APPENDIX A

Field Documentation

This Appendix contains all requisite field documentation generated during the field program. Specifically, this Appendix contains the following:

- Soil Boring Reports
- Groundwater Monitoring Well Construction Diagrams
- Sample Information Records
- Monitoring Well Sample Data Forms
- Daily Equipment Calibration Logs
- Test Trench Logs

SOIL CLASSIFICATION CHART[A]

Major Divisions			Group Symbol[C]	Typical Names
Coarse-grained soils More than 50% retained on No. 200 sieve (0.075 mm)	**Gravels** (More than 50% retained on No. 4 sieve)	Clean gravels (little or no fines)	GW	Well-graded[B] gravels, gravel-sand mixtures, little or no fines
			GP	Poorly-graded[B] gravels, gravel-sand mixtures, little or no fines
		Gravels with fines	GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	Sands (More than 50% between No. 4 and 200 sieves)	Clean sands (little or no fines)	SW	Well-graded[B] sands, gravelly sands, little or no fines
			SP	Poorly-graded[B] sands, gravelly sands, little or no fines
		Sands with fines	SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
Fine-grained soils More than 50% smaller than No. 200 sieve (0.075 mm)	**Silts and clays** (Liquid limit <50)		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, or clayey silts with slight plasticity
			CL	Inorganic clays of low to medium plasticity gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic silts and organic silty clays of low plasticity
	Silts and clays (Liquid limit >50)		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity, organic silts
Highly organic soils			PT	Peat and other organic soils

[A] Based on Unified Soil Classification System and ASTM D2487, adapted from Holtz and Kovacs 1981.

[B] "Well-graded" (or "poorly sorted") indicates a wide range in grain sizes, including all intermediate particle sizes. "Poorly-graded" (or "well sorted") indicates mostly one grain size or range of sizes with intermediate particle sizes missing.

[C] Other qualifiers may be added to group symbol. For example, if gravels or fines contain 15-30% sand, and "with sand." If sands or fines contain 15-30% gravel, add "with gravel." If fines contain >30% gravel or sand, add "gravelly" or "sandy," whichever predominates. If soil contains cobbles or boulders, add "with cobbles" and/or "with boulders."

VHB Soil Boring Report

Environmental Risk Management

Site Location/Information:
KeySpan Corp.
Patchogue, New York

Project No.:	06392.00 (00022)
Boring ID:	PASB-01/PAGP-01

Driller:	Zebra Environmental	Boring Depth:	13.5'/16.0'
Drill Rig:	GeoProbe	Depth to Ground Water:	10' +/-
Technique:	Direct Push	VHB Representative:	Jon Puliafico
Date:	7/17/01 - 7/18/01		
Weather:			

Depth (feet BGS)	Sample #	Field Meter Data		Field Classification & Remarks	USCS Symbol
		Recovery	PID (ppm)		
0-4	S-1	35	0.0	Top 3" = topsoil. Brown dry medium to fine sand, little gravel, trace silt.	
4-8	S-2	30	0.0	Light brown fine sand, trace coarse to medium sand, silt.	
8-12	S-3	22	0.0	Brown wet medium to fine sand, little gravel, trace silt.	
12-16	S-4	30	0.0	Brown wet coarse to fine sand, little gravel, silt.	

Key:

H_2S = Hydrogen Sulfide	ppm = Parts Per Million	BGS = Below Ground Surface
HCn = Hydrogen Cyanide	NA = Not Applicable	HSA = Hollow-Stem Auger
PID = Photoionization Detector	NR = No Recovery	

VHB Soil Boring Report

Environmental Risk Management

Site Location/Information:
KeySpan Corp.
Patchogue, New York

Project No.:	06392.00 (00022)
Boring ID:	PASB-02/PAGP-02

Driller:	Zebra Environmental	Boring Depth:	8.0'
Drill Rig:	GeoProbe	Depth to Ground Water:	3' +/-
Technique:	Direct Push	VHB Representative:	Jon Puliafico
Date:	7/17/01 - 7/18/01		
Weather:			

Depth (feet BGS)	Sample #	Field Meter Data		Field Classification & Remarks	USCS Symbol
		Recovery	PID (ppm)		
0-4	S-1	33"	0.0	Top 16" = Black silty organic fine sand, trace coarse to medium sand, organic fibers, organic odor. Bottom 17" = Brown fine sand, trace coarse to medium sand, silt.	
4-8	S-2	42"	0.0	Top 36" = Black silty organic fine sand, trace coarse to medium sand, organic fibers, organic odor. Bottom 6" = Black organic silt, organic odor.	

Key:

H_2S = Hydrogen Sulfide
HCn = Hydrogen Cyanide
PID = Photoionization Detector
ppm = Parts Per Million
NA = Not Applicable
NR = No Recovery
BGS = Below Ground Surface
HSA = Hollow-Stem Auger

VHB Soil Boring Report

Environmental Risk Management

Site Location/Information:
KeySpan Corp.
Patchogue, New York

Project No.: 06392.00 (00022)
Boring ID: PASB-03

Driller: Zebra Environmental
Drill Rig: GeoProbe
Technique: Direct Push
Date: 7/17/01 - 7/18/01
Weather:

Boring Depth: 4.0'
Depth to Ground Water: 3' +/-
VHB Representative: Jon Puliafico

Depth (feet BGS)	Sample #	Field Meter Data		Field Classification & Remarks	USCS Symbol
		Recovery	PID (ppm)		
0-4	S-1	40"	5.0	Top 24" = Dark brown, fine sand, trace gravel, coarse to medium sand, silt. Bottom 16" = Light brown to red fine sand, little coarse to medium sand.	
4-8	S-2	32"	3.1	Brown wet medium to fine sand, little gravel, coarse sand, silt.	
8-12	S-3	28"	1.6	Brown and gray, coarse to fine sand, little gravel, silt.	

Key:
H_2S = Hydrogen Sulfide
HCn = Hydrogen Cyanide
PID = Photoionization Detector
ppm = Parts Per Million
NA = Not Applicable
NR = No Recovery
BGS = Below Ground Surface
HSA = Hollow-Stem Auger

VHB Soil Boring Report

Environmental Risk Management

Site Location/Information:
KeySpan Corp.
Patchogue, New York

Project No.:	06392.00 (00022)
Boring ID:	PASB-04

Driller:	Zebra Environmental	Boring Depth:	12.0'
Drill Rig:	GeoProbe	Depth to Ground Water:	3' +/-
Technique:	4 1/4" HSA	VHB Representative:	Jon Puliafico
Date:	7/17/01 - 7/18/01		
Weather:			

Depth (feet BGS)	Sample #	Field Meter Data		Field Classification & Remarks	USCS Symbol
		Recovery	PID (ppm)		
0-4	S-1	40"	0.6/438	Top 32" = Brown coarse to fine sand, little gravel, trace silt. Bottom 8" = Black fine sand, trace gravel, coarse to medium sand, petroleum sheen and odor.	
4-8	S-2	48"	580/108	Top 2' = Gray fine sand, trace coarse to medium sand, petroleum. Bottom 2' = Organic silt, some roots and fibers. Bottom 4" = Black coarse to fine sand, some silt, petroleum sheen and odor.	
8-12	S-3	36"	305/68	Brown and black fine sand, little coarse to medium sand, trace gravel.	

Key:

H_2S = Hydrogen Sulfide
HCn = Hydrogen Cyanide
PID = Photoionization Detector
ppm = Parts Per Million
NA = Not Applicable
NR = No Recovery
BGS = Below Ground Surface
HSA = Hollow-Stem Auger

VHB Soil Boring Report

Environmental Risk Management

Site Location/Information:
KeySpan Corp.
Patchogue, New York

Project No.:	06392.00 (00022)
Boring ID:	PASB-05

Driller:	Zebra Environmental	Boring Depth:	12.0'
Drill Rig:	GeoProbe	Depth to Ground Water:	3' +/-
Technique:	Direct Push	VHB Representative:	Jon Puliafico
Date:	7/17/01 - 7/18/01		
Weather:			

Depth (feet BGS)	Sample #	Field Meter Data		Field Classification & Remarks	USCS Symbol
		Recovery	PID (ppm)		
0-4	S-1	31"	0.0	Brown dry coarse to fine sand, little gravel, trace organic fibers (roots).	
4-8	S-2	40"	0.0	Fine sand, Brown, 6" oil.	
8-12	S-3	40"	0.0	Fine sand, Brown, 6" oil.	

Key:

H_2S = Hydrogen Sulfide	ppm = Parts Per Million	BGS = Below Ground Surface
HCn = Hydrogen Cyanide	NA = Not Applicable	HSA = Hollow-Stem Auger
PID = Photoionization Detector	NR = No Recovery	

VHB Soil Boring Report

Environmental Risk Management

Site Location/Information:
KeySpan Corp.
Patchogue, New York

Project No.:	06392.00 (00022)
Boring ID:	PASB-06

Driller:	Zebra Environmental	Boring Depth:	12.0'
Drill Rig:	GeoProbe	Depth to Ground Water:	3' +/-
Technique:	Direct Push	VHB Representative:	Jon Puliafico
Date:	7/17/01 - 7/18/01		
Weather:	Rain		

Depth (feet BGS)	Sample #	Field Meter Data		Field Classification & Remarks	USCS Symbol
		Recovery	PID (ppm)		
0-4	S-1	38"	30.1	Top 22" = Brown coarse to fine sand and gravel. Bottom = Black coarse to fine sand and gravel, petroleum sheen.	
4-8	S-2	24"	180	Interbedded brown and black medium sand and fine sand layers, fine sand, petroleum.	
8-12	S-3		152/8.8	Black and brown coarse to fine sand, little gravel, silt, petroleum. Light brown coarse to fine sand and gravel.	

Key:

H_2S = Hydrogen Sulfide
HCn = Hydrogen Cyanide
PID = Photoionization Detector
ppm = Parts Per Million
NA = Not Applicable
NR = No Recovery
BGS = Below Ground Surface
HSA = Hollow-Stem Auger

VHB Soil Boring Report

Environmental Risk Management

Site Location/Information:
KeySpan Corp.
Patchogue, New York

Project No.:	06392.00 (00022)
Boring ID:	PASB-07

Driller:	Zebra Environmental	Boring Depth:	12.0'
Drill Rig:	GeoProbe	Depth to Ground Water:	3' +/-
Technique:	Direct Push	VHB Representative:	Jon Puliafico
Date:	7/17/01 - 7/18/01		
Weather:			

Depth (feet BGS)	Sample #	Field Meter Data		Field Classification & Remarks	USCS Symbol
		Recovery	PID (ppm)		
0-4	S-1	20"	0.0	Brown dry coarse to fine sand, little gravel.	
4-8	S-2	40"	0.0/5.4	Top 14" = Gray silty coarse to fine sand, little gravel. Bottom 26" = Brown, little coarse to medium sand, fine sand, trace gravel, silt, organic fibers at 7.7 feet.	
8-12	S-3	42"	1.1/5.6	Top 30" = Gray medium to fine sand, little gravel, trace coarse sand. Bottom 12" - Brown coarse to fine sand, some gravel, odor.	

Key:

H_2S = Hydrogen Sulfide	ppm = Parts Per Million	BGS = Below Ground Surface
HCn = Hydrogen Cyanide	NA = Not Applicable	HSA = Hollow-Stem Auger
PID = Photoionization Detector	NR = No Recovery	

VHB Soil Boring Report

Environmental Risk Management

Site Location/Information:
KeySpan Corp.
Patchogue, New York

Project No.:	06392.00 (00022)
Boring ID:	PASB-08

Driller:	Zebra Environmental	Boring Depth:	10'
Drill Rig:	Manual Hammer	Depth to Ground Water:	7' +/-
Technique:	Direct Push	VHB Representative:	Jon Puliafico
Date:	7/19/01		
Weather:			

Depth (feet BGS)	Sample #	Field Meter Data		Field Classification & Remarks	USCS Symbol
		Recovery	PID (ppm)		
0-2	S-1	22"	0.0	Gray dry fine sand, trace gravel, coarse to medium sand, brick.	
2-4	S-2	20"	0.0	Top 14" gray dry fine sand, trace gravel, coarse to medium sand, brick. Bottom 6" black moist organic fine sand.	
4-6	S-3	24"	0.0	Top 16" brown fine sand, trace gravel, coarse to medium sand. Bottom 8" black moist organic silty fine sand.	
6-8	S-4	24"	1.9	Brown and gray, wet coarse to fine sand, little gravel, silt.	
8-10	S-5	24"	1.9	Brown and gray, wet coarse to fine sand, little gravel, silt.	

Key:

H_2S = Hydrogen Sulfide	ppm = Parts Per Million	BGS = Below Ground Surface
HCn = Hydrogen Cyanide	NA = Not Applicable	HSA = Hollow-Stem Auger
PID = Photoionization Detector	NR = No Recovery	

VHB Soil Boring Report

Environmental Risk Management

Site Location/Information:
KeySpan Corp.
Patchogue, New York

Project No.:	06392.00 (00022)
Boring ID:	PASB-09/PAGP-03

Driller:	Zebra Environmental	Boring Depth:	8.0'
Drill Rig:	GeoProbe	Depth to Ground Water:	
Technique:	Direct Push	VHB Representative:	Jon Puliafico
Date:	7/19/01		
Weather:			

Depth (feet BGS)	Sample #	Field Meter Data		Field Classification & Remarks	USCS Symbol
		Recovery	PID (ppm)		
0-4	S-1	30"	ND	Brown, dry coarse to fine sand, some gravel, little silt.	
4-8	S-2	37"	ND	Top 20" = organic silt and fine sand.	

Key:

H_2S = Hydrogen Sulfide	ppm = Parts Per Million	BGS = Below Ground Surface
HCn = Hydrogen Cyanide	NA = Not Applicable	HSA = Hollow-Stem Auger
PID = Photoionization Detector	NR = No Recovery	

VHB Soil Boring Report

Environmental Risk Management

Site Location/Information:
KeySpan Corp.
Patchogue, New York

Project No.:	06392.00 (00022)
Boring ID:	PASB-10/PAGP-04

Driller:	Zebra Environmental	Boring Depth:	7'/8'
Drill Rig:	Manual Hammer	Depth to Ground Water:	4' +/-
Technique:	Direct Push	VHB Representative:	Jon Puliafico
Date:	7/20/01		
Weather:			

Depth (feet BGS)	Sample #	Field Meter Data		Field Classification & Remarks	USCS Symbol
		Recovery	PID (ppm)		
0-2	S-1	24"	3.3	Brown dry fine sand, trace gravel, coarse to medium sand, wood.	
2-4	S-2	24"	5.1	Gray coarse to fine sand, little silt, trace gravel.	
4-6	S-3	24"	5.0	Gray coarse to fine sand, little silt, trace gravel.	
6-8	S-4	24"	2.1	Gray coarse to fine sand, little silt, trace gravel to 6.5'. Black silty fine sand, trace gravel, coarse to medium sand, organics.	

Key:

H_2S = Hydrogen Sulfide	ppm = Parts Per Million	BGS = Below Ground Surface
HCn = Hydrogen Cyanide	NA = Not Applicable	HSA = Hollow-Stem Auger
PID = Photoionization Detector	NR = No Recovery	

VHB Soil Boring Report

Environmental Risk Management

Site Location/Information:
KeySpan Corp.
Patchogue, New York

Project No.:	06392.00 (00022)
Boring ID:	PASB-11/PAGP-05

Driller:	Zebra Environmental	Boring Depth:	5'/8'
Drill Rig:	Manual Hammer	Depth to Ground Water:	<1
Technique:	Direct Push	VHB Representative:	Jon Puliafico
Date:	7/19/01		
Weather:			

Depth (feet BGS)	Sample #	Field Meter Data		Field Classification & Remarks	USCS Symbol
		Recovery	PID (ppm)		
0-2	S-1	24	ND	Gray organic silt and fine sand, grass roots.	
2-4	S-2	24	ND	Alternating brown, wet, medium to fine sand, gray, wet, organic silt, fine sand.	
4-6	S-3	24	ND	Alternating brown, wet, medium to fine sand, gray, wet, organic silt, fine sand.	
6-8	S-4	24	ND	Light brown, wet, coarse to fine sand.	

Key:

H_2S = Hydrogen Sulfide	ppm = Parts Per Million	BGS = Below Ground Surface
HCn = Hydrogen Cyanide	NA = Not Applicable	HSA = Hollow-Stem Auger
PID = Photoionization Detector	NR = No Recovery	

VHB Soil Boring Report

Environmental Risk Management

Site Location/Information:
KeySpan Corp.
Patchogue, New York

Project No.:	06392.00 (00022)
Boring ID:	PASB-12/PAGP-06

Driller:	Zebra Environmental	Boring Depth:	8'
Drill Rig:	Manual Hammer	Depth to Ground Water:	3' +/-
Technique:	Direct Push	VHB Representative:	Jon Puliafico
Date:	7/20/01		
Weather:			

Depth (feet BGS)	Sample #	Field Meter Data		Field Classification & Remarks	USCS Symbol
		Recovery	PID (ppm)		
0-2	S-1	18"	1.4	Black coarse to fine sand, little gravel, silt.	
2-4	S-2	19"	0.6	Black coarse to fine sand, little gravel, silt.	
4-6	S-3	18"	1.4	Brown fine sand, trace medium sand, silt.	
6-8	S-4	13"	1.4	Brown fine sand, trace medium sand, silt.	

Key:

H_2S = Hydrogen Sulfide
HCn = Hydrogen Cyanide
PID = Photoionization Detector
ppm = Parts Per Million
NA = Not Applicable
NR = No Recovery
BGS = Below Ground Surface
HSA = Hollow-Stem Auger

VHB Soil Boring Report

Environmental Risk Management

Site Location/Information:
KeySpan Corp.
Patchogue, New York

Project No.:	06392.00 (00022)
Boring ID:	PASB-14

Driller:	Zebra Environmental	Boring Depth:	12.0'
Drill Rig:	GeoProbe	Depth to Ground Water:	3' +/-
Technique:	Direct Push	VHB Representative:	Jon Puliafico
Date:	7/20/01		
Weather:			

Depth (feet BGS)	Sample #	Field Meter Data		Field Classification & Remarks	USCS Symbol
		Recovery	PID (ppm)		
0-4	S-1	35"	5.7/3.2	5.7 = Black coarse to fine sand, little gravel, trace brick. 3.2 = Light brown coarse to fine sand, litle gravel.	
4-8	S-2	37"	1.7/0.9	1.7 = Gray, wet fine sand, little gravel, coarse sand, silt. 0.9 = 6 inches of gray organic silty sand.	
8-12	S-3	37"	0.3/0.3	Gray, wet coarse to fine sand, some gravel, trace silt.	

Key:

H_2S = Hydrogen Sulfide
HCn = Hydrogen Cyanide
PID = Photoionization Detector
ppm = Parts Per Million
NA = Not Applicable
NR = No Recovery
BGS = Below Ground Surface
HSA = Hollow-Stem Auger

VHB Soil Boring Report

Environmental Risk Management

Site Location/Information:
KeySpan Corp.
Patchogue, New York

Project No.:	06392.00 (00022)
Boring ID:	PASB-15

Driller:	Zebra Environmental	Boring Depth:	12.0'
Drill Rig:	GeoProbe	Depth to Ground Water:	3' +/-
Technique:	Direct Push	VHB Representative:	Jon Puliafico
Date:	7/20/01		
Weather:			

Depth (feet BGS)	Sample #	Field Meter Data		Field Classification & Remarks	USCS Symbol
		Recovery	PID (ppm)		
0-4	S-1	33"	1.3/5.2	Top 22" = Black medium to fine sand, little gravel, coarse and trace silt, brick. Bottom 9" = Brown fine sand, trace silt.	
4-8	S-2	48"	2.4/2.0	Brown medium to fine sand, little gravel, trace coarse sand, silt.	
8-12	S-3	48"	3.1/4.0	Brown medium to fine sand, little gravel, trace coarse sand, silt. Orange coarse to fine sand, little gravel.	

Key:

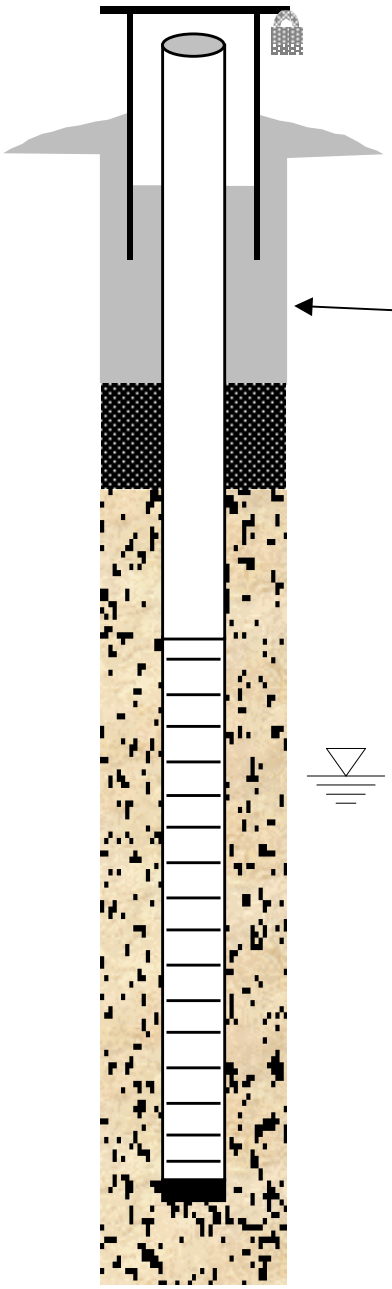
H_2S = Hydrogen Sulfide
HCn = Hydrogen Cyanide
PID = Photoionization Detector
ppm = Parts Per Million
NA = Not Applicable
NR = No Recovery
BGS = Below Ground Surface
HSA = Hollow-Stem Auger

VHB Overburden Monitoring Well Diagram

Environmental Risk Management

Project Name:	KeySpan Corporation	Project No.:	06392.00 (00022)	Well ID:	**PAGP-01**
	Former Patchogue MGP Site	Driller:	Zebra Environmental	VHB Rep.:	JP
Location:	Patchogue, New York	Rig Type(s):	Geoprobe	Total Depth:	16 feet
Date Started/Finished:	07/18/01	Drilling Method(s):	Direct-Push	Elevation:	503.43 feet

Depth (feet below ground surface, unless otherwise specified):



503.43 feet	Ground Surface Elevation
NA	Top of inner casing (riser)
	Casing diameter (inches): **1-inch**
	Casing material: **Sch. 40 PVC**
NA	Top of grout
	Grout material: **NA**
	Borehole diameter: **2.125 inches**
NA	Top of bentonite seal
	Bentonite type: **NA**
7	Top of filter pack
	Type/Size: **#10 Gravel**
8.5	Top of well screen
	Screen type: **Machine Slot PVC**
	Screen slot size: **0.10-inch**
9.45	Depth to groundwater
10.75	Depth of well
	Date of measurement: **7/19/01**
13.5	Bottom of well screen
13.5	Total depth of well
16	Total depth of borehole

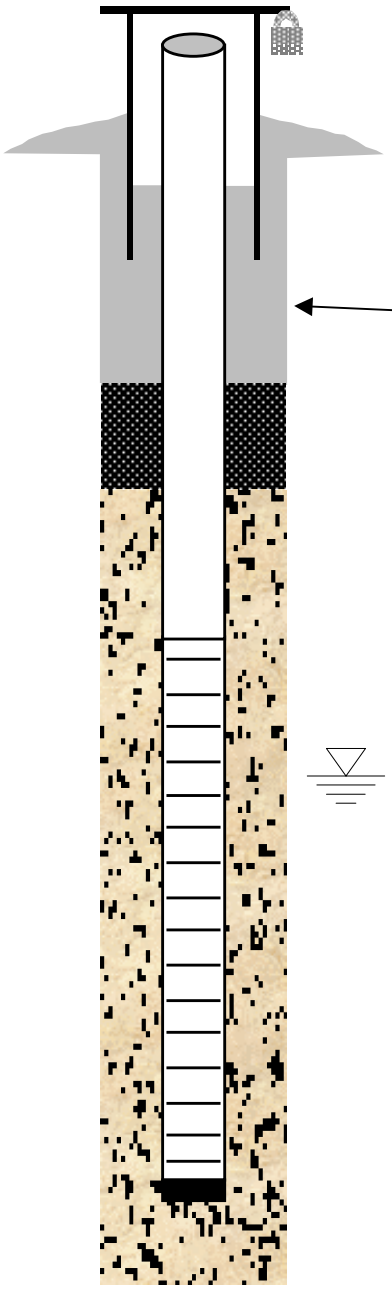
Comments:

VHB Overburden Monitoring Well Diagram

Environmental Risk Management

Project Name:	KeySpan Corporation	Project No.:	06392.00 (00022)	Well ID:	**PAGP-02**
	Former Patchogue MGP Site	Driller:	Zebra Environmental	VHB Rep.:	JP
Location:	Patchogue, New York	Rig Type(s):	Geoprobe	Total Depth:	8 feet
Date Started/Finished:	07/16/01	Drilling Method(s):	Direct-Push	Elevation:	494.24 feet

Depth (feet below ground surface, unless otherwise specified):



494.24 feet	Ground Surface Elevation
NA	Top of inner casing (riser)
	Casing diameter (inches): **1-inch**
	Casing material: **Sch. 40 PVC**
NA	Top of grout
	Grout material: **NA**
	Borehole diameter: **2.125 inches**
NA	Top of bentonite seal
	Bentonite type: **NA**
0.5	Top of filter pack
	Type/Size: **#10 Gravel**
1	Top of well screen
	Screen type: **Machine Slot PVC**
	Screen slot size: **0.10-inch**
0.8	Depth to groundwater
5.25	Depth of well
	Date of measurement: **7/19/01**
6	Bottom of well screen
6	Total depth of well
8	Total depth of borehole

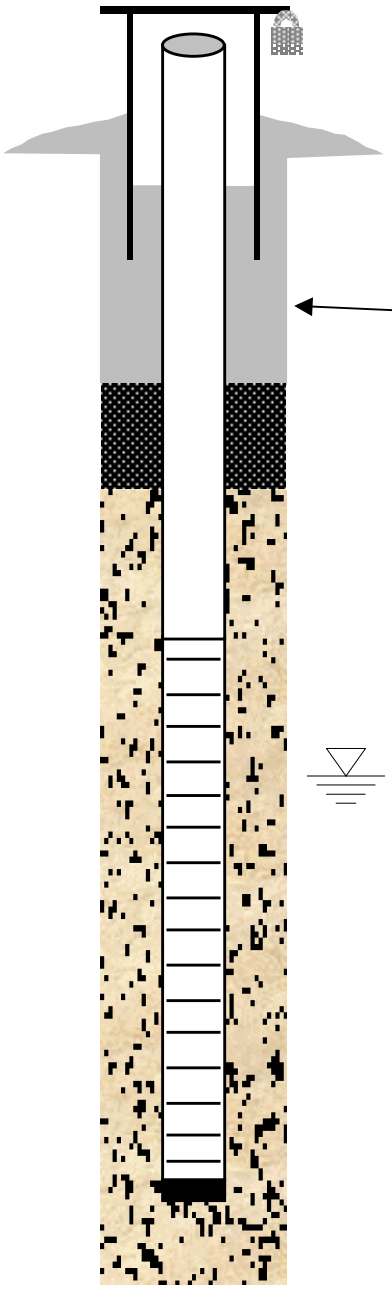
Comments:

VHB Overburden Monitoring Well Diagram

Environmental Risk Management

Project Name:	KeySpan Corporation	Project No.:	06392.00 (00022)	Well ID:	**PAGP-03**
	Former Patchogue MGP Site	Driller:	Zebra Environmental	VHB Rep.:	JP
Location:	Patchogue, New York	Rig Type(s):	Geoprobe	Total Depth:	8 feet
Date Started/Finished:	07/17/01	Drilling Method(s):	Direct-Push	Elevation:	493.86 feet

Depth (feet below ground surface, unless otherwise specified):



493.86 feet	Ground Surface Elevation
NA	Top of inner casing (riser)
	Casing diameter (inches): **1-inch**
	Casing material: **Sch. 40 PVC**
NA	Top of grout
	Grout material: **NA**
	Borehole diameter: **2.125 inches**
NA	Top of bentonite seal
	Bentonite type: **NA**
1	Top of filter pack
	Type/Size: **#10 Gravel**
2	Top of well screen
	Screen type: **Machine Slot PVC**
	Screen slot size: **0.10-inch**
3.02	Depth to groundwater
6.92	Depth of well
	Date of measurement: **7/19/01**
7	Bottom of well screen
7	Total depth of well
8	Total depth of borehole

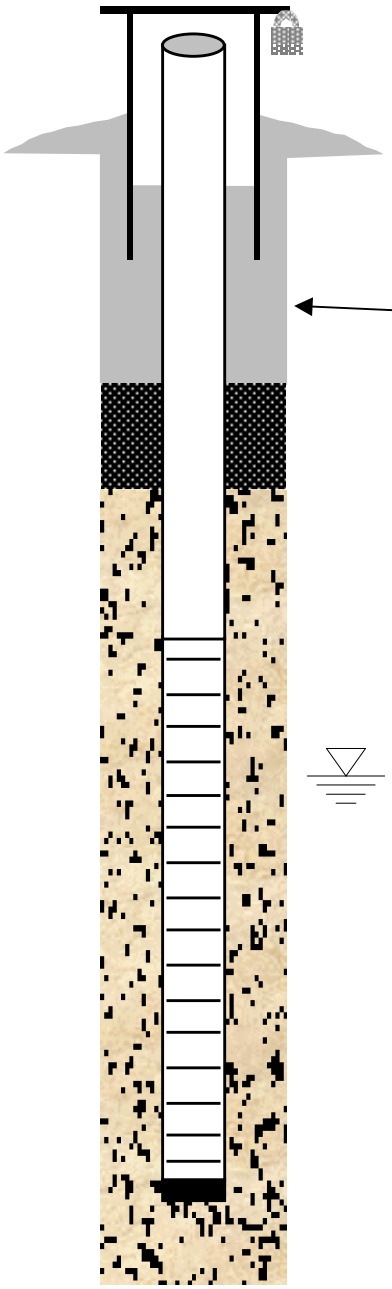
Comments:

VHB Overburden Monitoring Well Diagram

Environmental Risk Management

Project Name:	KeySpan Corporation	Project No.:	06392.00 (00022)	Well ID:	**PAGP-04**
	Former Patchogue MGP Site	Driller:	Zebra Environmental	VHB Rep.:	JP
Location:	Patchogue, New York	Rig Type(s):	Geoprobe	Total Depth:	8 feet
Date Started/Finished:	07/18/01	Drilling Method(s):	Direct-Push	Elevation:	494.74 feet

Depth (feet below ground surface, unless otherwise specified):



494.74 feet	Ground Surface Elevation
NA	Top of inner casing (riser)
	Casing diameter (inches): **1-inch**
	Casing material: **Sch. 40 PVC**
NA	Top of grout
	Grout material: **NA**
	Borehole diameter: **2.125 inches**
NA	Top of bentonite seal
	Bentonite type: **NA**
1	Top of filter pack
	Type/Size: **#10 Gravel**
2	Top of well screen
	Screen type: **Machine Slot PVC**
	Screen slot size: **0.10-inch**
2.4	Depth to groundwater
6.8	Depth of well
	Date of measurement: **7/20/01**
7	Bottom of well screen
7	Total depth of well
8	Total depth of borehole

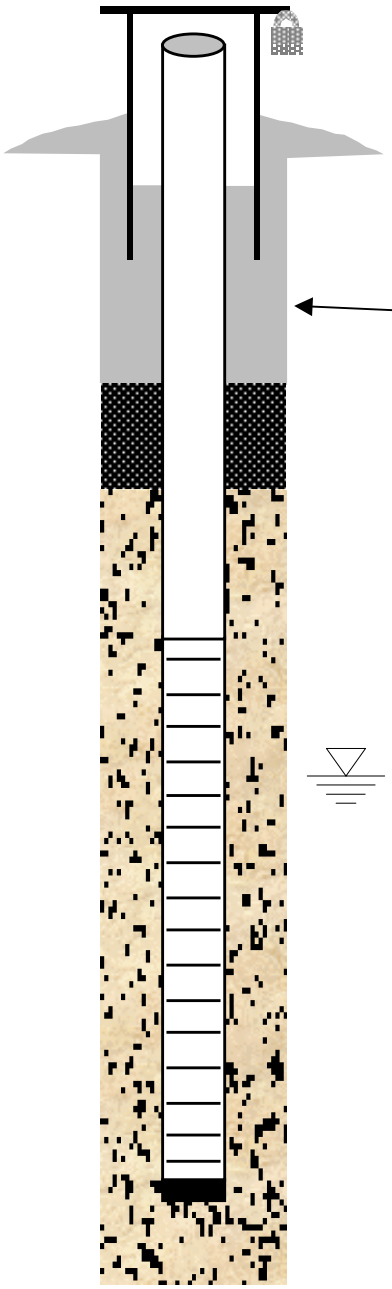
Comments:

VHB Overburden Monitoring Well Diagram

Environmental Risk Management

Project Name:	KeySpan Corporation	Project No.:	06392.00 (00022)	Well ID:	**PAGP-05**
	Former Patchogue MGP Site	Driller:	Zebra Environmental	VHB Rep.:	JP
Location:	Patchogue, New York	Rig Type(s):	Geoprobe	Total Depth:	8 feet
Date Started/Finished:	07/18/01	Drilling Method(s):	Direct-Push	Elevation:	490.90 feet

Depth (feet below ground surface, unless otherwise specified):



490.90 feet	Ground Surface Elevation
NA	Top of inner casing (riser)
	Casing diameter (inches): **1-inch**
	Casing material: **Sch. 40 PVC**
NA	Top of grout
	Grout material: **NA**
	Borehole diameter: **2.125 inches**
NA	Top of bentonite seal
	Bentonite type: **NA**
0	Top of filter pack
	Type/Size: **#10 Gravel**
0	Top of well screen
	Screen type: **Machine Slot PVC**
	Screen slot size: **0.10-inch**
0	Depth to groundwater
6.44	Depth of well
	Date of measurement: **7/19/01**
7	Bottom of well screen
7	Total depth of well
8	Total depth of borehole

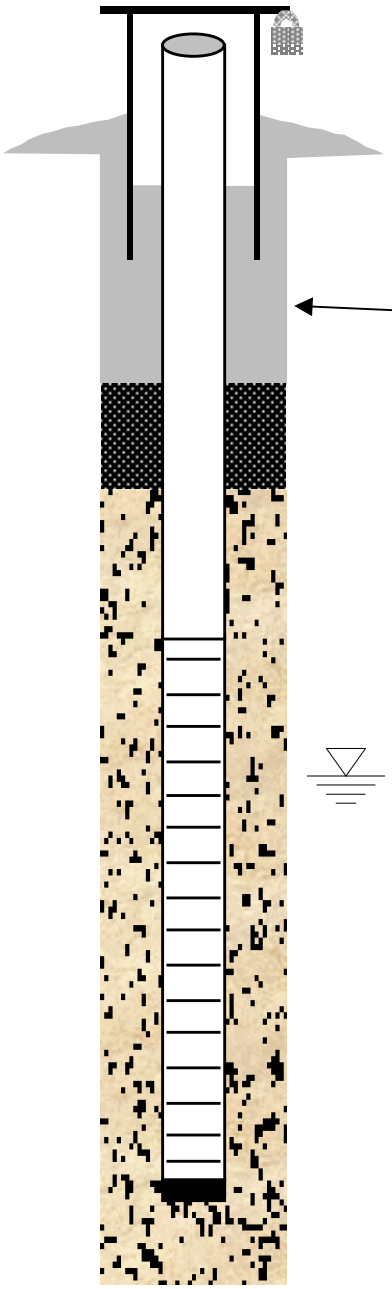
Comments:

VHB Overburden Monitoring Well Diagram

Environmental Risk Management

Project Name:	KeySpan Corporation Former Patchogue MGP Site	Project No.:	06392.00 (00022)	Well ID:	**PAGP-06**
		Driller:	Zebra Environmental	VHB Rep.:	JP
Location:	Patchogue, New York	Rig Type(s):	Geoprobe	Total Depth:	8 feet
Date Started/Finished:	07/18/01	Drilling Method(s):	Direct-Push	Elevation:	491.82 feet

Depth (feet below ground surface, unless otherwise specified):



491.82 feet	Ground Surface Elevation
NA	Top of inner casing (riser)
	Casing diameter (inches): **1-inch**
	Casing material: **Sch. 40 PVC**
NA	Top of grout
	Grout material: **NA**
	Borehole diameter: **2.125 inches**
NA	Top of bentonite seal
	Bentonite type: **NA**
0	Top of filter pack
	Type/Size: **#10 Gravel**
0	Top of well screen
	Screen type: **Machine Slot PVC**
	Screen slot size: **0.10-inch**
1.47	Depth to groundwater
2.89	Depth of well
	Date of measurement: **7/20/01**
3.5	Bottom of well screen
3.5	Total depth of well
8	Total depth of borehole

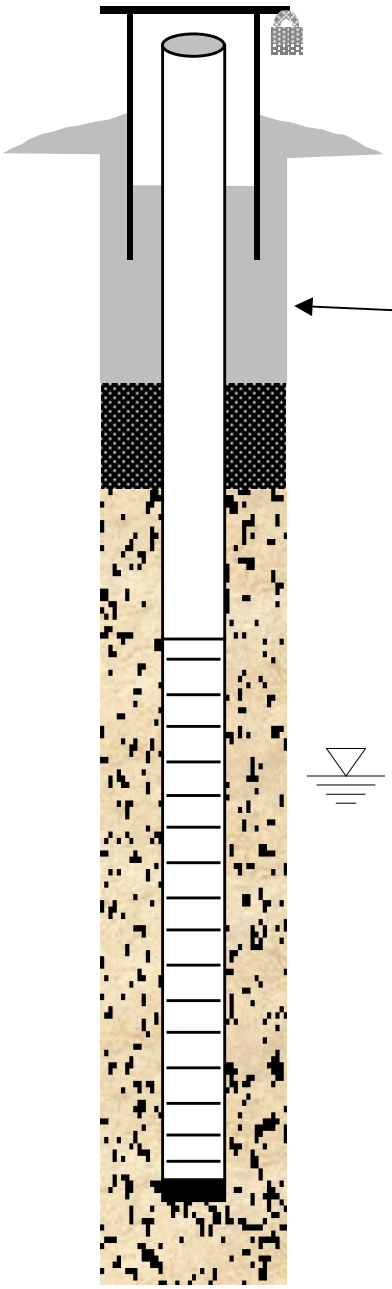
Comments:

VHB Overburden Monitoring Well Diagram

Environmental Risk Management

Project Name:	KeySpan Corporation	Project No.:	06392.00 (00022)	Well ID:	**PAGP-07**
	Former Patchogue MGP Site	Driller:	Zebra Environmental	VHB Rep.:	JP
Location:	Patchogue, New York	Rig Type(s):	Geoprobe	Total Depth:	12 feet
Date Started/Finished:	07/16/01	Drilling Method(s):	Direct-Push	Elevation:	498.03 feet

Depth (feet below ground surface, unless otherwise specified):



498.03 feet	Ground Surface Elevation
NA	Top of inner casing (riser)
	Casing diameter (inches): **1-inch**
	Casing material: **Sch. 40 PVC**
NA	Top of grout
	Grout material: **NA**
	Borehole diameter: **2.125 inches**
0.7	Top of bentonite seal
	Bentonite type: **Chips**
1.5	Top of filter pack
	Type/Size: **#10 Gravel**
2	Top of well screen
	Screen type: **Machine Slot PVC**
	Screen slot size: **0.10-inch**
3.15	Depth to groundwater
12	Depth of well
	Date of measurement: **7/18/01**
12	Bottom of well screen
12	Total depth of well
12	Total depth of borehole

Comments:

VHB Vanasse Hangen Brustlin, Inc.

Date: 7-18-01

SAMPLE INFORMATION RECORD

Site: Patchogue Former MGP Sample Crew: Judy V John P

Sample Location/Well No.: Surface Water and Sediment #1

Field Sample I.D. Number: PMSW/SD-01 Time: 15:50

Weather: Partly Cloudy Temperature: 80°F

Sample Type:

Groundwater: _____ Sediment: PMSD-01

Surface Water/Stream: PMSW-01 Air: _____

Soil: _____ Other (describe, i.e., water, septage, etc.): _____

Well Information (fill out for groundwater samples):

Depth to Water: _____ Measurement Method: _____

Depth of Well: _____ Measurement Method: _____

Volume Removed: _____ Removal Method: _____

Field Test Results:

Color: _____ pH: _____ Odor: _____

Temperature (°F): _____ Specific Conductance (µmhos/cm): _____

Other (OVA, Methane Meter, etc.): _____

Constituents Sampled:

BTEX RCRA Metals _____ _____

TBL PAH's Total Cn⁻ _____ _____

Remarks:

Well Casing Volumes

GAL/FT	1" = 0.041	1½" = 0.10	2½" = 0.24	3½" = 0.50	6" = 1.47
	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65	8" = 2.61

VHB Vanasse Hangen Brustlin, Inc.

Date: 7-18-01

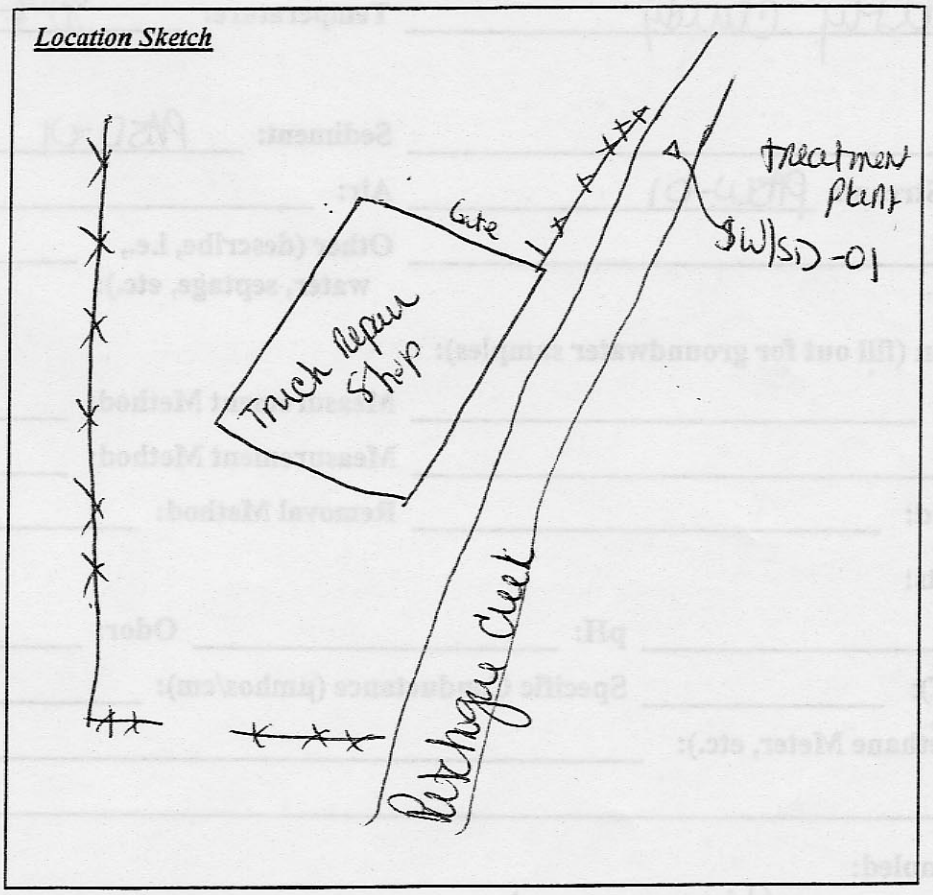
SAMPLE INFORMATION RECORD

Client Name: Kleinfelder

Site Name / Location: Patchogue Former MGP

Project No.: 063128 0022

Location Sketch



Comments/Notes:

VHB Vanasse Hangen Brustlin, Inc.

Date: 7-18-02

SAMPLE INFORMATION RECORD

Site: Patchogue Former MGP Sample Crew: Judy V John P

Sample Location/Well No.: Surface Water and Sediment location 2

Field Sample I.D. Number: SWSD 02 Time: 15:30

Weather: Partly cloudy Temperature: 80°F

Sample Type:

Groundwater: _____ Sediment: PASD-02

Surface Water/Stream: PASW-02 X Air: _____

Soil: _____ Other (describe, i.e., water, septage, etc.): _____

Well Information (fill out for groundwater samples):

Depth to Water: _____ Measurement Method: _____

Depth of Well: _____ Measurement Method: _____

Volume Removed: _____ Removal Method: _____

Field Test Results:

Color: _____ pH: _____ Odor: _____

Temperature (°F): _____ Specific Conductance (µmhos/cm): _____

Other (OVA, Methane Meter, etc.): _____

Constituents Sampled:

BTEX	RCRA Metals		
HSL PAH's	Total Cn		

Remarks:

Well Casing Volumes

GAL/FT					
	1" = 0.041	1½" = 0.10	2½" = 0.24	3½" = 0.50	6" = 1.47
	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65	8" = 2.61

VHB Vanasse Hangen Brustlin, Inc.

Date: 7-18-01

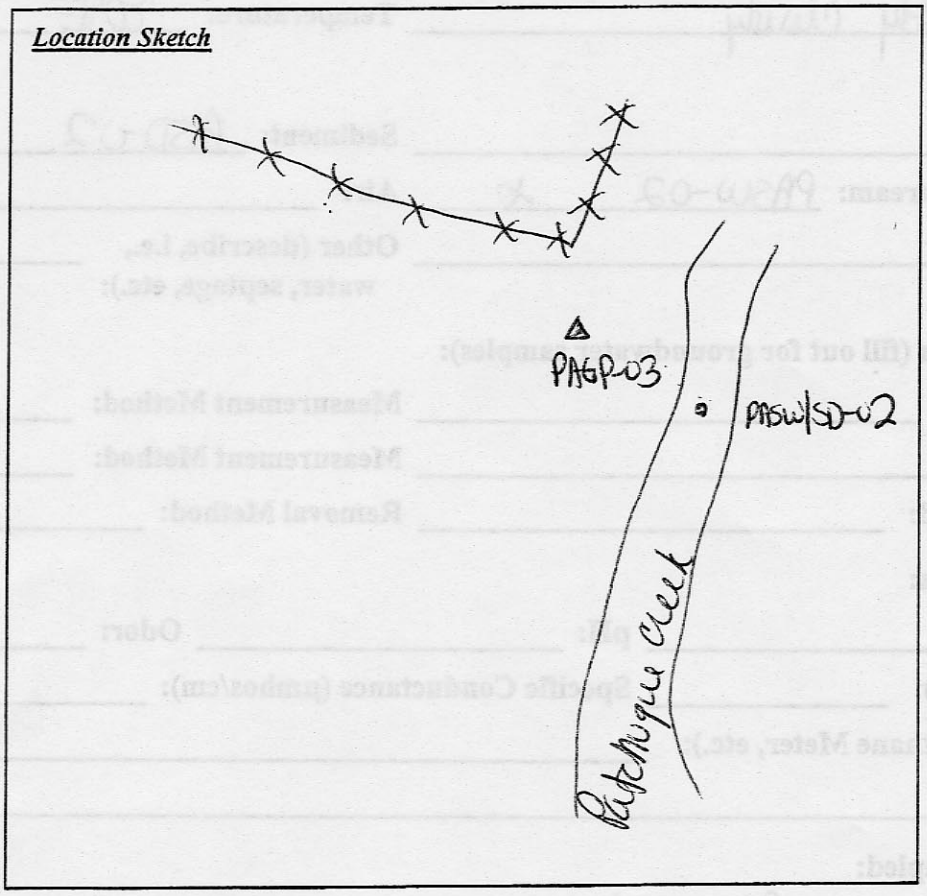
SAMPLE INFORMATION RECORD

Client Name: KeySpan

Site Name / Location: Pittsfield Former MGP

Project No.: 06392 0022

Location Sketch



Comments/Notes:

VHB Vanasse Hangen Brustlin, Inc.

Date: 7-18-01

SAMPLE INFORMATION RECORD

Site: Ratcheyue Fermen MCP Sample Crew: Judy V John P

Sample Location/Well No.: Surface Water / Sediment Sample 3

Field Sample I.D. Number: SS PASW/SD-03 Time: 12:15

Weather: Partly Cloudy Temperature: 77°F

Sample Type:

Groundwater: _____ Sediment: X PASD-03

Surface Water/Stream: X SS PASW-03 Air: _____

Soil: _____ Other (describe, i.e., water, septage, etc.): _____

Well Information (fill out for groundwater samples):

Depth to Water: _____ Measurement Method: _____

Depth of Well: _____ Measurement Method: _____

Volume Removed: _____ Removal Method: _____

Field Test Results:

Color: _____ pH: _____ Odor: _____

Temperature (°F): _____ Specific Conductance (µmhos/cm): _____

Other (OVA, Methane Meter, etc.): _____

Constituents Sampled:

BTEX RCRA Metals _____ _____

TPH PAHs Total Cn _____ _____

Remarks:

Well Casing Volumes

GAL/FT	1" = 0.041	1½" = 0.10	2½" = 0.24	3½" = 0.50	6" = 1.47
	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65	8" = 2.61

VHB Vanasse Hangen Brustlin, Inc.

Date: 7-18-01

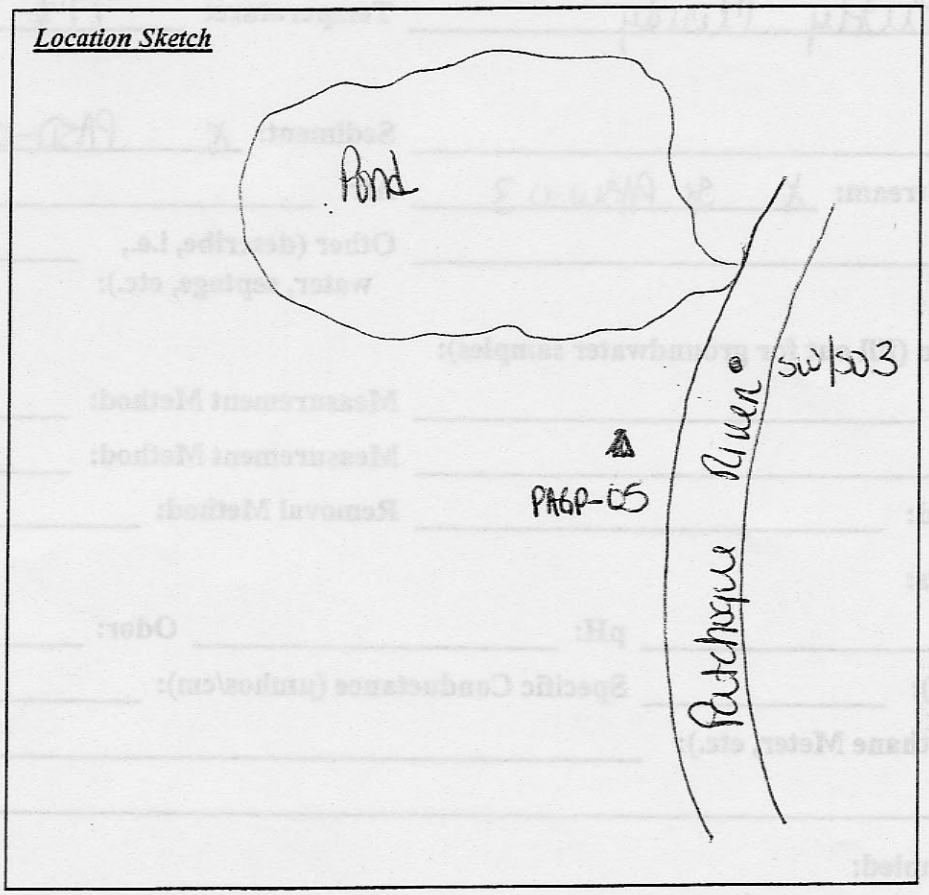
SAMPLE INFORMATION RECORD

Client Name: Keyspan

Site Name / Location: Patchogue Former MGP

Project No.: 06392 0022

Location Sketch



Comments/Notes:

VHB Vanasse Hangen Brustlin, Inc.

Date: 7-18-01

SAMPLE INFORMATION RECORD

Site: Patchogue Former MGP Sample Crew: Judy V John P

Sample Location/Well No.: Surface Pond

Field Sample I.D. Number: PASW/SD 04 Time: 12:45

Weather: partly cloudy Temperature: 77°F

Sample Type:

Groundwater: _____ Sediment: X PASD-04

Surface Water/Stream: X PASW-04 Air: _____

Soil: _____ Other (describe, i.e., water, septage, etc.): _____

Well Information (fill out for groundwater samples):

Depth to Water: _____ Measurement Method: _____

Depth of Well: _____ Measurement Method: _____

Volume Removed: _____ Removal Method: _____

Field Test Results:

Color: _____ pH: _____ Odor: _____

Temperature (°F): _____ Specific Conductance (µmhos/cm): _____

Other (OVA, Methane Meter, etc.): _____

Constituents Sampled:

BTEX RCRA Metals _____ _____

HSL PAH's Total Cn⁻ _____ _____

Remarks:

Duplicate sample PASW/SD-05 was collected from this location

Well Casing Volumes

GAL/FT					
	1" = 0.041	1½" = 0.10	2½" = 0.24	3½" = 0.50	6" = 1.47
	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65	8" = 2.61

VHB Vanasse Hangen Brustlin, Inc.

Date: 7-18-01

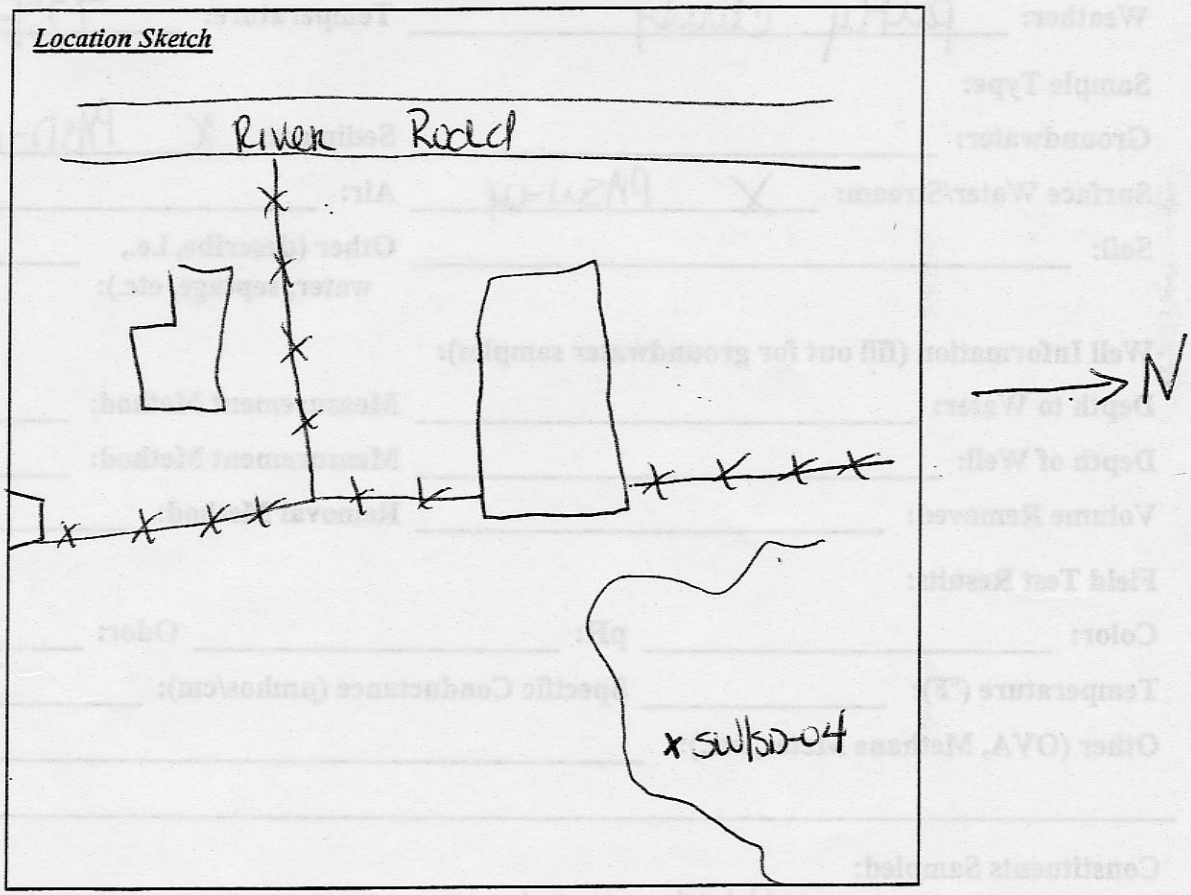
SAMPLE INFORMATION RECORD

Client Name: KeySpan

Site Name / Location: Pawtuxet Former MGP

Project No.: 06392 0022

Location Sketch



Comments/Notes:

This sample location is located on a small pond/ wetland area that flows into the River (Pawtuxet Creek)

VHB Vanasse Hangen Brustlin, Inc.

Date: 7/16/01

SAMPLE INFORMATION RECORD

Site: Patchogue PSA Sample Crew: Judy V John P

Sample Location/Well No.: AGP-01

Field Sample I.D. Number: PASS-01, PASB-01 (8 to 10') Time: 2:15

Weather: Sunny Temperature: 86°

Sample Type:

Groundwater: _____ Sediment: _____

Surface Water/Stream: _____ Air: _____

Soil: Surface / Subsurface Other (describe, i.e., water, septage, etc.): _____

Well Information (fill out for groundwater samples):

Depth to Water: _____ Measurement Method: _____

Depth of Well: _____ Measurement Method: _____

Volume Removed: _____ Removal Method: _____

Field Test Results:

Color: _____ pH: _____ Odor: _____

Temperature (°F): _____ Specific Conductance (µmhos/cm): _____

Other (OVA, Methane Meter, etc.): _____

Constituents Sampled:

BTEX RCRA metals _____ _____

PAH Total Cyanide _____ _____

Remarks:

Well Casing Volumes

GAL/FT	1" = 0.041	1½" = 0.10	2½" = 0.24	3½" = 0.50	6" = 1.47
	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65	8" = 2.61

VHB Vanasse Hangen Brustlin, Inc.

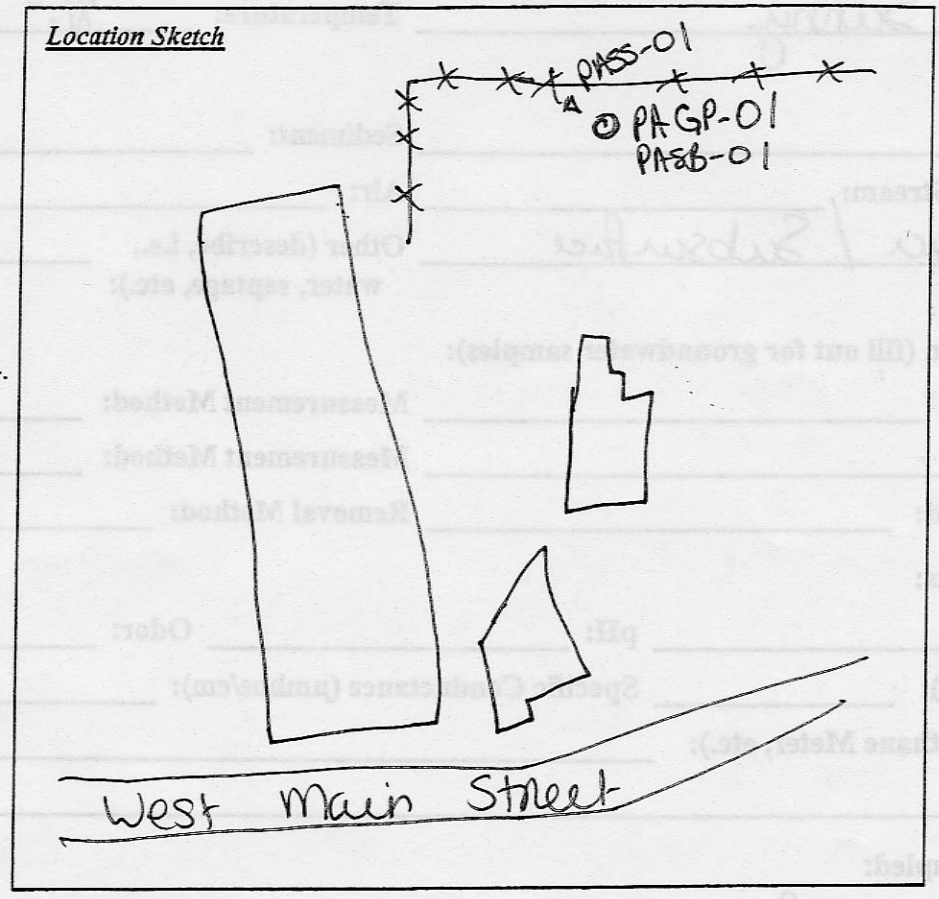
Date: 7/16/01

SAMPLE INFORMATION RECORD

Client Name: KeySpan

Site Name / Location: Patchogue PSH

Project No.: 06392 00022



Comments/Notes:

VHB Vanasse Hangen Brustlin, Inc.

Date: _____

SAMPLE INFORMATION RECORD

Site: Patchogue Sample Crew: Judy Vangalen

Sample Location/Well No.: PASS-11

Field Sample I.D. Number: PASS-11 Time: 3:15

Weather: Sunny Temperature: 86°

Sample Type:

Groundwater: _____ Sediment: _____

Surface Water/Stream: _____ Air: _____

Soil: Surface Other (describe, i.e., water, septage, etc.): _____

Well Information (fill out for groundwater samples):

Depth to Water: _____ Measurement Method: _____

Depth of Well: _____ Measurement Method: _____

Volume Removed: _____ Removal Method: _____

Field Test Results:

Color: _____ pH: _____ Odor: _____

Temperature (°F): _____ Specific Conductance (µmhos/cm): _____

Other (OVA, Methane Meter, etc.): _____

Constituents Sampled:

BTEX	RCRA Metals		
PAH	Total Cn		

Remarks:

Well Casing Volumes

GAL/FT	1" = 0.041	1½" = 0.10	2½" = 0.24	3½" = 0.50	6" = 1.47
	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65	8" = 2.61

VHB Vanasse Hangen Brustlin, Inc.

Date: 7/16/01

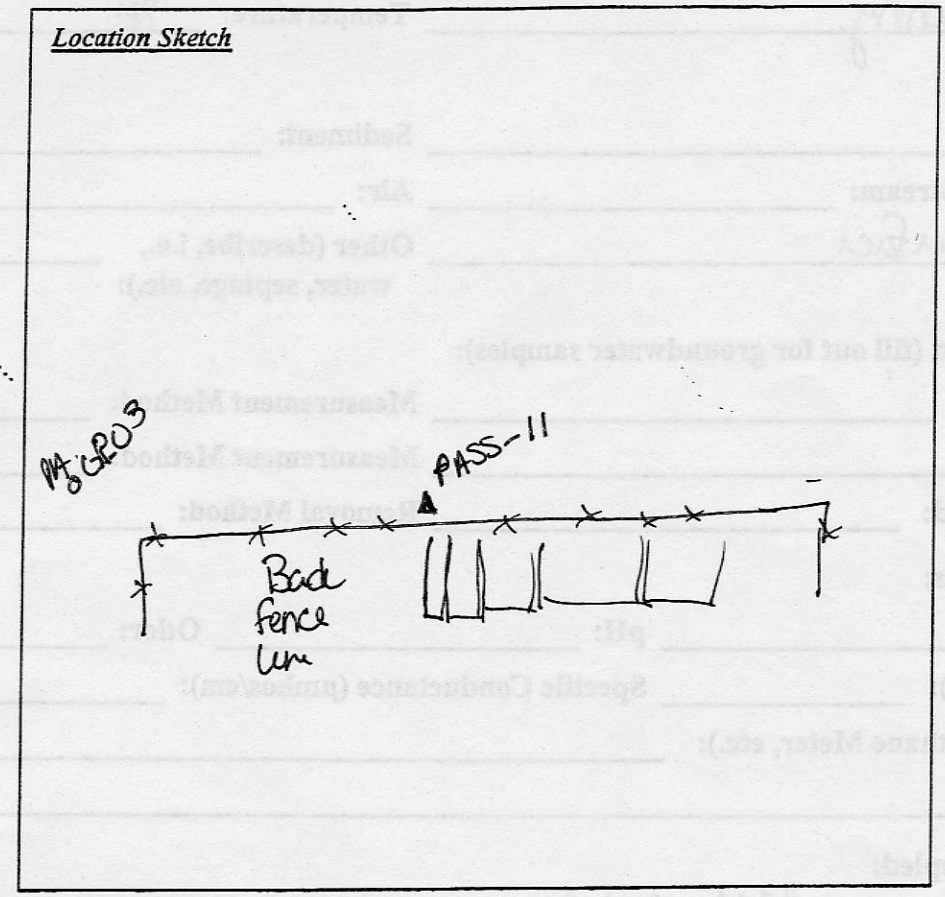
SAMPLE INFORMATION RECORD

Client Name: KeySpan

Site Name / Location: Patchogue BSA

Project No.: 06392

Location Sketch



Comments/Notes:

PASS-11 Taken off corner of first abandoned trailer

WELL DEVELOPMENT RECORD

Well ID:	PAGP-01	Date:	7-19-01
Description of development technique:			
Developed by:			

Initial Development Water

Static water level (feet TOIC) 9.45 bgs	Total well depth (feet TOIC): 10.75 bgs	
Casing volume (gallons)	Color:	Clarity:

Final Development Water

Ending water level (feet TOIC):	Total well depth (feet TOIC):	
Casing volume (gallons):	Color:	Clarity:

Well Development – Water Quality Measurements

Time	Total Vol. Withdrawn Gallons	Total Vol. Withdrawn Well Vol(s).	pH	Temp. (ºC/ºF)	Sp. Cond. (µS/cm)	Turbidity (NTU)	DO Other	Comments
10:35			7.22	16.35	418	1536.0	5.36	
10:37	1.0		7.00	14.83	388	932	2.26	
10:39	2.0		6.81	14.57	385	1016	2.12	
10:41	3.0		6.73	14.50	385	1528.1	2.07	
10:43	4.0		6.69	14.45	385	1527.9	2.04	
10:45	5.0		6.67	14.44	385	1527.9	2.02	
10:47	6.0		6.67	14.39	385	1527.7	2.03	

Key: TOIC = top of inner casing; Vol(s) = volume(s); NTU = Nephelometric turbidity units; µS/cm = microSiemens per centimeter; °C = degrees Celsius; °F = degrees Fahrenheit

WELL DEVELOPMENT RECORD

Well ID:	PAGP-02	Date:	7-19-01
Description of development technique:	Low Flow		
Developed by:	Judy Vanzalen		

Initial Development Water

Static water level (feet TOIC)	Total well depth (feet TOIC):	
Casing volume (gallons)	Color:	Clarity:

Final Development Water

Ending water level (feet TOIC): 0.8" BGS	Total well depth (feet TOIC): 5.25 BGS	
Casing volume (gallons):	Color:	Clarity:

Well Development – Water Quality Measurements

Time	Total Vol. Withdrawn ~~Gallons~~ Liters	Well Vol(s).	pH	Temp. (ºC/ºF)	Sp. Cond. (µS/cm)	Turbidity (NTU)	DO ~~Other~~	Comments
13:07			7.20	23.89	408	1572.6	1.99	
13:09	1.0		7.22	23.70	414	1490.2	0.65	
13:11	2.0		7.24	23.21	415	1569.7	0.35	
13:13	3.0		7.19	23.02	408	1569.1	0.17	
13:15	4.0		7.15	23.11	404	1569.6	0.31	
13:17	5.0		7.14	23.19	395	739.5	2.60	
13:19	6.0		7.14	23.17	397	719.1	0.63	
13:21	7.0		7.12	23.18	397	456.5	0.50	
13:23	8.0		7.13	23.14	397	370.9	0.43	
13:25	9.0		7.11	23.07	395	336.3	0.38	
13:27	10.0		7.13	23.00	395	226.1	0.38	
13:29	11.0		7.12	23.02	394	164.3	0.37	

Key: TOIC = top of inner casing; Vol(s) = volume(s); NTU = Nephelometric turbidity units; µS/cm = microSiemens per centimeter; °C = degrees Celsius; °F = degrees Fahrenheit

WELL DEVELOPMENT RECORD

Well ID: GP-03		Date:	7-19-01
Description of development technique:	low flow		
Developed by:	Judy Vangalio		

Initial Development Water

Static water level (feet TOIC) 3.02 BGS	Total well depth (feet TOIC): 10.92 BGS	
Casing volume (gallons)	Color:	Clarity:

Final Development Water

Ending water level (feet TOIC):	Total well depth (feet TOIC): 10.92 B	
Casing volume (gallons):	Color:	Clarity:

Well Development – Water Quality Measurements

Time	Total Vol. Withdrawn Liters ~~Gallons~~	Well Vol(s).	pH	Temp. (ºC/ºF)	Sp. Cond. (µS/cm)	Turbidity (NTU)	DO Other	Comments
8:57			7.51	16.91	483	115.1	3.52	
8:58	0.5		7.60	16.09	451	112.6	2.67	
9:00	1.5		7.50	15.49	450	209.3	1.03	
9:02	2.5		7.44	15.58	452	325	0.63	
9:04	3.5		7.36	15.65	454	726	0.50	
9:06	4.5		7.33	15.66	456	1520.6	0.52	
9:08	5.5		7.32	15.70	455	1533.9	0.45	
9:10	6.5		7.30	15.68	454	1533.8	0.42	
9:12	7.5		7.28	15.68	453	1533.8	0.43	

Key: TOIC = top of inner casing; µS/cm = microSiemens per centimeter; Vol(s) = volume(s); °C = degrees Celsius; NTU = Nephelometric turbidity units; °F = degrees Fahrenheit

WELL DEVELOPMENT RECORD

Well ID:	GP-04	Date:	7-20-01
Description of development technique:	Low flow		
Developed by:	Judy Vicinguerra		

Initial Development Water

Static water level (feet TOIC) 2.4 BGS	Total well depth (feet TOIC): 6.8 BGS	
Casing volume (gallons)	Color:	Clarity:

Final Development Water

Ending water level (feet TOIC):	Total well depth (feet TOIC):	
Casing volume (gallons):	Color:	Clarity:

Well Development – Water Quality Measurements

Time	Total Vol. Withdrawn ~~Gallons~~	Well Vol(s).	pH	Temp. (ºC/ºF)	Sp. Cond. (µS/cm)	Turbidity (NTU)	DO Other	Comments
7:45			7.35	16.78	888	1537	5.55	
7:47	1.0		7.36	15.73	856	1532	1.39	
7:49	2.0		7.31	15.56	864	1531	1.04	
7:51	3.0		7.24	15.43	865	1531	2.37	
7:53	4.0		7.24	15.36	870	1032	0.95	
7:55	5.0		7.21	15.35	874	1028	0.94	
7:57	6.0							battery in Water quality instrument died
7:59	7.0							

Key: TOIC = top of inner casing; µS/cm = microSiemens per centimeter; Vol(s) = volume(s); °C = degrees Celsius; NTU = Nephelometric turbidity units; °F = degrees Fahrenheit

WELL DEVELOPMENT RECORD

Well ID:	MAGP-05	*Date:*	7-19-01
Description of development technique:	Low Flow		
Developed by:	Jordy Vanguilder		

Initial Development Water

Static water level (feet TOIC)	Water in Hose	Total well depth (feet TOIC):	6.44' BGS
Casing volume (gallons)		Color:	Clarity:

Final Development Water

Ending water level (feet TOIC):		Total well depth (feet TOIC):	
Casing volume (gallons):		Color:	Clarity:

Well Development – Water Quality Measurements

Time	Total Vol. Withdrawn: Gallons	Total Vol. Withdrawn: Well Vol(s).	pH	Temp. (ºC/ºF)	Sp. Cond. (µS/cm)	Turbidity (NTU)	Other	Comments
14:49			7.65	18.14	393	384.5	3.88	
14:51	1.0		7.07	15.10	353	288.1	1.08	
14:53	2.0		6.84	14.73	346	321.2	0.65	
14:55	3.0		6.65	14.58	341	187.7	0.55	
14:57	4.0		6.60	14.57	341	184.2	0.48	
14:59	5.0		6.59	14.53	341	194.4	0.45	
15:01	6.0		6.57	14.49	340	230.1	0.41	
15:03	7.0		6.57	14.48	340	380.6	0.36	

Key: TOIC = top of inner casing; µS/cm = microSiemens per centimeter; Vol(s) = volume(s); °C = degrees Celsius; NTU = Nephelometric turbidity units; °F = degrees Fahrenheit

WELL DEVELOPMENT RECORD

Well ID:	GP-06	Date:	7-20-01
Description of development technique:	low-flow		
Developed by:	Judy Vangalio		

TOC = 2.18 ft AGS

Initial Development Water

Static water level (feet TOIC)	3.65TOC	Total well depth (feet TOIC):	5.07 TOC
Casing volume (gallons)		Color:	Clarity:

Final Development Water

Ending water level (feet TOIC):		Total well depth (feet TOIC):	
Casing volume (gallons):		Color:	Clarity:

Well Development – Water Quality Measurements

Time	Total Vol. Withdrawn: Gallons (4 liter)	Total Vol. Withdrawn: Well Vol(s).	pH	Temp. (°C/°F)	Sp. Cond. (µS/cm)	Turbidity (NTU)	DO Other	Comments
9:20								well went dry
9:24	0.5		7.11	19.90	634	1353.6	2.30	with initial
9:29	0.75		7.08	19.82	647	1553.3	2.04	pumping
9:34	1.25		7.22	19.88	656	1253	4.03	
9:36.5	1.75		7.31	19.87	559	431	5.44	4 well volumes taken

Key: TOIC = top of inner casing; µS/cm = microSiemens per centimeter; Vol(s) = volume(s); °C = degrees Celsius; NTU = Nephelometric turbidity units; °F = degrees Fahrenheit

WELL DEVELOPMENT RECORD

Well ID:	PAGP-07	Date:	7-18-01
Description of development technique:	Low flow		
Developed by:			

Initial Development Water

Static water level (feet TOIC) 3.15 BGS	Total well depth (feet TOIC): > 12 feet
Casing volume (gallons)	Color: / Clarity:

Final Development Water

Ending water level (feet TOIC):	Total well depth (feet TOIC):
Casing volume (gallons):	Color: / Clarity:

Well Development – Water Quality Measurements

pumping at a rate of 1L/2min

Liters	Total Vol. Withdrawn							
Time	~~Gallons~~	Well Vol(s).	pH	Temp. (ºC/ºF)	Sp. Cond. (µS/cm)	Turbidity (NTU)	D.O. Other	Comments
16:45			8.01	22.39	951	156.6	2.65	
16:46			7.68	22.31	916	95.0	1.49	
16:47	1.0		7.42	22.21	939	52.5	1.06	
16:50	2.5		7.10	22.63	962	14.0	0.68	
16:55	5.0		6.94	21.95	976	9.8	0.59	
16:57	6.0		6.93	21.95	976	13.1	0.55	

Key: TOIC = top of inner casing; µS/cm = microSiemens per centimeter; Vol(s) = volume(s); °C = degrees Celsius; NTU = Nephelometric turbidity units; °F = degrees Fahrenheit

VHB Vanasse Hangen Brustlin, Inc.

Date: 7/16/01

DAILY EQUIPMENT CALIBRATION LOG

Project Name: Patchogue Former MGP Site

Project Number: 06292.00 (00022)

Calibrated by: Jon Puliafico

Instrument Name and Model Number	Calibration Method	Time	Readings and Observations
110 003829 miniRae 2000	50ppm Gas	0845	Ø = 100 ppm
110 002120 miniRae 2000	50ppm Gas	0845	Ø = 100 ppm

VHB Vanasse Hangen Brustlin, Inc.

Date: 7-17-01

DAILY EQUIPMENT CALIBRATION LOG

Project Name: Patchgue Former MGP Site

Project Number: 06392.00 (00022) Calibrated by: Jon Puliafico

Instrument Name and Model Number	Calibration Method	Time	Readings and Observations
MiniRae 2000 110-003829	Span Gas	0700	0 - 100 ppm

VHB Vanasse Hangen Brustlin, Inc.

Date: 7-18-01

DAILY EQUIPMENT CALIBRATION LOG

Project Name: Patchogue Former MGP Site

Project Number: 06392.00 (00022)

Calibrated by: Jon Polanco

Instrument Name and Model Number	Calibration Method	Time	Readings and Observations
110 003829 miniRae 2000 S.	Span Gas	0720	0 + 100 ppm
110 002680 miniRae 2000	Span Gas	0720	0 + 100 ppm

VHB Vanasse Hangen Brustlin, Inc.

Date: 7-19-01

DAILY EQUIPMENT CALIBRATION LOG

Project Name: Belvoir Tower MGP Site

Project Number: 06392.00(0033)

Calibrated by: [illegible]

Instrument Name and Model Number	Calibration Method	Time	Readings and Observations
110 00339 MX2000	Span Gas	0800	0 + 100 ppm

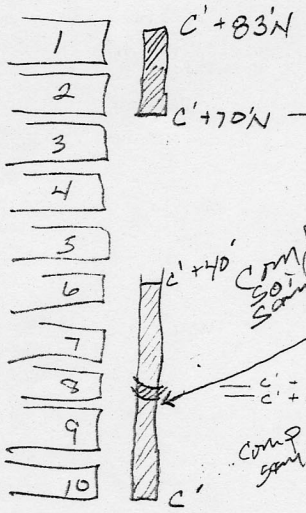
VHB **Computations**

Project Patchogue Former MGP Site Project # 06392.00 (0002a)
Location _____ Sheet ____ of ____
Calculated by _____ Date _____
Checked by _____ Date 7-19-01
Title _____

7/19/01

starting C-C' @ 8:30am on site Zebra Carl + Perry VHB Jon P + Jody V Dec Tony Keyspan Ted

starting @ South end



Location	Depth	PID reading	water depth	Comments
C'	2'	1.3	3-3.5 +	slight naph odor
C'	3'	0.8		
C'+10'N	3'	0.3	3-3.5	
C'+17'N	3'	0.7	3-3.5	Petro odor
C'+24'N	2.5'	1.2	NA	top of concrete
C'+27'N	3.5'	2.8	3.0'	TAR
C'+32'N	3.0	1.7	3.0	
C'+40'N	2.5'	0.7	2.5'	
C'+70'N	2.0'	1.8	2.0'	Petro odor
C'+80'N	2.0	3.0	2.0	Petro odor
C'+120N	2.0	8.2	2.0	Petro odor

Soil Description

C' = 0-1'
Brown med-fine sand, little-trace gravel, c sand Silt.

1'-3' = Black c-f sand, little gravel, trace silt, brick
3' = Brown c-f sand some gravel,
fill material from 0'-3': Brick rags, glass, clay pipe fragments

C'+10'N = same @ C'
C'+17'N = same as C' + C'+10'N

VHB

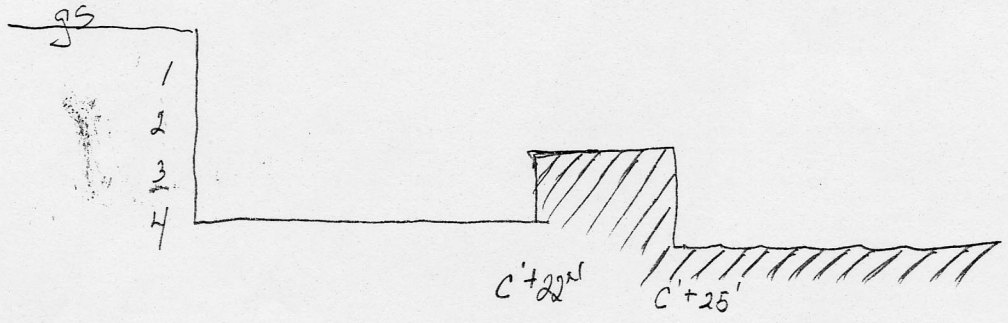
Computations

Project _____ Project # _____
Location _____ Sheet ____ of ____
Calculated by _____ Date _____
Checked by _____ Date 7-19-01
Title _____

C' + 22'N to C' + 25'N = concrete

C' + 20' fill as described to 2.5' then grey c-f sand,
C' + 40 " " " " 2.5' " brown m-f sand.

C' + 27'N Bottom of concrete structure @ 4.5'
C' + 32'N edge of concrete



11:30Am Jerry B. + Ted agreed to discontinue excavation of C-C' south & start C-C' again near north extent of former gas holder to find footing @ C'+40'N

VHB

Computations

Project _____ Project # _____
Location _____ Sheet ____ of ____
Calculated by _____ Date _____
Checked by _____ Date 7-19-01
Title _____

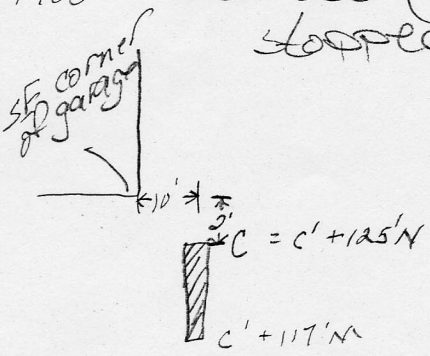
1300 Continued C-C'. by starting ①
C' + 70'N and excav to the north

minor amounts of tar from bucket, couldn't see tar layer in excavation

Soil ① C' + 70'N = fill to bottom of excavation
② 3'. on possible concrete structure

excavated to C' + 83'N to a maximum depth of 3.5' looking for concrete + footing
Didn't find either. stopped due to naph. odor.

1400 started ② C = C' + 125'N working south
stopped ② C' + 117'N Soil = black c/f sand trace gravel, silt petroleum odor.

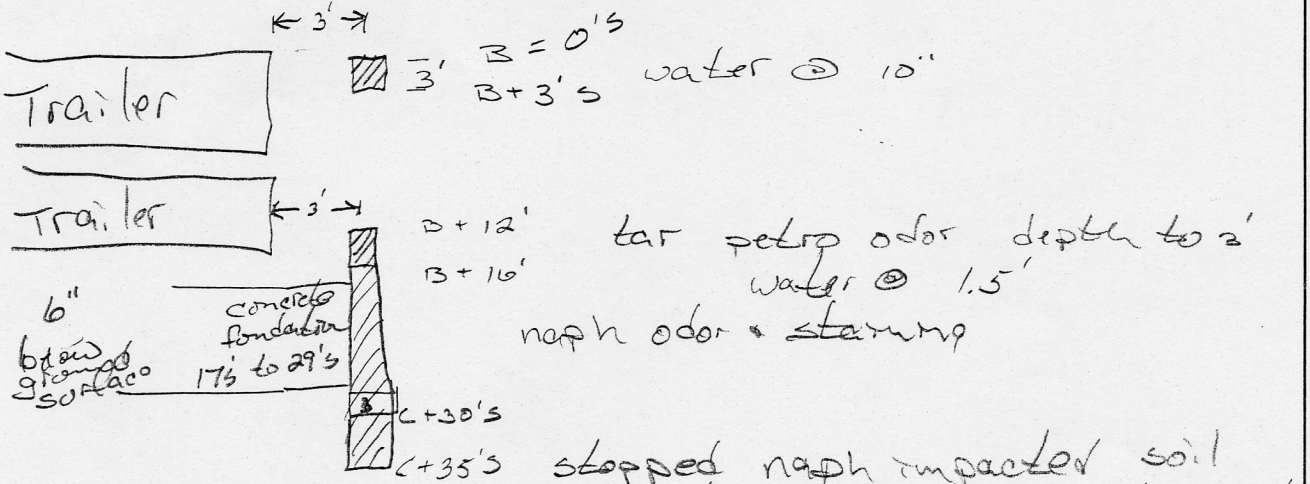


VHB **Computations**

Project _____ Project # _____
Location _____ Sheet ____ of ____
Calculated by _____ Date _____
Checked by _____ Date 7-19-01
Title _____

		Depth	PID	water	comments
lab sample	B	9"	8.7	9"	black stained
	D	9"	1.7	9"	blue stained
	B+1½	2'	378	1.5	naph odor + staining
lab sample	B+3'5	3'	50.5'	1.5	naph odor + staining

Black + Blue, c-f sand, some gravel, trace silt.
stopped due to impact



covered backfilled excavated areas w/ poly per Ted.

VHB **Computations**

Project _____ Project # _____
Location _____ Sheet ____ of ____
Calculated by _____ Date _____
Checked by _____ Date 7-19-01
Title _____

A-A'

	Depth	PID	Depth water	
A'	3'	28.8	2.5	Naph @ 3.0'
A'+16'E	3'	18.6	3.0	Naph odor
A'+32E	3'	8.6	3.0	slight odor
A'+56'E	3	52.3	3.0	naph odor
A'+85'E	3	~~85~~ 1.3	3.0	

Bund in A-A' =

A' = Brown c-f sand, little gravel, trace silt 0'-6"
Black med-fine sand, fill = brick, wood 6"-1'
red brown dry silty clay 1'-1.5'
Black med-fine sand, little c sand naph odor

A'+32'E soils = same as previous except no clay
concrete @ A'+34'E 0' after bund

A'+56'E soils = c-F sand Brown dry 0-1
med-fine ~~wet~~ moist to wet 3.0
Fill - Brick wood
Black
~~strong~~ strong naph odor

A'+85'E soils Brown dry, c-f sand-gravel 0'-5"
Fill = sheet metal, brick
5"- Black c-f sand moist
wet @ 3'