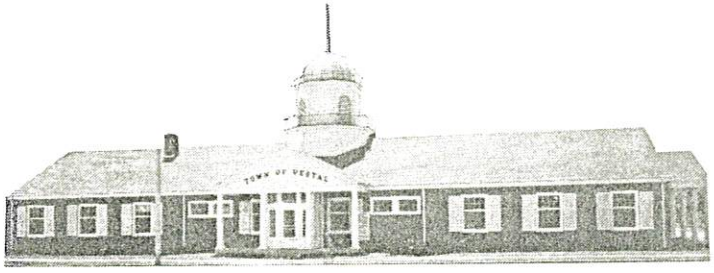
TOWN OF VESTAL

605 Vestal Parkway West
Vestal, New York 13850

Telephone - 748-1514
Area Code - 607



Supervisor
Rose M. Fairbrother

Town Council
Harold Bennett
Robert Nasiatka
Sandra Tillotson
Frank Valletta

August 8, 1990

Scott Rodabaugh, Project Engineer
Division of Hazardous Waste Remediation
Region 7
Binghamton Sub-Office
Route 11, RD#1
Box 1803
Kirkwood, NY 13795-9772

RE: Laboratory Analysis - Monarch Site

Dear Scott:

Please find enclosed the above referenced laboratory analysis.

If you have any questions concerning this matter, please feel free to contact me at anytime.

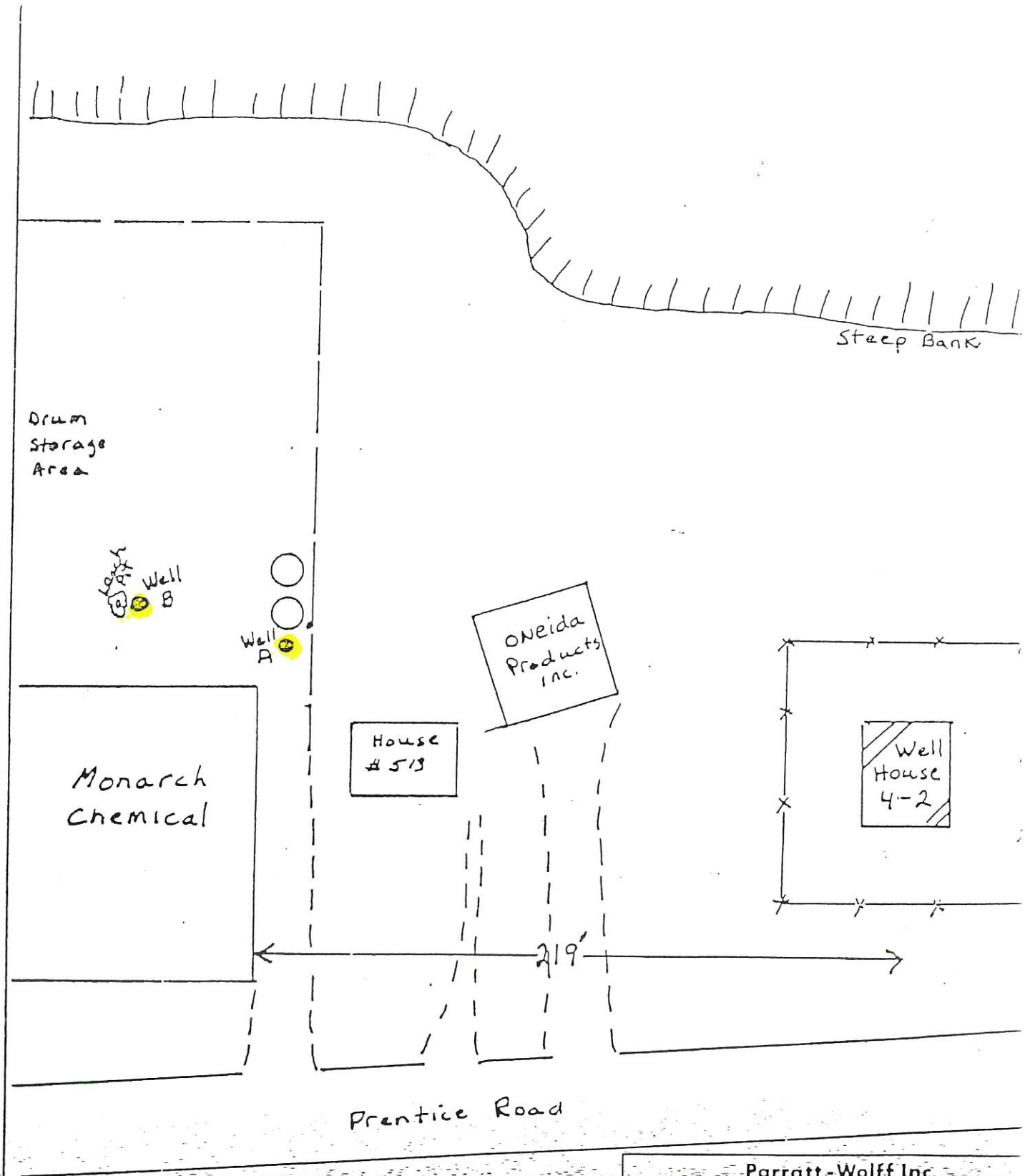
Very truly yours,

Donald A. Bulman
Director of Engineering Services

DAB:lf

Enclosures

THE TOWN OF VESTAL
EST. 1823



Parratt-Wolff Inc.

SKETCH MAP
MONARCH CHEMICAL
Prentice Road
Vestal, New York

Figure 1 | Job # G-800

9-29-80 GWL Jr. not to scale

Laboratory Analyses

OBG LABORATORIES, INC.
5000 Brittonfield Parkway
Syracuse, New York 13221

BUCK ENVIRONMENTAL LABORATORIES INC.
ACCREDITED ENVIRONMENTAL ANALYSIS

100 TOMPKINS ST. • CORTLAND, N.Y. 13045
14 SMITH AVE. • BINGHAMTON, N.Y. 13904

BUCK ENVIRONMENTAL LABORATORIES INC.
100 TOMPKINS ST. • CORTLAND, N.Y. 13045
607-753-3403

LABORATORY REPORT

Client: TOWN OF VESTAL
Site: Prentice Road, Vestal
Samples: Soil

Report Date: 7/18/90
Sampling Date: 6/07/90
Sampled By: North Star Dr.
Analysis Date: 6/19/90
Lab Log No: N901208

Purgeable Halocarbons (By EPA 5030 and 8010)

	TBB-1	TBB-2	TBB-3	TBB-4
bromodichloromethane	ND	ND	ND	ND
bromoform	ND	ND	ND	ND
bromomethane	ND	ND	ND	ND
carbon tetrachloride	ND	ND	ND	ND
chlorobenzene	ND	ND	ND	ND
chloroethane	ND	ND	ND	ND
2-chloroethylvinylether	ND	ND	ND	ND
chloroform	ND	ND	ND	ND
chloromethane	ND	ND	ND	ND
dibromochloromethane	ND	ND	ND	ND
1,2-dichlorobenzene	ND	ND	ND	ND
1,3-dichlorobenzene	ND	ND	ND	ND
1,4-dichlorobenzene	ND	ND	ND	ND
dichlorodifluoromethane	ND	ND	ND	ND
1,1-dichloroethane	ND	ND	ND	ND
1,2-dichloroethane	ND	ND	ND	ND
1,1-dichloroethene	ND	ND	ND	ND
trans-1,2-dichloroethene	ND	ND	ND	ND
1,2-dichloropropane	ND	ND	ND	ND
cis-1,3-dichloropropene	ND	ND	ND	ND
trans-1,3-dichloropropene	ND	ND	ND	ND
methylene chloride	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	ND	ND	ND	ND
tetrachloroethene	0.3	13.9	0.2	0.2
1,1,1-trichloroethane	0.1	ND	ND	ND
1,1,2-trichloroethane	ND	ND	ND	ND
trichloroethene	ND	0.1	ND	ND
trichlorofluoromethane	ND	ND	ND	ND
vinyl chloride	ND	ND	ND	ND

All concentrations are reported as ug/g.
ND indicates that no amount greater than 0.1 ug/g was detected.

This analysis is certified as conforming to generally accepted laboratory practices and requirements of the New York State Health Department ELAP program.

John H. Buck, P.E.
Laboratory Director
NYS ELAP CERT 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
100 TOMPKINS ST. • CORTLAND, N.Y. 13045
607-753-3403

LABORATORY REPORT

Client: TOWN OF VESTAL
Site: Prentice Road, Vestal
Samples: Soil

Report Date: 7/18/90
Sampling Date: 6/07/90
Sampled By: North Star Dr.
Analysis Date: 6/19/90
Lab Log No: N901208

Purgeable Halocarbons (By EPA 5030 and 8010)

	TBB-5	TBB-6	TBB-7	TBA-1
bromodichloromethane	ND	ND	ND	ND
bromoform	ND	ND	ND	ND
bromomethane	ND	ND	ND	ND
carbon tetrachloride	ND	ND	ND	ND
chlorobenzene	ND	ND	ND	ND
chloroethane	ND	ND	ND	ND
2-chloroethylvinylether	ND	ND	ND	ND
chloroform	ND	ND	ND	ND
chloromethane	ND	ND	ND	ND
dibromochloromethane	ND	ND	ND	ND
1,2-dichlorobenzene	ND	ND	ND	ND
1,3-dichlorobenzene	ND	ND	ND	ND
1,4-dichlorobenzene	ND	ND	ND	ND
dichlorodifluoromethane	ND	ND	ND	ND
1,1-dichloroethane	ND	ND	ND	ND
1,2-dichloroethane	ND	ND	ND	ND
1,1-dichloroethene	ND	ND	ND	ND
trans-1,2-dichloroethene	ND	ND	ND	ND
1,2-dichloropropane	ND	ND	ND	ND
cis-1,3-dichloropropene	ND	ND	ND	ND
trans-1,3-dichloropropene	ND	ND	ND	ND
methylene chloride	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	ND	ND	ND	ND
tetrachloroethene	0.3	0.2	0.1	0.4
1,1,1-trichloroethane	ND	ND	ND	0.1
1,1,2-trichloroethane	ND	ND	ND	ND
trichloroethene	ND	ND	ND	0.2
trichlorofluoromethane	ND	ND	ND	ND
vinyl chloride	ND	ND	ND	ND

All concentrations are reported as ug/g.
ND indicates that no amount greater than 0.1 ug/g was detected.

This analysis is certified as conforming to generally accepted laboratory practices and requirements of the New York State Health Department ELAP program.

John H. Buck

John H. Buck, P.E.
Laboratory Director
NYS ELAP CERT 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
100 TOMPKINS ST. · CORTLAND, N.Y. 13045
607-753-3403

LABORATORY REPORT

Client: TOWN OF VESTAL
Site: Prentice Road, Vestal
Samples: Soil

Report Date: 7/18/90
Sampling Date: 6/07/90
Sampled By: North Star Dr.
Analysis Date: 6/19/90
Lab Log No: N901208

Purgeable Halocarbons (By EPA 5030 and 8010)

	TBA-2	TBA-3	TBA-4	TBA-5
bromodichloromethane	ND	ND	ND	ND
bromoform	ND	ND	ND	ND
bromomethane	ND	ND	ND	ND
carbon tetrachloride	ND	ND	ND	ND
chlorobenzene	ND	ND	ND	ND
chloroethane	ND	ND	ND	ND
2-chloroethylvinylether	ND	ND	ND	ND
chloroform	ND	ND	ND	ND
chloromethane	ND	ND	ND	ND
dibromochloromethane	ND	ND	ND	ND
1,2-dichlorobenzene	ND	ND	ND	ND
1,3-dichlorobenzene	ND	ND	ND	ND
1,4-dichlorobenzene	ND	ND	ND	ND
dichlorodifluoromethane	ND	ND	ND	ND
1,1-dichloroethane	ND	ND	ND	ND
1,2-dichloroethane	ND	ND	ND	ND
1,1-dichloroethene	ND	ND	ND	ND
trans-1,2-dichloroethene	ND	ND	ND	ND
1,2-dichloropropane	ND	ND	ND	ND
cis-1,3-dichloropropene	ND	ND	ND	ND
trans-1,3-dichloropropene	ND	ND	ND	ND
methylene chloride	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	ND	ND	ND	ND
tetrachloroethene	0.3	0.3	0.3	0.4
1,1,1-trichloroethane	0.1	0.2	0.1	0.1
1,1,2-trichloroethane	ND	ND	ND	ND
trichloroethene	0.1	ND	0.1	0.1
trichlorofluoromethane	ND	ND	ND	ND
vinyl chloride	ND	ND	ND	ND

All concentrations are reported as ug/g.
ND indicates that no amount greater than 0.1 ug/g was detected.

This analysis is certified as conforming to generally accepted laboratory practices and requirements of the New York State Health Department ELAP program.

John H. Buck, P.E.
Laboratory Director
NYS ELAP CERT 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
ENVIRONMENTAL ANALYSIS
100 TOMPKINS ST. · CORTLAND, N.Y. 13045
607-753-3403

LABORATORY REPORT

Client: TOWN OF VESTAL

Site: Prentice Road, Vestal

Samples: Soil

Report Date: 7/18/90
Sampling Date: 6/07/90
Sampled By: North Star Dr.
Analysis Date: 6/19/90
Lab Log No: N901208

Purgeable Halocarbons (By EPA 5030 and 8010)

	TBA-6	TBA-8	SOIL BLANK	METHOD BL
bromodichloromethane	ND	ND	ND	ND
bromoform	ND	ND	ND	ND
bromomethane	ND	ND	ND	ND
carbon tetrachloride	ND	ND	ND	ND
chlorobenzene	ND	ND	ND	ND
chloroethane	ND	ND	ND	ND
2-chloroethylvinylether	ND	ND	ND	ND
chloroform	ND	ND	ND	ND
chloromethane	ND	ND	ND	ND
dibromochloromethane	ND	ND	ND	ND
1,2-dichlorobenzene	ND	ND	ND	ND
1,3-dichlorobenzene	ND	ND	ND	ND
1,4-dichlorobenzene	ND	ND	ND	ND
dichlorodifluoromethane	ND	ND	ND	ND
1,1-dichloroethane	ND	ND	ND	ND
1,2-dichloroethane	ND	ND	ND	ND
1,1-dichloroethene	ND	ND	ND	ND
trans-1,2-dichloroethene	ND	ND	ND	ND
1,2-dichloropropane	ND	ND	ND	ND
cis-1,3-dichloropropene	ND	ND	ND	ND
trans-1,3-dichloropropene	ND	ND	ND	ND
methylene chloride	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	ND	ND	ND	ND
tetrachloroethene	0.3	0.2	ND	ND
1,1,1-trichloroethane	0.2	0.1	ND	ND
1,1,2-trichloroethane	ND	ND	ND	ND
trichloroethene	0.1	ND	ND	ND
trichlorofluoromethane	ND	ND	ND	ND
vinyl chloride	ND	ND	ND	ND

All concentrations are reported as ug/g.
ND indicates that no amount greater than 0.1 ug/g was detected.

This analysis is certified as conforming to generally accepted laboratory practices and requirements of the New York State Health Department ELAP program.

John H. Buck

John H. Buck, P.E.
Laboratory Director
NYS ELAP CERT 10795

Client: Buck Engineering, Cortland, New York
Project: Town of Vestal, Well # 4-2 Investigation
Location: Prentice Road, Town of Vestal, New York

NORTH STAR DRILLING CO.

SUBSURFACE LOG

Boring No. TB-A
Project No. NSD-9049
Sheet 1 of 1
Date Started 6/6/90
Date Completed 6/7/90
Driller Harry Lyon

Method of Investigation

Drill Rig: Central Mine Eqp. Model 55
Casing: 4" I.D. Casing - ODEX Method
Casing Hammer: Wt. _____ lb. Fall _____ in.
Soil Sampler: 2" O.D. Split Spoon (ASTM D-1586)
Sample Hammer: Wt. 140 lb. Fall 30 in.
Rock Sampler: _____
Other: _____

Boring Location: Established by Town Engineer (12' South of Fence Line Adjacent to Driveway)
Surface Elevation: Not Recorded

Ground Water Observations

Date	Time	Casing at	Hole at	Water at
6/7	1120	64.0'	65.0'	57.5'
6/7	1300	Out	52.0'	Dry

Depth	Sample Number	Sample Depth From (Ft)	Sample Depth To (Ft)	Sample Type	SOIL Blows on Sampler 0'/0.5'	0.5'/1.0'	1.0'/1.5'	1.5'/2.0'	N	ROCK Recovery Ft.	ROCK Recovery %	RQD	MATERIAL DESCRIPTION	Depth of Change	REMARKS
													Reworked Soils	2.5'	
	1	5.0	6.5	s	8		10	10	20				Damp, Brown, Coarse to Fine SAND, Some Coarse to Fine GRAVEL, Little SILT		
10															
	2	15.0	16.5	s	15		30	30	60						
20														23.0'	
	3	25.0	26.5	s	16		20	30	50				Similar - Moist		
30														33.0'	
	4	35.0	36.5	s	20		29	50	79				Moist, Brown, Coarse to Fine SAND, And Coarse to Fine GRAVEL, Little SILT		
40														42.0'	
	5	45.0	46.5	s	15		24	28	52				Moist, Brown, Coarse to Fine SAND, Little SILT		
50															
	6	55.0	56.5	s	12		14	21	35					59.0'	
60															
	7	60.0	62.0				Cuttings		-				Wet, Brown, Fine SAND, Trace SILT	63.5'	
	8	65.0	66.5	s	9		10	8	18				Saturated, Brown, Medium to Fine SAND, Trace SILT	66.5'	
70													Boring Terminated at 66.5'		

P.O. Box 67 Cortland, N.Y. 13045 Telephone: 607-756-8820

Client: Buck Engineering, Cortland, New York
Project: Town of Vestal, Well # 4-2 Investigation
Location: Prentice Road, Town of Vestal, New York

NORTH STAR DRILLING CO.

SUBSURFACE LOG

Boring No. TB-B
Project No. NSD-9049
Sheet 1 of 1
Date Started 6/7/90
Date Completed 6/7/90
Driller Harry Lyon

Method of Investigation

Drill Rig: Central Mine Eqp. Model 55
Casing: 4" I.D. Casing - ODEX Method
Casing Hammer: Wt. _____ lb. Fall _____ in.
Soil Sampler: 2" O.D. Split Spoon (ASTM D-1586)
Sample Hammer: Wt. 140 lb. Fall 30 in.
Rock Sampler:
Other:

Boring Location: Established by Town Engineer (53' West of Rear Center of Building)
Surface Elevation: Not Recorded

Ground Water Observations

Date	Time	Casing at	Hole at	Water at
6/7	1905	64.5'	65.0'	55.2'
6/7	2015	Out	46.0'	Dry

Depth	Sample Number	Sample Depth From (Ft)	Sample Depth To (Ft)	Sample Type	SOIL Blows on Sampler 0'/0.5'	0.5'/1.0'	1.0'/1.5'	1.5'/2.0'	N	ROCK Recovery Ft.	ROCK Recovery %	RQD	MATERIAL DESCRIPTION	Depth of Change	REMARKS
													Reworked Soils	2.0'	
	1	5.0	6.5	s	13	16	16		32				Damp, Brown, Coarse to Fine SAND, Some Coarse to Fine GRAVEL, Little SILT		
10															
	2	15.0	16.5	s	17	18	20		38						
20															
	3	25.0	26.5	s	10	9	8		17					28.5'	
30															
	4	35.0	36.5	s	26	36	36		72				Damp, Brown, Coarse to Fine SAND, And Coarse to Fine GRAVEL, Little SILT		
40														43.5'	
	5	45.0	46.5	s	12	19	22		41				Damp, Brown, Coarse to Fine SAND, Little SILT	49.0'	
50													Similar - Moist to Wet		
	6	55.0	56.5	s	9	14	6		20					56.0'	
60													Saturated, Brown, Medium to Fine SAND, Trace SILT		
	7	65.0	66.5	s	3	4	5		9					66.5'	
70													Boring Terminated at 66.5'		

P.O. Box 67 Cortland, N.Y. 13045 Telephone: 607-756-8820