



BELL ENVIRONMENTAL CONSULTANTS, INC.

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(201) 586-4800

July 24, 1996

Mr. Sergio Hönl
New Jersey Department of Environmental Protection
Bureau of Underground Storage Tanks
401 East State Street
CN-028
Trenton, New Jersey 08625

TRANSMITTAL VIA CERTIFIED MAIL (Receipt #P 886 672 573)

**RE: Richie Dale, L.P.
39 Avenue C
Bayonne, New Jersey
NJDEP Case #92-11-16-1211
BELL Project #s EOG01-93011-04; 93011-05; and 93011-06**

Dear Mr. Hönl:

Bell Environmental Consultants, Inc. (BELL) has prepared this letter on behalf of our client, Richie Dale, L.P. (Richie Dale), to present the results of the receptor evaluation and most recent field activities conducted at the above site, as required in the June 28, 1996 New Jersey Department of Environmental Protection (NJDEP) letter.

1.0 OVERVIEW

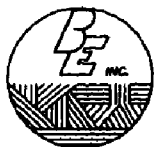
In November and December, 1993, Richie Dale implemented an underground storage tank (UST) decommissioning program, which included the excavation and removal four USTs. Petroleum stained soils were discovered at the site during the removal of each UST and several post-excavation (PE) soil samples were noted to contain benzene and total xylenes at concentrations exceeding the NJDEP Impact to Ground Water (IGW) Soil Cleanup Criteria (SCC). An investigation ensued, which included the installation and sampling of three ground water monitoring wells (BELL-1S, BELL-2S, and BELL-3S) and shallow exploratory soil borings to evaluate the impacts, if any, to ground water and soil from historical UST usage at the Richie Dale site.

In August, 1994, BELL submitted a Remedial Investigation Report (RIR) to the NJDEP to present the results of the UST removal and remedial actions conducted. The RI revealed the presence of ground water contamination in excess of the NJDEP Class II-A Ground Water Quality Standards (GWQS) for benzene, xylenes, and 1,1,1 trichloroethane, and

Offices Nationwide

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soil contamination in excess of the NJDEP IGW SCC for total xylenes. Upon review of the RIR, on February 21, 1996, the NJDEP issued a letter to Richie Dale directing the implementation of additional RI activities in order to delineate the extent of soil and ground water contamination. As a result, BELL conducted additional RI tasks between April 18 and July 11, 1996.

2.0 SCOPE OF WORK

2.1 SOIL

In order to further delineate the extent of xylene contamination detected in onsite soils during the UST decommissioning program, BELL collected soil samples via the installation of soil borings on April 18 and 23, 1996 utilizing hollow stem auger drilling techniques. A split spoon sampling device was driven to a depth corresponding to the depth of the PE samples (11 to 12 feet below ground surface) collected during UST removal, and a soil sample was collected from approximately 10 to 10.5 feet below ground surface (BGS). Ground water was encountered at approximately 10.5 feet BGS. Two soil borings (SB-7 and SB-8) were installed within the property boundaries east/northeast of the former UST-1/UST-2 excavation and one soil boring (SB-9) was installed south of the former UST-1/UST-2 excavation at an adjacent property. Soil samples were transferred to laboratory supplied glassware and placed on ice pending delivery to Veritech for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX). A sampling location map (Figure 1) is presented in Attachment 1.

2.2 GROUND WATER

To further delineate the horizontal extent of the elevated levels of benzene and xylene contamination detected in the ground water sample collected from BELL-1S and to evaluate the origin of the elevated level of 1,1,1-trichloroethane detected in the ground water sample collected from BELL-2S (both collected during the Phase I RI), a ground water sampling program was implemented on April 18, 1996 via a Hydrocarbon Water Sampling System. Borings were advanced utilizing hollow stem auger (HSA) drilling techniques. The sampling device was driven to the selected sampling depth. The well screen was allowed to fill, prior to the collection of a ground water sample utilizing a decontaminated PVC bailer. A total of five ground water samples were collected (three proximal to BELL-1S, and two proximal to BELL-2S), which were transferred to laboratory supplied glassware for VO+10 analysis. Sampling locations are presented on Figure 1 (Attachment 1).

To further characterize ground water quality at the Richie Dale site, BELL collected ground water samples from BELL-1S through BELL-3S on April 23, 1996. Ground water samples



were obtained in general accordance with NJDEP protocol and the NJDEP's *Field Sampling Procedures Manual* (May 1992). Prior to sampling, each monitoring well was inspected by BELL personnel to observe and document the security of the well. Each monitoring well was subsequently opened and screened with a PID to measure accumulated volatile organic vapors, if any, within each well column. The static fluid level within each well was inspected for evidence of a sheen or light non-aqueous phase liquid (LNAPL). The static water level within each well was measured using an electronic water level indicator with an accuracy of 0.01 feet. An initial aliquot of ground water was collected from each well and field analyzed for pH, temperature, conductivity, and dissolved oxygen. Prior to sampling, three to five volumes of the saturated well column and annular space were purged from each well using a centrifugal pump and dedicated piping. Following purging procedures, the ground water in each well was allowed to equilibrate and ground water samples were collected utilizing disposable Teflon™ bailers. Ground water samples were containerized in laboratory-supplied glassware and placed on ice pending delivery to Veritech for the analysis of VO+10, including methyl t-butyl ether (MTBE) and t-butyl alcohol (TBA).

2.3 RECEPTOR EVALUATION

On July 11, 1996, BELL conducted a well search at the NJDEP Division of Water Resources, Bureau of Water Allocation to locate and identify all permitted irrigation, monitoring, and domestic wells within a one-half mile radius of the Richie Dale site, in addition to all industrial, public supply, and wells with water allocation permits within a one mile radius of the site. The results of the well search indicated that three sites within one-half mile of the Richie Dale site contained a total of 20 ground water monitoring wells. No other wells were identified within a one-half mile radius or one mile radius of the site. Figure 2 (Attachment 1) depicts the locations of the identified wells. A summary of the well search data is presented in Table 1 (Attachment 2) with copies of the Well Records presented in Attachment 3.

3.0 ANALYTICAL RESULTS

3.1 SOIL BORING SAMPLE RESULTS

Review of the analytical results for the onsite soil borings indicates that the NJDEP IGW SCC for total xylenes was exceeded in SB-7 (41,000 ppb), SB-8 (13,600 ppb), and a duplicate sample collected from SB-7 (28,200 ppb). In addition, benzene was detected in SB-8 at a concentration of 1,900 ppb, which exceeds the NJDEP IGW SCC of 1,000 ppb. Review of the analytical results for SB-9, which was installed at an adjacent property, indicates that total xylenes were detected at a concentration of 90,000 ppb, which exceeds



the NJDEP IGW SCC of 10,000 ppb. Analytical results for soil boring samples are included in Table 2 (Attachment 2).

3.2 GROUND WATER SAMPLE RESULTS

Evaluation of the analytical data for the Hydrocarbon Water Sampling System ground water samples indicates that VO compounds were detected in the samples collected from HP-1, HP-2, and HP-3 in excess of the NJDEP Class II-A GWQS. Analytical results are presented in Table 3 (Attachment 2). The compounds detected at concentrations exceeding the standards are summarized below:

Sample Designation ¹	Compounds Detected Above the Class II-A Ground Water Quality Standards (ppb)	Class II-A Ground Water Quality Standards (ppb)
HP-1	methylene chloride* - 240	2
	benzene - 310	0.2
	toluene - 2,800	1,000
	ethylbenzene - 1,700	700
	total xylenes - 13,300	40
HP-2	benzene - 140	0.2
	toluene - 2,200	1,000
	ethylbenzene - 2,300	700
	total xylenes - 18,000	40
HP-3	benzene - 85	0.2
	total xylenes - 465	40

Notes:

- 1 HP-4 and HP-5 contained volatile organic compounds at concentrations well below the NJDEP Class II-A GWQS.
- * Compound due to laboratory contamination, and not representative of site conditions.

Review of the analytical results for the ground water samples collected from the three onsite ground water monitoring wells on April 23, 1996, as compared to the NJDEP Class II-A GWQS, indicates that benzene was detected in BELL-1S at a concentration of 6.8 ppb, which exceeds the NJDEP Class II-A GWQS of 0.2 ppb. With the exception of MTBE, detected well below the applicable interim NJDEP Class II-A GWQS, no other compounds were detected in the samples collected from BELL-2S and BELL-3S. Analytical results are presented in Table 4 (Attachment 2).

4.0 CONCLUSIONS AND RECOMMENDATIONS

As stated in BELL's June 21, 1996 letter, based on the depth of the soil samples which originally exceeded the soil cleanup criteria (PE-5 and PE-6 at depths of 11 to 12 feet



below ground surface) and the onsite depth to ground water (10.5 feet below ground surface), SB-7, SB-8, and SB-9 were collected at the soil/ground water interface. As such, BELL believes that contaminant concentrations detected in soils from this depth are a reflection of residual contamination resulting from fluctuations in the ground water table, and that continued delineation of soils from this depth is unwarranted and not reflective of unsaturated soil quality. Rather, BELL proposes to collect a single soil sample at a neighboring property corresponding to the depth of the tank invert (approximately 8.5 to 9.0 feet below ground surface) for delineation purposes.

The ground water analytical results indicate additional areas of ground water are impacted with volatile organic compounds above NJDEP standards, which require further delineation. Provided offsite access and the Street Opening Permit are granted, BELL proposes to install six offsite HydroPunch™ borings with associated ground water sample collection. Proposed HydroPunch™ ground water samples will be submitted to a New Jersey certified laboratory for VO+10 analysis, whereas the proposed soil sample will be submitted for BTEX analysis. Proposed sampling locations are presented in Figure 3 (Attachment 1) for your reference. In order to ensure no duplication of effort, BELL would like formal approval of our proposal. BELL will submit the Remedial Investigation Report/Remedial Action Workplan (RIR/RAW) upon completion of the above proposed activities.

Should you have any questions or comments, please do not hesitate to call.

Very truly yours,
BELL ENVIRONMENTAL CONSULTANTS, INC.

A handwritten signature in black ink, appearing to read 'Paul E. Volkmer', written over a horizontal line.

Paul E. Volkmer
Senior Environmental Scientist

A handwritten signature in black ink, appearing to read 'Donald M. Bello', written over a horizontal line.

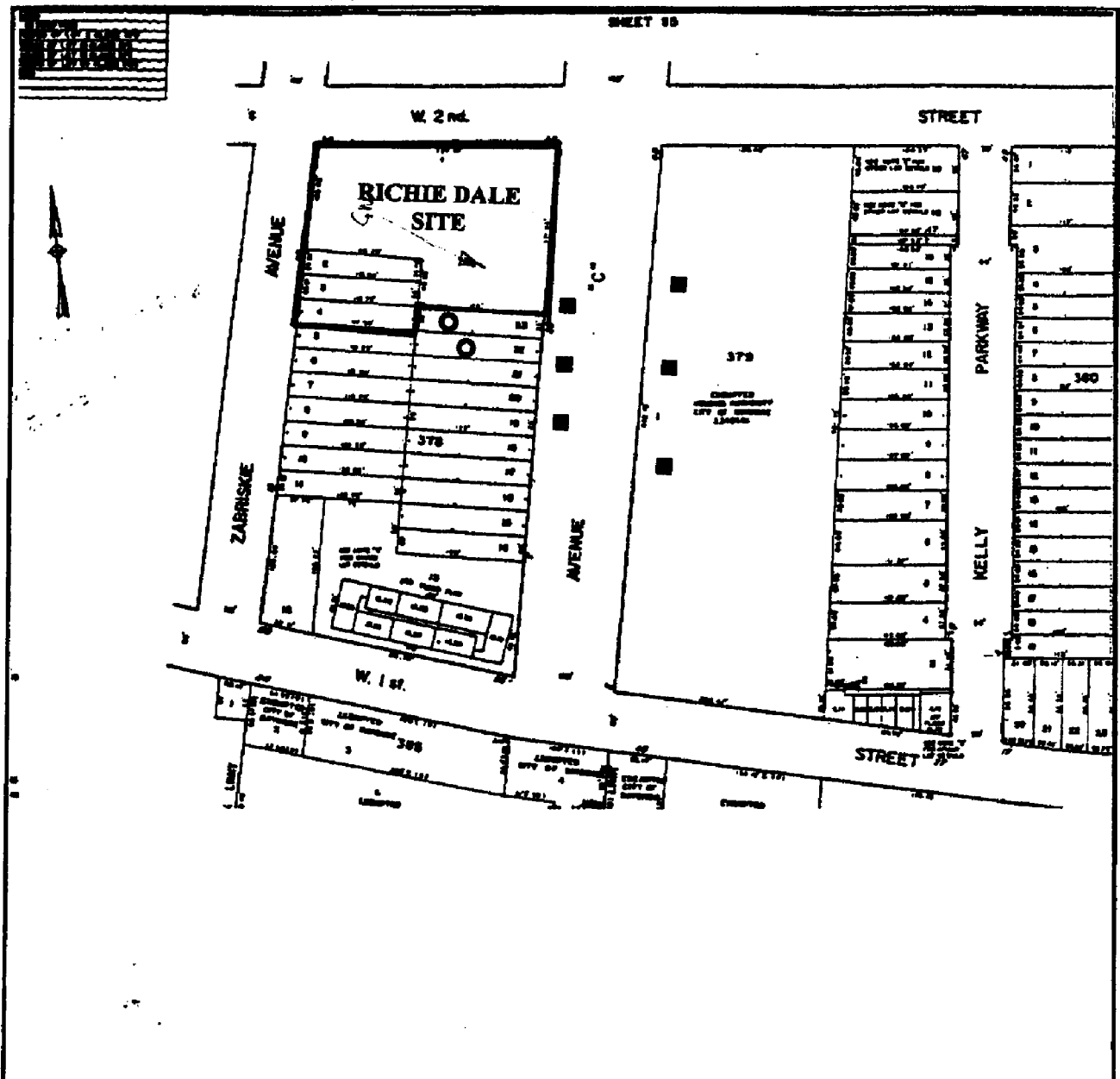
Donald M. Bello, C.P.G.
Vice President

cc: Lorraine L. Kimble, Richie Dale
BELL Project File #EOG01-93011-06-III-1b



ATTACHMENT 1 FIGURES





PROPOSED SAMPLE LOCATION MAP

Richie Dale, L.P.
39 Avenue C
Bayonne, Morris County, New Jersey

Map provided by the Bayonne Tax Assessor
BELL PROJECT # EOG01-93011-06
FIGURE 3

LEGEND

- - Approximate location of proposed soil boring
- - Approximate location of proposed HydroPunch™ boring



**ATTACHMENT 2
TABLES**

TABLE 1

SUMMARY OF WELL SEARCH DATA
RICHE DALE
BAYONNE, HUDSON COUNTY, NEW JERSEY
BELL PROJECT #EOG01-83811-08

Bell Environmental Consultants, Inc.

page 1 of 1

Map Identification Number	Owner	Address of Well Location	Type of Well	Total Depth of Well (ft., BGS)	Date Installed	Status	Well Permit Number
1	Williams Industries 239 First Street, Bayonne, NJ	Same	Monitoring	11	7/24/82		26-30171
2	Williams Industries 239 First Street, Bayonne, NJ	Same	Monitoring	8	7/24/82		26-30172
3	Williams Industries 239 First Street, Bayonne, NJ	Same	Monitoring	8	7/27/82		26-30173
4	Williams Industries 239 First Street, Bayonne, NJ	Same	Monitoring	9.5	7/27/82		26-30174
5	Amoco Oil Company Carteret, NJ	Abandoned Amoco S/S West 7th St. & Kennedy Blvd., Bayonne, NJ	Monitoring	17	5/7/87		26-10844
6	Amoco Oil Company Carteret, NJ	Abandoned Amoco S/S West 7th St. & Kennedy Blvd., Bayonne, NJ	Monitoring	19	5/7/87		26-10845
7	Amoco Oil Company Carteret, NJ	Abandoned Amoco S/S West 7th St. & Kennedy Blvd., Bayonne, NJ	Monitoring	19	5/7/87		26-10846
8	Amoco Oil Company Carteret, NJ	Abandoned Amoco S/S West 7th St. & Kennedy Blvd., Bayonne, NJ	Monitoring	12	5/7/87		26-10847
9	Amoco Oil Company Carteret, NJ	Former Amoco Service Station West 7th St. & Kennedy Blvd., Bayonne, NJ	Monitoring	17	9/29/87		26-12132
10	Amoco Oil Company Carteret, NJ	Former Amoco Service Station West 7th St. & Kennedy Blvd., Bayonne, NJ	Monitoring	18	9/29/87		26-12133
11	Amoco Oil Company Carteret, NJ	Former Amoco Service Station West 7th St. & Kennedy Blvd., Bayonne, NJ	Monitoring	16.5	9/29/87		26-12134
12	Amoco Oil Company Carteret, NJ	Former Amoco Service Station West 7th St. & Kennedy Blvd., Bayonne, NJ	Monitoring	14	9/29/87		26-12135
13	Amoco Oil Company 150 S. Warner Rd., King of Prussia, PA	Amoco Station 7th St. & Kennedy Blvd., Bayonne, NJ	Monitoring	18.1	5/3/90		26-19188
14	Amoco Oil Company 150 S. Warner Rd., King of Prussia, PA	Amoco Station 7th St. & Kennedy Blvd., Bayonne, NJ	Monitoring	18.5	5/3/90		26-19189
15	Amoco Oil Company 150 S. Warner Rd., King of Prussia, PA	Amoco Station 7th St. & Kennedy Blvd., Bayonne, NJ	Monitoring	17.8	5/3/90		26-19190
16	Amoco Oil Company 150 S. Warner Rd., King of Prussia, PA	Amoco Station 7th St. & Kennedy Blvd., Bayonne, NJ	Monitoring	17.8	5/3/90		26-19191
17	Amoco Oil Company 150 S. Warner Rd., King of Prussia, PA	Former Amoco Service Station 7th St. & Kennedy Blvd., Bayonne, NJ	Monitoring	17.8	5/3/90		26-19192
18	Mobay Chemical Corp. PO Box 419, Bayonne, NJ	Bayonne, NJ	Monitoring	32	3/11/82		26-5512
19	Mobay Chemical Corp. PO Box 419, Bayonne, NJ	Bayonne, NJ	Monitoring	25	3/10/82		26-5513
20	Mobay Chemical Corp. PO Box 419, Bayonne, NJ	Bayonne, NJ	Monitoring	20	3/12/82		26-5514
21	Richie Dale, L.P. 39 Avenue C, Bayonne, NJ	Same	Monitoring	17	4/8/94		26-36435
22	Richie Dale, L.P. 39 Avenue C, Bayonne, NJ	Same	Monitoring	16	4/8/94		26-36436
23	Richie Dale, L.P. 39 Avenue C, Bayonne, NJ	Same	Monitoring	17	4/8/94		26-36437

Notes:

NA - Information not available

OP - Operational

NO - Not Operational

TABLE 2

SUMMARY OF ANALYTICAL RESULTS FOR BTEX COMPOUNDS - SOIL SAMPLES
COLLECTED ON APRIL 18, 1996 AND APRIL 23, 1996
RICHE DALE
BAYONNE, HUDSON COUNTY, NEW JERSEY
BELL PROJECT # EOG01-93011-04

Bell Environmental Consultants, Inc.

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page 1 of 1															
Sample Designation: BELL Sample Number: Laboratory Sample Number: Depth (Feet BGS): Date Sampled:	SB-7 93011-6107 AA37505 10.5 04/18/96			SB-7 (DUP) 93011-6106 AA37514 10.5 04/18/96			SB-8 93011-6108 AA37506 10.5 04/18/96			SB-9 93011-6109 AA37617 10.5 04/23/96			Residential Direct Contact Soil Cleanup Criteria	Non-Residential Direct Contact Soil Cleanup Criteria	Impact to Ground Water Soil Cleanup Criteria
	PQL	CONC	Q	PQL	CONC	Q	PQL	CONC	Q	PQL	CONC	Q			
COMPOUNDS (units)	(ug/kg)			(ug/kg)			(ug/kg)			(ug/kg)			(ug/kg)	(ug/kg)	(ug/kg)
Dilution Factor	125			125			125			250			-	-	-
Benzene	740	ND		690	ND		780	1900	1600	ND			3,000	13,000	1000
Toluene	740	,860		690	,870	J	780	2000	1600	16000			1,000,000	1,000,000	500000
Ethylbenzene	740	8000		690	5200		780	12000	1600	18000			1,000,000	1,000,000	100000
m&p-Xylenes	740	29000		690	20000		780	4600	1600	67000			410,000	1,000,000	10000
o-Xylene	740	12000		690	8200		780	19000	1600	23000			(with above)	(with above)	(with above)
TOTAL TARGETED VO: *		48660			34070			39500		124000			-	-	-
TOTAL NON-TARGETED VO:		0			0			0		0			-	-	-

Notes:

ND - Not Detected

PQL - Practical Quantitative Limit

J - Indicates compound detected below the minimum detection limit at an estimated concentration

B - Indicates compound detected in the blank as well as the sample

NC - No cleanup criteria has been established by the NJDEP

- - Not applicable

* - Total includes "J" results but excludes "B" results

(ug/kg) - Micrograms per Kilogram

(ug/l) - Micrograms per liter

Q - Qualifier

CONC - Concentration

BGS - Below Ground Surface

Presented above are those compounds which are present in at least one sample.

TABLE 3

SUMMARY OF ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS - GROUND WATER SAMPLES
COLLECTED ON APRIL 18, 1996

RICHE DALE
BAYONNE, HUDSON COUNTY, NEW JERSEY
BELL PROJECT #EOG01-93011-04

Bell Environmental Consultants, Inc.

page 1 of 1

Sample Designation: BELL Sample Number: Laboratory Sample Number: Date Sampled:	HP-1 93011-2101 AA37507 04/18/96			HP-2 93011-2102 AA37508 04/18/96			HP-3 93011-2103 AA37509 04/18/96			HP-4 93011-6104 AA37510 04/18/96			HP-5 93011-6105 AA37511 04/18/96			FIELD BLANK 93011-1100 AA37512 04/18/96			Class II-A Ground Water Quality Standards				
	MDL	CONC	Q	MDL	CONC	Q	MDL	CONC	Q	MDL	CONC	Q	MDL	CONC	Q	MDL	CONC	Q					
	COMPOUNDS (units)			(ug/l)			(ug/l)			(ug/l)			(ug/l)			(ug/l)				(ug/l)			
	Dilution Factor			100			100			20			1			1				1			-
Methylene Chloride	160	240		160	ND	33	ND	1.6	ND	1.6	ND	1.6	ND	1.6	ND	2							
Acetone	2000	ND		2000	ND	400	430	20	ND	20.0	50	20	ND	20	ND	700							
Chloroform	40	ND		40	ND	8	ND	0.4	ND	0.4	ND	0.4	ND	0.4	11	6							
1,1,1-Trichloroethane	27	ND		27	ND	5.4	ND	0.27	2.5	0.3	3.3	0.27	ND	0.27	ND	30							
Bromodichloromethane	27	ND		27	ND	5.4	ND	0.27	ND	0.3	ND	0.27	0.45	0.3	0.3								
Benzene	21	310		21.0	140	4.2	85	0.21	ND	0.2	ND	0.21	ND	0.21	ND	0.2							
Toluene	21	2800		21	2200	4.2	55	0.21	ND	0.21	1.6	0.21	ND	0.21	ND	1,000							
Ethylbenzene	51	1700		51	2300	10	260	0.51	0.53	0.5	4.6	0.51	ND	0.51	ND	700							
m&p-Xylenes	92	10000		92	14000	18	450	0.92	1.5	0.92	16	0.92	ND	0.92	ND	40							
o-Xylene	34	3300		34	4000	6.8	15	0.34	0.69	0.34	5.8	0.34	ND	0.34	ND	(with above)							
TOTAL TARGETED VO's: *		18350			22640		1295		5.22		81.3			11.45		-							
TOTAL NON-TARGETED VO's:		12700			26300		10480		10		274			0		-							

Notes:

ND - Not Detected

MDL - Method Detection Limit

J - Indicates compound detected below the minimum detection limit at an estimated concentration

B - Indicates compound detected in the blank as well as the sample

NC - No cleanup criteria has been established by the NJDEP

-- Not applicable

* - Total includes "J" results but excludes "B" results

(ug/kg) - Micrograms per kilogram

(ug/l) - Micrograms per liter

Q - Qualifier

CONC - Concentration

Presented above are those compounds that are detected in at least one sample.

TABLE 4																			
SUMMARY OF ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS - GROUND WATER SAMPLES																			
COLLECTED ON APRIL 23, 1996																			
RICHE DALE																			
BAYONNE, HUDSON COUNTY, NEW JERSEY																			
BELL PROJECT #EOG01-93011-04																			
Bell Environmental Consultants, Inc. AOC 1 AOC 3 AOC 2																			
page 1 of 1																			
Sample Designation: BELL Sample Number: Laboratory Sample Number: Date Sampled:	BEC-1S 93011-2101 AA37611 04/23/96			BEC-2S 93011-2102 AA37612 04/23/96			BEC-2S (DUP) 93011-2104 AA37614 04/23/96			BEC-3S 93011-6103 AA37613 04/23/96			TRIP BLANK 93011-1110 AA37615 04/23/96			FIELD BLANK 93011-1111 AA37616 04/23/96			Class II-A Ground Water Quality Standards
COMPOUNDS (units)	MDL	CONC	Q	MDL	CONC	Q	MDL	CONC	Q	MDL	CONC	Q	MDL	CONC	Q	MDL	CONC	Q	(ug/l)
Dilution Factor	1			1			1			1			1			1			-
Methylene Chloride	1.6	ND		2	ND		1.6	ND		1.6	ND		1.6	2		1.6	9.1		2
Acetone	20	ND		20	ND		20	ND		20	ND		20	ND		20	1900	E	700
Chloroform	0.4	ND		0.40	0.4		0.4	ND		0.4	ND		0.4	12		0.4	0.75		6
1,2-Dichloroethane	0.31	ND		0.31	0.95		0.31	ND		0.31	ND		0.31	3.1		0.31	ND		0.3
Bromodichloromethane	0.27	ND		0.27	ND		0.27	ND		0.27	ND		0.27	0.39		0.27	ND		0.3
Benzene	0.21	6.8		0.2	ND		0.21	ND		0.21	ND		0.21	ND		0.21	ND		0.2
Ethylbenzene	0.51	2.5		0.51	ND		0.51	ND		0.51	ND		0.51	ND		0.51	ND		700
Methyl-t-butyl ether (MTBE)	1	1.1		1	0.23		1	2		1	1.9		1	ND		1	ND		700
TOTAL TARGETED VOs: *		9.3			1.35			0			0			17.49			1909.85		-
TOTAL NON-TARGETED VOs:		0			0			0			0			0			0		-

Notes:

ND - Not Detected

MDL - Method Detection Limit

-- Not applicable

* - Total includes "J" results but excludes "B" results

(ug/l) - Micrograms per liter

Q - Qualifier

CONC - Concentration

Presented above are those compounds that are detected in at least one sample.

ANOTHER PEAK YEAR SEEN FOR INSECTICIDE
New York Times (1857-Current file); Dec. 23, 1946; ProQuest Historical Newspapers: The New York Times (1851 - 2004)
pg. 45

ANOTHER PEAK YEAR SEEN FOR INSECTICIDE

The insecticide industry anticipates another peak sales year in 1947 despite continuance of material and equipment shortages, it was said yesterday by spokesmen for the industry. It may be several years, however, before potential consumption can be appreciated, it was said.

According to the Geigy Company, Inc., the American division of the Swiss firm of J. R. Geigy, S. A., which originated the DDT insecticide, production of the chemical rose from an insignificant amount in January, 1944, to a peak rate of more than 4,000,000 pounds per month in April this year. Total production of technical DDT from Jan. 1 to Sept. 30 was 47,152,453 pounds, based on reports covering output by the industry. Output for civilians, which began in September, 1945, may be expected to increase further, even though essential ingredients used in the compounding, such as chlorine, may still be in short supply for a time, it was said.

As a result of the wider uses of DDT insecticides, the company said, additional gains in the production of dressed beef, milk and other dairy and meat products may be expected. Potato growers, truck farmers and horticulturists also can be expected to make wider use of these insecticides, which in turn may make for larger yields.

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BBY000027



City of Bayonne
Hudson County, N.J.

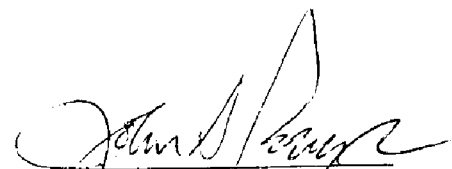
Combined Sewer Overflow Characterization Study

Service Area Drainage and Land Use Report

NJPDES Permit No. 0105023

Individual Authorization No. 0109240

December 1997



John S. Rolak, Jr., P.E.
N.J. License #29108

BCB000019



City of Bayonne

CSO Control Facility Data Extract

Chamber Location & Description

Reg. No.	7
Location:	W. 1st Street and Avenue C
NJPDES Outfall No.	010
Chamber Status:	Active
Overflow to:	Kill Van Kull
Character of District Served:	Residential
Regulator Location:	In Terminus Avenue C @ Kill Van Kull
District Collector Sewer (Size & Cap)	20 inches x 30 inches EGG, 13.7 MGD
Outfall to Receiving Water (Size & Cap)	24 inches, Unknown
Outfall Condition:	Outfall could not be located
Tidal Effects:	Yes
Regulator Size:	19 inches x 12 inches
Condition of Reg:	Functional
Condition of Overflow Stop Log:	None
Condition of Tide Gate:	Possibly Leaking

Area Served & Dry Weather Flow:

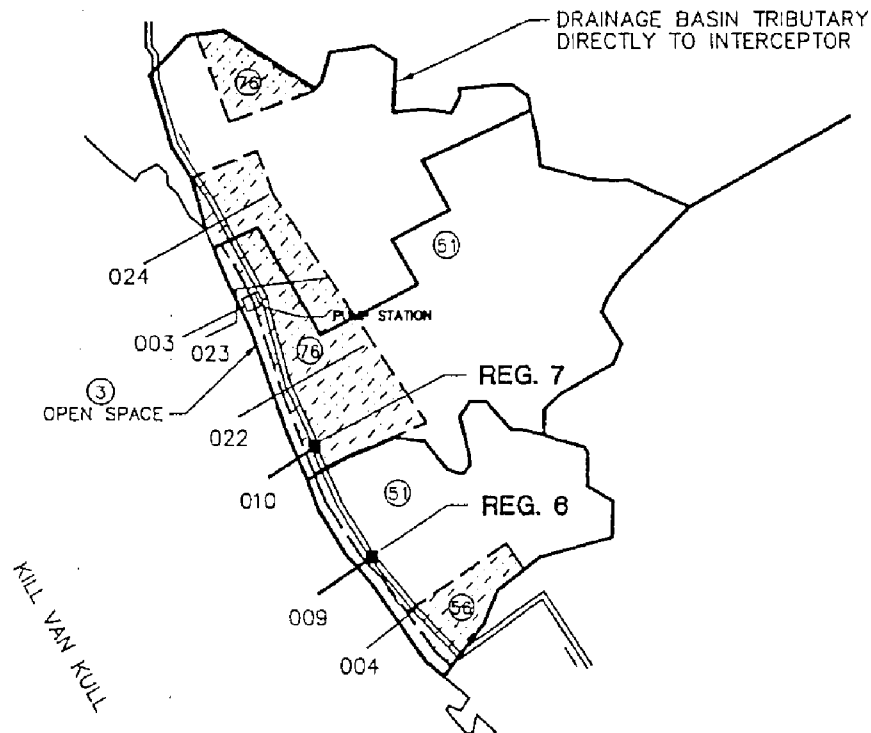
Combined Area Served:	59 Acres
Average Daily Flow:	0.37 MGD

LEGEND

- REGULATOR DRAINAGE BASIN BOUNDARY
- LAND USE BOUNDARY
- INTERCEPTOR SEWER
- COLLECTOR SEWERS
- OUTFALL SEWERS
- PERCENT IMPERVIOUS
- REGULATOR CHAMBER

LAND USE KEY

- RESIDENTIAL (LOW DENSITY)
- RESIDENTIAL (MEDIUM DENSITY)
- RESIDENTIAL (HIGH DENSITY)
- OPEN SPACE
- COMMERCIAL
- INDUSTRIAL



LAND USE TABLE OUTFALL 009 & 010

BASIN		R-6	R-7	INT-DB
R1	%	---	---	---
R2	%	79	74	75
R3	%	14	23	25
INDUSTRIAL	%	---	---	---
COMMERCIAL	%	---	---	---
OPEN SPACE	%	7	3	---
AREA	AC.	30	59	42
% IMPERVIOUS	%	48	55	57

CITY OF BAYONNE
HUDSON COUNTY, NEW JERSEY
COMBINED SEWER OVERFLOW
POLLUTION PREVENTION PLAN
LAND USE REPORT
REGULATORS 6 & 7

Killam
A Division of Consulting Engineers

FILE: G:\CADFILES\2133500\2133507.LANDUSE