1R	010963A-06				x		
NH-7	010963A-07				x		
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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY PESTICIDES/PCB ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
010963A-01	WATER	04/24/01	04/25/01	4/26/01	5/1/01
010963A-02	WATER	04/24/01	04/25/01		
010963A-03	WATER	04/24/01	04/25/01		
010963A-04	WATER	04/24/01	04/25/01		
010963A-05	WATER	04/24/01	04/25/01		
010963A-06	WATER	04/24/01	04/25/01		
010963A-07	WATER	04/24/01	04/25/01	4	V
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WATER PESTICIDE SURROGATE RECOVERY

Lab Name: <u>STL-CT</u> Contract: _____ Lab Code: <u>IEACT</u> Case No.: <u>0963A</u> SDG No.: <u>A0963</u> GC Column: <u>DB-1701</u> ID:<u>0.53</u>(mm)

		TCX	Т	DCB		OTHER		OTHER		TOT
	SAMPLE NO.	%REC	#	%REC	# :	%REC	#	%REC	#	OUT
01	PBLK48	65	1	106	1					0
02	PCBLK48	66		108	Τ					0
03	PBLK48QC1	70		87						0
04	MW-2MSB	103		118	Τ					0
, 05	MW-A3	87		76						0
06	MW-4	97		76						0
07	MW-5	86		66						0
08	MW-2	88		109						0
09	MW-2MS	103		125						0
10	MW-2MSD	106		126						0
11	MW - 8	98		121						0
12	MW-1R	110		64						0
13	MW-7	98		63	_					0
14			\perp				_		\square	
15			_				$ \rightarrow $		$ \rightarrow$	
16			\downarrow					~		
17			_							
18			\downarrow		_		\rightarrow		_	
19			-+-					·	_	
20	·····		+		+		\rightarrow		+	
21			+		+		\rightarrow		-	
22					+-					
23	· · · · · · · · · · · · · · · · · · ·		+		+		-+		_	
24		•	-		<u> </u>			2	_	
20	<u></u>		+	<u>_</u>					\dashv	
20			+		+		-+		-	
2/			+		+		-+		-	
20			-+-		_					
× 71	1						I		I	

ADVISORY QC LIMITS (45-129) (28-139)

TCX = Tetrachloro-m-xylene DCB = Decachlorobiphenyl

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

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FORM II PEST-1 GC-8081A:rev 1.0

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3E

WATER PESTICIDE MATRIX SPIKE BLANK RECOVERY

Lab Name: <u>STL-CT</u> Contract: _____

Lab Code: <u>IEACT</u> Case No.: <u>0963A</u> SDG No.: <u>A0963</u>

Matrix Spike - Sample No.: <u>MW-2</u> Conc. Units : <u>UG/L</u>

	SPIKE ADDED	SAMPLE CONC	MS CONC	MS %REC #	MSD CONC	MSD %REC #	%RPD #	QC RPD	LIMITS REC.
gamma-BHC (Lindane)	0.50	0.0	0.44	88				15	41-129
Heptachlor	0.50	0.0	0.46	92				20	42-128
Aldrin	0.50	0.0	0.50	100				22	37-132
Dieldrin	1.0	0.0	1.0	100				18	46-144
Endrin	1.0	0.0	1.1	110				. 21	57-155
4,4'-DDT	1.0	0.0	0.79	79				27	34-129

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits Spike Recovery: 0 out of 6 outside limits

COMMENTS:

FORM III PEST-1 GC-8081A:rev 1.0 3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: <u>STL-CT</u> Contract: _____

Lab Code: <u>IEACT</u> Case No.: <u>0963A</u> SDG No.: <u>A0963</u>

Matrix Spike - Sample No.: <u>MW-2</u> Conc. Units : <u>UG/L</u>

.

	SPIKE ADDED	SAMPLE CONC	MS CONC	MS %REC #	MSD CONC	MSD %REC #	%RPD #	QC RPD	LIMITS REC.
gamma-BHC (Lindane)	0.50	0.0	0.50	100	0.53	106	6	15	41-129
Heptachlor	0.50	0.0	0.58	116	0.60	120	3	20	42-128
Aldrin	0.50	0.0	0.52	103	0.60	119	14	22	37-132
Dieldrin	1.0	0.0	1.2	120	1.2	120	0	18	46-144
Endrin	1.0	0.0	1.5	150	1.5	150	0	21	57-155
4,4'-DDT	1.0	0.0	1.0	100	1.1	110	10	27	34-129

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: <u>0</u> out of <u>6</u> outside limits Spike Recovery: <u>0</u> out of <u>12</u> outside limits

COMMENTS:

FORM III PEST-1 GC-8081A:rev 1.0

3G WATER PESTICIDE QC CHECK RECOVERY

Lab Name: <u>STL-CT</u> Contract: _____

Lab Code: <u>IEACT</u> Case No.: <u>0963A</u> SDG No.: <u>A0963</u>

Sample No.: <u>PBLK48</u>

	SPIKE	SPIKE	۰.	
COMPOUND		(UC(I))		
COMPOUND			REC #	REC.
alpha-BHC	0.20	0.12	60	51-132
beta-BHC	0.20	0.18	90	59-165
delta-BHC	0.20	0.067	34	10-135
gamma-BHC	0.20	0.12	60	50-144
Heptachlor	0.20	0.14	70	43-144
Aldrin	0.20	0.10	47	45-145
Heptachlor Epoxide	0.20	0.17	84	57-153
Endosulfan I	0.20	0.13	65	46-140
gamma-Chlordane	0.20	0.17	85	60-140
alpha-Chlordane	0.20	0.14	70	60-140
Dieldrin	0.20	0.16	80	54-157
4,4'-DDE	0.20	0.15	75	50-150
Endrin	0.20	- 0.18	90	42-163
Endosulfan II	0.20	0.18	90	70-167
4,4'-DDD	0.20	0.14	70	38-135
Endosulfan Sulfate	0.20	0.093	46 *	47-153
4,4'-DDT	0.20	0.19	95	42-144
Methoxychlor	0.20	0.16	80	71-174
Endrin Aldehyde	0.20	0.18	90	73-155
Endrin Ketone	0.20	0.17	85	65-174

Column to be used to flag recovery values with an asterisk

COMMENTS:

FORM III PEST-3 GC-8081A:rev 1.0

4C PESTICIDE METHOD BLANK SUMMARY

Lab Name: <u>STL-CT</u> Contract:	Client Id: PBLK4	48
Lab Code: <u>IEACT</u> Case No.: <u>0963A</u> S	DG No.: <u>A0963</u>	
Lab sample ID: <u>042601-B02</u>	Lab File ID: <u>C509</u>	92219
Matrix:(soil/water) <u>WATER</u>	Extraction: (SepF/Con	nt/Sonc) <u>SEPF</u>
Sulfur Cleanup: (Y/N) <u>N</u>	Date Extracted:	04/26/01
Date Analyzed (1): <u>05/01/01</u>	Date Analyzed (2):	<u>05/01/01</u>
Time Analyzed (1): <u>0025</u>	Time Analyzed (2):	<u>0553</u>
Instrument ID (1): <u>HP58905C</u>	Instrument ID (2):	HP58901C
GC Column (1): <u>DB-1701</u> ID: <u>0.53</u> (mm)	GC Column (2): <u>RTX-35</u>	5ID: <u>0.53</u> (mm)
THIS METHOD BLANK APPLIES TO	THE FOLLOWING SAMPLES	, MS AND MSD:

	τλρ		
		DATE	DATE
SAMPLE NO.	SAMPLE ID	ANALYZED I	ANALYZED 2
PBLK48QC1	042601-B02QC1	05/01/01	05/01/01
MW-2MSB	010963A-04MSB	05/01/01	:
MW-A3	010963A-01	05/01/01	05/02/01
MW - 5	010963A-03	05/01/01	05/02/01
MW-2	010963A-04	05/01/01	05/02/01
MW-2MS	010963A-04MS	05/01/01	05/02/01
MW-2MSD	010963A-04MSD	05/01/01	05/02/01
MW-8	010963A-05	05/01/01	05/02/01
MW-1R	010963A-06	05/01/01	05/02/01
MW-7	010963A-07	05/01/01	05/02/01
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	······································		
	SAMPLE NO. PBLK48QC1 MW-2MSB MW-A3 MW-5 MW-2 MW-2MS MW-2MSD MW-8 MW-1R MW-1R MW-7 	SAMPLE NO. LAB SAMPLE ID PBLK48QC1 042601-B02QC1 MW-2MSB 010963A-04MSB MW-A3 010963A-01 MW-5 010963A-03 MW-2 010963A-04MS MW-2MS 010963A-04MS MW-2MS 010963A-04MS MW-2MSD 010963A-04MSD MW-8 010963A-05 MW-1R 010963A-06 MW-7 010963A-07	SAMPLE NO. LAB SAMPLE ID DATE ANALYZED 1 PBLK48QC1 042601-B02QC1 05/01/01 MW-2MSB 010963A-04MSB 05/01/01 MW-A3 010963A-03 05/01/01 MW-2 010963A-04 05/01/01 MW-2 010963A-04 05/01/01 MW-2 010963A-04 05/01/01 MW-2 010963A-04 05/01/01 MW-2MSD 010963A-04MSD 05/01/01 MW-1R 010963A-05 05/01/01 MW-7 010963A-06 05/01/01 MW-7 010963A-07 05/01/01 MW-7 010963A-06 05/01/01 M-

COMMENTS:

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FORM IV PEST GC-8081A:rev 1.0

4C PESTICIDE METHOD BLANK SUMMARY

Lab Name: <u>STL-CT</u> Contract:	Client Id: PCBL	K48
Lab Code: <u>IEACT</u> Case No.: <u>0963A</u> S	DG No.: <u>A0963</u>	
Lab sample ID: <u>042601-S02</u>	Lab File ID: <u>C509</u>	92220
Matrix:(soil/water) <u>WATER</u>	Extraction:(SepF/Con	nt/Sonc) <u>SEPF</u>
Sulfur Cleanup: (Y/N) Y	Date Extracted:	<u>04/26/01</u>
Date Analyzed (1): <u>05/01/01</u>	Date Analyzed (2):	05/02/01
Time Analyzed (1): <u>0106</u>	Time Analyzed (2):	<u>1108</u>
Instrument ID (1): <u>HP58905C</u>	Instrument ID (2):	<u>HP58901C</u>
GC Column (1): <u>DB-1701</u> ID: <u>0.53</u> (mm)	GC Column (2): <u>RTX-35</u>	5ID: <u>0.53</u> (mm)
THIS METHOD BLANK APPLIES TO T	THE FOLLOWING SAMPLES	G, MS AND MSD:

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
0.1	MW-4	0109630-02	05/01/01	05/02/01
02	1.144	0109038-02	05/01/01	05/02/01
03				
04		<u> </u>		
05	· · · · · · · · · · · · · · · · · · ·			
06				
07				
08	· · · · · ·	······································	· · · · ·	
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25		· · · · · · · · · · · · · · · · · · ·		
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COMMENTS: _

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FORM IV PEST GC-8081A:rev 1.0

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1D PESTICIDE ORGANICS ANALYSIS DATA SHEET

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Lab Name: <u>STL-CT</u> Contract:	Client ID: MW-A3
Lab Code: <u>IEACT</u> Case No.: <u>0963A</u> SDG No.	: <u>A0963</u>
Matrix: (soil/water): <u>WATER</u>	Lab Sample ID: <u>010963A-01</u>
Sample wt/vol: <u>1000 (</u> g/ml) <u>ML</u>	Lab File ID: <u>C5092223</u>
<pre>% Moisture: decanted: (Y/N)</pre>	Date Received : <u>04/25/01</u>
Extraction: (SepF/Cont/Sonc) <u>SEPF</u>	Date Extracted: <u>04/26/01</u>
Concentrated Extract Volume: <u>10000</u> (ul)	Date Analyzed : <u>05/01/01</u>
Injection Volume: <u>1.0</u> (uL)	Dilution Factor: <u>1.0</u>
GPC Cleanup: (Y/N) <u>N</u> pH:	Sulfur Cleanup: (Y/N) <u>N</u>
CAS NO. COMPOUND	CONCENTRATION UNITS: O

D

CONCENTRATION UNITS: Q (ug/L or ug/Kg) <u>UG/L</u>

319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

Contract: __ Lab Name: <u>STL-CT</u> Client ID: MW-4 Lab Code: IEACT Case No.: 0963A SDG No.: A0963 Matrix: (soil/water):WATER Lab Sample ID: 010963A-02 Sample wt/vol: <u>940</u> (g/ml) <u>ML</u> Lab File ID: C5092224 % Moisture: _____ decanted: (Y/N)___ Date Received : 04/25/01Extraction: (SepF/Cont/Sonc) Date Extracted: 04/26/01 SEPF Date Analyzed : 05/01/01 Concentrated Extract Volume: 10000 (ul) Injection Volume: <u>1.0</u> (uL) Dilution Factor: 1.0 Sulfur Cleanup: (Y/N)Y GPC Cleanup: (Y/N)NpH:____ COMPOUND CAS NO. CONCENTRATION UNITS: 0

(ug/L or ug/Kg) <u>UG/L</u>

319-84-6	alpha-BHC	0.053	U
319-85-7	beta-BHC	0.041	J
319-86-8	delta-BHC	0.071	
58-89-9	gamma-BHC (Lindane)	0.053	U

		1D		
PESTICIDE	ORGANICS	ANALYSIS	DATA	SHEET

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Lab Name: <u>STL-CT</u> Contract:	Client ID: MW-5
Lab Code: <u>IEACT</u> Case No.: <u>0963A</u> SDG No.	: <u>A0963</u>
Matrix: (soil/water): <u>WATER</u>	Lab Sample ID: <u>010963A-03</u>
Sample wt/vol: <u>950 (</u> g/ml) <u>ML</u>	Lab File ID: <u>C5092225</u>
<pre>% Moisture: decanted: (Y/N)</pre>	Date Received : <u>04/25/01</u>
Extraction: (SepF/Cont/Sonc) <u>SEPF</u>	Date Extracted: <u>04/26/01</u>
Concentrated Extract Volume: <u>10000</u> (ul)	Date Analyzed : <u>05/01/01</u>
Injection Volume: <u>1.0</u> (uL)	Dilution Factor: <u>1.0</u>
GPC Cleanup: (Y/N) <u>N</u> pH:	Sulfur Cleanup: (Y/N) <u>N</u>
CAS NO. COMPOUND	CONCENTRATION UNITS: Q (ug/L or ug/Kg) <u>UG/L</u>

 319-84-6
 alpha-BHC
 0.053
 U

 319-85-7
 beta-BHC
 0.053
 U

 319-86-8
 delta-BHC
 0.053
 U

 58-89-9
 gamma-BHC (Lindane)
 0.053
 U

1D PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>STL-CT</u> Contract: C	lient ID: MW-2
Lab Code: <u>IEACT</u> Case No.: <u>0963A</u> SDG No.:	<u>A0963</u>
Matrix: (soil/water): <u>WATER</u>	Lab Sample ID: <u>010963A-04</u>
Sample wt/vol: <u>1000 (</u> g/ml) <u>ML</u>	Lab File ID: <u>C5092226</u>
<pre>% Moisture: decanted: (Y/N)</pre>	Date Received : <u>04/25/01</u>
Extraction: (SepF/Cont/Sonc) <u>SEPF</u>	Date Extracted: <u>04/26/01</u>
Concentrated Extract Volume: <u>10000</u> (ul)	Date Analyzed : <u>05/01/01</u>
Injection Volume: <u>1.0</u> (uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N) <u>N</u> pH:	Sulfur Cleanup: (Y/N) <u>N</u> _

CAS NO. COMPOUND

CONCENTRATION UNITS: Q (ug/L or ug/Kg) <u>UG/L</u>

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319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>STL-CT</u> Contract: _____ Client ID: MW-2MS Lab Code: IEACT Case No.: 0963A SDG No.: A0963 Matrix: (soil/water):WATER_____ Lab Sample ID: 010963A-04MS Sample wt/vol: <u>1000</u> (g/ml) <u>ML</u> Lab File ID: <u>C5092227</u> % Moisture: _____ decanted: (Y/N)___ Date Received : <u>04/25/01</u> SEPF Date Extracted: 04/26/01 Extraction: (SepF/Cont/Sonc) Date Analyzed : 05/01/01 Concentrated Extract Volume: 10000 (ul) Injection Volume: <u>1.0</u> (uL) Dilution Factor: <u>1.0</u> Sulfur Cleanup: (Y/N)N GPC Cleanup: (Y/N) <u>N</u> pH:____ CAS NO.

COMPOUND

CONCENTRATION UNITS: 0 (ug/L or ug/Kg) <u>UG/L</u>

319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.50	

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

Contract: __ Lab Name: STL-CT Client ID: MW-2MSD Lab Code: IEACT Case No.: 0963A SDG No.: A0963 Matrix: (soil/water):WATER Lab Sample ID: 010963A-04MSD Sample wt/vol: <u>1000</u> (g/ml) <u>ML</u> Lab File ID: C5092228 % Moisture: _____ decanted: (Y/N)___ Date Received : 04/25/01 Extraction: (SepF/Cont/Sonc) Date Extracted: 04/26/01 SEPF Concentrated Extract Volume: 10000 (ul) Date Analyzed : 05/01/01 Injection Volume: <u>1.0</u> (uL) Dilution Factor: <u>1.0</u> Sulfur Cleanup: (Y/N)N_ GPC Cleanup: (Y/N)<u>N</u>_____ pH:____ CAS NO. COMPOUND CONCENTRATION UNITS: 0

 319-84-6
 alpha-BHC
 0.050
 U

 319-85-7
 beta-BHC
 0.050
 U

 319-86-8
 delta-BHC
 0.050
 U

 58-89-9
 gamma-BHC (Lindane)
 0.53

(ug/L or ug/Kg) <u>UG/L</u>

1D PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>STL-CT</u> Contract: (Client ID: MW-8
Lab Code: <u>IEACT</u> Case No.: <u>0963A</u> SDG No.	: <u>A0963</u>
Matrix: (soil/water): <u>WATER</u>	Lab Sample ID: <u>010963A-05</u>
Sample wt/vol: <u>1000_</u> (g/ml) <u>ML</u>	Lab File ID: <u>C5092229</u>
<pre>% Moisture: decanted: (Y/N)</pre>	Date Received : <u>04/25/01</u>
Extraction: (SepF/Cont/Sonc) <u>SEPF</u>	Date Extracted: <u>04/26/01</u>
Concentrated Extract Volume: <u>10000</u> (ul)	Date Analyzed : <u>05/01/01</u>
Injection Volume: <u>1.0</u> (uL)	Dilution Factor: <u>1.0</u>
GPC Cleanup: (Y/N) <u>N</u> pH:	Sulfur Cleanup: (Y/N) <u>N</u>
CAS NO. COMPOUND	CONCENTRATION UNITS: Q (ug/L or ug/Kg) <u>UG/L</u>

319-84-6	alpha-BHC	0.050 U
319-85-7	beta-BHC	0.050 U
319-86-8	delta-BHC	0.050 U
58-89-9	gamma-BHC (Lindane)	0.050 U

		1D		
PESTICIDE	ORGANICS	ANALYSIS	DATA	SHEET

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Lab Name: <u>STL-CT</u> Contract:	Client ID: MW-1R
Lab Code: <u>IEACT</u> Case No.: <u>0963A</u> SDG No.	: <u>A0963</u>
Matrix: (soil/water): <u>WATER</u>	Lab Sample ID: <u>010963A-06</u>
Sample wt/vol: <u>1000 (</u> g/ml) <u>ML</u>	Lab File ID: <u>C5092230</u>
<pre>% Moisture: decanted: (Y/N)</pre>	Date Received : <u>04/25/01</u>
Extraction: (SepF/Cont/Sonc) <u>SEPF</u>	Date Extracted: <u>04/26/01</u>
Concentrated Extract Volume: <u>10000</u> (ul)	Date Analyzed : <u>05/01/01</u>
Injection Volume: <u>1.0</u> (uL)	Dilution Factor: <u>1.0</u>
GPC Cleanup: (Y/N) <u>N</u> pH:	Sulfur Cleanup: (Y/N) <u>N</u>
CAS NO. COMPOUND	CONCENTRATION UNITS: Q (ug/L or ug/Kg) <u>UG/L</u>

na-BHC	0.070	
a-BHC	0.10	
a-BHC	0.050	U
na-BHC (Lindane)	0.050	U
	a-BHC -BHC a-BHC a-BHC (Lindane)	ia-BHC 0.070 -BHC 0.10 a-BHC 0.050 ia-BHC (Lindane) 0.050

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>STL-CT</u> Contract: C	lient ID: MW-7
Lab Code: <u>IEACT</u> Case No.: <u>0963A</u> SDG No.:	A0963
Matrix: (soil/water): <u>WATER</u>	Lab Sample ID: <u>010963A-07</u>
Sample wt/vol: <u>1000 (</u> g/ml) <u>ML</u>	Lab File ID: <u>C5092231</u>
<pre>% Moisture: decanted: (Y/N)</pre>	Date Received : <u>04/25/01</u>
Extraction: (SepF/Cont/Sonc) <u>SEPF</u>	Date Extracted: <u>04/26/01</u>
Concentrated Extract Volume: <u>10000</u> (ul)	Date Analyzed : <u>05/01/01</u>
Injection Volume: <u>1.0</u> (uL)	Dilution Factor: <u>1.0</u>
GPC Cleanup: (Y/N) <u>N</u> pH:	Sulfur Cleanup: (Y/N) <u>N</u>
CAS NO. COMPOUND	CONCENTRATION UNITS: Q (ug/L or ug/Kg) <u>UG/L</u>

319-84-6	alpha-BHC	0.061	
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.053	

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1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>STL-CT</u> Contract: (Client ID: PBLK48
Lab Code: <u>IEACT</u> Case No.: <u>0963A</u> SDG No.:	A0963
Matrix: (soil/water): <u>WATER</u>	Lab Sample ID: <u>042601-B02</u>
Sample wt/vol: <u>1000 (g</u> /ml) <u>ML</u>	Lab File ID: <u>C5092219</u>
<pre>% Moisture: decanted: (Y/N)</pre>	Date Received :
Extraction: (SepF/Cont/Sonc) <u>SEPF</u>	Date Extracted: <u>04/26/01</u>
Concentrated Extract Volume: 10000 (ul)	Date Analyzed : <u>05/01/01</u>
Injection Volume: <u>1.0</u> (uL)	Dilution Factor: <u>1.0</u>
GPC Cleanup: (Y/N) <u>N</u> pH:	Sulfur Cleanup: (Y/N) <u>N</u>
CAS NO. COMPOUND	CONCENTRATION UNITS: Q

(ug/L or ug/Kg) <u>UG/L</u>

319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U

1D PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: (Client ID: PCBLK48
Lab Code: <u>IEACT</u> Case No.: <u>0963A</u> SDG No.	A0963
Matrix: (soil/water): <u>WATER</u>	Lab Sample ID: <u>042601-S02</u>
Sample wt/vol: <u>1000 (</u> g/ml) <u>ML</u>	Lab File ID: <u>C5092220</u>
<pre>% Moisture: decanted: (Y/N)</pre>	Date Received :
Extraction: (SepF/Cont/Sonc) <u>SEPF</u>	Date Extracted: <u>04/26/01</u>
Concentrated Extract Volume: <u>10000</u> (ul)	Date Analyzed : <u>05/01/01</u>
Injection Volume: <u>1.0</u> (uL)	Dilution Factor: <u>1.0</u>
GPC Cleanup: (Y/N) pH:	Sulfur Cleanup: (Y/N)
CAS NO. COMPOUND	CONCENTRATION UNITS: Q (ug/L or ug/Kg) <u>UG/L</u>

319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	Ŭ
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>STL-CT</u> Contract: (Client ID: PBLK48QC1
Lab Code: <u>IEACT</u> Case No.: <u>0963A</u> SDG No.	<u>A0963</u>
Matrix: (soil/water): <u>WATER</u>	Lab Sample ID: <u>042601-B02QC1</u>
Sample wt/vol: <u>1000 (</u> g/ml) <u>ML</u>	Lab File ID: <u>C5092221</u>
<pre>% Moisture: decanted: (Y/N)</pre>	Date Received :
Extraction: (SepF/Cont/Sonc) <u>SEPF</u>	Date Extracted: <u>04/26/01</u>
Concentrated Extract Volume: 10000 (ul)	Date Analyzed : <u>05/01/01</u>
Injection Volume: <u>1.0</u> (uL)	Dilution Factor: <u>1.0</u>
GPC Cleanup: (Y/N) <u>N</u> pH:	Sulfur Cleanup: (Y/N) <u>N</u>
· · · · · · · · · · · · · · · · · · ·	CONCENTED TO AN ADVITED O

CAS NO. COMPOUND

CONCENTRATION UNITS: Q (ug/L or ug/Kg) <u>UG/L</u>

319-84-6	alpha-BHC	0.12
319-85-7	beta-BHC	0.18
319-86-8	delta-BHC	0.067
58-89-9	gamma-BHC (Lindane)	0.12

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Contract: Lab Name: STL-CT Client ID: MW-2MSB Lab Code: IEACT Case No.: 0963A SDG No.: A0963 Matrix: (soil/water):WATER Lab Sample ID: 010963A-04MSB Sample wt/vol: <u>1000</u> (g/ml) <u>ML</u> Lab File ID: C5092222 % Moisture: _____ decanted: (Y/N)___ Date Received : 04/25/01 Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 04/26/01 Concentrated Extract Volume: 10000 (ul) Date Analyzed : 05/01/01 Injection Volume: <u>1.0</u> (uL) Dilution Factor: 1.0 GPC Cleanup: (Y/N)<u>N</u> pH:____ Sulfur Cleanup: (Y/N)N CAS NO. COMPOUND

CONCENTRATION UNITS: Q (ug/L or ug/Kg) <u>UG/L</u>_____

 319-84-6
 alpha-BHC
 0.050
 U

 319-85-7
 beta-BHC
 0.050
 U

 319-86-8
 delta-BHC
 0.050
 U

 58-89-9
 gamma-BHC (Lindane)
 0.44



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FIELD LOGS

SEMI-ANNUAL GROUND WATER SAMPLING

April 2001

CHARLES GIBSON SITE (PINE AND TUSCARORA SITE) NIAGARA FALLS, NEW YORK

NYSDEC Registry No. 9-32-063

	CONESTOGA-ROVERS & ASSOCIATES CONESTOGA-ROVERS & ASSOCIATES CONESTOGA-ROVERS CONESTOGA-ROVE
	TRANSMITTAL
DATE: <u>April</u>	25, 2001 REFERENCE NO.: 08143-20 PROJECT NAME: Olin Gibson Site Sampling
To: Lorra Olin (1186 I Charl	Lower River Road eston, TN 37310 ENVIRONMENTAL REMEDIATION
Please find enclos	ed: Draft Final Originals Other Photocopies Prints
Sent via:	Mail Same Day Courier Overnight Courier Other
OUANTITY	DESCRIPTION
1 set	April 24, 2001 CRA field book notes-Gibson Site Spring semi-annual sampling
1 set	April, 2001 Gibson Site-field forms
1	Photocopy of Severn Frent Laboratories chain of custody for April 24, 2001 sampling
As Requester	For Review and Comment
COMMENTS: Lorraine-I l	nave photocopied and mailed the CRA field book for Gibson Site (First Quarter 1996 to
April, 2001)	to Mike Walker, along with the original chain-of-custody (client copy) and a set of
The field fo	rms.
Copy to: Completed by:	Mike Walker, Sevenson Environmental, Inc. Frank Garbe Signed: JAank Jack [Please Print]
	CHARLES GIBSON SITE (aka Pine & Tuscarora, P&T) ENV4060 IND Site Monitoring 2000 このよ SEMI ないひない 身際にに

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	CHARLES GIBSON SITE NIAGARA FALLS, NEW YORK NYSDEC REGISTRY NO. 9-32-063 GROUNDWATER SAMPLING FIELD PARAMETERS FIELD INSTRUMENTATION CALIBRATION FORM
DATE: 4240	SEMI-ANNUAL SAMPLING EVENT: Spring 2001
PERSON CALIBRATI	NG METERS: Frank Garbe (Conestoge - Rovers & Associates)
PH METER USED:	MANUFACTURER: <u>Grega</u> MODEL: <u>Pocket Pal</u> IDENTIFICATION/CONTROL NUMBER: <u>CRA # 03335</u> CALIBRATION STANDARDS USED: STANDARD 7.00 METER READ: <u>G.98</u> STANDARD 7.00 METER READ: <u>4.18</u> STANDARD 4.00 METER READ: <u>4.18</u> STANDARD 10.00 METER READ: <u>10.02</u> ALIBRATION COMMENTS: <u>Standard temperatures</u> <u>69.9°F</u>
	IVITY METER USED: MANUFACTURER: <u>Omega</u> MODEL: <u>Pocket Pal</u> IDENTIFICATION/CONTROL NUMBER: <u>CRA # 03335</u> CALIBRATION STANDARDS USED: STANDARD 0 READ: <u>IO</u> (STANDARD 0 USED: <u>AIR</u> <u>DI</u> WATER) STANDARD <u>IOO unhos/cm</u> READ: <u>IOSO unhos/cm</u> STANDARD <u>IOOO unhos/cm</u> READ: <u>IOSO unhos/cm</u>
THERMOMETER US	ED: TYPE: <u>Digital</u> MANUFACTURER: <u>None</u> indicated IDENTIFICATION/CONTROL NUMBER: <u>None</u> COMMENTS: (DOES THERMOMETER TEMPERATURE AGREE WITH SPECIFIC CONDUCTIVITY METER TEMPERATURE ?) <u>NA</u> OTHER:
OTHER INSTRUMEN	TS USED: TYPE: MANUFACTURER: IDENTIFICATION/CONTROL NUMBER:
	CALIBRATIONS PERFORMED:
OTHER CALIBRATIO	

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CHARLES GIBSON SITE NIAGARA FALLS, NEW YORK NYSDEC REGISTRY NO. 9-32-063 GROUNDWATER AND SEDIMENT

	· 1 1.0	<u>۱</u>	SAMPLE ID. MIL	1-42
	- trank Gar	be		ATEL And Dull 2001 CON
SAMPLED <u>BY:</u>	trank bar	be	SAMPLING EVENT/D	ATE: April 29, 2001 - Spr
COMPANY <u>: C</u>	ONESTUGA-RON	erse	MONITORING WELL:	MW-AS AN
	HSSOCiates		CONDITION: 600	A (NET LOUBE 14ed)
GROUNDWATE	R PURGE DATA	PURGE	DATE: 4124 101	NOTE: ALL GIBSON SITE
	TOM FROM TOP O	DERISER: 12.	61 (FT.)	MONITORING WELLS ARE
			05 (FT)	2-INCH DIAMETER STAIN-
			. 96 (FT.)	LESS STEEL WELL DEPTHS
	2" DIA, WEL	CONSTANT:	0.16	MW-1R 12.10'
			$\left(\simeq 1 \sqrt{4} \right)$ (GALS)	MW-2 12.13'
PURGE METHO BOTTOM OF WI PURGE START PURGE OBSER	D: Peristaltic f ELL/SILT BUILDUP TIME: 937 VATIONS: NA	None (Fire STOP TI	(cated tubing m) ME: 950	MW-A3 11.95' MW-4 13.75' MW-5 15.28'
FIELD PARAME	TER MEASUREME	NTS:		
		SPECIFI	С	
WELL		CONDUC	CTIVITY TEMP.	NOTES
			$\frac{m}{46} \rightarrow \frac{CORF}{F}$	NOTES:
	<u> </u>	760	46.0 F	<u> clear</u>
2	6.10	100	12.21	e kar
3	7 06	720	YCIF	Clear
3	7.06	720	45.6°F	clear
3 4 5	7.06	720	45.6°F	clear
3 4 5 TOTAL VOLUME GROUNDWATE MEDIA: GRO	7.06 E PURGED: 3+ R OR SEDIMENT S UNDWATER	720 Vols (33%	YS.G · F (4 Gals) SAMPLE D SAMPLE T	<u>clear</u> DATE: <u>4/24/01</u> TIME: 955
3 4 5 TOTAL VOLUME GROUNDWATE MEDIA: GRO CREE	7.06 E PURGED: $3+$ R OR SEDIMENT S UNDWATER EK SEDIMENT	720 $\sqrt{3}$ SAMPLING DATA:	YS.G · F (4 Gals) SAMPLE D SAMPLE T	<u>Clear</u> DATE: 4/24/01 IME: 955
3 4 5 TOTAL VOLUME GROUNDWATE MEDIA: GRO CREE	7.06 E PURGED: 3+ R OR SEDIMENT S UNDWATER EK SEDIMENT MW-A3	720 Vols (33 SAMPLING DATA:	YS.G · F (Gals) SAMPLE D SAMPLE T	<u>сlear</u> DATE: 4/24/01 IME: 955
3 4 5 TOTAL VOLUME GROUNDWATE MEDIA: GRO CREE LOCATION <u>:</u> SAMPLE METHO	7.06 E PURGED: 3+ R OR SEDIMENT S UNDWATER EK SEDIMENT MW-A3 DD: DD: Peristal	TZO Vols (33% SAMPLING DATA:	45.6°F (16als) SAMPLED SAMPLET dedicated to	<u>clear</u> DATE: <u>4/24/01</u> TIME: 955
3 4 5 TOTAL VOLUME GROUNDWATE MEDIA: GRO CREE LOCATION: SAMPLE METHO SAMPLING OBS	7.06 E PURGED: 3+ R OR SEDIMENT S UNDWATER EK SEDIMENT EK SEDIMENT MW-A3 DD: DD: DD: ERVATIONS:	720 Vols (33% SAMPLING DATA: ////////////////////////////////////	45.6°F (Gals) SAMPLED SAMPLET dedicated to	<u>clear</u> DATE: <u>4/24/01</u> IME: 955
3 4 5 TOTAL VOLUME GROUNDWATE MEDIA: GRO CREI LOCATION: SAMPLE METHO SAMPLE METHO SAMPLING OBS QC SAMPLES T	7.06 E PURGED: 3+ R OR SEDIMENT S UNDWATER EK SEDIMENT MIN-A3 OD: <u>Peristal</u> SERVATIONS: <u>K</u> AKEN: NONE	Vols (33/ SAMPLING DATA:	45.6°F (Gals) SAMPLED SAMPLET dedicated to	<u>clear</u> DATE: 4/24/01 IME: 955
3 4 5 TOTAL VOLUME GROUNDWATE MEDIA: GRO CREE LOCATION: SAMPLE METHO SAMPLE METHO SAMPLE METHO SAMPLES T DTHER OBSER	7.06 E PURGED: 3+ R OR SEDIMENT S UNDWATER EK SEDIMENT MIN - A3 OD: <u>Peristal</u> SERVATIONS: <u>C</u> AKEN: <u>NON E</u> VATIONS/COMMENT	Vols (33% SAMPLING DATA: Mic pump & Nater clea	45.6°F (Gals) SAMPLED SAMPLET dedicated to F isomers (2 x	CLEAR DATE: 4/24/01 TIME: 955 Joing Joing I Liter) only
3 4 5 TOTAL VOLUME GROUNDWATE MEDIA: GRO CREI LOCATION: SAMPLE METHO SAMPLE METHO SAMPLING OBS QC SAMPLES T DTHER OBSER	7.06 E PURGED: 3+ R OR SEDIMENT S UNDWATER EK SEDIMENT MW-A3 OD: <u>Peristal</u> SERVATIONS: <u>C</u> AKEN: <u>NONE</u> VATIONS/COMMEN	720 Vols (33% SAMPLING DATA: Mic pump & Mater clean NTS: <u>BHC</u>	45.6°F (Gals) SAMPLED SAMPLET dedicated to C isomers (2 x SC measure	CLEAR DATE: 4/24/01 IME: 955 INE: 955 INE: 955

CHARLES GIBSON SITE NIAGARA FALLS, NEW YORK NYSDEC REGISTRY NO. 9-32-063 GROUNDWATER AND SEDIMENT SAMPLING FIELD FORM

S	AMPLING FIE	LD FORM			
RECORDED BY: Frank Garbe	. S/	AMPLE ID: M			
SAMPLED BY: Frank Garbe	. SA	AMPLING EVENT/	DATE: April 24,2001-Spring St		
COMPANY: Conestosia-Rovers &	M	ONITORING WELL	- MW-Y AN		
Associates	C	ONDITION: Go	ocl		
GROUNDWATER PURGE DATA	PURGE DATI	=: 4/24/01	NOTE: ALL GIBSON SITE		
DEPTH TO BOTTOM FROM TOP OF RISEF	13.80	(FT.)	MONITORING WELLS ARE		
DEPTH TO WATER FROM TOP OF RISER:	6.30	(FT.)	2-INCH DIAMETER STAIN-		
WATER COLUMN	7.50	(FT.)	LESS STEEL, WELL DEPTHS:		
2" DIA. WELL CONST	ANT:	0.16	MW-1R 12.10'		
ONE WELL VOLUME	= 1.2 (-14) (GALS)	MW-2 12.13'		
PURGE METHOD: Peristattic pump of d BOTTOM OF WELL/SILT BUILDUP: NONG, PURGE START TIME: 10:30 PURGE OBSERVATIONS: First 1/2 Gal or H2S like odor then mostly FIFI D PARAMETER MEASUREMENTS:	Lechicated t /Firm STOP TIME: so very l clear by	-ubing 10:55 olack(inky)(f ens of 1st	MW-A3 11.95' MW-4 13.75' MW-5 15.28' Ane black sectiments) w(volvine		
	SPECIFIC				
WELL	CONDUCTIVI	TY TEMP.			
VOLUME <u>pH</u>	umhos/cm)	<u>(C OR F)</u>	<u>NOTES:</u>		
1 7.39 /	490	46.0°F	<u>black (intex) to chear us / b</u>		
2 1.18 /4	610	46.2°F	<u>Light black tive</u> , clear		
$\frac{3}{1.15}$	<u>40</u> 20	76.8 F	<u>clear w/ Lt 6</u> lack tint		
	30	7/1/2/	<u>Clear w/ (+.6</u> lack (in (
TOTAL VOLUME PURGED: Purge d LI GROUNDWATER OR SEDIMENT SAMPLING	vols (S G DATA:	Gals) SAMPLE	DATE: $\frac{\gamma/2\gamma/0}{1}$		
MEDIA: GROUNDWATER		SAMPLE	T <u>IME: 77.00</u>		
LOCATION: $MW - Y$					
SAMPLE METHOD: Peristaltic pun	h lu ga	edicated t	-ubing		
SAMPLING OBSERVATIONS:	clear u	y Light 6/1	ack Eint		
OC SAMPLES TAKEN: NONE					
OTHER OBSERVATIONS/COMMENTS:	Noroe !	BUL isomers	s only collected		
(2×1 Liter omber gl	uss)				
Note: specific conductivity formula to 25 degre	es Celcius: S	SC measu C(25)= {{T-25}(0.0	02)}+1		
	٠	CHARLES G NIAGARA FALL NYSDEC REGIST GROUNDWATER SAMPLING F	BSON SITE S, NEW YORK RY NO. 9-32-063 AND SEDIMENT TIELD FORM		
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RECORDED BY	Frank Gar	-be	SAMPLE ID: MI	N-5	
SAMPLED BY:	Frank Garbe		SAMPLING EVENT	DATE: April 24, 2001	- Sprin
COMPANY <u>: (م)</u> A ج	<u>vestoga- Rove</u> Sociates	ers (MONITORING WEL	L: <u>MW-5</u>	
GROUNDWATE	R PURGE DATA	PURGE DA	TE: 4/24/01		
DEPTH TO BOT	TOM FROM TOP OF	RISER: 15.3	8 (sic) (FT.) 🤜	MONITORING WELLS	SARE
DEPTH TO WAT	ER FROM TOP OF	RISER: 6.4	7(FT.)	2-INCH DIAMETER ST	TAIN-
	WATER COLU	JMN: 8.9	(FT.)	LESS STEEL. WELL D	DEPTHS:
	2" DIA. WELL	CONST <u>ANT:</u>	0.16	MW-1R 12.10'	
	ONE WELL VO	DLUME= 1.42 ((GALS)	MW-2 12.13'	
	D. Peristaltic Qum	ow dedicated	tubing 1	MW-A3 11.95' MW-4 13.75'	
BOTTOM OF WI	ELL/SILT BUILDUP:	None/Firm (pi	voorble that	MW-5 15.28	4
PURGE START	TIME: 11(15 VATIONS: AL Front	STOP TIM	=: 11:35 depth	tape read incor	-vectly
runge obsen دلوہ	r w/ Lt. red-	Jellow tint	low furbid then	rapidly clearing	40
FIELD PARAME	TER MEASUREMEN	TS:			
WELL		SPECIFIC	IVITY TEMP.		
VOLUME	pH	umhos/cm)	<u>(C OR F</u>) NOTES:	
1	6.84	2420	47.4°F	dark red yello	n to cle
2	6.79	2380	47.40F	Ct. red yellow	tint, c
3	6.89	2440	47.8°F	clear w/ lty	ellow t
4					
TOTAL VOLUME	EPURGED: Purge	d 3 volum	es (472 Gals)	
GROUNDWATE	R OR SEDIMENT SA	MPLING DATA:	SAMPLE	DATE: 4/24/01	
MEDIA: GRO		<u> </u>	SAMPLE	тіме: 11.'40	
CREI		<u> </u>			
LOCATION:	<u>MW-5</u>				
SAMPLE METH	DD: <u>Declicated</u>	tubing #	Peristaltic	punp	
SAMPLING OBS	ERVATIONS: <u>v</u>	water clear	w/ Ut. ye	law tint	
QC SAMPLES T	AKEN: NONE				
OTHER OBSER	VATIONS/COMMEN	TS: <u>- Aldre</u>	2x1 Liter	anber glass	•
collect	led for BUC	isomers only			
Note: specific co	- nductivity formula to (05 degrees Colours	$SC(25) = \frac{SC \text{ meas}}{\sqrt{11}}$		
		25 degrees Celcius.	30(23)- 11-23/10	1.02)}+1	

	•	CHARLES NIAGARA FA NYSDEC REGIS GROUNDWATE SAMPLING	GIBSON SI LLS, NEW ` STRY NO. 9 FR AND SEI FIELD FOI	ITE YORK 9-32-063 DIMENT RM				
RECORDED B	Y: Frank Gau	·be	SAMPLE	ID: MN	1-2]
SAMPLED BY:	Frank bar	be	SAMPLIN	G EVENT/		124, 2001-	- Spring	Semi
COMPANY: C	onestosa-Ra	Ners &	MONITO	RING WELL		1-2		ANNU
/	Associates		CONDITI	ON: God	od		•	
GROUNDWAT	ER PURGE DATA	PURGE [DATE: 4)2	24/01				1
DEPTH TO BO	TTOM FROM TOP	OF RISER: 12.	20	(FT.)-<	NOTE: A MONITC	ALL GIBSON S RING WELLS	SITE S ARE	
DEPTH TO WA	TER FROM TOP O	FRISER: 4.	77	(FT.)	2-INCH	DIAMETER ST	TAIN-	1
	WATER CO	LUMN: 7. %	13		LESS ST	EEL. WELL D	DEPTHS:	
	2" DIA. WEL	L CONSTANT:	0.1	6 (MW-1R	12.10'		
	ONE WELL	VOLUME= 1.19	(nik)	- (GALS)	MW-2	(12.13)		
				()	MW-A3	11.95'		
BOTTOM OF W	JD: Perista Mic pu	Mare/Erm (a tobin	ç	MW-4	13.75'		
PURGE START	TIME: 12:27	STOP TIN	ME: 10 . CO	reading ,	Lepth t	15.20 (se)		
PURGE OBSEF	RVATIONS: water	clair through	v.J	uo initia	1 fine	black Sed	linento	
FIFI D PARAME	TER MEASUREME	t well (tubi	ngues at	- well to	(mottom	as in pas	t sampl	inc.
						l		
WELL		CONDUC	, TIVITY	TEMP.				
VOLUME	<u>pH</u>	umhos/cm	<u>n)</u>	(C OR F)	_	NOTES:		
1	7.26	1240	46	.2°E		clear		
2	7.17	1090	45.	.6°F		clear		
3	7.24	1180	45.	S°E		clear		
4		·		<u> </u>				at 1
TOTAL VOLUM	EPURGED: Pure	yed 3 volum	es (33	/4 6als))			
GROUNDWATE	R OR SEDIMENT S	AMPLING DATA:		SAMPLE D	оате: 4	124/d		
MEDIA: GRO CREI	UNDWATER			SAMPLE T	<u>IME:12 '</u>	55		
LOCATION: N	110-2							
SAMPLE METHO	DD: Dedicate	d tubing 4	Perista	Itic pu	mp	<u></u>		
SAMPLING OBS	ERVATIONS: _	water clear	<u>r</u>			<u> </u>		
QC SAMPLES T	aken <u>: MS/N</u>	QZI						
OTHER OBSER	VATIONS/COMMEN	ITS: <u>collect</u>	fed 6	x I Lit	ev (gl	ass amber)	
Jars_	for BHC	isomers onl	ly CN	SC massure)			
Note: specific cor	nductivity formula to	25 degrees Celcius	: SC(25)=	{{T-25}(0.02	2)}+1	_	1	
RA 8143 (1) America								

CHARLES GIBSON SITE NIAGARA FALLS, NEW YORK NYSDEC REGISTRY NO. 9-32-063 GROUNDWATER AND SEDIMENT

SAMPLING FIELD F	FORM
RECORDED BY: Frank Garbe SAMP	PLE ID: MW-8
SAMPLED <u>BY: Frank Garbe</u> SAMP	PLING EVENT/DATE: April 24, 2001 - Spring.
COMPANY: Conestuga - Rovers & MONT	HTORING WELL: Field Blank
Associates (CRA) COND	
GROUNDWATER PURGE DATA PURGE DATE:	
DEPTH TO BOTTOM FROM TOP OF RISER:	NOTE: ALL GIBSON SITE (FT.) MONITORING WELLS ARE
DEPTH TO WATER FROM TOP OF RISER:	(FT.) 2-INCH DIAMETER STAIN-
WATER COLUMN:	(FT.) LESS STEEL. WELL DEPTHS:
2" DIA. WELL CONSTANT:	0.16 MW-1FT 12.10'
ONE WELL VOLUME=	(GALS) MW-2 12.13' MW-A3 11.95'
PURGE METHOD: 3OTTOM OF WELL/SILT BUILDUP: PURGE START TIME: STOP TIME: PURGE OBSERVATIONS:	MW-4 13.75' MW-5 15.28'
VELL CONDUCTIVITY <u>/OLUME pH umhos/cm</u>)	TEMP. (C OR F) NOTES:
2	
5	······
OTAL VOLUME PURGED:	
ROUNDWATER OR SEDIMENT SAMPLING DATA:	SAMPLE DATE: 4/24/01
	SAMPLE TIME: 13:10
	weather: overcast.
OCATION: Field Blank collected ~ 20' wear	ot of MW-2 ~ SooF. Ltto mod wind from west
OCATION: Field Blank collected ~ 20' wes AMPLE METHOD: Pour 2 Liters of lab supplied	of of MW-2 ~50°F. Ltto mod wind from west definized water into 2 (ab
AMPLE METHOD: Pour 2 Liters of lab supplied AMPLING OBSERVATIONS: None tradic on Tus	st of MW-2 ~ Soci, Litto mod wind the MW-2 from Less d Deinvized water into 2 Cab Supplied I Litter amber Glass uscarora relatively listed bottles
OCATION: Field Blank collected ~ 20' wer AMPLE METHOD: Pour 2 Liters of lab supplied AMPLING OBSERVATIONS: Nove-traffic on Tub IC SAMPLES TAKEN: MW-8 is Field blank	ot of MW-2 ~50°F, Ltto mod wind from west deinvized water into 2 (ab supplied 1 Liter ambor 6 lass us carora relativety listet bottles (* see bela
OCATION: Field Blank collected ~ 20' wer SAMPLE METHOD: Pour 2 Liters of lab supplied SAMPLING OBSERVATIONS: None tradic on Tu: NC SAMPLES TAKEN: MW-8 is Field blank NTHER OBSERVATIONS/COMMENTS: Collected for Bl Supprent had 3 broken bottles (was one is preserved, sealed (thin nucled) 1 liter gla	st of MW-2 ~ Soci, Litto mod wind from Lose 1 Deinvized water into 2 lab Supplied 1 Liter amber 6 lass uscarora retativety tight bitles (* see belan SH("isomers only (* Severa mont both bothe Short). CRA supplied a clean, N and comber bothe from our supplies SC measured

CHARLES GIBSON SITE NIAGARA FALLS, NEW YORK NYSDEC REGISTRY NO. 9-32-063 GROUNDWATER AND SEDIMENT

		SAMPLING F	IELD FORM		e!
RECORDED BY:	Frank Garbe		SAMPLE ID: NW	J-IR & MW-	_7
SAMPLED BY: E	runk Garbe		SAMPLING EVENT/	DATE: April 24,200	I - Sprin
COMPANY: Cor	vestuga - Rovers	4	MONITORING WELI	: MW-IR	- Semi
As	sociates		CONDITION:		MNNU
			ATE: 4/24/01	NOTE: ALL GIBSON	SITE
		- 4.5	((>(C) (F1.)	MONITORING WELL	S ARE
DEPTH TO WATE	R FROM TOP OF RISE	:R:	(FT.)	2-INCH DIAMETER S	STAIN-
	WATER COLUMN:	(.6	(FT.)	LESS STEEL. WELL	DEPTHS:
	2" DIA. WELL CON	IST <u>ANT:</u>	0.16	MW-1R 12.10'	
PURGE METHOD: BOTTOM OF WEL PURGE START TI PURGE OBSERVA	ONE WELL VOLUM Peristaltic pump , L/SILT BUILDUP: Non ME: 13:25 ATIONS: weter clear	ME= 1.21 (N/ Ledicate Ne/Firm STOP TIME + throughout	≃۱۶۲) (GALS) ط tubing ≣ 13:40 it	MW-2 12.13' MW-A3 11.95' MW-4 13.75' MW-5 15.28'	
FIELD PARAMETE	R MEASUREMENTS:	v			
WELL VOLUME	рН	SPECIFIC CONDUCTI umhos/cm)	IVITY TEMP. <u>(C OR F)</u>	NOTES:	_
1	7.33	910	46.40F	clean	-
2	7-51	990	46.2° F	clear	_
3	7.61	990	46.90F	clear	-
4		<u> </u>			
TOTAL VOLUME P	DURGED: 3 volvo OR SEDIMENT SAMPL	nes (33/	(Gals) SAMPLE	DATE: 4/24/01	
MEDIA: GROUN CREEK			SAMPLE ⁻	т <u>іме:</u> 13.'45	
OCATION: MN	1-1R			······································	
SAMPLE METHOD	: Dedicated tubi	Ng & Peri	stalltic pump		
SAMPLING OBSEF	IVATIONS: water	clear			.
QC SAMPLES TAK	EN: DUPLICAT	E MU	N-7" sampl	ed at "14:00"	
OTHER OBSERVA	TIONS/COMMENTS:	coiled	rd Yx11	iter 6 luss amb	r .
jars for	BHC isomen	analysi	SC measu	red. Held dupl	icate)
Note: specific condu	uctivity formula to 25 deg	grees Celcius:	$SC(25) = {{T-25}(0.0)}$	2)}+1	

CRA 8143 (1) AppD-GwsdForm

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SEVERNSTL Connecticut 128 Long Hill Cross Shelton CT 06484SERVICESTel: (203) 929-8140 Fay: (203) 929-8142	Road Frank Garbe 2055 Nicsara Fall Nicsara Fall	CHAIN OF	CUSTODY RECORI	PAGE) OF ;	NO. 97001-0960A
STL JOB #: CLIENT: PROJECT ID: POP MARTIN	0N (716) 247-619 Proj.# 8142	 Y So 3-20 №71 MISC 	34000 MATCH 100 MATCH		· · ·	(x) Results To : Mike walker Severson ENV rommonto Services, Inc. 2719 Lock port Rd
STL PROJECT MGR:		GL 1000				Niugara Falls NY 14302 716-284 2000
MW-4	4/24/01(95) HAMANA 4/24/01(95) HA 4/24/01(100) HA	N 2	N Y/N Y/N	Y/N Y/N	Y / N	Y/N SAMELE REMARKS
MW-5 MW-2 MW-8	4/24/61 (1255) WA 124/61 (1310) WA	N 2 Y 6 N 2				MS/MSD
MW-1R MW-7	4/24/01 (1345) ## 1 4/24/01 (1900) ## 1	V 2 V 2 ₩ 2				FIELd Disky Fie
- AIR S - SOIL - AQUEOUS SL - SLUDGE	BOTTLES PREPARED BY	DATE / TIME	BOTTLES REC'D BY	• DAT	E / TIME	BOTTLES INTACT CUSTODY SEALS
- COMPLEX W - WIPE - DRUM WASTE O - OTHER - OIL FB - FIELD BLANK TB - TRIP BLANK	SAMPLES COLLECTED BY Frank Garbe 4/2 SIGNATURE FAMIL DANGE (COMEST	USA-ROVEIS \$	RECEIVED IN LAB SIGNATURE	DATI	E / TIME	PRESERVED SEALS INTACT CHILLED SEE REMARKS

830 Prep South portine sedement (49) (48) OUN Gibton Site 840 M. Walker on Site F6 pts on maders April 2001 Semi-Agril Annual Sampling 24 2001 weather Arh; orver cust, > Upstream in middle de 1/2 bela cool ~ SZ FI w/ Lt wind (815) Bron NU. Clouds breaking Will meet Mike wilker (Seven son) channel (2 3/2 deep) in smaa 730 Loud VAN 815 ON SIDE ane w l'1st Gibson site entrance Gave Botton clay & Note 4/23/01 - Decon of Sediment Down Stream theps (2) Statinless steel cylinders (~8"\$) w(SS sare. 4 in middle of channel & gideo - wine prush & bristle brush & me come up etth steel Cchanne alconvex + under, pot. H20 rinse, Linke) Sence pole prom SE fence/site corner Crotton tock + 5, AP HINO3 Stray, pot HEO nince, Poproponal spray, DI rinse of N the --- Clart. pag seef T 000 Stream A A B vood 9 Service chain Inte 1 Prepto do MW-A3 MU-A3 Mitre Lells autopone Surface Prepto do MW-A3 815 pmp -> pm/sc meter (CRA Dorega Pochet Bal \$ 03335) pH pn 7. po reads 6.98 de In 4.90 reads 4. 18 (abithigh) ωV) ~ 10 00 reals 10,02 pk SC ON DI reads 10 youhos (on or on 1000 unhost in relads 1050 low loboo unhos en peudo ("quer scale") >STANDURDS dre 69.90 F

(150) 920 Note - Mike top Qtil Special Notes (No New Field (5) will's no March + will not (6 ook) for solvent them +6518 to 24 wills to lay but he will to be transmited to schunt chen fro to later in quarter TUS Nov 30, 1999 | FieldBank 930 weather. cloudy (snowy, ~32/F, Cl! Mingua Metel owned un LAwind from NW ... will be & MW-A3 950°F6 mets ~ todd MyGor (TRC) MW-A3 - Gives him copy of profeet excavition fermits / utility cliavendes - Have him Botton Botton 2 Firm 12.01 Sign worke / Slame pamit WIC 5.05 for Fox Fender Job-6.96 2"\$k .16 . a Gate in (sporth) east 1 vil = 1.11 Gals (~1/4 Gals) portion of X Lins Lay down (unhos/am) area on / Bats. Are / Duponst Vols PH clear SC temp Rd. For Forge has already 650 6.61 46.0°F signed in at Gate & Olin. 45.30 6.96 2 760 clear Z 7.06 145.6° 1= 1000 720 FG/SISNS IN at Oben Gate 4. clear - Getrudio TY FENCE Stevet purge: 937 stop purge: 950 Fox Ferrice ! Mark Fox Purged : 3+ udls (3x 1/4 = 3/4 Mark Fuersa Gals) a 54 and another TRC Environmental Sample MU-A3 employee (tall guy w(mustawhy) - 2x 1 Liter 6 less curtons // Name -> CON'T ON PG-> (155) water: clear 5510- Kermit (Greaves?) PG

Mark Fox reviews excar. permit Gets of vertal brom TRC to begin f Both Pox Foncy uga Sign worked Starke permit teg vipment bloghad off --- Xron Dupont Ril -Hassic | + Some extinguis her on site - Fox Ferre heghoves ferring Uses dings & din pomer auger to dog Z hulps 16' apart & a 31/2 "Y" 110 Fox Auts convert over holes - will go to france for pipel & have lunch. EC/gives Monte Fort plane permit - he with turn it in at and of day 11'2/26 signed at 1 returns alig L rudio 112 C CRA 2 PG 11/34/99

6 -

Dec 2 Solvent chan III Thurs - weether close, 14207 8° ON Site Dinspect/Server Colon reported grounding had whe pulled put of bay -> pronner middly pole will be removed (No write wee ded) -enduction will be real teched to New Gate poles theef-kernitt Greaves-(suc) & Jerry - Howes (SLC) 900 Inspect \$ 4 dozen Borr proper de con Shispec X small Romaticui 6011 dyzer - the exercits to bring dozer to Olin Kaydown anta - Scrape 69 ob dirt genound inside perempter of fince for laying a Jai hist bay baler (as sitt Gence) (They'will I preed an add. work punit from KRAN Bon

10,15 Set upon ... CONT From P6150 MW - 4Alonever @ this time they have Botton From Botton Botto not rec'd permossion (?) from Duport to drive that 20' for Aspirt Rd (Dupon + property?) 500 2"4K= -16 Haget to (new fut of) gute _ IV01= 1.2 Gals (~146-15) Dozen is very clean - with be Start purze 1030 stopi 1055 loaded on Blat befor c point where it from sternolo (as commuto Sc Frang No[_ PH gravel de convect area) 7.39 1490 46.0°F ISt 1/2 Gul umhos/ cm V.black. 905 Fox ferce Stin not here. Five Blacksill HAS odor, Sign ma Olon Con then mostly water leftel clears by 1St val. (0^{15.}) 46.2°F Light black FG in olim Plant 1 on 1610 mhrs 7,18 Boot /= KRM (& Dustins) em 46.80 F Light black comed by - meed's worker 3 1,13 1840 flam permit - TEAX Fance \$6 went chein - Kan thes 7.42 1930 47.1° Light blade sunt out -> Purged 4vols (SGals) 1100 Sample MW-4 12/2/99 water: clean w/ stery light black trut.

Set up on MW-\$ Botton 15.38 Botton: Boten 12,20 SWL 6.47 8.91 Firm 2"OK 7.43 24412 -14 1 vol = 1.42 Gel = (1/26cls) 1 vol = 119 Gals (- 14 61) Start Purge 1227 Stop Start purge: 11:15 stor 11:35 Vol pu sc temp com Vol 141 Sc Lemp commute 1 6.84 2420 47.40 e 1st dkred umhus/ 47.40 vellow/turbid repidly clearing 1 7.26 1240 46.2017 Clear 1 7.26 1240 46.2017 Choini inclus cm. Black -w/i4 to clean w/ it red yellow tint 2 7.17 1090 45.6° z cle 2 6.79 2380 47.4° clean w(ct. 3 7.24 1180 45.8°F clea Vellow tint 3 6.89 2440 47.8° 1 1 Purged 321015 (3346als) > Purged 3 vols (412 Guls) 1255 Samped MW-2-MS/MSD -> Sunderne - 5 @ 1/40 winter: eleur ul v +, pollow tint. > water : clear 1310 Sample MW-8 1145-1215 LUNCH. Pour 2 Unters Lund Syrplied OI into 2 1 Liter amber 5 cuss Bottles Loc > 201 Blest 66 1220 Schup on MW-2

(3) MW+2 (weather i orfercust, Nind from west. Note > 1 of 2 1 Liter amber bottles was from inused Stock pile in CRA back room (as 3 60 Hlys were broken on shipment). -> spare bottle is small necked sealed & No preservatives 13" Set spon MW-IR. Botton 12.19 Botton: Jul 4.58 Botton: Zughz -16 Ivol = 1.21 Gals (=~1/46als) Stant purge : 1325 Stop 1340 Vol pH se tenp commute 1 7.33 910 46. VOF clear 7.51 0190 46 2°12 pleur 2 990 46.9°F clear. 7.6

Purged 3 vols (37/4 6als) (59) (Note-waterlevel down with 1 ft of bottom). BYS Simple MW- IR 8 Osplicate "MW-7" "1400" water " clear, (-> Getall yliters) 1400 clean op - Kockerp Nove: All purge water dumped Into Manhole B. An well proged ul dedicated peristably a tobing / drive tobing & sumpld ul Same -> Gave Mike W. dedicated drive toblings 1415 F.G & M. Walker offsite. 1430-1530 F.G. @CRA-UNIOEd truck, label bottles, pack samples Chain of custody - or c-o-c netsults to M. Walker Sevensor 1530- 17° (Reld For \$5) Z F6 4/24/01

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QUARTERLY SITE INSPECTION FORMS (Form 2.1)

January - June 2001

CHARLES GIBSON SITE (PINE AND TUSCARORA SITE) NIAGARA FALLS, NEW YORK

NYSDEC Registry No. 9-32-063

FORM 2.1 **INSPECTION FORM** PINE AND TUSCARORA SITE 8 th AM 1/17/01 DATE: TIME: INSPECTOR'S NAME: WEATHER: (6) hingy STATUS STATUS **GENERAL SITE CONDITIONS** U/A SECURITY U/A Access Road Fence/Locks **Cover Vegetation** Piezometer/Locks Trees/Litter Monitoring Wells/Locks Erosion/Qap Manholes/Lids Erosion/Banks COMMENTS: lowed access Roadway

A - Acceptable

THIS FORM TO BE L	ISED FOR Q	UARTERI	Y AND ALL	OTHER	SITE INSPECTIONS	
DATE: 02/14/200	1	TIME:	2:30pm		_	
	Ben H. Bra	yley		(:	Olin Corp	
WEATHER:	Overcast					
REASON FOR INSPE	ECTION (QU)	ARTERLY	OR OTHER):	Monthly	
GENERAL SITE CON (Note: For subsidence and rodent missing sig	IDITIONS: general site o (sinking), po burrows. Fo jns or evidence	onditions nded wate r site secu e of vand	U=UNACC note existence er, stressed v urity, note abs alism. Note a	EPTABL e of bare regetation ence of le ny other (E A=ACCEPTABLE areas (number,size), , soit discoloration or s ocks, gates open or da unusual occurences.)	cracks, eeps, amaged,
				СОММЕ	NTS	
ACCESS ROAD		Α	<u> </u>		••••••••••••••••••••••••••••••••••••••	
COVER VEGETATIO	N .	A	<u> </u>	<u></u> .		
TREES		A				
LITTER		<u>A</u>				
EROSION (CAP)		<u> </u>				
EROSION (BANK)		Α	_			
SECURITY:		Α				
FENCE/LOCKS	· .	A	_			
PIEZOMETERS/LOC	KS	Α	_			
MONITORING WELL	S/LOCKS	A				
MANHOLES/LIDS/LC	CKS	A	_			
ELECTRICAL PANEL		A	_			<u></u>
ADDITIONAL COMM	ENTS:			····		
						····
· · · · · · · · · · · · · · · · · · ·						
						·····
				1		

CRA 8145 (I) AppD-InspForm

THIS FOR	M TO BE USED	FOR QUARTER	LY AND ALL OTH	IER SITE INSPECTIONS	
DATE:	03/22/2001	TIME:	9:40 AM	<u></u>	
INSPECTO	DR: M.V	Valker		Sevenson	
WEATHER	R: clou	dy,36 dF			
REASON F	OR INSPECTIO	N (QUARTERL)	Y OR OTHER <u>):</u>	quarterly	
GENERAL	SITE CONDITIC (Note: For gener subsidence (sinki and rodent burro missing signs or o	DNS: al site conditions ing), ponded wat ws. For site sec evidence of vand	U=UNACCEPT/ note existence of ter, stressed vegeta urity, note absence dalism. Note any of	ABLE A=ACCEPTABLE bare areas (number,size), cra ation, soil discoloration or see e of locks, gates open or dam ther unusual occurences.)	acks, eps, laged,
			COM	IMENTS	
ACCESS F	ROAD	<u>A</u>			
COVER VE	EGETATION	<u>A</u>	<u></u>		·
TREES		<u>A</u>	<u> </u>	<u></u>	<u> </u>
LITTER		<u>A</u>			
EROSION	(CAP)	<u>A</u>			
EROSION	(BANK)	<u>A</u>			
SECURITY	·:				
FENCE/LO	CKS	A ^{i.}	<u> </u>		
PIEZOMET	ERS/LOCKS	A			
MONITORI	NG WELLS/LOC	CKS A			•
MANHOLE	S/LIDS/LOCKS	A	•		
ELECTRIC	AL PANEL	A			
ADDITION		·		·····	
					_
· · · · · · · · · · · · · · · · · · ·					
			· · · · · ·	<u></u>	
					··· ··· -
	······		<u></u>	·	·····
			,		

CRA 8143 (1) AppD-InspForm

THIS FORM TO BE USED FOR	QUARTERI	Y AND ALL OTHER	SITE INSPECTIONS	
DATE: 04/19/2001	TIME:	8:30 AM		
INSPECTOR: M. Walke	r	COMPANY:	Sevenson	
	<u></u>			
			,	
REASON FOR INSPECTION (Q	UARTERLY	OR OTHER <u>):</u>	Auto dialer malfunction	
GENERAL SITE CONDITIONS: (Note: For general site subsidence (sinking), p and rodent burrows. F missing signs or evide	conditions bonded wate for site secu nce of vand	U=UNACCEPTAB note existence of bar er, stressed vegetation inty, note absence of alism. Note any othe	LE A=ACCEPTABLE re areas (number,size), cracks, on, soil discoloration or seeps, locks, gates open or damaged, r unusual occurences.)	
		COMM	ENTS	
ACCESS ROAD	<u>A</u>			
	<u>A</u>			:
IKEES	<u>^</u>			
	<u>A</u>			
EROSION (CAP)	<u>A</u>		<u></u>	
ERUSIUN (BANK)	<u>A</u>			
SECURITY:	Α			
FENCE/LOCKS	A .			
PIEZOMETERS/LOCKS	Α			
MONITORING WELLS/LOCKS	<u>A</u>		<u></u>	
MANHOLES/LIDS/LOCKS	<u>A</u>	<u> </u>		
ELECTRICAL PANEL	<u>A</u>			
ADDITIONAL COMMENTS:	Met with S meter rea protector	Steve Frank of Carrie dings (high), Deterr and a printed circuit	r Controls @ 8:30 AM to investigate the unusual flow nined that a power surge may have damaged a surge poard. We reset the meter and the system using the	
· · ·	spare circ	uit board that was in	the panel. Steve will replace the surge protector and pu	μ
	water pun	BC on Thurs. 4-26-	counted on the meter readout at the site, not via fax.	
			·	

CKA 8143 (1) AppL-InspForm

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THIS FORM TO BE USED FOR	QUARTER	KET AND ALL OTHER	SITE INSPECTIONS
DATE: 05/24/2001	TIME:	10:00 AM	-
INSPECTOR: Michael	Nalker	COMPANY:	Sevenson
WEATHER:			
REASON FOR INSPECTION (Q	UARTERL	Y OR OTHER):	NYSDEC site visit and inspection
GENERAL SITE CONDITIONS: (Note: For general site subsidence (sinking), and rodent burrows. missing signs or evide	e condition ponded wa For site sec nce of van	U=UNACCEPTABLI s note existence of bare ter, stressed vegetation curity, note absence of I dalism. Note any other	E A=ACCEPTABLE areas (number,size), cracks, , soil discoloration or seeps, ocks, gates open or damaged, unusual occurences.)
		COMME	NTS
ACCESS ROAD	Α	Some vo	egetation starting to grow through.
COVER VEGETATION	Α		
TREES	A		
LITTER	<u>A</u>		
EROSION (CAP)	Α	· · · ·	
EROSION (BANK)	Α		
SECURITY:	A		
FENCE/LOCKS	A		
PIEZOMETERS/LOCKS	A		
MONITORING WELLS/LOCKS	A		·
MANHOLES/LIDS/LOCKS	A		
ELECTRICAL PANEL	<u>A</u>		
ADDITIONAL COMMENTS:	I have at	tached pictures of the d	riveway

DATE: 06/27/2001	TIME:	11:00 AM	
NSPECTOR: M. Walke	r	COMPANY:	Sevenson Environmental Service
WEATHER: Sunny, 8	3 F		
REASON FOR INSPECTION (Q	UARTERL	Y OR OTHER <u>):</u>	Quarterly
GENERAL SITE CONDITIONS: (Note: For general site subsidence (sinking), j and rodent burrows. F missing signs or evide	e conditions bonded wa For site sec nce of van	U≕UNACCEPTA s note existence of b ter, stressed vegetat surity, note absence dalism. Note any oth	BLE A=ACCEPTABLE are areas (number,size), cracks, tion, soil discoloration or seeps, of locks, gates open or damaged, ter unusual occurences.)
		COM	MENTS .
ACCESS ROAD	<u>A</u>		
COVER VEGETATION	Α	Looks	Good
TREES	<u>A</u>	Health	y, full and green
LITTER	<u>A</u>	<u>ok</u>	<u> </u>
EROSION (CAP)	<u>A</u>	ok	
EROSION (BANK)	<u>A</u>	ok	
SECURITY:	А	ok	
FENCE/LOCKS	A ¹⁷	okš	
PIEZOMETERS/LOCKS	<u>A</u>	ok	
MONITORING WELLS/LOCKS	<u>A</u>	ok	
MANHOLES/LIDS/LOCKS	<u>A</u>	<u>ok</u>	
ELECTRICAL PANEL	<u>A</u>	ok	
ADDITIONAL COMMENTS:			
		<u> </u>	. <u></u>
	·		······
	·····		
<u>aaaaaa.</u>			
	· · · · · · · · · · · · · · · · · · ·		
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CRA 814 (1) AppD-InspForm





QUARTERLY GROUNDWATER ELEVATION /PUMPING FORMS (Form 3.1)

January - June 2001

CHARLES GIBSON SITE (PINE AND TUSCARORA SITE) NIAGARA FALLS, NEW YORK

NYSDEC Registry No. 9-32-063

CHARLES GIBSON SITE NIAGARA FALLS, NEW YORK NYSDEC REGISTRY NO. 9-32-063 GROUNDWATER ELEVATION FORM

DATE: 03/22/200)1	TIME: <u>9:40AM</u>		
	M.Walker		Sevenson	<u> </u>
WEATHER:	Cloudy, 36 dF		. <u></u>	<u> </u>
PIEZOMETER	RISER ELEVATION (INSIDE CASING)	DEPTH TO WATER (FT.)	WATER ELEVATION	COMMENTS
P-1	572.72	7.25	565.47	
P-2	574.89	9.32	565.57	
P-3	574.16	6.7	567.46	
P-4	576.14	10.64	565.5	
P-5	575.05	5.35	569.7	State State State State
P-6	578.28	10.26	568.02	
MANHOLE A	575.22	11.53	563.69	
MANHOLE B	577.34	13.55	563.79	
(Note: Manhole A en Niagara Tuscarora F in Manhole B (and b water distance from (Note: riser elevation ADDITIONAL COMN	npties into Manhole B b Road sanitary sewer line y extension Manhole A) the manhole rim should s (re)surveyed Septemi IENTS/OBSERVATION	y gravity feed and Mar by a float controlled s below an elevation of I not be <u>less</u> than 12.4 ber, 1999 by Wendel S S: Flow mete	nhole B is pumpe sump pump whic 565 ft. above me 1 ft. at Manhole Surveyors) er count at time c	ed automatically to the Town of th maintains groundwater elevati ean sea level. Therefore, Depth B and 10.22 ft. at Manhole A. of inspection=20,881
P-4 No cap on piez	ometer, well casing OK			

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CHARLES GIBSON SITE NIAGARA FALLS, NEW YORK NYSDEC REGISTRY NO. 9-32-063 GROUNDWATER ELEVATION FORM

THIS FORM TO BE WATER ELEVATIO	USED FOR ALL QUAR	TERLY PIEZOMETER S	AND MANHO	LE GROUND-		
DATE: 06/27/20	01	TIME: 10:00 AM	<u>-</u> _			
	M. Walker		Sevenson En	vironmental Services		
WEATHER:	Sunny, 78F					
PIEZOMETER	RISER ELEVATION (INSIDE CASING)	DEPTH TO WATER (FT.)	WATER ELEVATION	COMMENTS		
P-1	572.72	6.4	566.32	ok		
P-2	574.89	9.52	565.37	ok		
P-3	574.16	7.25	566.91	ok		
P-4	576.14	10.87	565.27	ok	,	
P-5	575.05	6.5	568.55	ok		
P-6	578.28	10.7	567.58	ok		
MANHOLE A	575.22	11.83	563.39	<u>ok</u>		
MANHOLE B	577.34	13.9	563.44	ok		
(Note: Manhole A empties into Manhole B by gravity feed and Manhole B is pumped automatically to the Town of Niagara Tuscarora Road sanitary sewer line by a float controlled sump pump which maintains groundwater elevations in Manhole B (and by extension Manhole A) below an elevation of 565 ft. above mean sea level. Therefore, Depth to water distance from the manhole rim should not be <u>less</u> than 12.41 ft. at Manhole B and 10.22 ft. at Manhole A. (Note: riser elevations (re)surveyed September, 1999 by Wendel Surveyors)						

ADDITIONAL COMMENTS/OBSERVATIONS: All locks and well caps are in good condition

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